Revised 2000 (Updated 01/2004)

2000

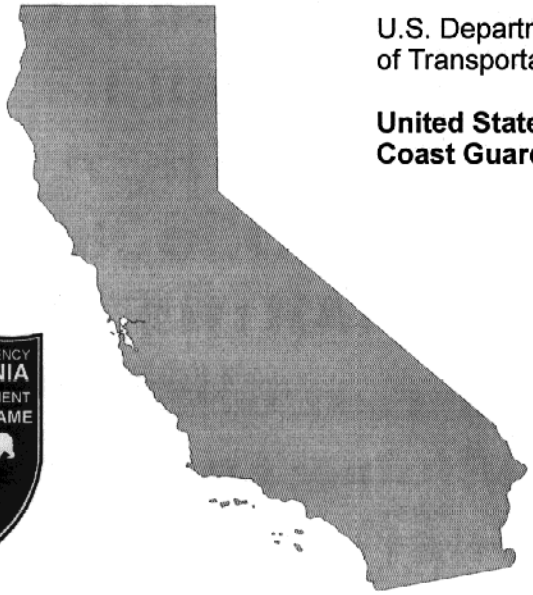
AREA CONTINGENCY PLAN (ACP)

For the Southern California Coast

SAN DIEGO COUNTY

CLICK HERE TO BEGIN AT THE TABLE OF CONTENTS: SECTIONS 1000-9000*

The electronic version is degined to use linked text, underlined in blue, to manuver through contents. To go back to the index use the green back arrow in your Microsoft Word tool bar. Also, hit the "control" and "f" keys together to search for keywords.



U.S. Department of Transportation

United States Coast Guard

RESOURCES AGENCY CALIFORNIA DEPARTMENT FISH&GAME

OSPR
OFFICE OF OIL SPILL PREVENTION AND RESPONSE

NATIONAL RESPONSE CENTER:
1-800--424-8802

CALIFORNIA OFFICE OF EMERGENCY SERVICES:
1-800-852-7550

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2000 AREA CONTINGENCY PLAN

SUGGESTED CORRECTIONS & COMMENTS

Please fill in your name and address, agency name, address and phone, and your comments and/or suggestions. Please ensure that you fill in the section number and title which you are commenting on. Attach extra sheets if necessary. Mail to:

Commander (mr)
Eleventh Coast Guard District
Bldg 51-1 Coast Guard Island
Alameda, CA 94501-5100
ACP Coordinator

Your Name: _____ Agency:_____

Address: _____

City: _____ State: _____ Zip: _____

ACP INFO:
Which Area Contingency Plan:_____

Section Name and Number: _____

Paragraph/Chart: _____

COMMENTS:

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2000 RECORD OF CHANGES

Change Number	Date of Change	Date Entered	By Whom Entered
01	10FEB2004	10FEB2004	LT Mower

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Revised 2000 (Updated 01/2004)

2000 AREA CONTINGENCY PLAN: RECEIPT OF DOCUMENT

To ensure that our customers keep their **2000 Area Contingency Plans** up to date, we would like to maintain a list of ACP holders and their address. This will make it possible to ensure that you receive hardcopy or electronic changes or lists of changes as they develop. Upon receipt of your copy of this ACP, please fill in the information below and return this form to:

Commander (mr)
Eleventh Coast Guard District
Bldg 51-1 Coast Guard Island
Alameda, CA 94501-5100
Attn: ACP Coordinator

WHICH ACP(s) RECEIVED: SF_____LA_____SD_____

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CITY/STATE/ZIP:_____

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Thank you for your cooperation!

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ACP Table of Contents

1000 - Introduction / Web Links

2000 - Command

3000 - Operations

3600 – Sensitive Sites

4000 - Planning

5000 - Logistics

6000 - Finance/Administration

7000 - Hazardous Materials

8000 - Marine Firefighting

9000 - Area Planning Documentation

ACP Contact Directory

1000 INTRODUCTION: TABLE OF CONTENTS

Section #	Section	Page #
1100	Authority	1000-1
1110	Web Accessed Area and Regional Contingency Plan Info. Security	1000-1
1210	Definitions	1000-3
1220	Acronyms	1000-14
1300	Area Committee Purpose & Objective	1000-18
1400	Geographic Boundaries	1000-19
1500	National and Area Response System	1000-19
1510	National Response System	1000-19
1520	National Response Policy	1000-24
1530	State Response System	1000-24
1540	State Response Policy	1000-30
1550	Local Response System	1000-30
1560	Local Response Policy	1000-31
1570	Responsible Party Response Policy	1000-31
1600	Area Organizations	1000-32
1700	Plan Review	1000-32
1800	Exercise Process	1000-33
1810	Prep Schedule	1000-34
1820	Exercise & Drills	1000-34

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USEFUL WEB LINKS

Marine Safety Office San Diego Area Contingency Plan	http://www.uscg.mil/D11/sandiego/mso/ACP2000
All Area Contingency Plans in the Eleventh Coast Guard District	http://www.uscg.mil/pacarea/pm/
National Oil, Hazardous Material Substances Pollution Contingency Plan	http://www.achp.gov/NCP-emergencyresponse.html
National Preparedness for Response Exercise Program (NPREP)	http://www.uscg.mil/hq/g-m/nmc/response/prepques.htm
ICS Forms	http://response.restoration.noaa.gov/oilaids/ICS/intro.html
U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17)	http://www.uscg.mil/hq/ics/IMH/IMH2001.pdf
Marine Safety Manuals	http://www.uscg.mil/hq/g-m/nmc/pubs/msm
NOAA Shoreline Assessment Manual	http://response.restoration.noaa.gov/shor_aid/shor_aid.html
NOAA S.M.A.R.T. (Special Monitoring of Advanced Response Technologies)	http://response.restoration.noaa.gov/oilaids/SMART/SMART.html
Navy Supervisor of Salvage (SUPSALV)	http://www.supsalv.org/
United States Coast Guard	http://www.uscg.mil/
State of California Department of Fish & Game, Office of Spill Prevention & Response (OSPR)	http://www.dfg.ca.gov/Ospr/index.html
NOAA spill tools	http://response.restoration.noaa.gov/
National Response Team	http://www.nrt.org
National Response Center	http://www.nrc.uscg.mil
DOI Office of Environmental Policy and Compliance	http://oepc.doi.gov/teamguide.cfm

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1100 AUTHORITY

Section 4202 of the Oil Pollution Act of 1990 (OPA 90) amended Subsection (j) of Section 311 of the Federal Water Pollution Control Act (FWPCA) (33 U.S.C. 1321 (j)) to address the development of a National Planning and Response System. As part of this system, Area Committees have been established for each area designated by the President. These Area Committees are comprised of qualified personnel from Federal, State, and local agencies. Each Area Committee, under the direction of the Federal On-Scene Coordinator (FOSC) for the area, is responsible for developing an Area Contingency Plan (ACP) which, when implemented in conjunction with the National Contingency Plan (NCP), shall be adequate to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is also responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The Area Committee is also required to work with State and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

The functions of designating areas, appointing Area Committee members, determining the information to be included in Area Contingency Plans, and reviewing and approving Area Contingency Plans have been delegated by Executive Order 12777 of 22 October 1991, to the Commandant of the U.S. Coast Guard (through the Secretary of Transportation) for the coastal zone, and to the Administrator of the Environmental Protection Agency for the inland zone. The term "coastal zone" is defined in the current NCP (40 CFR 300.5) to mean all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, and the waters of the Exclusive Economic Zone (EEZ). The Coast Guard has designated as areas, those portions of the Captain of the Port (COTP) zones that are within the coastal zone, for which Area Committees will prepare Area Contingency Plans. The COTP zones are described in Coast Guard regulations (33 CFR Part 3).

1110 Web Accessed Area and Regional Contingency Plan Information Security

Background

In the wake of the September 11, 2001 World Trade Center/Pentagon terrorism attacks, Area Contingency Plans (ACPs) and Regional Contingency Plans (RCPs) were removed from the NRT Intemet website and other websites with the expectation that sensitive information included in the plans would be removed, and the plans reposted. Sensitive information is defined as information that might prove valuable to terrorist organizations intent on harming the United States. This action was recommended by the National Response Team (NRT). As of this status report, several Regional Response Teams (RRTs) have reposted plans, however 27 of the 45 ACPs and most RCPs have not been reposted and are still inaccessible via the Internet.

The NRT tasked the NRT Preparedness Committee with developing a list of sensitive information types and implementation guidelines for removing and reposting this information from the ACPs and RCPs so that the public could regain access to the plans. This would also facilitate reposting the information in the RRT section of the NRT/RRT website.

Overview

The attached list of 12 types of sensitive information attempts to make an accommodation between removing all information that terrorists might find helpful and going “too far” by removing information that is of particular value to the incident planning and response communities. Area and Regional Plan administrators, field response personnel, and federal information security officials were solicited for their input. The list of 12 types of sensitive information has been reviewed by U.S. Coast Guard Intelligence, Port Security and web content officials and deemed “reasonable and justifiable.” Both the NRT Response and Preparedness Committees have been briefed on this process.

There are several points to consider that affect implementation of this initiative. Information contained within ACPs and RCPs has been widely available for years. Numerous electronic and paper copies of these plans already exist. This project can only affect what will be publicly available via the Internet and from future paper and electronic distributions, not what has already been posted or disseminated.

Moreover, because ACPs and RCPs are not "owned" by any single agency, there exists significant variation in formats (PDF, Word, GIS, etc.) and revision cycles. As a result, there are a number of administrative and technological issues that affect the implementation of this effort.

Implementation

ACPs and RCPs containing any of the itemized types of sensitive information are considered for official use only and may be distributed only at the plan administrator's (e.g., RRT Co-Chair or other individual designated by the RRT Co-Chair, Coast Guard Area Plan Administrator) discretion.

Regional Contingency Plans
By December 31, 2003, RRTs should review their RCPs for sensitive information. Any information deemed sensitive should be removed prior to reposting to the Internet. If a RRT has an annual plan revision scheduled between December 31, 2003 and July 1, 2004, plan administrators may defer this effort until the scheduled revision date. In most cases, revision of RCPs should be relatively less difficult than area plans because almost all of the RCPs are based on the National Contingency Plan format and do not include sensitive information.

Area Contingency Plans
By December 31, 2003, Area Planning Committees should complete their review of their ACPs for sensitive information, remove information as appropriate, repost for Internet access (including on the NRT website, where appropriate), and advise their U.S. Coast Guard District Area Plan Administrators and EPA RRT coordinators once completed. If an Area Planning Committee has an annual plan revision scheduled between December 31, 2003 and July 1, 2004, district or regional Area Plan administrators or other designated individuals may defer this effort until the scheduled revision date.

Itemization of Sensitive Information
The following types of sensitive information should be removed from ACPs and RCPs:

1. Personal contact information for agency personnel to include their home addresses and phone numbers (unless this phone number is used as an agency emergency contact notification).

2. Personal contact information of chemical and petro-chemical facility personnel to include their names, home addresses, and phone numbers.

3. Petro-chemical and chemical facility information, to include: facility schematics showing pipe and tank locations; products and hazardous materials handled including volumes, types, and locations; transfer schedules; and/or security measures.

4. Locations of radiation sources in the region (lists of facilities with licenses and what type of source).

5. Maps or diagrams depicting hazardous material plume trajectories (in the event of a release), based on actual products transported, stored, or manufactured in the area. (Note: Oil spill trajectories as they relate to possible scenarios are not considered sensitive.)

6. Hazardous materials (HazMat) and Weapons of Mass Destruction (WMD) scenarios based on actual products transported, stored, or manufactured in the area.

7. Bulk chemical and liquefied hazardous gas carrier schedules and routes.
   (Note: Many LNG/LPG vessels have moving and/or fixed Safety Zones [33CFR165] associated with them; however, their routes are not identified in the regulations and likewise should not be made available through an ACP.)

8. Railroad references when detailing bulk HazMat shipments.

9. Oil, chemical and natural gas pipeline diagrams.

10. Locations of public and private drinking water systems including intakes, pumping stations, wells, and other key delivery components.

11. Hazmat and public health resource listings including hospitals able to assist with decontamination and disposal of biologically contaminated material.

12. Terrorism annexes (for ACPs that have included them).

Questions or suggestions regarding this process should be directed to the NRT Preparedness Committee, CDR Ray Perry (Chair), LT CDR Mark Cunningham, or to John Gustafson/Linda Barr (EPA/NRT) via Anna Parrott (Anna_Parrott@sra.com).

1200 DEFINITIONS & ACRONYMS

1210 Definitions

Agency Representative - Individual assigned to an incident from an assisting or cooperating agency that has been delegated full authority to make decisions on all matters affecting their agency's participation at the incident. Agency Representatives report to the Liaison Officer.

Air Operations Branch Director - The person primarily responsible for preparing and implementing the air operations portion of the Incident Action Plan. Also responsible for providing logistical support to helicopters operating on the incident.

Allocated Resources - Resources dispatched to an incident.

Alternative Response Technologies (ART) -Response methods or techniques other than mechanical containment or recovery. ART may include use of chemical dispersants, in-situ burning, bioremediation, or other alternatives. Application of ART must be authorized and directed by the OSC.

Assigned Resources - Resources checked-in and assigned work tasks on an incident.

Assignments - Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.

Assistant - Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions. Assistants may also be used to supervise unit activities at camps.

Assisting Agency - An agency directly contributing tactical or service resources to another agency.

Available Resources - Incident-based resources which are immediately available for assignment.

Base - That location at which the primary logistics functions are coordinated and administered. (Incident name or other designator will be added to the term "Base") The Incident Command Post may be collocated with the base. There is only one base per incident.

Biological Additives - micro-biological cultures, enzymes, or nutrient additives that are deliberately introduced into an oil discharge for the specific purpose of encouraging bio-degradation to mitigate the effects of a discharge.

Branch - That organizational level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section.

Burning Agents - those additives that through physical or chemical means improve the combustibility of the materials to which they are applied.

Cache - A pre-determined complement of tools, equipment and/or supplies stored in a designated location, and available for incident use.

Camp - A geographical site, within the general incident area, separate from the base, equipped and staffed to provide sleeping areas, food, water, and sanitary services to incident personnel.

CERCLA - the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986.

Check-In - The process whereby resources first report to an incident. Check-in locations include: Incident Command Post (Resources Unit), Incident Base, Camps, Staging Areas, Helibases, Helispots, and Division Supervisors (for direct line assignments).

Chemical Agents - those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the pollutant from the water.

Chief - The ICS title for individuals responsible for command of functional sections: Operations, Planning, Logistics and Finance.

Claim - a request, made in writing for a sum certain, for compensation for damages or removal costs resulting from an incident.

Clear Text - The use of plain English in radio communications transmissions. No Ten Codes, or agency specific codes are used when using Clear Text.

Coastal Waters - the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers. Used for classifying the size of discharges.

Coastal Zone - means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/Coast Guard agreements and identified in federal regional contingency plans.

Command - The act of directing, ordering and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to the Incident Commander/Unified Command.

Command Post - See Incident Command Post.

Command Staff - The Command Staff consists of the Information Officer, Safety Officer, and Liaison Officer, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

Communications Unit - A vehicle (trailer or mobile van) used to provide the major part of an incident Communication Center.

Contiguous Zone - The zone established by the United States under Article 24 of the Convention of the Territorial Sea and Contiguous Zone. It is the zone contiguous to the territorial sea that extends nine miles seaward from the territorial sea.

Cooperating Agency - An agency supplying assistance other than direct tactical or support functions or resources to the incident control effort (e.g., Red Cross, telephone company, etc.).

Cost Unit - Functional unit within the Finance Section responsible for tracking costs, analyzing cost data, making cost estimates, and recommending cost-saving measures.

Demobilization Unit - Functional unit within the Planning Section responsible for assuring orderly, safe and efficient demobilization of incident resources.

Deputy - A fully qualified individual who, in the absence of a superior, could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior and therefore must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.

Director - The ICS title for individuals responsible for supervision of a Branch.

Discharge - any emission (other than natural seepage), intentional or unintentional, and includes, but is not limited to spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Dispatch - The implementation of a command decision to move resources from one place to another.

Dispersants - chemical agents that emulsify, disperse, or solubize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Dispatch Center - A facility from which resources are directly assigned to an incident.

Division - That organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division level is organizationally between the Task Force/Team and the Branch. (See also "Group")

Documentation Unit - Functional unit within the Planning Section responsible for collecting, recording and safeguarding all documents relevant to the incident.

Emergency Medical Technician (EMT) - A health-care specialist with particular skills and knowledge in pre-hospital emergency medicine.

Emergency Operations Center (EOC) - A pre-designated facility established by an agency or jurisdiction to coordinate the overall agency or jurisdictional response and support to an emergency.

Environment- the navigable waters, waters of the contiguous zone, and the ocean waters that the natural resources are under the exclusive management of the U.S. under the Magnuson Fishery Conservation and Management Act. Also includes surface water, ground water, drinking water supply, land surface and subsurface strata, or ambient air.

Exclusive Economic Zone - An area of the high seas, parallel to the territorial sea, which extends up to 200 nautical miles from the baseline from which the territorial seas are measured established by Presidential Proclamation Numbered 5030, dated March 10, 1983. In this zone, a country may exercise jurisdiction and control over natural resources (living and nonliving), including authority over artificial islands (and other structures used for economic exploitation) and for the protection and preservation of the marine environment.

Facilities Unit - Functional unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.

Field Operations Guide (FOG) - A pocketsize manual of instructions on the application of the Incident Command System.

Finance Section - The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit.

Food Unit - Functional unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

Function - In ICS, function refers to the five major activities in the ICS, i.e., Command, Operations, Planning, Logistics and Finance. The term function is also used when describing the activity involved, e.g., "the planning function."

Fund - the Oil Spill Liability Trust Fund.

General Staff - The group of incident management personnel comprised of: Incident Commander, Operations Section Chief, Planning Section Chief, Logistics Section Chief, Finance Section Chief.

Geographic Information System (GIS) - An electronic information system that provides a geo-referenced database to support management decision-making.

Ground Support Unit - Functional unit within the Support Branch of the Logistics Section responsible for fueling, maintaining and repairing vehicles, and the ground transportation of personnel and supplies.

Group - Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. (See Division.) Groups are located between Branches (when activated) and Resources in the Operations Section.

Hazardous Material - any hazardous substance, pollutant or contaminant including natural gas, natural gas liquids, liquefied natural gas, or synthetic natural gas usable for fuel (or mixtures of natural gas and such synthetic gas), and any substance designated under the authority of any of the following laws and regulations and the subsequent implementing regulations:

(1) Section 311(b)(2) of the Clean Water Act: 40 CFR 116.4, Tables 116.4A and 116.4B, Lists of Hazardous Substances; and 40 CFR 117.3, Reportable Quantities of Hazardous Substances Designated Pursuant to Section 311 of the Clean Water Act.

(2) Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA): 40 CFR 302.4, Table 302.4, and List of Hazardous Substances and Reportable Quantities.

(3) Section 3001 of the Solid Waste Disposal Act: 40 CFR 261.3, Definition of Hazardous Waste; 40 CFR 261.32, Hazardous Wastes from Specific Sources; and 40 CFR 261.33, Discarded Commercial Chemical Products, Off-Specification Species, Container Residues, and Spill Residues Thereof.

(4) Section 307(a) of the Clean Water Act: 40 CFR 129.4, Toxic Pollutants.

(5) Section 112 of the Clean Air Act: 40 CFR 61.01, Lists of Pollutants and Applicability of Part 61.

(6) Section 7 of the Toxic Substance Control Act: 40 CFR 716.120, Substances and Listed Mixtures to Which This Part Applies.

(7) Section 302 of the Emergency Planning and Community Right-to-Know Act: 40 CFR 355, Appendices A and B, Extremely Hazardous Substances.

(8) Transportation regulations in 49 CFR 171.8, Hazardous Materials Regulations: 49 CFR 172.101, Hazardous Materials Table; Appendix A, Table 1, Hazardous Substances Other Than Radionuclides; Appendix A, Table 2, Radionuclides; and Appendix B, List of Marine Pollutants.

(9) Marine transportation regulations in 33 CFR 126 and 160: 126.07, Dangerous cargo; 160.203, Certain dangerous cargo; 126.09, Designated dangerous cargo; and 126.10, Cargo of particular hazard.

(10) Section 6.95 of the California Health and Safety Code, Hazardous Materials Release Response Plans and Inventory.

(11) Section 6.6 of the California Health and Safety Code, Safe Drinking Water and Toxic Enforcement Act of 1986 (commonly referred to as Proposition 65).

Pollutant or Contaminant - in accordance with the NCP, and as defined by section 101(33) of CERCLA, shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14)(A) through (F) of CERCLA, nor does it include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). For purposes of the NCP and this ACP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States.

Hazardous Substance - in accordance with the NCP, any substance designated under the authority of the following sections:

(1) Section 311 (b)(2) of the CWA.
(2) Section 102 of CERCLA.
(3) Section 3001 of the Solid Waste Disposal Act.
(4) Section 307(a) of the CWA.
(5) Section 112 of the Clean Air Act.
(6) Section 7 of the Toxic Substance Control Act.

The term does not include petroleum, including crude oil or any fraction thereof which is not specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic natural gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Health and Safety Plan (HASP) - Site specific document required by State and Federal OSHA regulations and specified in the Area Contingency Plan. The HASP shall at minimum address, include, or contain the following elements: health and safety hazard analysis for each site task or operation, comprehensive operations workplan, personnel training requirements, PPE selection criteria, site specific occupational medical monitoring requirements, air monitoring plan, site control measures, confined space entry procedures "only if needed", pre-entry briefings (tailgate meetings): initial and as needed, pre-operations commencement health and safety conference for all incident participants and quality assurance of HASP effectiveness.

Helibase - A location within the general incident area for parking, fueling, maintenance, and loading of helicopters.

Helispot - A location where a helicopter can take off and land. Some helispots may be used for temporary loading.

Incident Action Plan (IAP) - The Incident Action Plan, which is initially prepared at the first meeting, contains general control objectives reflecting the overall incident strategy, and specific action plans for the next operational period. When complete, the Incident Action Plans will have a number of attachments.

Incident Area - Legal geographical area of the incident to include affected area and traffic route to corresponding storage and disposal sites.

Incident Base - See BASE.

Incident Commander (IC) - The individual responsible for the management of all incident operations.

Incident Command Post (ICP) - That location at which the primary command functions are executed and usually collocated with incident base.

Incident Command System (ICS) - A standardized on-scene emergency management concept specifically designed to allow its user(s) to adopt an integrated organizational structure equal to the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries.

Incident Communications System - The location of the Communications Unit and the Message Center.

Incident Situation Display - The Situation Unit is responsible for maintaining a display of status boards that communicate critical incident information vital to establishing an effective command and control environment.

Incident Objectives - Statements of guidance and direction necessary for the selection of appropriate strategy(s), and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

Information Officer (IO) - A member of the Command Staff responsible for interfacing with the public and media or with other agencies requiring information on the incident. There is only one Information Officer per incident. The Information Officer may have assistants.

Initial Action - The actions taken by resources which are the first to arrive at an incident.

Initial Response - Resources initially committed to an incident.

Inland Waters - waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on the inland rivers. Used for classifying the sizes of discharges.

Inland Zone - The environment inland of the Coastal Zone excluding the Great Lakes and specified ports and harbors on inland rivers. The term inland delineates the area of Federal responsibility for response action.

Joint Information Center (JIC) - A facility established within or near Incident Command Post were the Information Officer and staff can coordinate and provide information on the incident to the public, media and other agencies. The JIC is normally staffed with representation from the OSC, State IC and RP.

Jurisdiction - The range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority for incident mitigation. Jurisdictional authority at an incident can be political/geographical (e.g., city, county, state or federal boundary lines), or functional (e.g., police department, health department, etc.). (See Multi-Jurisdiction).

Jurisdictional Agency - The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.

Landing Zone - See Helispot.

Lead Agency - the Federal agency (or State agency operating pursuant to a contract/agreement or state access) that has primary responsibility for coordinating response action. The Federal lead agency that provides the OSC as specified in section 202.1 and Annex II of the Region IX Mainland Regional Contingency Plan.

Leader - The ICS title for an individual responsible for a Task Force/Strike Team, or functional Unit.

Liaison Officer (LO) - A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

Logistics Section - The Section responsible for providing facilities, services and materials for the incident.

Major Disaster - any event in any part of the U.S. which, as determined by the President, is or threatens to become of sufficient severity or magnitude to warrant disaster assistance by the federal Government to supplement the efforts and resources of State and local governments and relief organizations in alleviating the damage, loss, hardship, or suffering caused by the event.

Managers - Individuals within ICS organizational units that are assigned specific managerial responsibilities (e.g., Staging Area Manager or Camp Manager).

Medical Unit - Functional unit within the Service Branch of the Logistics Section responsible for the development of the Medical Emergency Plan, and for providing emergency medical treatment for personnel.

Message Center - The message center is part of the Communications Center and collocated with. It receives, records, and routes information about resources reporting to the incident, resource status, and administration and tactical traffic.

Multi-Agency Coordination Unit (MAC) - Cohesive group of all affected agencies established to aid in the overall response, facilitate briefings and share issues during a response.

Multi-Agency Coordination System (MACS) - The combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations.

Multi-Agency Coordination Group Coordinator - Serves as facilitator to organize and accomplish goals of the MAC Group.

Multi-Agency Incident - An incident where one or more agencies assist a jurisdictional agency or agencies. May be single or unified command.

Multi-Jurisdiction Incident - An incident requiring action from multiple agencies that have a statutory responsibility for incident mitigation. In ICS, these incidents will be managed under Unified Command.

Natural Resources - includes land, fish, biota, wildlife, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the exclusive economic zone), any state or local government or Indian tribe, or any foreign government.

Natural Resource Damage Assessment (NRDA) - The process of identifying and quantifying the resource impacts and evaluating the value of impacted resources for the purpose of restoration.

NOAA Weather Station - A mobile weather data collection and forecasting facility (including personnel) provided by the National Oceanic and Atmospheric Administration that can be utilized within the incident area.

Officer - The ICS title for the personnel responsible for the Command Staff positions of Safety, Liaison, and Information.

Oil - oil of any kind or in any form. Including but not limited to: petroleum, fuel oil, sludge, oil refuse, and mixed with wastes (other than dredged spoils).

On Scene Coordinator (OSC) - The Federal official (Environmental Protection Agency, U.S. Coast Guard, or Department of Defense) predesignated to coordinate and direct pollution removal efforts.

On-Scene Coordinator (OSC) - The predesignated federal On-Scene Coordinator operating under the authority of the National Contingency Plan (NCP).

Operational Period - The period of time scheduled for execution of a given set of operation actions as specified in the Incident Action Plan. Operational Periods can be various lengths, usually not over 24 hours.

Operations Section - Responsible for all operations directly applicable to the primary mission. Directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander. Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch.

Out-Of Service Resources - Resources assigned to an incident but unable to respond for mechanical, rest, or personnel reasons.

Planning Meeting - A meeting, held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations and for service and support planning.

Planning Section - Responsible for the collection, evaluation, and dissemination of tactical information related to the incident, and for the preparation and documentation of Action Plans. The section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Documentation, and Demobilization Units, as well as Technical Specialists.

POLREP - Pollution report.

Potential Discharge - Any accident or other circumstance that threatens to result in the discharge of oil or hazardous substance. It shall be classed by its severity based on the above guidelines.

Primary Agencies - the Departments or Agencies designated to have primary responsibility and resources to promote effective operation of this plan.

Procurement Unit - Functional unit within the Finance Section responsible for financial matters involving vendor contracts.

Public Health or Welfare - All of the factors effecting the health and welfare of man including, but not limited to, human health, the natural environment, fish, shellfish, wildlife, public and private property, shorelines and beaches.

Qualified Individual (Q.I.) - The person authorized by the responsible party to act on their behalf, authorize expenditures, and obligate organization resources.

Radio Cache - A cache may consist of a number of portable radios, a base station and in some cases a repeater stored in a predetermined location for dispatch to incidents.

Recorders - Individuals within ICS organizational units who are responsible for recording information. Recorders may be found in Planning, Logistics, and Finance Units.

Regional Response Team (RRT) - The Federal response organization, consisting of representatives from selected Federal and State agencies, which acts as a regional body responsible for planning and preparedness before an oil spill occurs and for providing advice to the OSC in the event of a major or substantial spill.

Release - As defined by section 101(22) of CERCLA, any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment but excludes any release solely within the workplace; also excludes additional conditions as specified in the National Contingency Plan 40 CFR 300.6.

Remove or Removal - Removal of oil or hazardous substance(s) from the water and/or shorelines or any other actions that may be necessary to minimize or mitigate damage to the public health or welfare.

Removal Cost - The costs of removal that are incurred after a discharge of oil has occurred or, in any case in which there is substantial threat of a discharge of oil, the costs to prevent, minimize, or mitigate oil pollution from such an incident.

Reporting Location - Any one of six facilities/locations where incident assigned resources may check-in. The locations are: Incident Command Post-Resources Unit, Base, Camp, Staging Area, Helibase or Division Supervisor for direct line assignments. (Check-in at one location only)

Resources - All personnel and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Resources Unit - Functional unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.

R.P. - Responsible Party

Safety Officer (SO) - A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations, and for developing measures for ensuring personnel safety. The Safety Officer may have assistants.

Section - That organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics, Finance. The Section level is organizationally between Branch and Incident Commander.

Service Branch - A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communications, Medical and Food Units.

Single Resource - An individual, a piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

Site Safety Plan - Legal document required by OSHA before entry into site, prepared by Safety Officer.

Situation Unit - Functional unit within the Planning Section responsible for the collection, organization and analysis of incident status information, and for analysis of the situation as it progresses. Reports to the Planning Section Chief.

Size Classification of Discharges -

(1) Minor Discharge - Inland Waters: less than 1,000 gallons of oil. Coastal Waters: less than 10,000 gallons of oil.

(2) Medium Discharge - Any discharge of a harmful quantity of a hazardous substance. Inland Waters: 1000 - 10000 gallons of oil. Coastal Waters: 10,000 - 100,000 gallons of oil.

(3) Major Discharge - Any discharge of a hazardous substance that poses a threat to the public health or welfare. Inland waters: more than 10,000 gallons of oil. Coastal waters: more than 100,000 gallons of oil.

Size Classification of Releases -

(1) Minor release - quantity of hazardous substance(s), pollutant(s), or contaminant(s), that poses minimal threat to public health or welfare, or the environment.

(2) Medium release - releases not meeting the definition of minor or major.

(3) Major release - quantity of hazardous substance(s), pollutant(s), or contaminant(s) that poses a substantial threat.

Span of Control - The supervisory ratio of from three-to-seven individuals, with five-to-one being established as optimum.

Spill of National Significance (SONS) - a rare, catastrophic spill that greatly exceeds the response capabilities at the local and regional levels. Due to its severity, size, location and actual or potential for adverse impact on the public health and welfare and on the environment, a SONS is so complex that it requires extraordinary coordination of federal, state, local and private resources to contain and cleanup.

Staging Area - That location where incident personnel and equipment are assigned awaiting tactical assignment.

State I.C.. - State Incident Commander.

Strategy - The general plan or direction selected to accomplish incident objectives.

Supervisor - The ICS title for individuals responsible for command of a Division or Group.

Supply Unit - Functional unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.

Support Branch - A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities and Transportation Units.

Supporting Documents - Refers to the several attachments that may be included with an Incident Action Plan, e.g., communication plan, map, safety plan, traffic plan, and medical plan.

Tactical Direction - Direction given by the Operations Section Chief which includes the tactics appropriate for the selected strategy, the selection and assignment of resources, tactics implementation,

and performance monitoring for each operational period.

Task Force - A group of resources with common communications and a leader assembled for a specific mission.

Technical Specialist - Personnel with special skills that can be used anywhere within the ICS organization.

Team - Specified combinations of the same kind and type of resources, with common communications and a leader.

Temporary Flight Restrictions (TFR)- Temporary airspace restrictions for non-emergency aircraft in the incident area. TFR's are established by the FAA to ensure aircraft safety and are normally limited to a five-nautical-mile radius and 2000 feet in altitude.

Territorial Seas - the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles.

Time Unit - Functional unit within the Finance Section responsible for recording time for incident personnel and hired equipment.

Trustee - an official of a federal natural resources management agency designated in Subpart G of the NCP or a designated state official or Indian tribe who may pursue claims for damages.

Unified Command (UC) - In ICS, Unified Command is a unified team effort which allows all agencies with responsibility for the incident, either geographical or functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating agency authority, responsibility or accountability.

Unit - That organizational element having functional responsibility for a specific incident planning, logistic, or finance activity.

United States - the States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands and the Trust Territory of the Pacific Islands.

Vessel Support Unit - Function Unit within the Support Branch of the Logistics Section responsible for implementing the Vessel Routing Plan and coordinating transportation on the water and between shore resources.

Volunteer - any individual accepted to perform services by the lead agency that has the authority to accept volunteer services. A volunteer is subject to the provisions of the authorizing statute and the NCP.

1220 Acronyms

ACP - Area Contingency Plan

AC - Area Committee

AIRSTA - Coast Guard Air Station

AOR - Area of Responsibility

BNTM - Broadcast Notice to Mariners

CCC - California Conservation Corps

CCC/BCDC - California Coastal Commission/San Francisco Bay Conservation and Development Commission Joint Oil Spill Program

CMC - Center for Marine Conservation

CERCLA - Comprehensive Environmental Response Compensation and Liability Act

CFR - Code of Federal Regulations

CG OWOCRS - Coast Guard Open Water Oil Containment and Recovery System

COTP - Captain of the Port

CSP - California State Parks

CDFG - California Department of Fish & Game

DOI - Department of the Interior

DRG - District Response Group

DRAT - District Response Advisory Team

EEZ - Exclusive Economic Zone

EPA - Environmental Protection Agency of California

FOSC - Federal On-scene Coordinator

FOSO - Friends of the Sea Otter

FWPCA - Federal Water Pollution and Control Act

GIS - Georaphic Information System

HAZWOPER - Hazardous Waste Operations and Emergency Response

HBRC - Humboldt Bay Response Corporation

IBRRC - International Bird Rescue and Research Center

ICS - Incident Command System

JIC - Joint Information Center

MAC - Multi-agency Committee

MBARI - Monterey Bay Aquarium Research Institute

MEXUSPAC - U.S/Mexico Pacific Coast Joint Response Team

MMC - Marine Mammal Center

MMS - Department of the Interior Minerals Management Service

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MSO - Coast Guard Marine Safety Office

MSD - Coast Guard Marine Safety Detachment

MSRC - Marine Spill Response Corporation

NCP - National Contingency Plan

NMS - National Marine Sanctuary

NOAA - National Oceanic and Atmospheric Administration

NPFC - National Pollution Funds Center

NPREP - National Preparedness for Response Exercise Program

NRC - Coast Guard National Response Center

NRDA - Natural Resource Damage Assessment

NRT - National Response Team

NSCC - National Scheduling and Coordinating Committee

NSFCC - National Strike Force Coordination Center

NTM - Notice to Mariners

OCS - Outer Continental Shelf

OES - State of California Office of Emergency Services

OPA 90 - Oil Pollution Act of 1990

OSC - On-Scene Coordinator

OSLTF - Oil Spill Liability Trust Fund

OSPR - California Department of Fish and Game Office of Spill Prevention and Response

OSRO - Oil Spill Response Organization

OSRV - Offshore Response Vessel

PIAT - Public Information Assist Team

PLE - Pacific Link Environmental

POLREP - Coast Guard Pollution Report Message

PREP - Preparedness for Response Exercise Program

PST - Pacific Strike Team

QI - Qualified Individual

RP - Responsible Party

RRT - Regional Response Team

RWQCB - Regional Water Quality Control Board

SAR - Search and Rescue

SB 2040 - California Senate Bill 2040 (Lempert-Keene-Seastrand Oil Spill Prevention and Response Act)

SIOSC - State Inter-agency Oil Spill Committee

SISRS - Site Identification and Spill Response Strategy

SLC - California State Lands Commission

SMT - Spill Management Team

SONS - Spill of National Significance

SOSC - State On-Scene Coordinator

SSC - NOAA Scientific Support Coordinator

SUPSALV - Navy Supervisor of Salvage Operations

TTX - Tabletop Exercise

UCS - Unified Command System

USCG - United States Coast Guard

USFWS - United States Fish and Wildlife Service

USNPGS - United States Naval Postgraduate School

VOSS - Vessel of Opportunity Skimming System

VTS - Coast Guard Vessel Traffic Service

VTS - Vessel Traffic Study

WWW - World Wide Web

1300 AREA COMMITTEE PURPOSE & OBJECTIVE

The primary role of the Area Committee is to act as a preparedness and planning body. Area Committees are made up of experienced environmental/response representatives from Federal, State and local government agencies with definitive responsibilities for the area's environmental integrity. Each member is empowered by their own agency to make decisions on behalf of the agency and to commit the agency to carrying out roles and responsibilities as described in this plan. The predesignated Federal On-scene Coordinator for the area will serve as chairman of the Committee. He/she will designate the vice-chairman, select the Committee members, and provide general direction and guidance for the Committee. The OSC should solicit the advice of the RRT to determine appropriate representatives from federal and state agencies. The Area Committee is encouraged to solicit advice, guidance, or expertise from all appropriate sources and establish subcommittees as necessary to accomplish the preparedness and planning tasks.

Subcommittee participants may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilots associations, academia, environmental groups, consultants, response organizations and concerned citizens. The OSC will appoint subcommittee members. The OSC directs the Area Committee's development and maintenance of the Area Contingency Plan.

1400 GEOGRAPHIC BOUNDARIES

COTP SAN DIEGO
The San Diego Area consists of one planning area that is consistent with the Coast Guard Captain of the Port (COTP) San Diego Area of Responsibility (AOR). The Coast Guard COTP San Diego is the pre-designated Federal OSC for oil discharge and hazardous substance release in the coastal zone from the boundary of San Diego County, California, starting and ending at the sea, including the California Islands south and east of a line that is drawn 255 o T from latitude 33 o 22.5' North longitude 117 o 35.7'West (San Mateo Point).

COASTAL33 CFR 3.55-15 (b) defines the San Diego Captain of the Port (also OSC) area as: "The boundary of San Diego County, California, starting and ending at the sea, but also including the California islands south and east of a line that is drawn 255 o T from latitude 33 o 22.5' North, longitude 117 o 35.7' West (San Mateo Point)." The Coastal zone consists of coastal waters and internal waters as far inland as the *Demarcation Line.* **The coastal zone no longer includes the land seaward of the Demarcation Lines, just the water.**

INLAND
The Region IX Oil & Hazardous Materials Plan delineates the Coast Guard and EPA OSC's boundaries as: "Beginning at the International border and the sea, east and north along the eastern limits of Border Field State Park to the mouth of the Tijuana River; across the river's mouth to the eastern limit of the Silver Strand State Beach to Palm Ave.; east to I-5; north to Harbor Drive; north to Scott St.; South to Talbot St.; West to Hill St.; West to Sunset Cliffs Blvd.; north to I-8; east on I-8 to I-5; north to Grand Ave.; west to Mission Blvd.; north to La Jolla Blvd.; north to Prospect St.; North to Torrey Pines Rd.; north along Torrey Pines Rd. to Route S21 (North Torrey Pines Rd.); S21 north to I-5 (Oceanside); north on I-5 to the San Diego/Orange County Line."

1500 NATIONAL AND AREA RESPONSE SYSTEM

1510 National Response System

The National Response System (NRS) (see **Figure 1000-A**) was developed to coordinate all government agencies with responsibility for environmental protection, in a focused response strategy for the immediate and effective clean up of an oil discharge or hazardous substance release. The NRS is a three tiered response and preparedness mechanism that supports the pre-designated Federal OSC in coordinating national, regional, local government agencies, industry, and the responsible party during response.

The NRS supports the responsibilities of the OSC, under the direction of the Federal Water Pollution Control Act's federal removal authority. The OSC plans and coordinates response strategy on scene, using the support of the National Response Team (NRT), Regional Response Team (RRT), Area Committees, and responsible parties as necessary, to supply the needed trained personnel, equipment, and scientific support to complete an immediate and effective response to any oil discharge or hazardous substance release.

The NRS is designed to support the OSC and facilitate responses to a discharge or threatened discharge of oil or a hazardous substance. The NRS is used for all spills, including a Spill of National Significance (SONS). When appropriate, the NRS is designed to incorporate a unified command and control support mechanism (unified command) consisting of the OSC, the State's Incident Commander, and the Responsible Party's Incident Manager. The unified command structure allows for a coordinated response effort, which takes into account the Federal, State, local, and responsible party concerns and interests

when implementing the response strategy. A unified command establishes a forum for open, frank discussions on problems that must be addressed by the parties with primary responsibility for oil and hazardous substance discharge removal. A unified command helps to ensure a coordinated, effective response is carried out and that the particular needs of all parties involved are taken into consideration. The OSC has the ultimate authority in a response operation and will exert this authority only if the other members of the unified command are not present or are unable to reach consensus within a reasonable time frame. During hazardous substance release responses in which local agencies usually assume a leading role, the local agency may assume one of the unified commander roles when a unified command is used. During responses to oil spills, local agencies are not usually involved as part of a unified command, but provide agency representatives who interface with the command structure through the Liaison Officer or the State representative. When a unified command is used, a Joint Operations Center and Joint Information Bureau shall be established. The Joint Operations Center should be located near and convenient to the site of the discharge. All responders (Federal, State, local and private) should be incorporated into the OSC's response organization **(Figure 1000-B)** at the appropriate level.

A Spill of National Significance (SONS) is that rare, catastrophic spill event which captures the nation's attention due to its actual damage or significant potential for adverse environmental impact. A SONS is defined as a spill which greatly exceeds the response capability at the local and regional levels and which, due to its size, location, and actual or potential for adverse impact on the environment is so complex, it requires extraordinary coordination of Federal, State, local and private resources to contain and clean up. Only the Commandant of the Coast Guard or the Administrator of the EPA can declare a SONS.

The response to a SONS event must be a coordinated response that integrates the OSC's response organization with the SONS response organization **(Figure 1000-C)**

Figure 1000-A

National Response System Concepts

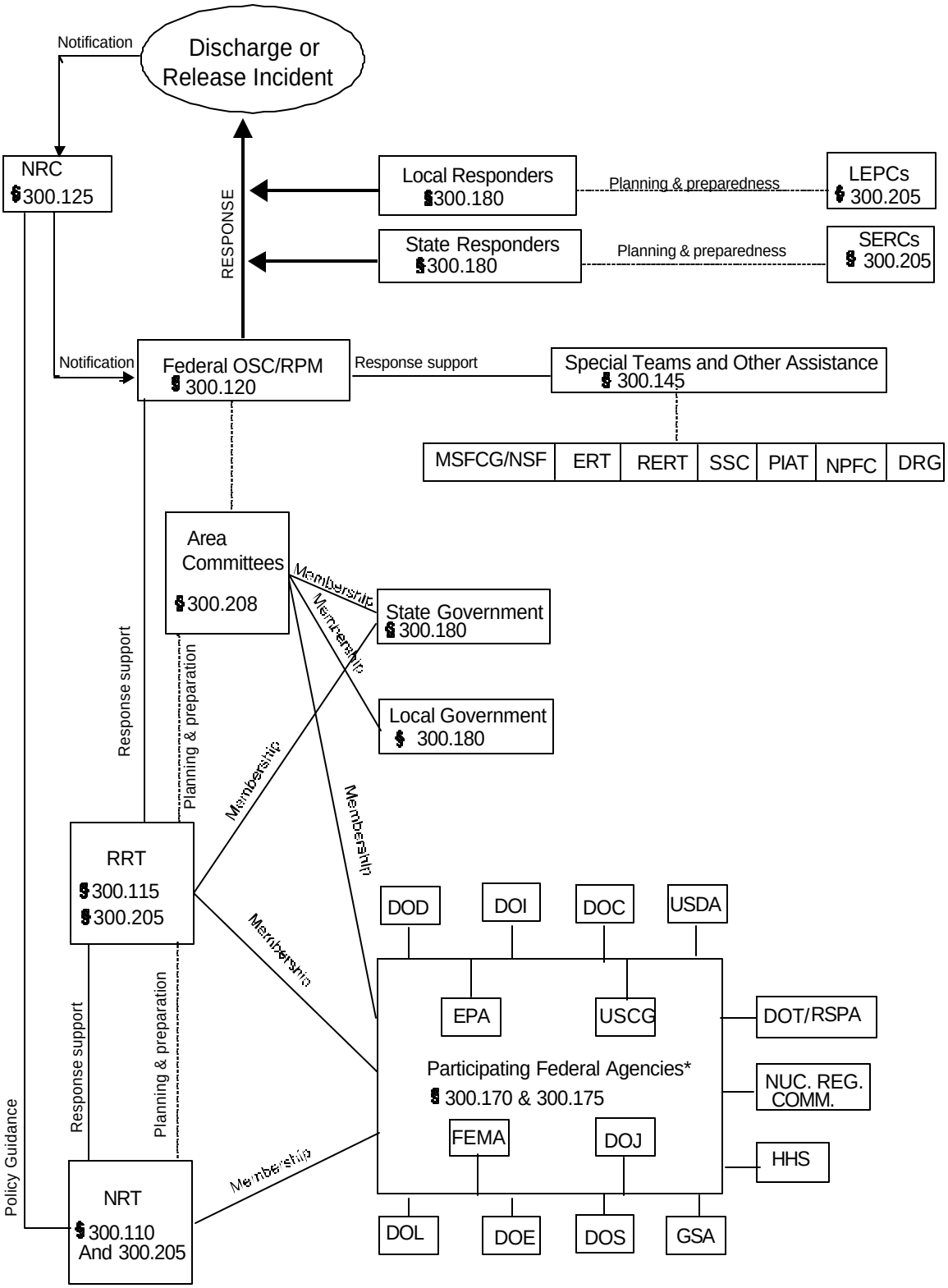


Figure 1000-B

Standard Incident Command System

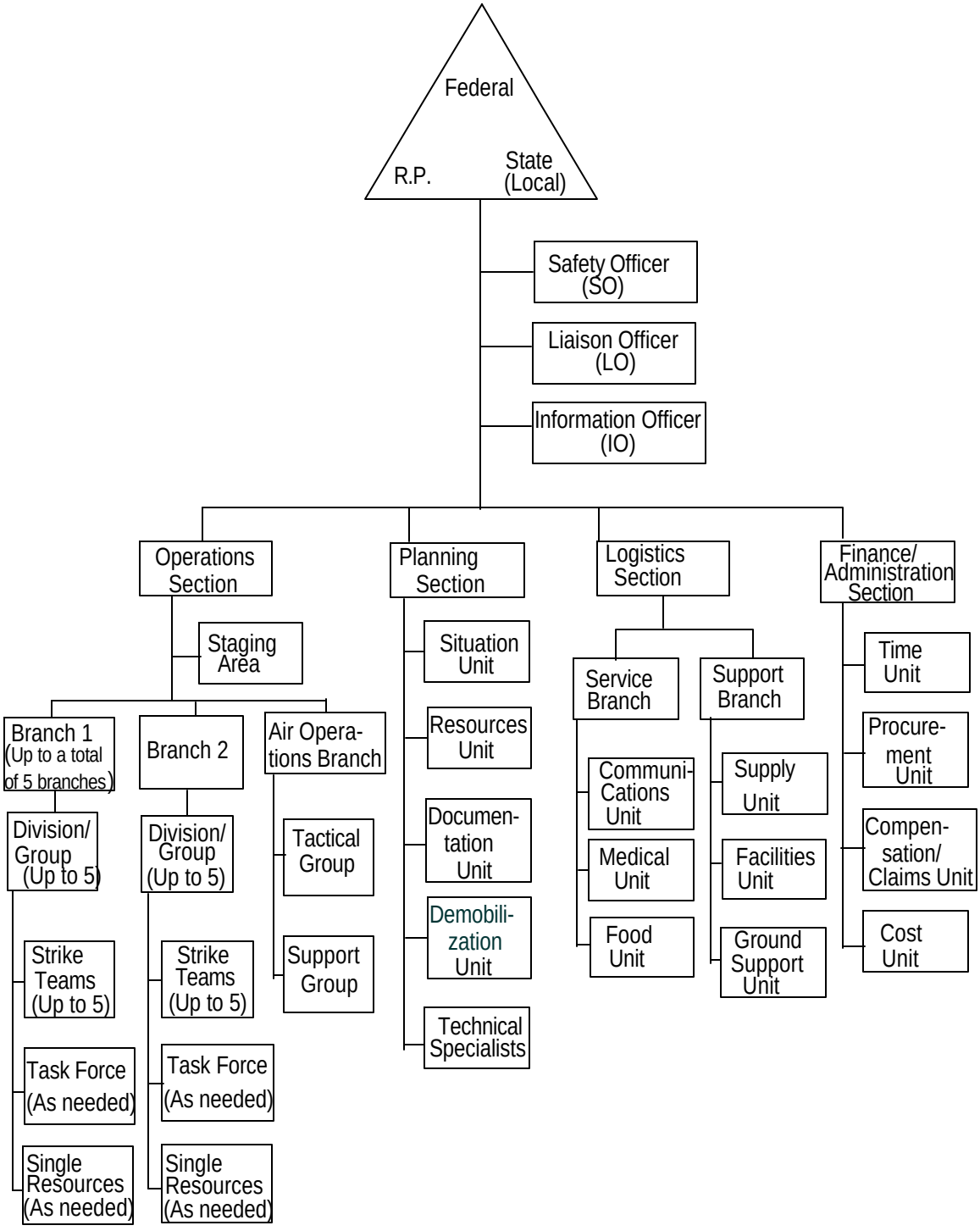


Figure 1000-C

Suggested Incident Command System Area Command Organization

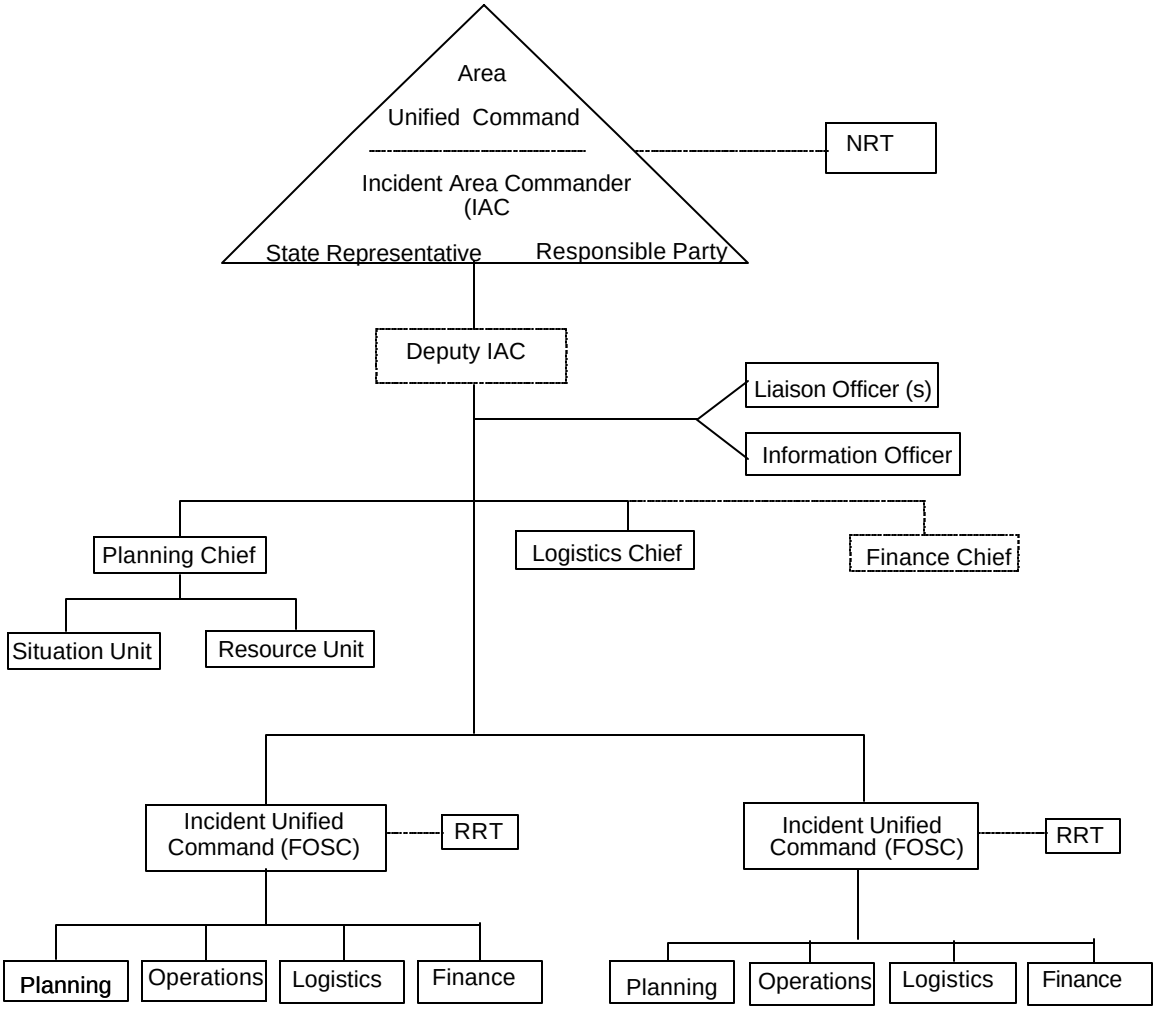


FIGURE 1000-C

1520 National Response Policy

Section 4201 of OPA 90 amended Subsection (c) of Section 311 of the FWPCA, to require the Federal OSC to "in accordance with the National Contingency Plan and any appropriate Area Contingency Plan, ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance -

(i) into or on the navigable waters;

(ii) on the adjoining shorelines to the navigable waters;

(iii) into or on the waters of the exclusive economic zone; or

(iv) that may affect natural resources belonging to, appertaining to, or under the exclusive anagement authority of the United States."

“In carrying out these functions, the OSC may:

(i) remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;

(ii) direct or monitor all Federal, State, and private actions to remove a discharge; and

(iii) recommend to the Commandant that a vessel discharging or threatening to discharge, be removed and, if necessary, destroyed."

If the discharge or substantial threat of discharge of oil or hazardous substance is of such size or character as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC shall direct all Federal, State, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.

1530 State Response System

Marine oil spills are typically multi-jurisdictional events involving the responsible party, the State of California represented by the Department of Fish and Game (DFG) Office of Spill Prevention and Response (OSPR), local government, and the United States Coast Guard. Section 8670.7 of the California Government Code establishes that the Administrator of OSPR has the primary state authority to direct removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the State. In recognition of the multi-jurisdictional nature of marine oil spills, the State Marine Oil Spill Contingency Plan provides a response frame work using the Unified Command version of the Incident Command System that meets 29 CFR 1910.120 and CCR Title 19, Division 2, Chapter 1, Sections 2401 thru 2450, the Standardized Emergency Management System (SEMS) Regulations requirement with respect to emergency management response to an oil spill discharge.

The Unified Command Structure provides for the incorporation of local government through Local Emergency Management Plans (Local Government Oil Spill Contingency Plans are a subset of this plan), SIOSC members, the responsible party and the Federal Government represented by the U.S. Coast Guard which is the pre-designated On Scene Coordinator (OSC) under the National Contingency Plan.

The Unified Command will consist of the U.S. Coast Guard, OSPR, and the responsible party. The Unified Command will direct the tactical and strategic response to an oil spill with a unified position to insure clear direction to the responsible party and efficient utilization of resources. OPA 90 clearly establishes that the OSC has the ultimate responsibility for directing oil spill response including response objectives and strategies.

The U.S. Coast Guard in recognition of the vital role and interest local government and the State have in marine oil spills, has entered into a Memorandum of Agreement (MOA) with the State that formalizes designation of responsibilities and authority at the state and local level relative to marine oil spill planning and response.

The U.S. Coast Guard and State MOA is consistent with the requirements of the SEMS regulations which incorporate a broad range of emergency management practices to effectively respond to disasters. Between disasters, SEMS builds connections to integrate management, communications, and resources at the local, regional, and statewide levels to maximize the responsiveness of emergency personnel. SEMS is multi-leveled and designed to manage disasters anytime and anywhere in the State. It is intended to facilitate priority setting, interagency cooperation, and the efficient flow of resources and information, but does not alter statutory authorities or responsibilities of emergency responders. SEMS provides the framework for coordinating state and local government emergency response in California using the existing incident command system and mutual aid agreements. It consists of five organizational levels, five main functions, mutual aid, the Incident Command System, multi/inter-agency coordination, and the operational area concept.

The five organizational levels are:

1. Field level, which includes those entities that manage and coordinate response at the emergency scene.

2. Local level, which manages and coordinates county, city, or special districts (which in turn manage and coordinate the field levels).

3. Operational areas, which manage and coordinate at the local level (essentially all local governments within the geographic boundary of a county).

4. Regional levels, which manage and coordinate information and resources among operational areas.

5. State level, which provides statewide regional level resource coordination integrated with federal resource coordination.

The five main functions of the SEMS structure are:

1. Management, which provides the overall direction and sets priorities for an emergency, limited by the jurisdiction roles and responsibilities.

2. Operations, which implements priorities established by the management function.

3. Planning/Intelligence, which gathers and assesses information.
4. Logistics, which obtains the resources to support the operations.

5. Finance/Administration, which tracks all costs related to the operation.

Most local jurisdictions have "mutual aid" agreements. These agreements provide a means for a community, which has fully committed all of its available resources to a local emergency, to obtain additional resources from surrounding communities and counties. Mutual aid agreements are used daily and during disasters by fire, law enforcement, health care, and other disciplines. SEMS incorporates existing and newly developed mutual aid systems.

The Incident Command System provides standardized procedures and terminology, a unified command structure, a manageable span of control, and an action planning process that identifies overall incident response strategies. Within SEMS the general concepts of the ICS are translated to each level of the statewide response system--from a local field incident to statewide coordination. This allows seamless communications among all responding agencies and levels of government.

SEMS has incorporated a *Maintenance System* comprised of an Advisory Board, a Mutual Aid Regional Advisory Committee, a Technical Group, and Specialist Committees designed to ensure that SEMS incorporates new knowledge gained through emergency response experience, regulatory changes and/or technological developments. With each application of SEMS, new ideas arise to improve the system.

Effective operation of SEMS is critically dependent upon timely and accurate information flow between all components of the system. The Governor's Office of Emergency Services (OES) has recently instituted the Response Information Management System (RIMS) which is a network that allows for the rapid exchange of critical information and resource management data between various organizational levels during a disaster, including oil and hazardous materials spills. The intent of RIMS is to provide responding agencies a clearer picture of emergency activities and committed resources, by enabling local governments to request and obtain needed assistance and resources, as well as the ability to access such requests and their status, Eventually, RIMS will help the transition from response to recovery by allowing local jurisdictions to be put on-line for computer access.

1531 *State Marine Oil Spill Response Utilizing Unified Command Application Of The Incident Command System*

The Unified Command application of the incident command system will represent the emergency management system implemented at marine oil spills. In keeping with basic principles of ICS, the magnitude and complexity of the emergency dictates which functional area is activated and to what level. The policy of the OSPR will be to insure that full implementation of the OSPR incident command response team is on scene within six hours of a reported spill event, in order to support and/or relieve OSPR first responders.

Local, State and private resources will be directed, at time of arrival on scene, to the appropriate function within the Unified Command structure. It is recognized that each organization participating in the response may have a command and control organization under which it operates, of which some of the components solely support internal operations and management. The objective of the State Marine Oil Spill Contingency Plan is to identify functional areas where early integration and coordination will improve the efficiency of the response.

By integrating response management in clearly defined units early in the response, consensus and mobilization can be more quickly achieved and limited resources combined to reduce duplication of effort and enhance response performance and perception by the public.

1532 *State Interagency Oil Spill Committee (SIOSC)*

Pursuant to Sections 8574.1 et seq. of the California Government Code, SIOSC addresses the need for a specific response to land and water releases of oil and petroleum products within California. SIOSC is composed of representatives of state agencies and is chaired by the Administrator of the OSPR.

SIOSC establishes and maintains liaison with federal and local agencies, and public and private organizations engaged in oil pollution prevention and control. It coordinates day-to-day procedures and practices between state agencies and other organizations relative to the prevention and mitigation of oil pollution from oil discharges.

SIOSC also recommends necessary research, development and testing by appropriate organizations of materials, equipment, and methods related to oil spill prevention and control, and prepares and updates the California Oil Spill Contingency Plan. It provides guidance and state agency input to the Regional Response Team, the federal On Scene Coordinator and the State Agency Coordinator in an oil spill emergency.

The State Interagency Oil Spill Committee consists of the Administrator, OSPR as Chairman, and chair-persons from the State Lands Commission and the California Coastal Commission, or their designees, and a designated representative from all of the following agencies:

The California Office of Emergency Services;
The California State Lands Commission;
The California State Water Resources Control Board;
The California Department of Justice;
The California Highway Patrol;
The California National Guard;
The California Department of Conservation (Division of Oil & Gas);
The California Department of Fish and Game;
The California Department of Transportation;
The California Department of Health Services;
The California Department of Parks and Recreation;
The California Department of Water Resources;
The California Department of Forestry;
The California State Fire Marshal;
The California Regional Water Boards;
The California Resources Agency;
The California Office of Environmental Affairs; and
The California Conservation Corps.

Agency capabilities for oil spill emergency response are tabulated in **FIG 1000-D** and **1000-E.**

FIGURE 1000-D

AGENCY CAPABILITIES FOR OIL SPILL EMERGENCY RESPONSE

STATE LEVEL

AGENCY NAME	OPS	LOGISTICS	PLANS	FINANCE
Air Resources Board		X	X	
Coastal Commission			X	
Conservation Corps	W/Oil	X		
Conservation/Div Oil & Gas		X	X	I
Emergency Services (OES)	PIO/LE	X	X	D
Fire Marshal	LE	X	X	
Fish & Game/OSPR	W/IC/LE	X	X	I/E/C
Forestry (CDF)	LE/FP	X	X	
Highway Patrol	IC/LE	X	X	
Dept of Justice	LE	X	X	E
State Lands Commission		X	X	
National Guard		X	X	
Parks and Recreation	OIL/LE	X	X	I
Toxic Substances Control		X	X	E
Dept of Transportation	X	X	X	I
Dept of Water Resources		X	X	I
State Water Resources Control Board		X	X	E

FIGURE 1000-E

LOCAL LEVEL				
AGENCY NAME	**OPS**	**LOGISTICS**	**PLANS**	**FINANCE**
County OES	**IC**	**X**	**X**	**D**
Fire & Rescue	**FP**	**X**	**X**	
Animal Services	**W**		**X**	
Law Enforcement Services	**LE**	**X**		
Mass Care Services		**X**		
Medical Services		**X**		
Public Health Services		**X**	**X**	
Public Works	**OIL**	**X**	**X**	
Resource and Support		**X**	**X**	

LEGEND FOR FIGURES 1000-D & E	
C	Available to affected entities/ persons
D	Channels State and Federal disaster fund
E	Available to external agencies
FP	Fire protection
I	Available internally
IC	Can act as Incident Commander
LE	Law enforcement
OIL	Oil spill cleanup
PIO	Public Information Officer
W	Wildlife Care
X	Provides functional support

Note: All state agencies may have a Liaison Function

1540 State Response Policy

The lead agency for the State of California is the Department of Fish and Game, Office of Spill Prevention and Response (OSPR), which has full authority, to guide and coordinate all state oil spill or hazardous materials responses that impact or threaten California coastline areas or waterways. Under California Senate Bill 2040, the Administrator of OSPR has the authority to guide and direct State oil spill cleanup efforts in State marine waters.

It is the policy of the state to respond immediately to all oil spills, control the source of any oil spill to contain any discharge to the maximum extent possible. Mechanical and other physical control methods shall be the preferred method for removal of oil from the environment with subsequent proper disposal. The option of taking no mitigative actions should be considered when such actions would cause greater environmental damage than the spilled oil alone. The use of oil spill cleanup agents shall be subject to the Administrator of OSPR's best judgment and coordinated with the federal OSC and EPA representative to the RRT.

Whenever it is determined the person(s) responsible for the discharge of the oil is taking adequate action to remove and mitigate its effects, the principle thrust of the state is to observe, monitor and provide advice and counsel, as may be necessary.

Whenever it is determined that the person(s) responsible for the discharge of oil does not act promptly, does not take proper and appropriate actions to contain, cleanup and dispose of the oil or oily debris, protect the environment, follow the accepted safety practices or the costs of such mitigating capabilities would be over and beyond those normally expected to be borne by such persons, or the discharger is unknown, the Administrator will take steps to access the state fund or the federal fund to ensure complete cleanup.

It is the policy of the state for all state agencies to follow applicable provisions of the State Contingency Plan when they are engaged in day-to-day operations when responding to oil spills.

1550 Local Response System

Emergency management within San Diego County falls under the Unified San Diego County Emergency Services Organization (Unified). This is a joint powers body comprised of the County and seventeen of the 18 incorporated cities within San Diego County. The Unified organization provides for the coordination of emergency response and recovery efforts countywide. In addition, the Unified acts in a support capacity to its member jurisdictions. The office of Disaster Preparedness is staff to the Unified Organization.

The governing body of the Unified organization is the Unified Disaster Council (UDC). This Council is composed of a representative from each of member jurisdictions. The Chairperson of the Board of Supervisors is the County representative and chair of the UDC. The County Chief Administrative Officer functions as the Emergency Services Coordinator for the Unified. He or she also acts as the Director of Emergency Services for responses within the unincorporated areas of the county. Figure (A.V.E.1) describes the Unified organization.

Emergencies that are of a routine nature, have a limited area of impact, short duration and moderate severity, are managed by the appropriate public safety agency (Police, Fire, Public Works, Health, etc.). Emergencies that are beyond the capability of a single local jurisdiction trigger a response by the entire Unified organization.

The Unified organization utilizes the Incident Command System (ICS). The County Emergency Operations Center (EOC) also functions as the San Diego county Operational Area EOC.

1560 Local Response Policy

Under Section 852.60.4 of Title 14 of the California Code of Regulations (14 CCR 852.60.4) the Unified organization will be an active participant in the Unified Command System established for response to marine oil spills. The County Chief Administrative Officer is identified as the Local Response Coordinator for the San Diego County Operational Area. Upon notification by the Office of Disaster Preparedness, the Local Response Coordinator will determine the activation level for the Unified organization.

The level of involvement of the Unified organization in the Unified Command System (UCS) will be determined on a case by case basis. Once activated, the Unified will fully integrate into the UCS to assist the FOSC in a significant oil spill that threatens to impact one or more member jurisdictions or a significant portion of the San Diego coastline.

For small oil spills, the FOSC may use a combination of equipment from local cleanup companies and the U.S. Navy to contain and cleanup an oil spill. A Memorandum of Agreement (MOA) (see Annex K) between the U.S. Navy and the Coast Guard Marine Safety Office San Diego outlines the available response services of the U.S. Navy.

For small hazardous Material spills, the Unified response may consist solely of the Hazardous Materials Incident Response Team (HIRT). HIRT is comprised of the Hazardous Materials Unit of the San Diego Fire Department and the Hazardous Materials Division of the County Department of Health Services. A MOA (see Section 9960) between the HIRT and the Coast Guard Marine Safety Office San Diego outlines the available response services by the HIRT.

If fully activated, the Unified will provide representatives to the Unified Command staff, operations section, planning section, and logistics section and finance section.

1570 Responsible Party Response Policy

Under OPA 90, the responsible party has primary responsibility for cleanup of a discharge. The response shall be conducted in accordance with their applicable response plan. Section 4201(a) of OPA 90 states that an owner or operator of a tank vessel or facility participating in removal efforts shall act in accordance with the National Contingency Plan and the applicable response plan required. Section 4202 of OPA 90 states that these response plans shall:

> "(i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;
>
> (ii) identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing personnel and equipment pursuant to clause (iii);
>
> (iii) identify, and ensure by contract or other means approved by the President, the availability of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;

(iv) describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;

(v) be updated periodically; and

(vi) be resubmitted for approval of each significant change."

Each owner or operator of a tank vessel or facility required by OPA 90 to submit a response plan shall do so in accordance with applicable regulations. Facility and tank vessel response plan regulations, including plan requirements, are located in 33 CFR Parts 154 and 155, respectively.

As defined in OPA 90, each responsible party for a vessel or a facility from which oil is discharged, or which poses a substantial threat of a discharge, into or upon the navigable waters or adjoining shorelines or the Exclusive Economic Zone is liable for the removal costs and damages specified in Subsection (b) of Section 1002 of OPA 90. Any removal activity undertaken by a responsible party must be consistent with the provisions of the NCP, the Regional Contingency Plan (RCP), the Area Contingency Plan, and the applicable response plan required by OPA 90. **If directed by the OSC at any time during removal activities, the responsible party must act accordingly. Each responsible party for a vessel or facility from which a hazardous substance is released, or which poses a substantial threat of a discharge, is liable for removal costs as specified in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et seq.).**

Spills Involving Multiple Parties

Under the OPA 90 an incident involving two or more responsible parties, each responsible party for a vessel or facility from which oil is discharged is liable for the removal costs and damages. Each responsible party's liability extends to the entire incident not just its own oil. In such a multiple party incident, the FOSC shall issue administrative orders to each responsible party.

1600 AREA ORGANIZATIONS: AUTHORITIES & POLICIES TBD

1700 PLAN REVIEW

Plans shall be reviewed to ensure all information is current, and in particular, the following areas shall be looked at: emergency notification list, response equipment information (type and amount of equipment available), sensitive areas, hazard/risk assessment of the area, response strategies (changes based on new technology, new equipment, etc.), dispersant approval.

The 2000 revision will be uploaded and accessed via the Internet. This step forward has been taken to eliminate the need for numerous paper copies of this large document saving hundreds of pages of paper. The Eleventh Coast Guard District Area Contingency Plans will now be updated through electronic means when necessary. This will make real time up to date information possible rather than annual corrections.

The Area Contingency Plans for the entire Eleventh Coast Guard District can be accessed and downloaded to disk from internet address:

http://www.uscg.mil/D11/sandiego/mso/ACP2000

Contact the local MSO for information about sources of supply for paper copies of the ACP. Additional Web Sites may become available.

1800 EXERCISE PROCESS

The opportunity to exercise this plan and components of this plan presents itself via the National Preparedness for Response Exercise Program (NPREP or PREP). The final PREP guidelines booklet was published in August 1994 and is available at no charge by writing to: **TASC Dept Warehouse, 3341 Q 75th Ave, Landover, MD 20785**. The publication number is **USCG-X0191**. Additional PREP information can be found at the following web site: **http://www.uscg.mil/hq/g-m/nmc/response/prepques.htm .** The PREP guidelines also apply for vessel and facility plan holders. This following discussion focuses on the PREP requirements for the Planning Areas as designated in section 1400 of this plan. The Eleventh Coast Guard District PREP Coordinator can be reached at **510-437-2958**, or by writing: **Commander (Pmr-1), 11th CG District, Bldg. 50-6 Coast Guard Island, Alameda, CA 94501-5100**.

The Area exercises are divided into two classification categories; internal and external. The internal exercises are: Notification Drills (quarterly); Spill Management Team Tabletop Exercises (SMT-TTX) (annually); Equipment Deployment Exercises (annually); and, Government Initiated Unannounced Exercises (maximum of 4 per area per year). The external exercises are Government led Area exercises and Industry led Area exercises. The On-scene Coordinator (OSC) is responsible for planning, designing, and executing the internal exercises. The National Strike Force Coordination Center (NSFCC) is responsible for scheduling the external exercises and the appropriate OSC remains involved in the planning, design, and execution of the Government led Area exercises. The OSC will consult in exercise development and will participate as appropriate in the Industry led Area exercises.

The scope and objectives of internal and external Area exercises are detailed in the PREP guidelines. Members of the Area Committee and response community will be involved in each type of exercise to some degree, varying from the confirmation of a phone number to assisting in the design of a the scenario and performing as a controller or evaluator of the exercise.

Participation in the PREP and utilization of the PREP guidance will ensure that all federal exercise requirements mandated by OPA 90 have been met. The PREP program requirements are optional for vessel and facility plan holders. However, if PREP guidelines are not followed, plan holders will be required to meet the drill requirements in 33 CFR 155.1060 (vessels) or 33 CFR 154.1055 (facilities). As part of their normal operations, representatives of the Captain of the Port will be verifying that vessel and facility plan holders are conducting and recording required exercises.

1810 Prep Schedule For Cgd11/Epa Reg Ix:

For the most up to date schedule, go to:
http://www.uscg.mil/hq/nsfweb/nsfcc/prep/pre pexercisesked.html

2004 GOVERNMENT LED EXERCISES

Valdez, AK Prince William Sound LT Dave Smith Mitch Deely	August 2004
Los Angeles/ Long Beach Port Level Exercise	April 2004 (SONS)
San Diego, CA Port Level Exercise	April 2004 (SONS)
EPA Region I Boston, MA Dorie Paar	October 2004
Guam LT Gough	December 2004

1820 Exercises and Drills - California Department of Fish and Game, Office of Spill Prevention and Response

Under Sections 817, 818, and 820 of the California Oil Spill Contingency Plan Regulations, oil spill contingency plan holders of vessels and facilities, and oil spill response organizations (OSRO) operating within State of California marine waters are required to conduct exercises as necessary to ensure that the elements of the plans will function in an emergency. Facility plan holders are required to conduct: Notification Drills (Quarterly), facility-owned Equipment Deployment Drills (Semiannually), and Spill Management Team Tabletop (Annually). Vessel plan holders are required to conduct: Manned-Vessel and Unmanned-Barge Onboard Emergency Procedures and Qualified Individual Notification Drills (Quarterly), Shore-Based Spill Management Team Tabletop Exercises (Annually). All plan holders shall also ensure that all of the response resources identified in the plan, including OSRO's, participate in annual Equipment Deployment Exercises.

The OSPR program drills and exercises requirements are consistent with the PREP exercises above. OSPR utilizes the same scope and objectives of exercises that are detailed in the PREP guidelines, and all PREP objectives are required to be tested over a three-year period. However, PREP program requirements are optional for plan holders; the OSPR program is a regulatory requirement.

Procedures for Exercise Evaluation Documentation

All contingency plan holders conducting an exercise are required to invite the Administrator of the Office of Spill Prevention and Response (OSPR) to attend the event. All OSPR staff attending an exercise are required to evaluate the exercise and complete a written evaluation. The OSPR is required to issue credit for drills and exercises that meet state regulatory requirements. Each objective tested should demonstrate that the plan component functions adequately enough for an efficient and effective response to an oil spill. Exercise objectives and criteria for measuring their attainment will be established as part of the

development phase of the exercise. If criteria are not met, then the objective tested has not been met.

No exercise passes or fails. Credit may be withheld if the objectives tested are not met until such time as any deficiencies are corrected. If a deficiency is noted either in meeting specific objectives or in the contingency plan itself, the owner/operator must either correct the deficiency prior to the next exercise, or address it in writing within 60 days from receiving OSPR's evaluation report.

Exercise Scheduling and Attendance

The procedures for obtaining attendance by the OSPR personnel at drills and exercises is as follows:

a. The plan holder submits written notification to the Sacramento OSPR Headquarters, inviting the Administrator to participate in both equipment deployment exercises and management team tabletop exercises, within the following time lines:

EXERCISE TYPE	MINIMUM NOTIFICATION REQUIRED
Tabletop, In-State	30 days
Tabletop, Out-of-State	90 days
Equipment Deployment	30 days
Full Scale Combination (Tabletop & Equipment Deployment)	60 days
Areas Exercises	120 days
Internal Unannounced	30 days

b. The Planning Branch will answer the exercise notification letter with a letter of acknowledgment to the contingency plan holder.

c. Exercise notification information will be entered into the Drill and Exercise Calendar in the OSPR LAN library by Planning staff. The Calendar will include all pertinent information, such as plan number, type of exercise, date, time, location, point of contact, objectives to be tested, the priority of the drill, the minimum OSPR staff required to attend the exercise, and the roles they will play.

d. The Unit Managers and Supervisors, the Field Office Supervisors (FOS), and the Lead Oil Spill Prevention Specialists (OSPS) will be responsible for reviewing the Drill and Exercise Calendar on a weekly basis and assigning available staff to all exercises. At least one OSPR representative will be responsible for monitoring and evaluating each exercise listed as a Priority 1 in the Calendar.

e. Prior to attending an exercise, assigned personnel will review previous exercise evaluation reports on file in the appropriate field office. If necessary, assigned personnel will consult with the Lead person(s) responsible for evaluating any previous exercises. Personnel will note any previous exercise deficiencies and required corrections. If the owner/operator has not addressed these deficiencies before or during the exercise, the evaluator will determine that the appropriate objectives have not been met.

Evaluation Paperwork Process

In order to maintain quality and standardization throughout the state, and to simplify reporting procedures

by all evaluating personnel, all staff will use standardized evaluation report forms for semiannual equipment deployments, spill management team tabletop exercises, tabletop exercises, and issues that need to be referred to the local USCG Area Planning Committee. All these forms used together will constitute a complete OSPR evaluation report. If evaluators need to report a significant problem or a significant achievement with the drill or a developing pattern that could be of concern, they will include it in the "comments" section of the evaluation report. If evaluators believe credit for the exercise should be withheld, they shall include detailed reasons in the evaluation report and include recommendations to correct any problems.

The plan holder shall provide the following documentation in order to receive credit from OSPR for any exercise conducted:

1. The contingency plan number;
2. A list of all other participants and their roles, including contingency plan numbers if applicable;
3. The objectives tested;
4. The Area Contingency Plan-listed environmentally sensitive site protection response strategies tested;
5. Copies of documents created for the drill or exercise (such as the site safety plan and the incident action plan, if prepared);
6. A list of other regulatory agencies attending the drill or exercise, if any;
7. An exercise evaluation or post-spill critique;
8. Information to demonstrate whether the identified objectives have been met; and
9. Any information of concern to the local Area Planning Committee;

With prior approval, OSPR may accept certain other exercises in substitution: 1) exercises conducted by another local, state or federal agency; 2) out-of-state or -country exercises; 3) unannounced exercises; and 4) actual spill responses.

Upon receipt of a drill credit request from a plan holder, the OSPR will review all staff reports and plan holder exercise documentation to determine if all requirements have been met. If the documentation submitted is inadequate to make a determination of approval, OSPR will send a letter withholding credit until additional information is submitted. If all the requirements have been met, OSPR will then send a letter of credit approval to the plan holder. If the requirements have not been met, any inadequacies noted in the Administrator's report must be addressed in writing by the plan holder with 60 days of the receipt of the Administrator's report. The plan holder's response shall outline remedies to the noted inadequacies including, but not limited to, any necessary changes to the plan, any changes in contracted or owned response resources, changes in or additions to training, and/or the need for additional drills or exercises. The plan holder's response shall include a schedule for implementing the remedies.

2000 COMMAND
2000 COMMAND: TABLE OF CONTENTS

Section #	Section	Page #
2100	**Command Structure: Unified Command**	**2000-1**
2110	**Command & General Staff Planning Cycle Guide**	**2000-3**
2120	**Common Responsibilities**	**2000-4**
2121	**Unit Leader Responsibilities**	**2000-4**
2130	**ICS Levels**	**2000-4**
2200	**Command/Staff Elements: Roles & Responsibilities**	**2000-5**
2210	**Unified Command/Incident Command**	**2000-5**
2211	**Federal On-Scene Coordinator (FOSC)**	**2000-6**
2212	**State Incident Commander (IC)**	**2000-7**
2213	**Representative of Responsible Party (RP)**	**2000-7**
2220	**Command Staff**	**2000-7**
2221	**Information Officer (IO)**	**2000-7**
2221.1	**Joint Information Center (JIC)**	**2000-8**
2221.2	**Media Contacts**	**2000-8**
2222	**Health & Safety Officer (SO)**	**2000-9**
2223	**Liaison Officer (LO)**	**2000-9**
2223.1	**MAC Group**	**2000-9**
2223.2	**Natural Resources Damage Assessment (NRDC)**	**2000-10**
2223.3	**Investigation Representative**	**2000-11**

2100 COMMAND STRUCTURE: UNIFIED COMMAND

The National Contingency Plan (NCP), 40 CFR 300, requires On-Scene Coordinators (OSCs) to direct response efforts and coordinate all other actions at the scene of a spill or release. The NCP further states that the basic format for the response management system is a structure that brings together federal and state agencies, and the responsible party, to achieve an effective and efficient response. This structure is commonly referred to as the Unified Command (UC). It should be noted that in this structure the OSC retains ultimate authority in a response operation for decisions relating to it. However, the OSC will exert his/her own authority independent of the UC only if other members are not present or are unable to reach consensus within a reasonable time frame.

To standardize response management within the marine safety field, the Coast Guard has adopted the National Interagency Incident Management System (NIIMS) based Incident Command System (ICS). While Vessel Response Plans (VRPs) and Facility Response Plans (FRPs) are required to have a management system compatible with the Area Contingency Plan, there is no requirement for VRPs and FRPs to follow strict ICS.

The ICS organization is built around five major functions that are applied on any incident, large or small. They are Incident Command, Operations, Planning, Logistics and Finance. A major advantage of the ICS organization is the **ability to expand and contract organizationally as required by the incident**. For some incidents only a few of the organizations functional elements may be required. For larger or more complicated responses, additional positions exist within the ICS framework to meet virtually any need.

Where appropriate, the OSC shall establish a unified command consisting of the OSC, the State Incident Commander, and the Responsible Party Incident Manager. The OSC is responsible for assigning individuals from within the response community (Federal, State, local or private), as necessary, to fill the designated positions in the NRS incident level response organization. It should be noted, however, that one individual may fill several of the designated positions. These assignments will be predicated on the nature of the spill and the need for extensive manning. These positions and their responsibilities are as follows:

(1) Public Affairs Officer (PAO) - Responsible for the coordination and release of all media releases and the scheduling of press conferences related to the incident. The PAO may also establish a Joint Information Bureau (JIB) to facilitate the coordinated release of available information.

(2) Liaison Officer - Responsible for coordinating with outside agencies, individuals, or groups involved in the response.

(3) Safety Officer - Responsible for the safety of all activities associated with the response and compliance with applicable safety laws and regulations. Also responsible for assessing hazardous and unsafe situations and developing measures for assuring personnel safety.

(4) Historian - Responsible for recording the chronology of events and documenting all pertinent activity relating to the spill. All pertinent message traffic, correspondence, etc. should be included in this documentation.

(5) Response Operations Chief - Responsible for management of the tactical response to the discharge, including containment and cleanup efforts.

(6) Planning Chief - Responsible for the development of strategies for the containment and

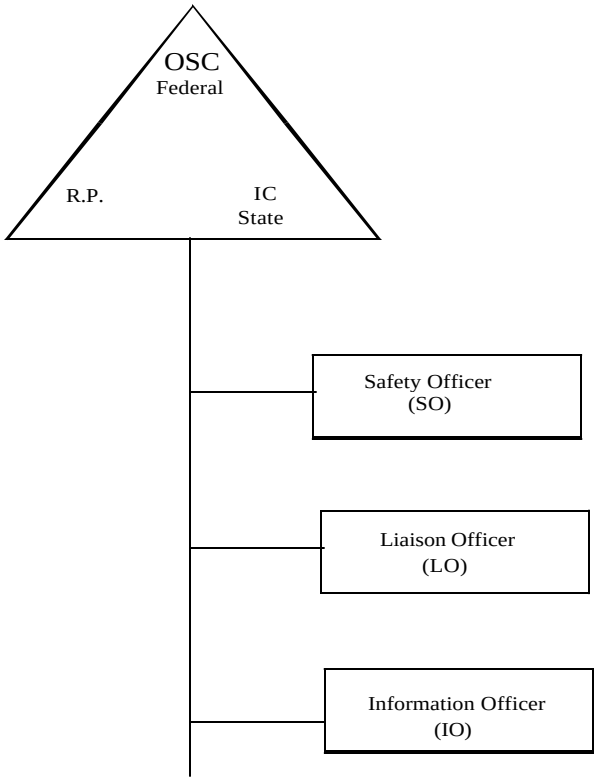
cleanup of the discharge.

(7) Logistics Chief - Responsible for ensuring that the necessary personnel and equipment are obtained and delivered to conduct response operations.

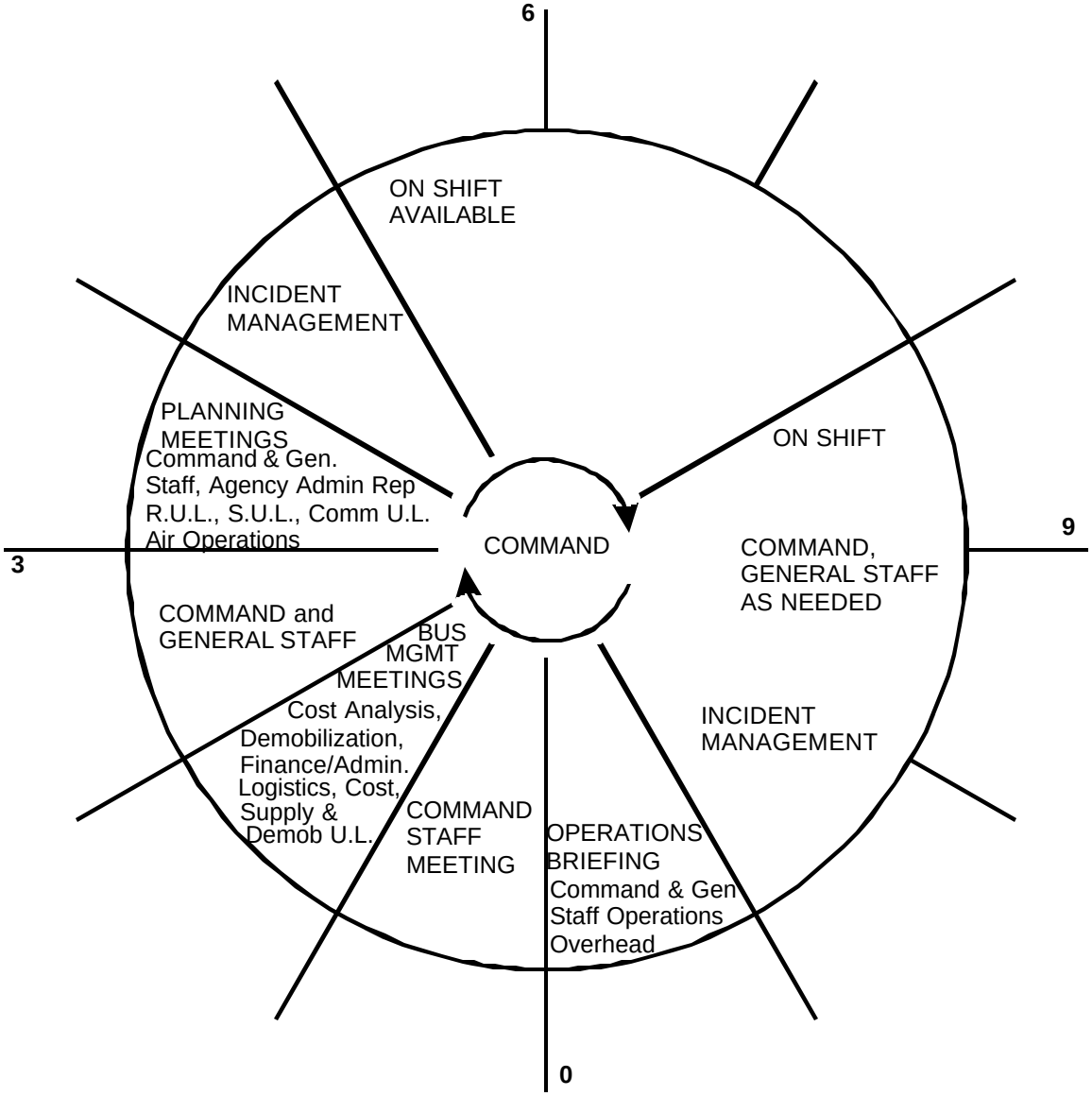
(8) Finance Chief - Responsible for the accounting management of Fund expenditures, including documentation for claims and cost recovery. This position will typically be staffed by a DRAT (see Section 5612.2) or NPFC representative.

With this in mind, we will now examine each of the five major functional elements, concentrating on responsibilities and duties. First we will list a planning cycle guide, common responsibilities and then the duties of the Incident Commander and the Command and General Staff.

COMMAND SECTION DIAGRAM
FIGURE 2000-A



2110 Command and General Staff Planning Cycle Guide



Based on a 12 hour operational period, may be modified based on actual duration of operational period (e.g. 24, 36, etc.)

ABBREVIATIONS & ACRONYMS

Agency Admin Rep:	Agency Administrator Representative
Bus. Mgmt:	Business Management
Comm. U.L.:	Communications Unit Leader
Finance/Admin:	Finance/Administration
Gen.:	General
R.U.L.:	Resources Unit Leader
S.U.L.:	Situation Unit Leader
Supply & Demob. U.L.	Supply & Demobilization Unit Leader

2120 Common Responsibilities

The following are responsibilities applicable to all ICS personnel:

1. Receive assignment, notification, reporting location, reporting time and travel instructions from your home agency.
2. Upon arrival at the incident, check-in at designated check-in locations. Check-in locations may be found at:

    - Incident Command Post
    - Base or Camps, Staging Areas, Helibases
    - Division Supervisors (for direct line assignments).

3. Agency representatives from assisting or cooperating agencies report to Liaison Officer at the Command Post after checking in.
4. All radio communications to Incident Communications Center will be addressed: "(Incident Name) Communications".
5. Use clear text and ICS terminology (no codes) in all radio transmissions.
6. Receive briefing from immediate supervisor.
7. Acquire work materials.
8. Organize, assign and brief subordinates.
9. Complete forms and reports required of the assigned position and send material through supervisor to Documentation Unit.
10. Respond to demobilization orders.
11. Brief subordinates regarding demobilization.

2121 *Unit Leader Responsibilities*

Common responsibilities that must be accomplished by all Unit Leaders include:

a. Participate in incident planning meetings, as required.
b. Determine current status of unit activities.
c. Confirm dispatch and estimated time of arrival of staff and supplies.
d. Assign specific duties to staff; supervise staff.
e. Determine resource needs.
f. Develop and implement accountability, safety and security measures for personnel and resources.
g. Supervise demobilization of unit, including storage of supplies.
h. Provide Supply Unit Leader with a list of supplies to be replenished.
i. Maintain unit records, including Unit/Activity Log (ICS 214).

2130 ICS Levels

2131 *Section*

That organization level having functional responsibility for primary segments of incident operation such as: Operations, Planning, Logistics and Finance. The Section level is organizationally between Branch and Incident Commander. Lead title is Section Chief. Support Position is Deputy.

2132 *Branch*

That organization level having functional/geographic responsibility for major incident operations. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. Lead title of the Branch is Branch Director. Support Position is Deputy.

2133 *Division*

That organization level having responsibility for operation within a defined geographic area or with functional responsibility. The Division/Group level is organizationally between the Task Force/Team and the Branch. (Also see Group.) Lead title of the Division is Division Supervisor.

2134 *Group*

Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. (See Division). Groups are located between Branches (when activated) and Resources in the Operations Section. Lead title of the Group is Group Supervisor.

2135 *Strike Team/Task Force*

A group of resources with common communications and a leader assembled for a specific mission. Lead title is Task Force Leader.

2136 *Unit*

That organizational element having functional responsibility for a specific incident planning, logistic, or finance activity. Lead title is Unit Leader. Support position is Manager.

2137 *Single Resource*

An individual, a piece of equipment and it's personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

2200 COMMAND/STAFF ELEMENTS: ROLES AND RESPONSIBILITIES

Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17) for List of Responsibilities.

2210 Unified Command/Incident Command

In ICS, Unified Command is a unified team effort which allows all agencies with responsibility for the incident, either geographical of functional, to manage an incident by establishing a common set of incident objectives and strategies. This is accomplished without losing or abdicating agency authority, responsibility or accountability.

2211 *Federal On-Scene Coordinator (FOSC)*

The On Scene Coordinator (OSC) (often referred to as the Federal On Scene Coordinator (FOSC)) is the pre-designated Federal official responsible for ensuring immediate and effective response to a discharge or threatened discharge of oil or a hazardous substance. The U.S. Coast Guard designates OSCs for the U.S. coastal zones, while the U.S. EPA designates OSCs for the U.S. inland zones.

The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge should coordinate activities under the NCP and is authorized to initiate, in consultation with the OSC, any necessary actions normally carried out by the OSC until the arrival of the predesignated OSC. This official may initiate federal Fund-financed actions only as authorized by the OSC.

Where appropriate, the OSC shall establish a unified command consisting of the OSC, the State Incident Commander, and the Responsible Party Incident Manager. The OSC is responsible for assigning individuals from within the response community (Federal, State, local or private), as necessary, to fill the designated positions in the NRS incident level response organization. It should be noted, however, that one individual may fill several of the designated positions. These assignments will be predicated on the nature of the spill and the need for extensive manning.

The OSC shall, to the extent practicable, and as soon as possible after the incident occurs, collect pertinent facts about the discharge, such as its source and cause; the identification of responsible parties; the nature, amount, and location of discharged materials; the trajectory of discharged materials; whether the discharge is a worst case discharge; the pathways to human and environmental exposure; the potential impact on human health, welfare, safety and the environment; whether the discharge poses a substantial threat to the public health or welfare; the potential impact on natural resources and property which may be affected; priorities for protecting human health and welfare and the environment; and appropriate resource documentation.

The OSC's efforts shall be coordinated with other appropriate Federal, State, local and private response agencies. An OSC may designate capable individuals from Federal, State, or local agencies to act as her/his on scene representatives. State and local governments, however, are <u>not</u> authorized to take actions under Subpart D of the NCP that involve expenditures of the Oil Spill Liability Trust Fund unless an appropriate contract or cooperative agreement has been established.

The OSC should consult with the RRT, when necessary, in carrying out the requirements of the NCP and keep the RRT informed of activities under the NCP. The OSC is responsible for addressing worker health and safety concerns at a response scene.

In those instances where a possible public health emergency exists, the OSC should notify the Health and Human Services (HHS) representative to the RRT. Throughout response actions, the OSC may call upon the HHS representative for assistance in determining public health threats and call upon the Occupational Safety and Health Administration (OSHA) and HHS for advice on worker health and safety problems.

The OSC shall ensure that the trustees for natural resources are promptly notified of discharges. The OSC shall coordinate all response activities with the affected natural resource trustees and shall consult with the affected trustees on the appropriate removal action to be taken. Where the OSC becomes aware that a discharge may affect any endangered or threatened species, or their habitat, the OSC shall consult with the appropriate Natural Resource Trustee.

The OSC shall submit pollution reports to the RRT and other appropriate agencies as significant developments occur during response actions, through communications networks or procedures agreed to by the RRT and covered in the RCP.

OSCs should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable.

2212 ***State Incident Commander (SIC)***

The State Incident Commander (State IC) is predesignated in the State of California "Marine Oil Spill Contingency Plan" as the Office of Spill Prevention and Response (OSPR) Administrator or his/her designee.

The State IC at a marine oil spill either takes charge of the response incident command (if there is no federal involvement) or fulfills the position of State IC in the Unified Command.

The State IC administers the State oil spill response fund which provides funds to promptly cover the costs of response containment and cleanup of oil spills into marine waters, including damage assessment costs, and wildlife rehabilitation. The Fund provides emergency loans and covers costs and damages suffered by the State or other persons or entities from oil spills into marine waters that cannot otherwise be compensated by responsible parties or the federal government.

The State IC assures that all State and local response resources and efforts are properly assigned and coordinated through the Incident Command System.

Capabilities during a spill or release to the marine environment:

- Fills positions throughout the Unified Command with appropriately trained spill response team members.
- Coordinate incident investigation responsibilities
- Procures and maintains evidence.
- Establishes biological losses.
- Provides technical advice on cleanup methods to minimize damage to living resources.
- Determines when to terminate a cleanup where natural resources are threatened or affected.
- Approves use of oil spill cleanup agents.
- Coordinates the NRDA process with the ICS
- Establishes a MAC if appropriate

2213 ***Representative of Responsible Party (RP)*** **To be developed**

2220 Command Staff

2221 ***Information Officer (IO)*** (Reference Section 9750 for additional info on Public Affairs)

The Information Officer is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other agencies and organizations as appropriate. Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command and multi-jurisdictional incidents. The Information Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.

2221.1 Joint Information Center (JIC)

During a major oil spill where media activity is expected to last several days, the lead Information Officer (IO) should establish a Joint Information Center (JIC) to coordinate the Public Affairs activities of participating agencies and parties.

It is recommended that the JIC be in the same building as the Command Center, but in a room separate from other sections. PAOs need to be close to the UC and other sections for effective communication flow, but not so close as to disturb response operations.

Equipment needs for the JIC vary dependent on the size and impact of the incident, and media and public interest levels.

If possible, a separate "Press Room" should be established for reporters' use, at spills that attracts a great deal of media interest. This room may be used by reporters covering the story, and would ideally be equipped with several phone lines and electrical outlets, and a couple of desks or tables and chairs. There should be a way to display maps, status boards, and other visual aids that could be used on-camera, and a table near the door for the latest news releases, fact sheets, and advisories. If there is room for seating and a podium with PA system, the pressroom is a good site for all formal news conferences. This allows TV news crews to set-up cameras in advance, and reporters to do stand-ups and call-ins from an easy, central location. See Section 9750, Public Affairs Procedures, for suggested equipment needs.

2221.2 Media Contacts (also refer to section 5640.2)

For local media contacts, contact CG PACAREA (Pcp) at **510-437-3319/3325** or the PACAREA (Pcp) detachment in Los Angeles at **310-732-7351.**

Office of Spill Prevention and Response, Public Affairs

Office: 916-327-9948 (Dana Michaels); 916-323-6286 (Rob Hughes)
Pager: 916-328-9670 (Dana Michaels); 916-328-8171 (Rob Hughes)

Office of Emergency Services
1-800-852-7550

Wire Service
San Francisco:

Bay City News:	**415-552-8900**	
	415-552-8912	**fax**
Associated Press:	**415-495-1708**	
	415-495-4967	**fax**
United Press Int'l:	**415-389-1935**	
	415-389-5918	

Los Angeles:

Associated Press:	**213-626-1200**	
	213-346-0200	**fax**
United Press Int'l:	**310-301-0087**	**fax**

2222 *Health & Safety Officer (SO)*

The Health & Safety Officer is responsible for identifying and assessing hazardous and unsafe situations and developing measures for assuring personnel safety. The Health & Safety Officer will correct unsafe acts or conditions through the regular line of authority, although the Officer may exercise emergency authority to stop or prevent unsafe acts when immediate action is required. The Health & Safety Officer maintains awareness of active and developing situations, ensures the preparation and implementation of the Site Safety Plan, and includes safety messages in each Incident Action Plan. The Health & Safety Officer may have assistants as necessary, and the assistants may also represent assisting agencies or jurisdictions.

2223 *Liaison Officer (LO)*

For incidents that are multi-jurisdiction, or have several agencies involved, a Liaison Officer position may be established on the Command Staff.

2223.1 MAC Group

A Multi-Agency Coordination System (MACS) is a combination of facilities, equipment, personnel, procedures, and communications integrated into a common system with responsibility for coordination of assisting agency resources and support to agency emergency operations. Each MAC Group will be facilitated by a MAC Group Coordinator and include MAC Group Agency Representatives.

2223.1.1 *MAC Group Coordinator*

The MAC Group Coordinator serves as a facilitator in organizing and accomplishing the mission, goals and direction of the MAC Group.

2223.1.2 *MAC Group Agency Representative*

The MAC Agency Representative would be an individual assigned to represent their agency on a MAC Group and would act with full authority on behalf of the agency that the individual represents.

2223.1.3 *MAC Situation Assessment Unit*

The MAC Situation Assessment Unit (This is also referred to in some agencies and EOC's as the Intelligence Unit) in the MACS is responsible for the collection and organization of incident status and situation information. They evaluate, analyze and display information for use by the MAC Group.

2223.1.4 *MAC Resources Unit*

The MAC Resources Unit, if activated in MACS, maintains summary information by agency on critical equipment and personnel committed and available within the MACS area of responsibility. Status is kept on the overall numbers of critical resources rather than on individual units.

2223.1.5 *MAC Information Unit*

The MAC Information Unit is designed to satisfy the need for regional information gathering. The unit will operate an information center to serve the print and broadcast media and other governmental agencies. I will provide summary information from agency/incident information officers and identify local agency sources for additional information to the media and other government agencies.

2223.1.6 *Local Government Representative (LGR)*

Local Government Representative (LGR) is also called Agency Representative. One Agency Representative is designated to be the LGR and will advise the State IC in the UC. LGR is also called the Local Response Coordinator (LRC) in the Local Plans and Regulations. The initial responding the local MAC group could replace LGR with another Agency Representative after the MAC group is established and receives their first briefing. The LGR should be familiar with the local and area plans and be capable of committing appropriate resources or be capable of obtaining commitments of resources from jurisdictions involved, and will be capable of obtaining or brokering permits for the operational area.

2223.2 NRDA (Also Reference Section 9740 for NRDA Procedures)

Natural Resource Damage Assessment (NRDA) is the process of identifying and quantifying the resource impacts and evaluating the value of impacted resources for the purpose of restoration. Successful pursuit of NRDA actions, either by the trustees alone or in cooperation with the RP(s), is a complex process comprising numerous tasks involving the interaction of scientists, economists, lawyers, and administrators. The DOI Rules and NOAA rules reduce some of the complexity by establishing an assessment process and providing a mechanism for determining the merits of going forth with the assessment and claim. The process provides a record of the trustee's decisions.

2223.2.1 *NRDA Representative*

The NRDA Representative is responsible for coordinating NRDA needs and activities of the trustee NRDA teams with the ICS spill response operations. This includes close coordination with the Planning Section for obtaining timely information on the spill and injuries to natural resources. The NRDA Representative will coordinate with the Scientific Support Coordinator, the RP and Legal specialists for possible coordination of NRDA or injury determination activities.

2223.2.2 *Notification Procedure for Initiating NRDA Actions*

In the event of a spill, each agency is responsible for notifying its own members of the NRDA Team. Individual federal, state, and local agencies may be notified through various channels depending on the size and location of the spill. In all incidents that might require NRDA action, the Office of Spill Prevention and Response (OSPR) of the California Department of Fish and Game (CDFG) will attempt to notify representatives from each of the trustee agencies expected to participate in the NRDA process.

2223.3 Investigation Representative

The Investigation Representatives report directly to their respective Incident Commanders. Both Federal and State investigative teams will coordinate their investigations within legal discovery guidelines. The Investigative Specialists operate as separate entities during the incident and are not normally part of the ICS. Investigation information may be provided to support the ICS, within legal guidelines.

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3000 OPERATIONS

3000-3500: OPERATIONS: TABLE OF CONTENTS

Section #	Section	Page #
3100	OPERATIONS SECTION ORGANIZATION	3000-1
3110	Operations Section Planning Cycle Guide	3000-2
3200	OPERATIONS ROLES AND RESPONSIBILITIES	3000-3
3210	Operations Section Chief	3000-3
3211	Staging Area Manager	3000-3
3212	Branch Director	3000-3
3213	Division/Group Supervisor	3000-3
3220	Air Operations Branch/Director	3000-3
3221	Air Tactical Group/Supervisor	3000-4
3221.1	Helicopter Coordinator	3000-4
3221.2	Fixed Wing Coordinator	3000-4
3222	Air Support/Tactical Group/Supervisor	3000-4
3230	Recovery and Protection Branch Director	3000-4
3231	Protection Group Supervisor	3000-4
3232	On-Water Recovery Group/Supervisor	3000-5
3233	Shoreside Recovery Group/Supervisor	3000-5
3234	Waste Management (Disposal) Group/Supervisor	3000-5
3235	Decon Group/Supervisor	3000-5
3240	Emergency Response Branch Director	3000-5
3241	Emergency Notifications	3000-5
3242	Search and Rescue SAR Group Supervisor	3000-8
3243	Salvage Group/Supervisor	3000-8

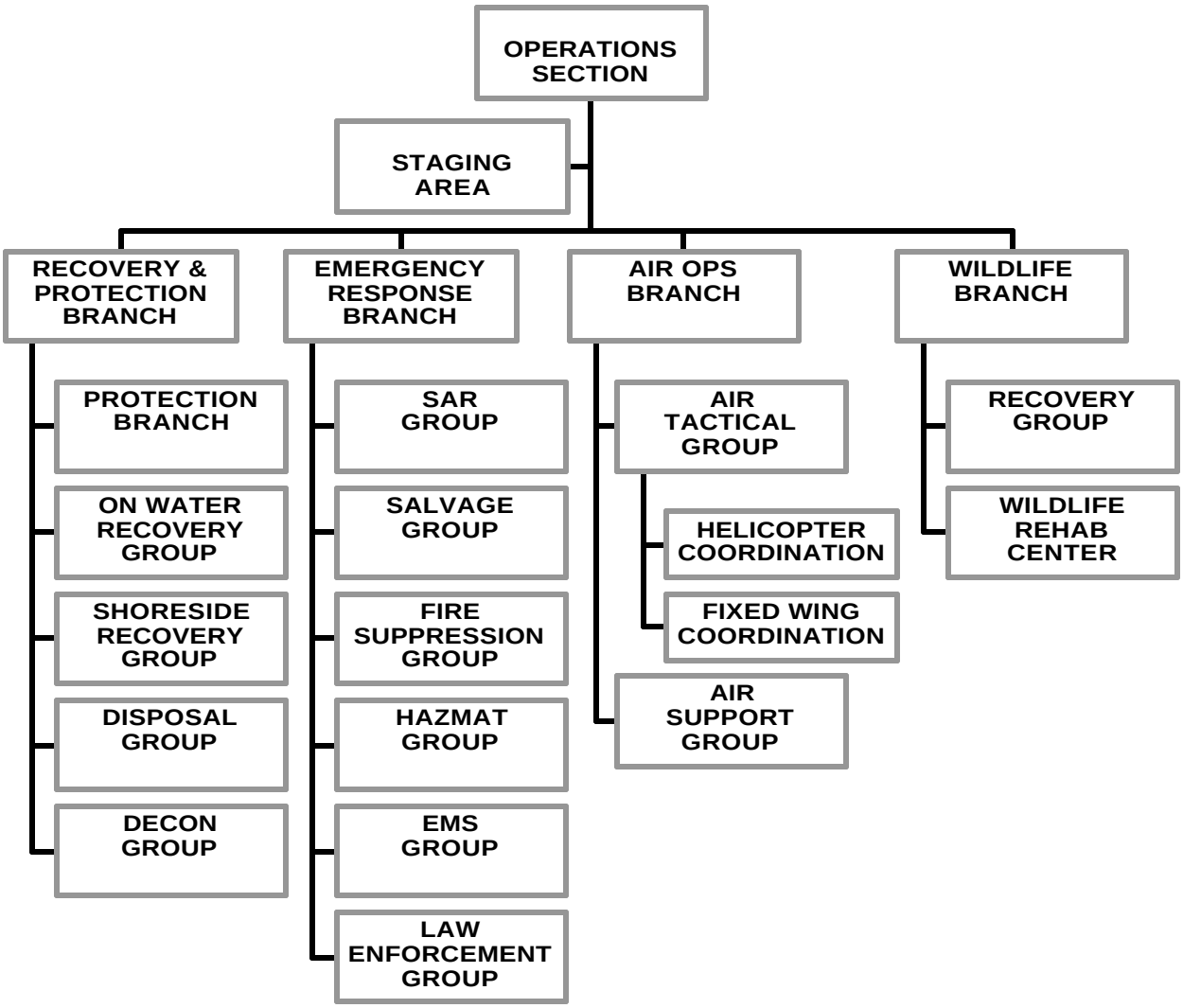
3244	Fire Suppression Group/Supervisor	3000-8
3245	Hazardous Materials Group/Supervisor	3000-9
3246	Emergency Medical Services Group/Supervisor	3000-9
3247	Law Enforcement Group/Supervisor	3000-9
3250	Wildlife Branch Director (also refer to Section 9710 Wildlife Plan)	3000-9
3251	Wildlife Reconnaissance Group Supervisor	3000-9
3251.1	Aerial Survey Unit Leader	3000-9
3251.2	Boat Survey Unit Leader	3000-9
3251.3	Shoreline Survey Unit Leader	3000-10
3252	Wildlife Hazing Group Supervisor	3000-10
3253	Wildlife Recovery and Transportation Group Supervisor	3000-10
3254	Wildlife Processing Group Supervisor	3000-10
3254.1	Wildlife Intake Unit Leader	3000-10
3254.2	Wildlife Documentation Unit Leader	3000-10
3255	Veterinary Services Group Supervisor	3000-11
3255.1	OSPR/OWCN Bird Unit Leader	3000-11
3255.2	OSPR/OWCN Pinniped Unit Leader	3000-11
3255.3	OSPR/OWCN Sea Otter Unit Leader	3000-11
3256	Wildlife Recovery Group Supervisor	3000-11
3257	Wildlife Rehabilitation Center	3000-11
3300	INITIAL EMERGENCY COMMUNICATION (ref: Section 5300 Comms)	3000-12
3400	REQUIRED CORRESPONDENCE	3000-12
3410	Federal Required Letters and Reports	3000-12
3411	Notice of Federal Interest (CG-5169)	3000-12
3412	Notice of Federal Assumption	3000-12

3413	**Letter of Designation**	**3000-12**
3414	**Situation/Pollution Reports Guidance (SITREP/POLREP)**	**3000-12**
3415	**OSC Report & COTP Order**	**3000-12**
3420	**State Required Letters & Reports**	**3000-12**
3421	**Cleanup & Abatement Order (State)**	**3000-12**
3422	**Cease & Desist Order (State)**	**3000-13**
3500	**TACTICAL RESPONSE PRIORITIES (Refer to Section 4500)**	**3000-13**
3600	**SITE STRATEGY MAPS AND SUMMARY**	

3100 OPERATIONS SECTION ORGANIZATION

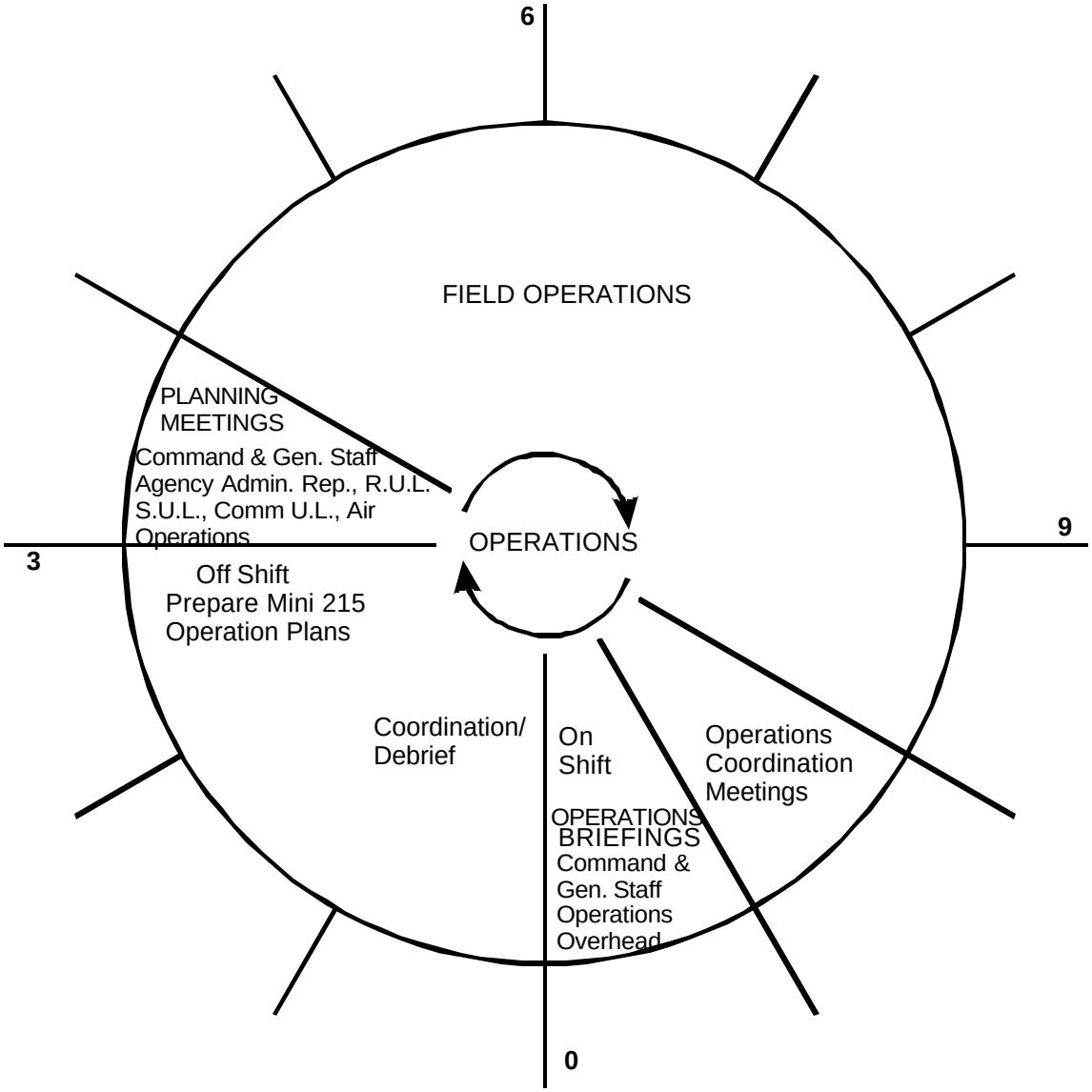
Responsible for all operations directly applicable to the primary mission. Directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary and reports such to the Incident Commander (IC/UC). Includes the Recovery and Protection Branch, Emergency Response Branch, Air Operations Branch, and Wildlife Branch. The IC/UC will determine the need for a separate Operations Section at an incident or event. Until Operations is established as a separate Section, the IC/UC will have direct control of tactical resources.

OPERATIONS SECTION DIAGRAM
FIGURE 3000-A



3110 Operations Section Planning Cycle Guide

Figure 3000-B: Operations Section Planning Cycle Guide



Based on a 12 hour operational period, may be modified based on actual duration of operational period (e.g. 24, 36, etc.)

ABBREVIATIONS & ACRONYMS

Agency Admin Rep.:	Agency Administrator Representative
Comm. U.L.:	Communications Unit Leader
Gen.:	General
R.U.L.:	Resources Unit Leader
S.U.L.:	Situation Unit Leader

3200 OPERATIONS ROLES AND RESPONSIBILITIES

Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17) for List of Responsibilities

3210 Operations Section Chief

The Operations Section Chief is responsible for the management of all operations directly applicable to the primary mission. The Operations Chief activates and supervises elements in accordance with the Incident Action Plan and directs its execution; activates and executes the Site Safety Plan; directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plans as necessary, and reports such to the Incident Commander.

There is only one Operations Section Chief for each operational period. That person is normally (but not always) from the jurisdiction or agency that has the greatest involvement either in terms of resources assigned or area of concern.

3211 *Staging Area Manager*

Under the Operations Section Chief, the Staging Area Manager is responsible for managing all activities within the designated staging areas.

3212 *Branch Director*

The Branch Directors, when activated, are under the direction of the Operations Section Chief, and are responsible for the implementation of the portion of the Incident Action Plan appropriate to the Branches.

3213 *Division/Group Supervisor*

The Division and/or Group Supervisor reports to the Operations Section Chief or Branch Director when activated. The supervisor is responsible for the implementation of the assigned portion of the Incident Action Plan, assignment of resources within the division/group, and reporting on progress of control operations and status of resources within the division/group.

3220 Air Operations Branch / Director

If established separately at an incident, Air Operations will be activated at the Branch level within the Operations Section. Usually this is done on incidents that may have complex needs for the use of aircraft in both tactical and logistical operations.

The Air Operations Branch Director, who is ground based, is primarily responsible for preparing the air operations portion of the Incident Action Plan. The Incident Action Plan will reflect agency restrictions that have an impact on the operational capability or utilization of resources such as night flying or hours per pilot. After the Incident Action Plan is approved, air operations is responsible for implementing its strategic aspects, those that relate to the overall incident strategy as opposed to those that pertain to tactical operations like specific target selection. Additionally, the Air Operations Branch Director is responsible for providing logistical support to helicopters operating on the incident. The Air Tactical Group Supervisor working with ground and air resources normally performs specific tactical activities including target selection, or suggested modifications to specific tactical actions in the Incident Action Plan.

3221 *Air Tactical Group Supervisor*

The Air Tactical Group Supervisor is primarily responsible for the coordination and scheduling of aircraft operations intended to locate, observe, track, survey, support dispersant applications, or other deliverable response application techniques, or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. The Air Tactical Group Supervisor performs these coordination activities while airborne. The Air Tactical Group Supervisor reports to the Air Operations Branch Director.

3221.1 Helicopter Coordinator

The Helicopter Coordinator is primarily responsible for the coordination of all tactical or logistical helicopter missions while in flight over the mission. The Helicopter Coordinator is also responsible for the coordination and scheduling of helicopter operations intended to locate, observe, track, surveill, or report on the incident situation. The Helicopter Coordinator coordinates the application of dispersants, in-situ burning agents and bio-remediation agents. The Helicopter Coordinator reports to the Air Tactical Group Supervisor.

3221.2 Fixed Wing Coordinator

The Fixed Wing Coordinator is primarily responsible for the coordination of assigned airborne fixed-wing aircraft operations at the incident. The Fixed Wing Coordinator is also responsible for the scheduling of fixed wing operations intended to locate, observe, track, surveill, or report on the incident situation. The Fixed Wing Coordinator coordinates the application of dispersants, in-situ burning agents, and bio-remediation agents. The Fixed Wing Coordinator reports to the Air Tactical Group Supervisor.

3222 *Air Support/Tactical Group / Supervisor*

The Air Tactical Group Supervisor is primarily responsible for the coordination and scheduling of aircraft operations intended to locate, observe, track, surveil, support dispersant applications, or other deliverable response application techniques, or report on the incident situation when fixed and/or rotary-wing aircraft are airborne at an incident. The Air Tactical Group Supervisor performs these coordination activities while airborne. The Air Tactical Group Supervisor reports to the Air Operations Branch Director.

3230 Recovery and Protection Branch Director

The Recovery and Protection Branch Director is responsible for overseeing and implementing the protection, containment and cleanup activities established in the Incident Action Plan. The Recovery and Protection Branch Director reports to the Operations Section Chief.

3231 *Protection Group Supervisor*

Under the Recovery and Protection Branch Director, the Protection Group Supervisor is responsible for the deployment of containment, diversion, and absorbing boom in designated locations. Depending on the size of the incident, the Protection Group may be further divided into teams, task forces and single resources.

3232 *On-Water Recovery Group / Supervisor*

Under the Recovery and Protection Branch Director, the On Water Recovery Group Supervisor is responsible for managing on water recovery operations in compliance with the Incident Action Plan. The Group may be further divided into teams, task forces and single resources.

3233 *Shoreside Recovery Group / Supervisor*

Under the Recovery and Protection Branch Director, the Shore side Recovery Group Supervisor is responsible for managing shore side cleanup operations in compliance with the Incident Action Plan. The group may be further divided into Strike Teams, Task Forces and single resources.

3234 *Waste Management / Supervisor*

Under the Recovery and Protection Branch Director, the Supervisor of the Disposal Group Supervisor is responsible for coordinating the on site activities of personnel engaged in collecting, storing, transporting, and disposing of waste materials. Depending on the size and location of the spill, the disposal groups may be further divided into teams, task forces, and single resources.

3235 *Decon Group / Supervisor*

Under the Recovery and Protection Branch Director, the Decontamination Group Supervisor is responsible for decontamination of personnel and response equipment in compliance with approved statutes.

3240 Emergency Response Branch Director

The Emergency Response Branch Director is primarily responsible for overseeing and implementing emergency measures to protect life, mitigate further damage to the environment, and stabilize the situation.

3241 *Emergency Notifications*

NOTIFICATION OF SPILL INCIDENT

A substantial spill of oil usually has a responsible party (RP) who is aware that the discharge has occurred (as in the case of a vessel grounding or collision, or a tank or pipeline rupture at a facility, for example). The party responsible for a discharge of oil into the navigable waters of the United States is required by federal law (40 CFR Part 302) to immediately report the discharge to the Coast Guard; and if the discharge occurs within the waters of the state of California, by state law to report it to the state. Responsible parties meet their requirement under federal law by reporting the spill to the National Response Center or to the local Coast Guard Marine Safety Office. State law requires the report to be made to the Office of Emergency Services. However, persons other than the responsible party often make reports of oil spills (usually smaller ones) directly to the local Coast Guard MSO or to the NRC. The diagram below depicts the ways that the initial notification of an oil spill can be received, and the notification protocol that exists among the federal and state principals.

NRC USCG 1-800-424-8802 **CA OES 1-800-852-7550**

If Possible: Local USCG MARINE SAFETY OFFICE
San Francisco Bay 415-399-3547
LA/LB 562-980-4444
San Diego (24hrs) 619-683-6470

Information to be collected and passed as part of the notification procedure is listed on the Incident Information Form. The minimum information required to be passed is indicated by an asterisk (*) on the form. The form designates responsibility and ensures accountability for the notification of other federal and state agencies and non-profit/public interest groups. The intent is to show the chain of responsibility for notifications, rather than a specific notification check off list intended for use by all parties. No attempt has been made to represent the complete notification lists used by state and local government emergency contacts.

NOTIFICATION TABLE*

FEDERAL

AGENCY/GROUP	**RESPONSIBLE FOR NOTIFYING:**	
CG MSO (SF, LA, SD)	USCG Pacific Strike Team	**415-883-3311(24hr)**
	CA OES	**800-852-7550 (24hr)**
	CA DFG/OSPR	**916-445-0045 (24 hr)**
	CG PACAREA/D11 OPCEN	**510-437-3700 (24hr)**
	NOAA SSC	**800-SKY-8888/PIN 579-8818 (24hr)**
	USCG Public Affairs (north) PIAT	**510-437-3324** **919-331-6006/6032**
	USCG Group/Airsta Humboldt Bay USCG Group San Francisco USCG Group/MSO LA/LB USCG Activities San Diego	**707-839-6116** **415-399-3417/3530** **562-980-4444** **619-295-3121**

For additional Federal contacts see section 5610

STATE OF CALIFORNIA

AGENCY/GROUP	RESPONSIBLE FOR NOTIFYING:	
CA OES	CA EPA, DTSC	**916-324-1826(24hr)**
	CALTRANS	**510-286-6356(24hr)**
	California Highway Patrol (CHP)	**707-551-4100(24hr)**
	** Other agencies as prescribed by state notification system	
	County OES	
	County Health Department(s) (or designated local emergency contact)	
	County Fire Department(s)	
	County & City Police Department(s)	
	Harbormaster(s)/Port Authority(s)	
	** Other agencies and groups as prescribed by county notification system	
	** owners/operators/trustees of property or facilities potentially impacted Harbormaster(s)/Fisherman's Organization(s) Port Authority(s)	

For additional State of California contacts see section 5620

OSPR	CA Office of Emergency Services	**800-852-7550 (24hr)**
	CA Dept. of Parks & Recreation	**916-296-2408 (24hr)**
	CA Coastal Commission	**415-904-5285**
	CA State Lands Commission	**800-852-7550 (24hr)**
	Farallones Nat'l Marine Sanctuary	**415-561-6622**
	International Bird Rescue Research Center (IBRRC)	**510-841-9086 (24hr)**

IBRRC Marine Mammal Center	**415-289-7325 (24hr)**
National Park Service/GGNRA	**415-561-4462 (24hr)**
State Interagency Oil Spill Committee (SIOSC) Confidential Notification List	
U.S. Fish & Wildlife Service (appropriate field office)	

For additional State of California contacts see section 5620

Wildlife Contacts

Center for Marine Conservation	**415-375-4509**
Marine Mammal Center	**415-289-7325(24hr)**
Marine Mammal Center Friends of the Sea Otter	**831-289-7325 (9am-5pm) 831-726-1750 (after 5pm)**
Pacific Wildlife Care Center	**805-489-0411**
Save Our Shores	**831-462-5660 (day) 831-423-5063 (after hrs.)**

**This table is intended to show possible notifications. It is not a detailed notification checklist.*

3242 *Search and Rescue SAR Group Supervisor*

Under the direction of the Emergency Response Branch Director, the SAR Group Supervisor is responsible for prioritization and coordination of all Search and Rescue missions directly related to a specific incident.

3243 *Salvage Group / Supervisor*

Under the direction of the Emergency Response Branch Director, the Salvage Group Supervisor is responsible for coordinating and directing all salvage activities related to the incident.

3244 *Fire Suppression Group / Supervisor*

Under the direction of the Emergency Response Branch Director, the Fire Suppression Group Supervisor is responsible for coordinating and directing all fire fighting activities related to the incident.

3245 *Hazardous Materials Group / Supervisor*

The HAZMAT Group Supervisor is responsible for coordinating and directing all hazardous materials activities related to the incident.

3246 *Emergency Medical Services Group / Supervisor*

Under the direction of the Emergency Response Branch Director, the Emergency Medical Group Supervisor is responsible for coordinating and directing all emergency medical services related to the incident.

3247 *Law Enforcement Group / Supervisor*

Under the direction of the Emergency Response Branch Director, the Law Enforcement Group Supervisor is responsible for coordinating and directing all law enforcement activities, related to the incident, which may include, but not limited to isolating the incident, crowd control, traffic control, evacuations, beach closures and/or perimeter security.

3250 **Wildlife Branch Director** (Also refer to **Section 9710 Wildlife Plan**)

The Wildlife Branch Director is responsible for minimizing wildlife losses during spill responses; coordinating early aerial, ground, and on-water reconnaissance of the wildlife at the spill; employing wildlife hazing measures; and recovering and rehabilitating impacted wildlife. A wildlife-processing center should be established and maintained for veterinary services, treatment and rehabilitation of oiled wildlife, storage and other support needs. The Branch Director will coordinate operations with the Oiled Wildlife Care Network (OWCN). The activities of private wildlife care groups, including those employed by the responsible party, will be overseen and coordinated by the Wildlife Branch Director.

3251 *Wildlife Reconnaissance Group Supervisor*

The Wildlife Reconnaissance Group Supervisor, under the direction of the Wildlife Branch Director, is responsible for coordinating reconnaissance surveys of wildlife at the spill site and in areas potentially at risk from the spill. The group supervisor will establish and supervise as many units as necessary to survey the spill area from the air, boat, and shoreline. Operational activities and results will be reported to the Wildlife Branch Director and the Situation Unit Leader (Planning Branch).

3251.1 Aerial Survey Unit Leader

The Aerial Survey Unit Leader under the direction of Wildlife Reconnaissance Group Supervisor is responsible for coordinating and conducting aerial reconnaissance surveys of wildlife at the spill site and of those potentially at risk from the spill.

3251.2 Boat Survey Unit Leader

The Boat Survey Unit Leader under the direction of the Wildlife Reconnaissance Group Supervisor is responsible for coordinating and conducting water based reconnaissance surveys of wildlife at the spill site and of those potentially at risk to the spill.

3251.3 Shoreline Survey Unit Leader

The Shoreline Survey Unit Leader, under the direction of Wildlife Reconnaissance Group Supervisor is responsible for carrying out shoreline reconnaissance surveys of wildlife at the spill site and of those potentially at risk to the spill.

3252 ***Wildlife Hazing Group Supervisor***

The Wildlife Hazing Group Supervisor, under the direction of the Wildlife Branch Director, is responsible for minimizing wildlife impact and losses during spill responses. The deployment of acoustic, visual, or other wildlife hazing measures shall be authorized in the Incident Action Plan. All activities, status and location of wildlife and hazing operations shall be reported regularly to the Wildlife Branch Director and the Situation Unit Leader (Planning Branch).

3253 ***Wildlife Recovery and Transportation Group Supervisor***

Under the direction of the Wildlife Branch Director, the Wildlife Recovery Group Supervisor is responsible for the search and recovery of dead and live impacted wildlife and transporting them to processing/rehabilitation center(s). The supervisor is responsible for arranging transportation of live oiled wildlife to rehabilitation centers and the transportation of dead wildlife to a secure storage facility. This group should coordinate with Situation Unit (Planning Branch) in conducting surveys of wildlife in the vicinity of the spill. The establishment of several strike teams or task forces will likely be necessary to survey the entire spill area.

3254 ***Wildlife Processing Group Supervisor***

The Wildlife Processing Group Supervisor, under the direction of the Wildlife Branch Director, is responsible for establishing and maintaining a central wildlife processing center(s) for receiving and documenting all impacted wildlife collected, dead or alive. The group supervisor will establish and direct the operations of the Wildlife Intake Unit and the Wildlife Impact Documentation Unit.

3254.1 Wildlife Intake Unit Leader

The Wildlife Intake Unit Leader, under the direction of the Wildlife Processing Group Supervisor, is responsible for processing and documenting all impacted wildlife collected whether dead or alive. Duties may include: logging in and handling impacted wildlife; maintaining chain-of-custody; collecting pertinent information regarding an animal's condition and degree of oiling; photographing animals; and evidence tagging. Standardized forms and procedures should be used at all times.

3254.2 Wildlife Impact Documentation Unit Leader

The Wildlife Impact Documentation Unit Leader, under the direction of the Wildlife Processing Group Supervisor, is responsible for maintaining and reporting information on wildlife collected. Documentation shall include (at least) date and location of collection, captured live or dead, species, numbers of animals, and disposition. Duties may also include maintaining and reporting information collected by field reconnaissance units.

3255 *Veterinary Services Group Supervisor*

Under the direction of the Wildlife Branch Director, the Veterinary Services Group Supervisor is responsible for establishing and maintaining the Wildlife Rehabilitation Center(s). The supervisor is responsible for receiving oiled wildlife, processing wildlife into the system by recording essential information on live and dead wildlife intake forms, collecting necessary feather and tissue samples from live animals, conducting triage, stabilization, treatment and rehabilitation of oiled wildlife. The supervisor is responsible for assuring appropriate transportation to established treatment centers for oiled animals requiring extended care and treatment.

3255.1 OSPR/OWCN Bird Unit Leader

The OSPR/OWCN Bird Unit Leader, under the direction of the Veterinary Services Group Supervisor, is responsible for receiving live oiled birds requiring extended care and treatment at established treatment centers, recording essential medical information, conducting triage, stabilization, treatment, and rehabilitation of oiled birds.

3255.2 OSPR/OWCN Pinniped Unit Leader

The OSPR/OWCN Pinniped Unit Leader, under the direction of the Veterinary Services Group Supervisor, is responsible for receiving live oiled pinnipeds requiring extended care and treatment at established treatment centers, recording essential medical information, conducting triage, stabilization, treatment, and rehabilitation of oiled pinnipeds.

3255.3 OSPR/OWCN Sea Otter Unit Leader

The OSPR/OWCN Sea Otter Unit Leader under the direction of the Veterinary Services Group Supervisor is responsible for receiving live oiled sea otters requiring extended care and treatment at an established treatment center, recording essential medical information, conducting triage, stabilization, treatment, and rehabilitation of oiled sea otters.

3256 *Wildlife Recovery Group / Supervisor*

Under the direction of the Wildlife Branch Director, the Wildlife Recovery Group Supervisor is responsible for coordinating the search for collection and field tagging of dead and live impacted wildlife and transporting them to processing center(s). This group should coordinate with Planning (Situation Unit) in conducting aerial and group surveys of wildlife population in the vicinity of the spill. They should also deploy acoustic and visual wildlife hazing equipment as needed.

3257 *Wildlife Rehabilitation Center*

Under the direction of the Wildlife Branch Director, the Wildlife Rehabilitation Center is responsible for receiving oiled wildlife at processing center, recording essential information, collecting necessary samples, and conducting triage, stabilization, treatment, transport and rehabilitation of oiled wildlife. The center is responsible for assuring appropriate transportation to appropriate treatment centers for oiled animals requiring extended care and treatment.

3300 INITIAL EMERGENCY COMMUNICATION

Initial Emergency Communications should be set up as needed and in accordance with **Section 5300** (Communications).

3400 REQUIRED CORRESPONDENCE

3410 Federal Letters and Reports

3411 ***Notice of Federal Interest (CG-5169)***
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.B.3.a.

3412 ***Notice of Federal Assumption***
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.B.3.d.

3413 ***Letter of Designation***
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.

3414 ***Situation/Pollution Reports Guidance (SITREP/POLREP)***
Reference COMDTINST M16000.11, Coast Guard Marine Safety Manual, Volume VI, Chapter 7.B.6.b.(1). The POLREP format can be found in Volume VII of the Marine Safety Manual, Figure 7-7.

3415 ***OSC Report and COTP/ADMIN Order***
OSC Reports will be submitted as required by the RRT or at the discretion of the OSC for a particular incident as stated in 40 CFR 300.165. Reference: COMDTINST M1600.11, Coast Guard Marine Safety Manual Volume VI. OSC Reports will be submitted as required by the RRT or at the discretion of the OSC for a particular incident as stated in 40 CFR 300.165.

3420 State Letters and Reports

3421 ***Clean Up and Abatement Order (State)***

A Clean Up and Abatement Order can be issued by the State. It would include information such as:

"Any person who discharges oil into marine waters, upon order of the administrator, shall do all of the following:

(1) Clean up the oil.
(2) Abate the effects of the discharge.
(3) In the case of a threatened discharge, take other necessary remedial action.

Upon failure of any person to comply with a cleanup or abatement order, the Attorney General or a district attorney, at the request of the administrator, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant." (Government Code Section 8670.62)

3422 *Cease and Desist Order (State)*

When the administrator determines that any person has undertaken, or is threatening to undertake, any activity or procedure that (1) requires a permit, certificate, approval, or authorization under this chapter, without securing a permit, or (2) is inconsistent with any of the permits, certificates, rules, regulations, guidelines, or authorizations, previously issued or adopted by the administrator, or (3) threatens to cause or substantially increases the risk of unauthorized discharge of oil into the marine waters of the state, the administrator may issue an order requiring that person to cease and desist. (Government Code Section 8670.69.4)

3500 TACTICAL RESPONSE PRIORITIES (Refer to Section 4500)

3000 OPERATIONS

3600: OPERATIONS: TABLE OF CONTENTS SITE STRATEGY MAPS AND SUMMARY

Section #	Site Name	Page #
3600	San Mateo Creek	3600-6
	San Onofre Creek	3600-10
	Las Flores Creek	3600-13
	Hidden Creek	3600-16
	Aliso Canyon Creek	3600-19
	French Canyon Creek	3600-23
	Cockleburr Canyon	3600-27
	Santa Margarita River	3600-30
	San Luis Rey River	3600-34
	Agua Hedionda Lagoon	3600-37
	Batiquitos Lagoon	3600-41
	San Elijo Lagoon	3600-45
	San Dieguito Lagoon	3600-48
	Los Penasquitos Lagoon	3600-51
	La Jolla Peninsula	3600-54
	Mission Bay Entrance & San Diego River Mouth	3600-57
	Kendall-Frost Reserve (Mission Bay)	3600-58
	Point Loma	3600-63
	San Diego Bay Entrance	3600-66
	USN Marine Mammals Research Center (Point Loma)	3600-69
	USN Magnetic Silencing Facility	3600-72

San Diego Bay Cross Bay Booming Strategy (24th Street)	**3600-75**
USN Amphibious Base	**3600-78**
USN Delta Beach	**3600-81**
Sweetwater River National Wildlife Reserve & Paradise Marsh	**3600-84**
Chula Vista Wildlife Reserve Island	**3600-87**
South Bay Salt Works & Otay River	**3600-101**
Emory Cove	**3600-104**
Tijuana River Mouth	**3600-106**
Castle Rock	**3600-110**
Bird Rock	**3600-113**
Wilson Cove North Point	**3600-116**
Seal Cove To Mail Point	**3600-122**
Mail Point To 1 Nm Se	**3600-125**
.8 TO 1.P NM SE Of LOST POINT	**3600-128**
.9 NM SE OF MOSQUITE COVE	**3600-131**

3600 Tactical Response Strategies Site Strategy Maps & Summary Sheets

ESI CLASSIFICATIONS USED FOR SHORELINES IN THE STATE OF CALIFORNIA

ESI Classification Description

1A Exposed Rocky Cliffs

1B Exposed Sea Walls and Piers

2 Exposed Wave-Cut Platforms

3 Fine/Medium-Grained Sandy Beaches

4 Coarse-Grained Sand/Gravel Beaches

5 Mixed Sand and Gravel Beaches

6A Gravel Beaches

6B Rip Rap

7 Exposed Tidal Flats

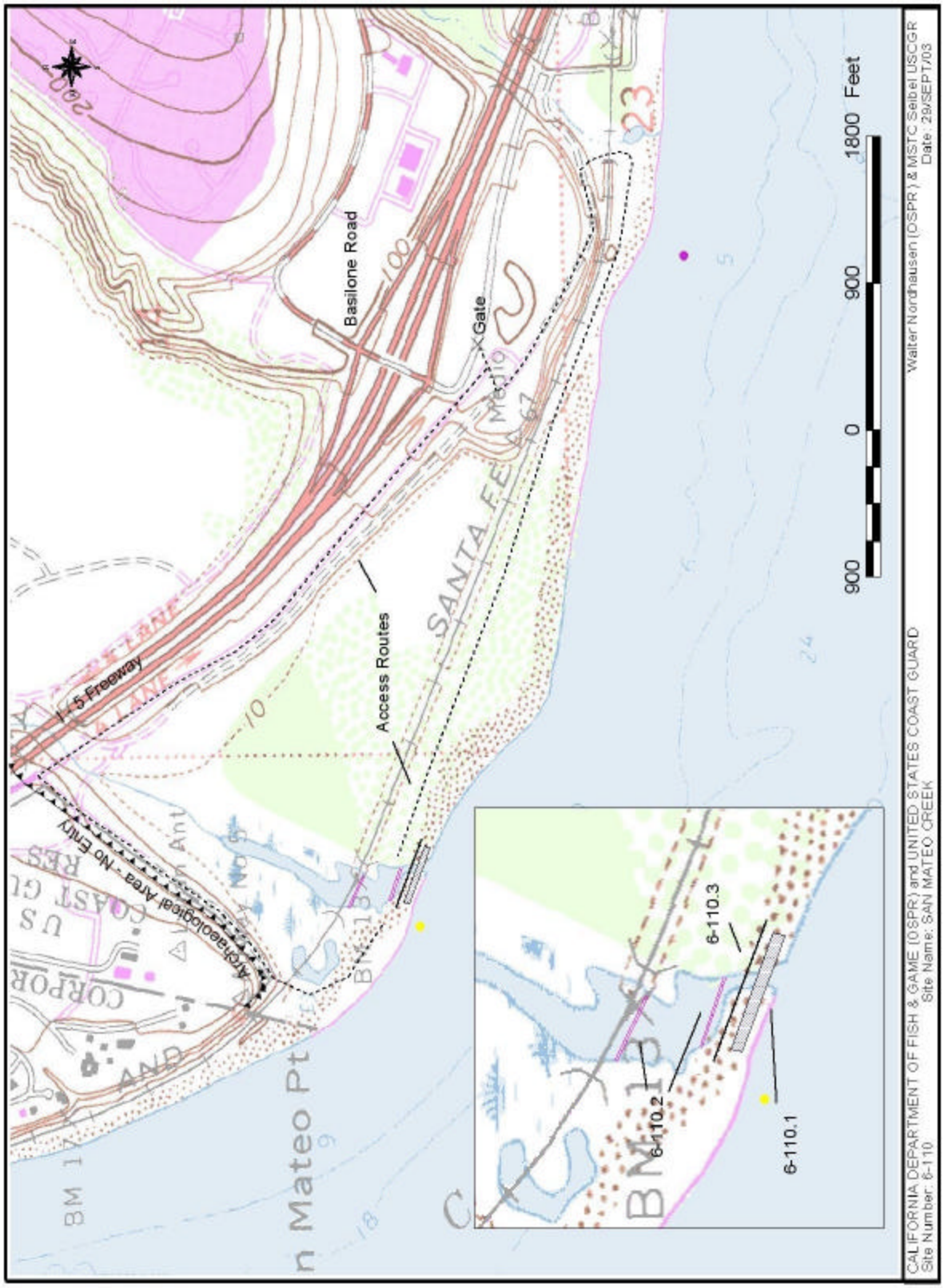
8A Sheltered Rocky Shores

8B Sheltered Man-made Structures

9 Sheltered Tidal Flats

10 Marshes

6-110 SAN MATEO CREEK **SITE DIAGRAM 6-110**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-110 San Mateo Creek
COUNTY: San Diego **LONG:** 117° 35' 36" W
USGS QUAD: San Clemente **LAT:** 33° 23' 06" N

SITE DESCRIPTION: San Mateo Creek is a seasonally active water channel and strongly influenced by seasonal rainfall pattern. During wet winter periods the creek mouth may be open to intertidal exchange. However, most months the creek mouth is closed by a natural sand berm forming a relatively small pond. The creek is a heavily vegetated riparian habitat with substantial emergent marsh plants such as cattail and bulrush. Numerous species of birds, amphibians, invertebrates, and terrestrial mammals occur here.

ACCESS: Exit I-5 at Basilone Road and travel a short distance along the old PCH road to a gated access road maintained by State Parks. Enter the gate and proceed toward the Lifeguard offices on the bluff top, then turn south along the dirt road which leads to the beach. On the beach turn north and proceed to the San Mateo Creek mouth about one-half mile north.

SEASONAL CONCERNS: During winter months with good rainfall, the creek mouth may be open. During summer months two listed species of birds may be active in the area.

RESOURCES OF PRIMARY CONCERN: Two listed species of fish occur in this creek; the **Tidewater goby** and **Steelhead trout,** consequently any activity in this creek must be with the concurrence of the Camp Pendleton wildlife biologist and US Fish and Wildlife Service. **California brown pelican** are commonly present, and during summer months of May to September **California least tern** and **Western snowy plover** may be present along the beach face. One listed plant, **Red sand verbena,** may be present on the upper beach sand dunes.

PRIORITY: A – Year round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
California State Parks and Recreation, District Superintendent (949) 366-8529
California State Parks and Recreation, Resource Ecologist (949) 497-1421
California State Parks and Recreation, 24 hr. (909) 443-2969
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service, 24 hr. (760) 271-6934
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Archaeologist, Dale Cheever (760) 725-9738

EMERGENCY PHONE NUMBERS
Hospital - Scripps Memorial Encinitas (760) 633-7685
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close the creek mouth by sand berm creation. Check status of creek mouth and consider rainfall potential which may affect the ability to maintain a closure.

Response equipment may need to cross over railroad tracks for beach access. Approval and clearance will be needed.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-110 San Mateo Creek

SITE CHARACTERISTICS: San Mateo Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to addressed

PROTECTION STRATEGIES:

PRIMARY: 06-110.1 Close the creek mouth by sand berm.

06-110.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 1 skiff. 500 feet absorbent boom. 1 bulldozer operator, and 3 response personnel.

SECONDARY: 06-110.3 Construct a filter barrier across the natural sand berm to prevent wash-over of petroleum.

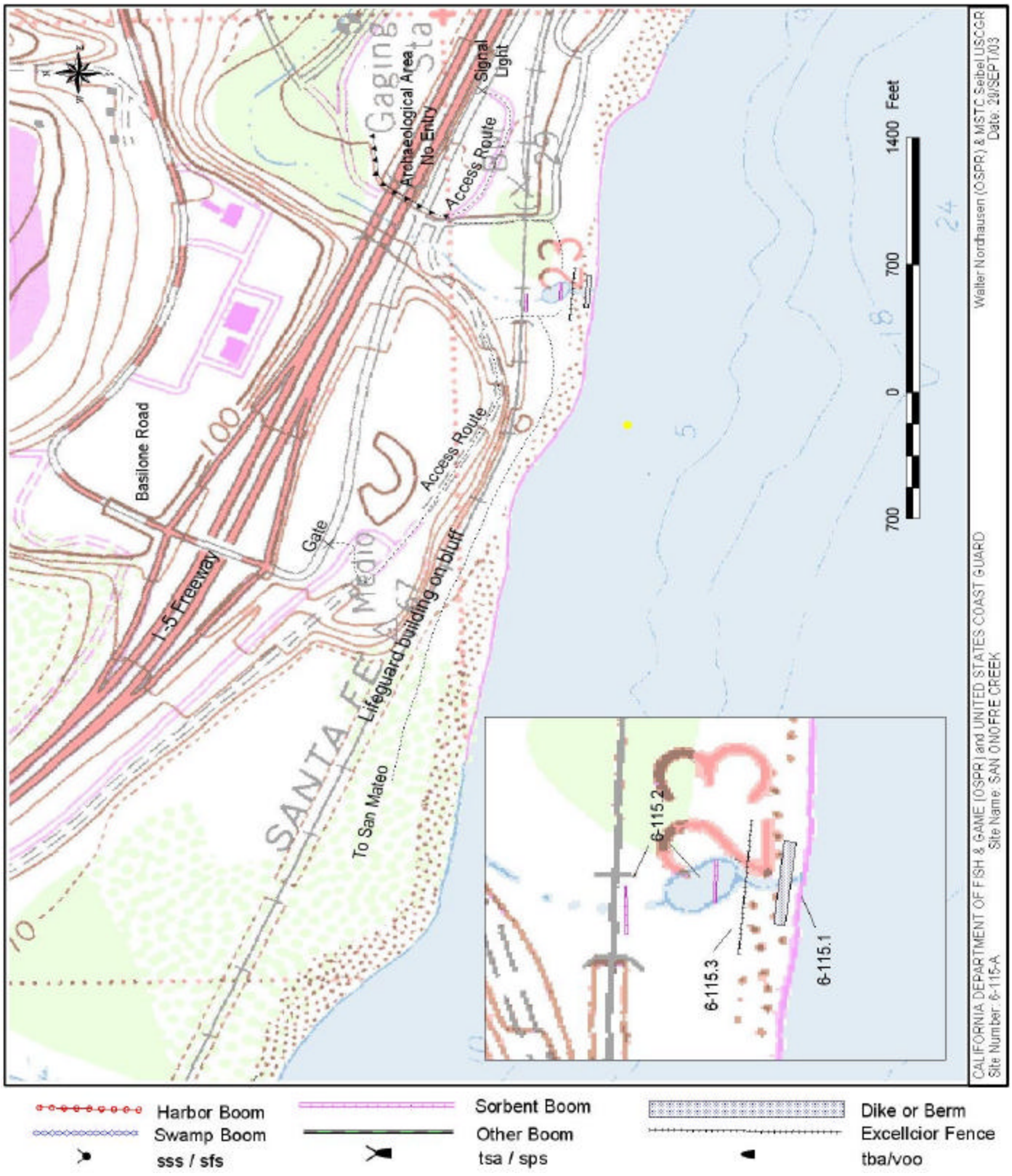
RESOURCES: Fencing material and sorbent material to extend 200 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location.

6-115 SAN ONOFRE CREEK **SITE DIAGRAM 6-115**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-115 San Onofre Creek
COUNTY: San Diego **LONG:** 117° 34' 48" W
USGS QUAD: San Clemente **LAT:** 32° 22' 48" N

SITE DESCRIPTION: San Onofre Creek is a seasonally active water channel and strongly influenced by seasonal rainfall pattern. During wet winter periods the creek mouth may be open to intertidal exchange. However, most months the creek mouth is closed by a natural sand berm forming a relatively small pond. The creek is a heavily vegetated riparian habitat with substantial emergent marsh plants such as cattail and bulrush. Numerous species of birds, amphibians, invertebrates, and terrestrial mammals occur here.

ACCESS: Exit I-5 at Basilone Road and travel a short distance along the old PCH road to a gated access road maintained by State Parks. Enter the gate and proceed toward the Lifeguard offices on the bluff top, then turn south along the dirt road which leads to the beach and San Onofre Creek mouth.

SEASONAL CONCERNS: During winter months with good rainfall, the creek mouth may be open. During summer months two listed species of birds may be active in the area.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) occurs in this creek, consequently any activity in this creek must be with the concurrence of the Camp Pendleton wildlife biologist and US Fish and Wildlife Service. **California brown pelican** are commonly present, and during summer months of May to September **California least tern** and **Western snowy plover** may be present along the beach face. One listed plant, **Red sand verbena,** may be present on the upper beach sand dunes.

PRIORITY: A – Year round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
California State Parks and Recreation, District Superintendent (949) 366-8529
California State Parks and Recreation, Resource Ecologist (949) 497-1421
California State Parks and Recreation, 24 hr. (909) 443-2969
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service, 24 hr. (760) 271-6934
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Archaeologist, Dale Cheever (760) 725-9738

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close creek mouth by sand berm creation. Check status of creek mouth and consider rainfall potential, which may affect the ability to maintain a closure.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-115 San Onofre Creek

SITE CHARACTERISTICS: San Onofre Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to be addressed.

PROTECTION STRATEGIES:

PRIMARY: 06-115.1 Close the creek mouth by sand berm.

06-115.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 1 skiff. 500 feet absorbent boom. 1 bulldozer operator and 3 response personnel.

SECONDARY: 06-115.3 Construct a filter barrier across the natural sand berm to prevent wash-over of petroleum.

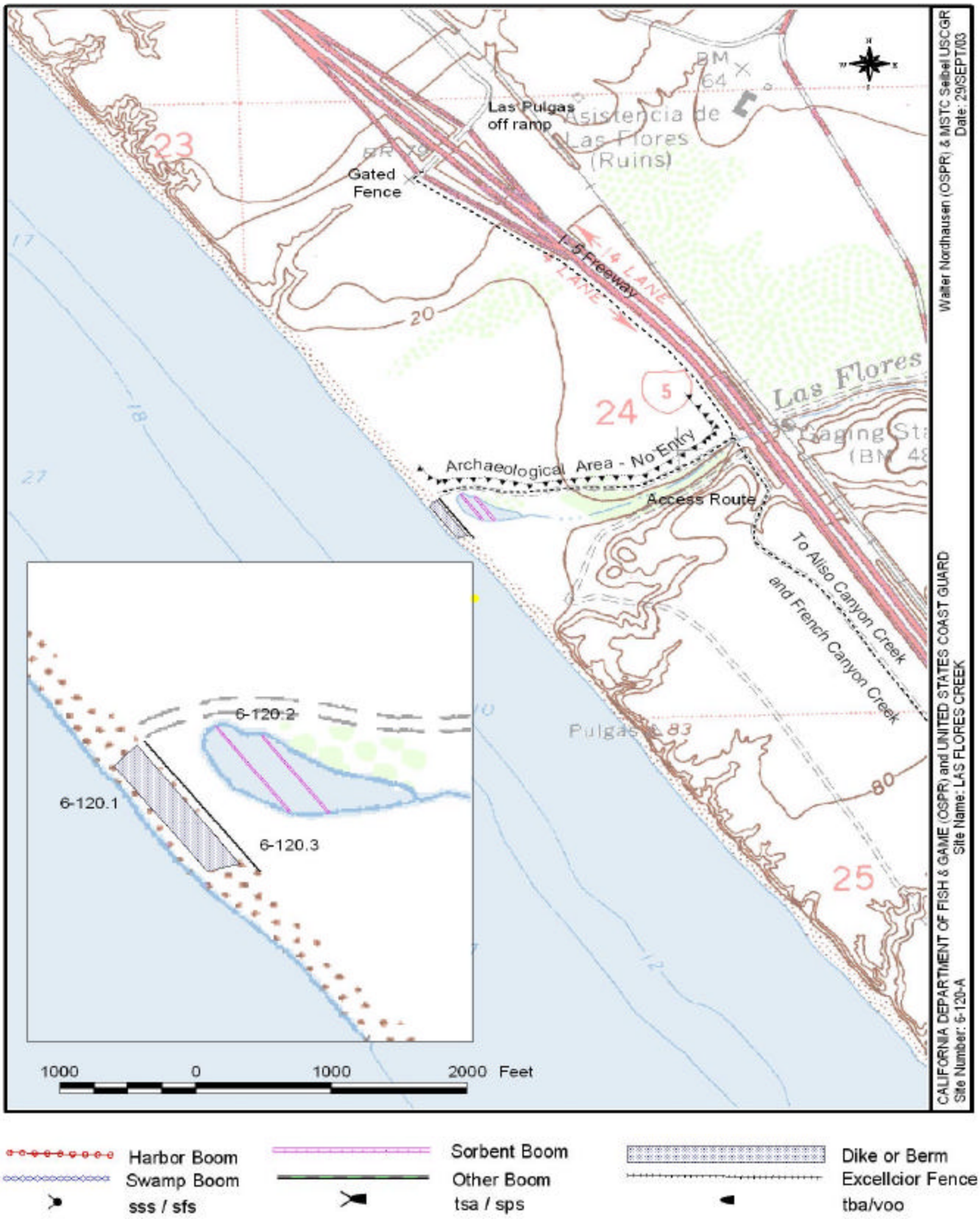
RESOURCES: Fencing material and sorbent material to extend 200 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area nearby the creek mouth.

6-120 LAS FLORES CREEK **SITE DIAGRAM 6-120**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-120 Las Flores Creek
COUNTY: San Diego **LONG:** 117° 27' 48" W
USGS QUAD: Las Pulgas **LAT:** 33° 17' 18" N

SITE DESCRIPTION: Las Flores Creek is a seasonally active water channel and strongly influenced by seasonal rainfall pattern. During wet winter periods the creek mouth may be open to intertidal exchange. However, most months the creek mouth is closed by a natural sand berm forming a pond of several acres. The creek is a heavily vegetated riparian habitat giving way to substantial emergent marsh plants such as cattail and bulrush in the terminal end of the pond. Numerous species of birds, amphibians, invertebrates, and terrestrial mammals occur here.

ACCESS: Exit I-5 at Las Pulgas Road. At the base of the off-ramp turn left heading west toward the gated fence. Pass through the gate and immediately turn left (south) along the dirt road. Approximately one-half mile south turn right which leads to the beach and the mouth of Las Flores Creek.

SEASONAL CONCERNS: During winter months with good rainfall, the creek mouth may be open. During summer months two listed species of birds may be active in the area.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) occurs in this creek pond, consequently any activity in this creek must be with the concurrence of the Camp Pendleton wildlife biologist and US Fish and Wildlife Service. The creek has been reported to also contain the **Southwestern pond turtle. California brown pelican** are commonly present, and during summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

PRIORITY: A – when creek mouth is open **C** – when creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 2 – Notify South Coastal Information center within 24 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer (24 hrs.) (760) 725-5617/5619
Camp Pendleton Duty Game Warden (760) 725-3360
Wildlife Biologist (760) 725-9737
Camp Pendleton Archaeologist (760) 725- 9738
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Check status of creek mouth and consider rainfall potential, which may affect the ability to maintain a closure.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-120 Las Flores Creek

SITE CHARACTERISTICS: Las Flores Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to be addressed.

PROTECTION STRATEGIES:

PRIMARY: 06-120.1 Close the creek mouth by sand berm.

06-120.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 1 skiff. 800 feet absorbent boom. 1 bulldozer operator, and 3 response personnel.

SECONDARY: 06-120.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

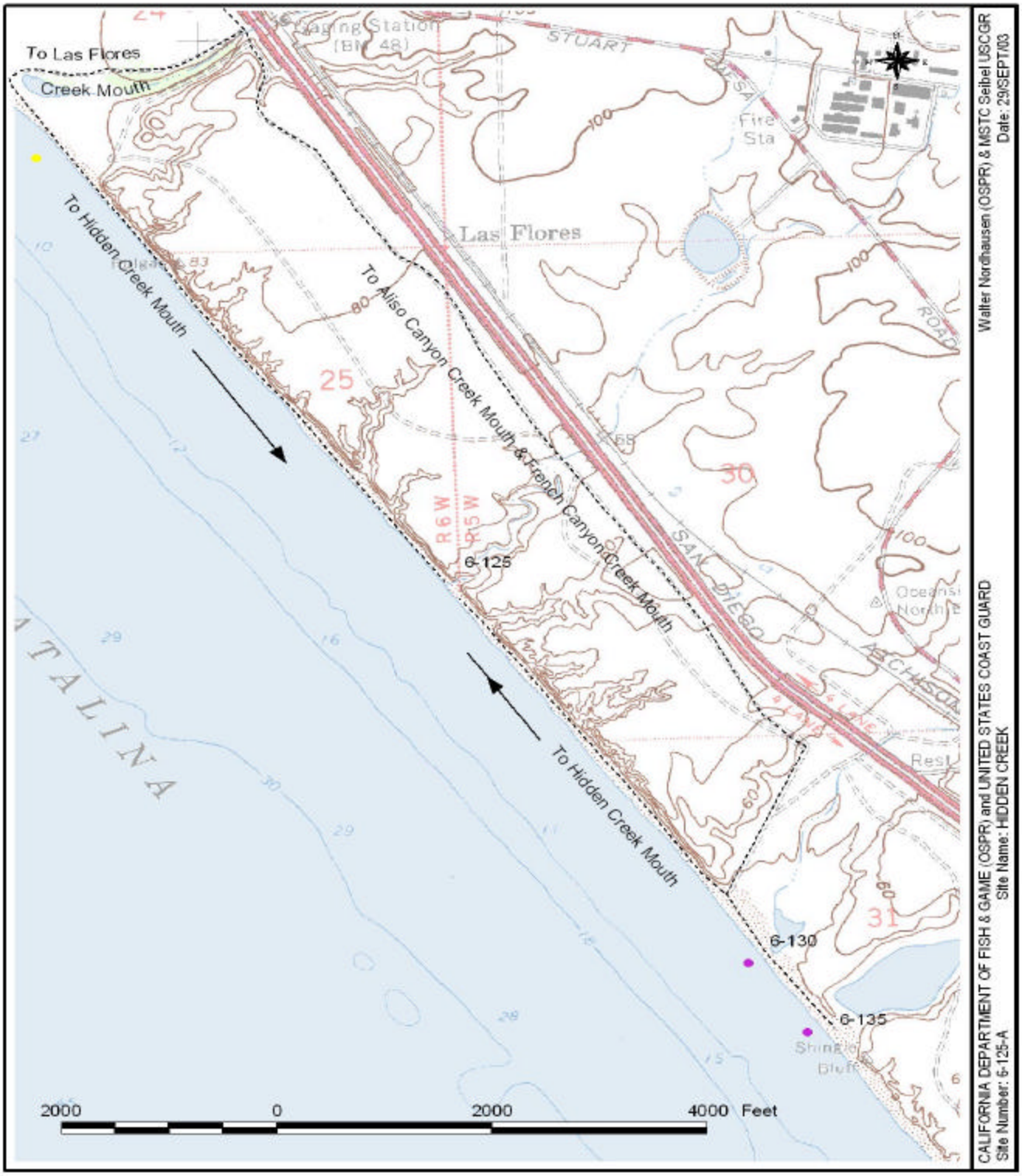
RESOURCES: Fencing material and sorbent material to extend 300 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to the creek mouth.

6-125 HIDDEN CREEK **SITE DIAGRAM 6-125**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-125 Hidden Creek
COUNTY: San Diego **LONG:** 117° 26' 20" W
USGS QUAD: Las Pulgas **LAT:** 33° 15' 00" N

SITE DESCRIPTION: Hidden Creek is a small seasonal creek that drains rainwater from the Camp Pendleton hills. The creek is situated in a narrow, steep, high banked channel that meanders eastward about 200 yards from the coastal bluff face. During most of the year the creek mouth is closed naturally by a sand berm at the beach face. Only during fairly significant rainfall events does a sufficient amount of water flow to open the creek mouth. It is during those times when the mouth is open that any protection strategy consideration is necessary. Numerous species of birds, amphibians, invertebrates, and terrestrial mammals occur here.

ACCESS: Exit I-5 at Las Pulgas Road. At the base of the off-ramp turn left heading west toward the gated fence. Pass through the gate and immediately turn left (south) along the dirt road. Approximately one-half mile south turn right which leads to the beach. At the beach turn south and travel approximately one-half mile to the Hidden Creek channel at the base of the coastal bluff. The high coastal bluff prohibits access of men and equipment from the bluff.

SEASONAL CONCERNS: The creek mouth is open only during the winter months when sufficient rainfall has occurred to open the natural sand berm closure.

PRIORITY: A – when the creek mouth is open **C** – when the creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) occurs in this creek pond, consequently any activity in this creek must be with the concurrence of the Camp Pendleton wildlife biologist and US Fish and Wildlife Service. During summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer, 24 hrs. (760) 725-5617/5619
Camp Pendleton Duty Game Warden (760) 725-3360
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911
Federal Fire Dept. – (760) 725-4321

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS:

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-125 Hidden Creek

SITE CHARACTERISTICS: Hidden Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to addressed

PROTECTION STRATEGIES:

PRIMARY: 06-125.1 Close the creek mouth by sand berm.

06-125.2 Deploy absorbent boom across the narrow creek mouth.

RESOURCES: 1 bulldozer. 200 feet absorbent boom. 1bulldozer operator, and 3 response personnel.

SECONDARY: 06-125.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

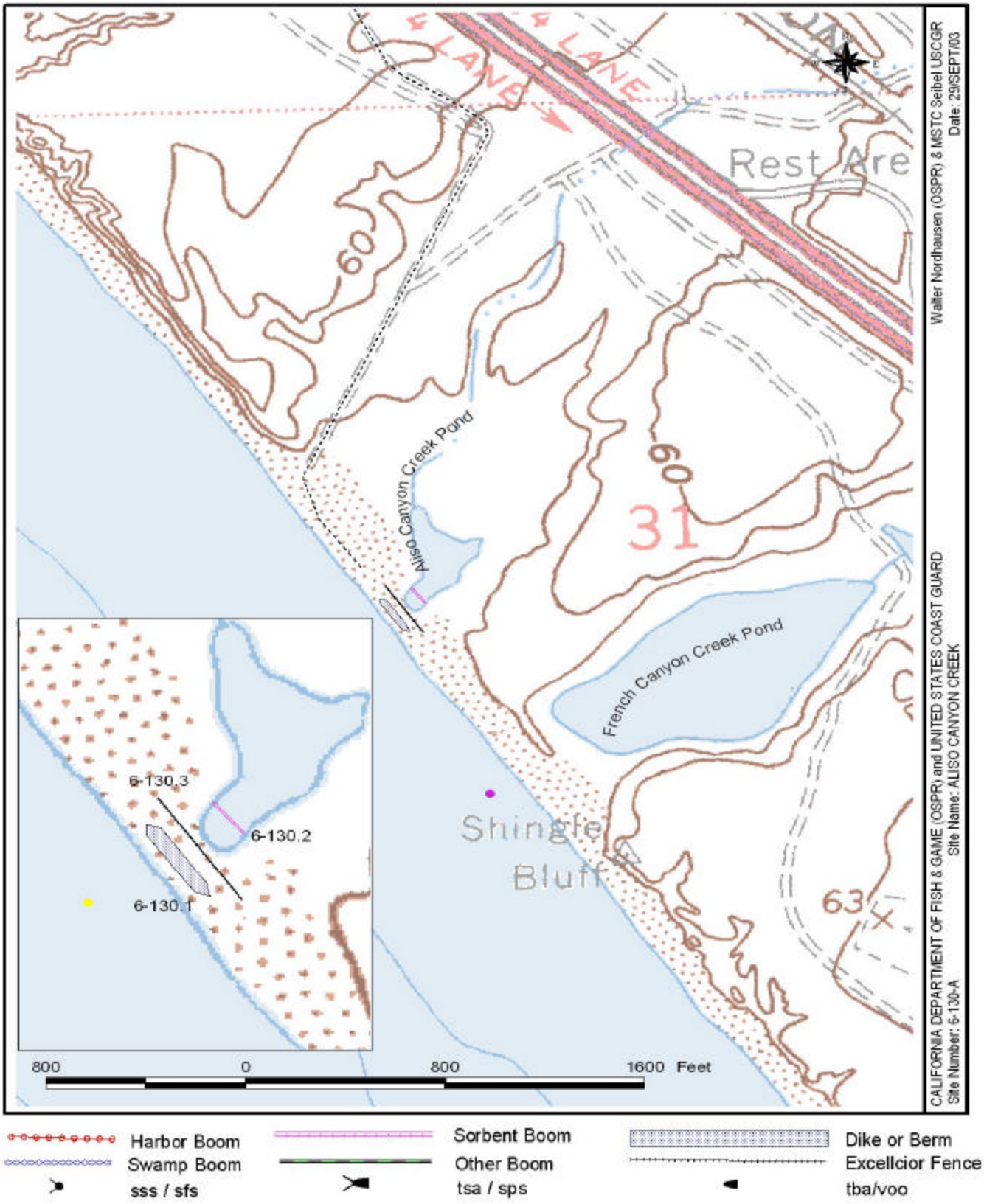
RESOURCES: Fencing material and sorbent material to extend 200 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location.

6-130 ALISO CANYON CREEK **SITE DIAGRAM 6-130**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-130 Aliso Canyon Creek
COUNTY: San Diego **LONG:** 117° 26' 26" W
USGS QUAD: Las Pulgas **LAT:** 33° 15' 42" N

SITE DESCRIPTION: Aliso Canyon Creek is a small seasonal creek that drains rainwater from the Camp Pendleton hills. The small pond at the creek mouth is situated in low erosion bluffs behind the beach face. During most of the year the creek mouth is closed naturally by a sand berm at the beach face. Only during fairly significant rainfall events does a sufficient amount of water flow to open the creek mouth. It is during those times when the mouth is open that any protection strategy consideration is necessary.

ACCESS: From I-5 enter Camp Pendleton at the main gate entrance at Oceanside. Take Vandergrift Road to Stuart Mesa Road to the Las Flores Creek road turn-off.

Or, from I-5 take the Las Pulgas Road freeway exit off ramp turn left heading west toward the gated fence. Pass through the gate and immediately turn left (south) along the dirt road and travel about one-half mile to Las Flores Creek.

On the Las Flores dirt road, and immediately west of the freeway, an iron bridge crosses over Las Flores Creek. Take that road over the mesa as it parallels I-5. Behind the freeway rest area, the dirt road descends from the mesa to the beach and the Aliso Creek mouth.

SEASONAL CONCERNS: Between April and September **California least tern** nesting activity may be occurring along the lagoon edge. **Western snowy plover** may also nest on the adjacent beach.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) occurs year-round in this creek, consequently any activity in this creek must be under the guidance of the base wildlife biologist and US Fish and Wildlife Service. During summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

PRIORITY: A – when creek mouth is open **C** – when creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer (760) 725-5617/5619
Camp Pendleton Duty Game Warden (760) 725-3360
Camp Pendleton Archaeologist (760) 725-9738
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Check status of creek mouth and consider rainfall potential, which may affect the ability to maintain a closure.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-130 Aliso Canyon Creek

SITE CHARACTERISTICS: Aliso Canyon Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to be addressed.

PROTECTION STRATEGIES:

PRIMARY: 06-130.1 Close the creek mouth by sand berm.

06-130.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 1 skiff. 600 feet absorbent boom. 1bulldozer operator, and 3 response personnel.

SECONDARY: 06-130.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

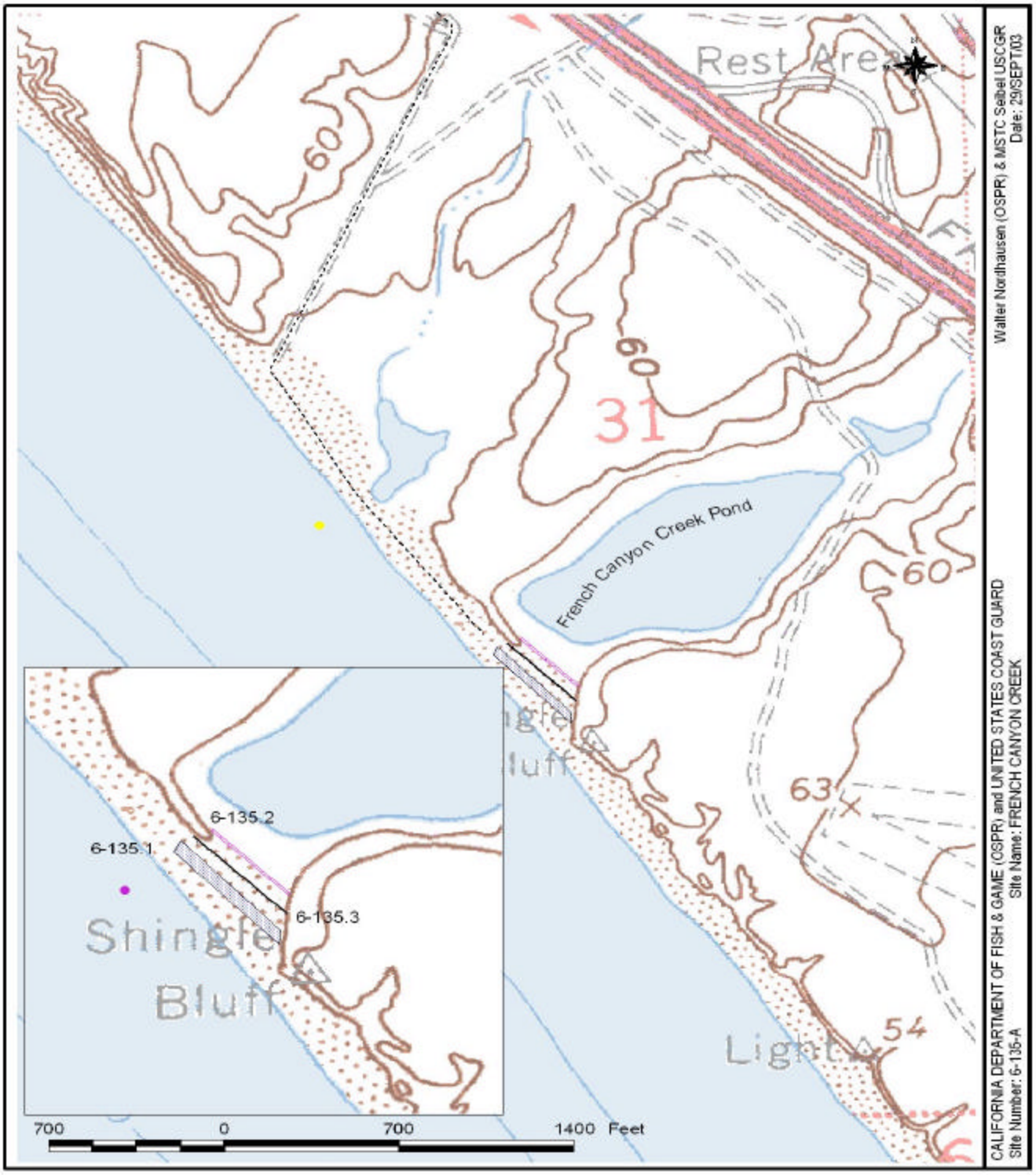
RESOURCES: Fencing material and sorbent material to extend 300 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location.

6-135 FRENCH CANYON CREEK **SITE DIAGRAM 6-135**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-135 French Canyon Creek
COUNTY: San Diego **LONG:** 117° 25' 54" W
USGS QUAD: Las Pulgas **LAT:** 33° 15' 00" N

SITE DESCRIPTION: French Canyon Creek is a small seasonal creek that drains rainwater from the Camp Pendleton hills. The small pond at the creek mouth is situated in low erosion bluffs behind the beach face. During most of the year the creek mouth is closed naturally by a sand berm at the beach face. Only during fairly significant rainfall events does a sufficient amount of water flow to open the creek mouth. It is during those times when the mouth is open that any protection strategy consideration is necessary.

ACCESS: From I-5 enter Camp Pendleton either at the main gate entrance at Oceanside. Take Vandergrift Road to Stuart Mesa Road to the Las Flores Creek road turn-off.

Or, from I-5 take the Las Pulgas Road freeway exit off ramp turn left heading west toward the gated fence. Pass through the gate and immediately turn left (south) along the dirt road and travel about one-half mile to Las Flores Creek.

On the Las Flores dirt road, and immediately west of the freeway, an iron bridge crosses over Las Flores Creek. Take that road over the mesa as it parallels I-5. Behind the freeway rest area, the dirt road descends from the mesa to the beach and the Aliso Creek mouth. French Canyon Creek mouth is about one-quarter mile south on the beach.

SEASONAL CONCERNS: Between April and September **California least tern** nesting activity may be occurring along the lagoon edge. **Western snowy plover** may also nest on the adjacent beach.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) occurs tear-round in this creek, consequently any activity in this creek must be under the guidance of the base wildlife biologist and US Fish and Wildlife Service.. During summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

PRIORITY: A – when creek mouth is open **C** – when creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer (760) 725-5619
Camp Pendleton Duty Game Warden (760) 725-3360
Camp Pendleton Archaeologist (760) 725-9738
US Fish and Wildlife Service (Carlsbad office) (760) 431 9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close creek mouth by sand berm creation. Check status of creek mouth and consider rainfall potential, which may affect the ability to maintain a closure. The access road off Steward-Mesa Rd is likely to be impassable during, and for several days following measurable rainfall. Access to this site during rainfall periods is best accomplished by moving equipment and personnel northward along the beach from the Hovercraft cement ramp. Four-wheel drive vehicles will be necessary.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-135 French Canyon Creek

SITE CHARACTERISTICS: French Canyon Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to addressed

PROTECTION STRATEGIES:

PRIMARY: 06-135.1 Close the creek mouth by sand berm

06-135.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 1 skiff. 800 feet absorbent boom. 1 bulldozer operator, and 3 response personnel.

SECONDARY: 06-135.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

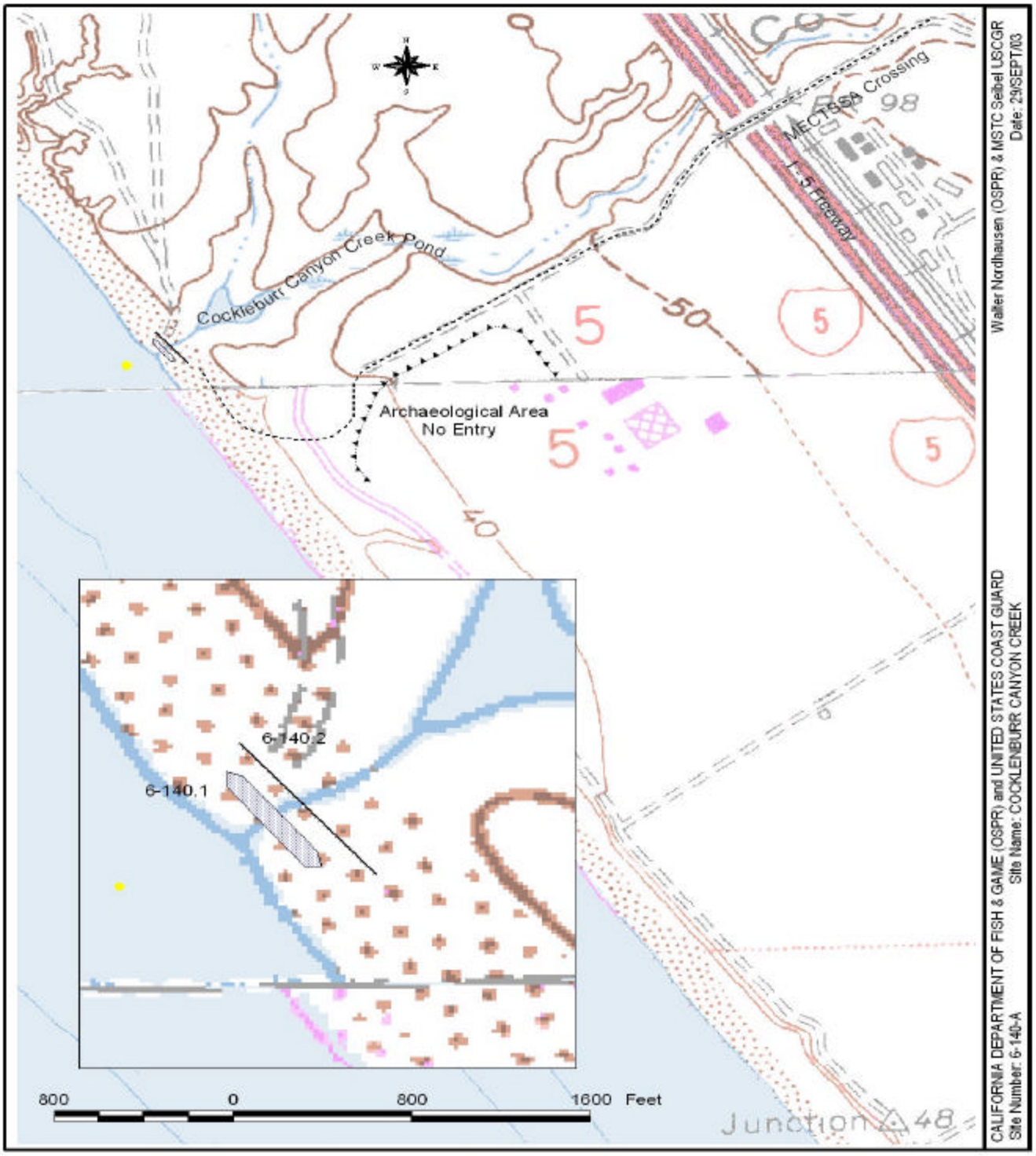
RESOURCES: Fencing material and sorbent material to extend 400 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location.

6-140 COCKLEBURR CANYON **SITE DIAGRAM 6-140**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-140 Cockleburr Canyon Creek
COUNTY: San Diego **LONG:** 117° 25' 18" W
USGS QUAD: Las Pulgas **LAT:** 33° 14' 14" N

SITE DESCRIPTION: Cockleburr Canyon Creek is a small seasonal creek that drains rainwater from the Camp Pendleton hills. The small pond at the creek mouth is situated in low erosion bluffs behind the beach face. During most of the year the creek mouth is closed naturally by a sand berm at the beach face. Only during fairly significant rainfall events does a sufficient amount of water flow to open the creek mouth. It is during those times when the mouth is open that any protection strategy consideration is necessary.

ACCESS: From I-5 enter Camp Pendleton at the main gate entrance at Oceanside. Take Vandergrift Road to Stuart Stuart Mesa Road to the MECTSSA road turn-off. After the MECTSSA I-5 overpass, bear right to the Cockleburr Canyon Creek road parking area.

SEASONAL CONCERNS: Between April and September **California least tern** nesting activity may be occurring along the beach front. **Western snowy plover** may also nest on the adjacent beach.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) and **Southwestern pond turtle** occur year-round in this creek, consequently any activity in this creek must be under the guidance of the base wildlife biologist and US Fish and Wildlife Service.. During summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

PRIORITY: A – when creek mouth is open **C** – when creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer (760) 725-5619
Camp Pendleton Duty Game Warden (760) 725-3360
Camp Pendleton Archaeologist (760) 725-9738
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Check status of creek mouth and consider rainfall potential, which may affect the ability to maintain a closure.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-140 Cockleburr Canyon Creek

SITE CHARACTERISTICS: Cockleburr Canyon Creek is a seasonally flowing creek that is strongly subject to rainfall events which will determine if the creek mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the creek has recently been opened by flowing water will closure be necessary, but overtopping wave wash may need to be addressed.

PROTECTION STRATEGIES:

PRIMARY: 06-140.1 Close the creek mouth by sand berm.

06-140.2 Deploy absorbent boom across the pond.

RESOURCES: 1 bulldozer. 400 feet absorbent boom. 1 Bulldozer operator and 3 response personnel.

SECONDARY: 06-140.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

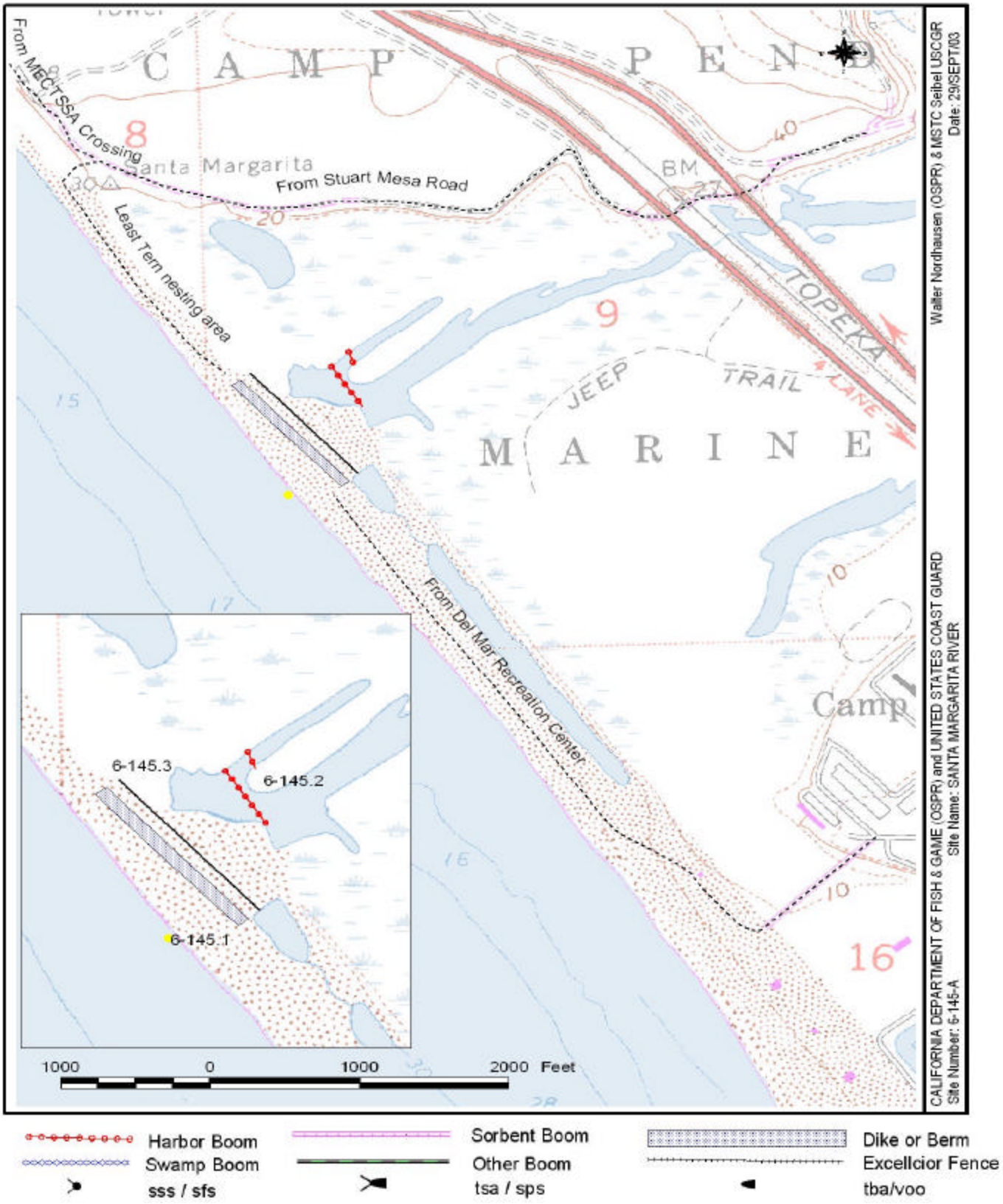
RESOURCES: Fencing material and sorbent material to extend 300 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location.

6-145 SANTA MARGARITA RIVER **SITE DIAGRAM 6-145**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-145 Santa Margarita River
COUNTY: San Diego **LONG:** 117° 24' 54" W
USGS QUAD: Oceanside **LAT:** 33° 13' 48" N

SITE DESCRIPTION: The Santa Margarita River is a substantial river system within San Diego County. The status of the mouth opening is dependant on several variables. If recent rainfall activity has occurred, the river mouth is likely to be open. During summer and autumn months heavy surf activity may have closed the mouth with a sand berm. When the river mouth is open, a substantial tidal flow is possible, depending upon prevailing tidal conditions. Water depth in the river channel can vary from several inches to several feet, but most water depths are expected to be less than 3 feet near the river mouth at low tide. The river mouth may reach 300 to 500 feet wide to secure by sand berm closure. The beach face is expected to provide ample sand for mouth closure purposes.

ACCESS: Enter Camp Pendleton at the main gate in Oceanside. Take Vandergrift Road to Stuart Mesa Road. From Stewart Mesa Road take the first left turn on to the dirt road immediately past the river bridge crossing. Directly beneath the I-5 freeway bridge a small boat ramp is available to launch skiffs and booming equipment. Continue along this dirt road which skirts the perimeter of the agriculture field about one-half mile to a beach access road. The Santa Margarita River mouth is about one-quarter mile south. Four wheel drive vehicles are strongly recommended on this beach.

Access is also available from the south direction at Camp Pendleton Del Mar beach. Four wheel drive is a necessity from this direction.

SEASONAL CONCERNS: California least terns and **Western snowy plovers** are expected to be present nearby the river mouth on nesting sites between April and September. A fenced California least tern nesting area is immediately north of the river mouth.

RESOURCES OF PRIMARY CONCERN: Tidewater goby (a small fish) may occur in the river, consequently any activity in the river must be with the concurrence of the Camp Pendleton wildlife biologist and US Fish and Wildlife Service. **Belding's savannah sparrow** and **Light-footed clapper rail** are present year round and will likely be nesting in the lagoon vegetation during summer. **California brown pelican** routinely utilize the river and open coastal waters for feeding a resting. During summer months of April to September **California least tern** and **Western snowy plover** may be present along the beach face.

PRIORITY: A - when river mouth is open **C** – when river mouth is closed

ARCHAEOLOGICAL PRIORITY: 2 – Notify South Coastal Information Center within 24 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
Camp Pendleton Environmental Security Office Spill Coordinator (760) 725-9743/9768/4512
Camp Pendleton Duty Officer (760) 725-5619
Camp Pendleton Duty Game Warden (760) 725-3360
Camp Pendleton Archaeologist (760) 725-9738
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030

Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close the river mouth. Least Tern nesting sites are in fenced area. Consult biologists prior to any action during spring and summer.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-145 Santa Margarita River

SITE CHARACTERISTICS: The Santa Margarita River is a substantial coastal tidal inlet. If the river mouth is open a significant effort will be required to close, or protect it. Inside the river mouth are hundreds of acres of tidal marsh and wetland habitat. A sand berm closure will likely require a berm about 300 feet in length. Underflow capability may be warranted.

In the event that a sand berm closure is considered, the prevailing tide and surf conditions should be taken into consideration. If high tide will exceed +5 feet, and surf conditions are also high, a berm closure may not be feasible. During high energy periods, deflection boom deployment inside the river channel may be a preferred alternative.

PROTECTION STRATEGIES:

PRIMARY: 06-145.1 Close the river mouth by sand berm.

06-145.2 Deploy harbor boom across the river channel.

RESOURCES: 1 bulldozer (possibly 2). 2 skiffs. 3,000 feet harbor boom. 8 anchor systems. 1 Bulldozer operator, and 8 response personnel.

SECONDARY: 06-145.3 Construct a a filter barrier across the natural sand berm to prevent wash-over of petroleum.

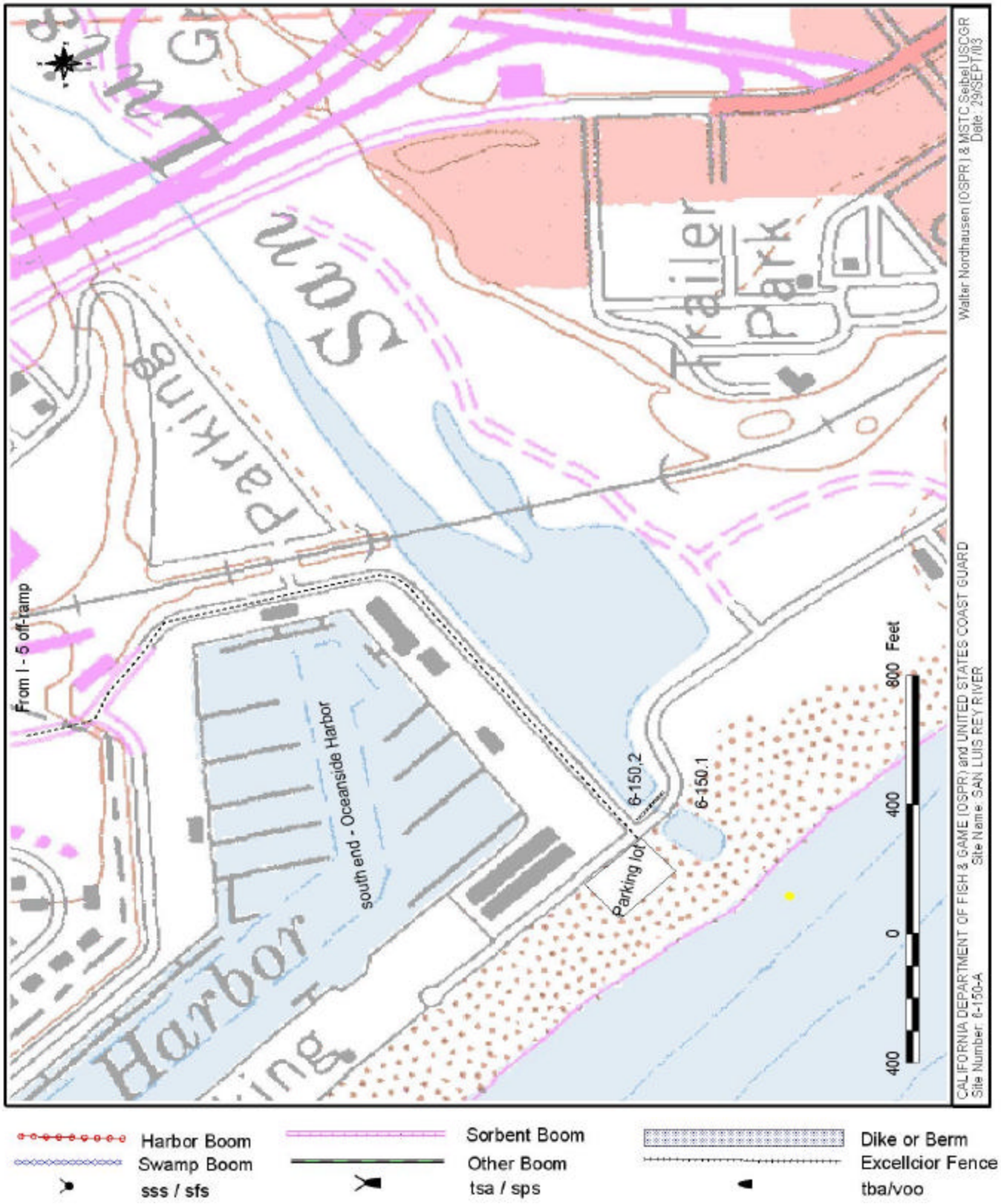
RESOURCES: Fencing material and sorbent material to extend 400 feet. 6 response personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The beach area adjacent to this location. The road under the I-5 freeway bridge at the skiff launch ramp.

6-150 SAN LUIS REY RIVER **SITE DIAGRAM 6-150**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-150 San Luis Rey River
COUNTY: San Diego **LONG:** 117° 39' 14" W
USGS QUAD: Oceanside **LAT:** 33° 20' 20" N

SITE DESCRIPTION: The San Luis Rey River is permanently blocked by a low-overflow dam and road bed. It has several underflow pipes at the north end of the road to allow low-flow discharge of river water.

ACCESS: Exit I-5 at Harbor Drive in Oceanside. Follow Harbor Dr. toward the south side of the marina and west toward the beach. At parking lot is located at the river mouth.

SEASONAL CONCERNS: Seasonally variable concentrations of birds use the river channel.

PRIORITY: A – year-round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information center within 48 hours (619) 594-5682.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, terrestrial mammals, and emergent vegetation occur here seasonally. **California brown pelicans** (an endangered bird species) are expected to be present in the west end of river year-round. **Western snowy plover** and **California least tern** (listed bird species) may be nesting on the beach during summer.

TRUSTEE AGENCY/LOCAL EXPERTS:
California Dept. Fish and Game (858) 467-4201/4202
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7695
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – Oceanside (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close the river mouth on the downstream side of the river crossing when endangered species are not present during periods of low river flow. Nesting sites may be vulnerable to all traffic (vehicular or foot). Consult biologists prior to any action during spring and summer.

REFERENCES: City of Oceanside Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-150 San Luis Rey River

SITE CHARACTERISTICS: The San Luis Rey River mouth has had significant engineering modifications. Protection of this site requires only that seven low-flow, crossing road culvert pipes (approx. 24" diameter) located at the north side of the river be blocked by plywood or sand bags. The blockage should be installed initially on the up-stream (east) side of the crossing road. Down-stream (west) blockage may be considered to prevent contamination of the under flow pipes.

PROTECTION STRATEGIES:

PRIMARY: 06-150.1 Block the flow of high tide water into the river channel by blocking the crossing road underflow pipes. Plywood squares for individual pipe openings, and sandbags to brace plywood in position.

RESOURCES: 7 Plywood 2'x2' squares**.** 100 sandbags. 4 response personnel

SECONDARY: 06-150.2 Replicate the up-stream blockage equipment.

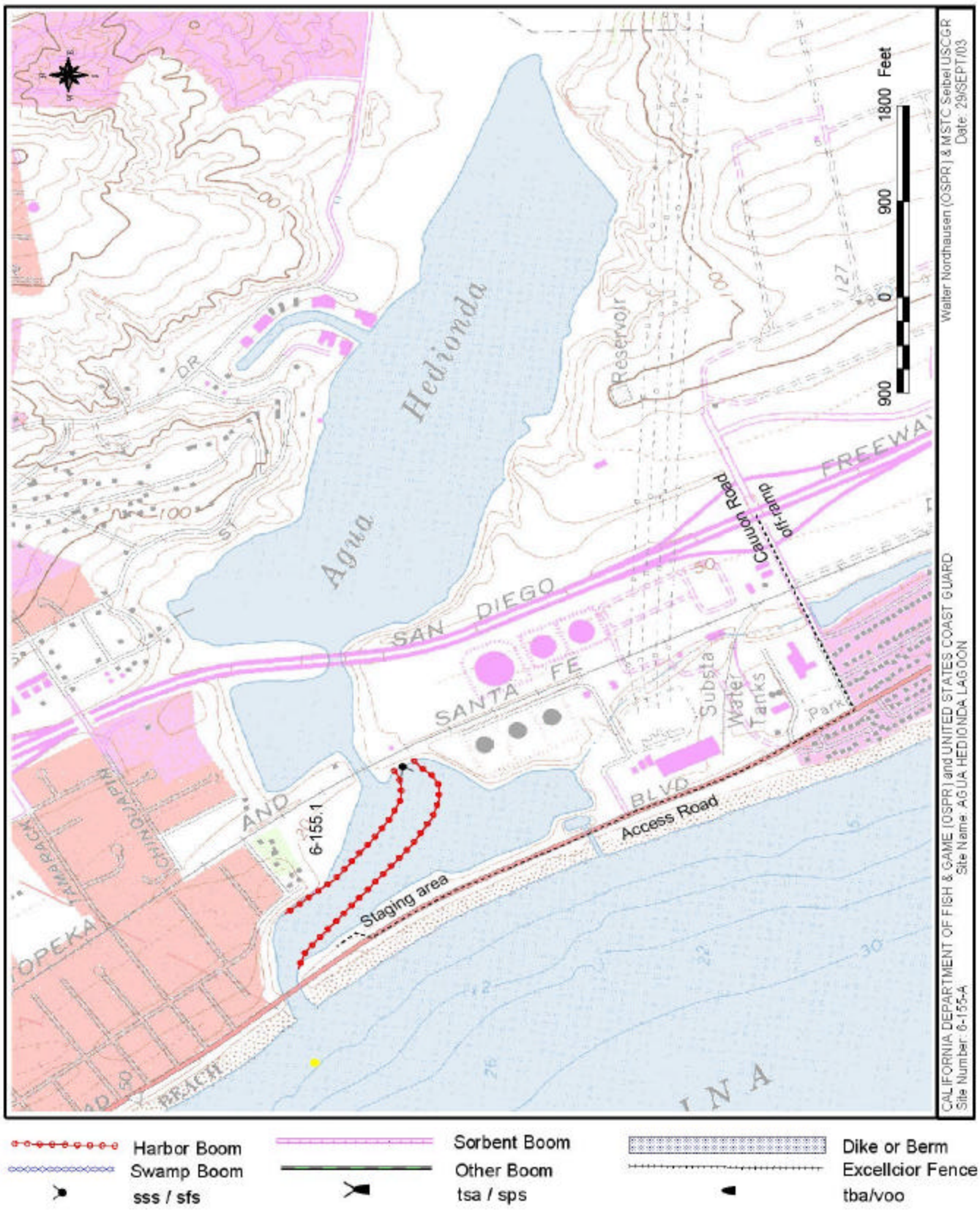
RESOURCES: 7 Plywood 2'x2' squares. 100 sandbags.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: Parking lot adjacent to the river mouth at the crossing road north end.

6-155 AGUA HEDIONDA LAGOON **SITE DIAGRAM 6-155**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-155 Agua Hedionda Lagoon **COUNTY:** San Diego
LONG: 117° 20' 42" W
USGS QUAD: San Luis Rey **LAT:** 33° 08' 42" N

SITE DESCRIPTION: Agua Hedionda Lagoon is a large coastal lagoon with a substantial tidal prism. From the coastline the lagoon reaches eastward about 1.5 mile. Protecting the lagoon opening is significantly important for environmental and economic reasons. In addition to the substantial lagoon surface area are extensive rip-rap shoreline and intertidal mudflats areas. The lagoon also supports the Encina power plant and two aquaculture facilities.

ACCESS: Protection strategy equipment can be deployed along the lagoon shoreline immediately east of Coast highway south of the lagoon entrance channel. Contact Encina power plant personnel for access approval.

SEASONAL CONCERNS: Seasonal variations of birds occur at the lagoon. During summer months **California least tern** and **Western snowy plover** may be actively feeding around the lagoon during April to September.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, terrestrial mammals, submerged and emergent vegetation occur here both year round and seasonally. **California brown pelicans** are expected to be present in the lagoon year-round. **Belding's savannah sparrow** and **Light-footed clapper rail** are present year round and will likely be nesting in the lagoon vegetation during summer. **Western snowy plover** and **California least tern** may be feeding on the water or shoreline during summer.

PRIORITY: A – year-round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
California Dept. Fish and Game (858) 467-4201/4202

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7685
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – (760) 435-4911
Federal Fire Dept. – (760) 725-4321

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: A sand berm is not possible due to large tidal exchange. A narrow constriction separates the seaward portion of the bay from the much larger land ward portion of the bay. Multiple deflection booms may be necessary at both outer and inner tidal inlets. Operators of the Power Plant and the two aquaculture facilities should be notified **immediately**.

PIPELINE INFORMATION: One-half mile inland from ocean.

REFERENCES: City of Carlsbad Master Plan & Natural Resources of Agua Hedionda Lagoon (1976)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-155 Agua Hedionda Lagoon **Strategy Revised** 10-2002

SITE CHARACTERISTICS: Agua Hedionda Lagoon is a large coastal inlet permanently open to tidal exchange. During tidal changes the entrance channel current velocity can become very rapid. Currents may exceed 6 to 8 knots as water rounds the outside elbow bend of the north shoreline. The protection strategy, as designed, has been tested under relatively high current velocity. It is intended to deflect floating petroleum to the shoreline south of the mid-bay inlet channel.

PROTECTION STRATEGIES:

PRIMARY: 06-155.1 Deflection boom configured to create a double sided channel to direct petroleum on the east side of the fore-bay to provide an accessible shoreline for skimmer recovery operations. The east boom segment is 1,400 feet long. The west boom segment is 2,100 feet long.

RESOURCES: 3,500 feet harbor boom. 10 anchor systems. 2 utility boats. 1 skimmer system. 8 response personnel.

SECONDARY: None

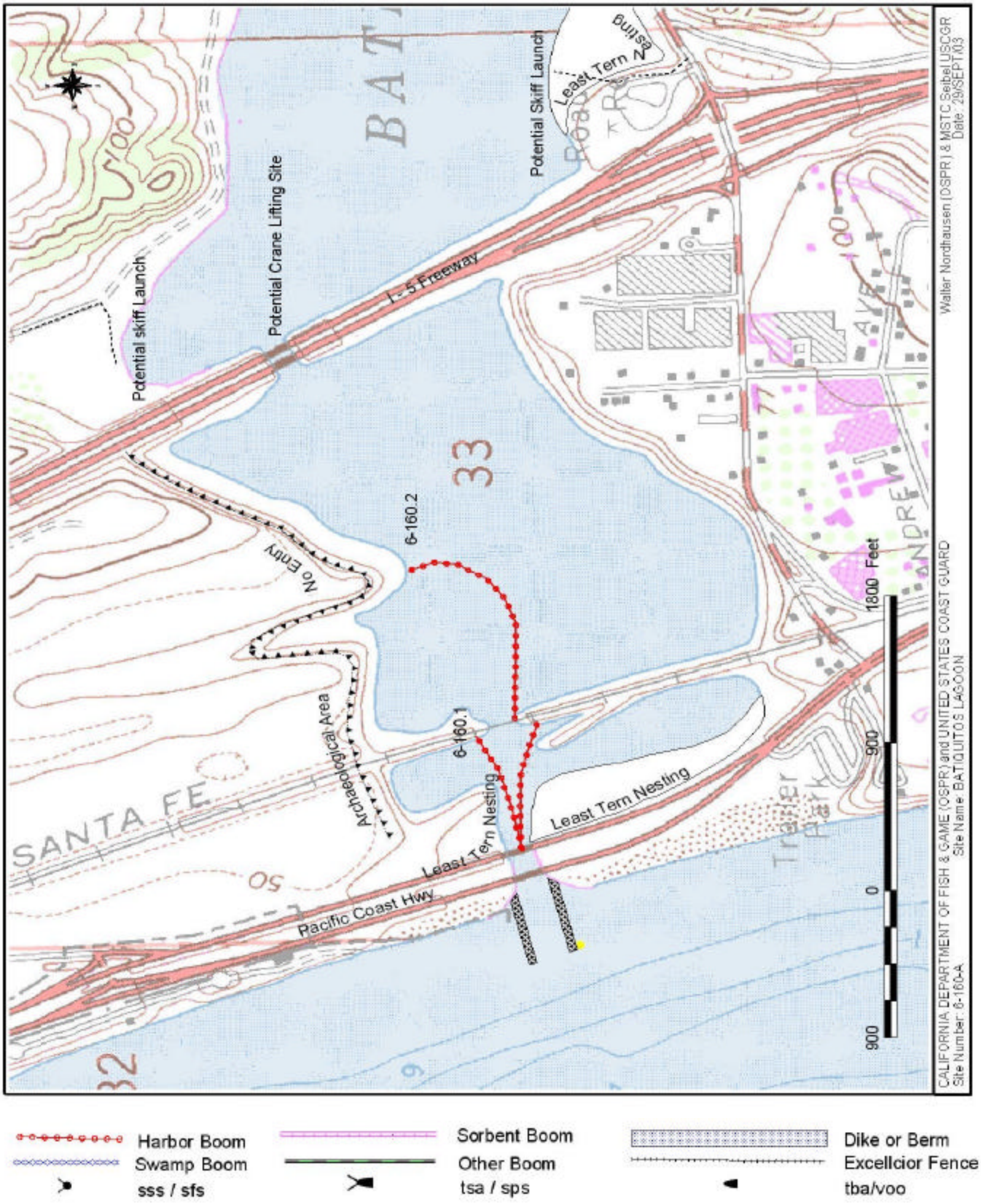
RESOURCES:

COLLECTION POINT: East shore of the fore-bay, south of the mid-bay inlet channel.

ACCESS AREA VIA: Pacific Coast Highway, and Encina power plant yard.

STAGING AREA: Adjacent to Pacific Coast Highway, south of the entrance channel bridge, a large area with easy access on the western edge of the lagoon, skiffs can be launched at this location, but large boats must enter via the lagoon entrance channel. The eastern side of the forebay is accessible though the power plant yard.

6-160 BATIOUITOS LAGOON **SITE DIAGRAM 6-160**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-160 Batiquitos Lagoon
COUNTY: San Diego **LONG:** 117° 26' 20" W
USGS QUAD: Encinitas **LAT:** 33° 15' 00" N

SITE DESCRIPTION: Batiquitos is a large intertidal lagoon that reaches inland approximately 1.5 miles from the coast. It is traversed by Pacific Coast Highway, a rail road trestle, and the Interstate 5 freeway. Due to its large tidal prism, the entrance channel experiences significant tidal flows that achieve velocities in excess of 10 knots. Beneath the I-5 bridge, the tidal current may exceed 6 knots. The shoreline is a combination of sand and mud, with a broad exposed mudflat in much of the area east of I-5 during low tide. East of I-5 the bottom is covered with an expansive eelgrass bed. Numerous species of birds, fishes, invertebrates, terrestrial mammals, submerged and emergent vegetation occur here.

ACCESS: Access into Batiquitos Lagoon is a significant challenge. The lagoon has very limited access potential. Because of the rail road trestle no boats can enter via the entrance channel. On the interior, only light skiffs can be launched from two potential boat entry points: on the north side east of I-5 near the interpretive center; and on the south side, east of I-5 across the California least tern nesting area – but only during non-nesting season. Any heavy equipment could potentially be hoisted into the lagoon by crane from the I-5 bridge.

SEASONAL CONCERNS: California least tern nest at three constructed nesting areas during April to September. **Western snowy plovers** may also utilize these sites.

RESOURCES OF PRIMARY CONCERN: California brown pelican are observed in the lagoon year-round. **Western snowy plover** and **California least tern** may be nesting on areas inside the lagoon during summer. The eastern lagoon vegetated wetland is year round habitat for **Belding's savannah sparrow** and **Light-footed clapper rail** and they will likely be nesting in the marsh vegetation during summer.

PRIORITY: A – year-round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934
California Dept. Fish and Game (858) 467-4201/4202

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial Encinitas (760) 633-7685
Police – San Diego County Sheriff (858) 565-5030
Fire Dept. – (760) 435-4911

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Lagoon mouth is open year-round with strong tidal currents. Response vessels are restricted to the west side of the railroad trestle - **no clearance**. This site is poorly protected to access

limitations. Working conditions during tidal flow should be considered dangerous. Moderate to large surf may preclude vessel entry to the lagoon opening.

REFERENCES: Batiquitos Lagoon Enhancement Environmental Impact Statement

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-160 Batiquitos Lagoon

SITE CHARACTERISTICS: Batiquitos Lagoon is a large coastal lagoon permanently open to tidal exchange. Entrance channel water velocity can reach 10 to 12 knots during large tidal variations. Boat access into the channel is limited to passage through the outer channel jetties for anything larger than a skiff. No boats can access the inner lagoon via the entrance channel because of the low cross members of the train trestle. Inside the lagoon, skiffs may be launched from two potential locations, although some limitations are possible. Heavy equipment, such as utility boats, must be placed in the lagoon by crane staged on the I-5 freeway bridge.

Helicopter services may be a viable option for delivery and removal of equipment and supplies.

PROTECTION STRATEGIES:

PRIMARY: 06-160.1 Deflection boom deployed in the entrance channel to deflect petroleum toward small embayments on the north and south side of the entrance channel for skimmer removal east of the PCH bridge.

RESOURCES: 1,200 feet of harbor boom. 6 anchor systems. 1 boom trailer. 1 utility boat. 2 skimmer systems. 9 response personnel.

SECONDARY: 06-160.2 Containment boom deployed inside the lagoon east of the rail road trestle to deflect petroleum toward the northwest corner of the lagoon for skimmer removal. Response equipment that can not be lifted manually from two potential shoreline locations must be lifted by crane on the I-5 bridge.

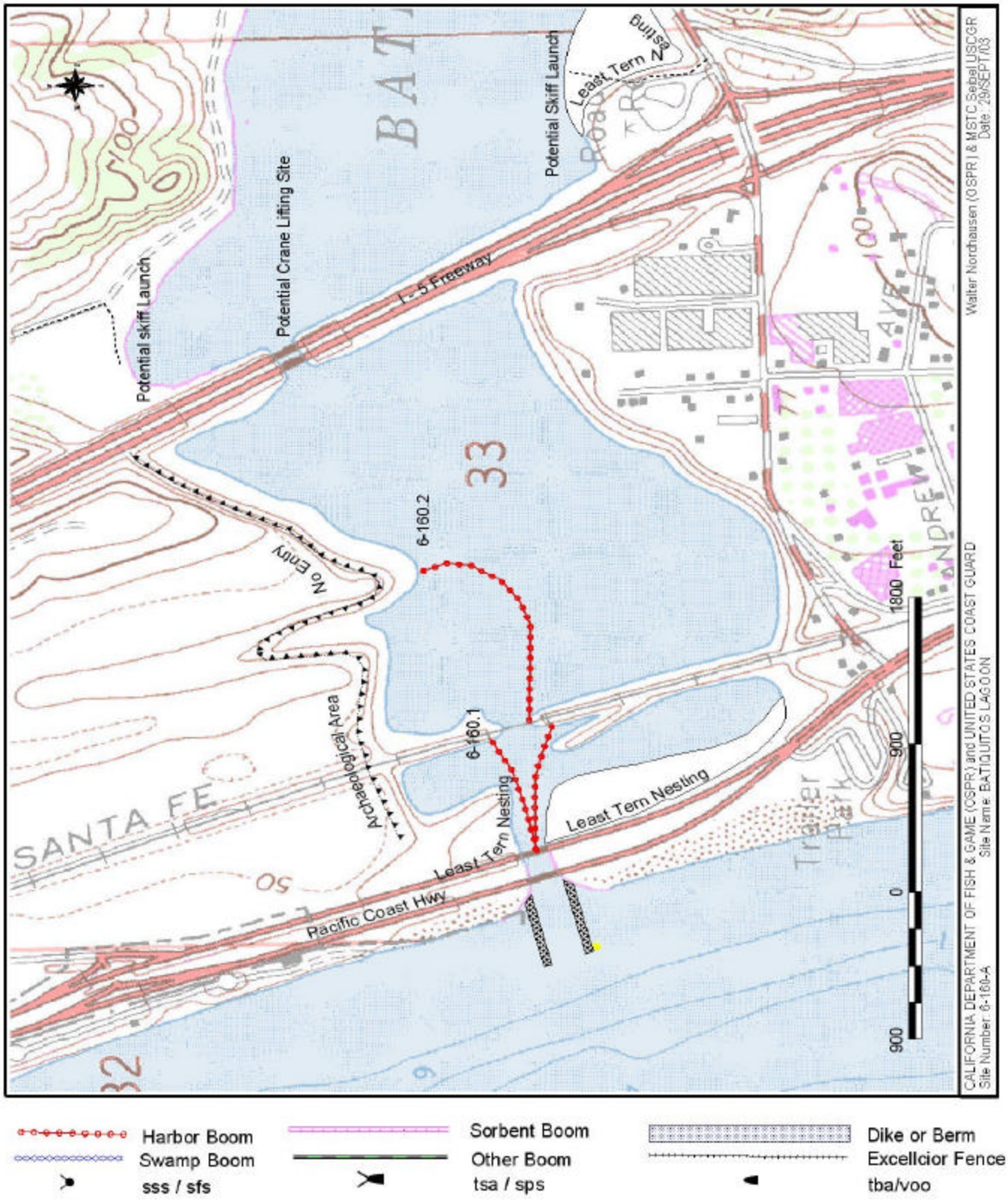
RESOURCES: 1,200 feet of harbor boom. 6 anchor systems. 3 skiffs. 1 boom trailer. 1 skimmer system. 10 response personnel.

COLLECTION POINT: Collection will be very difficult in this lagoon due to the very poor accessibility to most areas. Much work will be achieved by hand and foot. Response crews will be required to hand deliver and remove a large portion of the equipment.

ACCESS AREA VIA:
1) Pacific Coast Highway at the entrance channel.
2) Along the south shore east of I-5 from the La Costa Ave park and ride parking lot entry to the lagoon Least tern nesting site beach.
3) Along the north shore exit I-5 at Poinsettia Ln to Batiquitos Dr, to Gabbiano Ln.At Gabbiano Ln take the trail west to the base of the freeway. Tidal conditions will affect accessibility.

STAGING AREA: Staging areas can be established at each of the access points.

6-165 SAN ELIJO LAGOON **SITE DIAGRAM 6-165**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-165 San Elijo Lagoon
COUNTY: San Diego **LONG:** 117° 16' 54" W
USGS QUAD: Encinitas **LAT:** 33° 01' 00" N

SITE DESCRIPTION: San Elijo Lagoon is a large coastal wetland that reaches approximately 1.5 mile inland from the coast. It contains a large intertidal mudflat and wetland vegetation habitat that provides food and shelter to a large complex of wildlife resources. During low tide when the lagoon mouth is open, a vast area of mudflat is exposed.

ACCESS: Access to the lagoon mouth is available from Pacific Coast Highway and the Cardiff State Beach parking lot.

SEASONAL CONCERNS: California least tern, and **Western snowy plover** are potentially nesting in the lagoon area during April to September.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, terrestrial mammals, submerged and emergent vegetation occur here both seasonally and year-round. **California brown pelican, Belding's savannah sparrow** and **Light-footed clapper rail** are present year-round and will likely be nesting in the marsh vegetation during summer.

PRIORITY: A – when the creek mouth is open **C** – when the creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
California Dept. Fish and Game (858) 467-4201/4202
California State Parks and Recreation, District Superintendent (949) 366-8529
California Dept Parks and Recreation (858) 642-4200
County Parks Ranger (619) 792-8417
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Green Hospital of Scripps (858) 455-9100
Police – Del Mar Police (858) 484-3154/San Diego County Sheriff (858) 565-5030
Fire Dept. – (858) 755-1522/1521

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Check status of lagoon mouth and consider rainfall potential, which may affect the ability to maintain a closure.

REFERENCES: City of Encinitas Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-165 San Elijo Lagoon **Strategy Revised** 10-2002

SITE CHARACTERISTICS: San Elijo Lagoon is strongly influenced by a seasonally flowing creek which is responsive to rainfall events that will determine if the creek mouth will be open or closed. Most of the year it is closed by natural sand/gravel berms. Only if the lagoon has recently been opened by flowing water, or the periodic mouth blockage breeching with heavy equipment, will closure be necessary. Overtopping wave wash may need to be addressed.

PROTECTION STRATEGIES:

PRIMARY: 06-165.1 Close the lagoon mouth by sand/gravel berm.

06-165.2 Deploy a two-tiered harbor boom across the entrance channel east of the PCH bridge.

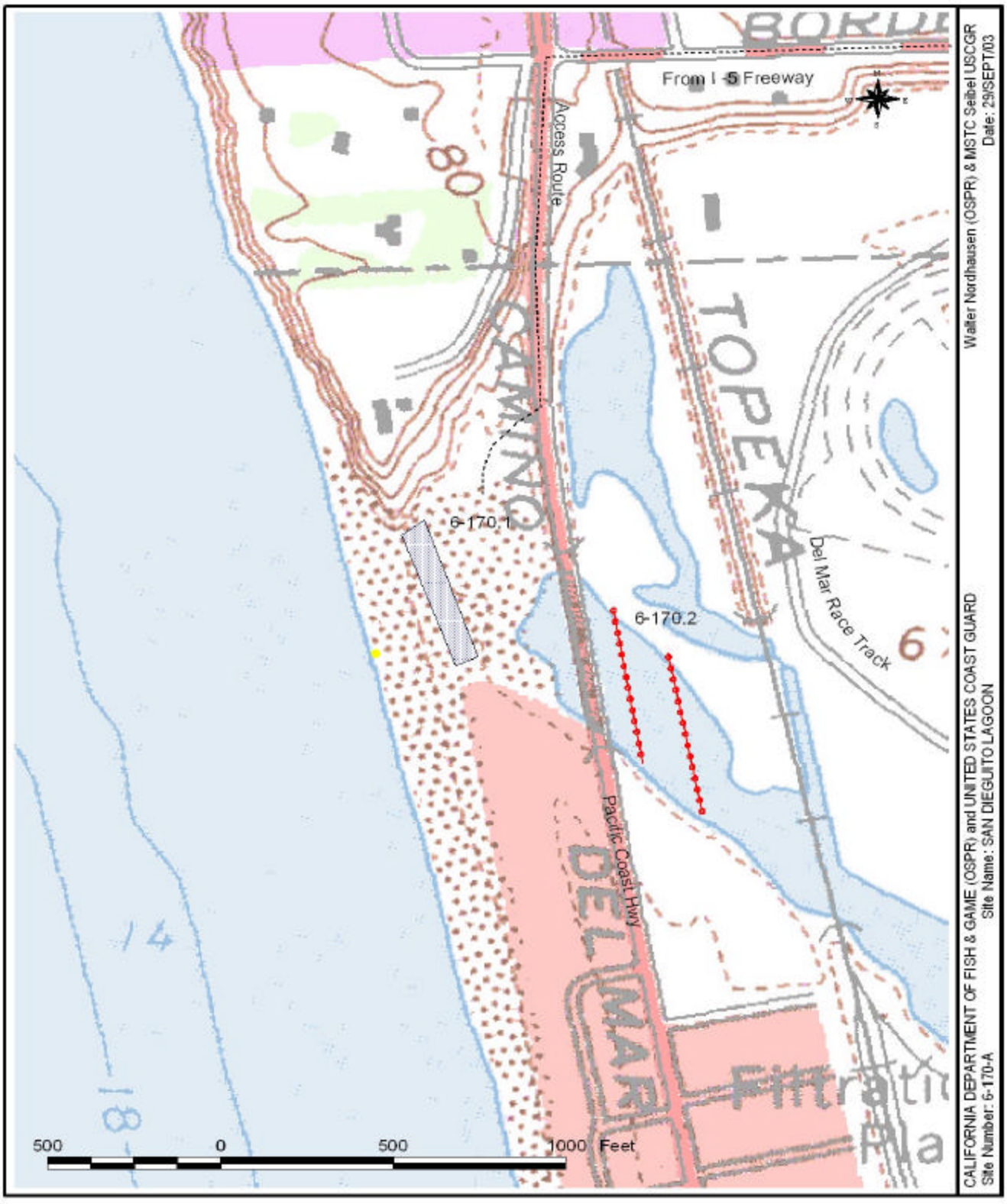
RESOURCES: 1 bulldozer. 1 skiff. 400 feet harbor boom. 1 Bulldozer operator and 4 personnel.

COLLECTION POINT: Beach face, or at shoreline on east side of PCH highway.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The Cardiff State Beach parking lot near the lagoon mouth.

6-170 SAN DIEGUITO LAGOON **SITE DIAGRAM 6-170**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-170 San Dieguito Lagoon
COUNTY: San Diego **LONG:** 117° 16' 12" W
USGS QUAD: Las Pulgas **LAT:** 33° 58' 30" N

SITE DESCRIPTION: San Dieguito Lagoon is a large coastal lagoon that is an extension of the San Dieguito River which reaches well into eastern San Diego County. The status of the lagoon mouth is strongly influenced by rainfall pattern. During the winter, rainfall can maintain an open lagoon mouth. During summer, the mouth is typically closed by a natural sand berm. The lagoon and river segments generally affected by tidal influences reach about 2.5 miles east of the lagoon mouth.

ACCESS: The lagoon mouth is easily accessed from Pacific Coast Highway.

SEASONAL CONCERNS: California least tern, Western snowy plover are potentially nesting in the lagoon area during April to September.

PRIORITY: A – when the creek mouth is open **C** – when the creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 2 – Notify South Coastal Information Center within 24 hours (619) 594-5682.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, terrestrial mammals, and emergent vegetation occur here seasonally. **California brown pelican** are expected to be present year-round. **Belding's savannah sparrow** are present year round and will likely be nesting in the lagoon vegetation during summer.

TRUSTEE AGENCY/LOCAL EXPERTS:
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Green Hospital of Scripps (858) 455-9100
Police – Del Mar Police (858) 484-3154/San Diego County Sheriff (858) 565-5030
Fire Dept. – (858) 755-1522/1521

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Check status of the lagoon mouth and consider rainfall potential, which may affect the ability to maintain a closure.

REFERENCES: City of San Diego Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-170 San Dieguito Lagoon

SITE CHARACTERISTICS: San Dieguito Lagoon is strongly influenced by the seasonally flowing river which will be influenced by rainfall events that will determine if the lagoon mouth will be open or closed. Most of the year it is closed by a natural sand berm. Only if the lagoon has recently been opened by flowing water, or the periodic mouth blockage breeching with heavy equipment, will closure be necessary. Overtopping wave wash is not expected to occur due to the physical features of this site.

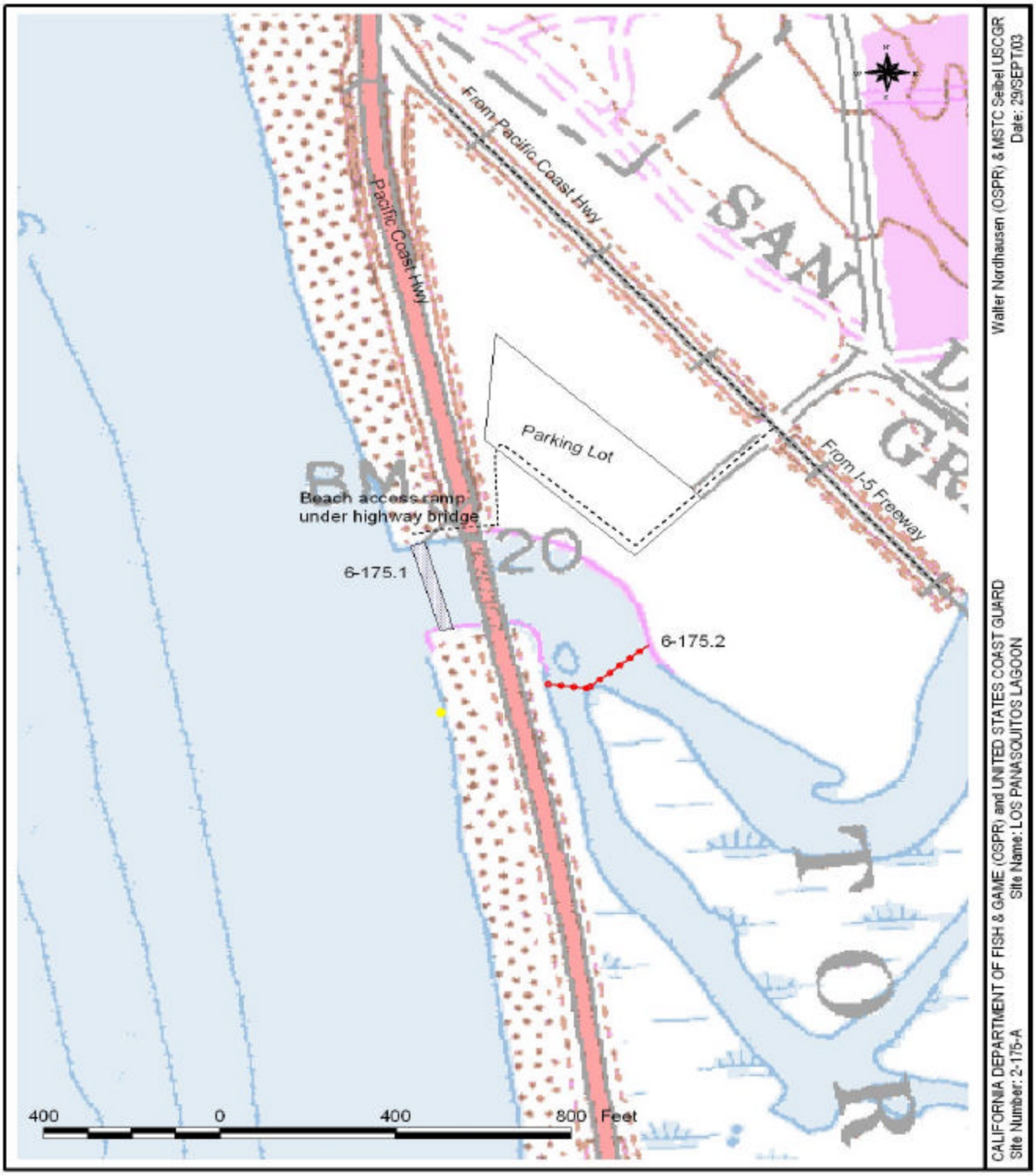
PROTECTION STRATEGIES:

PRIMARY: 06-170.1 Close the lagoon mouth by sand berm.

06-170.2 Deploy two-tiered harbor boom diagonally across the channel on the east side of PCH bridge.

RESOURCES: 1 bulldozer. 1 skiff. 600 feet harbor boom. 1 bulldozer operator and 4 personnel.

6-175 LOS PANASQUITOS LAGOON **SITE DIAGRAM 6-175**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-175 Los Penasquitos Lagoon
COUNTY: San Diego **LONG:** 117° 15' 36" W
USGS QUAD: Del Mar **LAT:** 33° 56' 00" N

SITE DESCRIPTION: Los Penasquitos Lagoon is a large coastal estuary covering several hundred acres. The lagoon is characterized by having two primary tidal channels that are relatively deep. To the east the channels become braded and meandering as they branch into several smaller channels about 1.5 mile inland from the lagoon mouth. The entire lagoon supports a large expanse of pickle weed and cord grass

ACCESS: From Pacific Coast Highway a the north end of Torrey Pines State Beach, take Carmel Valley Road to McGonigle Road then turn into the State Park parking lot. Parking and staging area is available near the lagoon mouth. A beach access road is located under the PCH bridge.

SEASONAL CONCERNS: Nesting and feeding **California least terns** and **Western snowy plover** during April to September.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, terrestrial mammals, and emergent vegetation occur here. **California brown pelican** and are expected to be present in the lagoon year-round. **Belding's savannah sparrow** and **Light-footed clapper rail** are present year round and will likely be nesting in the marsh vegetation during summer. **Western snowy plover** and **California least tern** may be nesting on the beach during summer.

PRIORITY: A – when the creek mouth is open **C** – when the creek mouth is closed

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
California Dept. Fish and Game (858) 467-4201/4202
California State Parks and Recreation, District Superintendent (949) 366-8529
California State Parks and Recreation, Resource Ecologist (949) 497-1421
California State Parks and Recreation, 24 hr. (909) 443-2969
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Green Hospital (858) 455-9100
Police – Del Mar Police (858) 484-3154/San Diego County Sheriff (858) 565-5030
Fire Dept. – (858) 755-1522/1521

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close the lagoon mouth by sand berm creation. Check status of lagoon mouth and consider rainfall potential, which may affect the ability to maintain a closure.

REFERENCES: City of San Diego Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-175 Los Penasquitos Lagoon

SITE CHARACTERISTICS: Los Penasquitos Lagoon is strongly influenced by the water flow conditions of Los Penasquitos Creek, which will be strongly influenced by rainfall events. The level of accumulated runoff water will determine if the lagoon mouth will be open or closed. Generally, during summer months the lagoon mouth is closed by a natural sand berm. Although, this lagoon is open more than most of the San Diego coastal lagoons. Overtopping wave wash is not expected to occur due to the physical features of this site.

PROTECTION STRATEGIES:

PRIMARY: 06-175.1 Close the lagoon mouth by sand berm.

06-175.2 Deploy exclusionary harbor boom across the two primary tidal channels inside the lagoon, east of the PCH bridge..

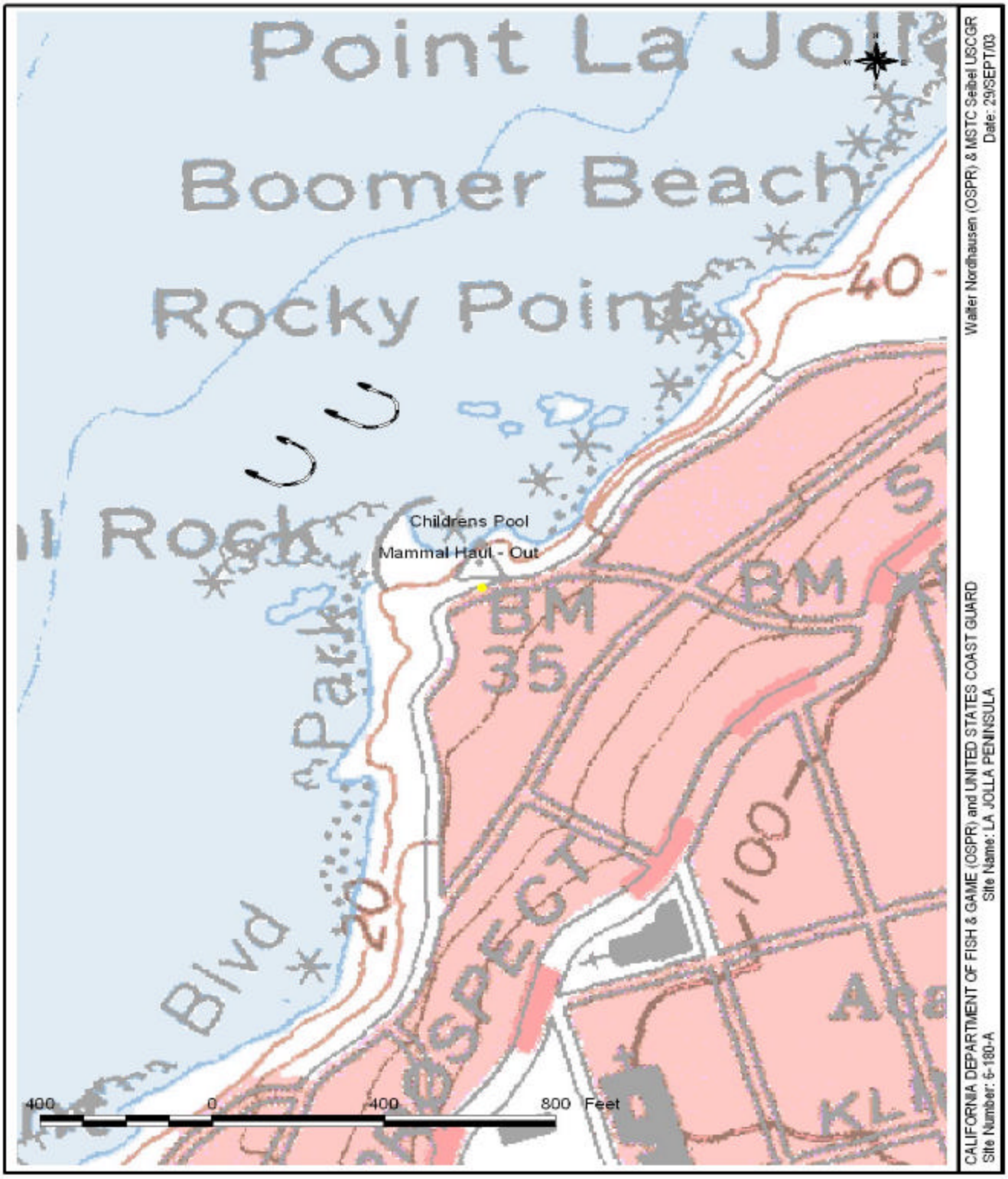
RESOURCES: 1 bulldozer. 1 skiff. 600 feet harbor boom. 1 bulldozer operator and 4 personnel.

COLLECTION POINT: Beach face.

ACCESS AREA VIA: See the site map for this location.

STAGING AREA: The state park parking lot adjacent to the lagoon mouth.

6-180 LA JOLLA PENINSULA **SITE DIAGRAM 6-180**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-180 La Jolla Peninsula, Mammals
COUNTY: San Diego **LONG:** 117° 16' 38" W
USGS QUAD: La Jolla **LAT:** 33° 50' 50" N

SITE DESCRIPTION: The La Jolla Children's Pool area has become established as a favorite haul-out site for Harbor seals. Adult and pup seals are routinely present in numbers up to 50.

ACCESS: Boat launch facilities are located at Mission Bay. Beach access is available at Coast Blvd. off Prospect Street. Limited parking and staging are available.

SEASONAL CONCERNS: None identified

PRIORITY: B – Year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

RESOURCES OF PRIMARY CONCERN: Harbor seals

TRUSTEE AGENCY/LOCAL EXPERTS:
National Marine Fishery Service, Joe Cordaro (858) 637-5515/ (858) 467-4241
California Dept. Fish and Game (858) 467-4201/4202

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial La Jolla (858) 457-4123
Police – San Diego County Sheriff (858) 565-5200
Fire Dept. – (858) 755-1522/1521

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: The haul-out site has been designated a protected area by the City of San Diego.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-180 La Jolla Peninsula **Strategy Revised** 4-2003

SITE CHARACTERISTICS: The La Jolla Peninsula site is specifically identified as the La Jolla Children's Pool. The site has become established as a Harbor seal haul-out site. Because of the very rugged coastline along the La Jolla peninsula, few protection strategy options are available.

PROTECTION STRATEGIES:

PRIMARY: 06-180.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 1,500 feet harbor boom. 4 utility boats.

SECONDARY: None

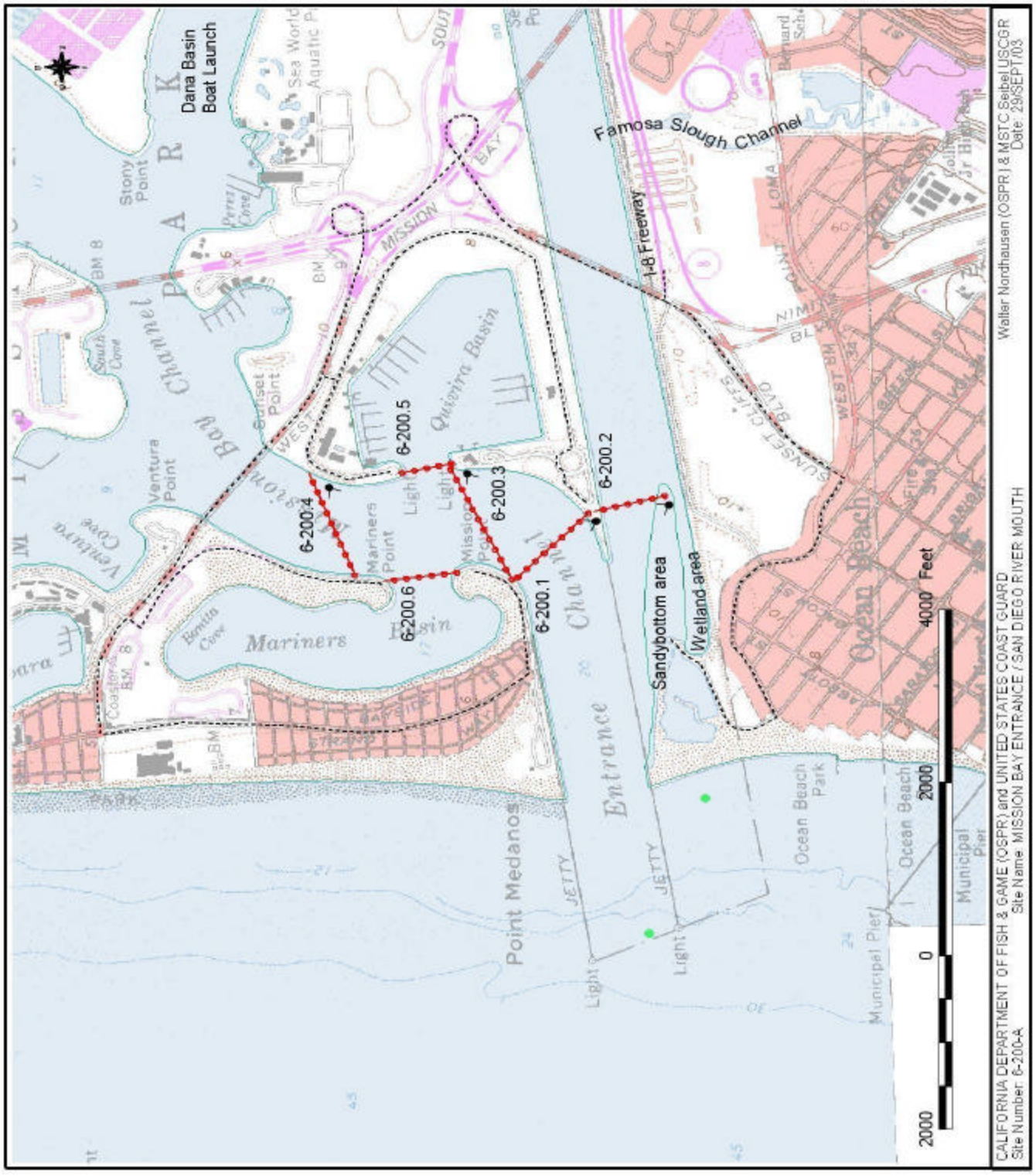
RESOURCES:

COLLECTION POINT: Towed boom

ACCESS AREA VIA:

STAGING AREA:

6-200 MISSION BAY ENTRANCE / SAN DIEGO RIVER MOUTH SITE DIAGRAM 6-200



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-200 Mission Bay Entrance and San Diego River Mouth
COUNTY: San Diego **LONG:** 117° 15' 30" W
USGS QUAD: La Jolla **LAT:** 32° 45' 24" N

SITE DESCRIPTION: Mission Bay Entrance and San Diego River complex is approximately three-quarters mile long. The entire channel is constructed of large boulder rip-rap. The south jetty has been engineered with a "notch" about one-half mile in to aid in movement of storm flow water from the San Diego River located immediately adjacent to the entrance channel south jetty. These two channels are integrated into a single response strategy with several prioritized components. Numerous species of birds, intertidal invertebrates, and wetland vegetation are present in this complex environmental setting.

ACCESS: A boat launch ramp is located in the Dana basin. Access to the lower reach of the San Diego River is available from the parking lot near the beach at Ocean Beach.

SEASONAL CONCERNS: During April to September **California least terns** and **Western snowy plovers** may be actively feeding in the bay. Nesting activity may occur near the Kendall-Frost Reserve.

RESOURCES OF PRIMARY CONCERN: California brown pelicans feed and rest in the bay year round. **Light-footed clapper rail** occur in the wetland habitat of the San Diego River upstream from the Sports Area bridge, where **Belding's savannah sparrow** nest in summer months. The **Nutalls lotis**, a listed plant, is found in the sand bar area down stream from the bridge.

About one mile upstream on the south side of the San Diego River channel is located the tidal gate(s) for the Famosa Slough. Secondary protection may be appropriate to protect Famosa Slough and channel.

PRIORITY: A – Year Round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
City of San Diego Parks and Recreation (619) 525-8230 or (619) 221-8901
Mission Bay Park Rangers (619) 581-7602
Friends of Famosa Slough (619) 224-4591

EMERGENCY PHONE NUMBERS
Hospital – Mercy Hospital and Medical Center (619) 260-7000
Police – Mission Bay Harbor Patrol (619) 224-2708 San Diego Police (619) 531-2000
Fire Dept. (858) 974-9891

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Entrance channel may be boomed to prevent or minimize oil entry from open coastal area.

REFERENCES: Mission Bay Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-200 Mission Bay Entrance and San Diego River Mouth **Strategy Revised** 10-2002

SITE CHARACTERISTICS: The Mission Bay Entrance channel and San Diego River mouth are combined into a single response strategy due to their close association. The flood notch on the separation jetty assures that durin g most high tide conditions, water exchange will occur. In addition, the south jetty is porous and will allow exchange of floating oil under virtually any condition. Experiments with rice hulls has demonstrated a that floating materials will collect near the channel's outer-elbow mid-point.

The response strategy is comprised of six individual segments numbered in the order of their respective deployment priority. The degree to which the full complement is deployed is dependent upon the severity of the protection need.

PROTECTION STRATEGIES:

PRIMARY: 06-200.1 Mission Bay entrance channel from the north-channel side at Mariner Basin to the easterly end of the south channel jetty. The boom should be deployed with sufficient angle to allow deflection of petroleum to the southeast attachment point for skimmer operations.

06-200.2 Across the San Diego River from the entrance channel south jetty's east end, toward the river channels sand beach south-shore. The boom should be deployed with sufficient angle to allow deflection of petroleum to the southeast attachment point A shallow capture basin can be created in the south shore sand to facilitate skimmer operations.

RESOURCES: 1,500 feet of harbor boom. 4 anchor systems. 1 boom boat. 1 boom trailer. 2 skimmer systems. 7 personnel.

SECONDARY: 06-200.3 Across the entrance channel (west-east) from Mariner Basin to the Quivira Basin breakwater. The boom should be deployed with sufficient angle to allow deflection of petroleum to the northeast at the Quivira Basin attachment point (south of the basin inlet) for skimmer operations.

06-200.4 Across the entrance channel (west – east) from the shoreline north of Mariners Cove inlet to a point south of the Mission Bay Drive bridge on the Quivira Basin shoreline. The boom should be deployed with sufficient angle to allow deflection of petroleum to the northeast at the Quivira Basin attachment point (north of the basin inlet) for skimmer operations.

06-200.5 Close off the inlet of Quivira Basin. This should include coverage of the Quivira Basin inlet breakwater which is porous.

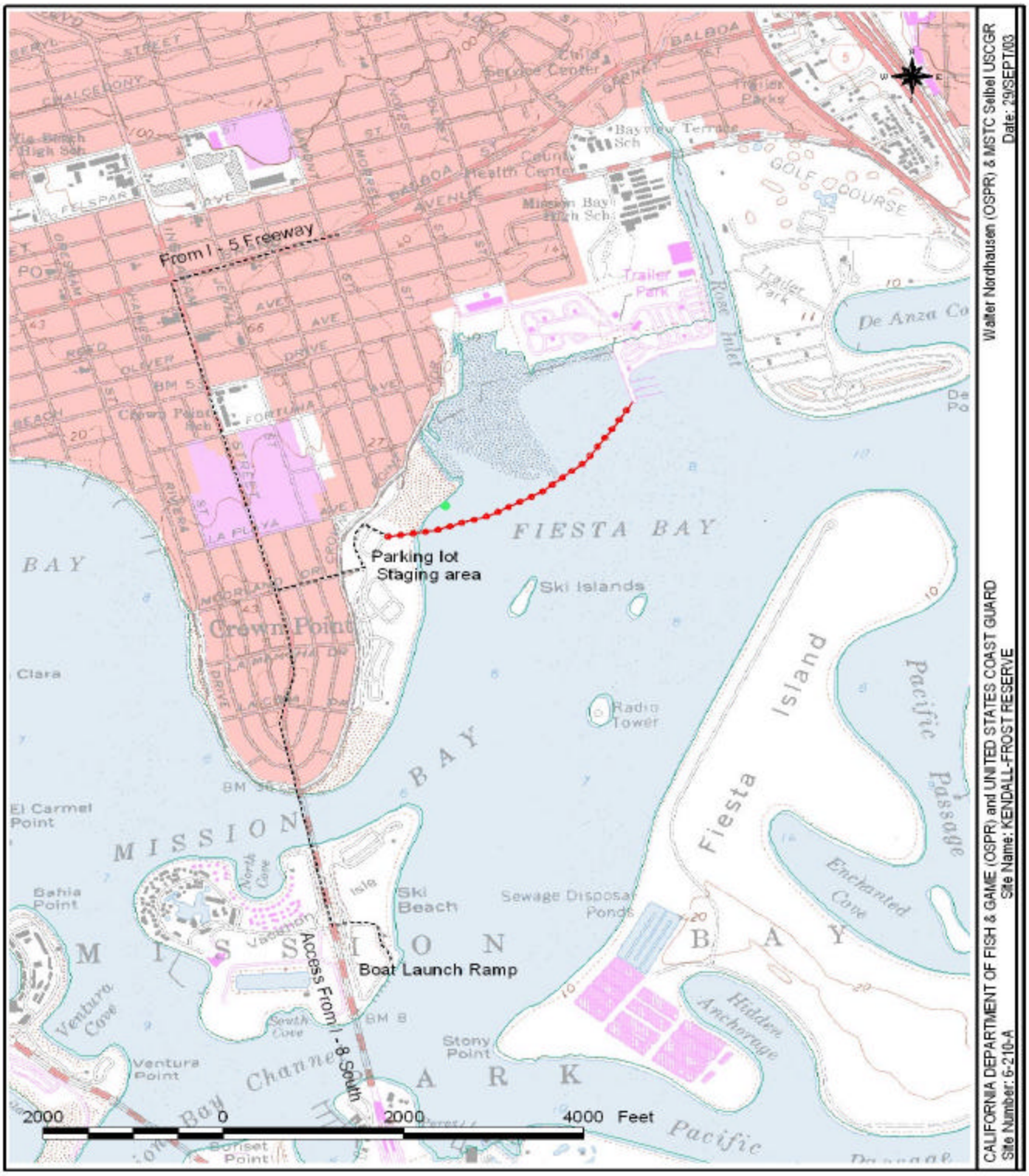
06-200.6 Close off the inlet of Mariner Basin.

RESOURCES: 1,500 feet of harbor boom. 10 anchor systems. 1 boom boat. 1 boom trailer. 1 skimmer system. 5 personnel.

ACCESS POINTS: A boat launch ramp is located at Dana Basin. Shoreline access is available from several directions, all beginning from the I-8 freeway terminus.

STAGING AREA: Staging is available at the south and north end of Quivira Basin shoreline.

6-210 KENDALL – FROST RESERVE **SITE DIAGRAM 6-210**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-210 Kendall-Frost Reserve
COUNTY: San Diego **LONG:** 117° 13' 00" W
USGS QUAD: La Jolla **LAT:** 32° 47' 37" N

SITE DESCRIPTION: The Kendall-Frost Reserve is a remnant wetland area in the far north end of Mission Bay. It is bisected by several tidal channels that flood the low lying habitat to varying levels as determined by tidal conditions.

ACCESS: A boat launch ramp is located at Vacation Island and in the Dana basin.

SEASONAL CONCERNS: During April to September **California least tern** may be actively feeding in the bay. Nesting activity may occur near the Kendall-Frost Reserve.

RESOURCES OF PRIMARY CONCERN: California brown pelicans feed and rest in the bay year round. **Belding's savannah sparrow** and **Light-footed clapper rail** are present year round and will likely be nesting in the marsh vegetation during summer.

PRIORITY: A – Year Round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

TRUSTEE AGENCY/LOCAL EXPERTS:
UC San Diego – Reserve Coordinator (858) 534-2077
City of San Diego Parks and Recreation (619) 525-8230 or (619) 221-8912
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Mercy Hospital and Medical Center (619) 260-7000
Police – Mission Bay Harbor Patrol (619) 224-2708 San Diego Police (619) 531-2000
Fire Dept. (858) 974-9889

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234 3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: This site is a large wetland area with a limited number of tidal inlets, which flood the area, along with a low, wide beach face.

REFERENCES: Mission Bay Master Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-210 Kendall-Frost Reserve

SITE CHARACTERISTICS: The Kendall-Frost Reserve is flooded extensively during high tide series. At low tide a wide, soft mudflat extends a considerable distance from the marsh vegetation edge. The protection strategy takes advantage of the several shoal marker buoys deployed at the marsh perimeter.

PROTECTION STRATEGIES:

PRIMARY: 06-210.1 Deploy harbor boom across the outboard side of the shoal marker buoys from the west to east end of the reserve.

RESOURCES: 2,000 feet harbor boom, 1 utility boat. 4 anchor systems. 1 boom trailer.
5 response personnel.

SECONDARY: 06-210.2 Sandbag each tidal inlet to prevent entry of petroleum into the tidal channels.

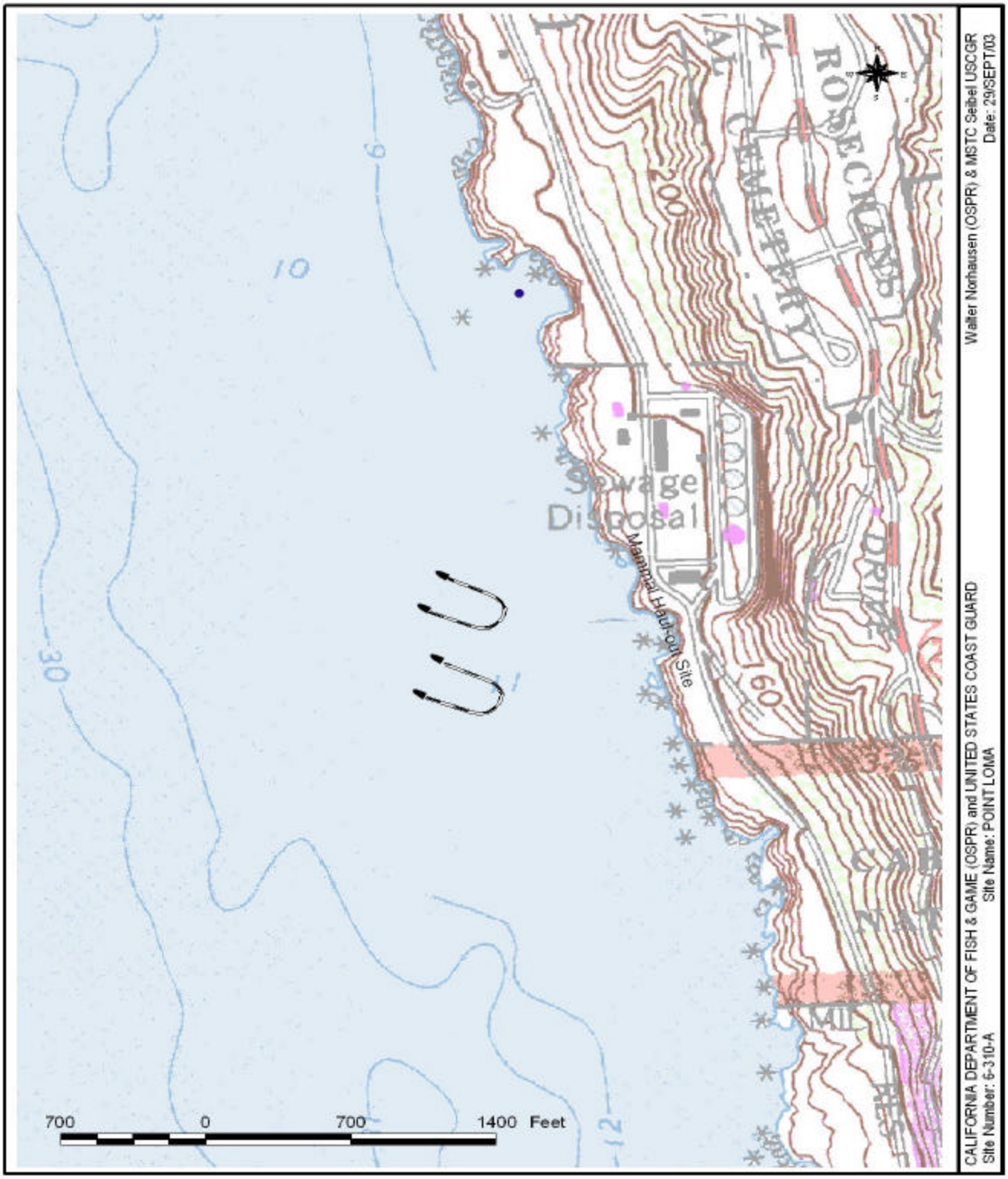
RESOURCES: 250 sandbags, 10 shovels, 2 tons sand, 10 response personnel.

COLLECTION POINT:

ACCESS AREA VIA: Boat launch at Vacation Isle parking lot. Shoreline access from Crown Point Park parking lot area.

STAGING AREA: Crown Park parking lot near Kendall-Frost Reserve.

6-310 POINT LOMA **SITE DIAGRAM 6-310**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-310 Point Loma, Mammals
COUNTY: San Diego **LONG:** 117° 14' 54" W
USGS QUAD: Point Loma **LAT:** 32° 40' 56" N

SITE DESCRIPTION: A small area of rock at the base of the bluff below the San Diego Waste Water Treatment facility where Harbor seals have selected to haul out. This site is remote and inaccessible.

ACCESS: None practical

SEASONAL CONCERNS: None identified

PRIORITY: B – Year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682.

RESOURCES OF PRIMARY CONCERN: Harbor seals as adults and pups.

TRUSTEE AGENCY/LOCAL EXPERTS:
National Marine Fishery Service, Joe Cordaro (858) 637-5515/ (858) 467-4241
California Dept. Fish and Game (858) 467-4201/4202

EMERGENCY PHONE NUMBERS
Hospital – Mercy Hospital & Medical Center (619) 260-7000
Police – San Diego Police (858) 531-2000
Fire Dept. – (858) 974-9189

CLOSEST CLEAN-UP BOA CONTRACTORS:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS:

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-310 Point Loma **Strategy Revised** 4-2003

SITE CHARACTERISTICS: This is an extremely rugged coastline which is continually effected by strong wave action. A thick kelp canopy is routinely present offshore from this site.

PROTECTION STRATEGIES:

PRIMARY: 06-310.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 1,500 feet harbor boom. 4 utility boats.

SECONDARY: None

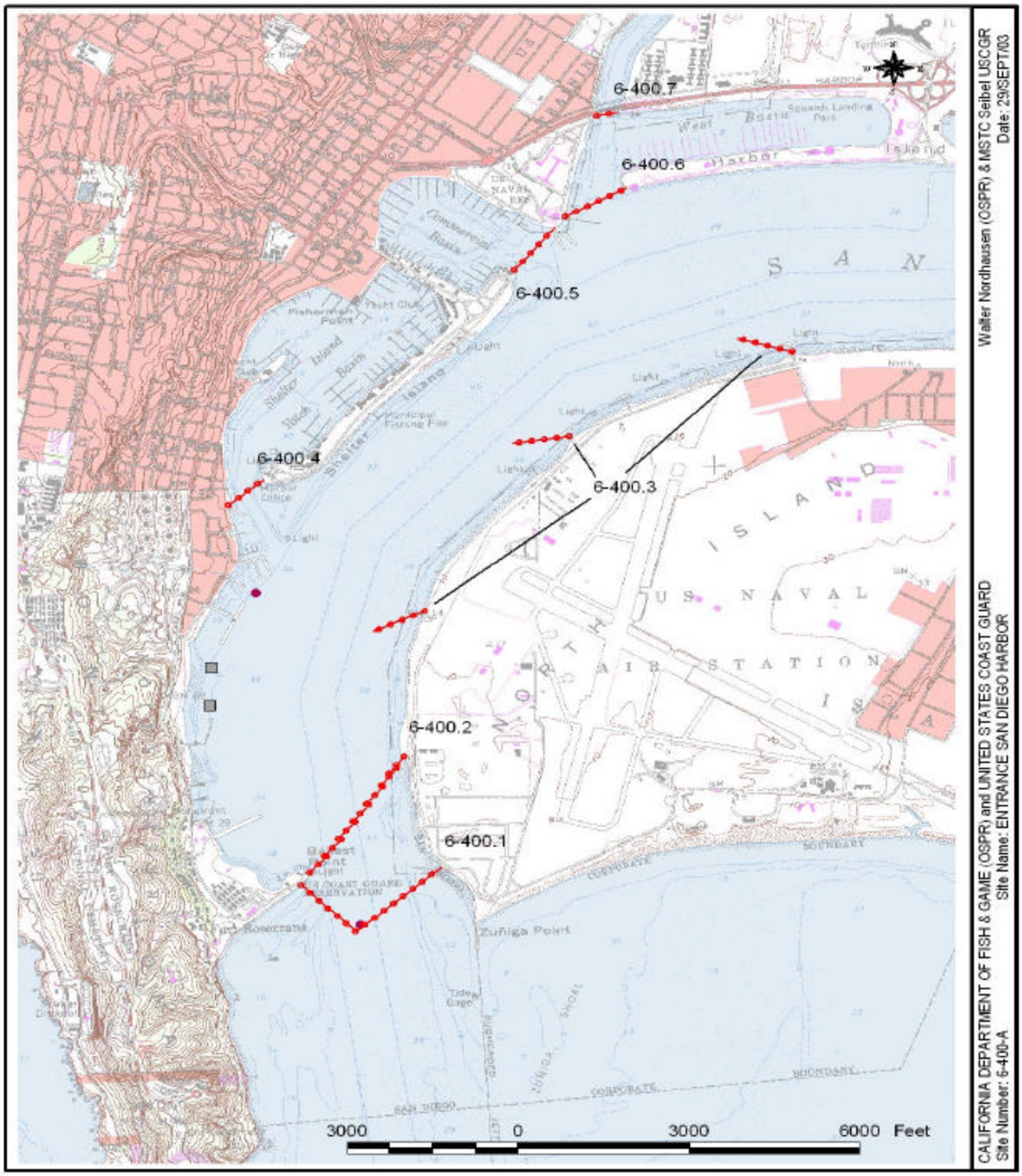
RESOURCES:

COLLECTION POINT: Towed boom

ACCESS AREA VIA: This site is inaccessible from shore.

STAGING AREA:

6-400-A ENTRANCE SAN DIEGO HARBOR **SITE DIAGRAM 6-400-A**



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-400 San Diego Bay Entrance
COUNTY: San Diego **LONG:** 117° 13' 42" W
USGS QUAD: Point Loma **LAT:** 32° 40' 00" N

SITE DESCRIPTION: The entrance to San Diego Bay is large and subject to tidal currents up to 2 knots. It supports a significant volume of vessel traffic. Numerous environmental and economical sensitive sites are located inside San Diego Bay. At the north end of the bay economic sites will dominate a response effort. Located near the entrance are three separate environmental sites that may be affected by free floating oil within minutes to hours with a flood tide. Two of those sites require only that the keepers of the marine mammals immediately be notified. Only one beach area is identified for exclusion boom deployment. Similarly, four marina entrances will need to be closed by deployment of exclusionary boom within a few hours.

ACCESS: The San Diego Bay entrance protection strategy is achievable only by boat. Shoreline clean-up activities may be necessary on the east and west shores. The west shore is best accessed through the Navy submarine base at Ballast Point. High tide conditions may limit foot traffic activity. The east shore can be accessed through the North Island Naval Air Station.

SEASONAL CONCERNS: No specific seasonal concerns are identified that may limit, or preclude response efforts.

PRIORITY: A – Year round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
San Diego Port District (619) 686-6254
San Diego Harbor Police (619) 686-6272
US Navy NRAD Clinical Veterinary Services (619) 553-1366
Duty Veterinarian (619) 493-1311

EMERGENCY PHONE NUMBERS
Hospital – Mercy Hospital and Medical Center (619) 260-7000
Police – San Diego Police (619) 531-2000
Fire Dept. – (858) 974-9189

Closest Clean-Up BOA Contractors:
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Large tidal volume, flood and ebb tides may exceed 2 knots.

REFERENCES: South San Diego Bay Enhancement Plan (1990)
San Diego Port District Master Plan, Final EIR (1980)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-400 San Diego Harbor Entrance **Strategy Revised** 10-2002

SITE CHARACTERISTICS: San Diego Bay entrance channel is a large deepwater port entrance which is oriented north-south. It supports a large volume of military, commercial, and recreational vessel traffic. The entrance channel will experience tidal current velocities of 2 knots ± depending on tidal conditions. Winds are generally westerly with accompanying southerly or northerly components. However, moderate to strong southerly, northerly, or easterly winds may occasionally develop and persist a day or more.

PROTECTION STRATEGIES: The intent of the following strategies are to provide both exclusion and deflective booming protection to San Diego Bay from oil not yet inside the bay. Two Primary strategies have been proposed and practiced. The choice of which to use is dependent on such considerations as the type of product released, the time available to execute the deployment, and the tide and weather conditions occurring. Any combination of the following strategies is available for consideration.

PRIMARY: 06-400.1
V – configuration radiating from the first outbound red channel marker buoy back toward Ballast Point on the **west shore** with attachment at the base of the Ballast Point pier piling (1,700 ft). On the **east shore** the boom end will be anchored on the rip-rap armoring near the head of Zuniga jetty (1,500 ft). The boom will be linked at the channel buoy to prevent any gap. Oil will be deflected to the west and east shorelines for recovery by truck or vessel mounted skimmers.

RESOURCES: 3,200 feet of harbor boom. 12 anchor systems. 4 utility boats

PRIMARY: 06-400.2
A series of **4 cascading 500 foot boom segments** tending northeastward beginning on the west shore at Ballast point and extending to the east shore at the North Island Air Station. Due to channel current velocities, heavy anchor systems will be required.

RESOURCES: 2,000 feet harbor boom, 2 boom boats, 8 heavy anchor systems. 2 heavy anchor boats

SECONDARY: 06-400.3
A series of 3 diagonally positioned 500 foot boom segments extending westward from shore-side anchoring on the east shore at the Naval Air Station into the bay at strategically located points between the FISC facility, and Commercial Basin and Harbor Island Marina entrances.

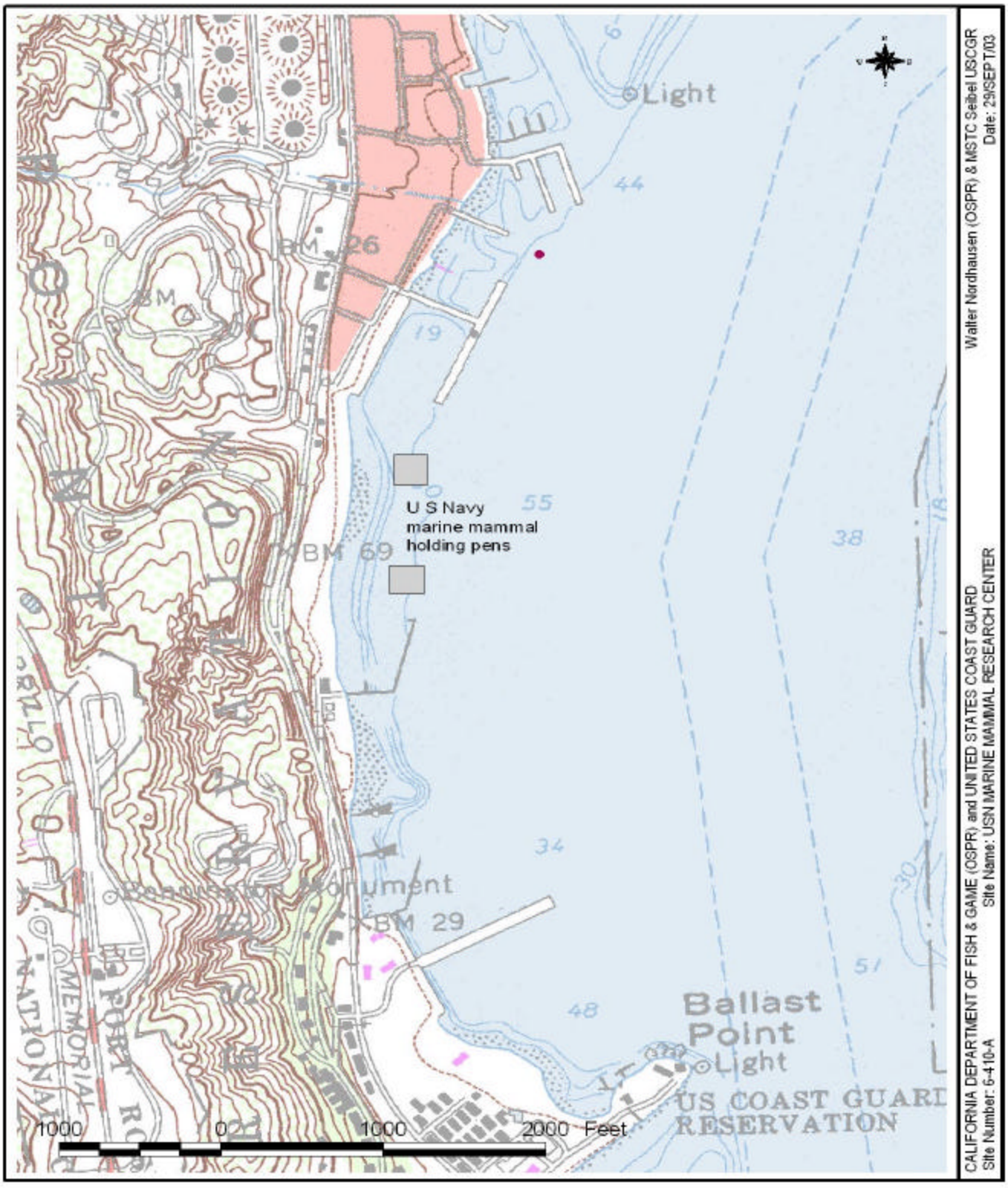
RESOURCES: 1,500 feet harbor boom, 6 light anchor systems, 1 boom boat,

TERTIARY: 06-400.4 Closure boom at the entrance of Shelter Island marina. 500 feet harbor boom, 4 anchor systems.
06-400.5 Closure boom at the entrance of Commercial Basin. 1,000 feet harbor boom, 8 anchor systems
06-400.6 Closure boom at the entrance of Harbor Island marina. 1,000 feet harbor boom, 8 anchor systems.
06-400.7 Closure of the Naval Recruit Depot marina channel. 300 feet of harbor boom, 3 anchor systems.

RESOURCES: 2,800 feet harbor boom, 23 anchor systems, 3 utility boats.

STAGING AREA: Shelter Island boat launch ramp parking lot.

6-410-A USN MARINE MAMMAL RESEARCH CENTER SITE DIAGRAM 6-410-A



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06- 410 USN Marine Mammals Research Center NRAD
COUNTY: San Diego **LONG:** 117° 14' 15" W
USGS QUAD: Point Loma **LAT:** 32° 41' 52" N

SITE DESCRIPTION: The site is operated by the Navy to maintain a number of marine mammals used in various research programs. In the event of an oil release, these mammals may need protection. The keepers of the animals will determine the appropriate protection measures.

ACCESS: Entry to the site should not be necessary. Oil that presents a potential hazard to these animals should be reported to Naval facility contacts listed below.

SEASONAL CONCERNS: None

PRIORITY: B – Year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

EMERGENCY PHONE NUMBERS:
US Navy NRAD Clinical Veterinary Services (619) 553-1366
Duty Veterinarian (619) 607-6111
Command Duty Officer (after hours) (619) 553-4621
SUBASE Marine Mammals System (619) 553-8816

Hospital – Mercy Hospital & Medical Center (619) 260-7000
Police – San Diego Police (858) 531-2000
Fire Dept. – (858) 974-9891

REMARKS: Animals are kept in holding pens and cannot escape. The site is a high security zone.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-410 USN Marine Mammal Research Center

SITE CHARACTERISTICS: The site is operated by the US Navy. Marine mammals are maintained for research projects at this facility. The animal caretakers will provide any response needs.

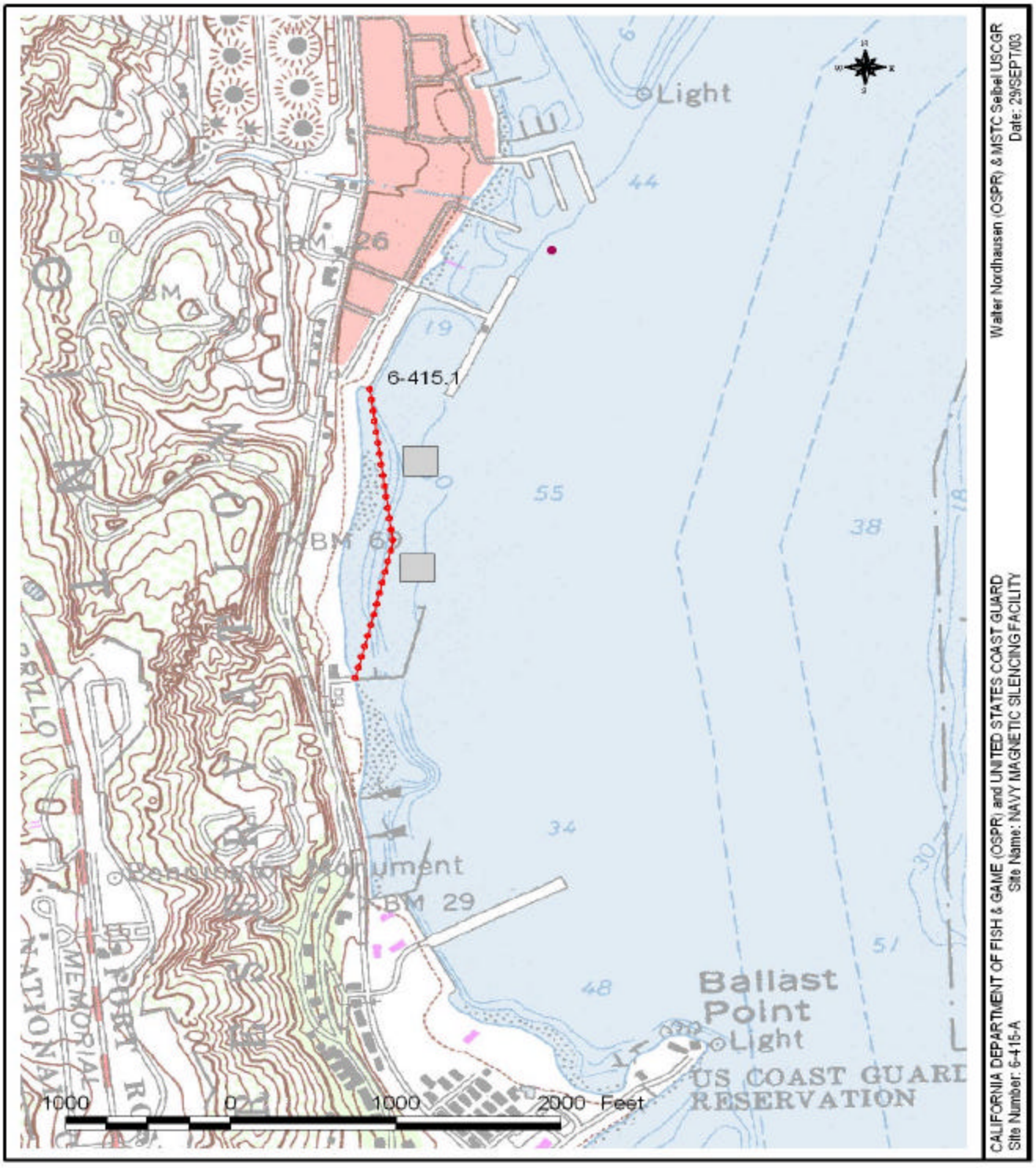
PROTECTION STRATEGIES:

PRIMARY: Immediately notify NRAD Duty Veterinarian

RESOURCES: No response equipment required

SECONDARY: None

6-415-A NAVY MAGNETIC SILENCING FACILITY **SITE DIAGRAM 6-415-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003

SITE: 06-415 US Navy Magnetic Silencing Facility
COUNTY: San Diego **LONG:** 117° 12' 36" W
USGS QUAD: Point Loma **LAT:** 32° 44' 00" N

SITE DESCRIPTION: The site is a sandy beach approximately 1,500 feet long lying between the Magnetic Silencing facility pier and the FISC fuel facility. The beach and near shore area are heavily used by large numbers of swimming, diving and wading birds.

ACCESS: The site is reached by water from San Diego Bay near the Navy fuel pier.

SEASONAL CONCERNS: No specific seasonal concerns are identified.

PRIORITY: B – Year round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately. (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
U.S. Navy NRAD Clinical Veterinary Services (619) 553-1366
Duty Veterinarian (619) 607-6111
Duty Personnel (619) 553-9901 or (619) 553-9902
US Navy Natural Resource Specialist (619) 532-3745/726-5734
Command Duty Officer (after hrs) (619) 553 4621

EMERGENCY PHONE NUMBERS

Hospital – Mercy Hospital & Medical Center (619) 260-7000
Police – San Diego Police (619) 531-2000
Fire Dept. – (858) 974-9891

REMARKS: The site is a high security zone.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-415 Navy Magnetic Silencing Facility

SITE CHARACTERISTICS: The site is a course grain sand beach about 1,500 feet long located between the Magnetic Silencing Facility pier and the FISC fuel depot. This area experiences only mild tidal currents. It is generally well protected from external forces.

PROTECTION STRATEGIES:

PRIMARY: 06-415.1 Exclusion boom deployed parallel to the shoreline several yards from shore.

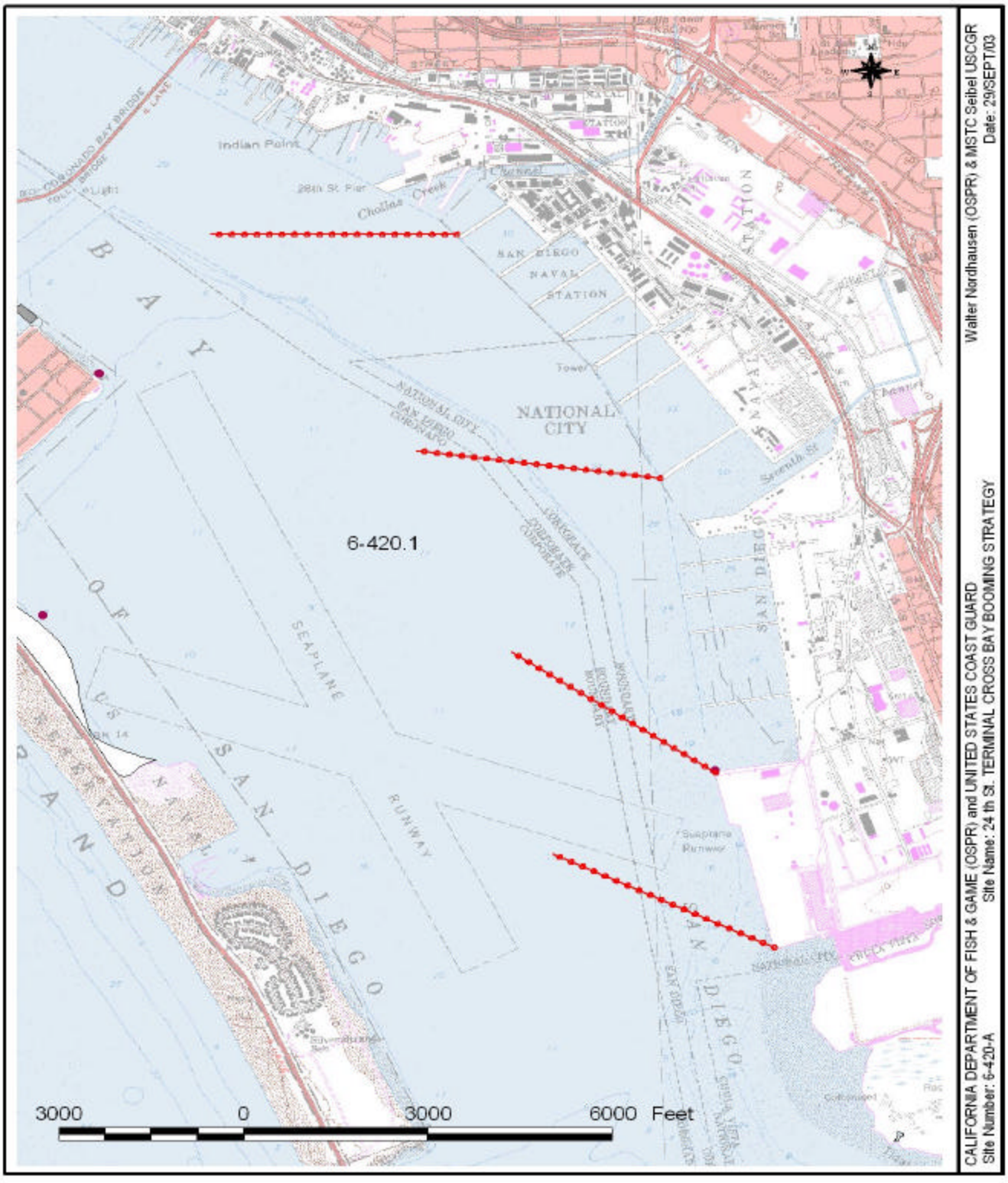
RESOURCES: 1,500 feet harbor boom. 3 anchor systems. 1 utility boat.

SECONDARY: None

ACCESS AREA VIA: Shelter Island boat launch ramp.

STAGING AREA: Shelter Island boat launch ramp.

6-420-A 24th St. TERMINAL CROSS BAY BOOMING STRATEGY SITE DIAGRAM 6-420-A



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-420 Cross-Bay Booming Strategy
COUNTY: San Diego **LONG:** 117° 07' 00" W
USGS QUAD: Point Loma **LAT:** 32° 40' 00" N

SITE DESCRIPTION: The San Diego Bay Cross-Bay Booming Strategy is not a site specific protection strategy, but rather and generalized protection strategy for all of the south San Diego Bay environmentally sensitive sites. The purpose of the Cross-Bay deflection boom is to eliminate the need to deploy protection for each of the eight individual sites identified in the South Bay. Or, at least, to reduce the quantity of petroleum that might otherwise impact south bay sites. The deployment of deflection boom for this strategy can occur at any of several locations between the 32nd Street Naval Station, Pier 1 and the south end of 24th Street Terminal pier. Several deployments may be warranted to achieve the desired effect.

ACCESS: All pier ends are accessible by boat.

SEASONAL CONCERNS: No seasonal issues are identified.

RESOURCES OF PRIMARY CONCERN: The entire south end of San Diego Bay is at risk of free floating petroleum. Numerous species of birds, fishes, invertebrates, and several mammals, along with green sea turtles, and submerged vegetation and acres of mudflat are threatened year round if the movement of floating product can not be checked farther north.

PRIORITY: Not Applicable

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:

EMERGENCY PHONE NUMBERS
Hospital – Mercy Hospital & Medical Center (619) 260-7000
Police – San Diego Police (619) 531-2000
Fire Dept. – (858) 974-9891

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS:

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-420 Cross Bay Booming Strategy **Strategy Revised** 10-2002

SITE CHARACTERISTICS: The Cross-Bay Deflection Boom strategy was developed from the recognition that protecting each of several individual sites in the south bay would require a tremendous amount of response equipment to be delivered into relatively remote locations, sometimes with very shallow water conditions, within a very short time frame. The intent of the Cross-Bay Deflection Boom strategy is to halt or impede the southward progression of oil when released in a location north of the 24th Street Terminal. This strategy takes advantage of the facts that wind and current conditions usually force floating oil to stay close to the eastern side of the bay. Several convenient man-made embayments can be utilized to contain and recover free product.

PROTECTION STRATEGIES:

PRIMARY: 06-420.1 Utilizing the most appropriate pier end between Naval Station 32nd Street and the south end of 24th Street Terminal, deploy 2,000 feet of harbor boom toward the northwest. Secure one boom end to any appropriate pier end, and anchor the mid-channel boom end. More than one site may be utilized, as deemed necessary and appropriate.

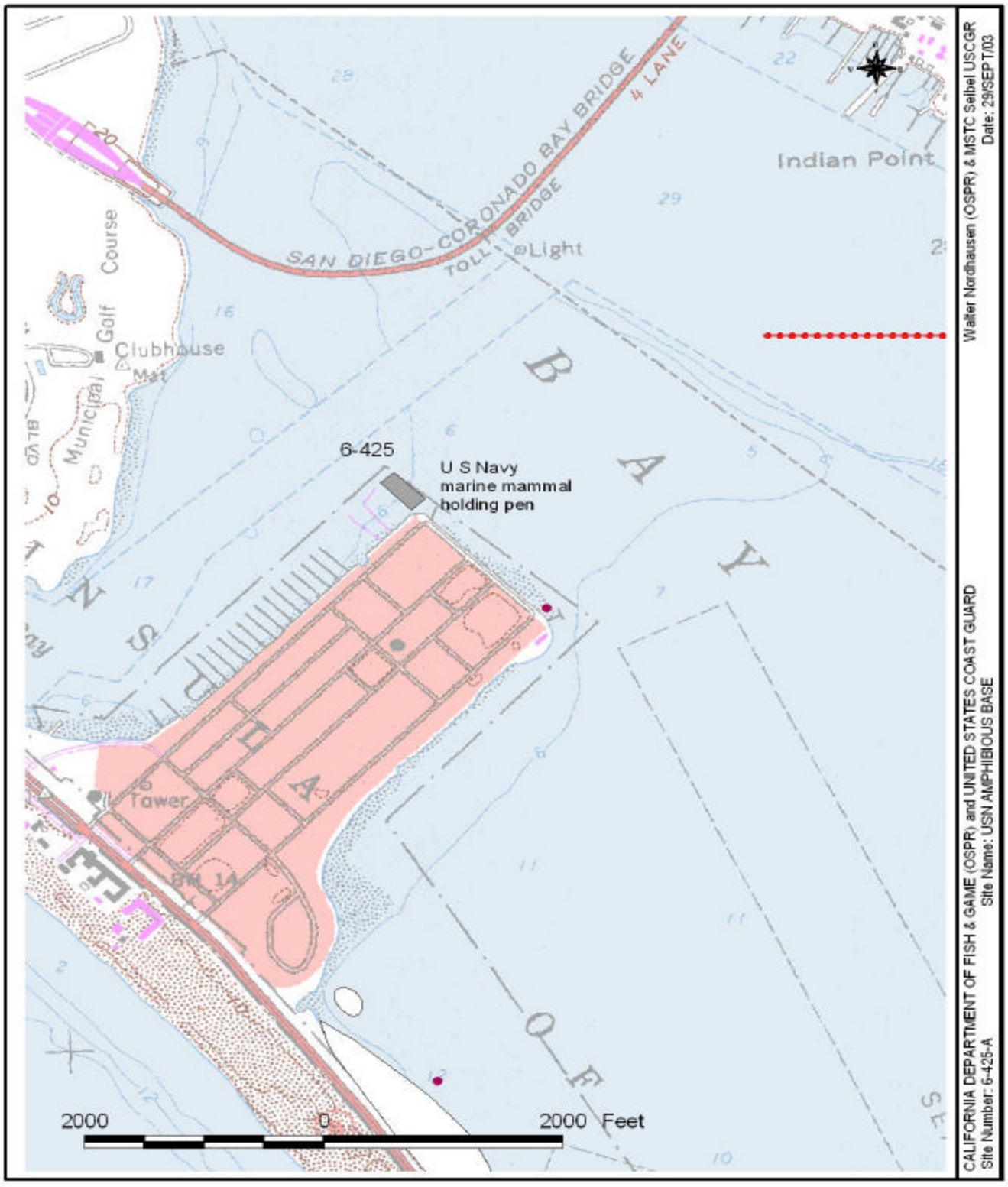
RESOURCES: 2,000 feet harbor boom for each reach. 4 anchor systems for each reach. 2 utility boats.

SECONDARY: Secondary responses may be employed as defined for each specific site in the south bay. Refer to individual site protection strategy plans.

ACCESS AREA VIA: Boat launch facilities are located at Shelter Island in the north bay, and L.M. Pepper park along the Sweetwater Channel in the south bay.

STAGING AREA: As appropriate.

6-425-A USN AMPHIBIOUS BASE **SITE DIAGRAM 6-425-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-425 US Naval Amphibious Base
COUNTY: San Diego **LONG:** 117° 09' 12" W
USGS QUAD: Point Loma **LAT:** 32° 40' 40" N

SITE DESCRIPTION: The Navy Amphibious Base may maintain a collection of marine mammals at a holding facility influenced by waters of San Diego Bay. In the event of an oil release those mammals may need protection. The keepers of the animals will determine what that action will be.

ACCESS: Entry to the site should not be necessary. Oil that may present a hazard to these animals should be reported to Naval facility contacts listed below.

SEASONAL CONCERNS: None identified

PRIORITY: B – Year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

EMERGENCY PHONE NUMBERS:
US Navy Amphibious Base Security Duty Officer (619) 545-7403/7423
US Navy NRAD Clinical Veterinary Services (619) 553-1366
Duty Veterinarian (619) 607-6111

REMARKS: Animals are kept in holding pens and cannot escape. The site is a high security zone.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-425 USN Amphibious Base

SITE CHARACTERISTICS: The site is operated by the US Navy. Marine mammals are maintained for research projects at this facility. The animal caretakers will provide any response needs.

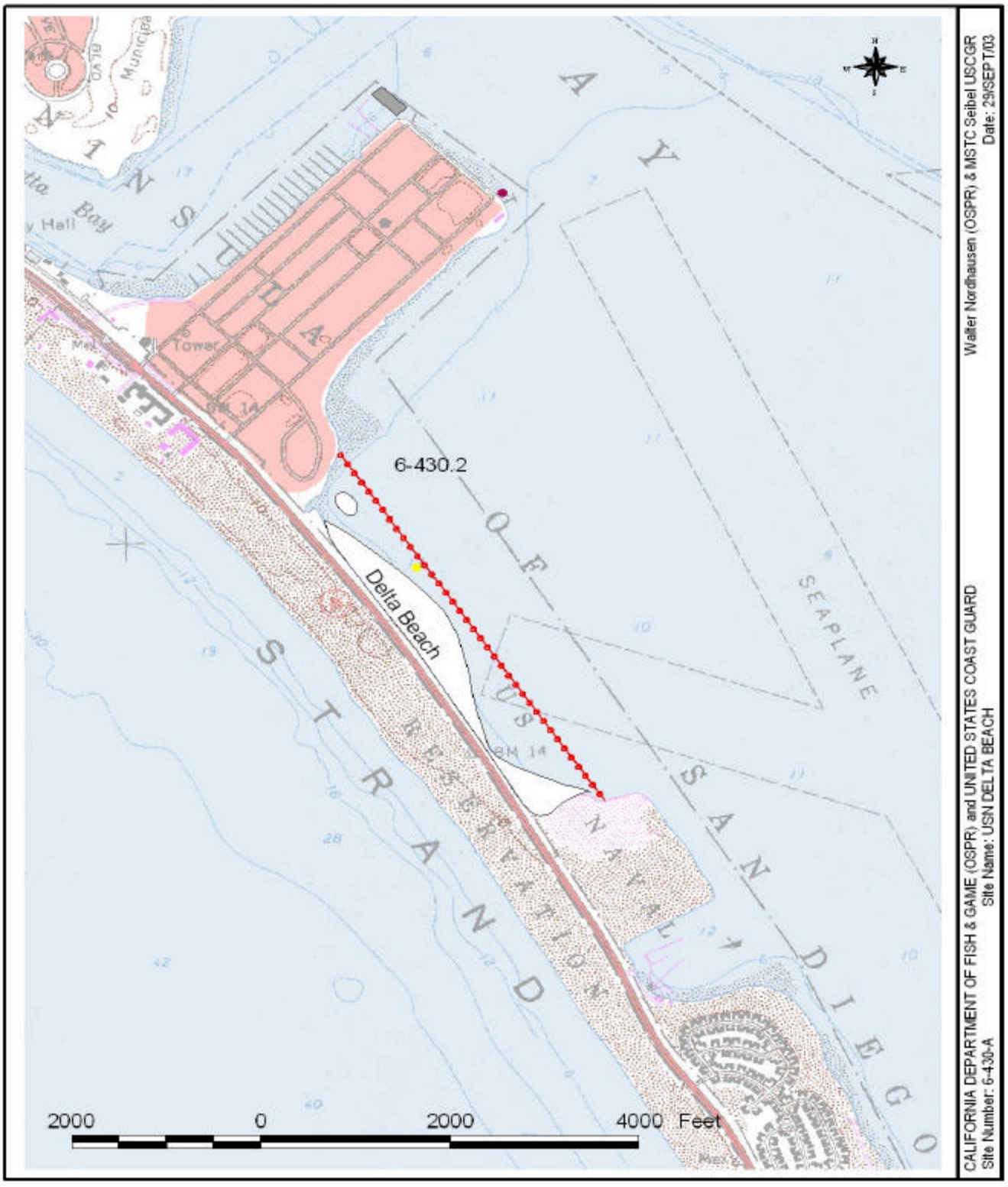
PROTECTION STRATEGIES:

PRIMARY: Immediately notify NRAD Duty Veterinarian

RESOURCES: No response equipment required

SECONDARY: None

6-430-A USN DELTA BEACH **SITE DIAGRAM 6-430-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06- 430 USN Delta Beach
COUNTY: San Diego **LONG:** 117° 09' 24" W
USGS QUAD: Point Loma **LAT:** 32° 39' 56" N

SITE DESCRIPTION: The Delta Beach site is a **California least tern** seasonal nesting area. It is an elevated shoreline of medium and fine grain sand dredge spoils. Any response effort that may require shoreline access onto this site must be approved by US Fish and Wildlife Service and/or the Navy Environmental Resources office.

ACCESS: Land access is available from Silver Strand Highway. The area is secured by fencing and a locked gate.

SEASONAL CONCERNS: During April to September **California least terns** (federal and state Endangered listing) are likely to be nesting at this site. Adult birds will likely be feeding in the bay. Chicks may be present on the shoreline.

PRIORITY: A – During **California lest tern** summer breeding season (April to September)
C – During non-breeding season

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594 5682

TRUSTEE AGENCY/LOCAL EXPERTS:
San Diego Port District (619) 686-6254
San Diego harbor Police (619) 686-6272
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Coronado Hospital (619) 435-6251
Police – Coronado (619) 531-2000
Fire Dept. - Coronado (619) 531-2000

Closest Clean-Up BOA Contractors:
FOSS Environmental (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: The site is in a fenced and gated area accessible from Silver Strand Blvd. Contact the Navy Amphibious Base Security for site entry.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-430 USN Delta Beach

SITE CHARACTERISTICS: The intent of the protection strategy for this site is to prevent oil from contacting the sand beach shoreline. Two levels of response strategy are developed.

PROTECTION STRATEGIES:

PRIMARY: 06-430.1 Cross-bay deflection boom (see: **06-420.1**)

RESOURCES: One or more 2,000 foot boom reaches from strategic pier ends on the east side of San Diego Bay between Naval Station Pier 1 to the south end of 24th Street Terminal.

SECONDARY: 06-430.2 Deploy exclusion boom 300 too 600 feet offshore of the beach face from north to south, parallel to shore.

RESOURCES: 1,500 feet of harbor boom. 6 anchor systems. 2 utility boats.

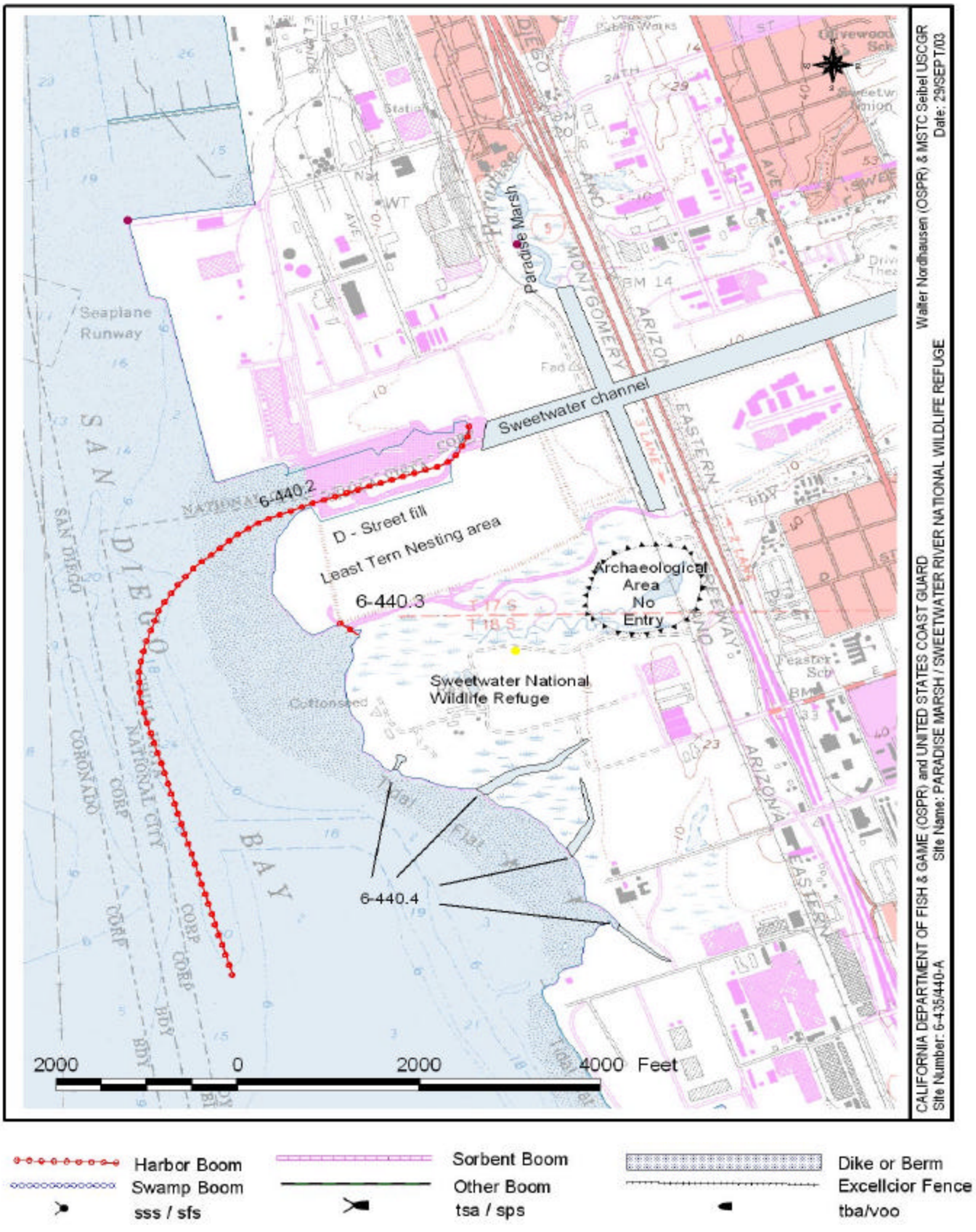
COLLECTION POINT:

ACCESS AREA VIA: Naval Amphib. Base/ SILVER STRAND

STAGING AREA:

REFER TO SITE MAP: Cross Bay Booming Strategy Map

6-435/440-A PARADISE MARSH / SWEETWATER RIVER NATIONAL WILDLIFE REFUGE



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06- 435 Paradise Marsh
COUNTY: San Diego **LONG:** 117° 06' 30" W
USGS QUAD: Imperial Beach **LAT:** 32° 39' 00" N

SITE DESCRIPTION: Paradise Marsh is a small vegetated marsh habitat immediately west of the Interstate-5 freeway at the Sweetwater Channel freeway overpass. Paradise Marsh connects directly to the Sweetwater channel with independent flood channels on the north and south sides of the Sweetwater channel. Each flood channel supports a separate portion of the Paradise Marsh. The north side channel has a constructed concrete tide-gate opening that can be closed with fitted planks. The south side channel is soft mud bottom between earthen slope channels. The south channel is also a remnant of the historic Sweetwater River channel. It passes through the Sweetwater National Wildlife Refuge and emerges at the bay adjacent to the D Street fill. It forms a relatively deep channel within the refuge and provides a significant conduit for tidal flow of water in the north end of the refuge and associated wetland vegetation.

ACCESS: Land-side access to this site is best achieved via the L.M. Pepper park parking lot. A walking trail is available along the Sweetwater channel levee. To reach L.M. Pepper park exit Interstate-5 at Auto Mall Drive west. Turn left into Tidewater Ave. The park is about 1 mile south. L.M Pepper park is a relatively large parking lot with a boat launch ramp. It will accommodate a substantial mount of equipment.

BOAT ACCESS: Water access to this site is best achieved from the L.M. Pepper park boat launch ramp.

SEASONAL CONCERNS: California least tern and **Western snowy plover** may be nesting at the D Street fill area directly across the Sweetwater channel from L.M. Pepper park from April to September. These birds may be feeding in the Sweetwater channel and San Diego Bay water areas.

RESOURCES OF PRIMARY CONCERN: Marsh habitat with associated bird, fish an invertebrate resources. Nesting and feeding **California lest terns** and **Western snowy plovers** during summer months. **California brown pelicans** resting and feeding in the channel year round. Various swimming, skimming, and diving birds. **Belding's savannah sparrow** are present year round and will likely be nesting in the marsh vegetation during summer.

PRIORITY: A – year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours. (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440/ (619) 691-1262/575-2704
US Fish and Wildlife Service (24h) (760) 271-6934
Chula Vista Nature Center Interpretive Center (619) 409-5900 / [after hours (619) 691-5151]

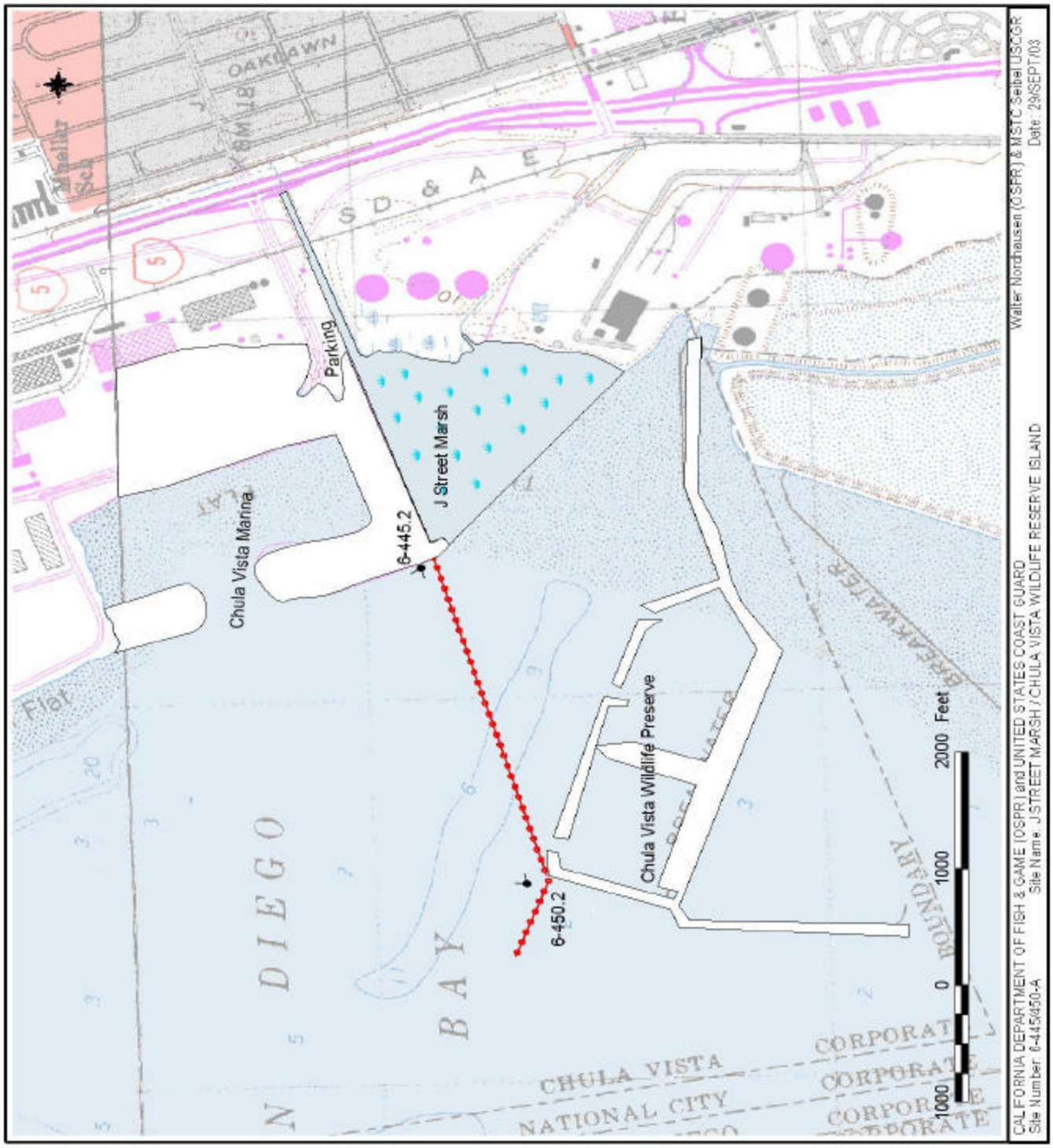
EMERGENCY PHONE NUMBERS
Hospital - Paradise Valley Hosp. (619) 470-4141
Police – National City Police Dept. (619) 336-4411
Fire Dept. – (619) 691-5151

Closest Clean-Up BOA Contractors:

FOSS Environmental (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS:

6-445/450-A J St, MARSH / CHULA VISTA WILDLIFE RESERVE ISLAND 6-445/440-A



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-435 Paradise Marsh **Strategy Revised** 10-2002
and 06-440 Sweetwater National Wildlife Refuge

SITE CHARACTERISTICS: The protection strategy for Paradise Marsh is intended to be located on the Sweetwater Channel west of the marsh flood channels. This site protection is combined with the protection strategy for the Sweetwater National Wildlife Refuge.

The protection of all south bay sites are two or three level responses. All sites rely first on the ability to capture oil at, or above, the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-335.1 Cross-bay Deflection Boom Strategy **06-320.1**

RESOURCES: see **06-320.1**

SECONDARY: 06-335.2 and 06-340.2
This strategy begins at the L.M. Pepper park boat launch ramp and across to the south side of Sweetwater Channel. It then extends westward through Sweetwater Channel rounding the outer channel marker, keeping to the east side of the south bay navigation channel. From there it turns southward toward the south bay along the channel markers. The channel markers themselves provide the anchoring system for much of the boom length. Only in Sweetwater Channel will anchoring systems be provided by the responder.

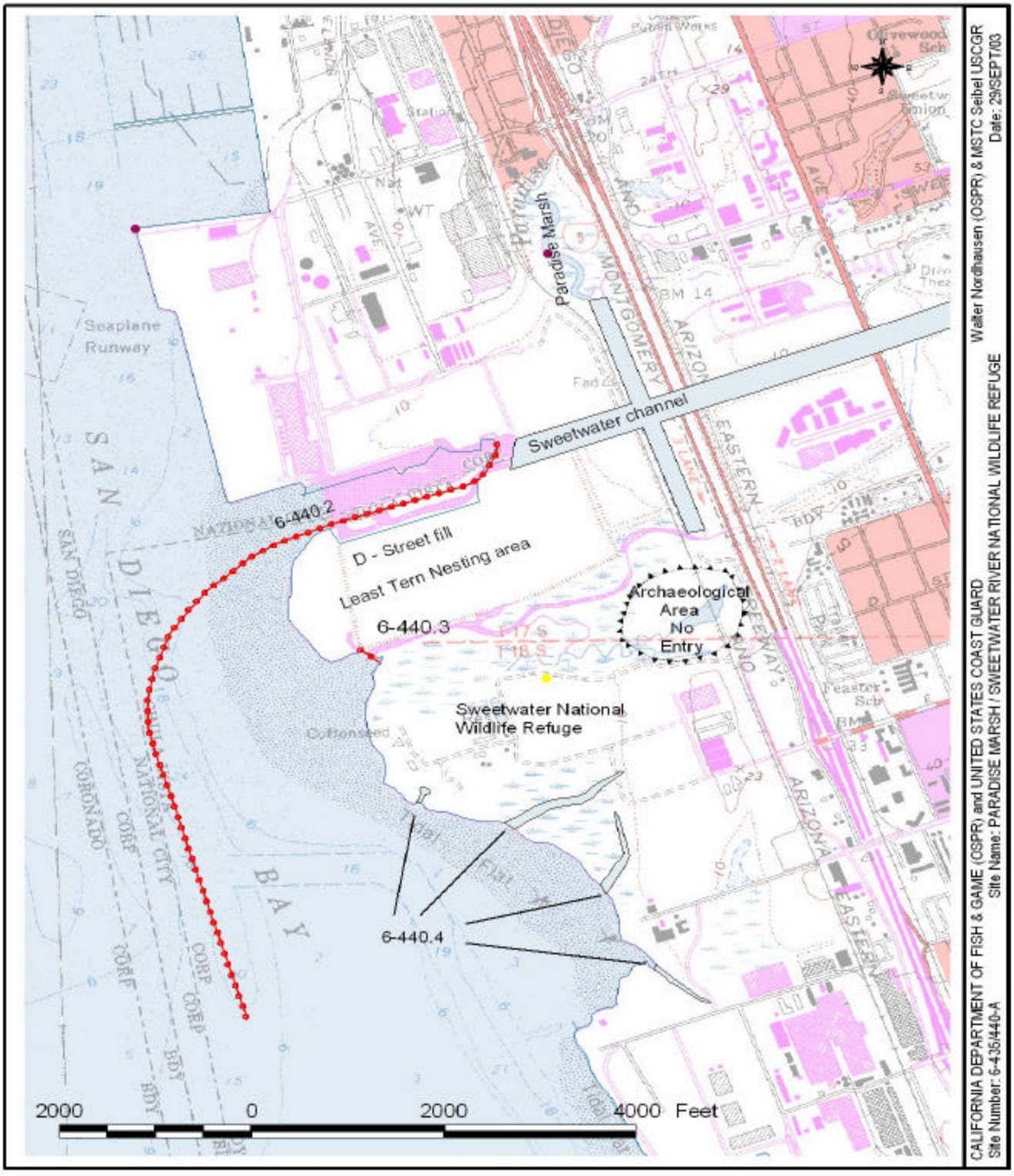
RESOURCES: 7,000 feet harbor boom. 8 anchor systems. 4 utility boats.

COLLECTION POINT:

ACCESS AREA VIA: L.M. Pepper Park boat launch ramp and Sweetwater Channel levee.

STAGING AREA: L.M. Pepper Park vehicle parking lot.

6-435/440-A PARADISE MARSH / SWEETWATER RIVER NATIONAL WILDLIFE REFUGE



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-440 Sweetwater River National Wildlife Refuge
COUNTY: San Diego **LONG.** 117° 06' 30" W
USGS QUAD: Imperial Beach **LAT:** 32° 38' 30" N

SITE DESCRIPTION: Sweetwater River National Wildlife Refuge is owned by the U.S. Fish and Wildlife Service. It is a large marsh area with extensive vegetated habitat influenced by intertidal flooding conditions. It forms an expansive habitat in south San Diego Bay that provides food and shelter to a large number of wildlife resources. Several Threatened or Endangered species are seasonal, or year-round residents.

ACCESS: Sweetwater River Wildlife Refuge can be entered from E Street off I-5. A gate code is necessary at the gated entry (see contacts below). Shore-side entry to the marsh beach face is possible from the parking lot using two available trails. Parking is limited inside the refuge. All cleanup crews need permission to enter, and direction to access trails. Issues regarding listed species must be addressed before any shore-side cleanup activity will begin. If it is necessary to close intertidal flood channels with sandbags, or clean the beaches, these trails will be needed.

SEASONAL CONCERNS: California least terns have been using the nearby D Street fill as a summer nesting area for several years, and may be present between April and September. **California least terns** utilize the San Diego Bay waters as a feeding area.

RESOURCES OF PRIMARY CONCERN: California brown pelicans feed and rest in the bay year round. **Light-footed clapper rail** and **Belding's savannah sparrow** are year-round residents of the marsh, and extremely vulnerable to oiling of the intertidal marsh habitat.

PRIORITY: A – Year round

ARCHAEOLOGICAL PRIORITY: 2 – Notify South Coastal Information Center within 24 hours (619) 504-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440/ (619) 691-1262 / 575-2704
US Fish and Wildlife Service (24h) (760) 271-6934
Bayfront Conservancy (interpretive center operators) (619) 422-8100
San Diego Port District (619) 686-6471

EMERGENCY PHONE NUMBERS
Hospital - Paradise Valley Hosp. (619) 470-4141
Police – National City Police Dept. (619) 336-4411
Fire Dept. – (619) 691-5151

Closest Clean-Up BOA Contractors:
FOSS Environmental - (619) 234-3677
Advanced Cleanup Technologies (ACTI) – (619) 702-6008

REMARKS: The site has an extensive mudflat area along the bay. It is most pronounced at the north end of the refuge around the historic Sweetwater River channel mouth (adjacent to D St. fill). The mudflat areas are very soft and will not support the weight of personnel in cleanup crews. Therefore, any beach cleanup effort must be limited to the upper-intertidal area.

REFERENCES: San Diego Unified Port District Master Plan, Final EIR (1980)
South San Diego Bay Enhancement Plan

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-440 Sweetwater National Wildlife Refuge **Strategy Revised** 10-2002
and 06-435 Paradise Marsh

SITE CHARACTERISTICS: The Sweetwater National Wildlife Refuge protection strategy is combined with the Paradise Marsh protection strategy. The Sweetwater National Wildlife Refuge is a complex site to protect. It is a large wetland with several tidal flood channels. The bay-side face of the refuge is a broad mudflat which will severely restrict the ability of responders to approach the site. Very low tide cycles will be especially troublesome.

The protection strategies for all of the south bay sites are two or three level responses. All sites rely first on the ability to capture oil at or above the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-440.1 and 06-435.1 Cross-bay Deflection Boom strategy **06-420.1**

RESOURCES: see **06-420.1**

SECONDARY: 06-440.2 and 06-435.2
This strategy begins at the L.M. Pepper Park boat launch ramp and across to the south side of Sweetwater Channel. It then extends westward through Sweetwater Channel rounding the outer channel marker, keeping to the east side of the south bay navigation channel. From there it turns southward toward the south bay along the channel markers. The channel markers themselves provide the anchoring system for much of the boom length. Only in Sweetwater Channel will anchoring systems be provided by the responder.

RESOURCES: 7,000 feet harbor boom. 8 anchor systems. 4 utility boats.

TERTIARY: 06-440.3 A third level of protection at this site relies on the use of intertidal boom at the historic Sweetwater River mouth (south edge of D Street fill) and;

RESOURCES: 200 feet of intertidal boom. 3 personnel.

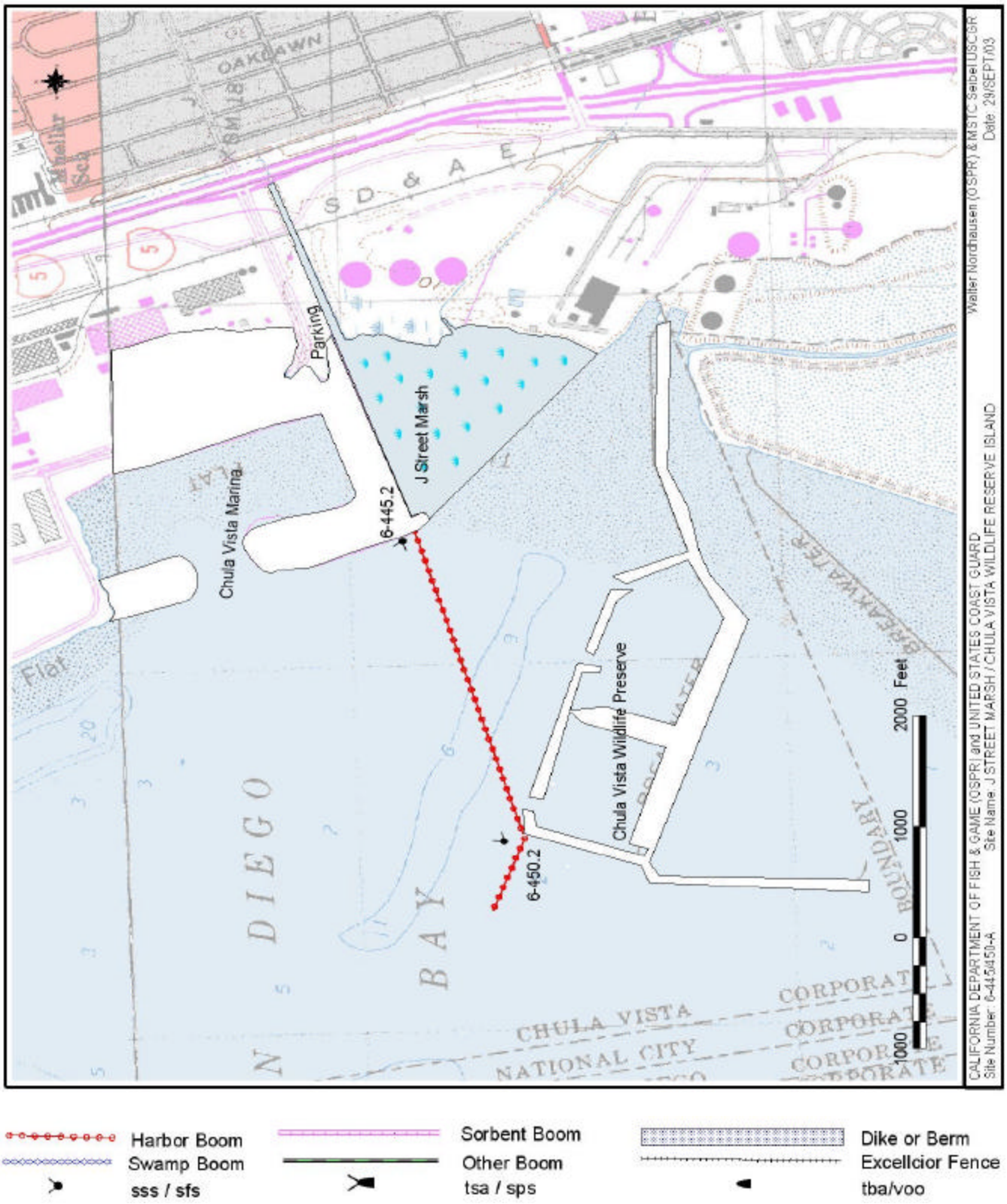
06-440.4 Sandbags placed in the several tidal flood channels. Four such channels are located around the perimeter of the wetland from a promontory on the north end of the wetland to the far south end of the refuge at the F Street road culvert. Each inlet will require at least 100 sandbags to close the respective tidal inlet.

RESOURCES: 500 sandbags. Hand crews of 5 workers at each of four tidal inlets.

ACCESS AREA: By boat from L.M. Pepper Park launch ramp. By land through the Sweetwater National Wildlife Refuge entry gate at the E Street exit from I-5.

STAGING AREA: L.M. Pepper Park and Refuge parking lot areas.

6-445/450-A J St, MARSH / CHULA VISTA WILDLIFE RESERVE ISLAND 6-445/440-A



SITE SUMMARY SHEET **Revised** 2-2003
SITE: 06-445 J Street Marsh
COUNTY: San Diego **LONG.** 117 07' 29" W
USGS QUAD: Imperial Beach **LAT:** 32 36' 25" N

SITE DESCRIPTION: J Street marsh is a relatively small, low-lying tidal marsh situated at the foot of J Street, Chula Vista. Its northern edge is formed by the Chula Vista marina. The site can be fully flooded by tide levels greater than +5 feet.

ACCESS: The site can be accessed from the street near the storm water discharge channel at J Street. Attempt to approach this site from the water should be with great caution due to the shallow water level at its edge. Only very shallow draft vessels should approach.

Foot access into the marsh is possible, but should be done carefully. Some areas of soft mud will likely be encountered. The outer perimeter of mud should be assumed to be very soft.

ACCESS AREA VIA: From I-5 exit J Street, Chula Vista and go west about one-half mile.

SEASONAL CONCERNS: None identified

PRIORITY: B - year round

ARCHAEOLOGICAL PRIORITY: 3 - Notify South Coastal Information Center within 48 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
City of San Diego (619) 973-5963 (24 hr hotline)

EMERGENCY PHONE NUMBERS:
Hospital - Chula Vista (619) 482-5825
Police - Chula Vista (619) 691-5151; SD Harbor Police (619) 686-6272
Fire Dept. - (619) 441-1621/1630/1631

Closest Clean-Up BOA Contractors:
FOSS Environmental (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS:

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-445 J Street Marsh **Strategy Revised** 10-2002
and 06-450 Chula Vista Wildlife Reserve Island

SITE CHARACTERISTICS: The J-Street Marsh is situated immediately south of the Chula Vista Marina and north of the Chula Vista Wildlife Preserve. The Marsh and Preserve are simultaneously protected by this strategy. The south end of San Diego Bay experiences little tidal current effect - except at this area the South Bay Power Plant uses a dredged channel as a path way for power plant cooling water. The channel is in proximity to this protection strategy. The south bay can be substantially influenced by winds.

The protection of all south bay sites are two or three level responses. All sites rely first on the ability to capture oil at, or above, the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-445.1 and 450.1 Cross-Bay Deflection Boom strategy **06-420.1**

RESOURCES: see **06-420.1**

SECONDARY: 06-445.2 and 450.2
Deploy harbor boom from the south corner of the Chula Vista Marina seawall southward toward the northwest corner of the Chula Vista Wildlife Reserve. A 200 foot segment should be extended to the west from the CV Wildlife Reserve corner to serve as a containment area to allow recovery of deflected oil. Vacuum trucks can be staged at this corner for recovery operations.

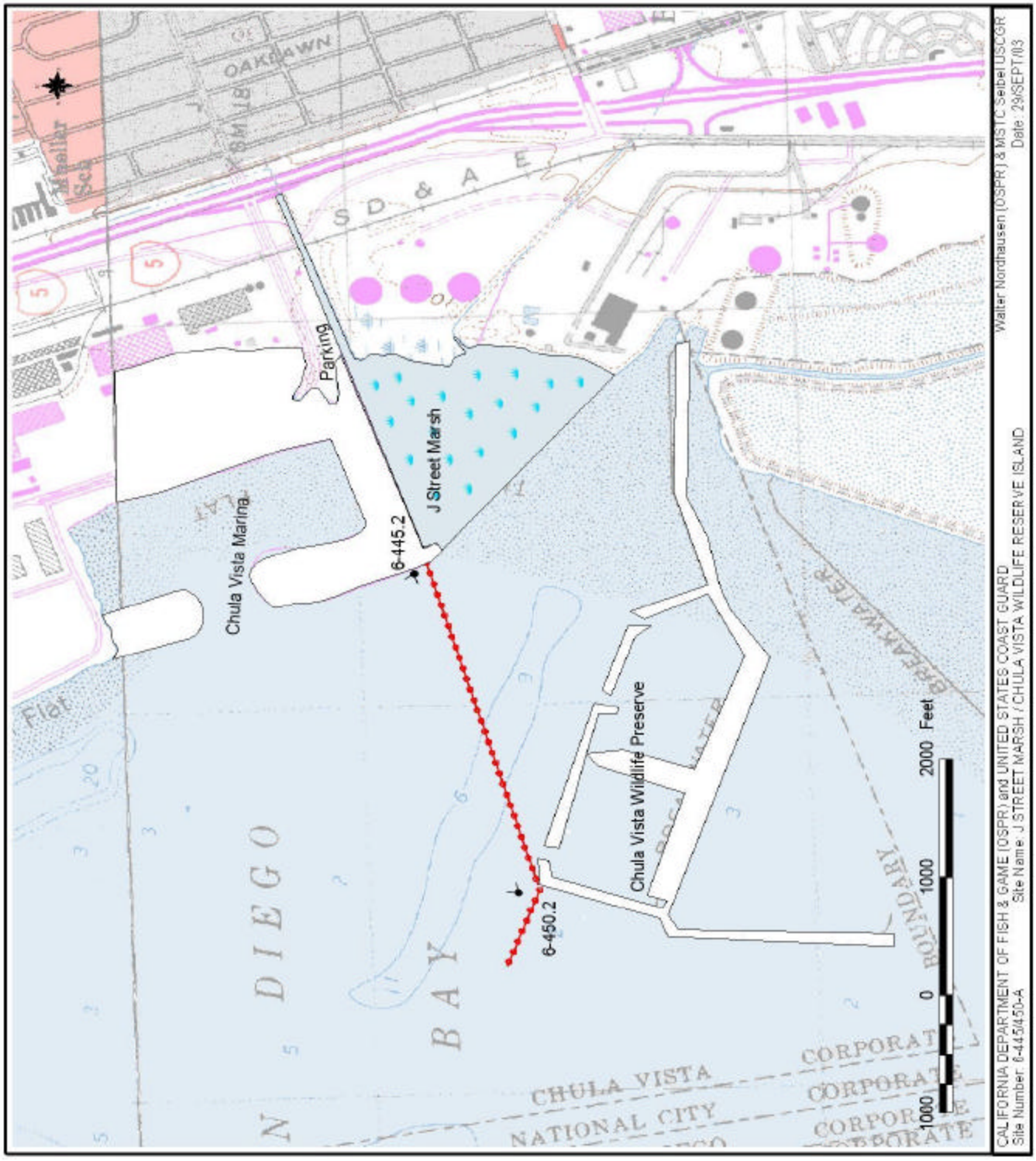
RESOURCES: 4,000 feet harbor boom. 8 anchor systems. 2 utility boats.

COLLECTION POINT: Oil recovery operations can be conducted from the water at the southwest corner of the Chula Vista Wildlife Preserve. During summer months **California least terns** (a listed species) may be actively nesting on the Preserve, and access may be restricted or prevented during that time. Otherwise, shore-side recovery operations may be an option.

ACCESS AREA VIA: J Street exit from I-5. Go west on J Street approximately one-half mile. A boat launch ramp is located inside the Chula Vista Marina.

STAGING AREA: Parking lot off J Street near the Chula Vista marina.

6-445/450-A J St, MARSH / CHULA VISTA WILDLIFE RESERVE ISLAND 6-445/440-A



SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06- 450 Chula Vista Wildlife Reserve Island
COUNTY: San Diego **LONG:** 117° 07' 30" W
USGS QUAD: Imperial Beach **LAT:** 32° 36' 30" N

SITE DESCRIPTION: The Chula Vista Wildlife Reserve Island is a manmade feature designed to provide wetland habitat for marsh inhabiting species, and elevated habitat for **California least tern** nesting. The site is actually a peninsula connected to the mainland at the South Bay Power Plant property, and accessible from land only through that facility. The "island" is owned by the San Diego Port Authority, and entry must be approved by them and cleared by the power plant managers. Protection of the site is primarily directed toward exclusion of oil from the two small embayments that form the wetland habitat. The marshes are open to tidal exchange by three narrow tidal channels all located on the north side of the island.

ACCESS BY LAND: Exit Interstate-5 at the L Street off ramp. Turn left at the stop sign a drive about ¼ mile to the South Bay Power Plant entry gate. The "island" is accessible by road. Response equipment and personnel can be delivered to any needed location on the island, provided nesting bird issues do not preclude access.

ACCESS BY BOAT: The site may be approached by boat. A dredged channel is maintained into the south bay to provide adequate water depth for vessel traffic to the Chula Vista Marina and the power plant. However, water depth near the edge of the island and much of the surrounding area can be relatively shallow. Only shallow draft vessels are advised to approach the island.

SEASONAL CONCERNS: Between April and September **California least terns** and **Western snowy plovers** may be nesting on the island. Confirm approval for access with the San Diego Port Authority and US Fish and Wildlife Service.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, and wetland vegetation occur here both seasonally and year-round. **California brown pelican** are expected to be present year-round. **Green sea turtles** are a common occurrence in the power plant cooling water discharge channel. They are a federally listed species. They are attracted to the year-round warm water discharge and known to hibernate in the channel during winter months. Their activity increases during summer months. As an air breathing animal, they are very likely to be found near the water surface, and they are very susceptible to injury from boat propellers.

PRIORITY: A – year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours. (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
San Diego Port District (619) 686-6471
South Bay Power Plant (619) 420-3066
US Fish and Wildlife Service (760) 431-9440
National Marine Fisheries Service (562) 980-4043

EMERGENCY PHONE NUMBERS
Hospital – Sharps Hospital of Chula Vista (619) 482-5825
Police – Imperial Beach Sheriff Dispatch (619) 585-7232
Fire Dept. – (619) 441-1630

Closest Clean-Up BOA Contractors:
FOSS Environmental - (619) 234-3677
Advanced Cleanup Technologies, Inc. (ACTI) – (619) 702-6008

REMARKS:

REFERENCES: South San Diego Bay Enhancement Plan (1990)
San Diego Unified Port District Master plan Final EIR (1980)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-450 Chula Vista Wildlife Reserve Island **Strategy Revised** 10-2002
and 06-445 J Street Marsh

SITE CHARACTERISTICS: The Chula Vista Wildlife Reserve Island (actually a peninsula) is a manmade structure that serves as a wetland and bird refuge habitat. The primary points of protection need are the two small wetland habitat embayments with tidal flood channels on the north side of the island. This site is combined with the J-Street marsh for site protection effort. The south end of the San Diego Bay experiences little tidal current effect - except at this area the South Bay Power Plant uses a dredged channel as a path way for power plant cooling water. The channel is in proximity to this protection strategy. The south bay can be substantially influenced by winds.

The protection of all south bay sites are two or three level responses. All sites rely first on the ability to capture oil at, or above, the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-445.1 and 450.1 Cross-Bay Deflection Boom strategy **06-420.1**

RESOURCES: see **06-420.1**

SECONDARY: 06-445.2 and 450.2
Deploy harbor boom from the south corner of the Chula Vista Marina seawall southward toward the northwest corner of the Chula Vista Wildlife Reserve. A 200 foot segment should be extended to the west from the CV Wildlife Reserve corner to serve as a containment area to allow recovery of deflected oil. Vacuum trucks can be staged at this corner for recovery operations.

RESOURCES: 4,000 feet harbor boom. 8 anchor systems. 2 utility boats.

COLLECTION POINT: Oil recovery operations can be conducted from the water at the southwest corner of the Chula Vista Wildlife Preserve. During summer months **California least terns** (a listed species) may be actively nesting on the island. Island access may be restricted or prevented during that time. Otherwise, shore-side recovery operations may be an option.

ACCESS VIA: J Street exit from I-5. Go west on J Street approximately one-half mile. A boat launch ramp is located inside the Chula Vista Marina.

STAGING AREA: Parking lot off J Street near the Chula Vista marina.

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-455 South Bay National Wildlife Refuge & Otay River
COUNTY: San Diego **LONG:** 117° 07' 30" W
USGS QUAD: Imperial Beach **LAT:** 32° 36' 30" N

SITE DESCRIPTION: The South Bay National Wildlife Refuge was previously known as the South Bay Salt Works. The salt production ponds are still active, but eventually will be deactivated. The Otay River channel bi-sects the refuge. The refuge ponds are segregated from the south bay water surface and the river channel by a levee system with tidal control gates. The river mouth is vulnerable to oil by natural tidal cycles. In the event of a potential threat to these areas, the refuge can be quickly protected by closure of the tide gates. The river mouth can only be protected by deployment of exclusion boom.

ACCESS: The river mouth can be approached by boat and river levee. The south bay water is quite shallow in this region. During very low tidal cycles this area becomes a vast mud flat. Even during high tidal cycles, only shallow draft boats should approach this area. The river levee is a good alternative protective boom deployment option, but several locked gates will be encountered, and teams of responders will need to be sent to both sides of the river to secure the site.

SEASONAL CONCERNS: Western snowy plovers may utilize a number of potential areas within the salt works shoreline and the river channel during summer nesting activity (April to September). Surface waters of San Diego Bay and the National Wildlife Refuge (salt works) may be used seasonally, and extensively, by a large number of marine birds and water fowl.

RESOURCES OF PRIMARY CONCERN: California brown pelicans feed and rest in the bay year round. **Light-footed clapper rail** and **Belding's savannah sparrow** are year-round residents of the marsh, and extremely vulnerable to oiling of the intertidal marsh habitat.

PRIORITY: A – year round

ARCHAEOLOGICAL PRIORITY: 3 – Notify South Coastal Information Center within 48 hours (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
San Diego Port District (619) 686-6254
US Fish and Wildlife Service (619) 575-2704
Western Salt Works (619) 566-2000

EMERGENCY PHONE NUMBERS
Hospital – Sharps Hospital of Chula Vista (619) 482-5825
Police – Chula Vista Police (619) 691-5151
Fire Dept. – (619) 441-1630

Closest Clean-Up BOA Contractors:
FOSS Environmental (619) 234-3677
Advanced Cleanup Technologies (619)-702-6008

REMARKS: The site is characterized by extensive mudflat area, which is approachable by foot only to a limited degree. Any clean-up activity will be restricted to upper inter-tidal area.

REFERENCES: South San Diego Bay Enhancement Plan (1990)
San Diego Unified Port District Master plan, Final EIR (1980)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-455
South Bay National Wildlife Refuge & Otay River Channel

SITE CHARACTERISTICS: The South Bay National Wildlife Refuge and Otay River are closely integrated. The Refuge was previously known at the South Bay Salt Works, but was designated as wildlife refuge in 2000. The Refuge water is controlled by a series of flood gates. Protection of this area is achieved by closure of flood gates, as necessary. The Otay River mouth is situated in the southwest corner of San Diego Bay. Protection of this site may require the placement of harbor boom across the river channel.

The protection of all south bay sites are two or three level responses. All sites rely first on the ability to capture oil at, or above, the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-455.1 Cross Bay Deflection boom strategy see **06-420.1**

RESOURCES: see **06-420.1**

SECONDARY: 06-455.2 Otay River mouth closure.

6-455/460-A SOUTH BAY SALT WORKS & OTAY RIVER CHANNEL / EMORY COVE SB

Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised** 2-2003
SITE: 06-460 Emory Cove Marsh
COUNTY: San Diego **LONG:** 117° 08' 30" W
USGS QUAD: Imperial Beach **LAT:** 32° 30' 30" N

SITE DESCRIPTION: Emory Cove is located in the extreme southwest corner of San Diego Bay. It is a relatively small marsh habitat maintained by tidal flooding through several narrow tidal channels. During very low tides, the beach face of the marsh may have an expansive sand/mud flat exposure. Very high tides will broadly flood the marsh area. Because the south bay is relatively shallow, any boat approaching this site must be shallow draft. Foot traffic can access the mash area without difficulty.

ACCESS: Land based vehicular traffic can access this site from Silver Strand Highway. Approaching from the south via Imperial Beach Ave is recommended. A small highway pull-off parking lot is located immediately adjacent to the marsh.

SEASONAL CONCERNS: No specific seasonal concerns are identified at this site. Adjacent bay and National Wildlife Refuge (salt works) surface waters may be used seasonally, and extensively, by a large number of marine birds and water fowl.

RESOURCES OF PRIMARY CONCERN: Numerous species of birds, invertebrates, and wetland vegetation occur here both seasonally and year-round. **California brown pelicans** are expected to be present year-round.

PRIORITY: A – year round

ARCHAEOLOGICAL PRIORITY: 2 – Notify South Coastal Information Center within 24 hours. (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
County of San Diego Parks and Recreation (619) 428-2946
San Diego Port District (619) 686-6254
Western Salt Company (619) 566-2000

EMERGENCY PHONE NUMBERS
Hospital – Sharps Hospital of Chula Vista (619) 482-5825
Police – Imperial Beach Sheriff Dispatch (619) 585-7232
Fire Dept. – (619) 423-8222

Closest Clean-Up BOA Contractors:
FOSS Environmental (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: The site is characterized by extensive mudflat area, which is approachable on foot only to a limited degree. Any clean-up activity will be restricted to upper inter-tidal area.

REFERENCES: South San Diego Bay Enhancement Plan (1990)
San Diego Unified Port District Master plan, Final EIR (1980)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-460 Emory Cove

SITE CHARACTERISTICS: The site is located in the most southwesterly corner of San Diego Bay. This region of the bay experiences large changes in water surface area during very wide tidal ranges. At very low tides an expansive mud flat occupies the bay bottom. At very high tides, the marsh will be extensively flooded.

The protection of all south bay sites are two or three level responses. All sites rely first on the ability to capture oil at, or above, the 24th Street Terminal. Secondary strategies are put into motion when it becomes apparent that the primary strategy is likely to be inadequate.

PROTECTION STRATEGIES:

PRIMARY: 06-460.1 Cross-Bay Boom strategy see **06-420.1**

RESOURCES: see **06-420.1**

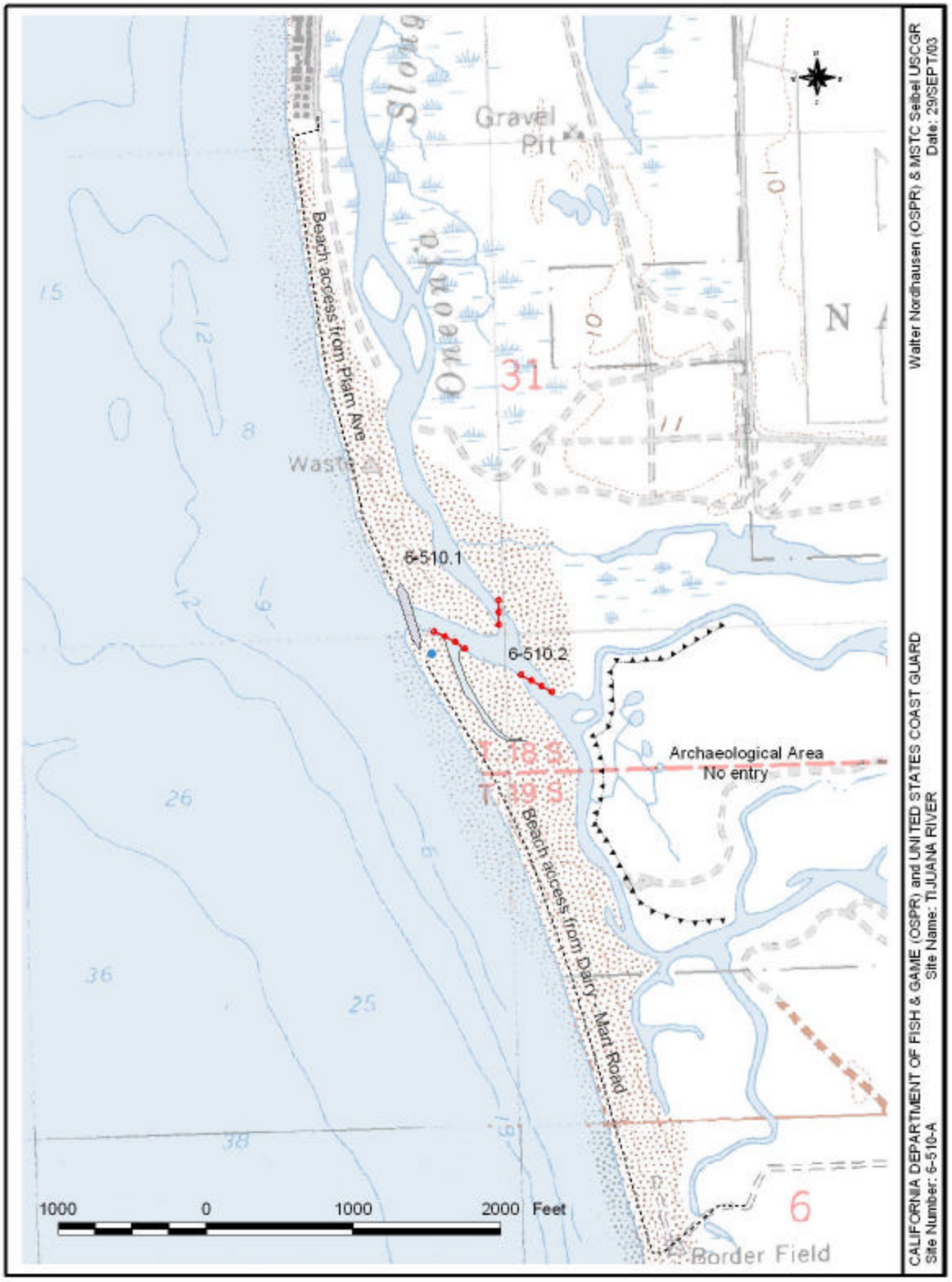
SECONDARY: 06-460.2 To prevent average tidal flood water from entering the tidal flood channels the several flood channels can be closed with sandbag berms. Each channel will require about 75 sandbags.

RESOURCES: 300 sandbags. 3 crews of 5 workers each.

ACCESS AREA VIA: Silver Strand Highway parking area

STAGING AREA: Silver Strand Highway parking area

6-510-A TIJUANA RIVER **Site Diagram** **6-510-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-510 Tijuana River
COUNTY: San Diego **LONG:** 117° 07' 46" W
USGS QUAD: Imperial Beach **LAT:** 32° 33' 24" N

SITE DESCRIPTION: The Tijuana River estuary is a large wetland refuge with extensive interior channeling. The site is managed by the US Fish and Wildlife Service and any response activity must be in accordance with their concerns.

ACCESS: The mouth of the Tijuana River can be accessed along the beach face either from the south or north. Between April and September the beach is often used as a nesting area for **California least terns** and **Western snowy plovers** (both listed species). During summer months beach use may be severely restricted, or completely curtailed.

For south shore entry exit I-5 at Dairy-Mart Road and proceed west to Monument Road out to Border Field State Park and the beach. Go north along the beach face about 1 mile to the river. This route is best for heavy equipment movement.

For north shore entry, exit I-5 to Palm Ave. and travel west about 3 miles. Turn left onto Seacoast Drive and travel about 0.5 mile south to a small parking area. A locked gate will be encountered, and heavy equipment will have difficulty at this entry. The river mouth is about 0.5 mile south.

The estuary can be accessed from the interior of the refuge from the Tijuana Estuary Interpretive Center.

SEASONAL CONCERNS: Between April and September **California least tern** and **Western snowy plover** may be actively nesting on the beach face north and south of the river mouth.

RESOURCES OF PRIMARY CONCERN: California brown pelican are observed in the lagoon year-round. **Belding's savannah sparrow** and **Light-footed clapper rail** are present year round and will likely be nesting in the lagoon vegetation during summer. The **Salt marsh bird's beak** is the only listed plant species, and one of the few coastal sites with a plant listing present.

PRIORITY: A– Year round

ARCHAEOLOGICAL PRIORITY: 1 – Notify South Coastal Information Center immediately (619) 594-5682

TRUSTEE AGENCY/LOCAL EXPERTS:
California State Parks – South Bay Refugees (619) 575-2704
California State Parks (619) 575-3613
US Fish and Wildlife Service (Carlsbad office) (760) 431-9440
US Fish and Wildlife Service (24h) (760) 271-6934

EMERGENCY PHONE NUMBERS
Hospital – Scripps Memorial of Chula Vista (619) 691-7290
Police – Imperial Beach Sheriff Dispatch (619) 585-7232
IB Fire Dept. – (619) 423-8222
Chula Vista Fire Dept. – (619) 441-1630

Closest Clean-Up BOA Contractors:
FOSS Environmental (619) 234-3677

Advanced Cleanup Technologies (619) 702-6008

REMARKS: Heavy equipment may be used to close the mouth of the river by sand berm creation, except during periods of high tidal ranges or high volume river discharge. However, this is considered a doubtful approach, due to the relatively consistent upstream discharge rate. Deflection booms may be a preferred alternative. The river should be considered a potential health hazard due to routinely high levels of sewage contamination. Consult Dept. of Health Services prior to placing clean-up personnel in contact with river water.

REFERENCES: The Ecology of Tijuana Estuary: An Estuarine Profile (1986)
California Coastal Access Guide (1991)

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-510 Tijuana River **Strategy Revised** 10-2002

SITE CHARACTERISTICS: The Tijuana River estuary mouth is open year-round. It is subject to a wide range of inland flow conditions, and should be avoided during rainfall episodes. It should be considered to have **microbiological contamination and may be potential health hazard** to clean-up crews. The estuary has three channel branches that may each require protective boom under certain conditions.

PROTECTION STRATEGIES: The Tijuana River protection strategy involves selecting between two different protection methods. The first possible method addresses the closure of the river mouth with a sand berm. Experience has demonstrated that tides in excess of +5 feet will severely limit the option of a sand berm closure. High tide combined with high surf condition of 5 feet or greater ensures that a sand berm will not succeed. With high energy conditions, protection strategy should shift to the use of harbor boom as exclusion / deflection at the three estuary channels deployed from the interior of the estuary.

PRIMARY: 06-510.1 Construct a 300 foot sand berm closure with underflow at the river mouth utilizing local beach sand.

RESOURCES: 1 bulldozer, 2 front loaders, 1 bulldozer operator, 2 front loader operators, 6 response personnel

COLLECTION POINT: Local beach face areas. Pre-cleaning may be warranted.

SECONDARY: 06-510.2 Deploy 2-tier harbor boom exclusion across the three estuary channels. Direct floating oil to collections points.

RESOURCES: 3,000 feet harbor boom, 24 anchor systems, 3 skiffs, 2 vacuum trucks

COLLECTION POINT: Shoreline sites where oil is concentrated by boom deflection.

ACCESS: 1. From south or north on the beach to the river mouth. Between April and September the beach is often used as a nesting area for **California least terns** , and **Western snowy plovers** (both listed species). During summer months beach access may be severely restricted.

For south shore entry exit I-5 at Dairy-Mart Road and proceed west to Monument Road and out to Borderfield State Park and the beach. Go north along the beach about 1 mile to the river mouth. This route is best for heavy equipment movement.

For north shore entry exit I-5 at Palm Ave. and travel west about 3 miles. Turn left onto Seacoast Drive and travel south about 1 mile to a small parking area. A locked gate will be encountered, and heavy equipment will have difficulty at this entry. The river mouth is about 0.5 mile south.

2. From the Interpretive center to the estuary interior. To find the Interpretive Center exit I-5 at Palm Ave. and travel west about 3 miles. At 3rd Ave. (a 4-way stop sign) and go south about 0.5 mile then left onto Caspian Way. The Center is off Caspian Way.

STAGING AREA: Equipment staging can occur at the south or north beach entry locations, or the estuary interior north shore.

6-610-A CASTLE ROCK **SITE DIAGRAM 6-610-A**

Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-610 Castle Rock
COUNTY: Los Angeles **LONG:** 118° 36' 52" W
USGS QUAD: San Clemente **LAT:** 33° 02' 04" N

SITE DESCRIPTION: A free standing offshore rock utilized by large numbers of **California brown pelicans** and other bird species for roosting and resting.

ACCESS: When sea conditions allow, this rock may be approached by small craft.

SEASONAL CONCERNS: None identified

RESOURCES OF PRIMARY CONCERN: Large numbers of **California brown pelican**.

PRIORITY: B – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130 / 524-0043
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-03
SITE: 06-610 Castle Rock

SITE CHARACTERISTICS: A free standing offshore rock utilized by large numbers of **California brown pelicans** and other bird species for roosting and resting.

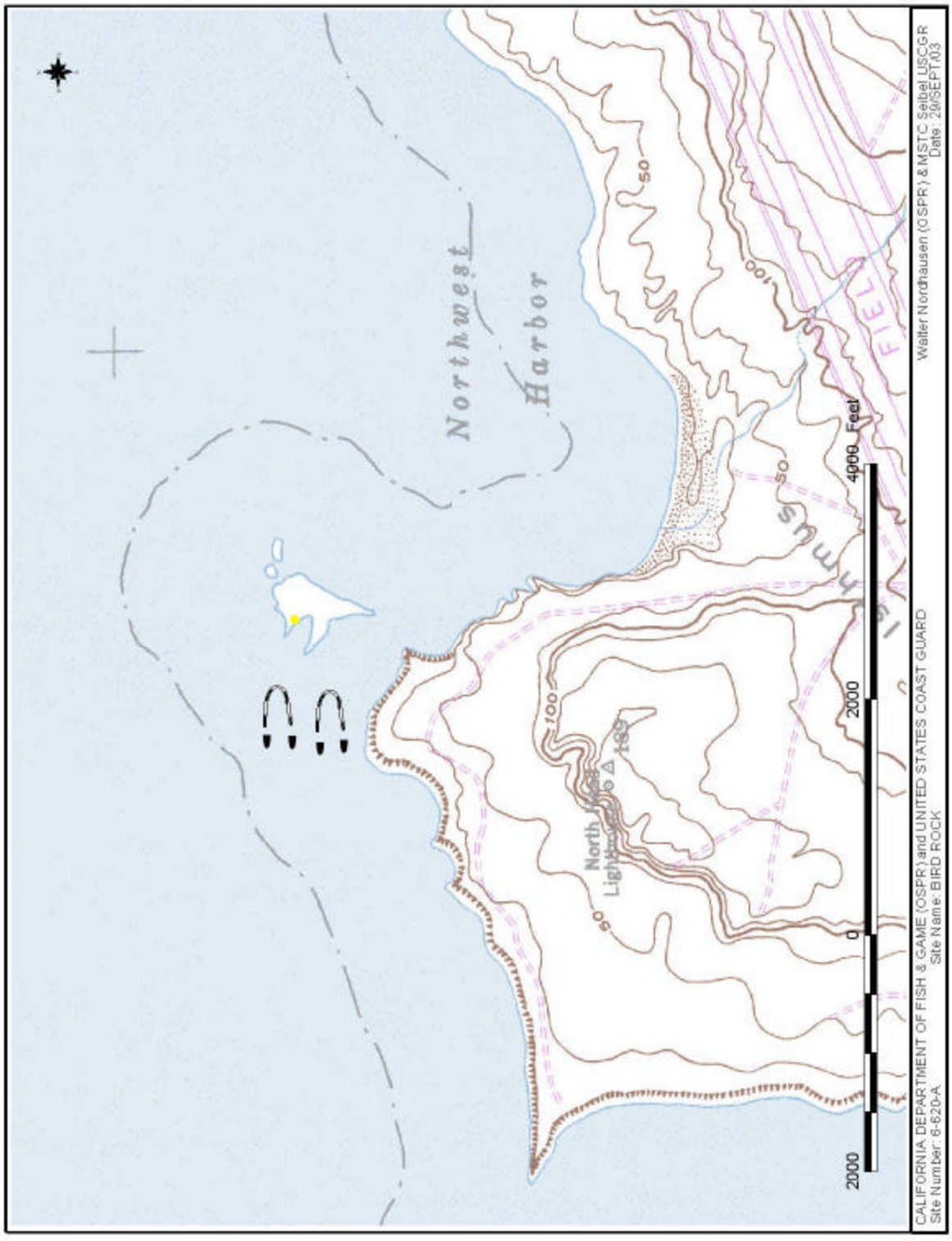
PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-610.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 1,500 feet harbor boom. 4 utility boats.

SECONDARY: none

6-620-A BIRD ROCK **SITE DIAGRAM 6 -620-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-620 Bird Rock
COUNTY: Los Angeles **LONG:** 118° 35' 27" W
USGS QUAD: San Clemente **LAT:** 33° 02' 15" N

SITE DESCRIPTION: A free standing rock utilized by large numbers of birds and year round. Marine mammal haul-out site.

ACCESS: When sea conditions allow, this rock may be approached by small craft.

SEASONAL CONCERNS: None identified

RESOURCES OF PRIMARY CONCERN: Large numbers of birds nesting, roosting and resting. Sea lion and Harbor seal haul-out, with some pups present.

PRIORITY: A – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130 / 524-0043
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-620 Bird Rock

SITE CHARACTERISTICS: A free standing rock utilized by large numbers of birds and year round. Marine mammal haul-out site.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-620.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 1,500 feet harbor boom. 4 utility boats.

SECONDARY: None

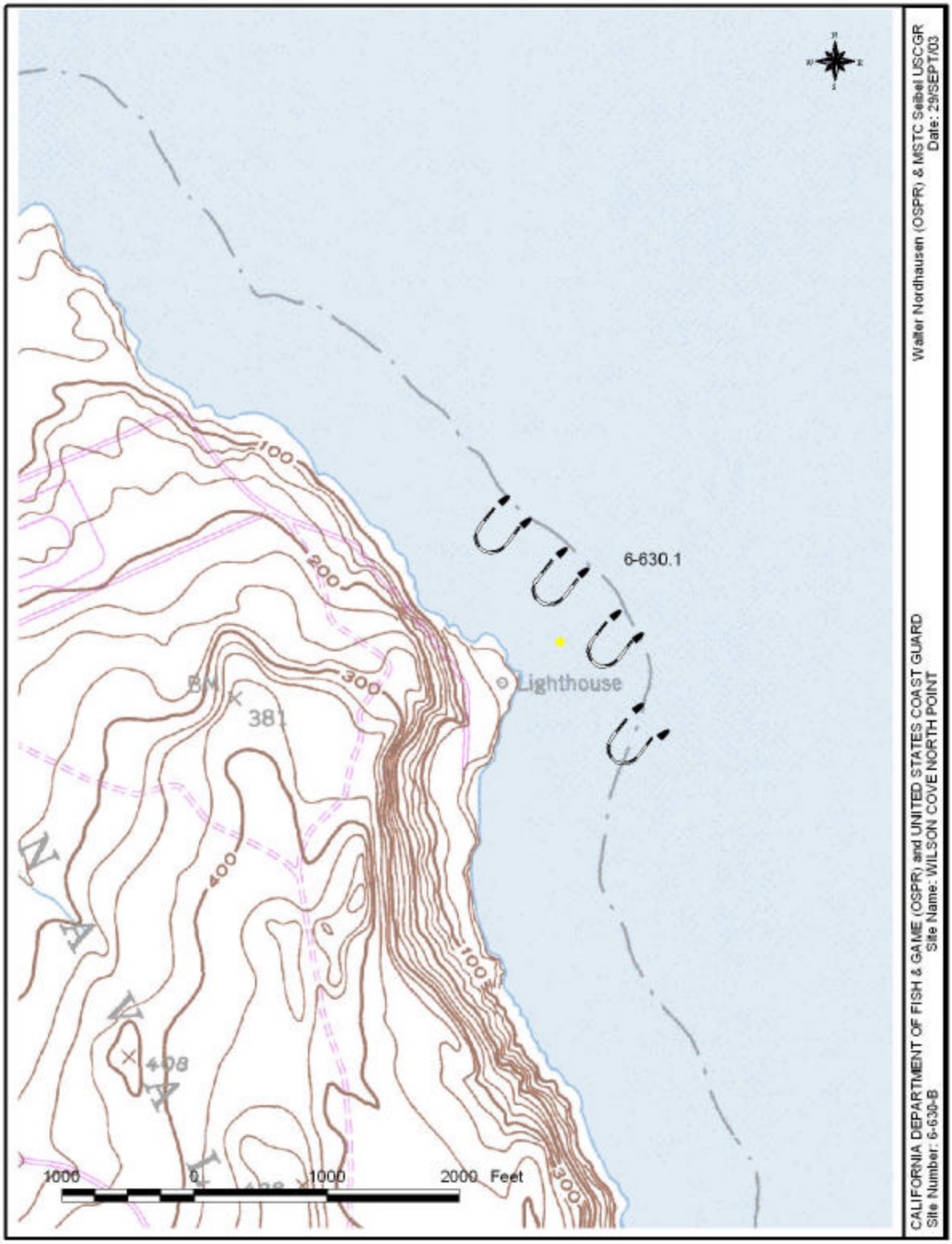
RESOURCES:

COLLECTION POINT: Towed boom

ACCESS AREA VIA: Water only, this site is inaccessible from shore.

STAGING AREA:

6-630-B WILSON COVE NORTH POINT **SITE DIAGRAM 6-630-B**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-630 Wilson Cove, North Point
COUNTY: Los Angeles **LONG:** 118° 33' 17" W
USGS QUAD: San Clemente **LAT:** 33° 01' 30" N

SITE DESCRIPTION: This area is located on the east side of San Clemente Island near the north end.

ACCESS: When sea conditions allow, this shorline may be approached by small craft.

SEASONAL CONCERNS: Potential oiling of adult Cormorants during summer nesting season can result in oiling of eggs, or chicks.

RESOURCES OF PRIMARY CONCERN: Large numbers of Cormorants nesting, roosting and resting.

PRIORITY: B – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130 / 524-0043
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of “Restricted” or “Dangerous” areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-630 Wilson Cove North Point

SITE CHARACTERISTICS: This area is located on the east side of San Clemente Island near the north end.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-630.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

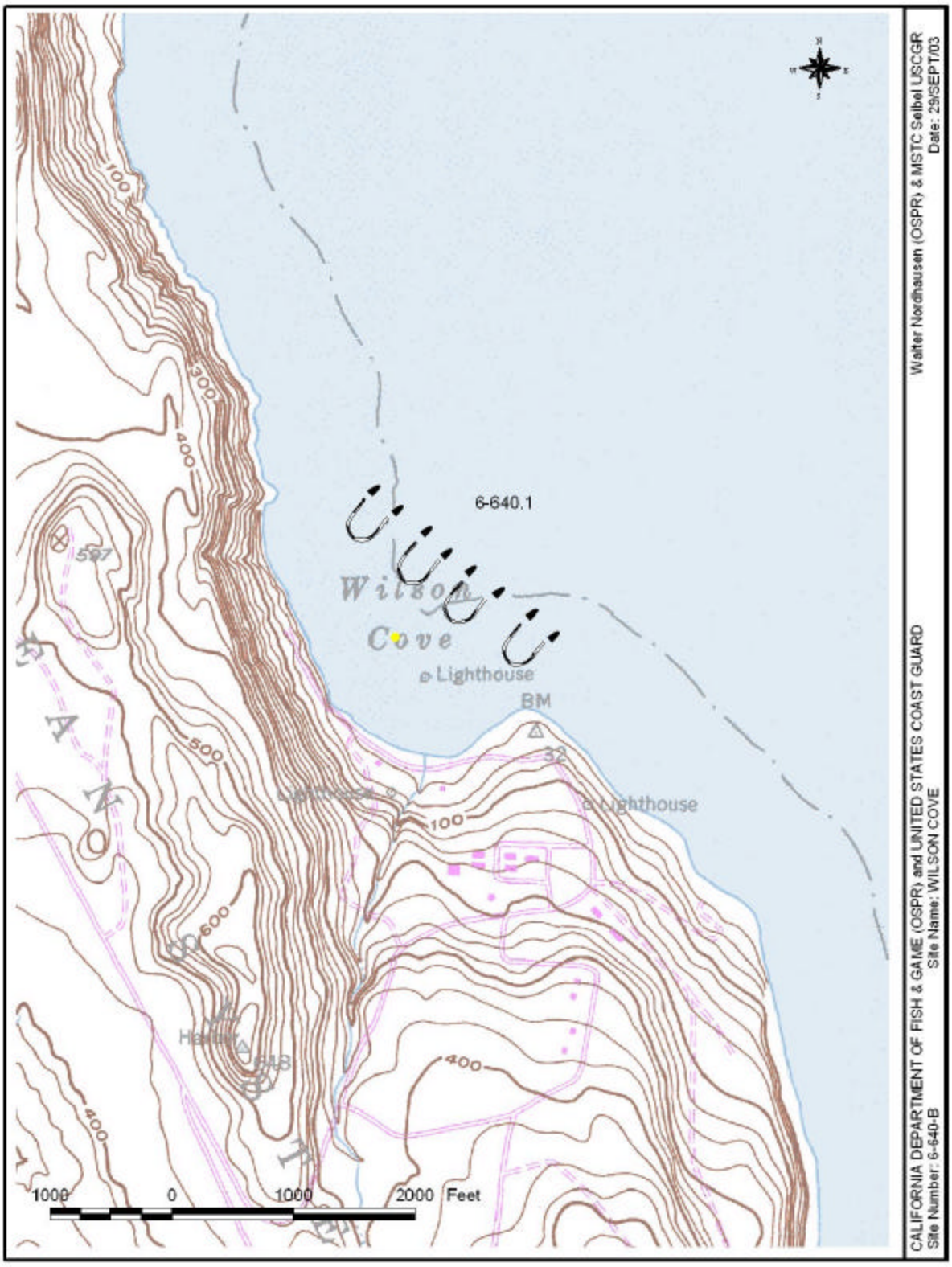
RESOURCES:

COLLECTION POINT: Towed boom.

ACCESS AREA VIA: Water only, this site is inaccessible from shore.

STAGING AREA:

6-640-B WILSON COVE **SITE DIAGRAM 6-640-B**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-640 Wilson Cove, Central Area
COUNTY: Los Angeles **LONG:** 118° 33' 40" W
USGS QUAD: San Clemente **LAT:** 33° 00' 45" N

SITE DESCRIPTION: This area is located on the east side of San Clemente Island near the north end.

ACCESS: When sea conditions allow, this shoreline may be approached by small craft.

SEASONAL CONCERNS: Potential oiling of adult Cormorants during summer nesting season can result in oiling of eggs, or chicks.

RESOURCES OF PRIMARY CONCERN: Large numbers of Cormorants nesting, roosting and resting.

PRIORITY: B – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130 / 524-0043
San Clemente Island Security Office (619) 524-9214
National Marine Fisheries Service (619) 546-7081 / 557-5494

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-640 Wilson Cove

SITE CHARACTERISTICS: This area is located on the east side of San Clemente Island near the north end.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-640.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

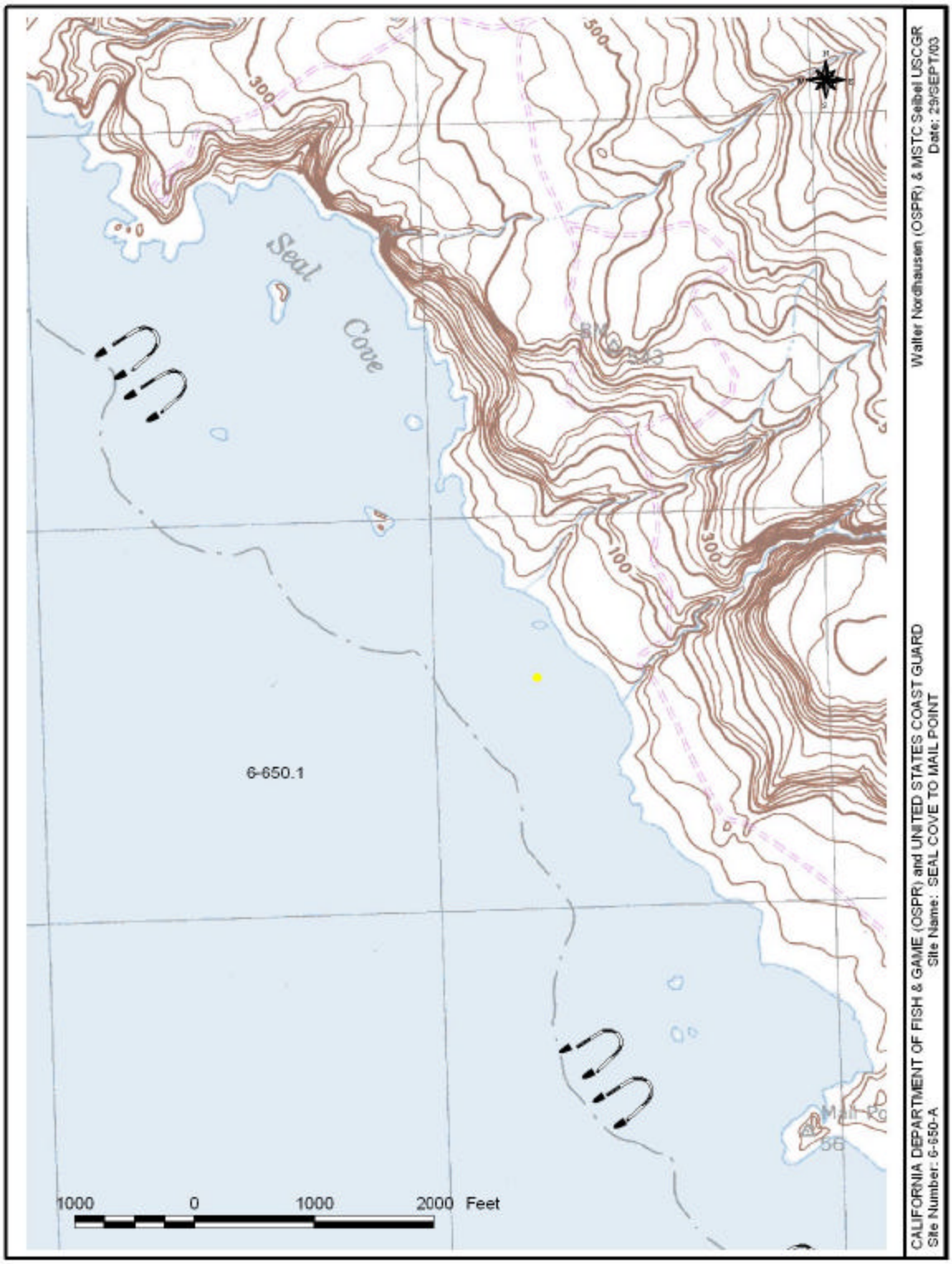
RESOURCES:

COLLECTION POINT: Towed boom.

ACCESS AREA VIA: Water only, this site is inaccessible from shore.

STAGING AREA:

6-650-A SEAL COVE TO MAIL POINT **SITE DIAGRAM 6-650-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-650 Seal Cove to Mail Point
COUNTY: Los Angeles **LONG:** 118° 32' 14" W to 118º 31' 4" W
USGS QUAD: San Clemente **LAT:** 33° 54' 22" N to 32º 53' 06" N

SITE DESCRIPTION: This is a 1.75 mile shoreline section located on the north-central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

ACCESS: This shoreline is accessible to shoreline cleanup crews from the shore side.

SEASONAL CONCERNS: Large numbers of Cormorants nesting, roosting and resting. During summer nesting season can result in oiling of eggs, or chicks.

RESOURCES OF PRIMARY CONCERN: Potential oiling of **California sea lions**, **elephant seals**, **harbor seals**, along with cormorants, western gulls, and **California brown pelican**.

PRIORITY: A – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-650 Seal Cove to Mail Point

SITE CHARACTERISTICS: This is a 1.75 mile shoreline section located on the north-central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

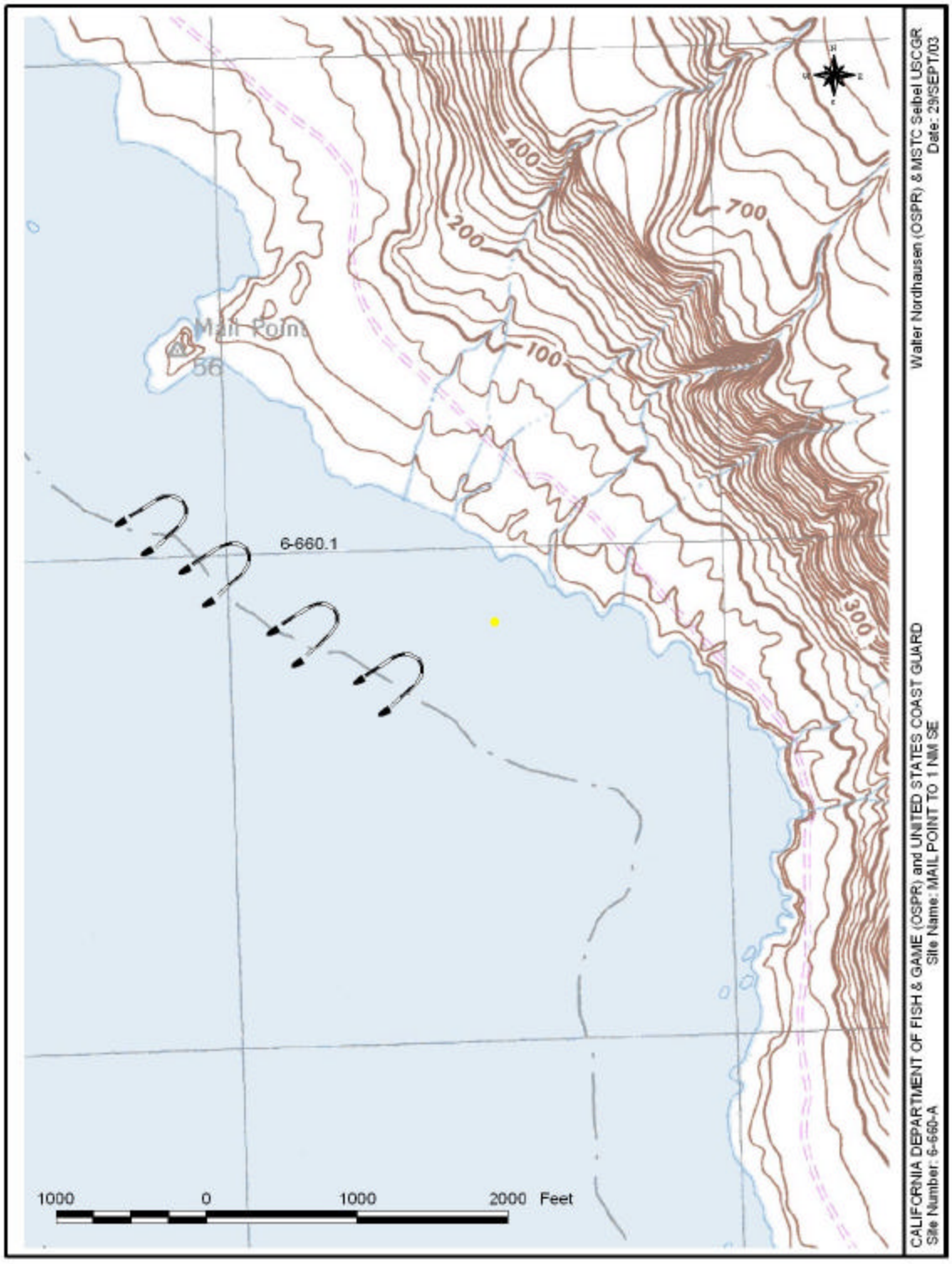
PRIMARY: 06-650.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

RESOURCES:

6-660-A MAIL POINT TO 1 NM SE **SITE DIAGRAM 6-660-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-660 Mail Point to 1nmi SE
COUNTY: Los Angeles **LONG:** 118° 32' 14" W to 118º 30' 25" W
USGS QUAD: San Clemente **LAT:** 33° 53' 05" N to 32º 52' 34" N

SITE DESCRIPTION: This is a 1.0 mile shoreline section located on the central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

ACCESS: This shoreline is accessible to shoreline cleanup crews from the shore side.

SEASONAL CONCERNS: California sea lion pupping during May to October. **Elephant seal** pupping during December to April. Cormorants nesting April to July. Western gulls nesting May to September.

RESOURCES OF PRIMARY CONCERN: Potential oiling of sea lions, elephant seals, harbor seals, adults and pups, along with cormorants, western gulls, and California brown pelican and their eggs and chicks.

PRIORITY: A – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-660 Mail Point to 1nmi South east

SITE CHARACTERISTICS: This is a 1.0 mile shoreline section located on the central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

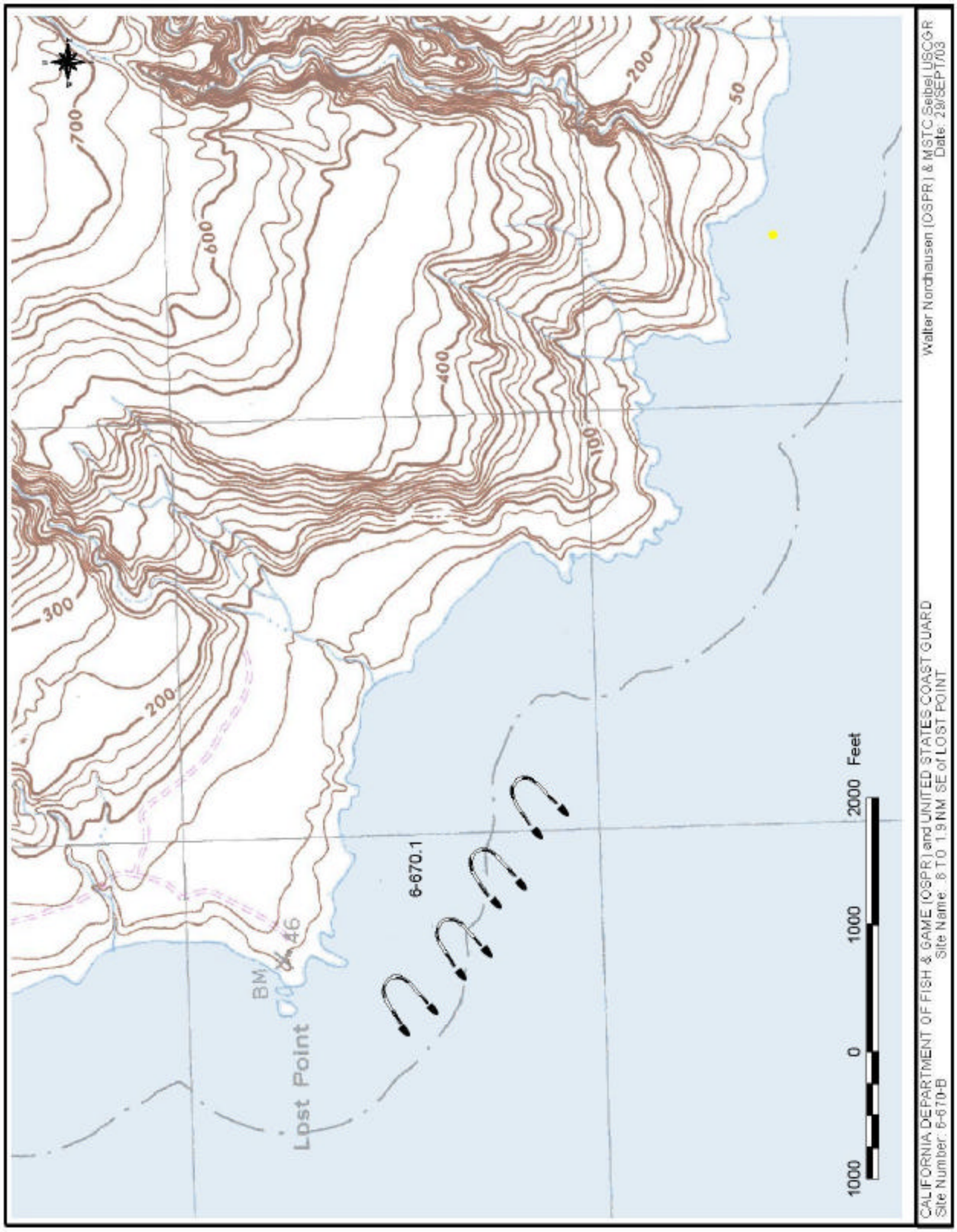
PRIMARY: 06-660.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

RESOURCES:

6-670-B .8 TO 1.P NM SE of LOST POINT **SITE DIAGRAM 6-670-B**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-670 Lost Point, SE of – 0.8 to 1.9 nmi
COUNTY: Los Angeles **LONG:** 118° 29' 20" W to 118º 28'12" W
USGS QUAD: San Clemente **LAT:** 32° 50' 40" N to 32º 50' 08" N

SITE DESCRIPTION: This is a 1.1 mile shoreline section located on the south-central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

ACCESS: This shoreline is accessible to shoreline cleanup crews from the shore side.

SEASONAL CONCERNS: None identified

RESOURCES OF PRIMARY CONCERN: Potential oiling of harbor seals, adults and pups.

PRIORITY: B – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234-3677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-670 0.8 to 1.9 nmi SE of Lost Point

SITE CHARACTERISTICS: This is a 1.1 mile shoreline section located on the south-central, west side of San Clemente Island. It is exposed to open sea conditions and should be considered difficult to approach by sea.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-670.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

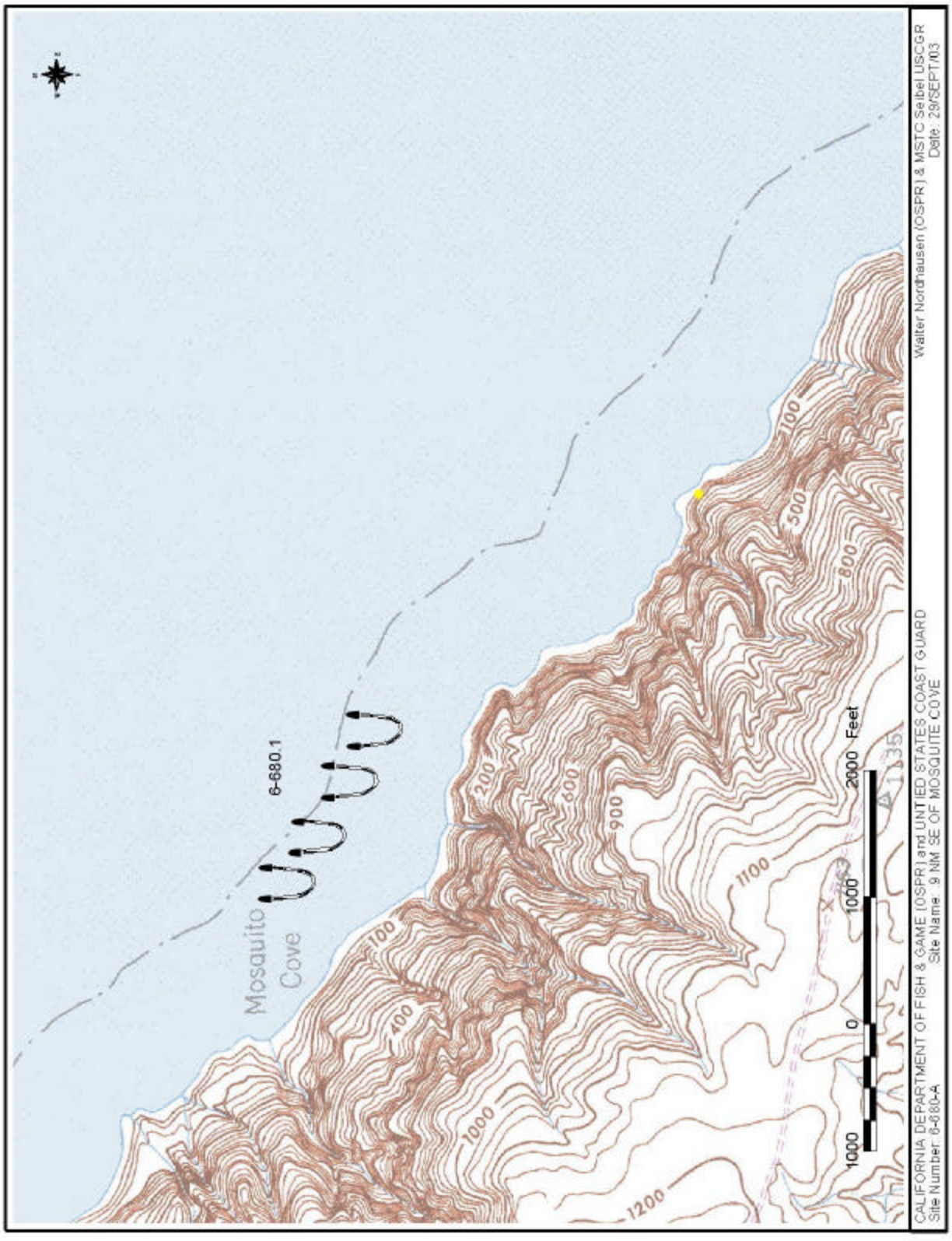
RESOURCES:

COLLECTION POINT: Towed boom.

ACCESS AREA VIA: Water only, this site is accessible from shore only with difficulty.

STAGING AREA:

6-680-A .9 NM SE OF MOSOUITE COVE **SITE DIAGRAM 6-680-A**



Harbor Boom
Swamp Boom
sss / sfs

Sorbent Boom
Other Boom
tsa / sps

Dike or Berm
Excellcior Fence
tba/voo

SITE SUMMARY SHEET **Revised:** 2-2003
SITE: 06-680 Mosquito Point, SE of – 0.9 nmi
COUNTY: Los Angeles **LONG:** 118° 23' 10" W
USGS QUAD: San Clemente **LAT:** 32° 51' 03" N

SITE DESCRIPTION: This site is a bird nesting and roosting area approximately 0.9 n mile southeast of Mosquito Cove on the east side of San Clemente Island, near the south end of the Island. It is somewhat protected from open sea conditions and may be approachable by sea.

ACCESS: This shoreline is inaccessible to shoreline cleanup crews from the shore side due to the high, steep cliffs characteristic of the east side of the island.

SEASONAL CONCERNS: Cormorant nesting during May to July.

RESOURCES OF PRIMARY CONCERN: Potential oiling of adult cormorants resulting in oiling of eggs and chicks during breeding season.

PRIORITY: B – Year Round

ARCHAEOLOGICAL PRIORITY: Not Applicable

TRUSTEE AGENCY/LOCAL EXPERTS:
US Navy Natural Resources Office (619) 545-1130
San Clemente Island Security Office (619) 524-9214

EMERGENCY PHONE NUMBERS
Hospital –
Police –
Fire Dept. -

CLOSEST CLEAN-UP BOA CONTRACTORS
FOSS Environmental Services (619) 234 -677
Advanced Cleanup Technologies (619) 702-6008

REMARKS: Note the presence of "Restricted" or "Dangerous" areas at various locations around the island. Consult San Clemente navigation chart #18762.

SITE PROTECTION STRATEGY **Document Updated** 4-2003
SITE: 06-680 0.9 nmi SE of Mosquito Cove

SITE CHARACTERISTICS: : This site is a bird nesting and roosting area approximately 0.9 n mile southeast of Mosquito Cove on the east side of San Clemente Island, near the south end of the Island. It is somewhat protected from open sea conditions and may be approachable by sea.

PROTECTION STRATEGIES: Consideration should be given to Alternative Response Technologies in accordance with the area contingency plan.

PRIMARY: 06-680.1 Deploy boom tow array boats offshore of this site to intercept arriving petroleum.

RESOURCES: 3,000 feet harbor boom. 8 utility boats.

SECONDARY:

RESOURCES:

COLLECTION POINT: Towed boom.

ACCESS AREA VIA: Water only, this site is accessible from shore only with difficulty.

STAGING AREA:

4000 PLANNING

4000 - 4400 PLANNING: TABLE OF CONTENTS

Section #	Section	Page #
4100	Planning Section Organization	4000-1
4110	Planning Section Cycle Guide	4000-1
4200	Roles and Responsibilities	4000-1
4210	National Response Team	4000-1
4220	Regional Response Team	4000-2
4230	Area Committee	4000-2
4240	ICS Planning Section Roles	4000-3
4241	Planning Section Chief	4000-3
4242	Situation Unit	4000-3
4242.1	Display Processor	4000-3
4242.2	Field Observer	4000-3
4242.3	Trajectory Analysis	4000-3
4242.4	Geographic Information Specialist	4000-3
4242.5	Resources at Risk Technical Specialist	4000-4
4243	Resources Unit	4000-4
4243.1	Check in Recorder	4000-4
4243.2	Volunteer Coordinator	4000-4
4244	Documentation Unit	4000-4
4245	Demobilization Unit	4000-4
4246	Technical Specialists	4000-4
4246.1	Waste Management	4000-5
4246.2	Scientific Support Coordinator (SSC)	4000-5
4246.3	Alternative Response Technology	4000-5
4246.4	Legal	4000-5
4300	Compliance Guidance	4000-5
4310	Federal Statutory & Regulatory Guidance	4000-5
4311	CERCLA	4000-5
4312	FWPCA as amended by CWA & OPA	4000-6
4313	National Historic Preservation Act (NHPA)	4000-7
4314	Endangered Species Act (ESA)	4000-7
4315	Resource Conservation and Recovery Act (RCRA)	4000-8
4316	National Environmental Policy Act (NEPA)	4000-9
4320	State Statutory & Regulatory Guidance	4000-9
4330	Local Statutory & Regulatory Guidance	4000-9
4400	Strategic Response Priorities	4000-9
4410	Environmental/Economic Sensitive Sites Priorities	4000-9

4500 PLANNING: STRATEGIC RESPONSE STRATEGIES - TABLE OF CONTENTS

Section #	Section	Page #
4500	Strategic Response Strategies	4000-14
4510	Protection Strategies	4000-15
4520	Containment Strategies	4000-17
4530	Recovery Strategies	4000-18
4530.1	Introduction	4000-18
4530.2	The On-Water Recovery Branch	4000-19
4530.3	Offshore/Open Water Operations	4000-19
4530.4	Nearshore/Shallow Water	4000-20
4530.5	Shoreline Types	4000-21
4530.6	Shoreline Cleanup	4000-22
4530.7	Potential Shoreline Treatment Methods	4000-23
4530.8	Near Spill Containment and Recovery	4000-42
4540	Waste Management Strategies	4000-43
4547	Waste Management Facilities	4000-48
4550	Alternative Response Strategies	4000-56
4550.1	Introduction	4000-56
4550.2	Policy	4000-56
4551	Dispersants	4000-56
4551.1	Quick Approval Process/Decision Process	4000-56
4551.2	Pre-approval Process and Regional Philosophy	4000-57
4552	In-Situ Burning	4000-77
4553	Oil Spill Cleaning Agents	4000-117
4554	Bioremediation	4000-121
4555	Shoreline Cleaning Agents	4000-128
4560	S.M.A.R.T	4000-132

4000 PLANNING

4600-4700: ENVIRONMENTAL INDICES, MAPS & SCENARIOS TABLE OF CONTENTS

Section #	Section	Page #
4600	Environmental Sensitivity Indices, Maps & Information	4600-134
4610	Natural/Physical Environment Sensitivity Maps	(Refer to Section 3600)
4620	Culturally/Economic Sensitivity Maps with Protection Priorities	(Section 3600)
4621	Culturally & Archaeologically Sensitive Areas	4000-134
4622	Economically Sensitive Areas	4000-134
4622.1	Water Intake Facilities	4000-139
4622.2	Commercial Facilities/Dry-dock Facilities	4000-141
4622.3	Marinas/Recreational Areas	(Refer to Section 5400)
4622.3	Coastal Recreational Areas	4000-143
4710	Scenario/International Worst Case Spill (Mexico)	4000-152
4720	Scenario/Worst Case Spill (Water) San Diego Bay Entrance	4000-157
4730	Scenario/Most Probable Worst Case Spill San Diego	4000-168
4740	Scenario/Maximum Most Probable Oil Spill	4000-168
4800-4900	Open for District/Area Committee/HQ Designation	4000-171

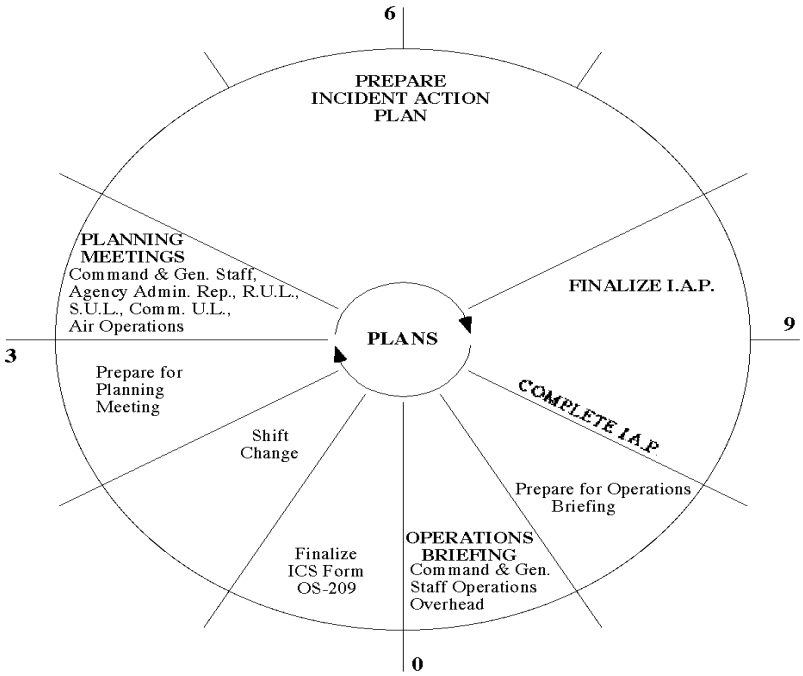
4100 PLANNING SECTION ORGANIZATION

The Planning Section is responsible for the collection, evaluation, and dissemination of tactical information related to the incident, and for the preparation and documentation of Action Plans. The section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident. Includes the Situation, Resource, Documentation, and Demobilization Units, as well as Technical Specialists.

Several Planning Section Units may be established. Duties of each Unit are covered in other modules. Not all of the Units may be required, and they will be activated based upon need.

4110 Planning Section Cycle Guide

Planning Section Planning Cycle Guide



Based on a 12 hour operational period, may be modified based on actual duration of operational period (e.g. 24, 36, etc.)

ABBREVIATIONS & ACRONYMS

Agency Admin. Rep.: Agency Administrator Representative
Comm. U.L.: Communications Unit Leader
Gen.: General
I.A.P.: Incident Action Plan
R.U.L.: Resources Unit Leader
S.U.L.: Situation Unit Leader

4200 ROLES AND RESPONSIBILITIES

4210 National Response Team (NRT)

The NRT's membership consists of 15 federal agencies with responsibilities, interests and expertise in various aspects of emergency response to pollution incidents. The EPA serves as chairman and the Coast Guard serves as vice-chairman of the NRT, except when activated for a specific incident. The NRT is

primarily a national planning, policy and coordination body and does not respond directly to incidents. The NRT provides policy guidance prior to an incident and assistance as requested by an OSC via an RRT during an incident. NRT assistance usually takes the form of technical advice, access to additional resources/equipment, or coordination with other RRTs.

4220 Regional Response Team (RRT)

There are 13 RRTs, one for each of the ten federal regions and Alaska, the Caribbean and Pacific Basin. Each RRT has Federal and State representation. EPA and the Coast Guard co-chair the RRTs. Like the NRT, RRTs are planning, policy and coordinating bodies, and do not respond directly to incidents. The RRTs develop Regional Contingency Plans for their regions. These plans address region specific issues and provide guidance to the OSCs for developing their area plans. The RRTs also provide one level of review for the Area Contingency Plans. The RRTs may be activated for specific incidents when requested by the OSC. If the assistance requested by an OSC exceeds an RRT's capability, the RRT may request assistance from the NRT. During an incident the RRT may either be alerted by telephone or convened. The cognizant RRTs will also be consulted by the OSC on the approval/disapproval of the use of chemical countermeasures when that decision has not been pre-approved.

For RRT contact information, go to: http://www.uscg.mil/d11/m/rrt9web/contact.htm

4230 Area Committee

The primary role of the Area Committee is to act as a preparedness and planning body. Area Committees are made up of experienced environmental/response representatives from Federal, State and local government agencies with definitive responsibilities for the area's environmental integrity. Each member is empowered by their own agency to make decisions on behalf of the agency and to commit the agency to carrying out roles and responsibilities as described in this plan. The pre-designated Federal On-scene Coordinator for the area will serve as chairman of the Committee. He/she will designate the vice-chairman, select the Committee members, and provide general direction and guidance for the Committee. The OSC should solicit the advice of the RRT to determine appropriate representatives from federal and state agencies. The Area Committee is encouraged to solicit advice, guidance, or expertise from all appropriate sources and establish subcommittees as necessary to accomplish the preparedness and planning tasks.

Subcommittee participants may include facility owners/operators, shipping company representatives, cleanup contractors, emergency response officials, marine pilots associations, academia, environmental groups, consultants, response organizations and concerned citizens. The OSC will appoint subcommittee members. The OSC directs the Area Committee's development and maintenance of the Area Contingency Plan.

4240 *Planning Section Roles*

Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17) for List of Responsibilities

4241 *Planning Section Chief*

The Planning Section Chief, a member of the General Staff, is responsible for the collection, evaluation, dissemination and use of information about the development of the incident and status of resources. Information is needed to 1) understand the current situation, 2) predict probable course of incident events, and 3) prepare alternative strategies for the incident.

4242 *Situation Unit / Leader*

The Situation Unit Leader is responsible for the collection and evaluation of information about the current and possible future status of the spill and the spill response operations. This responsibility includes the compilation of information regarding the type and amount of oil spilled, the amount of oil recovered, the oil's current location and anticipated trajectory, and impacts on natural resources. This responsibility includes providing information to the GIS Specialist(s) for the creation of maps to depict the current and possible future situation and the preparation of reports for the Planning Section Chief.

4242.1 Display Processor

The Display Processor is responsible for the display of incident status information obtained from Field Observers, resource status reports, aerial and other photographs and infrared data.

4242.2 Field Observer

The Field Observer is responsible to collect situation information from personal observations at the incident and provide this information to the Situation Unit Leader.

4242.3 Trajectory Analysis

The Trajectory Analysis Specialist is responsible for providing to the Unified Command projections and estimates of the movement and behavior of the spill. The specialist will combine visual observations, remote sensing information, computer modeling as well as observed and predicted tidal, current and weather data to form these analyses. Additionally, the specialist is responsible for interfacing with local experts (weather service, academia, researchers, etc.) in formulating these analyses. Trajectory maps, overflight maps, tides and current data, and weather forecasts will be supplied by the specialist to the Situation Unit for dissemination throughout the Command Post.

4242.4 Geographic Information Specialist (GIS)

The GIS Specialist is responsible for gathering and compiling updated spill information and providing various map products to the incident. The GIS team will work with the Situation Unit and the information management officer to ensure accurate and rapid dissemination of oil spill information to the ICS.

4242.5 Resources at Risk Specialist (RAR)

The Resources at Risk Technical Specialist is responsible for the identification of resources thought to be at risk from exposure to the spilled oil through the analysis of known and anticipated oil movement and the location of natural, cultural, and economic resources. The Resources at Risk Technical Specialist considers the relative importance of the resources and the relative risk to develop a priority list for protection.

4243 Resources Unit / Leader

The Resource Unit Leader (RESTAT) is responsible for maintaining the status of all resources (primary and support) at an incident. RESTAT achieves this through development and maintenance of a master list of all resources, including check-in, status, current location, etc. This unit is also responsible for preparing parts of the Incident Action Plan (ICS 203, 204 & 207) and compiling the entire plan in conjunction with other members of the ICS, (e.g., Situation Unit, Operations, Logistics) and determines the availability of resources.

4243.1 Check in Recorder

Check-in recorders are needed at each check-in location to ensure that all resources assigned to an incident are accounted for.

4243.2 Volunteer Coordinator (Also refer to Volunteer Plan, Sect 9720)

The Volunteer Coordinator is responsible for managing and overseeing all aspects of volunteer participation, including recruitment, induction and deployment. The Volunteer Coordinator is part of the Planning Section and reports to the Resources Unit Leader.

4244 *Documentation Unit*

The Documentation Unit Leader is responsible for the maintenance of accurate, up-to-date incident files. Examples of incident documentation include: Incident Action Plan, incident reports, communication logs, injury claims, situation status reports, etc. Thorough documentation is critical to post-incident analysis. Some of these documents may originate in other sections. This unit shall ensure each section is maintaining and providing appropriate documents. Incident files will be stored for legal, analytical, and historical purposes. The Documentation Unit also provides duplication and copying services.

4245 *Demobilization Unit*

The Demobilization Unit Leader is responsible for developing the Incident Demobilization Plan, and assisting Sections/Units in ensuring that an orderly, safe, and cost effective demobilization of personnel and equipment is accomplished from the incident.

4246 *Technical Specialists*

Technical Specialist are advisors with special skills needed to support the incident. Technical Specialists may be assigned anywhere in the ICS organization. If necessary, Technical Specialists may be formed into a separate unit. The Planning Section will maintain a list of available specialists and will assign them

where needed. The following are example position descriptions for Technical Specialists that might be utilized during an oil spill response.

4246.1 Waste Management Specialist (also refer to section 9934.2 for Waste Mgt Plan)

The Waste Management Specialist (WMS) is responsible for providing the Planning Section Chief with a Waste Management Plan that details the collection, sampling, monitoring, temporary storage, transportation, and waste management of all anticipated wastestreams generated as a result of the spill response. The duties of the WMS are as follows:

4246.2 Scientific Support Coordinator (SSC) (also refer to Sect. 5613.1)

The Scientific Support Coordinator (SSC), in accordance with the National Contingency Plan, will provide the federal On Scene Coordinator (OSC) scientific advice with regard to the best course of action during a spill response. The SSC will obtain consensus from the Federal Natural Resource Trustee Agencies and provide spill trajectory analysis data, information on the resources at risk, weather information, tidal and current information, etc. The SSC will be the point of contact for the Scientific Support Team from National Oceanic and Atmospheric Administration's (NOAA) Hazardous Material Response and Assessment Division.

4246.3 Alternative Response Technology / Specialist (Also refer to Sect. 4550, A.R.T.)

The Alternative Response Technologies Specialist is responsible for evaluating the opportunities to use ART, including dispersant or other chemical countermeasures, in-situ burning, and bioremediation. The specialist will conduct the consultation and planning required to deploy a specific ART, and articulate the environmental tradeoffs of using or not using a specific ART.

4246.4 Legal / Specialist

The Legal Specialist will act in an advisory capacity during an oil spill response.

4300 COMPLIANCE GUIDANCE

4310 Federal Statutory & Regulatory Guidance

The Coast Guard obtains it's pollution investigation authority through pollution response laws. These laws give us many different authorities such as assessing penalties, pollution prevention regulations, access to monies for clean-up of pollution, and required notifications for releases.

The Federal Government requires that the National Response Center (NRC) be notified (**1-800-424-8802**) by the responsible party for oil or hazardous substance discharge/releases. Failure to notify or deliberate discharge can lead to criminal penalties. State law requires that the Office of Emergency Services (OES) be notified (**1-800-852-7550**).

4311 *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as Superfund, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous

waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. In addition, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP, 40 CFR Part 300) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

CERCLA (pronounced SIR-cla) provides a Federal Superfund to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through the Act, the Coast Guard and EPA were given power to seek out those parties responsible for any release and assure their cooperation in the cleanup.

4312 *Federal Water Pollution Control Act (FWPCA) as amended by Clean Water Act (CWA) & Oil Pollution Act of 1990 (OPA 90)*

Through these environmental laws, the Coast Guard requires that upon a discharge or release that proper notifications are made. The Federal Water Pollution Control Act (FWPCA) is the primary law used for response and enforcement of oil pollution and hazardous substance discharges on or upon the navigable waters of the United States, or tributaries there of.

The Clean Water Act (CWA) amended the FWPCA and made the following provisions:

- Established pollution fund with a $100 million amount.
- Defined “reportable and harmful quantities”.
- Authorized the federal assumption of clean-up operations.
- Established the National Response center.

The Oil Pollution Act (OPA) of 1990 streamlined and strengthened Coast Guard’s and EPA’s ability to prevent and respond to catastrophic oil spills. A trust fund financed by a tax on oil is available to clean up spills when the responsible party is incapable or unwilling to do so. The OPA requires oil storage facilities and vessels to submit to the Federal government plans detailing how they will respond to large discharges. EPA has published regulations for aboveground storage facilities; the Coast Guard has done so for oil tankers. The OPA also requires the development of Area Contingency Plans to prepare and plan for oil spill response on a regional scale.

The Oil Pollution Act (OPA) of 1990 amended the CWA and made the following provisions:

- Created a $1 billion pollution fund commonly referred to as the Oil Spill Liability Trust Fund (OSTLF).
- Allowed On-Scene Commander (OSC) to issue administrative orders.
- Increased civil penalties.
- Increased spiller liabilities.

4313 ***National Historic Preservation Act (NHPA)***

Congress passed the National Historic Preservation Act in 1966. The law established a national policy for the protection of historic and archaeological sites and outlined responsibilities for federal and state governments to preserve our nation's history.

The National Historic Preservation Act (NHPA) was passed to help prevent the loss of irreplaceable historic properties. The Act created the Advisory Council on Historic Preservation to advise the President and Congress on matters involving historic, archeological and cultural preservation. The Act also authorizes the Secretary of the Interior to maintain a National Register of Historic Places which lists sites, districts, buildings, structures, and objects of significance in American history, architecture, archeology, engineering, and culture.

All undertakings that may affect on a registered property must be reported, under Section 106, to the appropriate State Historic Preservation Officer (SHPO). Further documentation for a Determination of No Adverse Effect, Determination of Adverse Effect, and Failure to Agree may be required depending on the type of action and the assessment of potential impacts by the SHPO.

All military land holdings must be surveyed by a cultural resources professional to locate National Register resources. If historic resources must be destroyed, measured drawings, photographs, and other techniques must be used to prepare a permanent record, under the guidance of the Historic American Buildings Survey/Historic America Engineering Record.

Section 106 of the NHPA requires federal agency heads to consider the effects of their actions on historic and archeological sites that are eligible for the National Register of Historic Places. Regulations for accomplishing this responsibility have been published in the Federal Register as 36 CFR Part 800: Protection of Historic Properties. They detail the efforts that a federal agency must undertake to protect the historical environment.

The NHPA requires that any activity that obtains a federal permit or license, uses federal funds, or is otherwise assisted or approved by the U.S. government to comply with section 106.

Examples of projects that require compliance with this law include:

> federal development activities, such as a new reservoir built by the U.S. Army Corps of Engineers; construction of municipal waste water treatment facilities that require a permit from the Environmental Protection Agency; new highway construction that utilizes federal funds; and local government improvement projects to rehabilitate or demolish housing using funds from the Housing and Urban Development Agency (HUD).

* In depth information regarding the Programmatic Agreement on Protection of Historic Properties During Emergency Response Under the National Oil and Hazardous Substances Pollution Contingency Plan may be found at the following Internet website:

http://www.achp.gov/NCP-PA.html

4314 *Endangered Species Act (ESA)*

The Endangered Species Act provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The U.S. Fish and Wildlife Service (FWS) of the Department of the Interior maintains the list of 632 endangered species (326 are plants) and 190 threatened species (78 are plants). Species include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses, and trees. Anyone can petition FWS to include a species on this list. The law prohibits any action, administrative or real, that results in a "taking" of a listed species, or adversely affects habitat. Likewise, import, export, interstate, and foreign commerce of listed species are all prohibited.

The mission of the Endangered Species Act (ESA), first passed in 1973, is to (1) identify species needing protection and provide means to protect and recover those species; (2) provide for consideration of listed species prior to any federal action that may affect them; and (3) to prevent and punish takings of those species and harm to their critical habitats. The ESA's main sections of 4, 7, and 9 provide the basic structure for the Act's missions.

ESA Section 4 contains the process for the initial listing of endangered and threatened species and for critical habitat. This section also mandates that the U.S. Fish and Wildlife Service or National Marine Fisheries Service prepare recovery plans for each listed species in order to identify and implement the measures needed to protect and recover each species.
ESA Section 7 mandates that all federal agencies carry out programs for the conservation of endangered and threatened species. Section 7 requires that federal agencies consult with the Secretary before taking any action which may affect a listed species in order to ensure that the action will not jeopardize the continued existence of the endangered species or result in the destruction or modification of critical habitat for the species. The Act is applicable to all federal departments and agencies and to all actions "authorized, funded or carried out" by them including federal permits, federal funding, or other federal action necessary to a private project. Federal action cannot occur without consultation between the permitting agencies and the USFWS or NMFS if a listed species may be affected by the planned activity. The consultation process includes issuance of a "biological opinion" by the agency with jurisdiction over the endangered species assaying the nature and extent of the jeopardy posed to that species by the agency action.

ESA Section 9 contains prohibitions against "takings" of listed species. The statute defines "takings" as including to "harass, harm, pursue, hunt, wound or attempt to engage in any such conduct." "Harass" is further defined by regulations as an intentional or negligent act or omission that significantly disrupts normal behavior patterns of the endangered animal. Similarly, "harm" is defined to include activity that results in significant environmental modification or degradation of the endangered animal's habitat.

4315 *Resource Conservation and Recovery Act (RCRA)*

The Resource Conservation and Recovery Act (RCRA) regulates the identification, transportation, treatment, storage, and disposal of solid and hazardous wastes. EPA has created a complex regulatory framework addressing solid waste disposal and hazardous waste management for RCRA. The act regulates such matters as: hazardous waste generators and transporters; land disposal restrictions (LDR); federal procurement of products that contain recycled materials; municipal solid waste landfill criteria; solid and hazardous waste recycling; treatment, storage and disposal facilities; and waste minimization and hazardous waste combustion.

RCRA gave EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous wastes.

The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses only on active and future facilities and does not address abandoned or historical sites (see CERCLA).

HSWA (pronounced "hiss-wa") The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that required phasing out land disposal of hazardous waste. Some of the other mandates of this strict law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

4316 *National Environmental Policy Act (NEPA)*

The National Environmental Policy Act was one of the first laws ever written that establishes the broad national framework for protecting our environment. NEPA's basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment.

NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other federal activities are proposed. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all Federal agencies and are the most visible NEPA requirements.

4320 State Statutory & Regulatory Guidance

California laws applicable to the prevention, response and management of releases of oil and hazardous materials are numerous. References to the various Codes that may pertain to particular aspects of these activities are made below:

Water Code, Division 7, §§ 13000-14076; Fish & Game Code Division 6, Part 1, Chapter 2, Article 1, §§ 5650-5655; Harbors and Navigation Code, Division 1.5, §§ 90-153; Harbors and Navigation Code Division 2, Chapter 3, §§ 293-294; Health and Safety Code, Division 104, Part 13, Chapter 4, Article 2, §§ 117475-117500; Health and Safety Code, Division 104, Part 13, Chapter 4, Article 4, §§ 117510-117525; Health and Safety Code, Division 20, portions of Chapters 6.6, 6.7, 6.11, 6.67, 6.75, and 6.95; Government Code, Title 5, Division 1, Part 1, Chapter 5.5, §§ 51010-51019.1; Government Code, Title 2, Division 1, Chapter 7, Article 3.5, §§ 8574.1-8574.23; Government Code, Title 2, Division 1, Chapter 7.4, §§ 8670.1- 8670.72; Public Resources Code, Division 7.8, §§ 8750-8760; Health and Safety Code, Division 20, Chapter 6.5, §§ 25100-25250.25; and Public Resources Code, Division 30, §§ 40000-48695. Regulations adopted pursuant to these code sections may also be applicable to these operations.

Workers at oil spill scenes will have completed training, receive supervision and conduct all operations in accordance with requirements specified by Title 8 of the California Code of Regulations, Section 5192.

4330 Local Statutory & Regulatory Guidance

See section 1550 and 1560 for local information.

4400 STRATEGIC RESPONSE PRIORITIES

4410 Environmental & Economic Sensitive Sites Priorities in Geographic Order

Sites are arranged from north to south as they are encountered along the coastline. Listings include, from left to right, the Site Number, Priority Ranking (A to F), Archaeological Ranking (1 to 3) where applicable, and Site Name.

Orange County/San Diego County Line to Agua Hedionda Lagoon

6-110 A/C San Mateo Creek
6-115 A/C San Onofre Creek

07189 E Camp Pendleton Recreational Beach
07188 E San Onofre State Beach
07109 D So. Cal Edison, San Onofre Power Plant
6-120 A Las Flores Creek
6-130 A Aiso Canyon Creek
6-135 A French Canyon Creek
6-140 A Cockleburr Creek
6-145 A Santa Margarita River
07132 D Oceanside Marina
07190 E Harbor Beach
6-150 A San Luis Rey River
07191 E Oceanside City Beach
07192 E Oceanside Pier
07195 E South Oceanside Beach
07196 E Carlsbad City Beach
07197 E Carlsbad State Beach

Agua Hedionda Lagoon to Mission Bay Entrance

6-155 A Agua Hedionda Lagoon
07106 D Hubbs-Seaworld, water intake
07108 D San Diego Gas & Electric, Encina Power Plant
07113 D Van Olst Aquatic Systems Inc., water intake
07199 E South Carlsbad State Beach
6-160 A Batiquitos Lagoon
07200 E Beacon's Beach
07201 E Encinitas Beach
07202 E Stone Steps Beach
07203 E Moonlight Beach
07204 E Swami's Beach
6-165 A San Elijo State Beach
07011 A/C 3 San Elijo Lagoon
07206 E Cardiff State Beach
07207 E Tide Beach Park
07208 E Fletcher Cove Park
6-170 A San Dieguito Lagoon
07211 E Del Mar Bluffs City Park
07212 E Del Mar City Beach
07213 E Seagrove Park
6-175 A Los Penasquitos Lagoon
07214 E Torrey Pines State Beach
07216 E Torrey Pines City Beach
07105 D Scripps Institute
07217 E La Jolla Shores Beach (Kellog Park)
6-180 A La Jolla Cove
07219 E Ellen Scripps Park
07014 B 3 La Jolla Peninsula (mammal haulout)
07220 E Children's Pool Beach (mammal haulout)
07223 E Marine Street Beach

07224 E Windansea Beach
07231 E Tourmaline Surfing Park
07234 E Crystal Pier
07235 E Mission Beach Park
6-200 Mission Bay Entrance

Mission Bay Interior

07236 E Bonita Cove
07237 E Ventura Cove
07238 E Santa Clara Point and El Carmel Point
07239 E Sail Bay and Riviera Shores
07240 E Crown Point Shores
6-210 A KendallFrost Reserve
07135 E Marina Village Marina
07136 E Mission Bay Marina
07241 E Vacation Isle
07244 E Fiesta Island
07246 E De Anza Cove
07104 D Sea World, Mission Bay, water intake
07137 E Sea World Marina
07242 E Dana Landing and Quivira Basin
07125 D Knight & Carver, Dry-dock service
07114 D Dave Laport, Aquaculture

San Diego River to Tijuana River

6-400 A San Diego River Mouth
07248 E Ocean Beach Park
07249 E Ocean Beach Pier
07250 E Ocean Beach City Beach
07251 E Sunset Cliffs Park
6-310 B Point Loma (mammal Haulout)
07254 E Cabrillo Monument
6-400 A San Diego Bay Entrance
07265 E Coronado Shores Beach
07269 E Silver Strand State Beach
07270 E Imperial Beach
07028 A 1 Tijuana River and Slough Complex
07271 E Border Field State Park

San Diego Bay Interior

North San Diego Bay
San Diego Bay Entrance to Fisherman's Landing.
South & West Shoreline North & East Shoreline
6-410 B 3 Mammal Pens this side of San Diego Bay.
6-415 B 1 Mag. Silencing
All structures are related to Naval facility activities.

Shelter Island area includes marinas 07138 through 07152 and 07252. All priority E.
Commercial Basin area includes marinas 07153 through 07159. All priority E.
07127 E Driscoll Boat Yard
07130 E Neilson Beaumont
07131 E Shelter Is. Boat yd Harbor Island area includes marinas 07160 through 07167. All priority E.
07258 E Maritime Museum
07169 E Embarcadero marina
07107 D SDG&E Power Plant
07122 E B St. Pier B

Central San Diego Bay

Fisherman's Landing to 24th Street Terminal

West Shoreline	East Shoreline
07170 E	Glorietta Bay Mar.
07186 E	Tuna Boat Basin
07171 E	Lowes Hotel/Marina
07187 E	Fisherman's Village
07172 E	Port Dist. Mooring
07168 E	Marriott Marina
07022 B 3	Navy Mammal Pen
07120 E	10th Ave. Mar. Term.
6-430 A/C 3	Delta Beach
07101 D	Kelco
07173 E	Coronado Yacht Club
07103 D	NASSCO
07124 E	Campbell Indust.
07128 E	Continental Maritime
07129 E	Southwest Marine
07102 D	Naval Sta. Pub. Wrks
07119 E	24th St. Marine Term.C.

South San Diego Bay

Sweetwater Channel to South Bay Salt Works

West Shoreline	East Shoreline
07174 E	Coron. Cays Yt. Cb.
07266 E	L.M. Pepper Pk ramp
07175 E	Coron. Cays Marina
6-435 A 3	Paradise Marsh
07027 A 2	Emory Cove
6-440 A 2	Sweetwater Refuge
07026 A 3	Otay River Channel
07126 E	South Bay Boat Yd.
07176 E	Chula Vista Marina
07177 E	California Marina
07267 E	Chula Vista ramp

07111 D SDG&E Power Plant
6-450 A 3 Chula Vista Wildlife
07112 D Western Salt Co.

4500 STRATEGIC RESPONSE STRATEGIES

This section will discuss the strategic objectives as well as the general response philosophy, strategies and countermeasures that will be applied by the Unified Command System (UCS) to discharges of oil within the boundaries of the area delineated in section 9110. In addition, the various oil containment, recovery and removal methods available to the UCS will also be discussed along with shoreline cleanup options that could be employed during a spill response.

United States Policy - In the Clean Water Act, Congress declared "... it is the policy of the United States that there should be no discharges of oil or hazardous substance..., and that necessary actions shall be undertaken to remove discharges and eliminate the threat of imminent discharges." This policy is reiterated to serve as a guiding light for the flow of response decisions and allocation of resources. In support of U.S. policy, the paramount response strategy that should be implemented by the Unified Command is to allocate resources to their optimum use; i.e. the most oil recovered, contained, or prevented from being discharged per expenditure of resources. The only variance from this strategy should be considerations of safety and of particularly critical natural (environmentally sensitive) or man-made (economically significant) resources that may demand protection even though manpower and equipment may be deployed elsewhere to more efficiently recover oil. Examples of the latter may include protecting a waterfront area that may be threatened by fire or explosion if impacted, and protecting a municipality's water supply. The priorities of strategic objectives must be carefully considered since they vary from case to case, but generally they are as follows:

Stop the Source: Typically the highest priority. When a damaged vessel(s), shore side facility or pipeline poses a risk of an imminent major discharge, then preventative action to mitigate the size of the spill is the logical first priority, i.e. stabilize and lighter a vessel; contain and secure the shore-based source.

Open Water Containment and Recovery: Once the effort is underway to secure the source, containment and recovery of the spilled oil prior to shoreline impact is the next logical priority. Deploy major recovery vessels, boom-towing vessels and other skimmers to intercept oil before it impacts critical areas or becomes a more costly and environmentally damaging shoreline cleanup problem.

Protection of Sensitive Areas; Depending on the ability to contain and collect spilled oil prior to impact, the protection of resources can compete with containment and collection resources. Priority for protecting these areas is a function of the value of the areas, (as prioritized in section 3610 and 3620) and the feasibility of protecting them. Dedicating open water containment equipment to protecting these areas is not wise if oil that would otherwise have been recovered is merely free to strike other sensitive areas that have not been 'prophylactically' boomed. In general, employ tactics that do not weaken open water recovery operations; deploy resources that are not needed in the open water operations; relocate threatened wildlife by means such as capturing, or scaring with propane noise making cannons and closing off narrow channels with sediment dikes, boom, siphon dams or other natural or man-made materials.

Shoreline Cleanup: Shoreline cleanup should be undertaken only when the risk of recontamination from floating oil passes. Pre-cleaning the beaches of trash and debris prior to the impact of the oil can greatly

facilitate the cleanup. The UC must decide if shorelines are going to be cleaned at each tidal change or just once after all the oil anticipated to reach land has come ashore.

The preservation of human life and health shall be the overriding priority for any response to a discharge of oil. There are two elements to this principle; public safety and response personnel safety.

A large release of oil in the vicinity of houseboats, inhabited shoreline areas or at an oil transfer facility could pose a health or explosion hazard, especially if the discharge is in a confined area (e.g. under a dock). Benzene, hydrogen sulfide and other toxic, explosive or oxygen-displacing vapors could be generated. Evacuation of the area, even at the expense of delaying the cleanup, may be necessary until the danger has passed. Evacuation of homes or other public and private facilities, if recommended by the Unified Command (UC), is the responsibility of state and local emergency agencies.

All response personnel must comply with all applicable worker health and safety laws and regulations. Initial response and rescue personnel, who may be underway on self-propelled skimmers and other vessels, and shoreline cleanup personnel could be exposed to health and safety risk(s). Personnel safety is paramount and responders shall comply with the guidelines set forth in OSHA Publication 3172, "Training Marine Oil Spill Response Workers Under OSHA's Hazardous Waste Operations and Emergency Response Standard" located at http://www.osha.gov/Publications/osha3172.pdf and the site safety plan(s) generated by the UCS.

After the threat to personnel safety has been eliminated or reduced to safe levels, response strategies should be implemented to minimize the ecological impact and then the economic and public impact as discussed in the following section.

4510 Protection Strategies

In general, protection of the environmentally sensitive areas that could be impacted will receive a higher priority than economically significant sites. This hierarchy was established in the ranking of the environmentally sensitive sites as A, B & C and the economically significant sites as D, E, & F with the highest priority being A (section 3610). However, as mentioned before, resources and sites determined to be critical to the preservation of human health and safety, such as drinking water intakes, power plant intakes and desalinization plants afford first priority, ahead of an environmentally sensitive site.

The Unified Command will make the final decision regarding protection priorities for the environmentally sensitive and economically significant areas. In order to further assist the UC, additional prioritization of equally categorized areas that could be impacted may, in the future, be included in this plan. This will allow the UC to determine which priority sites are to be protected when initial resources will only allow the protection of a few of them.

The UC may utilize the predetermined response strategies for environmentally sensitive sites and economically significant sites. The UC must decide which sites are in jeopardy of being oiled and the response strategy should be implemented as indicated in the response strategy site summary sheets included in section 3610. However, the UC and the responders should remain flexible and be receptive to additional information when instituting the booming plan or other countermeasures. Factors such as unusually high winds, strong tidal currents or freshets, equipment limitations, bottom conditions and the type of oil can have a significant effect on the proposed strategy. Modifications to the preplanned strategies should be expected.

In addition to the seasonal variances, the protection priority of an entire area could foreseeably be changed. For example, if the SSC or a DFG biologist determine that a certain section of marshland or coastline, previously categorized as a lower priority (or not categorized at all), is currently a breeding ground for an endangered species, then protection of that site may be afforded the utmost priority even at the expense of a previously categorized A site located adjacent to it.

4520 Containment Strategies

Before spilled oil can be effectively recovered, the spreading of the oil must be controlled and the oil contained in an area accessible to oil recovery devices. In this section various oil containment strategies are discussed. Generally, spilled oil is contained using oil containment boom. Typical boom has a flotation section that provides a barrier on and above the water surface and a skirt section that provides a barrier below the water surface. The physical dimensions of the boom to be used for a particular spill will be dependent on local conditions. In the open ocean it may be necessary to use a boom that is several feet tall. In a protected marsh, a boom that is only a few inches tall may be appropriate.

There are limitations on the effectiveness of any boom. Oil will be lost if the conditions are such that there is splash over from breaking waves. Oil will also be carried under the boom if it is deployed in such a way that currents cause the oil to impact the boom with a velocity perpendicular to the boom of greater than 0.7 knots. Once a boom has been deployed, it may be necessary to reposition it due to changing tides and currents. It is desirable to have personnel available to readjust the boom as required. In all cases of boom deployment, consideration must be given to protecting the safety of those involved in the activity.

Open Water Containment: Oil spilled on open water is normally contained using boom. The boom will be deployed using vessels that will tow the boom around the perimeter of the oil spill. The type of boom to be deployed will depend on local conditions, including Sea State, tides, currents and wind. To be most effective, booming on open water must be done as soon as possible after a spill.

Protective Booming: The goal of most oil containment and recovery strategies is to collect the spilled oil from the water and prevent it from reaching sensitive resources. Frequently, however, this is not possible and sensitive resources are oiled in spite of response efforts, especially during large oil spills. Often the goal will be to minimize environmental injury using a variety of booming, containment and recovery techniques. The following are techniques that can be implemented by the Booming Branch of the UCS' Operations section for containing spilled oil on water or as a means to direct it away from sensitive natural resources or cultural amenities. Shoreline cleanup and treatment methods are discussed in more detail in section 4530.

Exclusionary booming is performed prior to the advance of the oil and is used to prevent or exclude oil from entering a harbor inlet, slough, marsh or estuary. Either skirted or sorbent boom can be used for this type of booming. Factors that need to be considered are: type and size of boom, natural outflow of the body of water, wind, tide and currents or a combination of both. These factors can be predetermined by establishment of a priority system, training and local knowledge of underwater topography, weather conditions and boom anchoring capabilities. It is important to remember that the boom needs to be tended and monitored as weather and tidal conditions can change.

Diversionary booming should be set so that oil movement is reduced to under 0.7 knots. This can be accomplished by angling the boom in relation to the current's direction, reducing the velocity of the floating oil in relation to the boom. Diversionary or deflection booms can be set up in series along a waterway to increase their effectiveness. As stated before, the boom(s) needs to be tended and monitored as weather and tidal conditions can change.

Containment booming is used to prevent spreading and to concentrate the oil so it can be skimmed or vacuumed. Factors that need to be considered are: type and size of boom required for weather, winds, tides and currents in the vicinity of potential spill areas; the type of deployment vessel needed; the amount

of boom needed for effective containment and available skimming capabilities. Fixed or natural anchor points should be selected. These factors can be predetermined by emphasizing worst case spill scenarios and using local knowledge of weather and sea conditions.

Sorbent booming is useful when the amount of oil is minimal, when tides and currents are light, or when shorelines require protection. Heavier oil can be recovered using adsorbents (oil "sticks" to material) and lighter fuels generally are recovered using absorbents (sausage, sweep, or diapers). Sorbent booming can also be used as a backup for other types of booming to recover product that may have entrained past the primary barrier.

Factors that need to be considered are wind and wave action; type of sorbent required, i.e., rocky or sandy shoreline, marsh area, etc.; and type and viscosity of product to be recovered.

Berms and Dams: Coastal shores are barriers to spreading oil. Temporary berms, dikes and dams can also serve as effective barriers against oil contamination of sensitive natural resources and economic amenities. Berms, dikes and dams are simply another form of booming and are subject to the same environmental stresses. The appropriate protection technique for a particular shore depends on several factors:

- water body type (open water, bay, tidal channel, inlet)
- water current velocity
- water depth
- wave height
- shore type (sand, gravel, boulder)

Generally, sediment berms, dikes and dams will most often be used to protect small coastal inlets or perhaps tidal channels serving wetlands and marshes when these channels are accessible. The object of berms, dikes and dams is to keep oil outside an inlet because there are often abundant natural resources and economically significant areas that use the sheltered waters of bays and estuaries within. Occasionally, dikes and dams have been used across a channel to contain the oil within a portion of marsh in order to prevent widespread contamination of other resources.

Dikes and dams are not practical when currents are great, waters are deep and waves are large. Also, beaches with abundant sand are generally the most suitable for building dikes and dams. Berms can be built above the active beach face to prevent oil contamination of high beach during spring tides. Alternative strategies should be prepared and the necessary supplies and equipment in place should a berm, dike, or dam fail.

4530 Recovery Strategies

4530.1 Introduction

Oil spilled in open water spreads quickly and weathers rapidly. Often, rough wind and sea conditions will be contributing factors to the cause of the spill and these same conditions will preclude response and deployment of surface equipment or minimize their effectiveness. Such conditions may cause the oil to be dispersed in the water column, evaporated into the atmosphere, and/or transported away from sensitive areas and resources. These conditions may prescribe a decreased response with an action plan that allows a natural "weathering and cleansing" process. If possible, however, an active response must be

undertaken in order to remove oil from the environment and thereby reduce the threat to sensitive natural resources.

Usually a series of successive strategies are necessary and appropriate for any spill. Each set of environment and situational conditions limit the array of possible useful strategies. Omission of any appropriate strategy can have severe results. So, it is very important that every effort be given to implementation of the strategies described.

Mechanical control and recovery countermeasures are most effective immediately after a spill when the oil is in a thick layer, and covers a small area. When oil is spilled in or allowed to escape to open water, the possibility of containment and recovery is at the mercy of the weather and sea conditions. Booms and skimmers are most effective in calm waters but can work during moderate weather and sea conditions. When the open water is rough, booms and skimmers be come ineffective and containment by become impossible. Rough conditions speed the rate of spreading, resulting in diminishing opportunity for open water recovery However, when the ocean is rough, booms and skimmers become ineffective.

In bays like San Francisco and Humboldt, tidal mixing is so dramatic that once oil reaches open water, which is under strong tidal influence, a spill in any arm will rapidly spread throughout the bay. Sites. This rapid spread reduces on-water collection effectiveness. Also, as oil spreads it threatens and impacts an increasingly wider number of resources and sensitive sites.

4530.2 The On-Water Recovery Branch

On-Water recovery is in the Operations Section of the Unified Command System. The On-Water Recovery Branch reports to the Operations Section Chief. Major responsibilities are as follows:

-Implement assigned portion of spill action plan to contain and recover spilled oil.

-Request needed resources and assign to group supervisors.

-Maintain ship to shore communications.

-Provide situation and resource status information to the Operations Section

-Coordinate activities with Shoreline Cleanup and Booming Branches

-Report all events and accidents to the Operations Section Chief.

-Evaluate the performance of containment and recovery equipment.

-Participate in strategy development with Planning and Logistics Sections.

4530.3 Offshore/Open Water Operations

Oil removal/recovery in open water is accomplished through the use of skimming devices once the oil has been contained. Skimmers can be freestanding in which the skimmer is a separate piece of equipment which pumps the oil-water mixture from the contained surface into tanks on a vessel. These skimmers are usually driven by hydraulic units on board a vessel. Self-propelled skimmers have a skimmer as an

integral part of the vessel. The skimming vessel positions itself at the head of a concentrated or contained pool of oil and recovers the oil into tanks on board the vessel. There is also a type of skimmer in which the weir or collection zone of the skimmer is an integral part of the boom that is in contact with the oil. The pumping and oil collection is done on the vessel that is close to the weir skimmer.

"Vessels of opportunity", such as fishing vessels, may be used to deploy or tow boom and, depending on their size, be equipped with skimming equipment. They need to have adequate deck space and lifting cranes to carry the necessary equipment. The Coast Guard's Vessel of Opportunity Skimming System (VOSS) could be deployed on a variety of vessels.

To be most effective, oil spill recovery equipment must be directed to the location of the thickest oil accumulation. Observers on vessels at water level are unable to see a vast area and are unable to recognize the most optimum skimming locations. Skimming activities are best directed by trained observers aloft in helicopters. One observer may be able to direct several skimming units to optimum skimming locations. During hours of darkness or poor visibility, tracking devices that emit radiolocation signals can be placed in the spilled oil to trace the oil movement. Remote sensing systems have been developed which can track oil movement even in darkness and poor visibility. The sensor is mounted in an aircraft that overflies the spill area. The sensor systems include Side Looking Airborne Radar (SLAR), infrared and radiometric.

4530.4 Nearshore/Shallow Water

Oil recovery techniques and equipment are different in near-shore/shallow water locations than open water. Shallow draft vessels and smaller boom and skimmers are used in these situations. These vessels can maneuver into tight places behind and under wharves or in sloughs and can actually skim next to shore in many near-shore locations.

Strategies for near-shore cleanup can differ depending on the depth of the water and the location. Near-shore operations, within a bay or inlet, will also require shallow draft vessels, work boats and skimmers. However, the vessels may only be operable at high tide. At or near low tide, the operation may evolve into a shoreline cleanup operation. Any boom towing boats or skimmers must be able to withstand going aground without sustaining major damage.

Coastal shallow water or near-shore strategies will differ in certain respects. In addition to the need for small, shallow draft vessels, specialized vessels such as kelp cutters and harvesters may also be needed. California's rocky coast can make near-shore operations difficult and even dangerous during high surf and winter conditions. Once again, the safety of personnel involved in these operations is the Unified Command's paramount concern.

Weir Skimmers: These skimmers recover oil by aligning a barrier just below the surface of the water and having oil floating on the water surface pass over the weir into a recovery box or into a pump. Weir skimmers are not the most efficient recovery systems because a large amount of water is usually collected along with the recovered oil.

Vortex Skimmers: In a vortex skimmer, a turbine-like fan, mounted below the surface, is used to create a current that draws in oil floating on the water. It is then pumped to a collection tank. The device is mounted on a vessel or floats at the water surface.

Sorption/Oleophilic Skimmers: This type of skimmer uses materials that will retain a high percentage of oil minimizing the amount of water collected with the oil. The skimming devices can be belts, ropes, brushes or discs that come in contact with the oil. The device then will either wring or scrape the oil from the material into a collection point for removal to a storage tank.

Suction Skimmers: These devices operate in conjunction with a pump that draws liquid into the skimming device. The skimmer head generally floats on the water with an oil/water mixture being drawn into the skimmer. A typical application would include a skim head used with a truck mounted vacuum system.

Suction dredges are rarely used to recover oil or oiled sediments from the bottom of a water body because oil usually does not sink or, if it does, the amount is small and not recoverable. There are exceptions, however. Whether an oil sinks or floats depends primarily on the specific gravity of the oil and the temperature and salinity of the water. Oil may also sink once it is adsorbed to exposed sediment like sand or gravel, which is subsequently mobilized and redeposited in deeper water.

If dredging is considered as a recovery technique, there must be provision for containment and storage of large quantities of water recovered along with the oil or oiled sediment. A large quantity of oil contaminated water can present significant storage, transport, and disposal problems which must be resolved before the activity is begun. These problems can be diminished if oil/water separation is provided, and state and federal agencies allow decanting of water back to the containment area.

Dredging can be coupled with low-volume, low pressure washing of the bottom to direct the sunken oil down-gradient to some collection point where a dredge can recover the accumulated oil. Currents and flow patterns may cause the sunken oil to naturally collect in low spots that can serve this same purpose. The use of a hopper barge's inverted draghead as a weir skimmer was fairly successful in Prince William Sound and could be employed in calm seas.

Vacuum trucks are frequently essential equipment for cleanup of oil spills. A hose is extended from the truck to the oil collection or containment site to pick up the oil. If the oil is floating on water, the suction hose can be connected to a "duck bill" nozzle that has a long horizontal slot to allow the oil to be picked up while minimizing the amount of water collected. A weir-type skimmer can also be connected to the suction hose to suck the thin layer of oil from the surface and minimize the amount of water collected at the same time. Both methods require a full-time attendant to adjust the equipment and clear debris.

> Vacuum trucks work best when the oil layer is thick. If there is only a thin layer of oil on the water, much more water will be collected than oil. Recovery of a large quantity of water can make a vacuum truck operation very inefficient because the tank will quickly fill with water and little oil. Transport and disposal costs increase as a result. The operation can be made more efficient if the oil/water mix recovered is allowed to separate in the tank and the water decanted back to the containment area. Decanting can be approved by the UC according to state law.

4530.5 Shoreline Cleanup

Shoreline Types:

The most obvious differences between shorelines along the California coast are due to their geomorphology. These geomorphological differences are caused by their exposure to different quantities of water and wind driven forces of shoreline energy (specifically waves and currents) and the shoreline

type (substrate, grain size, tidal elevation, origin). The geomorphology and the degree of exposure to waves and currents combine to influence the plants and animals that inhabit the intertidal and shallow subtidal areas of the shoreline and the natural persistence of stranded oil. It is these same factors that provide the criteria to determine the appropriate shoreline cleanup techniques.

These concepts were the basis for development of the Environmental Sensitivity Index (ESI) by the Research Planning Institute (RPI), which ranks shorelines according to their sensitivity to oiling and shoreline cleanup activity. The ESI provides a useful first step in the design of contingency plans because it enables the ready identification of priority areas for protection from oiling and determination of appropriate shoreline cleanup methods during response activities. Summarized, the ESI ranges from 1 (least sensitive to oil) to 10 (most sensitive to oil). Detailed descriptions of the ESI shoreline types and likely oil impacts can be found in the National Oceanic & Atmospheric Administration (NOAA) Shoreline Assessment Manual at: http://response.restoration.noaa.gov/shor_aid/shor_aid.html

Shoreline types are ranked as follows:

RANK	SHORE	(NOAA ESI Map Shore Type)
1	Exposed Rocky Shores	(1a)
2	Exposed Solid Man-made Structures	(1b)
3	Exposed Wave-cut Platforms	(2a)
4	Sand Beaches	(3 & 4)
5	Mixed Sand and Gravel Beaches	(5)
6	Gravel Beaches	(6a)
7	Riprap	(6b)
8	Exposed Tidal Flats	(7)
9	Sheltered Rocky Shores	(8a)
10	Sheltered Solid Man-made Structures	(8b)
11	Sheltered Tidal Flats	(9a)
12	Salt to Brackish Marshes	(10a)

4530.6 Shoreline Cleanup

Under certain conditions it will be appropriate to take actions to remediate the effects of stranded oil on shorelines. Other conditions may dictate that no actions should be taken. The primary goal of the implementation of any shoreline countermeasure is the removal of oil from the environment with no further injury or destruction to that environment. A list of the 21 different countermeasures is provided. These 21 countermeasures, including natural recovery, have been evaluated for the appropriateness of their use on five different major categories of petroleum products (very light, light, medium, heavy, non-floating) stranded on ten shoreline types. The results of these evaluations are presented on five matrices attached at the end of this section. These matrices are intended to be used as a planning guide by the Shoreside Recovery Group of the Operations Section.

The countermeasures listed may not be the best for use under all possible circumstances, and multiple countermeasures may need to be used on the same shoreline. Selection of specific countermeasures for use during a spill response will be based on the properties off the stranded oil, the degree of contamination, the shoreline type, and the presence of sensitive natural resources. The Federal On-Scene Coordinator or the State On-Scene Commander has the authority to select or approve specific countermeasures for use during an oil spill response.

4530.7 Potential Shoreline Treatment Methods

The following section lists and describes those techniques, which may be required for use during a shoreline cleanup. Methods and equipment currently in use for these shoreline treatment methods are described in more detail in the Shoreline Assessment Manual. These methods, when used according to the guidelines in this document, may be used on most sites as part of the UC-directed response. It should be noted that methods noted with an (*) will require special consideration and authorization by the natural resource trustee prior to commencement of work. The trustee agency(s) for fish and wildlife resources will make the final recommendations to the Unified Command on which specific method(s) to employ on a case-by-case basis. Regardless of this decision, contingency plans should provide for an array of identified methods to be used. Currently approved methods are:

1. Natural Recovery
2. Barriers/Berms
3. Manual Oil Removal/Cleaning
4. Mechanical Oil Removal
5. Sorbents
6. Vacuum
7. Debris Removal
8. Sediment Reworking/Tilling *
9. Vegetation Cutting/Removal
10. Flooding (deluge)
11. Low Pressure, Ambient Water Flush (<50 psi)
12. High Pressure, Ambient Water Flush (50-100 psi)
13. Low Pressure, Hot Water (<50 psi)
14. High Pressure, Hot Water (50-100 psi)
15. Steam Cleaning
16. Sand Blasting
17. Solidifiers *
18. Shoreline Cleaning Agents *
19. Nutrient Enrichments *
20. Natural Microbe Seeding *
21. *In-situ* Burning *

A description of each shoreline cleanup method is discussed below:

1. NATURAL RECOVERY

Objective: No attempt is made to remove any stranded oil, when there is no effective method for cleanup or to minimize impact to the environment. Oil is left to degrade naturally.

Description: No action is taken, although monitoring of contaminated areas is required.

Applicable Habitat Types: All habitat types.

When to Use: When natural removal rates are fast (e.g., gasoline evaporation or high energy coastlines), when the degree of oiling is light, access is severely restricted or dangerous to cleanup crews, or when cleanup actions will do more harm than natural removal.

Biological Constraints: This method may be inappropriate for areas used by high numbers of mobile animals (birds, marine mammals) or endangered species.

Environmental Effects: Same as from the oil alone.

Waste Generation: None.

2. BARRIERS/BERMS

Objective: To prevent entry of oil into a sensitive area or to divert oil to a collection area.

Description: A physical barrier other than a boom is placed across an area to prevent oil from passing through into sensitive habitats. Barriers can consist of earthen berms or filter fences. When it is necessary for water to pass because of water volume, underflow or overflow dams are used.

When to Use: When the oil threatens sensitive habitats, and other barriers are not feasible. To protect sensitive areas when cleaning adjacent shorelines.

Applicable Habitat Types: At the mouths of creeks or streams to prevent oil from entering from offshore, or to prevent oil from being released from the creek into offshore waters. Also, on beaches where a high berm can be built above the high-tide line to prevent oil from over-washing the beach and entering a sensitive back-beach habitat (e.g. lagoon).

Environmental Effects: May disrupt or contaminate sediments and adjacent vegetation. The natural beach or shore profile should be restored (may take weeks to months on gravel beaches).

Biological Constraints: Responders must minimize disturbance to sensitive areas, such as shorebird nesting sites on beaches. Placement of dams and filter fences could cause excessive physical disruptions to the site, particularly in wetlands.

Waste Generation: Sediment barriers will become contaminated on the oil side and filter fence materials will have to be disposed of as oily wastes.

3. MANUAL OIL REMOVAL/CLEANING

Objective: To remove oil with hand tools and manual labor.

Description: Removal of surface oil with hands, rakes, shovels, buckets, scrappers, sorbents, pitchforks, etc., and placing in containers. No mechanized equipment is used. Includes underwater recovery of submerged oil by divers with hand tools, for example.

Applicable Habitat Types: Can be used on all habitat types.

When to Use: Light to moderate oiling conditions for stranded oil or heavy oils that have formed semi-solid to solid masses that can be picked up manually.

Biological Constraints: Foot traffic over sensitive areas (wetlands, tidal pools, etc.) should be restricted or prevented. There may be periods when shoreline access should be avoided, such as during bird nesting.

Environmental Effects: Minimal, if surface disturbance by crew movement and waste generation is controlled.

Waste Generation: May generate significant quantities of oil mixed with sediment, which must be properly disposed of or treated. Decontamination of hand tools may produce oily wastewater that must be treated properly. Worker personal protective gear is usually disposed of daily or decontaminated and the resulting oily wastewater treated properly.

4. MECHANICAL OIL REMOVAL

Objective: To remove oil from shorelines and bottom sediments with mechanical equipment.

Description: Oil and oiled sediments are collected and removed using mechanical equipment such as backhoes, graders, bulldozers, dredges, draglines, etc. Requires systems for temporary storage, transportation, and final treatment and disposal.

Applicable Habitat Types: On land, wherever surface sediments are both amenable to and accessible to heavy equipment. For submerged oil, used in sheltered areas where oil accumulates. On water, used on viscous to solid oil.

When to Use: When large amounts of oiled materials must be removed. Care should be taken to remove sediments only to the depth of oil penetration, which can be difficult when using heavy equipment. Should be used carefully where excessive sediment removal may cause erosion.

Biological Constraints: Heavy equipment may be restricted in sensitive habitats (e.g., wetlands, soft substrate) or areas containing endangered species. Will need special permission to use in areas with known cultural resources. Dredging in seagrass beds or coral reef habitats may be prohibited. The noise generated by the mechanical equipment may also be a constraint.

Environmental Effects: The equipment is heavy, with many support personnel required. May be detrimental if excessive sediments are removed without replacement. All organisms in the sediments will be affected, although the need to remove the oil may make this response method the best overall alternative. Resuspension of exposed oil and fine-grained oily sediments can affect adjacent bodies of water.

Waste Generation: Can generate significant quantities of contaminated sediment that must be cleaned or landfilled. The amount of waste generated by this cleanup option should be given careful consideration by response planners when reviewing potential environmental impacts of the oily wastes, debris, and residues.

5. SORBENTS

Objective: To remove surface oil by absorption onto oleophilic (oil-attracting) material placed in water or at the waterline.

Description: Sorbent material is placed *on the floating oil or water surface* to allow it to sorb oil, or alternatively, the material can be used to wipe or dab stranded oil. Forms include sausage boom, pads, rolls, sweeps, snares, and loose granules or particles. These products can be either synthetic or natural substances. Efficacy depends on the capacity of the particular sorbent, energy available for lifting oil off the substrate, and stickiness of the oil. Recovery of all sorbent material is mandatory. Loose particulate sorbents must be contained in a mesh or other material.

Applicable Habitat Types: Can be used on any habitat or environment type.

When to Use: When oil is free-floating close to shore or stranded on shore. The oil must be able to be released from the substrate and absorbed by the sorbent. Often used as a secondary reatment method after gross oil removal and in sensitive areas where access is restricted. Selection of sorbent varies by oil type; heavy oils only coat surfaces, requiring a high surface area to be effective, whereas lighter oils can penetrate sorbent material.

Biological Constraints: Access for deploying and retrieving sorbents should not be through soft or sensitive habitats or affect wildlife. Sorbent use should be monitored to prevent overuse and generation of large volumes of waste. Sorbents should not be used in a fashion that would endanger or trap wildlife. Sorbents left in place too long can break apart and present an ingestion hazard to wildlife.

Environmental Effects: Physical disturbance of habitat during deployment and retrieval. Improperly deployed or tended sorbent material can crush or smother sensitive substrates.

Waste Generation: Sorbents must eventually be collected for proper disposal so care should be taken to select and use sorbents properly, and prevent generation of large amounts of lightly-oiled sorbents. Recycling should be emphasized rather than disposal.

6. VACUUM

Objective: To remove oil pooled on a shoreline substrate or subtidal sediments.

Description: A vacuum unit is attached via a flexible hose to a suction head that recovers free oil. The equipment can range from small, portable units that fill individual 55-gallon drums to large supersuckers that are truck- or vessel-mounted and can generate enough suction to lift large rocks. Removal rates from substrates can be extremely slow.

Applicable Habitat Types: Any accessible habitat type. May be mounted on barges for water-based operations, on trucks driven to the recovery area, or hand-carried to remote sites.

When to Use: When oil is stranded on the substrate, concentrated in trenches or trapped in vegeta-tion. Usually requires shoreline access points.

Biological Constraints: Special restrictions should be established for areas where foot traffic and equipment operation may be damaging, such as soft substrates. Operations in wetlands need to be very closely monitored, with a site-specific list of restrictions developed to prevent damage to vegetation.

Environmental Effects: Minimal, if foot and vehicular traffic is controlled and minimal substrate is damaged or removed.

Waste Generation: Collected oil and or oil/water mix will need to be stored temporarily prior to recycling or disposal. Oil may be recyclable; if not, it will require proper disposal. Large amounts of water are often recovered, requiring separation and treatment.

7. DEBRIS REMOVAL

Objective: To remove contaminated debris from the shoreline or water surface.

Description: Manual or mechanical removal of debris from the shore or water surface. Can include cutting and removal of oiled logs.

Applicable Habitat Types: Can be used on any habitat or environment type where access is safe.

When to Use: When driftwood and debris are heavily contaminated and provide a potential source of chronic oil release. When it may create aesthetic problems, be a source of contamination for other

resources in the area, cause clogging problems in the skimmer, or create safety problems for responders. Used in areas of debris accumulation on beaches prior to oiling to minimize the amount of oiled debris to be handled.

Biological Constraints: Foot traffic over sensitive areas (wetlands, spawning grounds) needs to be restricted. May be periods when access should be restricted (spawning periods, influx of large numbers of migratory waterbirds).

Environmental Effects: Physical disruption of substrate, especially when mechanized equipment must be deployed to recover a large quantity of debris.

Waste Generation: Will generate contaminated debris (volume depends on what, and how much, is collected, e.g., logs, brush). Unless there is an approved hazardous waste incinerator that will take oily debris, burning will seldom be allowed especially on-site burning. However, this option should still be explored, especially for remote locations, with the appropriate state or federal agencies that must give approvals for burning.

8. SEDIMENT REWORKING/TILLING

Objective: To enhance the rate of degradation, by breaking up oily sediments and surface oil deposits, increasing the surface area, and mixing deep subsurface oil layers to the surface.

Description: The oiled sediments are roto-tilled, disked, or otherwise mixed using mechanical equipment or manual tools. Along beaches, oiled sediments may also be pushed to the water's edge (surf washing) to enhance natural cleanup by wave activity. The process may be aided with high-volume flushing of gravel.

Applicable Habitat Types: On any sedimentary substrate that can support mechanical equipment or foot traffic.

When to Use: On sand to gravel beaches with subsurface oil, where sediment removal is not feasible (due to erosion or disposal problems). On sand beaches, where the sediment is stained or lightly oiled, appropriate where oil is stranded above normal high waterline.

Biological Constraints: Avoid use on shores near sensitive wildlife habitat, such as fish-spawning areas or bird-nesting or concentration areas because of the potential for release of oil and oiled sediments into adjacent bodies of water. Should not be used in shellfish beds.

Environmental Effects: Due to the mixing of oil into sediments, this method could further expose organisms that live below the original layer of oil. Repeated mixing over time could delay reestablishing organisms. Refloated oil from treated sites could contaminate adjacent areas.

Waste Generation: None.

9. VEGETATION CUTTING/REMOVAL

Objective: To remove portions of oiled vegetation or oil trapped in vegetation to prevent oiling of wildlife or secondary oil releases.

Description: Oiled vegetation is cut with weed-wackers, blades, etc., and picked or raked up and bagged for disposal.

Applicable Habitat Types: Habitats composed of vegetation such as wetlands, seagrass beds, and kelp beds.

When to Use: When the risk of oiled vegetation contaminating wildlife is greater than the value of the vegetation that is to be cut, and there is no less-destructive method that removes or reduces the risk to acceptable levels.

Biological Constraints: Operations must be strictly monitored to minimize the degree of root destruction and mixing of oil deeper into the sediments. Access in bird-nesting areas should be restricted during nesting seasons. Cutting only the oiled portions of the plants and leaving roots and as much of the stem as possible minimizes impact to plants.

Environmental Effects: Vegetation removal will destroy habitat for many animals. Cut areas will have reduced plant growth, and in some instances, plants may be killed. Cutting at the base of the plant stem may allow oil to penetrate into the substrate, causing subsurface contamination. Along exposed sections of shoreline, the vegetation may not recover, resulting in erosion and habitat loss. Trampled areas will recover much more slowly.

Waste Generation: Cut portions of oiled plants must be collected and disposed.

10. FLOODING

Objective: To wash oil stranded on the land surface to the water's edge for collection. Description: A perforated header pipe or hose is placed above the oiled shore or bank. Ambient-temperature water is pumped through the header pipe at low pressures and flows downslope to the water. On porous sediments, water flows through the substrate, pushing loose oil ahead of it, or floating oil to the water's surface and transporting the oil down the slope for pickup. On saturated, fine-grained sediments, the technique becomes more of a flushing of the surface.

Applicable Habitat Types: All shoreline types where the equipment can be effectively deployed. This is non effective in steep intertidal areas.

When to Use: In heavily oiled areas when the oil is still fluid and adheres loosely to the substrate, and where oil has penetrated into gravel sediments. This method is frequently used with other washing techniques (low- or high-pressure, cold-to-hot-water flushing).

Biological Constraints: Special care should be taken to recover oil where nearshore habitats contain rich biological communities. Not appropriate for muddy substrates.

Environmental Effects: Habitat may be physically disturbed by foot traffic during operations and smothered by sediments washed down the slope. Oiled sediment may be transported to shallow, nearshore areas, contaminating them and burying benthic organisms.

Waste Generation: Depends on the effectiveness of the collection method.

11. LOW-PRESSURE, AMBIENT-WATER FLUSHING

Objective: To remove fluid oil that has adhered to the substrate or man-made structures, pooled on the surface, or become trapped in vegetation.

Description: Ambient-temperature water is sprayed at low pressures (<10 psi), usually from hand-held hoses, to lift oil from the substrate and direct it to the water's edge for recovery by skimmers, vacuum, or sorbents. Can be used with a flooding system to prevent released oil from re-adhering to the substrate down-stream of the treatment area.

Applicable Habitat Types: On substrates, riprap, and solid man-made structures, where the oil is still fluid. In wetlands and along vegetated banks where oil is trapped in vegetation.

When to Use: Where fluid oil is stranded onshore or floating on shallow intertidal areas.

Biological Constraints: May need to restrict use so that the oil/water effluent does not drain across Sensitive, intertidal habitats and mobilized sediments do not affect rich subtidal communities. Use from boats will reduce the need for foot traffic in soft substrates and vegetation. Flushed oil must be recovered to prevent further oiling of adjacent areas.

Environmental Effects: If containment methods are not sufficient, oil and oiled sediments may be flushed into offshore areas. Some trampling of substrate and attached biota will occur.

Waste Generation: Depends on the effectiveness of the collection method.

12. HIGH-PRESSURE, AMBIENT-WATER FLUSHING

Objective: To remove oil that has adhered to hard substrates of man-made structures.

Description: Similar to low-pressure flushing except that water pressure is 100-1,000 psi. High-pressure spray will more effectively remove sticky or viscous oils. If low-water volumes are used, sorbents are placed directly below the treatment area to recover oil.

Applicable Habitat Types: On bedrock, man-made structures, and gravel substrates.

When to Use: When low-pressure flushing is not effective at removing adhered oil that must be removed to prevent continued oil release or for aesthetic reasons. When a directed water jet can remove oil from hard-to-reach sites.

Biological Constraints: May have to restrict flushing so that the oil does not drain across sensitive habitats. Flushed oil must be recovered to prevent further oiling of adjacent areas. Attached animals and plants in the direct spray zone will be removed.

Environmental Effects: May drive oil deeper into the substrate or erode shorelines of fine sediments if water jet is improperly applied. If containment methods are not sufficient, oil and oiled sediments may be flushed into offshore areas. Some trampling of substrate and attached biota will occur.

Waste Generation: Depends on the effectiveness of the collection method.

13. LOW-PRESSURE, HOT-WATER FLUSHING

Objective: To remove non-fluid oil that has adhered to the substrate or man-made structures, or pooled on the surface.

Description: Hot water (90.F up to 170.F) is sprayed with hoses at low pressures (<10 psi) to liquefy and lift oil from the substrate and direct it to the water's edge for recovery by skimmers, vacuums, or sorbents. Used with flooding to prevent released oil from re-adhering to the substrate.

Applicable Habitat Types: On bedrock, sand to gravel substrates, and man-made structures.

When to Use: Where heavy, but relatively fresh oil is stranded onshore. The oil must be heated above its pour point, so it will flow. This is less effective on sticky oils.

Biological Constraints: Avoid wetlands or rich intertidal communities so that hot oil/water effluent does not contact sensitive habitats. Operations from boats will help reduce foot traffic in soft substrates and vegetation. Flushed oil must be recovered to prevent further oiling of adjacent areas.

Environmental Effects: Hot-water contact can kill all attached animals and plants. If containment methods are not sufficient, oil may be flushed into downstream areas. Some trampling of substrate and biota will occur.

Waste Generation: Depends on the effectiveness of the collection method.

14. HIGH-PRESSURE, HOT-WATER FLUSHING

Objective: To mobilize weathered and viscous oil strongly adhered to surfaces.

Description: Hot water (90 degrees F [30 degrees C] up to 170 degrees F [70 degrees C]) is sprayed with hand-held wands at pressures greater than 100 psi (720 kpa). If used without water flooding, this procedure requires immediate use of vacuum or sorbents to recover the oil/water runoff. When used with a flooding system, the oil is flushed to the water surface for collection by skimmers, vacuum, or sorbents.

Applicable Habitat Types: Gravel substrates, bedrock, and man-made structures.

When to Use: When oil has weathered to the point that warm water at low pressure no longer effectively removes oil. To remove viscous oil from man-made structures for aesthetic reasons.

Biological Constraints: Use should be restricted so that the oil/water effluent does not drain across sensitive habitats (damage can result from exposure to oil, oiled sediments, and hot water). Should not be used directly on attached algae nor rich, inter-tidal areas. Released oil must be recovered to prevent further oiling of adjacent areas.

Environmental Effects: All attached animals and plants in the direct spray zone will be removed or killed, even when used properly. Oiled sediment may be transported to shallow nearshore areas, contaminating them and burying benthic organisms.

Waste Generation: Depends on the effectiveness of the collection method.

15. STEAM CLEANING

Objective: To remove heavy residual oil from solid substrates or man-made structures.

Description: Steam or very hot water (171 degrees F [77 degrees C] to 212 degrees F [100 degrees C]) is sprayed with hand-held wands at high pressure (2000+ psi [14,400 kpa]). Water volumes are very low compared to flushing methods.

Applicable Habitat Types: Man-made structures such as seawalls and riprap.

When to Use: When heavy oil residue must be removed for aesthetic reasons, and when hot-water flushing is not effective and no living resources are present.

Biological Constraints: Not to be used in areas of soft substrates, vegetation, or high biological abundance directly on, or below, the structure.

Environmental Effects: Complete destruction of all organisms in the spray zone. Difficult to recover all released oil.

Waste Generation: Depends on the effectiveness of the collection method. Usually sorbents are used, generating significant waste volumes.

16. SAND BLASTING

Objective: To remove heavy residual oil from solid substrates or man-made structures.

Description: Use of sandblasting equipment to remove oil from the substrate. May include recovery of used (oiled) sand in some cases.

Applicable Habitat Types: On heavily oiled bedrock, artificial structures such as seawalls and riprap.

When to Use: When heavy oil residue must be cleaned for aesthetic reasons, and even steam-cleaning is not effective.

Biological Constraints: Not to be used in areas of soft substrate, vegetation, or high biological abundance directly below, or adjacent to, the structures.

Environmental Effects: Complete destruction of all organisms in the blast zone. Possible smothering of downstream organisms. Unrecovered, used sand will introduce oiled sediments into the adjacent habitat.

Waste Generation: Will need to recover and dispose of oiled sand used in blasting.

17. SOLIDIFIERS

Objective: To change the physical state of spilled oil from a liquid to a solid.

Description: Chemical agents (polymers) are applied to oil at rates of 10-45 percent or more, solidifying the oil in minutes to hours. Various broadcast systems, such as a leaf blowers, water cannons, or fire suppression systems, can be modified to apply the product over large areas. Can be applied to both

floating and stranded oil. Can be placed in booms, pillows, sausages, etc. and used like sorbents, although this type of solidifier application has not been used operationally.

Applicable Habitat Types: All water environments, bedrock, sediments, and artificial structures.

When to Use: When immobilization of the oil is desired, to prevent refloating from a shoreline, penetration into the substrate, or further spreading. However, the oil may not fully solidify unless the product is well mixed with the oil, and may result in a mix of solid and untreated oil. Generally not used on heavy oil spills, which are already viscous.

Biological Constraints: Must be able to recover all treated material.

Environmental Effects: Available products are insoluble and have very low aquatic toxicity. Unrecovered solidified oil may have longer impact because of slow weathering rates. Physical disturbance of habitat is likely during application and recovery.

Waste Generation: If skimming efficiency is increased, solidifiers may reduce the volume of water collected during oil recovery. Effects on recycling oil treated with solidifiers is unknown. Most solidifier producers state that treated oil can pass leachate tests, allowing disposal in landfills.

18. SHORELINE CLEANING AGENTS (SURFACE WASHING AGENTS)

Objective: To increase the efficiency of oil removal from contaminated substrates.

Description: Special formulations are applied to the substrate, as a presoak and/or flushing solution, to soften or lift weathered or heavy oils from the substrate to enhance flushing methods. The intent is to lower the water temperature and pressure required to mobilize the oil from the substrate during flushing. Some agents will disperse the oil as its washed off the beach, others will not.

Applicable Habitat Types: On any habitat where water flooding and flushing procedures are applicable.

When to Use: When the oil has weathered to the point where it cannot be removed using ambient water temperatures and low pressures. This approach may be most applicable where flushing effectiveness decreases as the oil weathers.

Biological Constraints: When the product does not disperse the oil into the water column, the released oil must be recovered from the water surface. Use may be restricted where suspended sediment concentrations are high, near wetlands, and near sensitive near shore resources.

Environmental Effects: The toxicity and effects on dispersability of treated oil vary widely among products. Selection of a product should consider the toxicity of the product.

Waste Generation: Because treated oil must be recovered, waste generation is a function of recovery method, which often includes sorbents.

19. NUTRIENT ENRICHMENT (BIOSTIMULATION)

Objective: To accelerate the rate of oil hydrocarbon degradation due to natural microbial processes using a form of bioremediation that adds nutrients (generally nitrogen and phosphorus) that stimulate microbial

growth. If nutrients are a limiting factor (as measured using the interstitial pore water) in an area where shoreline oiling has occurred, water-soluble nutrients can be applied by a spray irrigation system.

Description: Nutrients should be applied daily if the impacted area gets completely submerged by tides and waves and if maximum biostimulation is desired. If the impacted area gets submerged only during spring tides, the frequency of nutrient addition will be determined by the intertidal zone water coverage. Using slow-release granular or encapsulated nutrients or oleophilic fertilizer (which adheres to the oil residue on the surface) should require less frequent addition, but time-series monitoring of interstitial pore water nutrient levels is needed to ensure target levels are being maintained, especially throughout the depth of the impacted intertidal zone.

When to Use: Any shoreline habitat type where access is allowed and nutrients are deficient.

Applicable Habitat Types: On moderate to heavily oiled substrates, after other techniques have been used to remove free product on lightly-oiled shorelines, where other techniques are destructive or ineffective; and where nutrients limit natural attenuation. Most effective on light to medium crude oils and fuel oils (asphaltenes tend to inhibit rapid biodegradation). Less effective where oil residues are thick. Not considered for gasoline spills, which evaporate rapidly.

Biological Constraints: Avoid using ammonia-based fertilizers at highly elevated concentrations because un-ionized ammonia is toxic to aquatic life. Nitrate is an equally good nitrogen source, minus the toxicity. Sodium tripolyphosphate is a better phosphorus source than orthophosphates because it is more soluble in seawater. If nutrients are applied properly with adequate monitoring, eutrophication should not be a problem. Only nutrient additives proven to be nontoxic and effective in either the laboratory or the field should be used in the environment. Contact toxicity of oleophilic nutrients may restrict their use as other chemicals in the product could be more toxic to aquatic organisms in the presence of oil.

Environmental Effects: Detrimental effects to shoreline from foot or vehicle traffic caused by workers applying nutrients (unless nutrients are sprayed from a vessel or aircraft).

Waste Generation: None.

20. NATURAL MICROBE SEEDING (BIOAUGMENTATION)

Objective: To accelerate natural microbial degradation of oil by using a form of bioremediation that adds high numbers of oil-degrading microorganisms.

Description: Formulations containing specific hydrocarbon-degrading microbes are added to the oiled area because indigenous hydrocarbon degraders are low in number, or, those that are present cannot degrade the oil effectively. Since microbes require nitrogen and phosphorus to convert hydrocarbons to biomass, formulations containing these oil degraders must also contain adequate nutrients. Research studies conducted with bioengineered organisms or organisms enriched from different environments, grown in the laboratory to high numbers, and applied to an oiled beach to stimulate rapid biodegradation, have failed to prove conclusively that seeding is effective.

Bioaugmentation appears less effective than biostimulation because: 1) hydrocarbon degraders are ubiquitous in nature and, when an oil spill occurs at a given site, the influx of oil will cause an immediate increased response in the hydrocarbon degrading populations; but, 2) if nutrients are in limited supply, the rate of oil biodegradation will be less than optimal; thus, 3) supplying nutrients will enhance the process

initiated by the spill, but adding microorganisms will not, because they still lack the necessary nitrogen and phosphorus to support growth.

Applicable Habitat Types: There is insufficient information on impact or effectiveness of this method to make a judgment on applicable habitat.

When to Use: There is insufficient information on impact or effectiveness of this method to make a judgment on when to use it.

Biological Constraints: Avoid using products containing ammonia-based fertilizers at elevated concentrations because un-ionized ammonia is toxic to aquatic life. Nitrate is an equally good a nitrogen source, minus the toxicity. If the product containing nutrients is applied properly with adequate monitoring, eutrophication should not be a problem; but, toxicity tests should be evaluated carefully, as other chemicals in the product could be toxic to aquatic organisms.

Environmental Effects: Detrimental physical effects to shoreline from foot or vehicle traffic caused by workers applying bioaugmentation products (unless nutrients are sprayed from a vessel or aircraft).

Waste Generation: None.

21. IN-SITU BURNING

Objective: To remove oil from the water surface or habitat by burning it in place.

Description: Oil floating on the water surface is collected into slicks at least 2-3 mm thick and ignited. The oil can be contained in fire-resistant booms, or by natural barriers such as ice or the shore. On land, oil can be burned when it is on a combustible substrate such as vegetation, logs, and other debris. Oil can be burned from non-flammable substrates using a burn promoter. On sedimentary substrates, it may be necessary to dig trenches for oil to accumulate in pools to a thickness that will sustain burning. Heavy oils are hard to ignite but can sustain a burn. Emulsified oils may not ignite nor sustain a burn when the water content is greater than 30 to 50 percent.

When to Use: On most habitats except dry muddy substrates where heat may impact the biological productivity of the habitat. May increase oil penetration into permeable substrates. Use in marshes should be undertaken using special precautions. Not suitable for woody vegetation such as mangroves and hardwood swamps.

Applicable Habitat Types: On land, where there is heavy oil in sites neither amenable nor accessible to physical removal and it is important to remove the stranded oil quickly. In wetlands and mud habitats, a water layer will minimize impacts to sediments and roots. Many potential applications for spills in ice. There are many operational and public health limitations.

Biological Constraints: The possible effect of smoke on wildlife and populated areas should be evaluated.

Environmental Effects: Temperature and air quality effects are likely to be localized and short-lived. Toxicological impact from burn residues has not been evaluated. On-water, burn residues are likely to sink. On land, removal of residues is often necessary for crude and heavy oils. Limited data on burning

oiled wetlands indicate recovery of wetland vegetation will depend on season of burn, type of vegetation, and water level in the marsh at time of burn.

Waste Generation: Any residues remaining after burning will need to be collected and landfilled, but with an efficient burn will be a small fraction of the original oil volume.

22. COASTAL INLETS

The coastal inlets of California are the focal points for designing strategies to protect the vital resources of the State's estuaries and bays. It is through these inlets that oil spilled on open ocean waters could reach inland resources. A publication titled Coastal Inlet Protection Strategies for Oil-Spill Response was prepared jointly by Miles O. Hayes and Todd M. Montello. This document provides a synopsis of the relevant characteristics of the coastal inlets in the State, as well as a discussion of potential protection strategies for each inlet. The discussion of each inlet alludes to the range of conditions that might occur at the inlet; however, the proposed protection strategies are based on the best professional judgement of what would work under average wave and tide conditions.

Table 44. GASOLINE PRODUCTS (Category I): Relative environmental impact from response methods for SHORELINE INTERTIDAL habitats. This table should not be used without the accompanying text in the document.

Response Method	*Exposed Rocky Shores (1a)*	*Exposed Solid Man-made Structures (1b)*	*Exposed Wave-cut Platforms (2a)*	*Sand Beaches (3) & (4)*	*Mixed Sand and Gravel Beaches (5)*	*Gravel Beaches (6a)*	*Riprap (6b)*	*Exposed Tidal Flats (7)*	*Sheltered Rocky Shores (8a)*	*Sheltered Solid Man-made Structures (8b)*	*Sheltered Tidal Flats (9a)*	*Salt to Brackish Marshes (10a)*
Natural Recovery	A	A	A	A	A	A	A	A	A	A	A	A
Barriers/Berms	–	–	–	B	C	–	–	B	–	–	B	B
Manual Oil Removal/Cleaning	–	–	–	D	D	D	–	–	–	–	–	D
Mechanical Oil Removal	–	–	–	D	D	D	–	–	–	–	–	D
Sorbents	–	–	–	–	–	–	–	–	A	–	–	–
Vacuum	–	–	–	–	–	–	–	–	–	–	–	–
Debris Removal	–	–	–	–	–	–	–	–	–	–	–	–
Sediment Reworking/Tilling	–	–	–	D	D	D	–	–	–	–	–	D
Vegetation Cutting/Removal	–	–	–	–	–	–	–	–	–	–	–	D
Flooding (deluge)	–	–	–	A	A	A	A	–	–	–	–	B
Low-pressure, Ambient Water Flushing			–	B	B	A	A	–	–	–	–	B
High-pressure, Ambient Water Flushing			–	–	–	–	A	–	–	–	–	–
Low-pressure, Hot Water Flushing			–	–	–	–	–	–	–	–	–	–
High-pressure, Hot Water Flushing			–	–	–	–	–	–	–	–	–	–
Steam Cleaning	–	–	–	–	–	–	–	–	–	–	–	–
Sand Blasting	–	–	–	–	–	–	–	–	–	–	–	–
Solidifiers	–	–	–	–	–	–	–	–	–	–	–	–
Shoreline Cleaning Agents	–	–	–	–	–	–	–	–	–	–	–	–
Nutrient Enrichment	–	–	–	–	–	–	–	–	–	–	–	–
Natural Microbe Seeding	–	–	–	–	–	–	–	–	–	–	–	–
***In-situ* Burning**	–	–	–	–	–	–	–	–	–	–	–	–

The following categories are used to compare the relative environmental impact of each response method for the specific environment or habitat for each oil type:

A = May cause the least adverse habitat impact.
B = May cause some adverse habitat impact.
C = May cause significant adverse habitat impact.
D = May cause the most adverse habitat impact.
I = Insufficient Information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Table 45. DIESEL-LIKE PRODUCTS AND LIGHT CRUDE OILS (Category II): Relative environmental impact from response methods for SHORELINE INTERTIDAL habitats.
This table should not be used used without the accompanying text in the document.

Response Method	*Exposed Rocky Shores (1a)*	*Exposed Solid Man-made Structures (1b)*	*Exposed Wave-cut Platforms (2a)*	*Sand Beaches (3) & (4)*	*Mixed Sand and Gravel Beaches (5)*	*Gravel Beaches (6a)*	*Riprap (6b)*	*Exposed Tidal Flats (7)*	*Sheltered Rocky Shores (8a)*	*Sheltered Solid Man-made Structures (8b)*	*Sheltered Tidal Flats (9a)*	*Salt to Brackish Marshes (10a)*
Natural Recovery	A	A	A	B	B	A	A	A	A	A	A	A
Barriers/Berms	–	–	–	B	C	B	–	B	–	–	B	B
Manual Oil Removal/Cleaning	–	–	B	B	C	C	A	C	C	B	D	D
Mechanical Oil Removal	–	–	–	B	C	D	–	D	–	–	–	D
Sorbents	B	B	B	B	A	A	A	A	A	A	A	A
Vacuum	A	–	A	–	–	–	–	C	B	–	C	B
Debris Removal	A	–	A	A	A	A	A	B	A	A	B	B
Sediment Reworking/Tilling	–	–	–	B	B	B	–	–	–	–	–	D
Vegetation Cutting/Removal	–	–	–	C	C	–	–	D	–	–	–	D
Flooding (deluge)	–	–	A	A	A	A	A	A	A	–	B	B
Low-pressure, Ambient Water Flushing			A	B	A	A	A	B	A	A	C	B
High-pressure, Ambient Water Flushing			B	–	–	–	A	–	C	B	–	–
Low-pressure, Hot Water Flushing			D	–	–	–	C	–	–	–	–	–
High-pressure, Hot Water Flushing			D	–	–	–	C	–	–	–	–	–
Steam Cleaning	–	–	–	–	–	–	–	–	–	–	–	–
Sand Blasting	–	–	–	–	–	–	–	–	–	–	–	–
Solidifiers	–	–	C	–	–	–	B	C	C	–	C	C
Shoreline Cleaning Agents	–	–	–	–	–	–	–	–	–	–	–	–
Nutrient Enrichment	–	–	–	A	A	A	A	I	A	I	I	A
Natural Microbe Seeding	–	–	I	I	I	I	I	I	I	I	I	I
***In-situ* Burning**	–	–	D	–	–	–	–	–	D	–	–	B

The following categories are used to compare the relative environmental impact of each response method for the specific environment or habitat for each oil type:

A = May cause the least adverse habitat impact.
B = May cause some adverse habitat impact.
C = May cause significant adverse habitat impact.
D = May cause the most adverse habitat impact.
I = Insufficient Information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Table 46. MEDIUM GRADE CRUDE OILS AND INTERMEDIATE PRODUCTS (Category III): Relative environmental impact from response methods for SHORELINE INTERTIDAL habitats.
This table should not be used without the accompanying text in the document.

Response Method	*Exposed Rocky Shores (1a)*	*Exposed Solid Man-made Structures (1b)*	*Exposed Wave-cut Platforms (2a)*	*Sand Beaches (3) & (4)*	*Mixed Sand and Gravel Beaches (5)*	*Gravel Beaches (6a)*	*Riprap (6b)*	*Exposed Tidal Flats (7)*	*Sheltered Rocky Shores (8a)*	*Sheltered Solid Man-made Structures (8b)*	*Sheltered Tidal Flats (9a)*	*Salt to Brackish Marshes (10a)*
Natural Recovery	A	A	A	B	B	B	B	A	B	B	B	B
Barriers/Berms	–	–	–	B	C	B	–	B	–	–	B	B
Manual Oil Removal/Cleaning	B	B	B	A	B	B	A	B	B	B	C	C
Mechanical Oil Removal	–	–	–	B	B	C	B	D	–	–	–	D
Sorbents	A	A	A	A	A	A	A	A	B	A	A	A
Vacuum	A	–	A	B	B	B	A	B	B	–	B	B
Debris Removal	A	–	A	A	A	A	A	B	A	A	B	B
Sediment Reworking/Tilling	–	–	–	B	B	B	–	C	–	–	–	D
Vegetation Cutting/Removal	–	–	–	C	C	–	–	D	D	–	D	C
Flooding (deluge)	–	–	A	A	B	B	B	A	A	–	B	B
Low-pressure, Ambient Water Flushing			A	B	A	A	B	B	A	B	C	B
High-pressure, Ambient Water Flushing			B	–	C	B	B	–	B	B	–	–
Low-pressure, Hot Water Flushing			C	C	C	C	C	–	D	C	–	–
High-pressure, Hot Water Flushing			C	–	D	C	C	–	D	C	–	–
Steam Cleaning	D	D	D	–	D	D	D	–	D	D	–	–
Sand Blasting	D	D	D	–	–	–	D	–	D	D	–	–
Solidifiers	–	–	C	B	B	B	B	C	C	–	C	C
Shoreline Cleaning Agents	C	B	C	C	C	B	B	–	B	B	–	B
Nutrient Enrichment	–	–	–	A	A	A	A	I	B	I	I	B
Natural Microbe Seeding	–	–	I	I	I	I	I	I	I	I	I	I
***In-situ* Burning**	–	–	D	C	C	C	D	–	C	–	–	B

The following categories are used to compare the relative environmental impact of each response method for the specific environment or habitat for each oil type:

A = May cause the least adverse habitat impact.
B = May cause some adverse habitat impact.
C = May cause significant adverse habitat impact.
D = May cause the most adverse habitat impact.
I = Insufficient Information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Table 47. HEAVY CRUDE OILS AND RESIDUAL PRODUCTS (Category IV): Relative environmental impact from response methods for SHORELINE INTERTIDAL habitats.
This table should not be used without the accompanying text in the document.

Response Method	*Exposed Rocky Shores (1a)*	*Exposed Solid Man-made Structures (1b)*	*Exposed Wave-cut Platforms (2a)*	*Sand Beaches (3) & (4)*	*Mixed Sand and Gravel Beaches (5)*	*Gravel Beaches (6a)*	*Riprap (6b)*	*Exposed Tidal Flats (7)*	*Sheltered Rocky Shores (8a)*	*Sheltered Solid Man-made Structures (8b)*	*Sheltered Tidal Flats (9a)*	*Salt to Brackish Marshes (10a)*
Natural Recovery	A	A	A	C	C	B	B	A	B	B	B	B
Barriers/Berms	–	–	–	B	B	B	–	B	–	–	B	B
Manual Oil Removal/Cleaning			B	A	A	B	A	B	C	B	C	C
Mechanical Oil Removal	–	–	–	B	B	C	C	D	–	–	–	D
Sorbents	A	A	A	A	B	B	B	B	C	B	B	A
Vacuum	A	–	A	A	B	B	A	B	B	–	B	B
Debris Removal	A	–	A	A	A	A	A	B	A	A	B	B
Sediment Reworking/Tilling			–	B	B	B	–	C	–	–	–	D
Vegetation Cutting/Removal			–	C	C	–	–	D	D	–	D	C
Flooding (deluge)	–	–	B	B	C	C	C	A	B	–	B	B
Low-pressure, Ambient Water Flushing			B	B	B	B	C	C	B	C	D	B
High-pressure, Ambient Water Flushing			B	–	D	B	B	–	B	C	–	–
Low-pressure, Hot Water Flushing			C	C	C	B	C	–	D	C	–	–
High-pressure, Hot Water Flushing			C	–	D	C	C	–	D	C	–	–
Steam Cleaning	D	D	D	–	D	D	D	–	D	D	–	–
Sand Blasting	D	D	D	–	–	–	D	–	D	D	–	–
Solidifiers	–	–	–	–	–	–	–	–	–	–	–	–
Shoreline Cleaning Agents			C	C	C	B	B	–	B	B	–	B
Nutrient Enrichment	–	–	–	B	B	B	B	I	C	I	I	B
Natural Microbe Seeding	–	–	I	I	I	I	I	I	I	I	I	I
***In-situ* Burning**	–	–	D	C	C	C	D	–	C	–	–	B

The following categories are used to compare the relative environmental impact of each response method for the specific environment or habitat for each oil type:

A = May cause the least adverse habitat impact.
B = May cause some adverse habitat impact.
C = May cause significant adverse habitat impact.
D = May cause the most adverse habitat impact.
I = Insufficient Information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

Table 48. NON-FLOATING OIL PRODUCTS (Category V): Relative environmental impact from response methods for SHORELINE INTERTIDAL habitats.
This table should not be used without the accompanying text in the document.

Response Method	*Exposed Rocky Shores (1a)*	*Exposed Solid Man-made Structures (1b)*	*Exposed Wave-cut Platforms (2a)*	*Sand Beaches (3) & (4)*	*Mixed Sand and Gravel Beaches (5)*	*Gravel Beaches (6a)*	*Riprap (6b)*	*Exposed Tidal Flats (7)*	*Sheltered Rocky Shores (8a)*	*Sheltered Solid Man-made Structures (8b)*	*Sheltered Tidal Flats (9a)*	*Salt to Brackish Marshes (10a)*
Natural Recovery	A	A	A	D	C	B	B	A	B	B	B	B
Barriers/Berms	–	–	–	B	B	B	–	B	–	–	B	B
Manual Oil Removal/Cleaning	B	B	B	A	A	A	A	B	C	B	C	C
Mechanical Oil Removal	–	–	–	B	B	C	C	D	–	–	–	D
Sorbents	A	A	A	B	B	B	B	B	C	B	B	B
Vacuum	A	–	A	A	B	B	A	B	C	–	B	B
Debris Removal	A	–	A	A	A	A	A	B	A	A	B	B
Sediment Reworking/Tilling	–	–	–	B	B	B	–	C	–	–	–	D
Vegetation Cutting/Removal	–	–	–	C	C	–	–	D	D	–	D	C
Flooding (deluge)	–	–	B	C	C	C	C	B	C	–	C	B
Low-pressure, Ambient Water Flushing			B	C	C	C	C	C	C	C	D	B
High-pressure, Ambient Water Flushing			B	–	D	B	C	–	C	C	–	–
Low-pressure, Hot Water Flushing			C	C	C	B	C	–	D	C	–	–
High-pressure, Hot Water Flushing			C	–	D	C	C	–	D	C	–	–
Steam Cleaning	D	D	D	–	D	D	D	–	D	D	–	–
Sand Blasting	D	D	D	–	–	–	D	–	D	D	–	–
Solidifiers	–	–	–	–	–	–	–	–	–	–	–	–
Shoreline Cleaning Agents	C	B	C	C	C	B	B	–	B	B	–	I
Nutrient Enrichment	–	–	–	C	C	B	B	I	C	I	I	B
Natural Microbe Seeding	–	–	I	I	I	I	I	I	I	I	I	I
***In-situ* Burning**	–	–	–	C	C	C	–	–	C	–	–	C

The following categories are used to compare the relative environmental impact of each response method for the specific environment or habitat for each oil type:

A = May cause the least adverse habitat impact.
B = May cause some adverse habitat impact.
C = May cause significant adverse habitat impact.
D = May cause the most adverse habitat impact.
I = Insufficient Information - impact or effectiveness of the method could not be evaluated.
— = Not applicable.

4530.8 Near Spill Containment and Recovery

The most effective strategy to aid oil collection and removal is containment. All oil removal and recovery techniques are most effective where oil is thickest. Typically, this is at or near the release site. The most effective use of resources is to insure containment at the primary release site. This must include surrounding the release site with impervious oil barriers including multiple layers of boom as necessary. As oil escapes containment it becomes increasingly difficult to recover and recovery success diminishes rapidly.

Inevitable oil escapes containment, and additional measures must be included to deal with oil escaping containment. This is particularly a necessary where oil booming is subject to winds and waves or strong currents (which includes most sites along the open coast and in San Francisco and Humboldt Bays): oil entrains or is splashed over boom. To counter oil escapement, deployments should include preplanning to anticipate and control escapement. Two measures must be incorporated.

First, configure containment booms to focus and limit any oil escapement to preplanned points along the boom perimeter, for both the ebb and flood tides; these points should be selected to optimize recovery of any escaping oil. A skimmer should then be positioned just downstream from these locations where it can continue skimming escaping oil throughout the 24 hour tide cycle regardless of light or weather conditions. This is very practical in bay conditions where both boom and skimmers can be positioned by anchoring. In open ocean conditions it is more difficult to implement.

Second, employ secondary booming in the spill area. This strategy is most effective in the near shore areas typical in bays, though opportunities may occur in open water to slow spread from the primary containment area. In bays, spill locations are often near shorelines. Shorelines act as containment since they prevent free movement of oil. Also, winds and tides often drive oil toward the shore. Once oil is ashore or in a low current area, contain and recover it there, if possible, to minimize its movement and contamination of other locales. Wherever possible every attempt should be made to contain and collect oil along shorelines that are already oiled. Shores, which have already been impacted, can no longer be protected; therefore, use them as containment and recovery sites. The objective then changes from protection to containment and preventing oil escape to unoiled areas.

If the oil moves from a near shore spill site to open water, the recovery potential will diminish dramatically. As with primary containment, escapement secondary containment booms is predictable and skimmers should be positioned to capture oil throughout the day and night, particularly during the ebb tide. These secondary shoreline confinement strategies should always be reviewed with the Resources at Risk Specialist.

Shoreline Collection: There are predictable locales where recovery efforts can be optimized at shorelines. Since oil re-accumulates, there are two situations where oil collection should be vigorously attempted at the shoreline: 1. Places where oil naturally collects at the shoreline because of winds and currents and 2. Diversion and capture of oil as it flows past or along shorelines and points with low environmental sensitivities.

(The reason oil recollects, is that oil is a substance that spreads primarily in two dimensions on the water surface while water moves in three dimensions; oil will spread and thin but, it will also re-accumulates at predictable locales. It will accumulate wherever water has downward currents, such as tide rips along mud flats, and at windward coves.)

Natural collection points for debris are on all shorelines. These points are so predictable that it is very difficult to keep oil off even with pre-deployments. An alternative is to anticipate such collections and leverage the opportunity for oil capture. This entails developing the site for collection while limiting and focusing undesirable impacts to the habitat. Though this entails risk, the trade-off is likely to be nominal since the impacts are virtually inevitable.

Diversions to shores with low environmental sensitivities are a desirable alternative to unmitigated spread. As described above, oil spreads rapidly on open water and effectual on-water skimming is difficult in a high current environment. Diversion can shunt oil out of the high current and into quiet water capture points at shore. It can be an effective addition to on-water skimming recovery.

Here are the operational considerations when establishing a shoreline collection site when oil is moving along or near shore. Boom sound is positioned at an acute angle to the current to move oil toward the shore collection. Cascading boom arrangements may be necessary. Once oil is at the shoreline, it may be necessary to deploy additional boom to trap the accumulated oil at the shore collection site when the tide reverses. Good land accessibility is important part of selecting capture sites since it permits site support and easy removal of collected oil. Though some natural collection sites may have poor land access, they may be important accumulation points that can be exploited effectively via water.

Deployments of this type should be made only per recommendation of the ACP, Incident Action Plan or with the direction of the Resources at Risk Specialist and the Unified Command.

4540 Waste Management Strategies

One of the major problems associated with an oil spill response is the disposal of collected product and contaminated cleanup materials, soil, and debris. Each category of waste has it own type of response and management problem. The following discussion presents a general approach to the management of the various types of wastes collected during an oil spill. The flow chart following this section presents an encapsulated view of what types of waste are generated by an oil spill and the disposal options for each type.

Disposal Options

Crude oil and refined Petroleum Products. Under California law, material released or discharged to marine waters of the state are defined as waste. Once the final disposition of a specific waste is determined, the waste may be redefined as a product or material and may no longer be subject to waste management requirements.

Crude oil spilled into marine waters, recovered, and transported to a refinery may be considered a product and may not be subject to hazardous waste management regulations [California Health and Safety Code (CHSC), 25943.2]. The collected crude oil may be shipped to the refinery of original destination or a refinery that can accept the spilled crude oil. Refined petroleum products that are recovered from marine waters may also be handled as a product if they can be used for their originally intended purpose (i.e. fuel, fuel oil, etc.)(CHSC 25250.3).

There are other avenues by which recovered petroleum may be managed as a material (CHSC 25143.2). These approaches include recycling the petroleum through incineration, as a fuel, a substitute for raw material feedstock, or as an ingredient used in the production of a product (i.e. asphalt). The California

Environmental Protection Agency, Department of Toxic Substances Control (DTSC) should be consulted for more information on these and other management options.

State law requires the consideration of recycling, therefore recycling should be a top priority and will be undertaken if at all possible. The latest published list of companies who recycle oil, and the latest published list of licensed used oil haulers are presented in tables following this subsection. A discussion of waste minimization and recycling options is included in this subsection.

Recovered petroleum "products" that are not accepted by a refinery or that can not be recycled must be managed as a waste. In order that the appropriate management mechanism is determined for the recovered petroleum, the waste must be characterized by a state certified laboratory to determine if the waste is hazardous or non-hazardous. It is the responsibility of the Responsible Party (RP) to have the waste accurately characterized for proper disposition [Title 22, Sec. 66260.200(C) of the California Code of Regulations (22 CCR)].

Disposal at Sea of Water Separated from Recovered Oil. Oil recovered at sea typically contains significant amounts of seawater. In order to maintain the efficiency of the skimming process this water must be separated/decanted from the oil and discharged back to the ocean during recovery operations. Separated seawater typically contains elevated levels of hydrocarbons and thus the discharge of this material may constitute a discharge of a pollutant. This issue is presently being discussed with regulatory agencies to determine if a National Pollution Discharge Elimination System (NPDES) permit, or a waiver from the permit, is required before separated/decanted water may be discharged back into state waters. The USCG On-Scene Commander recognizes the "discharge" of separated/decanted water as an integral part of offshore skimming operations and as an excellent waste minimization tool. Therefore, the USCG OSC or his/her representative may authorize the discharge of separated/ decanted water back into the catenary area of a boom/skimming system outside of State waters (3 miles). The exception to this will be in NOAA Marine Sanctuary waters.

With the addition of the Monterey Bay National Marine Sanctuary a significant portion of the coastline is now part of the National Marine Sanctuary program. Other sanctuaries include Point Reyes/Farallon Island, Channel Islands San Miguel, Santa Cruz, Santa Rosa, Anacapa, Santa Barbara Island, Richardson and Castle Rock), and Cordel Banks. Federal law prohibits the discharge of material, such as separated water, to marine sanctuaries unless permitted by the Administrator of the sanctuary program. Negotiations are presently under way seeking pre-approval to discharge separated waters during an emergency response to oil spills within the sanctuaries. Until pre-approval is obtained, a permit for the discharge of separated water must be obtained from the Assistant Administrator of the Sanctuary Program (202-606-4122) before any discharge can take place.

Contaminated Debris. Contaminated debris, including organic material, contaminated cleanup equipment (i.e. booms, pompoms, sorbents, etc.) and other contaminated materials that cannot be recycled must be managed as a waste. The materials must also be characterized before the appropriate waste management option is determined.

Oiled Animal Carcasses. Oiled animals and carcasses should be collected and turned over to the California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) representatives who are responsible for wildlife rehabilitation and collection of carcasses for natural resource damage assessment (NRDA) investigations. The identification and location of OSPR representatives can be provided by the Unified Command Center. OSPR will be responsible for the disposal of the oil-contaminated carcasses.

Waste Minimization and Recycling Opportunities

Debris Avoidance. It is generally not possible to avoid the generation of oily debris resulting from the contact of floating oil with waterborne solids, however, it is possible to minimize the generation of oily debris in the coastal intertidal zone if the anticipated area of oil impact can be cleaned prior to stranding of the spilled oil. This has been successfully accomplished in a small number of past spills (W. Schumaker, personal communication).

Personnel can be deployed to remove debris from beach intertidal areas above the high tide line in order to minimize oiling of stranded debris/trash. It is important to note that such crews are not likely to be certified as required under OSHA 1910.120 and can only perform this task prior to the stranding of spilled oil. A safety/industrial hygiene specialist (see 9334) should be consulted regarding the limitations of these crews and the effective establishment of exclusion zones in the area of beach impact.

Selection of Personal Protective Equipment. Depending upon climatic conditions and material compatibilities of personal protective equipment (PPE), waste can be minimized through the selection of reusable equipment, when possible. For instance, heavy gloves and boots that can be effectively decontaminated and reused can minimize the generation of oil-contaminated disposable gloves and boots, as long as the site safety officer approves such equipment use. Reusable rain gear may also be used instead of disposable suits, if approved. Such decisions should be made early in the response process in order to minimize generating containerized, contaminated PPE which is generally disposed at Class I facilities.

Recovered Oil and Oily-water. In order to maximize skimmer efficiency and effectiveness, water should be decanted to the spill impact area with the approval of the federal OSC and relevant state agency representatives. Operational standards (e.g., decanting only in the impact area where water depth is sufficient, no free oil) should be established as soon as skimming is initiated. In federal waters, decanting can be approved through a request to the federal OSC. As discussed earlier, in state waters approval must be secured from the Regional Water Quality Control Board.

Both oil and oily-water recovered from skimming operations should be off loaded to facilities where it can be effectively recycled/managed within established process and treatment streams. Such facilities would include terminals, refineries and commercial refiners/reclaimers/recyclers. These facilities can often provide temporary tank storage, when necessary. Oiled debris that is recovered with skimmed oil should be maintained in secure, temporary storage until it is sufficiently characterized for disposal.

Sorbent Use/Reuse. Synthetic sorbents (i.e., pads, sweeps, and booms) have become standard response materials in the "mechanical recovery" of spilled oil. Their oleophilic, hydrophobic character makes them efficient at separating oil and water and they are routinely used to recover oil from solid surfaces as well (e.g., rubble, cobble and boulder shorelines; equipment/gear; vessels; etc.). Since oiled sorbent material often constitutes a substantial percentage of the oily solid waste generated during spill response and cleanup, opportunities for minimizing this waste volume should be considered.

Some sorbents are designed to be reusable (i.e., mechanized rope-mop skimmers) or can be recycled onsite with inexpensive gear (e.g., appropriate barrel-mounted wringers). Sorbent manufacturer's instructions should be followed regarding the limits of effective reuse for their individual products. It is also possible to replace sorbent sweeps and booms with recyclable boom and other appropriate gear in circumstances where floating oil can be efficiently recovered without generating oiled sorbents. For

example, in good-access, low energy shoreline areas (harbors, bays, inlets), it may be possible to use containment-boom and recover the trapped oil with vacuum trucks instead of contaminating large volumes of sorbent.

Petroleum-contaminated Spill Recycling and Reuse. While the volume of petroleum-contaminated soil associated with coastal spills is generally lower than such volumes resulting from large inland spills, opportunities for recycling/reuse should be considered. For soils satisfying the waste profiling requirements of the state and commercial facilities, beneficial reuse as daily landfill cover after appropriate treatment is an available option in California (see Response Resources lists). Recycling of oil-contaminated soil as aggregate in cold-mix and hot batch asphalt is available at four facilities in the State of Washington (Nash, et. al, 1992).

Furthermore, a recently completed study of the incorporation of oily/solid residuals into construction materials concluded that a large market exists in California and that these recycling/reuse opportunities should be pursued and encouraged (Mittelhauser Corporation, 1992). It is important to note that both the costs and benefits of such recycling (less than $100/ton and low future liability) versus disposal in a California Class I or II disposal facility (greater than $100/ton and moderate to high future liability) are substantial. Removal of contaminated soil from temporary storage will require the authorization of the On-Scene Coordinator.

Temporary Storage

To expedite removal of spilled oil, refined products, and contaminated material from marine waters during an emergency response, temporary storage sites may be erected at appropriate shore locations [22 CCR 66270.1(c)3]. The transportation of oil and contaminated material to temporary storage sites during the emergency response is exempt from handling and permitting requirements [22 CCR 66263.30 and/or 66263.43]. The on-site California Environmental Protection Agency, Department of Toxic Substance Control (DTSC) representative or duty officer [(916) 445-3846] should be contacted for approval. If a Unified Command is established, OSPR will facilitate the contact with DTSC through their liaison function.

Temporary storage sites should be available at an onshore location convenient to the recovery operations to temporarily store recovered petroleum products and contaminated materials and debris. A temporary storage site may require a permit from the California Coastal Commission (CCC). For information on temporary permits within the coastal zone, contact the Energy and Resources unit of the CCC at (415) 904-5200.

Siting of the temporary facility must be done with the concurrence of the USCG and state OSC, DTSC, the local Regional Water Quality Control Board (RWQCB), and the local health, fire and emergency services departments. If a Unified Command is established, OSPR will facilitate the contact of the state and local government agencies through their liaison function.

Temporary storage facilities can include Baker tanks, tank trucks, oil drums, or empty fuel storage tanks. If suitable containers are not available, oily wastes may be temporarily stored in pits dug in the soil. These pits must be lined with plastic sheeting to prevent oil leakage and soil penetration.

Initial Treatment

Petroleum and petroleum contaminated cleanup materials can potentially be treated at a temporary storage site. One of the treatment processes that may be used is Transportable Treatment Units (TTU). The most likely treatment process undertaken with a TTU will be separation of seawater from collected petroleum. Another method employed for separating water is decanting water from temporary storage tanks.

Any water generated through the separation of petroleum and seawater may be potentially discharged to a sanitary sewer system or back to marine waters. The sanitary sewer discharge will require a permit from the local sanitation district that will establish effluent requirements for the discharged water. Should a sanitation district not allow the discharge of water to its system, the recovered sea water would either be discharged back to the adjacent marine waters or transported off-site for disposal. The discharge of recovered seawater to state waters will require a NPDES permit from the local RWQCB.

A portable incinerator may be another type of TTU available during a spill response for use with contaminated material. The use of an incinerator will require a permit from the local air quality agency. The potential use of any TTU and regulatory standards must be discussed with DTSC.

Characterization of Recovered Material

Recovered petroleum and contaminated debris not recycled must be characterized to determine their waste classification before the waste can be shipped to a proper waste management facility for final disposal. A State of California certified laboratory may conduct the actual testing on representative samples of each type of waste.

It is the responsibility of the generator/RP to have petroleum and contaminated material managed as waste accurately classified as hazardous or non-hazardous for proper disposition [22 CCR 66260.200(c)]. A generator who incorrectly determines and manages a hazardous waste as non-hazardous is in violation of the hazardous waste requirements and may be subject to DTSC enforcement action.

22 CCR 66264.13 and 66265.13 states that before an owner or operator of a treatment, storage, or disposal facility transfers, treats or disposes of any hazardous waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. Characterization of the waste must be provided to DTSC (via profile sheet). The DTSC then designates the waste acceptable prior to shipment. State criteria for characterizing a waste hazardous or non-hazardous is found in 22 CCR 66261.10 and 66261.20-66261.24 while federal criteria is presented in 40 CFR 261.30-261.33. These criteria can apply to any oily-water; sorbents, booms, and debris generated as a result of oil spill cleanup. Based on waste characterization, the wastes can be further defined as either a Federal Resource Conservation and Recovery Act (RCRA) waste (hazardous waste regulated under federal regulations), non-RCRA waste (hazardous waste regulated under California regulations), or non-hazardous waste. Non-hazardous waste in this instance is defined as designated waste per 23 CCR 25522. Once the waste is characterized, disposition options can then be selected. Removal of recovered material from temporary storage will require the authorization of the OSC.

Transportation

Recovered petroleum product not accepted at a refinery or recycling facility and contaminated material must be transported to an approved waste management facility. The type of waste management facility will be based on the results of the waste characterization performed.

Hazardous Waste. Waste classified as hazardous under either federal or state regulations must be transported to a permitted or interim status hazardous waste facility. A state licensed hazardous materials hauler must do hauling of the waste. The licensed hauler must have an U.S. EPA I.D. number and State transporter I.D. number. Prior to removal of the hazardous material from temporary storage, a uniform hazardous waste manifest (form DHS-8022A) must be prepared by the generator (RP or his representative) for recovered petroleum and other contaminated materials (22 CCR 66263.20 - 66263.23). If assistance is required for manifesting, the RP may request it from the on-scene DTSC representative or the state DTSC duty officer (916-445-3846).

All hazardous materials shipped off-site must be transported in compliance with applicable regulations. These include the RCRA regulations in 40 CFR 262-263, DOT Hazardous Materials Regulations (49 CFR 171-178), and any applicable state regulations (22 CCR 6626.20-6626.23).

Non-hazardous Waste. Waste determined to be non-hazardous but designated waste (23 CCR 2522) will be transported to a Class II waste management facility. Manifesting of the waste is not required but a Bill of Lading is required for transportation. The appropriate Regional Water Quality Control Board and local health department should be contacted to determine what waste management facility would accept the waste and any additional test requirements the facility might require. Removal of non-hazardous waste from temporary storage will require authorization of the OSC.

4547 *Waste Management Facilities*

There are three licensed hazardous waste management facilities in California. They are:

a. *Kettleman Hills Chemical Waste Management Co., Kettleman City (Kern County), California.*

Contact customer service at (559) 386-9711. They will provide name and number of local agent to contact for disposal information.

Only class I facility that accepts liquid waste in any sizable quantity. Liquid petroleum accepted at Kettleman Hills will be transported to their subsidiary in Azusa, California and further transported out-of-state for incineration.

b. *Safety-Kleen, Westmorland (Imperial County), California.*

Contact customer service at (760) 344-9400 for information. This facility will accept only solid waste.

c. *Safety-Kleen, Buttonwillow (Kern County), California.*

Contact customer service at (661) 762-6200. This facility accepts only solid waste although it is developing the ability to process small volumes of liquid waste.

Literature Cited

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McKinley, A.A. Fate of Oil and Debris Recovered from Spill Cleanup Operations. 1991 International Oil Spill Conference Proceedings. 217-220.

Mittelhauser Corporation. Strategy Report: Incorporation of Oily/Solid Residuals into Construction Materials. Western States Petroleum Association. 1992. 25.

Nash, J.H., et. al. Potential Reuse of Petroleum-Contaminated Soil: A Directory of Permitted Recycling Facilities. USEPA Risk Reduction Laboratory (ORD). 1992. 37.

Schumaker, W. Chief of Beach Safety & Sanitation, L.A. County. 1993.

WASTE EVALUATION -
FEDERAL CRITERIA

Is the Material a Waste? (40 CFR 261.2)

A Solid Waste is an Abandoned, Recycled, or Inherently Waste-Like Discarded Material that is Not Specifically Excluded in 40 CFR 261.4.

Is the Waste Excluded from Regulation? (40 CFR 261.4)

Domestic Sewage Sludge

Industrial Wastewater Subject to Regulations under the Clean Water Act

Certain Chromium Wastes

Mining Wastes

Wastes from Conditionally Household Waste

Ash Wastes from the Combustion of Fossil Fuels

Spent Sulfuric Acid

Mining Overburden

Exempt Small Quantity Generators

Is the Waste a Listed Hazardous Waste? (40 CFR 261.30-33)

Wastes from Non-Specific Sources ("F" List)

Wastes from Specific Sources ("K" List)

Discarded Commercial Chemical Products, Oil Specification Species, Container Residues & Spill Residues Thereof ("P" & "U" Lists)

Is the Waste a Characteristic Hazardous Waste? (CFR 261.20-24)

Ignitability

-Liquid (Other than Aqueous With <24% Alcohol) with Flashpoint <140_F

-Non-liquid Which Can Cause Fire and, When Ignited, Burns Persistently and Vigorously

-Flammable Compressed Gas [49 CFR 173.300(b)]

-Oxidizer (49 CFR 173.151)

Corrosivity

-Aqueous Liquid with pH <2 or >12.5

-Liquid that Corrodes Steel >6.35mm/yr at 55_F

Reactivity

-Normally Unstable

-Reacts Violently

-Explosive Mixtures

- Generates Toxic Gases

- Contains Cyanides or Sulfides

- Detonates or Explodes

Toxicity

-40 Compounds have Assigned Regulatory Levels

-Samples are Compared to the Regulatory Threshold after being prepared Per the Toxicity Characteristic Leaching Procedure

W A S T E E V A L U A T I O N - S T A T E C R I T E R I A

Is the Hazardous Waste mixed With a Non-hazardous Waste? (40 CFR 261.3)

A Mixture of a Listed Hazardous Waste and a Non-hazardous Waste is a Hazardous Waste Unless:

-The Listed Waste was listed merely because it exhibited a Characteristic and the Resultant Mixture No Longer exhibits that Characteristic

OR

-The Mixture is a Wastewater that is discharged Pursuant to Specific Provisions of the Clean Water Act

A Mixture of a Characteristic Hazardous Waste and a Non-hazardous Waste only if the Resultant Mixture Exhibits a Characteristic

Is the Waste a "Derived From" Waste? [40 CFR 261.3 (c)]

Any Solid Waste Generated From the Treatment, Storage, or Disposal of a Hazardous Waste Unless is a Hazardous Waste Unless the Waste is Specifically Excluded or Does Not Exhibit a Characteristic and is Not Derived From a Listed Waste.

Is the Material a Waste? (HSC 2412.4)

A Waste is Discarded Material that is Not Specifically Excluded. A Discarded Material is Relinquished, Recycled, or Inherently Waste-Like.

Is the Waste Listed in Appendix 10? (22 CCR, Division 4.5, Appendix X)

Wastes Listed in Appendix 10 Are Presumed Hazardous Unless Proven Otherwise by Applying Knowledge of or Testing the Characteristics of the Wastestream

Is the Waste a Characteristic Hazardous Waste? (22 CCR 66261.21-24)

Ignitability (22 CCR 66261.21)

-Identical Criteria to Federal Characteristics

Corrosivity (22 CCR 66261.22)

-Identical Criteria to Federal Characteristics Except That California Regulates Non-Aqueous Wastes In Addition to Aqueous Wastes

Reactivity (22 CCR 66261.23)

-Identical Criteria to Federal Characteristics

Toxicity (22 CCR 6626.24)

-Persistent and Bioaccumulative Substances

A Waste is Hazardous if the Soluble Concentration of a Substance is > its Regulatory Threshold Known as the Soluble Threshold Limit Concentration (STLC). The Soluble Concentration is Determined After Preparing the Samples with the Waste Extraction Test (WET)

A Waste is Hazardous if the Total Concentration of a Substance is > its Regulatory Threshold Known as the Total Threshold Limit Concentration.

Acute Toxicity

-Oral LD60 <5,000 mg/kg (single administration).

-Dermal LD60 <4,300 mg/kg (24 hour time period).

W A S T E E V A L U A T I O N - S T A T E C R I T E R I A

Is the Waste a Characteristic Hazardous Waste? (22 CCR 66261.21-24) (continued)

-Inhalation LC50 <10,000 ppm as a gas or vapor (8 hour time period).

Aquatic Toxicity

-LC50 <500 mg/l

-96 Hour Bioassay

-Test species are either fathead minnows, golden shiners, or rainbow trout.

Chronic Toxicity

-16 Listed Carcinogens >0.001% (by weight)

A Waste Which Has Been Shown Through Experience or Testing to Pose a Hazard to Human Health or the Environment Because of its Carcinogenicity, Acute Toxicity, Bioaccumulative Properties or Persistence in the Environment

Is the Waste a Used Oil? (HSC 25250-25250.25)

Any Refined Crude Oil Which Has Become Contaminated With Physical or Chemical Impurities as a Result of Use

Any refined Crude Oil that is No Longer Useful to the Original Purchaser as a Consequence of Extended Storage, Spillage, or Contamination

Spent Lubricating Fluids

Spent Industrial Oils Contaminated Fuel With a Flashpoint > 100_F

Is the Waste an Extremely Hazardous Waste? (22 CCR 66261.110)

Acute Toxicity

-Acute Oral LD60<50 mg/kg

-Acute Dermal LD50 <43 mg/kg

-Acute Inhalation LC50<100ppm

Listed Carcinogen>0.1% (by weight)

Contains a Persistent or Bioaccumulative Substance at > Listed TTLC

Water Reactive

Is the Waste a Special Waste? (22 CCR 66261.122)

A Special Waste is Hazardous ONLY Because Inorganic Constituents Exhibit:

-Soluble Concentration > STLC

OR

-Total Concentration > TTLC

EXCEPT THAT

-Soluble Concentration in mg/kg must be < TTLC

The Generator Must Apply For and Receive the Special Waste Classification From the Department

Is the Hazardous Waste Mixed with A Non-Hazardous Waste? [22 CCR 66261.3(b)(3)]

A Mixture of Hazardous Waste and a Non-Hazardous Waste is Hazardous Waste only if the Resultant Mixture Exhibits an Article 3 Characteristic

LIST OF LICENSED OIL RECYCLERS IN CALIFORNIA

COMPANY NAME	LOCATION	PHONE NUMBER
D. K. Environmental	Los Angeles	(323) 268-5056
DeMenno/Erdoon	Compton	(310) 537-7100
Evergreen Oil, Inc.	Newark	(510) 795-4400
Hydra Fyne, Co.	City of Industry	(626) 369-6580
Industrial Service Oil Co.	Downey	(562) 598-5577
Leach Oil, Inc.	Compton	(310) 323-0226
Ramos Environmental	West Sacramento	(916) 371-5747

For more information on these companies, see California Environmental Protection Agency, Dept. of Toxic Substances Control Alternative Technology Division's DIRECTORY OF INDUSTRIAL RECYCLERS, 1991.

LIST OF LICENSED USED OIL HAULERS IN CALIFORNIA

Refer to Logistics Section 5406

REGIONAL WATER QUALITY CONTROL BOARDS

REGION	LOCATION	CITY	TELEPHONE NUMBER
Region 1	North Coast	Santa Rosa	(707) 576-2220
Region 2	San Francisco Bay	Oakland	(510) 662-2300
Region 3	Central Coast	San Luis Obispo	(805) 549-3147
Region 4	Los Angeles	Monterey Park	(213) 576-6600
Region 5	Central Valley	Sacramento	(916) 255-3000
Region 8	Santa Ana	Riverside	(909) 782-4130
Region 9	San Diego	San Diego	(858) 467-2952

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4550 Alternative Response Technologies (ART)

4550.1 Introduction

Alternative Response Technologies (ARTs) available to the UC are discussed in this section. The primary objective of an oil spill response is to reduce the effect of spilled oil on the environment. Physical removal of the oil is the preferred method. However, conventional mechanical recovery and removal may be limited by equipment capability, weather and sea state conditions, the size and the remote location of the spill.

4550.2 Policy

The use of alternative response countermeasures; dispersants, in-situ burning, and other oil spill cleanup agents (OSCAs) including, bioremediants, shoreline cleaning agents, herding agents, and elasticizers shall be considered when the preferred recovery methods, cleanup or remediation techniques are inadequate and the environmental benefit of ART use outweighs any adverse effects.

Use of dispersants or in-situ burning will be the primary consideration for any large off-shore discharges of oil where open water skimming operations may be difficult or where open water recovery could not occur before the oil impacted any of the environmentally sensitive areas located offshore, such as seal rookeries or nesting bird colonies.

Since the approval process for use of ARTs has historically been prolonged and complex, the decision to apply time-critical methods, such as dispersants and in-situ burning, needs to be made early in the response. This section discusses the approval process for dispersants and in-situ burning specifically, as well as approval and use for other OSCAs. The approval process varies with the type of countermeasure and the location of the spill (inland, nearshore, offshore) and in most cases, requires the involvement of the Regional Response Team and the State of California.

4551 *Dispersants*

4551.1 Background

The following process has been developed by the California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) and the National Oceanic and Atmospheric Administration's Hazardous Materials Response and Assessment Division to provide for the timely and effective use of dispersants for oil spills in marine waters off California.

There are presently two commonly recognized approaches to remove significant quantities of spilled petroleum from marine surface waters. The most common technique involves mechanical skimming devices which typically remove less than 20% of the spilled petroleum (National Research Council [NRC], 1989). The second and more controversial method is the use of chemical agents (e.g. dispersants) to disperse oil into the water column. The effectiveness of chemical dispersants has been reported to range from zero to 100 percent depending on the type of petroleum spilled, the dispersant used, and the approach employed to estimate effectiveness (NRC, 1989). A third approach, in-situ burning, is still in the developmental stage.

Dispersants offer advantages over skimming technology when addressing dispersable oils. These include: dispersants can be applied in offshore or remote areas where the use of skimming vessels may be limited

or response times protracted; dispersants can be used more effectively in sea states where skimming vessels may not be able to operate; and aerial application of dispersants can more quickly address larger areas of spilled petroleum than skimming technology. In addition, dispersants can be used in concert with mechanical skimming devices to increase the rate of surface oil removal.

Dispersion of petroleum into the water column does not alleviate the risk of petroleum-related impacts on the environment. Dispersant application does however, have the potential to accelerate cleanup of spilled petroleum on the surface of the water and at the same time reduce the risk of petroleum-related impacts on environmentally sensitive areas. In the case of California, environmentally sensitive areas include the productive intertidal regions, tidal inlets, tidal marshes and other wetland areas of the coastal islands and mainland and the surface waters where endangered marine mammals and large concentrations of sea birds might exist.

The controversial aspects of dispersants relate primarily to their effectiveness and toxicity. The effectiveness of dispersant application depends on many factors including: type and weathered state of spilled petroleum; the dispersant used; sea state; and application efficiency. It is thus difficult to predict in advance the precise effectiveness of dispersant application at any one spill due to the many controlling variables (NRC, 1989).

A recent review of dispersant toxicity studies (NRC, 1989) suggests that the present generation of dispersants do not themselves present a significant threat to marine life. The primary dispersant related threat to the environment comes from the dispersion of spilled oil constituents into the water column. However, studies show that the acute toxicity associated with dispersed oil is likely to be short term as the dispersed oil is typically diluted within hours to levels below those expected to produce impacts on the water column community. These findings, coupled with the potentially severe consequences to natural living resources when oil is on the water's surface or deposited within the productive intertidal regions, suggest that when possible the dispersion of oil may be the best response choice after an oil spill has occurred.

The California marine oil spill response community relies almost exclusively on skimming technology to recover spilled petroleum in the open ocean. Though dispersants have been used in the past, consideration of and consent for their use has been slowed by the lack of an effective, well reasoned decision-making/approval process. Owing to the logistical constraints and relatively small window of opportunity in which dispersants may be effectively applied, the decision to use dispersants must be made in a timely fashion.

The purpose of this document is to combine an existing Quick Approval Zone policy for use of dispersant in the waters 15 nautical miles or more off the coast of California with California's draft policy for use of dispersants in state waters. The resulting dispersant use decision-making policy is designed to address the use of dispersants in all waters off the coast of California.

4551.2 Regional Philosophy

For spills located greater than 3 nautical miles from shore, use the California Dispersment Plan and preapproval per the following applies. If spill is located greater than 3 nautical miles see regional philosophy continued after the following.

REGION IX REGIONAL RESPONSE TEAM

Date: 12 February 2003

From: Region IX Regional Response Team

To: San Diego Area Committee

The Proposed San Diego Area Dispersant Zones have been reviewed and are hereby approved with modification by the Region IX Regional Response Team (RRT) in accordance with 40 CFR 300.901 (a) (National Contingency Plan) and the Region IX Regional Contingency Plan Dispersant Pre-approval Guidelines. Please find the attached memo from the Applied Response Technologies (ART) subcommittee to the RRT explaining the necessary modifications. The San Diego Area Committee's Dispersant Use Zones shall be incorporated into your Area Contingency Plan.

Per Paragraph 4.6.4. of the Dispersant Use Planning Process document, as referenced in appendix B, the following modification shall be made to the Proposed San Diego Area Dispersant Zone recommendations:

Subsection 1:

1. In response to the Regional Response Team's request to evaluate dispersant pre-approval zones, the San Diego Area Committee proposes the following zone recommendations for the waters within our area of responsibility. The Area Committee proposes revising Section 4551 of the Area Contingency Plan (ACP) to establish two dispersant use zones: Pre-Approval and RRT Approval Required (Quick Approval Process) ~~Zone~~. These zones are delineated a follows:

Please note that the recommendations made by the San Diego Dispersant Subcommittee regarding preapproval criteria applicability to Group I oils has been forwarded to the other Area Committees for adoption as appropriate.

These dispersant use zones are a critical first component of the dispersant use plan to be developed for each Area. Consistent with the RRT's original request for the development of dispersant use plans, the following items are needed to complete the plan as outlined in subsection 4.6. Dispersant Use Planning Process:

- Identification of any necessary dispersant products and equipment required to conduct a dispersant application within 4 hours that are not readily available in the area.
- Training program for appropriate Area Committee members and response personnel involved in a dispersant deployment including wildlife assessment protocols.
- Revision of the FOSC Response Checklist for Dispersant Use.

Congratulations on your diligent efforts toward further improving California's spill response preparedness.

For the:

State of California: _____

United States Coast Guard: _____

United States Department of the Interior: _____

United States Department of Commerce: _____

United States Environmental Protection Agency: _____

To: Regional IX Regional Response Team (RRT) Members

Fm: The Applied Response Technologies (ART) Subcommittee

Re: Approval of Proposed Dispersant Use Zones for the following Captain of the Port AORs: Central Coast, Los Angeles/Long Beach North and South, and San Diego

As you know, in October 2000 the Region IX RRT finalized a Dispersant Use Policy (DUP) and Planning Document for federal waters from 3 to 200 miles off the coast of California. The RRT then requested that each of the six California Area Committees to develop an Area Dispersant Plan (ADP) to implement the DU Policy for the federal waters off their specific response planning area of the coast. The critical first part of this process was the de Zones. To date, the RRT has approved the dispersant-use zones for the North Coast (Humboldt Bay area) at the July 24, 2002 meeting. Attached you will find the Dispersant-Use Zone Recommendations forwarded to the RRT by the Central Coast Area Committee, the Los Angeles-Long Beach Area Committee, and the San Diego Area Committee as well as the recommended changes from the ART subcommittee as discussed below.

By way of background, the Area Committees were specifically tasked with development of recommendations designating the waters within their area of operation into one of the three following dispersant use zones:

Pre-Approval:	Those areas where dispersant use has been pre-determined to be an appropriate spill response, specific dispersant use criteria have been pre-established, and the Federal On-Scene Coordinator (FOSC) may initiate the use of dispersants without further concurrence or consultation with the RRT.
Pre-Approval with Consultation:	Those areas where the use of dispersants have been pre-approved contingent on the technical consultation of a pre-designated Trustee agency's regional resource expert who can provide timely resource data on one or more critical species whose presence could modify or prohibit dispersant use. If consultation does not result in a recommendation to disperse, and the FOSC continues to seek dispersant use, the FOSC shall activate the RRT for approval in accordance with 40 CFR 300.910 (b).
RRT Approval:	Requires the approval of the RRT, as described in the existing Quick Approval Process (Area Contingency Plan Section 4551), where members of the RRT, in a timely manner (approximately 2 hrs), discuss the dispersant use issues and determine if

dispersants will or will not be used for the specific response.

As you know, much of the marine waters off the California coast is designated as National Marine Sanctuaries (NMS) and as such, requires special consideration. The "Pre-Approval with Consultation" zones were designed specifically to address areas with special trustee concerns, like the Sanctuaries. It was envisioned that dispersant subcommittees would review the life histories of specific species of concern and determine critical life stages or seasonal considerations when dispersant use should be avoided. These species and seasonal considerations would be delineated as a part of the "pre-approval with consultation" criteria. A contact person from the trustee agency identified would be designated for this species-specific "consultation" during a spill response to ensure that clearly identified concerns were met, thus meeting the criteria for pre-approval with consultation and dispersant use.

Within the dispersant subcommittees, there have been varying degrees of participation by Sanctuary representatives during policy development. Thus far, no other trustee agencies requested a specific "consultation" prior to dispersant use. On a national level, several members of the ART/RRT have been working with NOAA Hazmat and the Sanctuaries Headquarters in the development of a consistent-statewide approach to dispersant use within the Sanctuaries. This process has been slow and has not yet resulted in a consistent statewide approach. As a result, none of the area committees has been able to develop specific species/seasonal criteria for dispersant use within the Sanctuaries. This is likely as much a political discussion as a scientific one but without specific criteria, the "pre-approval with consultation zone" is not appropriate for use at this time.

It is the recommendation of the ART that the areas identified as "pre-approval with consultation" as specified for the National Marine Sanctuaries be changed to "RRT Approval Required." At such time when the Sanctuaries are able to develop the specific/seasonal specific criteria for use in the "pre-approval with consultation" zones, the dispersant use zones and all subsequent dispersant use plans can be revised to reflect this change.

Additional changes are also recommended for (2)(d) of the LALB North and South plan and (2)(f) of the Central Coast plan, which outline stipulations for dispersant use. These subsection discuss the need to contact the Unified Command if circumstances are other than anticipated. The current language appears to provide that the "contact" becomes an additional "go/no go" criteria. Although this was likely not the intention of the subcommittees, significant concerns exist that this requirement could not be implemented in a safe and sound manner, given the limitations of aircraft and dispersant application. The ART subcommittee believes that concerns for wildlife in the area of a dispersants application would be adequately protected by the language previously contained in this subsection. The RRT approved this language for the North Coast dispersant use zones.

The San Diego Dispersant Use Recommendations provided specific stipulations regarding the use of dispersants for Group I oils (gasoline, diesel, jet fuels, etc.). Although this language is redundant, and is also found in the FOSC checklists, the ART has no objections to its inclusion here, and will forward this language to the other subcommittees for approval as appropriate.

Finally, the Central Coast recommended that the area over the Davidson Sea Mount be designated as "PreApproval with Consultation". The specific trustee they identified, Monterey Bay NMS, is not a Federal trusteee for those waters. To address this concern, the ART recommends those areas be considered "RRT Approval Required" until such time that the Central Coast Area Committee identifies an appropriate Federal trustee agency to be consulted.

In 1994, the 11th U.S. Coast Guard District and Region IX of the U.S. Environmental Protection Agency (EPA) along with the State of California and other members of the Regional Response Team (RRT), developed a Quick Approval Zone Plan to expedite dispersant use in the offshore water of California at a "safe" distance from environmentally sensitive areas (Region 9 RRT. 1994). The actual area of the Quick Approval Zone (QAZ) is the waters from the Oregon border to a point 15 nautical miles from the Mexican border (to provide the Mexican government with input into dispersant use decisions that may affect their waters), and west from a line 15 nautical miles from the nearest point of land and extending out to the western most limits of the national Exclusive Economic Zone (Figure 1). Special cases were made for offshore islands which also had a 15 nautical mile dispersant use buffer zone. The separation of the QAZ from California waters was undertaken to accommodate the State until it could develop a dispersant decision process for California waters including the environmentally sensitive near shore areas as required by State statute.

The QAZ Plan was a streamlined dispersant use checklist process to provide the Federal On Scene Coordinator (FOSC), who is the federal representative in the Unified Command (UC), with a mechanism to secure RRT permission or denial for dispersant use within one to two hours.

Until the present, the State had no uniform published approach or guidelines for dispersant use. In early 1995, the OSPR finalized a "draft" Dispersant Use Decision Process (DUDP) pursuant to State statutory requirements which addressed the use of dispersants in State waters (OSPR, 1995). The purposes of the 1995 document were to provide: a written position and guidelines for dispersant use in state waters; a process for incorporating dispersant efficacy and biological resources data into the decision making process; and a speedy DUDP for examining dispersant.

While the QAZ process was designed to provide a quick dispersant response in waters away from environmentally sensitive areas, the State's DUDP was designed to protect the most environmentally sensitive areas, when possible, through selected dispersant use. In general, the State has identified environmentally sensitive areas as the near shore surface waters, including those surrounding the offshore islands of the state, where endangered marine mammals and thousands to hundreds of thousands of sea birds may exist at any one time and the highly productive tidal inlets and intertidal regions of the mainland and offshore islands.

The State's premise on dispersant use is that in general, petroleum on the surface of the ocean poses more of an immediate and long term risk to living marine resources and habitats than petroleum dispersed into the water column. There are exceptions to this approach and they are identified in the Quick Approval Process (QAP) boundary definition and discussed in the QAP Checklist backup material provided in Appendix I.

4551.2.1 *QAP for Dispersant Use in Waters off California*

If a dispersant response is to be successful it must typically be undertaken within a small window of opportunity following the release of oil, which often can be measured in hours. In order to accomplish such a task, the UC must have a mechanism at their disposal to expedite the dispersant use decision. The QAP, a combination of the existing federal QAZ and the State's draft DUDP, is such a mechanism. This accelerated review process, conducted by the Planning Section of the UC, is designed to provide the UC with sufficient information to determine if a dispersant use request should be made, and to provide members of the RRT with sufficient information to approve or disapprove within the first two hours of its receipt. This information is provided through the use of an Incident Command (IC) decision making process and support documents. If

the results of the decision making process supports dispersant use, the FOSC, representing the UC, will contact the RRT, provide information as required, and obtain a dispersant use decision.

The purpose of the QAP approach is to take advantage of the time-restricted dispersant-use window-of-opportunity. If the UC requests the use of dispersants, based on the QAP process, to address an oil spill and the RRT provides approval for dispersant use, there must be an understanding by both parties that: (1) the use of dispersants represents an acceptable risk to the environment; (2) the selected dispersant will have an acceptable level of effectiveness on the spilled oil; (3) dispersant application will not disperse all of the spilled oil; and (4) mechanical or other methods will be required to address the remaining oil.

4551.3 Authority

The National Contingency Plan, Section 300.910 authorizes the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the State representative to the RRT with jurisdiction over navigable waters threatened by the release of discharge (of oil) and in consultation with the DOC and DOI natural resource trustees, when practicable, to authorize the use of dispersants. The Commandant of the USCG has predesignated the USCG Captains of the Port under his jurisdiction of On-Scene Coordinators for oil spills, and has delegate authority and responsibility for compliance with Section 311 of the Federal Water Pollution Control Act to them. The USEPA has been delegated authority under Subpart J of the NCP to authorize use of dispersants for control of oil spills.

California Government Code Section 8670.7(f) delineates the Administrator of the Office of Spill Prevention and Response, Department of Fish and Game as having the State authority over the use of all response methods, including, but not limited to dispersants. The Governor of the State of California has delegated state representation on the RRT to the Administrator of the OSPR.

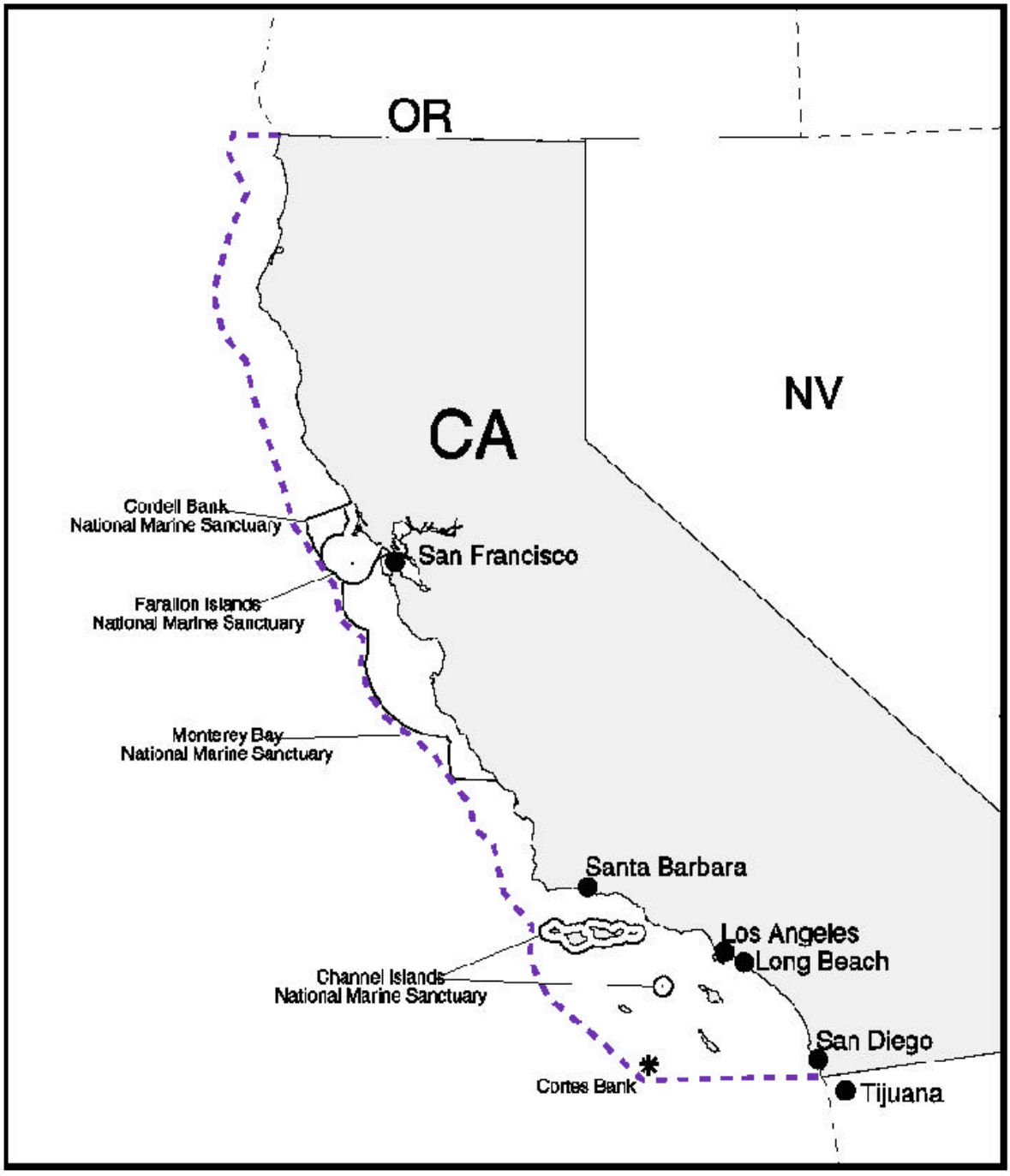
4551.4 Annual Review

It will be the charge of the RRT ART Working Group to annually review the QAP Plan and report its findings to the RRT at a scheduled meeting. The group will be responsible for the administrative upkeep of the contact list as well as insuring that the plan is updated to reflect any changes in regional polices (including those of Region X, the state of Oregon and Mexico), and technological advances.

Boundary of "Quick Approval Zone"

State of California

USE ONLY AS A GENERAL REFERENCE Boundaries are intended as a general reference only



4551.5 Guidelines: QAP Boundary Definition

The geographic boundaries of the QAP are those marine waters off the coast of California which occur between lines drawn perpendicular to the Oregon/California border and to a point 15 nautical miles from the California/Mexican border. A fifteen nautical mile exclusion zone is provide from the Mexican border to ensure the sovereignty of the waters of Mexico. Dispersant use in these waters will require coordination with the Joint Response Team. Offshore, the QAP extends seaward to the western most limits of the Exclusive Economic Zone. Inshore, the QAP is limited to those waters beyond a depth of 60ft, and a distance of .5 miles from the mainland and island shorelines or kelpbeds. In addition, dispersant use is excluded from a one mile radius around the mouths of rivers having significant salmon and steelhead trout runs during peak periods of adult and smolt migration.

4551.5.1 *Marine Sanctuaries*

Marine Sanctuaries comprise a significant fraction of the coastal waters off California. The use of dispersants in the Sanctuaries will require considerable coordination with the Sanctuary Managers and their staff. Though Sanctuaries are represented by the Department of Commerce delegate on the RRT, the Sanctuary Manager and/or staff members will be requested to take part in the QAP process through their participation in the UC Planning Unit's Alternative Response Technology (ART) section. The Sanctuaries can provide resource data and insight necessary to the QAP process that may otherwise not be available to the UC in a timely manner, thus their participation can be crucial.

4551.5.2 *Observation and Monitoring*

Monitoring of dispersant effectiveness is desirable and should be conducted, if practical, during any dispersant application. That said, predicating the use of dispersants on the presence of in-place monitoring equipment is not appropriate. Dispersant application should not be delayed should sea conditions, equipment failure, or other unavoidable circumstances preclude the positioning of monitoring equipment and personnel. If the UC requests the use of dispersants and the RRT approves their use there must be an understanding by all parties that the use of dispersants represent an acceptable risk to the environment and the dispersant will have a acceptable level of effectiveness on the spilled oil.

Until recently, there has not been a standardized approach to monitor the effectiveness of dispersant application at sea. A working group of federal scientist and oil spill responders has recently developed the Special Monitoring of Advanced Response Technologies (SMART) program to monitor the effectiveness of alternative response technologies including dispersants. The dispersant SMART program provides a process to rapidly gather information on the effectiveness of dispersant application and provide the information to the UC in a timely manor. The SMART program consists of both visual observations (Tier 1) and on-site water column monitoring (Tier 2). In addition, the program can be expanded to examine the fate and transport of the dispersed oil (Tier 3). Once this program is finalized, it will provide a practical and cost effective approach to effectiveness monitoring and should be incorporated into QAP program.

4551.5.3 *Incident Command Dispersant Quick Approval Process*

To ensure a streamlined operation, the IC Quick Approval Dispersant Decision Process (Appendix I) and support documents addressing on-water cleanup equipment availability, spill information, and biological resources at risk (Appendix III) shall be completed by the ART Unit of the UC Planning Section with

assistance form the OSPR operations center in Sacramento. Information on biological resources at risk and dispersant effectiveness will be obtained from the OSPR data base. Results of the QAP review, supporting information, and dispersant use recommendation will be summarized on the FOSC Check List (Appendix II) and forwarded to the IC.

4551.6 Procedures for the QAP

1) The FOSC contacts the proper agency representatives on the RRT (Appendix IV) and informs them that a request to utilize dispersants may be forthcoming.

2) ART Unit of Planning Section completes the Quick Approval Dispersant Decision Process (Appendix I) and submits summary of findings and information to UC on FOSC Checklist form (Appendix II).

3) If check list indicates that dispersant use is appropriate (all checklist questions answered yes), FOSC schedules conference call with RRT representatives or alternates at first reasonable opportunity (eg. one to two hours prior to first dispersant flight).

4) Conference call is conducted and Yes/No decision made based on information provided on FOSC Checklist.

5) If a "YES" decision is made then overflights will be conducted prior to the dispersant application to confirm that natural resources are not being threatened by the planned operation. Dispersant application will be canceled if it is determined that an unacceptable threat to resources exist. Weather permitting, at a minimum aerial surveillance will be conducted to monitor the effectiveness of the dispersant application. If possible water column monitoring will also be conducted to examine dispersant effectiveness. Information gathered from these platforms will be relayed to the UC for further consideration.

4551.7 References

National Research Council. 1989. Using Oil Spill Dispersants on the Sea. Committee on Effectiveness of Oil Spill Dispersants,

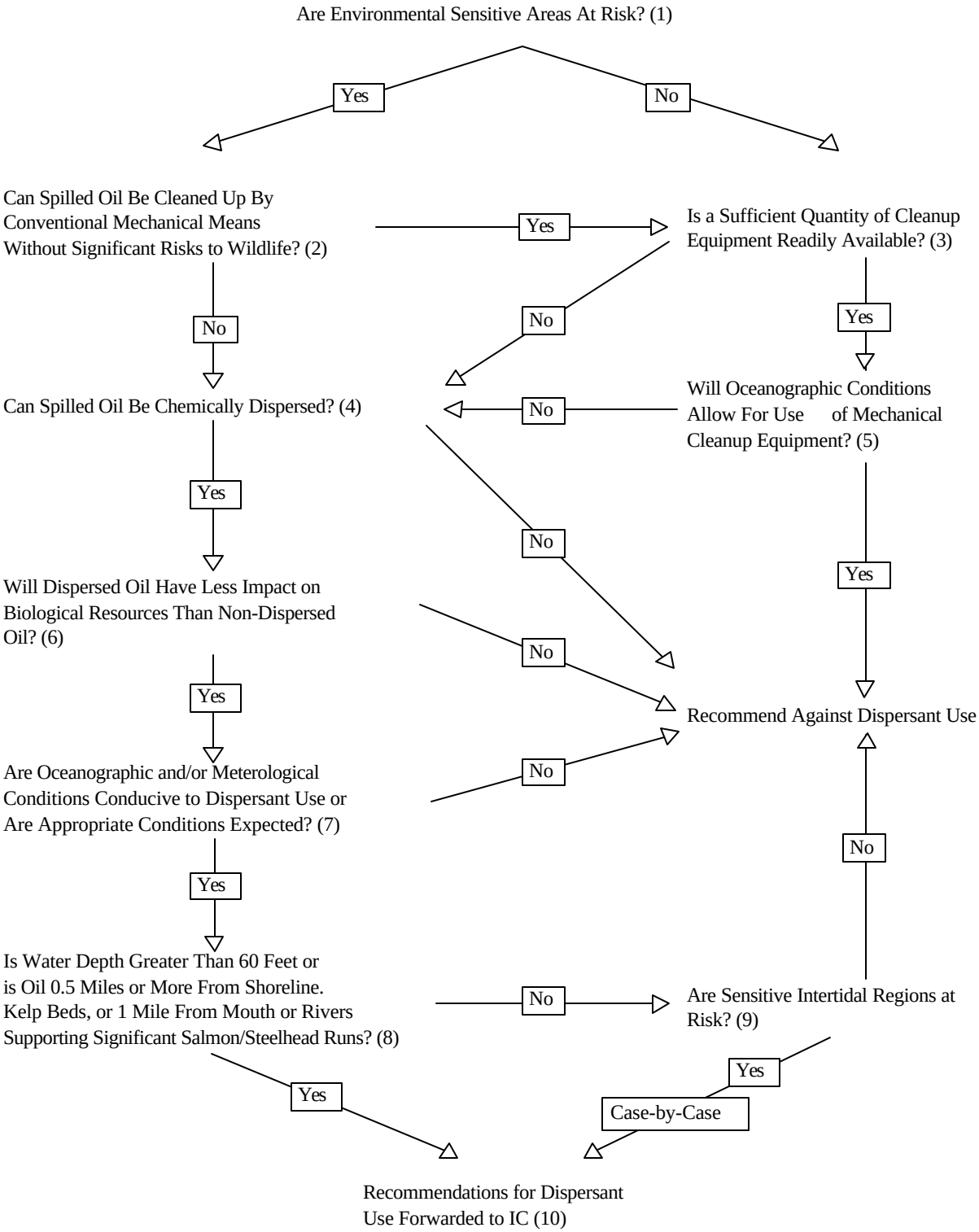
Marine Board, Commission on Engineering and Technical Services.
National Academy of Science, Washington DC. 335pp.

OSPR. 1995. Draft Decision Use Document for Dispersant Use In California Waters. 4pp

Region 9 RRT. 1994. Quick Approval Zone Plan. 4 pp. plus Appendices

APPENDIX I
QUICK APPROVAL PROCESS

QUICK APPROVAL DISPERSANT USE DECISION PROCESS



QUICK APPROVAL PROCESS

The following discussion addresses the 11 decision points identified in the Quick Approval Process for dispersant use in marine waters. The discussion briefly identifies the importance and justification or rationale for each point. The numbered points correspond to the numbers in parentheses in the Quick Approval Process presented on the previous page..

1. Most of the marine waters off California must be considered environmentally sensitive areas due to the presence of foraging seabirds, migrating marine mammals, offshore islands with their marine mammal rookeries and haul outs, seasonal fish migration, and the productive rocky intertidal and subtidal regions and associated kelp forests.

2. Can the volume of spilled oil be addressed effectively by mechanical means in a timely manner or is the volume beyond the capabilities of available mechanical equipment resulting in a significant threat to wildlife and environmentally sensitive areas in the general region of the spill? This question must be considered in the first hours of a spill and can not be put off until mechanical equipment is deployed, otherwise the dispersant use window of opportunity will be missed.

3. Is the spill site significantly isolated (e.g. northern most coastal reaches of the state) to preclude the rapid deployment of mechanical cleanup equipment? If so, should dispersants be considered for use as a first response tool where conditions will allow?

4. Have laboratory tests demonstrated that spilled petroleum can be dispersed by available dispersants? What are the reported efficacy values of available disperants? There must be some reliable evidence, either from the laboratory or field trials, that suggests that an available dispersant will effectively disperse the spilled petroleum.

5. Do oceanographic conditions preclude the effective use of mechanical cleanup equipment? If so, dispersants may be the only response option available.

6. The selection of dispersants as a cleanup/response tool is made using the hypothesis that spilled petroleum on the surface of the water (and eventually on the shore line) is more of a threat to natural resources that petroleum dispersed in the water column. The hypothesis is tested using a data base that presents the resources at risk, both on the surface of the water and within the water column by season, and how exposure to oil might affect the exposed species on a population basis. The risk analysis is based on the effects of petroleum on the populations at large and not the individual animal.

7. The application of dispersants is extremely difficult in foggy and heavy wind conditions. In addition, on days with little or no winds and calm sea conditions, there may not be sufficient mixing energy to mix oil and dispersant.

8. Results of the dispersant field studies suggest that dispersed oil concentrations below a depth of about 30ft are typically far below levels found to cause mortality in laboratory tests. Based on these observations, it has been suggested that dispersant operations can be carried out in water depths greater than 30 ft without fear of significantly impacting benthic communities. To increase the margin of protection for benthic communities, a safety factor of 2x is imposed, therefore the minimum water depth for dispersant use should be >60ft.

There are areas along the coast where kelp beds extend into waters of a depth of 60ft or greater. The existence of the kelp beds can significantly affect local oceanographic conditions through the depression of the water column mixing and wave action. The presence of kelp beds could significantly affect the dispersion of the chemically dispersed oil and/or trap the dispersed oil along or within its boundaries. Further, the use of dispersants in or near a kelp bed would pose a significant threat to the highly productive community inhabiting both the floor and water column regions of the bed.

There are also areas along the coast where waters in excess of 60ft exist adjacent to the shore line (e.g. Channel Islands, and areas of the coast with submarine canyons). the use of the 60ft depth criteria for dispersant application in these waters would not provide the mixing area or protection for the inshore habitat as intended. To ensure appropriate mixing depth and protection to the inshore habitat, the following are required.: 1) water depth of > 60ft.; 2) a minimum of 0.5 miles from a kelp bed; and, 3) a minimum of 0.5 miles from the shore line.

Along the coast of northern California exist several rivers and streams that support significant populations of salmon and steelhead trout. To protect the migration of adults and smolt to and from these rivers, a one mile radius dispersant use exclusion zone, measured from the mouth of the river/stream, shall exist during peak migration periods.

9. There may be times when dispersant application should be considered in water depths less than 60ft or areas closer than 0.5 miles from shore to protect a particular sensitive habitat or species. The use of dispersants in these regions will be reviewed on a case-by-case basis and will nor fall under the Quick Approval Process procedures.

10. If dispersant application is considered for waters within or adjacent to federal sanctuaries, seashores, parks, and similar protected areas, the managers of the area must be notified and so apprised. Actual permission for the use of the dispersant in these areas and the limitations for dispersant use must be developed prior to including these areas in the Quick Approval Process.

11. Once the Checklist is completed and a decision for dispersant use generated, the FOSC will forward their request, along with any other requested data, to the RRT via a phone conference. Based on the information provided, the RRT will provide an approval/disapproval decision for dispersant use.

APPENDIX II FOSC CHECKLIST

The FOSC Checklist is used by the Federal Incident Commander to determine whether a request should be forwarded to the Regional Response Team for dispersant use. All of the criteria below must be met before a request is made.

Checklist:

1. Is the spilled petroleum dispersable? Y/N

2. Is the appropriate equipment available for dispersant application? Y/N

3. Is a sufficient quantity of dispersant available to respond to the spill? Y/N

4. Are weather and oceanographic conditions favorable for dispersant application? Y/N

5. Does the dispersion of spilled petroleum to the water column pose less of an environmental risk than leaving the petroleum on the sea surface? Y/N

6. Will the area of dispersant application fall within established water depth and distance boundaries identified in the approval process? Y/N

7. If required, have state and international boundary considerations been addressed? Y/N

8. Has the ART Unit recommended the use of dispersants? Y/N

Basic information regarding the spill (weather, location of slick, type of oil, trajectory analysis, resources at risk, etc.) -see attached forms.

Phone Call List (refer to Appendix IV of QAP)

EPA Y/N

USCG Y/N

DOC Y/N

DOI Y/N

California Y/N

APPENDIX III
Support Information For
Quick Approval Process

1. On-Water Mechanical Cleanup Equipment Availability

Equipment Type	SkimmingCapacity	Estimated time of Arrival
1.		
2.		
3.		
4.		
5		
6.		

2. Spill Information

A. Incident Information:

Cause of Spill:

Date and Time of Spill:

Location:

Volume and Type of Release (Continuing vs Instantaneous)

Potential Volume to be Released:

B. Characteristics of Spilled Oil:

Oil Type/Name:

Specific/API Gravity: Flash Point:

Pour Point: Viscosity:

C. Dispersant Information:

Available Dispersants and Amounts:

Laboratory Data on Dispersability of Oil:

Weather and Water Conditions/Forecast:

Water Temp: Air Temp:

Current Information:

Wind Speed/Direction (present and 48hr projection:

Salinity: Water Depth:

Sea- State and 48Hr Projection:

Tide Information and 48hr Projection:

Comments:

E. Oil Trajectory Information

Surface Area of Slick:

24hr Slick Trajectory:

48hr Slick Trajectory:

Expected Land Fall (Location):

Comments:

3. Biological Resources at Risk
(Provided by OSPR)

A. On-Water Resources:

B. Shallow Subtidal Resources:

C. Intertidal Resources:

D. Anadromous Resources:

E. Significant Water Column Resources:

APPENDIX IV RRT CONTACT LIST
Region IX Regional Response Team Homepage: http://www.uscg.mil/d11/m/rrt9web/contact.htm

Name/Agency	Contact Number
Environmental Protection Agency	
Dan Meer, Co-Chair	415-972-3132 415-947-3518 FAX 415-971-6792 Cell
EPA Alternate 1 Bill Robberson robberson.bill@epa.gov	415-972-3072
United States Coast Guard	
CAPT William Fels, D11(m) Wfels@d11.uscg.mil	510-437-5754 510-437-3889 FAX
USCG Alternate 1: CDR Byron Black, D11(mr)	510-437-2794
USCG Alternate 2: Tim Holmes, D11(mr-2)	510-437-2959 510-219-1325 Cell
Department of the Interior	
Pat Port Oepcsfn@aol.com	510-817-1476 510-419-0177 FAX 415-420-0524 Cell
DOI Alternate: Regional Environmental Assistant (TBD)	
DOI Alternate: Regional Biologist:	
Northern California	Jim Hass 916-414-6600
Central California	Steve Henry 805-644-1766
Southern California	760-431-9440

Department of Commerce

NOAA SF Bay Site Manager	415-556-0858 415-556-8507 FAX
DOC Alternate 1	
Dave Kennedy	301-713-2989 x101 206-526-6329 FAX
DOC Alternate 2	
HAZMAT Duty Officer	206-526-4911

California Department of Fish and Game/OSPR

Dispatch Office	916-445-0045
Ken Mayer	916-445-8285 916-324-8829 FAX 916-855-9874 Pager
State Alternate 1	
Operations Duty Officer	916-445-0045

NOAA/HAZMAT

Scientific Support Coor.	
Heather Parker-Hall	510-437-5344
heather.a.parker@noaa.gov	510-437-5345 FAX

4552 *In-Situ Burning*

4552.1 Background

There are presently two commonly recognized approaches to remove significant quantities of spilled petroleum from marine surface waters. The most common technique involves mechanical skimming devices which, for large spills, typically remove less than 20% of the spilled petroleum (National Research Council, 1989). The second and more controversial method is the use of chemical agents (e.g., dispersants) to disperse oil into the water column. The effectiveness of chemical dispersants has been reported to range from zero to 100% depending on the type of petroleum spilled, the dispersant used, and the approach employed to estimate effectiveness (National Research Council, 1989).

Burning has distinct advantages over other oil spill countermeasures. It offers the potential to rapidly convert large quantities of oil into its primary combustion products with a small percentage of other unburned and residue byproducts (Evans et al., 1992). This technique could be the most effective of all in dealing with a large spill at sea and in removing large quantities of oil from the water environment before it comes ashore (S.L. Ross Environmental, 1990). Until recently, this response technology has not been regularly used due largely to the lack of understanding of the combustion products and the principles governing the combustibility of oil-on-water (Evans, et al., 1992) as well as the lack of the equipment necessary to carry out a burn within the window of opportunity. Much of the renewed interest in in-situ burning has resulted from years of study of both the dynamics of burning oil on the water and the combustion products produced during an in-situ burn.

In-situ burning removes the surface oil by driving much of it into the atmosphere in the form of combustion gases and soot. As such, in-situ burning reduces the environmental threat and impacts posed by on-water spills but only at the cost of increasing the potential threat posed by the airborne plume. In-situ burning, however, does have the potential to accelerate cleanup of spilled petroleum on the surface of the water and at the same time reduce the risk of petroleum-related impacts on environmentally sensitive areas. In the case of California, environmentally sensitive areas include the productive intertidal regions, tidal inlets, tidal marshes and other wetland areas of the coastal islands and mainland, and the surface waters where endangered marine mammals and large concentrations of sea birds might exist. The problem for decision makers is to compare the effects of burning versus not-burning and choose the option that provides the greatest net benefit to the environment, without causing undue public health impacts. Every oil spill situation is unique. Weather and seastate conditions that are most favorable for mechanical cleanup (calm winds and seastate), are not favorable for dispersants. However, dispersants might be the best response option in remote off-coast areas with choppy seas. Although limited by the ability to contain oil, in-situ burning might be the best option in areas where it is imperative to remove large quantities of oil quickly to protect on-water resources (such as in the sea otter range or the Farallon Islands). It is important that all response options be available for use at the time of a spill so that the best, most appropriate response can be used.

4552.2 Regional Philosophy

The primary object of oil spill abatement and cleanup is to reduce the adverse effect of spilled oil on the environment. Physical removal and subsequent disposal or recycling/re-use is the preferred method. However, mechanical recover may be limited by equipment capability, weather and sea state, storage and disposal problems, and spill magnitude. Use of in-situ burning may be considered by the OSC when the preferred recovery techniques are inadequate and in-situ burning will lessen the environmental impacts of the spill.

4552.3 Authority

The National Contingency Plan, Section 300.910 authorizes the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the State representative to the RRT with jurisdiction over navigable waters threatened by the release of discharge (of oil) and in consultation with the DOC and DOI natural resource trustees, when practicable, to authorize the use of in-situ burning on a case-by-case basis. The Commandant of the USCG has predesignated the USCG Captains of the Port under his jurisdiction of On-Scene Coordinators for oil spills, and has delegate authority and responsibility for compliance with Section 311 of the Federal Water Pollution Control Act to them. The USEPA has been delegated authority under Subpart J of the NCP to authorize use of in-situ burning for control of oil spills.

California Government Code Section 8670.7(f) delineates the Administrator of the Office of Spill Prevention and Response, Department of Fish and Game as having the State authority over the use of all response methods, including, but not limited to in-situ burning. The Governor of the State of California has delegated state representation on the RRT to the Administrator of the OSPR.

4552.4 Annual Review

It will be the charge of the RRT ART Working Group to annually review the use of in-situ burning and report its findings to the RRT at a scheduled meeting. The group will be responsible for the administrative upkeep of the contact list as well as insuring that the plan is updated to reflect any changes in regional polices (including those of Region X, the state of Oregon and Mexico), and technological advances.

4552.5 In-Situ Burn Decision Guidelines

(a) Preapproval Zone

This zone is designated in the "Letter of Agreement (LOA) Between US Coast Guard, US EPA, US Department of Commerce and the US Department of the Interior Concerning the Use of In-situ Burning as a Response Method to Oil Pollution for areas 35 - 200 nautical miles off the California coast. Preapproval areas are defined as those areas 35 to 200 miles off the California Coast and the areas around special jurisdictions, such as the Marine Sanctuaries, National Parks and National Wildlife Refuges, Department of Defense reservations or other jurisdictions at San Nicholas and San Clemente Islands, and any other Federal lands or jurisdictions. The FOSC will determine if conditions are met to authorize an in-situ burn as delineated in the Letter of Agreement and notify the RRT and the California Department of Fish and Game as soon as feasible after the decision is made.

(b) Case-by-Case Zone

Case-by-case areas are defined as those areas not designated within the preapproval zones. This includes all marine waters within 35 miles off the California coast as well as areas of special jurisdiction as detailed above. The FOSC will obtain approval from the EPA representative to the RRT and the California Department of Fish and Game (CDF&G) representing the State of California. Whenever fish or wildlife resources may be affected, the EPA and State representative to the RRT may consult with the DOI and DOC natural resource Trustees, including Sanctuary Managers as applicable.

4552.6 Pre-approval Process

The following is a Letter of Agreement among the U.S. Coast Guard, U.S. Environmental Protection Agency (EPA), National Oceanic and Atmospheric Administration (NOAA) and U.S. Department of the Interior (DOI) discussing the potential use of I*n-situ* Burning in Federal waters (35-200 miles). It includes an In-Burning Plan, In-Situ Burn Monitoring Plan, Site Safety Plan for *In-Situ* Burning, and In-situ Burn Boom Operations Procedures.

Revised 2000 (Updated 01/2004)

LETTER OF AGREEMENT

AMONG

US COAST GUARD (USCG),

US ENVIRONMENTAL PROTECTION AGENCY (USEPA),

US DEPARTMENT OF COMMERCE,
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA),

AND

US DEPARTMENT OF THE INTERIOR

CONCERNING THE USE *IN-SITU* BURNING AS A

RESPONSE METHOD TO OIL POLLUTION

FOR THE AREA 35-200 NAUTICAL MILES OFF THE CALIFORNIA COAST

PURPOSE

The Region IX Mainland Regional Response Team (RRT-IX Mainland) recognizes that mechanical recovery, *in-situ* burning and chemical dispersants are the three primary means of dealing with oil discharges into the waters of the United States. While mechanical removal is the preferred method, the RRT-IX Mainland recognizes that *in-situ* burning is a viable option in conjunction with, or in lieu of mechanical or other types of recovery. The purpose of this Letter of Agreement is to provide concurrence of the US Environmental Protection Agency (USEPA) representative, the US Department of the Interior (DOI) representative, and the US Department of Commerce (DOC)-National Oceanic and Atmospheric Administration (NOAA) representative for the use of *in-situ* burning for oil discharges on the waters within the jurisdiction of the RRT-IX Mainland 35-200 nautical miles off the Coast of California within the geographical boundaries described in Geographical Boundaries, Page two. This concurrence is given to the federally pre-designated US Coast Guard Federal On-Scene Coordinators (FOSC). This agreement gives guidelines to allow the FOSC to use *in-situ* burning in a timely manner to: (1) prevent or substantially reduce a hazard to human life; (2) minimize the adverse environmental impact of the spilled oil, and (3) reduce or eliminate, the economic or aesthetic losses of recreational areas.

This agreement for pre-approval is necessary, due to the time constraints under which burning is a viable option. In developing this pre-approval agreement, the environmental impacts associated with an on-water oil burn have been evaluated in relationship to other mechanical and chemical alternatives. It is the view of the signatories that the overall environmental benefits of *in-situ* burning out weigh the relative environmental costs, except in those circumstances noted in this agreement.

If the conditions for pre-approval are not met, selected representatives in the RRT-IX Mainland must be involved prior to commencing with any *in-situ* burn. In accordance with the provisions of the National Contingency Plan, this means that the concurrence of the US EPA representative to the RRT, in

consultation with the natural resource trustee Federal agencies, is required. If the burn is being considered within the area 0-35 nautical miles off the California Coast, consultation with the State of Califomia representative to the RRT-IX Mainland is also required. If the burn is being considered within State waters, the concurrence of the State of California representative is required.

AUTHORITY

Subpart J of the National Oil and Hazardous Substances Pollution Contingency Plan (the National Contingency Plan or NCP) provides that the Federal On-Scene Coordinator (FOSC) with the concurrence of the US Environmental Protection Agency (USEPA) representative to the Regional Response Team (RRT) and the concurrence of the State with jurisdiction over the navigable waters polluted by the oil discharge, may authorize the use of *in-situ* burning of oil spills. The Commandant of the US Coast Guard has predesignated the USCG Captains of the Port under his jurisdiction as On-Scene Coordinators for oil spills, and has delegated authority and responsibility for compliance with Section 311 of the Federal Water Pollution Control Act (FWPCA), as amended, to them. The Governor of the State of California has delegated responsibility to coordinate State approval for proper usage of *in-situ* burning for control of oil spills within State waters to the State of California Office of Spill Prevention and Response (OSPR), within the Department of Fish and Game (DFG). The USEPA has been delegated authority under Subpart J of the NCP to authorize use of *in-situ* burning for control of oil spills.

SCOPE

The USCG, USEPA, NOAA, and DOI agree that the physical removal of discharged or spilled oil from the water surface is the primary method of control. Furthermore, it is recognized that the most effective response to an oil spill may include a combination of mechanical recovery, *in-situ* burning and dispersant or other chemical use. As such, this Letter of Agreement sets guidelines under which *in-situ* burning may be used by the USCG Federal On-Scene Coordinator on or in Federal waters 35-200 nautical miles off the Coast of California - waters which are also within the boundaries of the Eleventh Coast Guard District.

GEOGRAPHICAL BOUNDARIES

The geographical area covered by this Agreement is the Pacific Ocean at a distance 35-200 nautical miles from the Mainland California Coast.

PROTOCOLS

As attested to by the signatures set forth below, the USEPA, the USDOC-NOAA, and the USDOI agree with the USCG that the pre-designated USCG FOSC may consider the use of *in-situ* burning of oil discharges, as defined in the NCP, in accordance with the following guidelines.

GUIDELINES

1. As per the NCP, 40 CFR Part 300.120, the authority to use *in-situ* burning of oil discharges in accordance with this Agreement is vested in the pre-designated USCG FOSC. The pre-designated USCG FOSCs along the California Coast are the Captain of the Port of San Francisco, the Captain of the Port of Los Angeles-Long Beach, and the Captain of the Port San Diego. This authority may not be delegated.

2. The USCG FOSC may authorize the use of *in-situ* burning without obtaining the concurrence of the USEPA representative or the Federal natural resource trustee representatives to the RRT-IX Mainland, when, in the FOSC's judgment, human life is threatened or when all of the following three conditions are met:

   A. *In-situ* burning is a viable option for oil removal; and

   B The potential plume caused by the burn will not expose unprotected human populations to more than 150 ug/m3 of particulates less than 10 microns in diameter averaged over a one-hour period as determined by the FOSC (on-scene worker safety shall be addressed by the Site Safety Plan, meeting OSHA requirements); and

   C. The plume or heat from the burn will not result in greater impact to sensitive wildlife resources than would the spilled oil (in situ Burning Checklist information shall be compiled by the FOSC in advance of the burn).

3. Mechanical recovery equipment shall be mobilized on scene, when feasible, as a backup capability should in-situ burning prove ineffective.

4. Wind patterns will be predicted by the NOAA SSC, and will be monitored in real time prior to and during the burn by the FOSC. If the prevailing wind direction is either parallel to the shore or away from the shore, it will be assumed that there is no unprotected human exposure above 150 Ug/M3 of particulates less than 10 microns in diameter averaged over a one-hour period as determined by the FOSC.

5. A designated Federal agency representative will be on scene to observe the burn and the prevailing wind direction. If practical, so as not to create an unnecessary delay, monitors from the DOI and DOC-NOAA will be provided to observe the burn and record results. Any of these observers/monitors has the authority to halt any burn if he observes that the conditions in Paragraph 2 are no longer true. The protocol for observing and halting a burn is described in the In-situ Burning Monitoring Plan (Appendix III).

6. In any case where the circumstances do not meet the criteria set forth in Paragraph 2, the pre-authorized use of in-situ burning is not authorized.

7. If the FOSC feels in-situ burning should be used in areas not met by Paragraphs 2.A., 2.B., 2.C., or in areas not part of the pre-authorized geographical boundaries, the FOSC must request approval from the pertinent RRT-IX Mainland member agencies, in accordance with the NCP requirements. The FOSC shall submit the request along with the required information listed in the provided *in-situ* Burning Checklist.

8. Burning will be conducted by trained professionals using recognized techniques and technology.

9. Burning will be conducted in a way that allows for rapid controlling and stopping of the burn to account for wind shifts. When a decision is made to conduct a burn operation, the FOSC shall notify the USCG Co-Chair for the RRT-IX Mainland. The Co-chair shall notify the signatories of this agreement immediately.

10. Contained burning is recognized as the preferred method of burning, using burn resistant boom or similar technology. The ignition of slicks is not permitted if there is a significant chance of igniting the source or if there is a significant hazard to adjacent structures or vessels.

DOCUMENTATION, MONITORING AND EVALUATION

1. NOTIFICATION AND REPORTING TO THE RRT. If the FOSC decides to conduct an *in-situ* burn, a description of the operation shall be documented and submitted to the RRT-IX Mainland as soon as possible following the burn. Typical information to be included is listed in Appendix II (an example of the *in-situ* Burning Plan from the Oceania RRT), Appendix III (an example of the *in-situ* Burning Monitoring Plan from the Oceania RRT), and Appendix IV (an example of the *in-situ* Burn Site Safety and Health Plan from the Oceania RRT). These appendices must be modified as appropriate so that information provided is geographically pertinent to the given *in-situ* burn conditions. The evaluation noted in Paragraph 3 of this section will be completed as part of the FOSC Report. An FOSC Report shall be required whenever an *in-situ* burn is conducted.
2. DOCUMENTATION. The FOSC will ensure that all information described in the previous Paragraph 1 is documented.
3. MONITORING. The Federal natural resource agencies and the USCG will conduct monitoring of the in-situ burn in general accordance with the example In-situ Burning Monitoring Plan, attached as Appendix III. As part of the Monitoring Plan, oil samples shall be taken prior to the burn and samples of any floating residue shall be taken following the burn.
4. EVALUATION. The FOSC shall include a full evaluation of all in-situ burning applications in any FOSC report following an incident. The report should comment on burn (s), supported by visual record (video, photos) and parties. Data should include estimates of product and analysis of oil residue.
5. Federal resource agencies shall evaluate the in-situ burning to assess environmental and endangered species impacts after ignition.
6. NOTIFICATION OF STATE AGENCIES. The State of California representative to the RRT-IX Mainland (representative from OSPR, DFG) will be notified, along with the other RRT representatives in accordance with Paragraph 1. of this Section. The State representative will be responsible for notifying other appropriate State and, local agencies.
7. OTHER NOTIFICATIONS. The USCG is responsible for notification of neighboring regions

(RRT-Region X) and Mexico - depending upon the location of the *in-situ* burn site.

AMENDMENTS

This Letter of Agreement will be reviewed annually and amended as appropriate.

This Letter of Agreement may be amended in writing in whole or in part as is mutually agreeable to all parties thereto.

This Letter of Agreement may be canceled by any party hereto upon thirty (30) days written notice to the other parties.

DATE

//s//
KATHLEEN G. SHIMMIN 4/10/97
USEPA REGION IX
CO-CHAIR, RRT-IX MAINLAND

//s//
WILLIAM H. BOLAND 4/10/97
CAPTAIN, US COAST GUARD
CO-CHAIR, RRT-IX MAINLAND

//s//
DAVID M. KENNEDY 4/10/97
US DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
REPRESENTATIVE TO THE RRT-IX MAINLAND

//s//
PATRICIA SANDERSON PORT 4/10/97
US DEPARTMENT OF THE INTERIOR
REPRESENTATIVE TO THE RRT-IX MAINLAND

Appendix I Overview of *In-situ* Burning as an Oil Spill Response Tool

Appendix II *In-situ* Burning Plan [this Appendix is an example of the information pertinent to *in-situ* Burning; it was developed for Oceania and must be adapted for the area off the California Coast]

Appendix III *In-situ* Burning Monitoring Plan [this is an example from Oceania, and it must be adapted for the area off the California Coast]

Appendix IV Site Safety Plan for *In-situ* Burning - [Oceania Site Safety Plan included as example; some language has been adapted for the area off the California Coast]

Appendix V *In-situ* Burn Boom Operations Procedures [Oceania version included as example; Region IX-Mainland version to be developed by those involved in Unified Command Operations phase]

Appendix VI Resolution of Questions Re LOA

Revised 2000 (Updated 01/2004)

APPENDIX I OF ISB LOA

OVERVIEW OF INSITU BURNING AS AN OIL SPILL RESPONSE TOOL

Burning has distinct advantages over other spill response tools. First, it offers the potential to remove large quantities of oil rapidly from the environment. *In-situ* burning could potentially remove as much oil in one day as mechanical methods could in one month. In addition, *in-situ* burning could prevent a large amount of shoreline contamination and injury to biota by removing oil before it spreads and moves to other areas. Second, *in-situ* burning requires less equipment and personnel than do other response tools. It can be used in areas where other methods cannot because of distances and lack of infrastructure. Third, burning significantly reduces the volume of material requiring disposal - compared to mechanical recovery. Mechanically -recovered oil must still be transported, stored, and properly disposed. This involves equipment, personnel, time, money, and an approved Resource Conservation and Recovery Act (RCRA) disposal site. Often, these resources are not available in sufficient quantities when large spills occur.

Burning also has disadvantages. The most obvious are the large black smoke plume that is produced by burning oil and concerns about potential associated health effects.
Additionally, oil must be a minimum thickness of 2 to 3 millimeters (mm) to burn efficiently; thin slicks will not burn. This can be partially countered with the use of fire booms to concentrate oils into thicker slicks before burning. However, as oil spreading and dispersion take place over time, the ability to achieve this minimum thickness becomes increasingly difficult.

In-situ burning is considered a trade-off between the ability to remove large amounts of spilled oil from the water surface in a short period of time and the human health effects and ecological impacts of burn by-products. Preliminary data from recent test burns indicate that airborne emissions are not a serious concern at distances greater than a few miles, given the proper atmospheric conditions.

OPERATIONAL LIMITATIONS

1. FIRE BOOM. The application of *in-situ* burning requires the physical collection and containment of oil to maximize the efficiency of the burning process and to provide a means to control the burn. Generally, this is accomplished by the use of a fire boom or some other type of boom.
2. IGNITION. Heavy oils require longer heating times and a hotter flame to ignite compared to lighter oils. Many ignition sources can supply sufficient heat. These include pyrotechnic igniters, laser ignition systems, and aerial ignition systems. Each have pros and cons to their use. Whichever method is used, considerations of safety and efficiency must enter into the decision process.
3. OIL THICKNESS. The rule of thumb of *in-situ* burning is that oils can be effectively burned if they are consistently 2 to 3 mm thick.
4. GATHERING. Igniting weathered oil is generally not a problem with most ignition sources because they have sufficient temperature and burn time to ignite most oils. Weathered oil requires a longer ignition time and higher ignition temperatures.
5. EMULSIFICATION. The effect of water content on oil ignition is thought to be similar to that of weathering. It is certain that oil containing some water can be ignited and burned. It is suspected that burning may break down the water-in-oil emulsion. If a burn can be started, then water content is likely not a problem.

SAFETY CONCERNS

1. FIRE HAZARD. Care must be taken that the burn be controlled at all times to ensure the safety of personnel and property. This precludes burning at sources such as tankers, ships, or tank farms unless means are taken to ensure that the flame cannot propagate from the burn location to the source.
2. IGNITION HAZARD. Personnel and equipment involved in ignition of the oil slick must be well coordinated. Weather and sea conditions need to be kept in mind and adequate safety distances be kept at all times. Specialized ignition equipment, unknown fire behavior and uncertain flask-points introduce safety risks.
3. VESSEL SAFETY. Burning at sea may involve the use of several vessels operating in close proximity, perhaps at night or in conditions of poor visibility. These conditions are hazardous by nature and generally require training and close coordination. Maneuverability while towing boom or positioning other containment equipment will require skilled personnel.
4. TRAINING. Training of personnel to operate equipment for in-situ burning should be developed to minimize the risk of injury and accident. Training should meet all applicable OSHA regulations and guidelines. Workers may require respiratory protection and protective clothing, based on risk evaluations by trained site safety or industrial hygiene personnel.

Other hazards can include the exposure of personnel to extreme heat conditions, smoke and fumes; working under time constraints or extended periods of time. Personnel involved with burning operations must be well briefed on the plan of operations, with site safety stressed, and must be notified of all changes from the approved burn plan. The need for burning could be questioned and should be reconsidered if conditions (e.g., weather, operations, equipment) pose a threat or danger to human health and safety, or facilities. This section is not inclusive of all safety concerns. As more knowledge is gained from burning, it is most likely that additional safety concerns will be identified. The site safety plan shall specify worker safety practices and equipment requirements.

HUMAN HEALTH/TOXICITY CONCERNS

Many experts believe that the human health risk from oil fire smoke is relatively small, particularly when compared to health and safety risks associated with mechanical remediation. This assessment, coupled with the likelihood that the lighter fraction of a spill will evaporate unless burned (thereby imposing its own set of health concerns) suggests that the risk is worth considering.

Burning oil produces a visible smoke plume containing smoke particulates, combustion gases, unburned hydrocarbons, residue left at the burn site and other products of combustion. It also results in the evaporation and release of volatile compounds from the oil. Public health concerns relate to the chemical content of the smoke plume and the downwind deposition of particulates. It should be noted that not burning an oil spill also introduces its own air quality concerns. Analysis of the physical behavior of spilled oil has shown that 50 percent of a light crude oil spill can evaporate fairly readily, and it is the acutely-toxic lighter fractions of a crude oil mix that quickly move into the atmosphere.

Results of recent burn tests indicate that burning in situ does not yield significant emissions above that expected for similar types of combustion, such as forest fires. Many human health experts feel that the most significant human health risk resulting from *in-situ* burning is inhalation of the fine particulate

material that is a major constituent of the smoke produced. An early assessment of health concerns attributable to the Kuwaiti oil fires identified the less than 10-micron particulate matter as representing the greatest health hazard in that situation. The extent to which these particles present a health risk during an *in-situ* burn depends on the concentration and duration of exposure. It is important to remember that particulates in these concentrations are so small that they do not settle readily. They will be carried by the prevailing wind over large distances, over which their concentrations will rapidly decline.

Polynuclear aromatic hydrocarbons (PAHS) are a group of hydrocarbons produced during *in-situ* burning. They are found in oil and oil smoke, where their relative concentrations in the latter tend to be higher than in the oil itself. Possible carcinogenicity of some members make this group a serious health concern, although it is generally long-term exposure to the higher molecular-weight PAHs that is the basis for concern. Sulfur dioxide (SO2) and nitrogen dioxide (NO2.) are eye-and-respiratory-tract irritants that are produced by oil combustion. Concentration of PAHs decline downwind as smoke from the fire is diluted by clean air. The concentrations of other by-products of burning oil (i.e., combustible gases) also decline downwind.

ECOLOGICAL EFFECTS

Potential ecological impacts resulting from the use of *in-situ* burning have not been extensively studied. Whether *in-situ* burning does result in ecological impacts cannot be directly determined based on existing information. Potential biological impacts are the subject of planned field and laboratory tests.

The surface area affected by burning oil is usually small relative to the total surface area of a given body of water, relative to the total depth of the water body, and is less than the area impacted by the oil slick. This does not preclude adverse ecological effects. The possibility remains that contamination at the sea surface could affect certain unique populations as well as organisms that use surface layers of the water column at certain times to spawn or feed. However, because the distribution of these populations is patchy, these impacts would most likely be localized. The same populations would also be adversely affected to some degree by an oil slick. The plume or heat from the burn will not result in greater impact to populations.

The residual material of an *in-situ* burn is a hydrocarbon compound with little structural change other than the loss of the more volatile groups. It resembles weathered oil of the same source type.

Burn residues could be ingested by fish, birds, mammals, etc. and could be a source of fouling of wildlife; however, it should be noted that the water surface is already adversely affected by oil, and any additional adverse effects from burning would be comparatively small. The extent of these spatial and temporal effects would be expected to be much less severe than those from a large oil spill contained by traditional mechanical methods. The residual material should be removed as soon as possible, and this could be accomplished using traditional spill containment and cleanup equipment and techniques.

Measurements conducted during test burns show that water temperature is not raised significantly, even in shallow confined test tanks. Thermal transfer to the water is limited by the insulating oil layer and is actually the mechanism by which the combustion of oil slicks is extinguished.

Except where conditions of pre-approval are met, the appropriate State and the Federal trustees (e.g., NOAA, DOI) are to be consulted before using *in-situ* burning on oil spills. They can identify resources of concern in the area that could be potentially adversely affected by burning in situ. Interests include but are not limited to:

the proximity of occurrence of the proposed burn in coastal marshes and estuaries and inland marsh/wetland environments;

the occurrence and location of threatened and endangered species in relation to the proposed burn site;

the occurrence and location of sensitive/critical habitat or resources (e.g., land) in relation to the proposed burn site; and

the benefits to sensitive habitats of burning versus the effects resulting from the land fall of oil.

APPENDIX II: IN-SITU BURNING PLAN

THIS CHECKLIST IS PROVIDED AS A SUMMARY OF IMPORTANT INFORMATION TO BE CONSIDERED BY THE UNIFIED COMMAND IN REVIEWING ANY REQUEST TO CONDUCT IN-SITU BURNING IN RESPONSE TO AN OIL SPILL IN THE WATERS OF NORTHERN CALIFORNIA. THIS BURNING PLAN IS DIVIDED INTO SEVERAL SECTIONS OF INFORMATION ABOUT THE SPILL, WEATHER, OIL BEHAVIOR AND PROPOSED BURNING PLAN. IT IS INTENDED THAT THIS BURNING PLAN BE FILLED IN TO HELP THE UNIFIED COMMAND DETERMINE THE FEASIBILITY OF IN-SITU BURNING FOR THE IMMEDIATE SITUATION. THIS BURNING PLAN, IN CONJUNCTION WITH THE MONITORING PLAN, WILL SERVE AS THE POST BURN OPERATIONS REPORT.

SPILL DATA

(RESPONSIBLE PARTY TO COMPLETE AND SUBMIT TO UNIFIED COMMAND)

DATE & TIME OF PLAN

DATE AND TIME OF THE INCIDENT:

LOCATION OF THE INCIDENT:

LATITUDE:

LONGITUDE:

DISTANCE IN MILES AND DIRECTION TO NEAREST LAND:

DISTANCE IN MILES AND DIRECTION TO THE NEAREST POPULATION CENTER(S):

TYPE AND QUANTITY/VOLUME:

RELEASE STATUS:

- ☐ Continuous, at estimated rate of: _____
- ☐ Intermittent, at estimated rate of: _____
- ☐ One time only, flow now stopped. Estimated quantity - bbls: _____

EMULSIFICATION STATUS:

Is product easily emulsified? ☐ YES ☐ NO ☐ UNCERTAIN

Is product emulsified upon release? ☐ YES ☐ NO ☐ UNCERTAIN

IF EMULSIFIED: ☐ LIGHTLY (0-20%) ☐ MODERATE (21-50%) ☐ HEAVILY (>50%) ☐ UNKNOWN

SURFACE AREA OF SPILL (SQUARE MILES) - AS OF DATE/TIME:

IS SOURCE BURNING NOW? YES NO

NATURE OF INCIDENT:

Grounding Transfer Operation Collision Pipeline Explosion

Other: (Describe): _____

VESSEL/FACILITY/PIPELINE INVOLVED:

RESPONSIBLE PARTY:

FEASIBILITY FACTORS:

- ☐ YES ☐ NO Is the oil being considered for In-Situ burning emulsified by less than 60%?
- ☐ YES ☐ NO Is the oil thickness > 1/10 inch?

IN-SITU BURNING PLAN

WEATHER & WATER CONDITIONS

WEATHER: ☐ Sunny ☐ Partly Cloudy ☐ Cloudy ☐ Overcast ☐ Mountain Showers ☐ Offshore Rain Squalls ☐ Heavy Rain

WINDS: Date & Time: _____
Onshore ☐ Knots: _____ Direction: _____
Offshore ☐

SEA STATE: ☐ Calm ☐ <1 foot ☐ Choppy ☐ 1-3 foot ☐ Swell (in feet) ☐ >3 foot

TIDES: (FORECAST)	Low/High	Feet (+/-)	Date & Time
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

SURFACE CURRENTS: Speed / Knots Direction / To

WATER DEPTH: ☐ 10 - 60 feet ☐ 60 - 120 feet ☐ > 120 feet

DAYLIGHT HOURS:	Day / Date	Sunrise	Sunset
	_____	_____	_____
	_____	_____	_____

WEATHER & WATER 24 HOUR FORECAST

DATE & TIME OF PLAN DEVELOPMENT: _____
FORECASTED WIND SPEED (knots): _____
FORECASTED WIND DIRECTION: _____ ☐ On-Shore ☐ Offshore
FORECASTED SEA STATE: ☐ Calm < 1 foot ☐ Choppy 1 - 3 feet ☐ Swell (in feet) >3 feet

ESTIMATED SMOKE TRAJECTORY

Describe expected smoke plume trajectory: _____
Is plume expected to impact concentrated human or wildlife populations? ☐ YES ☐ NO

FEASIBILITY FACTORS:

☐ YES	☐ NO	Is the wind speed < 25 knots?
☐ YES	☐ NO	Is wave height < 2 - 3 feet?
☐ YES	☐ NO	Is visibility > 500 feet vertically and ½ mile horizontally?
☐ YES	☐ NO	Are rain forecasts favorable for ignition?

IN-SITU BURNING PLAN APPX II OF ISB LOA

A. Location of proposed burn relative to the spill source:

B. Location of proposed burn relative to nearest uncontrolled ignitable slick(s):

C. Location of proposed burn relative to nearest sizeable downwind human population:

D. Location of proposed burn relative to nearest downwind concentrated wildlife population:

E Potential for reducing visibility at nearby airport(s) or freeway(s):

F. Will radio notification of human populations be required? ☐ YES ☐ NO

G. Proposed ignition method:

Will burn promoters be used? ☐ YES ☐ NO
Will de-emulsifiers be used? ☐ YES ☐ NO

H. Methods proposed for controlling the burn:

Will fire boom be used? ☐ YES ☐ NO

IN-SITU BURNING PLAN APPX II OF ISB LOA

I. PROPOSED BURNING STRATEGY

- ☐ Controlled burning in fire boom under tow.
- ☐ Controlled burning of static oil contained within fire boom.
- ☐ Complete burning of a derelict or hazardous vessel.
- ☐ Controlled burning of static oil contained in a natural collection site at or near shore.
- ☐ Disposal of oiled debris by controlled burning in remote areas.

OTHER:

J. Estimated amount of oil to be burned:

K. Estimated duration of Burn Operations: (hours)

L. Method of collecting burned residue:

M. Proposed storage and disposal of burned oil residue:

FEASIBILITY FACTORS

☐ yes	☐ no	Can ignition and a complete burn occur at a safe distance from other response operations and public, recreational and commercial activites?
☐ yes	☐ no	Is the smoke plume unlikely to impact areas of concentrated human or wildlife populations?
☐ yes	☐ no	Are adequate fire boom, tow boats and igniter resources available?
☐ yes	☐ no	Are adequate notice to be given to mariners, aircraft pilots and the general public?
☐ yes	☐ no	Can necessary personnel and equipment be mobilized during the in-situ burning window of opportunity?

IN-SITU BURNING PLAN APPX II OF ISB LOA

PLAN NUMBER: _____

DATE: _____

OPERATIONAL PERIOD: _____

TO: _____

FEDERAL OSC

☐ **APPROVED** ☐ **NOT APPROVED**

_____

SIGNATURE

Typed Name & Title:

COMMENTS:

IN-SITU BURNING MONITORING PLAN

THE PRIMARY OPERATIONAL PURPOSE IN MONITORING IN-SITU BURNING OF SPILED OIL IS TO DETERMINE IF BURNING REQUIREMENTS AND OBJECTIVES ARE MET. SINCE THE CURRENT BODY OF KNOWLEDGE ABOUT BURNING IS SMALL, EACH OPERATIONAL USE PROVIDES AN OPPORTUNITY TO GATHER DATA. THE RRT WILL BE ABLE TO USE THIS DATA TO REFINE AFTER EACH SPILL RESPONSE USING IN-SITU BURNING. THESE LESSONS WILL BE INCORPORATED INTO THE IN-SITU PLAN SUBMITTED TO THE FOSC.

IT IS INTENDED THAT THIS MONITORING PLAN FORM SHOULD BE COMPLETED AFTER EVERY IN-SITU BURN EPISODE. THERE IS A FORM FOR THE BURN SUPERVISORS AND ANOTHER FORM FOR THE CASUALLY TRAINED OBSERVERS TO COMPLETE. THE ACCUMULATED DATA IS TO BE SUBMITTED TOGETHER WITH THE IN-SITU BURN PLAN TO FORM THE POST BURN OPERATIONS REPORT.

BURN SUPERVISOR REPORT FORM

_____ _____
NAME OF BURN SUPERVISOR ORGANIZATION

_____ _____
NAME OF BURN EPISODE (IE: BURN 1, BURN 2) DATE AND TIME OF REPORT

HAS A SAMPLE OF THE OIL TO BE BURNED BEEN COLLECTED: YES NO
(ONLY ONE SAMPLE PRIOR TO THE FIRST BURN DURING AN OPERATIONAL PERIOD IS REQUIRED)

METHOD OF IGNITION:

TIME AT START OF BURN:_____ **TIME AT END OF BURN: _____**

WIND SPEED DURING BURN: _____

WIND DIRECTION DURING BURN:

WAS SMOKE PLUME TRAJECTORY SATISFACTORY TO AVOID CONCENTRATED AREAS OF HUMAN OR WILDLIFE POPULATIONS? YES NO

DESCRIBE THE SMOKE PLUME: (Height above water, distance, direction, dispersion, etc.)

OBSERVATION OF EFFECTIVENESS OF THE BURN:

OBSERVATION OF EFFECTIVENESS OF RESIDUAL MATERIAL COLLECTION:

IN-SITU BURNING MONITORING PLAN

IT IS INTENDED THAT THIS OBSERVER'S MONITORING REPORT BE FILLED OUT BY THOSE INDIVIDUALS WHO MAY NOT BE EXPERTS AT IN-SITU BURNING, BUT ARE IN A POSITION TO OBSERVE THE BURN AND WITNESS ITS EFFECTS.

OBSERVERS MONTITORING REPORT

_____ _____

NAME OF OBSERVER DATE AND TIME

_____ _____

NAME OF BURN EPISODE (IE: BURN 1, BURN 2) ORGANIZATION

WAS SMOKE PLUME TRAJECTORY SATISFACTORY TO AVOID CONCENTRATED AREAS OF HUMAN OR WILDLIFE POPULATIONS? YES NO

COMMENTS:

GENERAL OBSERVATIONS:

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

RESPONSIBLE PARTY:

PLAN NO. : _____ (OPTIONAL)

INCIDENT FACTS

NAME: _____
LOCATION:
DATE: TIME:

OPERATIONAL PERIOD

FROM:_____ DATE:_____ TIME:_____
TO: _____ DATE: _____ TIME:_____
STATUS: NEW ☐ REVISED ☐

CHAIN OF COMMAND

DIVISION: GROUP:

ON SCENE COMMANDER / BURN SUPERVISOR

NAME	COMPANY/ORGANIZATION	PHONE/RADIO	OPERATIONAL AREA

SITE SAFETY OFFICER

NAME	COMPANY/ORGANIZATION	PHONE/RADIO	OPERATIONAL AREA

ON-VESSEL SAFETY SUPERVISORS

NAME	COMPANY/ORGANIZATION	PHONE/RADIO	OPERATIONAL AREA

SITE OPERATING COMPANIES

COMPANY NAME / ADDRESS:

VESSEL CAPTAIN	PHONE/RADIO	NAME OF VESSEL

HEALTH & PPE REQUIREMENTS (SEE MATRIX)

*Outer Gloves	*Face Shield	*Site Characterization	*Pre-work Medical	*Zone Control
*Inner Gloves	*Sun Hat	*Air Purifying Resp.	*40 Hr. HAZWOPER	*Security
*Rubber Boots	*Sun Tan Lotion	*Supplied Air Resp.	*24 Hr. HAZWOPER	*E/S Ent. Permit
*2/3 Body Cover	*Taped Leg Joints	*Safety Glasses	*First Aid Station	*Personnel Dept.
*Full Body Cover	*Hard Hat	*Heat Stress Program	*Shade Station	*USCG Life Vests

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

DESCRIPTION OF SITE

LOCATION OF SITE: _____

(Latitude / Longitude) Latitude: _____ Longitude: _____

DESCRIPTION OF SITE: _____

_____

DESCRIPTION OF SURROUNDING AREA: _____

_____

DESCRIPTION OF SURROUNDING POPULATION: _____

_____

COMMUNICATIONS MATRIX

ROUTINE COMMUNICTIONS:

COMMAND VESSEL WILL PROVIDE GENERAL COMMAND FUNCTIONS FOR BURN OPERATIONS, AND IT WILL SERVE AS THE PRIMARY COMMUNICATIONS POST. ALL RADIO FREQUENCIES WILL BE CONTINUOUSLY MONITORED BY COMMAND. PERSONNEL ABOARD THE COMMAND VESSEL, AND SAFETY PERSONNEL.

EMERGENCY COMMUNICATIONS:

AN EMERGENCY CAN BE COMMUNICATED OR DECLARED USING ANY ASSIGNED COMMUNICATIONS METHOD. ALL WORKING FREQUENCIES WILL BE MONITORED THROUGHOUT THE RESPONSE EFFORT BY THE COMMAND AND SAFETY VESSEL(S).

CONTACT LIST:

FUNCTION & NAME	PHONE NUMBER	RADIO CONTACT
OSC:		
SOSC:		
BURN SUPERVISOR:		
SITE SAFETY OFFICER:		
COMMS OFFICER:		
SSC:		
TRUSTEES:		
TRUSTEES:		

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

VESSEL LIST

NAME POSITION	VESSEL NAME	PHONE	RADIO

COMMUNICATIONS METHODS

COMMAND & CONTROL:

PRIMARY METHOD OF COMMUNICATIONS FOR THE COMMAND AND TRUSTEES GROUP IS ASSIGNED CELL PHONES. THE BURN SUPERVISOR AND COMMUNICATIONS POST SHALL ALSO HAVE CELL PHONE.

BURN & VESSEL OPS:

PRIMARY METHOD OF COMMUNICATIONS WILL BE ASSIGNED MARINE VHF CHANNEL/FREQUENCIES

- AVIATION COMMUNICATIONS BETWEEN VESSEL AND AIRCRAFT WILL BE ON MARINE CHANNEL 18A, WHICH IS 156.900 MHz.

- THE WORKING MARINE VHF CHANNEL FOR THE LEAD BOAT AND THE SECOND BOOM TOWING VESSEL SHALL BE DETERMINED PRIOR TO OPERATIONS. IN ADDITION, ALL VESSELS SHALL MONITOR MARINE VHF CHANNEL 6 THE SPILL RESPONSE DESIGNATED HAILING CHANNEL.

IN THE EVENT OF COMMUNICATIONS EQUIPMENT FAILURE:

1. A WHISTLE WILL BE USED TO INDICATE A NEED FOR ASSISTANCE.

2. THREE (3) SHORT REPEATED-BLASTS FROM VESSEL HORN SHALL INDICATE AN EMERGENCY.

GO / NO - GO POLICY

- EACH VESSEL COMMANDER (CDR), OPERATIONAL CDR, OR TRUSTEE CAN STOP THE COMMENCEMENT OR CONTINUATION OF THE BURN BASED ON THE SAFETY CONCERNS WITHIN EACH AREA OF RESPONSIBILITY.

- IMMEDIATELY PRIOR TO IGNITING THE BURN, THE FOLLOWING PERSONNEL SHALL BE POLLED TO DETERMINE GO/NO-GO STATUS. THE OSC, SOCS, BURN SUPERVISOR, SITE SAFETY OFFICER AND PARTICIPATING TRUSTEES.

- ANY OF THESE IDENTIFIED PERSONNEL MAY REQUEST TERMINATION OF THE BURN FROM THE OSC SHOULD CONDITIONS REQUIRED FOR THE BURN CHANGE AND ARE NO LONGER MET.

APPENDIX IV OF ISB LOA

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

PERSONNEL RESPONSIBILITIES

BURN SUPERVISOR

- REPORTS DIRECTLY TO THE OSC.

- IS RESPONSIBLE FOR THE OVERALL BURN OPERATION, INCLUDING BUT NOT LIMITED TO: IGNITION AND TERMINATION, PRE-IGNITION CHECKLIST, GO/NO-GO POLLING OF DESIGNATED PERSONNEL, SAMPLE TAKING AND RECORD KEEPING.

- IS THE DESIGNATED BOOM COMMANDER.

SITE SAFETY OFFICER

- REPORTS DIRECTLY TO THE BURN SUPERVISOR

- IN CHARGE WITH THE OVERALL RESPONSIBILITY OF ENSURING WORKER HEALTH AND SAFETY DURING BURN OPERATIONS.

- CONDUCTS PREBURN SAFETY BRIEFING ON OPERATIONAL PROCEDURES AND GOALS.

- IDENTIFIES POTENTIAL EMERGENCIES.

- COORDINATES IMPLEMENTATION OF THIS PLAN.

- ASSIGNS AND MONITORS ALL ASSOCIATED SAFETY PERSONNEL.

VESSEL RESPONSIBILITIES

COMMAND VESSEL

- SHALL SERVE AS THE ON-SITE COMMAND AND COMMUNICATIONS POST.

- BURN SUPERVISOR AND OSC SHALL CONDUCT BURN OPERATIONS FROM THIS VESSEL COMMAND POST.

- SHALL BE APPROPRIATE IN SIZE AND MANNING TO SERVE AS OPERATIONS COMMUNICATIONS AND COMMAND PLATFORM.

- SHALL SERVE AS THE LEAD BOOM TOWING VESSEL.

SAFETY BOAT

- MONITORING AND MAINTAINING FIRE FREE ZONES

- TASKED WITH FIRE WATCH AND MAINTAINING A LIMITED FIRE FIGHTING CAPABILITY.

- ASSISTS WITH BURN OBSERVATION AND EFFECTIVENESS MONITORING.

- TASKED WITH DEBRIS RECOVERY.

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

OPERATIONAL OBJECTIVES

1 OPERATE IN COORDINATION WITH THE COMBINED ICS TO COORDINATE BURNING ACTIVITIES WITH ALL OTHER OFFSHORE/NEARSHORE RESPONSE OPERATIONS.

2. PERFORM ON-WATER IN-SITU BURNING OPERATIONS IN ACCORDANCE WITH THE IN-SITU BURNING PLAN.

3. ON-WATER FLOTILLA IS TO AVOID THE SMOKE PLUME DURING IN-SITU BURNING OPERATIONS.

SITE CONTROL

- SITE CONTROL DISCRIPTION: THE MAIN WORK DECK OF THE VESSELS IS THE EXCLUSION ZONE DURING ACTIVE OIL SPILL OPERATIONS. THE OTHER SECTIONS AND DECKS OF THE VESSEL ARE SUPPORT AREAS.
  SITE CONTROL MAP: SEE ATTACHMENT 1

SITE SECURITY

- THE CAPTAIN OF THE VESSEL IS RESPONSIBLE FOR VESSEL SECURITY.

  ON WATER BURN ZONE SECURITY WILL BE IMPOSED AND CONTROLLED BY THE U.S. COAST GUARD

SITE CHARACTERIZATION AND MONITORING

EXPOSURE POTENTIAL:

- ZONE CONTROL WILL BE ESTABLISHED PRIOR TO ENTERING A RESPONSE AREA DEPENDING ON THE SPILL EXPOSURE POTENTIALS INCLUDING: TBX (BENZENE), H2S (HYDROGEN SULFIDE) AND LEL (LOWER EXPLOSIVE LIMIT)

- NO ENTRY INTO AN EXCESSIVE TBX (BENZENE), H2S (HYDROGEN SULFIDE)

- ENTRY INTO AN EXCESSIVE BENZENE ENVIRONMENT MAY BE CONSIDERED FOR SPECIAL PURPOSES IN COMPLIANCE WITH APR/SAR REGULATIONS

- DURING IN-SITU BURN ACTIVITIES, ALL PERSONNEL WILL HAVE APR'S AVAILABLE.

REQUIRED CHARACTERIZATION TESTING:

- TBX (TEST FOR BENZENE), H2S AND LEL TESTING ARE MINIMUM REQUIREMENTS

- SEE PAGE 3 FOR FIELD CHARACTERIZATION CHECKLIST

EXPOSURE LIMITS:

BENZENE:	NIOSH HAS IDENTIFIED BENZENE AS AN OCCUPATIONAL CARCINOGEN. EXPOSURES SHOULD BE LIMITED TO THE LOWEST FEASIBLE CONCENTRATION.	
H_2S:	OSHA PEL - 10 ppm, IDLH - 300 ppm	
O_2:	10%	PEL = PERMISSIBLE EXPOSURE LIMIT
0_2:	>19.5% <21.5%	STEL = SHORT TERM EXPOSURE LIMIT
		IDLH = IMMEDIATELY DANGEROUS TO LIFE AND HEALTH

REQUIRED MONITORING:

AFTER SITE CHARACTERIZATION, BENZENE, H2S AND LEL WILL BE MEASURED ONCE PER HOUR UNLESS:

1) ANY MEASUREMENT REFLECTS A REASONABLE POSSIBLE POSSIBLITY THAT AN STEL WILL BE REACHED. AT THIS TIME, CONTINUOUS MONITORING WILL TAKE EFFECT

2) THE SITE SAFETY OFFICER AND ON SCENE COMMANDER DECIDE THAT MONITORING INTERVALS SHOULD BE ALTERED BASED ON THEIR JUDGEMENT FROM PRIOR READINGS AND CONTINUOUS JOB SITE ASSESSMENT..

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

EMERGENCY PROCEDURES

EMERGENCY FIRE PROCEDURE

A FIRE EMERGENCY SHALL INCLUDE ANY NON CONTROLLED BURNING WITHIN THE BURN OPERATION AREA.

- THE SITE SAFETY OFFICER OR OTHER QUALIFIED INDIVIDUAL MUST:
  1) TAKE CHARGE OF THE SITUATION.
  2) NOTIFY BURN SUPERVISOR OF THE EMERGENCY.
  3) NOTIFY FIRE DEPARTMENT AND SAFETY BOAT OF TYPE OF ASSISTANCE NEEDED.
  4) SOUND APPROPRIATE FIRE SIGNAL. (THREE (3) BLASTS OF A HORN).
- THE BURN SUPERVISOR WILL ENSURE THAT THE FIRE IS EXTINGUISHED PRIOR TO RESTARTING BURN OPERATIONS.

EMERGENCY TERMINATION OF BURN

- IN THE EVENT THAT THE FUNDAMENTAL SAFETY CONDITIONS CHANGE OR AN EMERGENCY SITUATION ARISES AFTER INITION OF THE BURN, THE FOLLOWING METH0DS MAY BE USED TO TERMINATE THE BURN:
  1) RELEASING THE TOW LINE FROM ONE OF THE TOW VESSELS WHILE THE OTHER TOW VESSEL MOVES AHEAD AT SEVERAL KNOTS.
  2) MOVE BOTH VESSELS AHEAD AT SEVERAL KNOTS FORCING THE OIL BENEATH THE BOOM AND REMOVING IT FROM THE COMBUSTION ZONE.
  .
- ALTHOUGH THE OSC HAS OVERALL BURN TERMINATION AUTHORITY, ANY DESIGNATED SAFETY SUBERVISOR MAY REQUEST THE BURN BE TERMINATED.

EMERGENCY MEDICAL PROCEDURES

- WHEN A PERSON IS INJURED, THE SITE SAFETY OFFICER OR OTHER QUALIFIED PERSONNEL MUST:
  1) TAKE CHARGE OF THE SITUATION
  2) PROVIDE NECESSARY DECONTAMINATION
  3) ADMINISTER FIRST AID
  4) ARRANGE FOR ADDITIONAL MEDICAL ASSISTANCE AS NECESSARY
  5) IF A SERIOUS INJURY OR LIFE THREATENING CONDITION EXISTS, NOTIFY THE USCG OPERATIONS CENTER AT MSO SAN FRANCISCO BAY **(510) 437-3073**
     MSO LOS ANGELES/LONG BCH **(562) 980-4444** OR
     MSO SAN DIEGO **(619) 683-6470**

APPENDIX IV OF ISB LOA

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

STANDARD PROCEDURES FOR REPORTING EMERGENCIES

WHEN CALLING FOR ASSISTANCE IN AN EMERGENCY, PROVIDE THE FOLLOWING INFORMATION:

- YOUR NAME
- LOCATION
- TELEPHONE NUMBER AT YOUR LOCATION
- NAME OF PERSON(S) EXPOSED OR INJURED
- ACTIONS ALREADY TAKEN

EMERGENCY RESPONSE RESOURCES

AMBULANCE

IN AN OFFSHORE EMERGENCY, EITHER A LOCAL WATER TAXI COMPANY OR THE U.S. COAST GUARD SEARCH AND RESCUE CENTER WILL PROVIDE TRANSPORTATION TO THE NEAREST AMBULANCE/MEDICAL FACILITY. DUE TO THE TRANSIENT NATURE OF THIS OPERATION. THE SITE SAFETY OFFICER WILL CONTINUOUSLY RESEARCH AND LOCATE THE NEAREST AMBULANCE SERVICE BASED ON PRESENT LOCATION.

FIRE DEPARTMENT

DEPENDING ON THE SITE LOCATION, **DIALING 911** MAY SUFFICE FOR FIRE DEPARTMENT CONTACT.
A FIRE BOAT WILL RESPOND INSIDE OF AND UP TO _____ OUTSIDE OF _____.
IF THE EMERGENCY IS OUTSIDE OF THIS AREA, CALL THE U.S. COAST GUARD AT
(_____)_____-_____

OIL SPILL RESPONSE

FOR ADDITIONAL RESPONSE ASSISTANCE, CALL:

HOSPITAL/EMERGENCY MEDICAL

SINCE ON-WATER OIL SPILL OPERATIONS ARE TRANSIENT, THE SITE SAFETY OFFICER WILL CONTINUOUSLY RESEARCH AND LOCATE THE NEAREST HOSPITAL/EMERGENCY MEDICAL FACILITIES BASED ON PRESENT LOCATION. _____BURN CENTER IS THE BEST LOCATION IN NORTHERN CALIFORNIA FOR BURNS

EMERGENCY PHONE NUMBERS

U. S. COAST GUARD		LOCAL FIRE DEPARTMENT	
LOCAL POLICE DEPARTMENT		POISON CONTROL CENTER	
STATE OF CALIFORNIA OFFICE OF EMERGENCY SERVICES	(800)852-7550	NATIONAL SPILL RESPONSE 24 HR. REPORT HOTLINE	(800) 424-8802
USCG SEARCH AND RESCUE		CHEMTREC (24 HOUR)	(800) 424-9300

IN-SITU BURN SITE SAFETY AND HEALTH PLAN

THERMAL STRESS REDUCTION PROGRAM

OPERATIONAL REQUIREMENTS

- TO REDUCE THE EFFECTS OF HEAT STRESS, 2/3 SLICKER BOTTOMS ARE A STANDARD REQUIREMENT. UPPER TORSO EXPOSURE IS MINIMAL DURING NORMAL OPERATIONS. DURING OVERHEAD OPERATIONS WITH DRAPING OIL OR WHEN SPLASHING OCCURS FULL PPE WILL BE WORN

- TO FURTHER REDUCE THE POSSIBILITIES OF HEAT STRESS, SUN SHADE HATS IS MANDATED ON THE VESSEL'S WORK DECK DURING LIFTING OPERATIONS. HOWEVER, THE WEARING OF HARD HATS IS MANDATED ON THE VESSEL'S WORK DECK DURING LIFTING OPERATIONS.

- HAZWOPER COLORS WILL BE ENFORCED FOR ALL HATS:
  - -GREEN HAT = 24 - 48 HOURS
  - -YELLOW HAT = 4 - 23 HOURS
  - -WHITE HAT = NO HAZWOPER TRAINING OR NOT CURRENT WITH APPLICABLE REFRESHERS

- ABOVE 85 DEGREES (F) EITHER COOLING VESTS OR TIME LIMITATIONS WILL BE IMPLEMENTED TO REDUCE HEAT STRESS.

HAZARD REDUCTION PROCEDURES

- PRIOR TO THE VESSEL DISPATCHING FROM THE PIER, THE SHIP'S CAPTAIN (OR DESIGNATE) WILL GIVE ON-BOARD PERSONNEL A PREDEPARTURE SAFETY BRIEFING CONCERNING THE VESSEL.

- PRIOR TO BEGINNING ANY ON-SITE IN-SITU BURNING WORK, THE SITE SAFETY OFFICER WILL GIVE A SITE & JOB SPECIFIC SAFETY BRIEFING TO ALL WORKERS ON BOARD THE VESSEL.

NOTIFICATION AND DISTRIBUTION

UNITED STATES COAST GUARD
MSO SAN FRANCISCO BAY
BLDG 14 COAST GUARD ISLAND
ALAMEDA, CA 94501-5100
510-437-3073

PLAN APPROVALS

RESPONSIBLE PARTY: _____
(Signature) (Date)

UNITED STATES COAST GUARD:

_____
(Signature) (Date)

STATE OF CALIFORNIA DEPT. OF HEALTH:

_____
(Signature) (Date)

PLAN PREPARER:

_____
(Signature) (Date)

IN-SITU BURN SITE SAFETY AND HEALTH PLAN
FIELD SITE CHARACTERIZATION CHECKLIST

DATE: **TIME:**

LOCATION:

TYPE OF PETROLEUM INVOLVED:

SPECIAL IN-SITU BURNING CONSIDERATIONS:

THE OBJECTIVE IS TO AVOID THE SMOKE BY-PRODUCTS OF IN-SITU BURNING. KEEP VESSELS AND PERSONNEL UPWIND OF THE SMOKE PLUME. THIS IS ALSO THE BASIC PRECAUTION REQUIRED FOR EMITTED GASES. STUDIES SHOW THAT THE DANGER FROM GASES EMITTED DURING IN-SITU BURNING REMAIN SIGNIFICANTLY BELOW EXPOSURE UNITS. SUCH EMISSIONS CAN INCLUDE SULFUR DIOXIDE (SO2) (PEL = 0.2 ppm), NITROGEN DIOXIDE (NO2) (PEL = 0.1ppm), AND CARBON MONOXIDE (CO) (PEL = 35ppm). IT IS INTENDED THAT BY AVOIDING THE SMOKE THESE POSSIBLE EMISSIONS WILL NOT BE A PROBLEM.

PERSONAL PROTECTIVE EQUIPMENT:

DURING ACTIVE IN-SITU BURNING OPERATIONS APR'S SUITABLE FOR BOTH ORGANIC VAPORS AND PARTICULATES SHALL BE WORN BY ALL PERSONS ON VESSELS IN PROXIMITY TO THE SMOKE

☐	Outer Gloves	☐	Face Shield	☐	Rubber Boots	☐	Taped glove gauntlets
☐	Inner Gloves	☐	Hard Hat	☐	Taped Leg Joints	☐	USCG PFD
☐	2/3 Body Cover	☐	Sun Hat	☐	Air Purifying Resp.	☐	Safety Glasses
☐	Full Body Cover	☐	Sun Tan Lotion	☐	Supplied Air Resp.	☐	Benzene Monitors

MONITORING EQUIPMENT

Industrial Scientific Model MX 251 Gas Detector for LEL and O
AIM Model 3350 Gas Detector for H_2S
PHOTOBAC "SNAP SHOT" PORTABLE GAS CHROMATOGRAPH for Benzene

LEL EXPLOSIVE VAPORS

USING THE MX 251, MEASURE THE LOWER EXPLOSIVE LIMITS.
READING MUST BE LESS THAN 10%

LEL = _____

H_2S -HYDROGEN SULFIDE:

USING THE AIM GAS DETECTOR, MEASURE THE CONCENTRATION OF H2S.

H_2S = _____

BENZENE (TBX)

USING THE "SNAP SHOT" GC, MEASURE OF THE CONCENTRATION OF BENZENE. READING MUST BE LESS THAN 1 ppm.

BENZENE = _____

IN-SITU BURN BOOM OPERATIONS PROCEDURES

PRE-IGNITION CHECKLIST

COMMUNICATIONS OFFICER WILL:

- ☐ Perform radio check with each vessel and participating trustee.
- ☐ Verify each vessel is aware of burn trajectory and time of ignition.

BURN SUPERVISOR WILL:

- ☐ Verify clear burn path from aircraft.
- ☐ Ensure boats and booms are pointed upwind.
- ☐ Designate oil-free safe area for vessels in case of emergency.
- ☐ Obtain final burn approval from FOSC.

BOOM TOWING SAFETY INSTRUCTIONS

1. Contained oil should be ignited only after the requirements for Tab d to Annex X of the In-Situ Burn L.O.A. and pre-ignition and operational checklist are met, and confirmed by all key participants via radio link.

2. All vessels must remain at least (5) fire diameters from the flame perimeter.

3. When using six hundred and sixty feet (660 ft.) or less of boom, use tow lines equal to the length of the boom. For boom longer than six hundred and sixty feet, tow lines may be less than the length of the boom.

4. Prior to ignition, ensure that all personnel on-site are positioned upwind or cross-wind from the target slick.

Prior to ignition, ensure that all personnel on-site are positioned upwind or cross-wind from the target slick.

FIRE CONTROL

BURN SUPERVISOR WILL BE POSITIONED ON THE COMMAND VESSEL.
HE/SHE WILL:

- ☐ Control the burn rate by coordinating boom towing vessels' forward velocity. (Burn rate is dependent upon oil layer thickness)

IN-SITU BURN BOOM OPERATIONS PROCEDURES

BURN EFFECTIVENESS MONITORING
SITE SAFETY OFFICER WILL BE POSITIONED ABOARD A DEDICATED SAFETY VESSEL. HE WILL:

- ☐ Assist the command vessel with monitoring the burn's effectiveness
- ☐ Monitor the status of the burn in relation to the proximity of the burn to towing vessels and other response vessels.
- ☐ Monitor and maintain pre-designated "fire-free" zones between response vessels or between the burn and specified sensitive areas.
- ☐ Provide backup support for deployment and containment operations.
- ☐ Provide extra personnel and equipment, where needed.

TERMINATION OF BURN AND EMERGENCY TERMINATION OF BURN

In most circumstances, the FOSC should plan to allow an oil slick to burn to completion once it has ignited. However, premature termination of a burn may be necessary if the wind or weather shifts unexpectedly, or if secondary ignition of another slick is a possibility.

As part of the **GO/NO-GO POLICY**, the Burn Supervisor, Site Safety Officer, participating Trustees or designated safety personnel may stop the response effort by declaring an emergency.
If an emergency is declared, the person declaring the emergency will:

- ☐ Provide description of the problem to the Burn Supervisor and FOSC.

FOSC will determine the course of action.
If the burn is terminated, Burn Supervisor will:

PRIMARY METHOD

- ☐ Order one of the towing vessels to release the tow line from the vessel
- ☐ Order the other towing vessel to move ahead at several knots. (Oil will spread Out quickly to a thickness that cannot support combustion.)

SECONDARY METHOD

- ☐ Order both vessels to move ahead at several knots. (Oil will be forced beneath the boom, removing it from the combustion zone.)

APPENDIX – VI OF ISB LOA

RESOLUTION OF QUESTIONS RE ISB LOA
RRT, REGION IX-MAINLAND

This information was agreed upon in an RRT Meeting in Novato, CA October 30-31, 1996; and the details are to accompany the LOA.

(1) Geographical Boundaries (Page Two of the LOA). Designation of area covered by the Letter of Agreement: 35-200 nautical miles from the Mainland Coast of California. This does not mean 35 nm from the shoreline of islands. It will be up to the FOSC to determine whether there is any unprotected human population on an island which may be within this zone. If there were to be such a person (s), then monitoring would need to be done to assure that the limits were not exceeded.

(2) There have been no specific comments from NOAA or DOD regarding any additional specifics for land within their jurisdictions. It will be assumed that for any geographical entity within the zone covered by the LOA, the judgment of the FOSC and the restrictions itemized in the LOA will be sufficient protection for these geographical entities.

(3) Appendices II-V are still given as examples of the type of document which should be developed if an in situ burn were to be done. The RRT signatory agencies do not expect to see such a document in advance of the burn, but they do expect that the pertinent information would be developed, that the FOSC or his designee would review it, and that the FOSC report would contain all the pertinent information.

(4) A statement will be added to the LOA that it will be reviewed annually and updated as appropriate.

(5) Specific comments were received from the US Coast Guard-Strike Force Coordination Center (marked "*"). RRT response follows (marked "**").

* 1. "Guidelines paragraph 2 note conditions that allow the FOSC to conduct a burn without concurrence from other Federal officials, yet this appears to be contradicted by the go/no-go discussion in Appendix IV."
**Appendix IV is an example of a Site Safety Plan. It is assumed that the FOSC will approve all aspects of the operation of the ISB. The go/no-go decision would be up to the FOSC and the details of an approved ISB operation would be the subject of an aftermath report (the FOSC Report), which will be made available to the RRT.

*2. "Guidelines paragraph 4 indicate wind patterns will be predicted by the NOAA SSC. The National Weather Service or military weather personnel may also be useful and provide added flexibility in this ... regard. "
**True. The NOAA SSC works for the FOSC and gathers necessary information from a number of sources. These are useful suggestions.

*3. "Guidelines paragraph 5 indicates the existence of protocol for observing and halting the burn in Appendix III, however Appendix III ... does not have sufficient monitoring detail and does not appear to be based on the Special Response Operations Monitoring Program. The monitoring paragraph of the Documentation, Monitoring and Evaluation Section also refers to Appendix III for monitoring details that are not there. Also, in one of these sections there should be some clarification as to who is monitoring for what. The USCG may be doing effectiveness monitoring and others may be interested in effects monitoring."
**True. The entire operation is under the purview of the FOSC. Individual monitoring activities, pertinent to the specific ISB situation would be described in the Monitoring Plan, which would be drawn up specifically for the ISB being undertaken. Appendix III in this LOA is an example developed by Oceania RRT participants. The case-specific information and Plans would be available after the ISB, for RRT review in the FOSC Report.

*4. "Guidelines paragraph 8 should be more specific as to what are trained professionals and recognized techniques/technologies."

**This is left initially to the judgment of the FOSC. The RRT can review the specifics in the FOSC Report and determine whether more clarification should be given in advance. If the decision were to give more clarification, then this guidance would be part of the update of the LOA.

*5. "Guidelines paragraph 9 should be more specific as to what is necessary for rapid controlling and stopping of the burn."
**This is left initially to the judgment of the FOSC.

*6. "Appendix I, Overview, Safety Concerns, Vessel Safety Section should address the use of safety zones and broadcast notice to mariners as a means to increase overall vessel safety
**These operational concerns are left up to the FOSC.

*7. "Appendix I, Overview, Safety Concerns, the entire section should be cross-checked against the hazards listed in Appendix IV to ensure all are appropriately discussed (e.g. H2S discussed in Appendix IV but not in Appendix I; Polynuclear Aromatic Hydrocarbons discussed in Appendix I but not in Appendix IV)."
**Human Health & Toxicity Concerns Section of Appendix I contains some general language which includes these noted compounds - "chemical content of the smoke plume is one reference, and "sulfur dioxide ... produced by oil combustion" is another. Appendix I is meant as a broad overview of the risks and the tradeoffs; specific details are found in the Safety and Monitoring Appendices which would.be developed in a specific ISB application, conducted under the overview of the FOSC.

*8 " Appendix II, In-situ Burning Plan, the following details should be added: (1) People and equipment resources to conduct the burn; (2) Command and control issues; (3) Communications; (4) Backup mechanical containment and recovery measures."
**These operational details would be developed in a case-specific plan for the ISB actions which the FOSC overviews.

*9. Appendix II, recommend "Weather & Water 24 Hour Forecast" section be reworded to
"Marine Weather 24 Hour Forecast."
**OK - since Appendix II is an example, the changed language can be part of the example.

*10. "Appendix II, "Estimated Smoke Trajectory: With all the computer models capable of predicting plume behavior available, recommend one or more be used and referenced in the Plan."
**OK - this would be up to the FOSC, and the NOAA SSC would most likely be using these as part of the NOAA-provided support.

*11. "Appendix IV appears to be a good, comprehensive site safety and health plan that has significantly more detail than the Burning Plan and the Burn Monitoring Plan. Normally these two plans would generate the concerns that drive the site safety plan. Recommend that the site safety plan be used to work backwards and flesh out the Burning and Burn Monitoring Plans. Recommend the drafters of this document contact the NRT S&T subcommittee to achieve standardization and common benefit from these two development efforts."
**Noted. These appendices are examples only.

*12. A number of specific comments were made by the USCG reviewer on improvements to the Site Safety and Health Plan. These are listed without comment, since this Appendix is given as an example of a site safety plan, which would be developed for each specific ISB application.
(1) Use term "personal Flotation Device: in lieu of "USCG Life Vest" in PPE Requirements section;
(2) Add OSHA PEL (TWA) for Benzene (1 ppm) in Exposure Limits section;
(3) List/explain PAH hazards in Exposure Potential section (as mentioned in Appendix I Overview);
(4) Use term "explosive/flammable gases" vs "LEL" as the Exposure Potential (since LEL is the exposure limit for those hazards);
(5) Exposure Limit for "explosive/flammable" gases should be written as "less than 10% of the LEL";
(6) Add "reading must be less than 10 ppm" under H2S monitoring section;

(7) Plan Approvals Section, wrong use of "IT'S", delete word, and add "representative: following the agency (not under the blank itself), recommend use the term "Federal On-Scene Coordinator (FOSC)" here (as mentioned in Purpose section of LOA);
(8) What does "E/S Ent. Permit" mean under Health & PPE Requirements section (confined space entry permit?). need to clarify/re-word-,
(9) Why are PPE requirements repeated in two sections of the plan (in Health & PPE Requirements section and in PPE section, which also adds more detail on APR cartridges, which is important); recommend just list overall "Safety & Health Concerns" in the matrix listing "PPE" as one concern and referencing the later more detailed section on PPE, which should also include INFO on glove/boot/splashsuit materials suitable for oil spill contaminants."

(6) Comments were received from the USCG-MSO San Diego and are marked "*". RRT reply is marked "**".
*1. Appears that the 35-200 mile pre-approved zone needs further discussion. What is the Boundary for islands within the 35-200 mile zone. In the San Diego AOR the greatest potential for a significant offshore discharge is in the "gasoline alley" where the Navy does unrep, and in the Chevron Lightering zone. Both are within 35 miles of San Clemente Is."
**The pre-approval zone is 35-200 nautical miles off the mainland coast of California. It would appear that the pre-approval zone would include these risk areas. The FOSC would need to assure that the unprotected human population exposure limits were not exceeded.

*2. "It appears there would never be a time when the 3 criteria would not be met in the 35-200 zone barring any islands. Are these three criteria really established for determinations when within 35 miles or close to islands?"
**The proximity to islands issue was discussed previously. The three criteria are: (1) ISB is a viable option for oil removal; and (2) exposure limits for unprotected human population will not be exceeded; and (3) the plume or heat from the burn will not result in greater impact to sensitive wildlife resources than would the spilled oil. There might be instances in which any or all of these criteria could not be met, and then the ISB would not be pre-approved. For example, there might be other vessels in the area, with unprotected human populations which might be exposed to the plume. Another example - the oil might not be burnable or weather conditions might not be appropriate, or the available equipment might be lacking in order to effect a safe burn operation.

*3. "We are assuming that "population" excludes response personnel, other vessels, and aircraft for the purpose of evaluating the particulates downwind. If so we will probably never have to make the calculation. If we have to make the calculation as stated in the LOA, we lack the tool to do that."
**If the calculation being discussed is the measurement for particulates, then it is important that the FOSC or his designee work with NOAA to develop the protocol for monitoring and then assure that within the Incident Command System (ICS) there is a way for this monitoring to be done - either through contract or through one of the units of the ICS (the Pacific Strike Team of the USCG might be one possibility). The test is to monitor for particulates of a stated size and concentration at the breathing zone of potentially affected humans.

(7) Comments were received from MMS, marked "*", and RRT reply is marked "**".

*1. "Page 1, paragraph 4 - Language in the text should specify where monitoring of the smoke plume should take place to prevent exposure to the plume. We suggest following the Newfoundland Oil Burn Experiment Protocols to prevent exposure. We also suggest the use of smoke plume air models such as the one developed by the National Institute of Standards and Technology to predict the direction the smoke plume will travel."
** It is not clear to which section this comment may pertain, since there is no paragraph 4 on page 1. However the thoughts may be useful suggestions to those preparing case-specific plans.

*2. "Appendix I, page 2. "Safety Concerns", 3. Vessel Safety:. We suggest including language regarding vessels which may be used to apply additives (Enhanced Burn Additives, emulsion breakers, etc.) to the contained oil slick prior to and possibly during the burn."
**This is an operational suggestion, which will be noted for the use of those preparing case-specific plans. Appendix I is meant to be a narrative summary of ISB as an oil spill response tool. This same comment applies to further statements about Appendix I.

*3. "Appendix I, page 2, "Safety Concerns" 3. Vessel Safety. We suggest adding language regarding the access of boat traffic, turning radius restrictions and the downwind restricted zones due to the VOSs and ROGs generated by the burning of a large oil slick."

*4. "Appendix I, page 2, "Safety Concerns: This section does not mention the measures to be taken in case of crude oils containing H2S, speed of the oil/gas separation, flammability and toxicity (MMS requires 15 ppm H2S as the lower threshold of platform restriction/evacuation preparedness"

*5. "Appendix I, page 2, "Safety Concerns". We suggest a sentence concerning SOx and H2S, that explain the behavior and related hazards from their characteristics. We suggest mentioning the importance of using a spark arrestor.

*6. "Appendix I, page 2, "Safety Concerns. The Section should include a paragraph regarding aircraft. It should specify the working ceiling for fixed wing and other aircraft for each work phase, i.e., mapping overflights, laser beam ignition, dispersant spraying, sample taking and aerial coordination of program phases (including wind monitoring and traffic coordination upwind and downwind)."

*7. "Appendix I, page 2, item 5. Emulsification - Emulsification is very different from weathering. Evaporation of an oil's light ends and the onset of water-in-oil emulsion formation in an oil slick often signals the closing of the window of opportunity for in-situ burning as a countermeasure. Water content in excess of 25 percent in a stable emulsion generally precludes ignition of the slick Application of an emulsion breaker can significantly extend the window of opportunity for in-situ burning."

*8. "Appendix I, page 3, second paragraph. Polynuclear Aromatic Hydrocarbons (PAH). We suggest to include and explain the fate of PCH also, because both PAH and PCH dilute rapidly as the smoke disperses."
**There is a statement in this section which observes that concentrations decline downwind.

*9. "Appendix II, Weather and Water Conditions - We question the need to include tides in a burn plan for 35-200 miles offshore. Tides affect the nearshore environment."
**This is true. Appendix II details are given as an example, which was developed for the Oceania RRT jurisdiction. We expect that an IN-SITU BURNING PLAN will be developed for each case-specific application and that the FOSC will approve it. The RRT will see the details, after the fact, when the FOSC Report is circulated.

4552.7 Case-by-Case Process

If in-situ burning is to be successful it must typically be undertaken within a small window of opportunity following the release of oil, which often can be measured in hours. In order to accomplish such a task, the UC must have a mechanism at its disposal to expedite the in-situ burning use decision. An accelerated review process will be conducted by the Planning Section of the ICS and is designed to provide the UC with sufficient information to determine if an in-situ burning use request should be made and to provide members of the RRT with sufficient information to approve or disapprove within the first two hours of its receipt. The Administrator of the OSPR is committed to ensuring that stakeholders, including State and Federal trustee agencies as well as local air districts, have input into any recommendation made for the use of in-situ burning. As the review process will be conducted by the Planning Unit, it is within this structure that the stakeholders will fit into the ICS. There is also a need for the petroleum industry to commit and stock necessary resources to successfully implement a timely ISB response.

4552.7.1 *Air Quality Standards*

Since burning will almost always provide for the greatest degree of environmental protection for on-water and nearshore resources (given the ability to remove on-water oil so quickly), a key issue is for the Unified Command to ensure that substances from an in-situ burn do not have a significant adverse impact to human health. The primary substance of concern is PM_{10}, the small particulate matter contained in the smoke plume. It is generally accepted that other substances dissipate, reaching background levels well before PM_{10} does. An in-situ smoke plume usually stays well above ground level --- hundreds to thousands of feet --- but can reach the ground under certain atmospheric conditions. An action level for PM_{10} has been established for these guidelines. It is recommended that in-situ burning should not be approved if there is significant risk that the standard would be exceeded where people could be exposed. As a general guideline, a decision to burn should not be made where humans would be exposed to concentrations greater than 50 $\mu g/m^3$ averaged over a 24-hour period. However, the UC must also consider the risk to humans from the volatiles that evaporate since in some circumstances, the adverse impact to humans may be greater from the volatiles than from the particulate matter generated from a burn.

<u>Local Air Pollution Control Districts/Air Quality Management Districts</u>

Within California, local air districts bear the primary responsibility for control of air pollution from all sources except motor vehicles, which remain the responsibility of the Air Resources Board (California Health and Safety Code 4000, et seq.). Air districts are required to adopt and enforce rules and regulations and to prepare plans which make reasonable provisions to achieve and maintain State and Federal ambient air quality standards in all areas affected by emission sources under their jurisdiction, as well as enforcing all applicable provisions of State and Federal law. California has several different air basins within the State and each basin has an "attainment zone standard;" an air quality standard that is to be attained and maintained within the air basin. If attainment zone standards are exceeded, districts can impose several different regulatory mechanisms aimed at reducing air emissions and bringing the air basin back into compliance.

Under California law, the Administrator is responsible for the use of all ARTs in response to an oil spill in marine waters and he or she serves as the State representative on the RRT. During an oil spill, the Air Pollution Control Officer and/or staff members will be requested to take part in *in-situ* burn use decision through their participation in the ICS Planning Unit's ART section. The air districts can provide

meteorological data, insight to air/flow dynamics and dispersion patterns that are necessary for the UC to make appropriate decision in a timely manner.

Violation of Containment Zone Standards

Local air districts were concerned that if they authorized an *in-situ* burn event which resulted in the accedence of an ambient air quality standards, it could jeopardize their attainment status. The USEPA issued a letter indicating that in-situ burning as an emergency response would be exempt from the general conformity requirements and may be considered as an exceptional event when considering the area's overall compliance status. A copy of this letter can be found in Appendix 1. This letter simply makes clear that there is a mechanism to exclude the in-situ burning air quality impacts from the data used to determine an area's ambient quality standard attainment status.

4552.7.2 *Trustee Agency Coordination*

Marine Sanctuaries

Marine Sanctuaries comprise a significant portion of the coastal waters off California. The use of in-situ burning in the Sanctuaries will require coordination with the Sanctuary Managers and their staff. Though Sanctuaries are represented by the Department of Commerce delegate on the RRT, the Sanctuary Manager and/or staff members will be requested to take part in the In-situ Burning Decision-Making process through their participation in the ICS Planning Unit's Alternative Response Technology (ART) section. The Sanctuaries can provide resource data and insight necessary to make decisions that may otherwise not be available to the UC in a timely manner.

4552.7.3 *Observation and Monitoring*

Air quality monitoring is not a requisite for the approval of an in-situ burn use. However, a case-by-case approval of in-situ burning should be done in a manner that fully considers any potential impact to public health and safety. Monitoring will be instituted as quickly as feasible after the approval to burn. Lack of a monitoring program will not delay a burn after the RRT gives approval.

Until recently, there has not been a standardized approach to monitoring alternative response technology use. A working group of federal scientist and oil spill responders has recently developed the Special Monitoring of Advanced Response Technologies (SMART) program to monitor the effectiveness of alternative response technologies including dispersants. The in-situ SMART program provides a process to rapidly gather information on the emissions from an in-situ burn and provide the information to the UC in a timely manner. Once this program is finalized, it will provide a practical and cost effective approach to monitoring and should be incorporated into the in-situ burn policy.

4552.8 Procedures for a Case-by-Case Request

1) The FOSC contacts the proper agency representatives on the RRT (Appendix 3) and informs them that a request to utilize in-situ burning may be forthcoming. The FOSC will have the RRT remain on standby for the conference call in step 3.

2) ART Unit of Planning Section completes the In-Situ Burning Decision-Making Process submits summary of findings and information to UC on Case-by-Case Checklist Form and Supplemental Information Form.

3) If FOSC, based on information submitted by the ART Section, decides that a request for in-situ burning is appropriate, the FOSC schedules conference call with RRT representatives or alternates at first reasonable opportunity.

4) Conference call is conducted and Yes/No decision made based on information provided on FOSC Checklist, Supplemental Information Form or any other sources requested by the RRT, including information from the local air district.

5) The ART Unit of the Planning Section will commence with operations if a YES Decision is forthcoming.

Figure 1

Proposed In-Situ Burning Decision-Making Process

Revised 2000 (Updated 01/2004)

Decision Tree

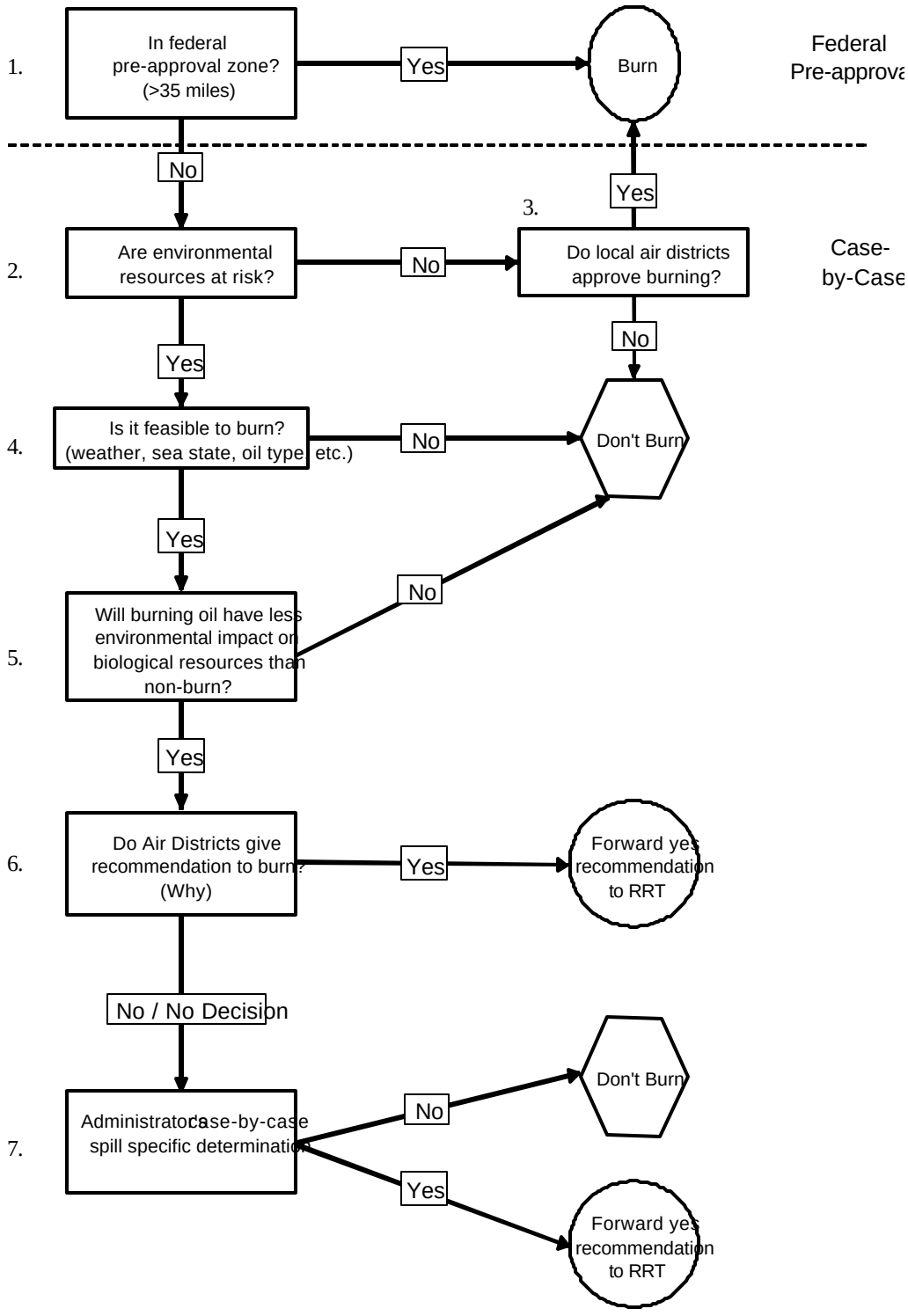


Figure 1 Decision-Making Points Explanations

The following discussion addresses the seven decision-making points that are a part of the approval process for the use of in-situ burning in marine waters. The discussion briefly identifies the nature of each point and also provides the rationale for each decision point. The number points correspond to the numbers in parentheses in the In-Situ Burning Decision Tree (found on the previous page).

1. If the proposed zone of in-situ burn is 35 miles off-shore and falls within the criteria of the Federal pre-approval zone, then an in-situ burn is Federally authorized by the RRT. State and local jurisdictions will be notified consistent with the provisions outlined in the LOA.

2. Most of the marine waters off California must be considered environmentally sensitive areas due primarily to the presence of foraging seabirds, migrating marine mammals, offshore islands with their marine mammal rookeries and haul outs, and the productive rocky intertidal and subtidal regions and associated kelp forests.

3. This specific path of the decision-making process would be very rare, indeed. There are not many situations (none foreseeable) under which an oil spill would not pose a threat to environmental resources. This decision point was included for purposes of completeness. If the unlikely situation occurred where environmental resources were not threatened, the UC would rely heavily on the recommendation of the local air districts for a burn/no burn decision.

4. Weather and sea state conditions can greatly affect the ability to burn oil on water. A minimum burn thickness is necessary to sustain combustion, so containment is always an issue. As this will mostly likely be accomplished by booming operations, those weather and sea state conditions that limit booming operations will operationally limit the ability to burn. As a general guideline, wave heights between 8-10 feet and wind speeds between 15-20 knots are generally the upper limits for boom operations.

5. The selection of in-situ burning as a cleanup/response tool is made using the hypothesis that spilled petroleum on the surface of the water (and eventually on the shoreline) or dispersal into the water column is more of a threat to natural resources than the combustion products are in the airstream. The hypothesis is tested using a data base that presents the resources at risk both on the surface of the water and within the surface microlayer and airstreams, by season, and how exposure to oil might affect the exposed species on a population basis. The risk analysis is based on the effects of petroleum on species populations at large and not individual animals, per se. All trustee agencies, local, state and federal, will work within the UC to determine if an in-situ burn will provide a net environmental benefit and better facilitate the protection of highly sensitive environmental resources.

6. Meteorological and other air dispersion characteristics will be an important component in the decision to recommend an in-situ burn by the local APCDs. Although vertical mixing is not usually a concern on the open water, plume dynamics can change if the wind direction changes and the plume comes into contact with land masses. For purposes of a case-by-case determination, the local air districts will provide their best professional judgement with respect to potential public health concerns and forward a recommendation to the UC.

7. There may be times when in-situ burning may be considered when local air districts are not in full support of the operation. Such circumstances would include the following:
a) if onshore contact with human populations is expected to be small enough to limit the level of concern; or b) to take advantage of the rapid elimination of oil that in-situ burning affords before weather conditions change making cleanup almost impossible and causing extensive environmental damage. If

the local air districts do not recommend the use of in-situ burning, the reasoning behind this must be detailed for review by the FOSC and possibly the RRT, should a recommendation for burning be forwarded. The information that should be detailed including any projected air mixing capability, any modeling and/or air quality exposure information and if concerns can be alleviated by means other than a non-burn decision (having people stay in houses for duration of burn), burning at night or non-peak hours. This information should be detailed on the supplemental case-by-case form.

8. Once the Checklist is completed and a decision for in-situ burning use is generated, the UC will forward their request, along with any requested data, to the RRT via a phone conference call. Based on the information provided, the RRT will provide an approval/disapproval decision for in-situ burning use.

CASE-BY-CASE CHECKLIST

The Case-by-Case Checklist is used by the Unified Command to determine whether a request should be forwarded to the Regional Response Team for In-Situ Burning Use. If the answer to any of the questions is no, further information must be gathered and summarized to support the position that an in-situ burn should be considered. This information, as well as all other information, should be forwarded to the RRT.

Checklist:

1. Is the spilled petroleum burnable? Y/N

2. Can the appropriate equipment be made available in a timely manner to effectively conduct an in-situ burn? Y/N

3. Are weather and oceanographic conditions favorable for an in-situ burn? Y/N

4. Does the in-situ burn pose less of an environmental risk than leaving the petroleum on the water surface? Y/N

5. If required, have state and international boundary considerations been addressed? Y/N

6. Has the local air district recommended the use of in-situ burning? Y/N

7. Has the ART Unit of the spill response team recommended the use of in-situ burning? Y/N

Basic information regarding the spill (weather, location of slick, type of oil, trajectory analysis, resources at risk, etc.) - see attached forms.

Phone Call List (refer to the contact list in Appendix III)

EPA Y/N

USCG Y/N

DOC Y/N

DOI Y/N

CALIFORNIA Y/N

AIR DISTRICTS Y/N

Support Information For Case-by-Case

1. Spill Information

A. Incident Information:

Cause of Spill:

Date and Time of Spill

Location:

Volume and Type of Release (Continuing vs Instantaneous)

Potential Volume to be Released

B. Characteristics of Spilled Oil:

Oil Type/Name

Specific/API Gravity Flash Point

Pour Point Viscosity

C. Weather and Water Conditions/Forecast:

Water Temp Air Temp

Current Information

Wind Speed/Direction (present and 48hr projection)

Sea- State and 48Hr Projection

Tide Information and 48hr Projection

Comments

D. Oil Trajectory Information

Surface Area of Slick
24hr Slick Trajectory
48hr Slick Trajectory
Expected Land Fall (Location/Time)
Comments

2. Biological Resources at Risk
(Provided by OSPR in Consultation with Federal Trustee Agencies)

A. On-Water Resources

B. Shallow Subtidal Resources

C. Intertidal Resources

D. Anadromous Resources

E. Significant Surface Microlayer Resources

Supplemental Information

Below, please detail any reservations that may exist on the part of the local air district or any other technical specialists with respect to a proposed in-situ burn.

1. Nature of the Objections and Organization Raising the Objection: _____
_____
_____
_____
_____
_____

Overriding Concerns to the Objection and Proponent of this Position: _____
_____
_____
_____
_____
_____

APPENDIX IV RRT CONTACT LIST

See section 4551 Appendix IX RRT Contact List on page 4500-57.

Local Air Pollution Control District Contact List

Mr. Lawrence Odel North Coast Unified AQMD 2300 Myrtle Avenue Eureka, California 95501-3328 (707) 443-3093 FAX (707) 443-3099	Mr. Dean Wolbach Mendocino County APCD Courthouse 306 East Gobbi Ukiah, California 95482 (707) 463-4354 FAX (707) 463-5707
Mr. Kelly Wee Director of Enforcement Bay Area AQMD 939 Ellis Street San Francisco, California 94109 (415) 749-4760 FAX (415) 928-0338	Ms. Barbara Lee Northern Sonoma County APCD 109 North Street Healdsburg, California 95448 (707) 433-5911 FAX (707) 433-4823
Mr. Lance Ericksen Monterey Bay Unified APCD 24580 Silver Cloud Court Monterey, California 93940 (831) 647-9411 FAX (831) 647-8501	Ms. Karen Brooks San Luis Obispo County APCD 3433 Roberto Ct. San Luis Obispo, California 93401-7148 (805) 781-5912 FAX (805) 781-1002
Mr. Ron Tan Santa Barbara County APCD 26 Castilian Drive, B-23 Goleta, California 93117 (805) 961-8800 FAX (805) 961-8801	Mr. Kent Field / Ms. Mallory Ham Ventura County APCD 669 County Square Drive Ventura, California 93003 (805) 662-6960 FAX (805) 645-1444
Mr. Mohsen Nazemi South Coast AQMD 21865 East Copley Drive Diamond Bar, California 91765 (909) 396-2000 x2699 FAX (909) 396-3341	TBD San Diego County APCD 9150 Chesapeake Drive San Diego, California 92123-1096 (858) 650-4700 FAX (858) 650-4659

4552.9 References

1. ATSDR (Agency for Toxic Substances and Disease Registry). 1991. Preliminary health advisory related to burning oil wells in Kuwait. In-situ Burning Workshop. May 1991.

2. Campagna, P.R. & Humphrey, A. 1992. Air Sampling and Monitoring at the Kuwait Oil Well Fires. In Proceedings of the Fifteenth Arctic and Maine Oil Spill Program Technical Seminar. June 1992.

3. Evans, et al. Burning, Smoke Production, and Smoke Dispersion from Oil Spill Combustion, Proceedings of the Eleventh Arctic and Marine Oil Spill Technical Seminar, Vancouver, British Columbia, Canada. June 1988

4. Evans, D., et al. 1992. Smoke Plumes from In-Situ Burning of Oils. National Institute of Standards and Technology.

5. Ferek, et al. 1992. Chemical Composition of Emissions from the Kuwait Oil Fires. Journal of Geophysical Research; 97: 14483-14489.

6. Gonzalez, et al., 1994. Texas Marsh Burn Removing Oil from a Salt Marsh using In-Situ Burning. In-situ Burning Oil Spill Workshop, Florida.

7. National Research Council. 1989. Using Oil Spill Dispersants on the Sea. National Academy Press, Washington D.C. 335 pp.

8. S.L. Ross Environmental Research LTD. 1990. "Evaluation of Capabilities to Respond to Large Oil Spills in California Marine Waters. Prepared for the California State Interagency Oil Spill Committee.

9. Sharratt, M. and M. Butler. 1992. Toxicological effect of oil smoke. In The Environmental and Health Impact of the Kuwaiti Oil Fires, Proceedings of an International Symposium, October 1991.

10. Shigenaka, G. & N. Barnea. 1993. Questions about In-situ Burning as an Open-Water Oil Spill Response Technique. National Oceanic and Atmospheric Administration. HAZ-MAT Report 93-3; June 1993.

4553 *Oil Spill Cleanup Agents (OSCAs)*

4553.1 Background

An OSCA is defined as any chemical, or any other substance, used for removing, dispersing, or otherwise cleaning up oil or any residual products of petroleum in, or on, any of the waters of the state or shorelines thereof. This category of substances would include surface washing agents and shoreline cleaners, dispersants, gelling agents, herding agents, emulsifiers-demulsifiers, chemical booms, sorbents (other than polypropylene or other inert products) and bioremediants.

The purpose of this subsection is to clearly outline the process for use of any OSCA during an oil spill response. The use of OSCAs are regulated at both the State and Federal levels. The following guidelines consolidate existing Federal and State policies and streamlines the approval process without jeopardizing proper environmental consideration of the use of an OSCA.

4553.2 Regional Philosophy

OSCAs are used to further enhance the ability for oil to be removed from the marine environment. While the use of chemical cleaning agents may be appropriate under proper circumstances, certain limitations must be recognized. The potential for toxic responses in indigenous fauna or flora to the cleaning agent must be considered.

4553.3 Authority

State of California Licensing Procedures

Government Code Section 8670.13.1 authorizes the OSPR to license OSCAs. The intent of the licensing process is to give the OSPR the opportunity to review product information, including toxicity, efficacy & degradation characteristics in a non-emergency situation, to determine if use of such a product would be beneficial. This provides the UC with as much flexibility as possible at the time of a spill without necessitating a thorough review of product literature. Although it is possible to use an unlicensed product during a spill incident, this can only be done on an experimental use basis, with approval by the State. Additionally, the use of an unlicensed product should only be considered if such use provides a result that can not be obtained any other way, including the use of a licensed product.

Federal NCP Product Schedule Listing Process

The federal EPA has primary responsibility for the listing of products on the NCP Product Schedule. Under federal regulations, an OSCA must occur on the Subchapter J Product Schedule of the NCP before it may be utilized at a spill.

Regional Response Team (RRT) Approval for Use

At the time of an oil spill incident, the UC can request the use of an OSCA. This is done through a formal request of the RRT. All Alternative Cleanup and Chemical Countermeasures must be approved in advance of use by the RRT. This includes dispersants, in-situ burning and chemical OSCAs. Once the RRT grants approval, a product can be used.

4553.4 Guidelines

If a product is licensed by the State and listed on the NCP, it can be used in spill response. The ART Section of the UC will provide specific information regarding the proposed use of the product needs to be submitted for review. The proposal for use of the product must be reviewed and approved by the UC (the Administrator of the OSPR and the FOSC). Once approved by the UC, a formal request must be made to the RRT. Once the RRT grants approval, a product can be used.

Revised 2000 (Updated 01/2004)

Proposal for Alternative Response Technology Product Use

Date of Request:_____

Person Submitting Request:_____

Issue Statement: Please describe the issue being addressed by the proposal and the recommended solution for addressing this issue.

_____
_____
_____
_____
_____
_____
_____
_____

Problem Statement: Please describe the specific problem being addressed by this proposal.

_____
_____
_____
_____
_____
_____

Background Information: Please provide sufficient background information to provide a context for this proposal. This should include any site-specific, spill-specific or resource-specific information as well as any product information that is pertinent.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Possible Alternatives for Addressing the Problem: Please identify the possible alternatives for addressing the problem. This may include a "do nothing" alternative. Please provide the pros and cons for each alternative.

_____
_____
_____

Recommendation: Please specify the recommended alternative. Include any additional information you feel is necessary to make your case.

Procedures and Methodologies for Implementation: Please outline the specific experimental design & methodologies as well as the procedures for implementation of the recommended alternative.

4554 *Bioremediation*

4554.1 Background

Bioremediation is a treatment technology that enhances existing biological processes to accelerate the decomposition of petroleum hydrocarbons and some hazardous wastes. Bioremediation has been used extensively in waste water treatment of spilled oil. The most extensive field research efforts have been the shoreline treatment studies in Alaska following the Valdez incident. This research suggested that shoreline treatment by nutrient enhancement significantly increased degradation rates of oil when compared to untreated shoreline areas. The benefits of bioremediation, however, have not been adequately demonstrated through field applications. Consequently, this technology should be considered more experimental than an accepted standard for clean up of oil spills. The promise of bioremediation providing increased rates of oil degradation with minimal input of human effort to cleanup the spilled oil is attractive. However, the technology is time consuming, unproved in open water environments, and probably best suited to the treatment of specific types of shorelines and marsh habitats. At present, bioremediation should be viewed as a polishing agent for the final stages of cleanup rather than as a primary response tool - especially considering the slow rates of reaction to degrade the oil.

4554.2 Regional Philosophy

The primary objective of oil spill abatement and cleanup is to reduce the effect of spilled oil on the environment. Physical removal is the preferred method. However, mechanical recovery may be limited by equipment capability, weather and sea conditions, and spill magnitude. In addition, efforts and equipment used for mechanical recovery may prove to be more destructive to the environment than the original contamination with oil. Based on the results of current research, and a general understanding of the principles of bioremediation, this technology should be used strictly as a shoreline remediation tool with a preference for nutrient enhancement without the introduction of indigenous and/or non-indigenous microbes.

4554.3 Guidelines

Section 300.910 of NCP authorizes the use of biological additives for the dispersion/abatement of oil spills. The product must be listed on the NCP Product Schedule and on the list of products licensed by the SWRCB for use in the State of California to be considered for use along the California coastline. The following guidelines consolidate existing Federal and State regulations and streamline the approval process.

(A) Decision Process

The OSC shall adhere to the following:

(1) Inland and shoreline areas: The OSC will obtain approval from the EPA and the California Department of Fish and Game (CDF&G) representing the State of California. The EPA and State representative to the RRT shall consult with the DOI and DOC natural resource trustee(s).

Note: In California, bioremediation products considered for use must be on California's list of approved products, or be incident specific approved by the State representative to the RRT.

(2) Documentation/Technical Assistance: EPA, affected states(s), DOI, and DOC will each have a representative available to coordinate data collection and interpretation and to consult with the OSC.

(3) Monitoring: The application process and results must be recorded visually. This can be accomplished using film or video footage made from the shore or from the air. Visual observations can also be made by a trained observer. Filming should be done without causing delay to the bioremediation application activity.

(B) Documentation

The Bioremediation Checklist (Figure 4000.E) will be used by the OSC and staff to permanently record the decision to use or not to use bioremediation for a specific incident. Each agency resource trustee representative will be the point of contact for their constituency; the SSC will be the point of contact for all not represented.

BIOREMEDIATION CHECKLIST

SPILL DATA/INCIDENT INFORMATION

CAUSE (SPECIFIC): _____
_____
_____

DATE/TIME: _____

LOCATION: _____
_____

VOLUME AND TYPE OF RELEASE (Cont., Intermittent):_____
_____

POTENTIAL VOLUME TO BE RELEASED: _____
_____

CONFIDENCE IN DATA (high, medium, low): _____

CHARACTERISTICS OF SPILLED OIL

OIL TYPE/NAME: _____

SPECIFIC GRAVITY: _____ FLASH POINT: _____

POUR POINT: _____ VISCOSITY: _____

%AROMATICS: _____ %SATURATES: _____ __

%ASPHALTENES: _____

WEATHER AND WATER CONDITIONS/FORECAST (48HR)

WATER TEMP: _____ AIR TEMP: _____

CURRENT INFO: _____ WIND SPEED: _____

SALINITY: _____ WIND DIRECTION: _____

WATER DEPTH: _____ SEA STATE: _____

TIDE INFO: _____

COMMENTS: _____
_____
_____

BIOREMEDIATION CHECKLIST, PAGE 2.

HABITAT TYPE/AREA OF IMPACT:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

BIOREMEDIATION CHARACTERISTICS

	PRODUCT 1	PRODUCT 2	PRODUCT 3
NAME:	_____	_____	_____
MANUFACTURER:	_____	_____	_____
EPA LISTED:	_____	_____	_____
STATE LICENSED:	_____	_____	_____
STOCKPILE LOCATION:	_____	_____	_____
POINT OF CONTACT	_____	_____	_____
WHEN AVAILABLE:	_____	_____	_____
AMOUNT AVAILABLE	_____	_____	_____
AMOUNT NEEDED	_____	_____	_____
AMOUNT ON HAND	_____	_____	_____
TOXICITY:	_____	_____	_____
TYPE (CONCENTRATE/MIX)	_____	_____	_____
PHYSICAL REACTIVITY:	_____	_____	_____
APPLICABILITY ON OIL	_____	_____	_____
EFFICIENCY(% PROJECTED)	_____	_____	_____
APPLICATION MEANS:	_____	_____	_____
POSITIVE DOSAGE CONTROL	_____	_____	_____
DOSAGE RATE SETTINGS	_____	_____	_____
DOSAGE CHARTS AVAILABLE	_____	_____	_____

BIOREMEDIATION APPLICATION INFORMATION/EVALUATION:

PROPOSED BIOREMEDIATION APPLICATION PLAN:_____
_____
_____
_____

BIOREMEDIATION APPLICATION INFORMATION (CONTINUED)

EQUIPMENT PROPOSED FOR USE:_____
_____
_____

RESPONDERS ADEQUATELY TRAINED: _____

LOCATION OF AREA TO BE TREATED: _____
_____
_____

SCHEDULE OF BIOREMEDIATION OPERATIONS: _____
_____
_____

WHAT WILL THE WEATHER CONDITIONS BE AT THE TIME THE BIOREMEDIATION IS APPLIED: _____
_____

IS THE VEHICLE FOR APPLICATION EFFICIENT AND PROPER GIVEN THE CONDITIONS STATED ABOVE: _____

ARE MONITORING SCHEMES IN PLACE OR READILY AVAILABLE: _____

WITNESSES TO THE APPLICATION

NAMES	DATE/TIME
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

PLATFORM USED: _____
_____

OBSERVATION: _____
_____
_____

VIDEO/PHOTO DOCUMENTATION RECORD

IN CHARGE:_____ IN CUSTODY OF: _____

CASETTE(S)NUMBER: _____ VIDEO EQUIPMENT TYPE:_____

ROLL(S) NUMBER:_____ CAMERA TYPE: _____

4555 *Shoreline Cleaning Agents*

4555.1 Background

Chemical agents applied to shorelines generally are designed either to prevent adherence (stranding) of oil or to release already stranded oil. The efficiency of mechanical cleanup operations may be enhanced by the use of shoreline cleaning agents by assisting with the refloating of oil or preventing its subsequent stranding. While the use of chemical cleaning agents may be appropriate under proper circumstances, certain limitations must be recognized. The potential for toxic responses in indigenous fauna or flora to the cleaning agent must be considered. As compared to dispersants, in which the chemical agents are immediately diluted upon addition to the water surface, shoreline cleaning agents often remain undiluted for prolonged periods of time and consequently can have a greater impact upon the indigenous biological and geological resources.

4555.2 Regional Philosophy

The primary objective of oil spill abatement and cleanup is to reduce the effect of spilled oil on the environment. Mechanical recovery and cleaning techniques are preferred over the use of chemical cleaning agents. However, mechanical recovery may be limited by equipment capability, weather and spill magnitude.

4555.3 Guidelines

The NCP, Section 300.910, authorizes the use of chemical agents to respond to discharges of oil. The following guidelines consolidate existing Federal and State policies and streamline the approval process without jeopardizing proper environmental consideration of the use of shoreline cleaning agents.

(A) Decision Process:

The OSC shall adhere to the following:

(1) Zone 1:

By definition, shoreline cleaning agents would be considered for use on oil stranded on shorelines. The OSC shall obtain approval from the EPA and State representatives to the RRT and the Natural Resource Trustee(s).

(2) Documentation/Technical Assistance:

EPA, State of California, DOI, and DOC will each have a representative available to coordinate data collection and interpretation and to consult with the OSC.

(3) Authorized Chemical Agents:

Only chemicals listed on the NCP Product Schedule and approved for use in compliance with Article Three (sections 2332 through 2336) of California Code of Regulation, Title 23, may be considered for use. Shoreline cleaning agents must be clearly labeled and licensed for this specific use. OSCAs categorized as dispersing agents cannot be applied to the shoreline [Article Three (Section 2332) of the California Code of Regulations, Title 23], and therefore cannot be used as shoreline cleaning agents.

(4) Monitoring:

The application process and results must be recorded visually. This can be accomplished using film or video footage made from the shore or from the air. Visual observations can also be made by a trained observer. Filming should be done without causing delay to the shoreline cleaning agent application.

RESOURCES AT RISK

ENDANGERED/THREATENED SPECIES _____

_____

MARINE MAMMALS _____

_____

AVIAN SPECIES _____

_____

SHELLFISH _____

_____

FINFISH _____

_____

SOCIOECONOMIC _____

_____

HUMAN HEALTH EFFECTS _____

_____

OTHER RESOURCES _____

_____

SPECIFIC COMMENTS:

_____
_____
_____
_____

DETERMINATION OF RRT

SSC RECOMMENDATION TO THE RRT/OSC:

_____
_____

DECISION OF THE RRT

DO NOT USE ALTERNATIVE CLEANUP TECHNOLOGY: _____
_____

INITIATE TEST APPLICATION: _____

USE IN LIMITED OR SELECTED AREAS: _____
_____
_____

USE TO THE MAXIMUM EXTENT POSSIBLE: _____
_____

OTHER: _____
_____
_____
_____
_____
_____

DECISION MAKERS:

NAMES	DATE/TIME
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ATTACHMENTS:

4556 *Reserved Areas for Research and Countermeasures Effectiveness*

Oil spills serve both responders and scientists as opportunities to critically and quantitatively examine the environmental effects of, not only the spilled oil, but also the effects and effectiveness of innovative cleanup procedures or new cleanup products. A reference or control site is essential to most experiments.

The objective of most of these studies is to detect a difference or make a comparison between the different treatments. In order to measure the change, a reference or control is required; without this baseline, comparison of the results is impossible and the study is probably worthless.

One way to establish these much needed controls at spills of opportunity is by the use of "set-asides" (areas that are impacted by oil that are set aside and left untreated for experimental purposes). NOAA arranged for such set-asides immediately after the Prince William Sound spill. Having these sites made it possible to conduct the long term study of treatment effects in the Sound which is still continuing.

4560 S.M.A.R.T. Special Monitoring of Advanced Response Technologies/ Burning and Dispersant Monitoring

Special Monitoring of Advanced Response Technologies is a cooperatively designed monitoring program for *In-situ* burning and dispersants. SMART relies on small, highly mobile teams that collect real-time data using portable, rugged, and easy-to-use instruments during dispersant and *In-situ* burning operations. Data are channeled to the Unified Command to address critical questions: *Are dispersants effective in dispersing the oil? Are particulates concentration trends at sensitive locations exceeding the level of concern?* Having monitoring data can assist the Unified Command with decision- making for dispersant and *In-situ* burning operations.

The SMART Way:

Dispersants

To monitor the efficacy of dispersant application, SMART recommends three options, or tiers.

Tier I

A trained observer, flying over the oil slick and using photographic job aids or advanced remote sensing instruments, assesses dispersant efficacy and reports back to the Unified Command.

Tier II

Tier II provides real-time data from the treated slick. A sampling team on a boat uses a fluorometer to continuously monitor for dispersed oil one meter under the dispersant treated slick. The team records and conveys fluorometer data to the Scientific Support Team, which forwards it with recommendations, to the Unified Command. Water samples are also taken for later analysis at a laboratory.

Tier III

By expanding the monitoring efforts in several ways, Tier III provides information on where the dispersed oil goes and what happens to it. (1) Two fluorometers are used on the same vessel to monitor at two water depths; (2) Monitoring is conducted in the center of the treated slick at several water depths, from one to ten meters; and (3) A portable water laboratory provides data on water temperature, pH, conductivity, dissolved oxygen, and turbidity.

***In-situ* Burning**

For *In-situ* burning operations, SMART recommends deploying one or more monitoring teams downwind of the burn, at sensitive locations such as population centers. The teams begin sampling before the burn begins to collect background data. After the burn starts the teams continue sampling for particulate concentration trends, recording them both manually at fixed intervals and automatically in the data logger, and reporting to the Monitoring Group Supervisor if the level of concern is exceeded. The Scientific Support Team forwards the data, with recommendations, to the Unified Command.

Field Experience

SMART has already been successfully tested in the field. SMART was used to monitor dispersant applications in the Gulf of Mexico, and in February 1999 it was used to monitor the *In-situ* burning of the *New Carissa* off Coos Bay, Oregon. Spills and exercises like these help us to enhance SMART.

For detailed SMART information visit NOAA's SMART Page at:

http://response.restoration.noaa.gov/oilaids/SMART/SMART.html

4600 ENVIRONMENTAL SENSITIVITY INDICES, MAPS & INFORMATION

4610 Natural/Physical Environment Sensitivity Maps with Protection Priorities: Refer to Section 3600 for Site Maps and Strategies

4620 Culturally/Economic Sensitivity Maps with Protection Priorities

4621 *Culturally & Archaeologically Sensitive Areas*

The primary purpose of this section is to identify and incorporate into emergency response planning the specific resources subject to injury or damages from an oil spill event. An important and immediate consideration at the occurrence of an oil spill in California marine waters is whether areas that are culturally sensitive or contain historical or archaeological resources may be impacted by the spill. The affects of oil upon the resources can be extremely damaging. Often of greatest concern to the safety of cultural and historical are the response actions such as establishment of equipment staging areas. Culturally sensitive sites are often difficult to identify visually and therefore pre-spill planning becomes essential to avoid damaging these resources.

Historical resources are defined under the California Environmental Quality Act (CEQA) to include, but not limited to: "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California". These sites or areas would either be on or eligible to be placed on the California Register of Historical Resources or the National Register of Historical Places.

The CEQA defines an important archaeological resource as one that: A) is associated with an event or person of; 1) recognized significance in California or American history, or 2) recognized scientific importance in prehistory; B) can provide information which is both demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions; C) has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind; D) is at least 100 years old and possesses substantial stratigraphic integrity; E) involves important research questions that historical research has shown can be answered only with archaeological methods.

Culturally Sensitive Areas

This Area Contingency Plan does not attempt to identify the location of sites or areas of importance to Native Americans. Many of the coastal areas of significance to Native Americans are known, or have been identified, but are often confidential information. This planning document provides, as available, the contact names, locations and phone numbers of knowledgeable sources for information on areas of cultural or economic significance to Native Americans within California.

The coastline of California contains many sites with culturally sensitive resources. The locations of some sites are available to the general public, but many other locations are held as confidential information at Regional Information Centers throughout the State and by local Indian organizations. Culturally sensitive areas exist on both public and private lands and therefore the following public agencies and individuals listed below should be contacted during a significant oil spill incident:

Historical and Archaeological Sites

California has many identified historical or archaeological sites of significance near marine waters of the State. The Office of Historic Preservation, within the Department of Parks and Recreation, maintains the California Register of Historical Resources. The California State Lands Commission maintains a database of known shipwrecks and other underwater marine archaeologically significant resources in State waters.

Provided below is a list of references for information about historical and archaeological sites at risk from marine oil spills.

Native American Heritage Commission
915 Capitol Mall, Room 364
Sacramento, CA 95814 Phone (916) 653-4082
FAX (916) 657-5390

California Department of Parks and Recreation
Office of Historical Preservation
P.O. Box 94296
Sacramento, CA 94296-001
FAX (916) 653-9824
Information Centers Coordinator: Phone (916) 653-9125

CEQA Information: Phone (916) 653-6624
FAX (916) 653-9824

Resource Protection Division: Phone (916) 653-4529

South Coastal Information Center
San Diego State University
San Diego, CA 92182-0436 Phone (619) 594-5862

Local Native American Representatives
Professional Native American Cultural Resource Monitors
46747 Pala Road
Temecula, CA 92592 Phone (909) 694-0509
Pager (909) 694-7869

California State Lands Commission
1807 13th St.
Sacramento, CA 95814
FAX (916) 327-6674
Environmental Specialist Phone (916) 322-0530

4622 *Economically Sensitive Areas*

The primary purpose of this section is to identify and incorporate into emergency response planning, the specific resources subject to injury or damages from an oil spill event. It identifies through lists, tables maps, and text, many of the economic resources that face potential damages due to an oil spill. Limitations of time, personnel, and the availability of information suggests that all resources of significant economic value and susceptible to marine oil spills, could not be identified at this time.

People involved with response planning recognize that throughout California marine waters, along the State's shoreline, and within coastal communities there are many resources of economic importance that could be severely impacted by an oil spill incident.

Relation to Environmentally Sensitive Areas in Section 3610

Section 3610 contains maps and site summary sheets with information about the environmental sensitivity of specific locations within the planning area. State and Federal law establish three priority levels for dedication of emergency oil spill response resources.

First Priority - Protection of human health and safety

Second Priority - Protection of environmental resources

Third Priority - Protection of economic resources

Examples of resources that will receive a first priority response (human health and safety) includes:

-power plant intakes
-drinking water intakes
-public use areas at risk
-desalinization plants
-other health/safety intakes
(e.g. fire departments)
(e.g. hazardous fumes)

Environmentally sensitive sites are designated as the second priority for oil spill response resources. Environmental sites are categorized in section 3610 using a scale of A, B, and C. Sites ranked with an A are the most sensitive to an oil spill.

Economically Sensitive Areas

Strictly economic resources are designated as the third priority for dedication of oil spill response resources, following human health and safety and environmental resources. The economic sites are ranked using a continuation of the environmental scale with D, E, and F categories. Economic resources that have a greater potential for long-term damages receive a higher rank or priority for emergency response.

Response planners recognize that marine resources can have environmental, economic, and cultural or historical importance, such as coastal parks or important fishing, areas. In these cases, the higher environmental ranking would be used for response planning. The need to set priorities for protection will occur only when response equipment or resources are inadequate to handle a given spill volume.

The Area Contingency Plan is a planning document intended to assist oil spill response personnel during actual response activities and with pre-spill planning. The Unified Command requires flexibility in planning response activities. This flexibility is necessary to provide the most appropriate response to a given spill event.

Criteria for Priority Response and Types of Economic Resources

The following criteria or definitions are used to categorize economic resources in terms of priority for response:

D = Economic activities and resources which require high water quality for their operations or existence. Resources that fall into this category would face severe, long-term economic impacts from a spill. This category includes commercial fishing areas (also have environmental rank), aqua culture and mariculture areas, marine labs, salt pond intakes, aquarium water intakes, etc.'

E = Facilities, businesses, or resources which directly use coastal or bay waters within their economic activity and which are at risk of oiling from a spill in marine waters. The resources falling into this category would face significant disruption of their activity, but shorter term potential damages from oiling than resources in the "D" category. This category would include resources such as marinas, harbors, commercial piers, industrial intakes, and parks or recreational areas.

F = This category contains marine associated facilities, businesses and resources. These resources would face economic impacts from a marine spill, but do not depend directly on marine water for their economic base. Resources in this category will tend to face less severe damages than those identified in categories D or E. This category includes economic resources such as waterfront hotels, restaurants, shops, and residential areas. (Note: residential sites would be evacuated to avoid health risks).

Types of Economically Significant Resources and Ranking

Listed below are various types of significant economic resources potentially at risk from oiling- and the appropriate response priority category.

- aqua culture, mariculture (D)

- aquariums, marine labs (D)

- facility intakes [not affecting public health] (D)

- parks, beaches, recreational areas (E)

- vessel or boat traffic areas: shipping, lanes, harbor entrances, river mouths, bays, anchorages (E,)

- marinas, houseboat areas (E)

- ferries and tour boats (E)

- port or harbor facilities (E)

- boat moorings, cargo piers, terminals, fishing piers (E)

- ship or boat repair shops (E)

- tourist hotel, restaurant areas (F)

- waterfront residential areas (F)

Information About Sensitive Economic Resources

Section 3600 contains lists, and/or maps of sensitive economic areas or resources. Below is a description of the types of information that can be provided for each identified economic resource or facility. Some information is unavailable for specific resources identified within this section.

1. Resource or facility identification number

2. Geographic location of resource or facility

3. Brief description of the resource at risk

4. Contact names and numbers (24 hour access if available)

5. Priority response ranking

4622.1 Water Intake Facilities

This table lists area water intake information including: firm name, address, phone number, size of intake, and area served.

INTAKE OPERATOR *AREA SERVED*	*SIZE* *RANKING*			*USE*
07-101 **Kelco** 2145 E. Belt St. San Diego, CA 92113 (619) 232-0604	<100 GPM	Washing floors	Kelco	**D**
07-102 **U.S. NavSta** Public Works Center Harbor Dr. at 32nd St. San Diego, CA 92113 Duty Desk: (619) 556-7341 (619) 556-7349	Variety of intakes both permanent and portable	Serves the salt water system on base		**D**
07-103 **NASSCO** Harbor Dr. at 28th St. San Diego, CA 92113 (619) 544-8401	2-36" pipes 2-24" pipes 6-24" pipes	Flooding the dry-dock area Floating Dock	Building Dock	**D**
07-104 **Sea World - Mission Bay** 1720 S. Shores Rd. San Diego, CA 92109 (619) 222-6363 (619) 226-3800 (night) Attn: Security	5,500 GPM	Water for marina life tanks	Sea World Park	**D**
07-105 **Scripps Institute** 8602 La Jolla Shores Dr. La Jolla, CA 92073 Attn: Trouble Deck (858) 534-2930 or 534-3851 (858) 534-7962 (day) or (858) 753-2197 (night)	900 GPM	For aquariums and some experimental work with marine life	Scripps	**D**
07-106 **Hubbs-SeaWorld** White Sea bass Fish Hatchery Agua Heionda Lagoon Carlsbad, CA 92008 (760) 434-9501 Attn: Hatchery Mgr	2-12" pipes @ ' @ 12' depth 600 to 12000 gpm	Live fish	Hatchery holding maintenance tanks	**D**

INTAKE OPERATOR	SIZE	USE	AREA SERVED	RANKING
07-108 **SDG&E** Encina Power Plant Agua Hedionda Lagoon San Diego, CA 92008 (760) 268-4000 Attn: Duty Engineer	595,200 GPM		Cooling All plants feed energy into a grid that serves the entire metro area	**D**
07-109 **So. California Edison** San Onofre Power Plant Units 1, 2, and 3 Oceanside, CA 92054 (949) 368-3000 Attn: Duty Engineer	2,270,000 GPM	Cooling Edison grid	Energy is fed into two grids; 24% to S.D. grid 6% to the SoCal	**D**
07-110 **SDG&E** Silvergate Power Plant 1348 Sampson St. San Diego, CA 92113 1(800) 684-8123 This plant is NON-OPERATING	154,300 GPM	Cooling	All plants feed energy into a grid hat serves the entire metro area	**D**
07-111 **SDG&E** South Bay Power Plant 900 Bay Blvd. Chula Vista, CA 92011 (619) 420-7383 Attn: Duty Engineer	417,400 GPM		Cooling All plants feed energy into a grid that serves he entire metro area	**D**
07-112 **Western Salt Co.** 1470 Bay Blvd. Chula Vista, CA 92011 (619) 423-3388 or (619) 566-6600		Extract salt for commercial use	Tide gate west of Otay Channel controlled by water pressure with tidal action	**D**

Registered Marine Aquaculture Facilities

This section lists areas operated for the purpose of commercial production of biological resources.

LEASEE	No. ACRES	GROWING AREA	PRODUCTS	RANKING
07-113 **DAVID LAPOTE** 6678 Hemingway Dr. San Diego, CA 92109 NO LISTING	1.0	Mission Bay Quivera Basin R & D	Red & Green Abalone and Quahog clams	**D**
07-114 **DON GILBERT** MARITECH OCEANRANCHING P.O. Box 90190 San Diego, CA 92109 (619) 226-3448	0.0	San Diego Bay R & D	Abalone	**D**
07-115 **HUBBS-SEA WORLD** White Seabass Fish Hatchery Agua Hedionda Lagoon Carlsbad, CA 92008 (619) 434-9501	0.0	Agua Hedionda lagoon	White sea bass	**D**

4622.2 Commercial Facilities/Dry-dock Facilities

Listed below are waterfront terminals and dry-dock facilities in the San Diego area of responsibility.

Waterfront Terminals

07-120 **10th Avenue Marine Terminal.**
A 96-acre facility situated along the Coronado Bay Bridge. It is the center of commercial shipping activity and contains many bulk-handling (e.g. soda ash, potash, palm oil, cement, etc.) operations of the Port, including a bulk silo complex and a traveling bulkloader for grains and chemicals and other dry bulk products. A new Cold Storage Facility was opened in February 1993 and is expected to increase vessel traffic to the terminal.
Economic Ranking: E

07-121 **National City Marine Terminal.**
A 125-acre complex located at the foot of 24th Street. The principal inbound cargoes are lumber, automobiles, minerals, and fuel oil. This terminal also contains a container handling facility with a high-speed, all-electric container crane capable of handling 20-foot and 40-foot units, or single hook lifts of 40 long tons.

Economic Ranking: E

07-122 **B-Street Pier/Broadway Pier.**
Cruise Ship Terminal located between the foot of Broadway and A Street.
Economic Ranking: E
Dry-dock Facilities

07-123 **National Steel and Shipbuilding Co.** (NASSCO)
28th St. and N. Harbor Dr.
San Diego, CA
(619) 544-8401

Economic Ranking: E

07-124 **Driscoll's Mission Bay**
1500 Quivira Way
Mission Bay, CA
(619) 226-2500
Economic Ranking: E

07-125 **South Bay Boat Yard**
G St. Chula Vista
San Diego, CA
(619) 427-6767
Economic Ranking: E

07-126 **Driscoll Boat Works, Inc.**
2500 Shelter Island Dr.
San Diego, CA
(619) 226-2500
Economic Ranking: E

07-127 **Continental Maritime**
Bay Front St.
San Diego, CA
(619) 234-8851
Economic Ranking: E

07-128 **Southwest Marine Inc.**
2205 E. Belt
San Diego, CA
(619) 238-1000
Economic Ranking: E

07-129 **Neilsen Beaumont**
2420 Shelter Island Dr.
San Diego, CA
(619) 222-4255

Economic Ranking: E

07-130 **Shelter Island Boatyard**
2330 Shelter Island Dr.
San Diego, CA
(619) 222-0455
Economic Ranking: E

4622.3 Marinas/Recreational Areas

Marinas and Mooring Areas – Refer to Logistics Section 5400 Area Resources Information; Economic Ranking for all Marinas/Moorings is (E).

Coastal Recreation Areas

This section lists beaches, parks, and piers located along the coast from San Mateo Point to the Mexican Border. For area beach and park contacts not listed, contact the San Diego City Parks & Recreation Department (city parks and beaches), CA Dept. of Parks & Recreation (state parks and beaches) or the San Diego Lifeguard Services Division-at (619) 221-8899 or (619) 221-8800 (after hours).

07-188 **San Onofre State Beach.**
Wide, sandy beach below sandstone bluffs. Located north and south of the San Onofre Nuclear Generating Station, the state beach includes several well-known surfing spots (949) 492-0802.

Economic Ranking: E.
07-189 **Camp Pendleton Beach Access.**
Restricted access beach popular for surf fishing and camping (760) 725-3360.
Economic Ranking: E.

07-190 **Harbor Beach.**
Wide, sandy beach with surf and rock fishing (760) 966-4580.
Economic Ranking: E.

07-191 **Oceanside City Beach.**
Popular beach for swimming, surfing, and surf fishing (760) 966-4580.
Economic Ranking: E

07-192 **Oceanside Pier.**
1,942 foot-long municipal pier with bait and tackle shops, restaurant, and lifeguard station (760) 966-4580.
Economic Ranking: E

07-193 **Linear Park.**
Landscaped concrete walkway along the bluff top with benches and view platforms.
Economic Ranking:E

07-194 **Buccaneer Park.**

Picnic area with outdoor showers, playground, baseball diamond, volleyball court, and concession stand.
Economic Ranking: E

07-195 **South Oceanside Beach.**
Popular Beach for swimming, surfing, and surf fishing (760) 466-4580.
Economic Ranking: E

07-196 **Carlsbad City Beach.**
Popular beach for swimming, surfing, and surf fishing.
Economic Ranking: E

07-197 **Carlsbad State Beach.**
Sandy and rocky beach backed by bluffs, with benches, picnic tables, and grassy areas. Popular beach for swimming, surfing, diving, and rock and surf fishing (760) 438-5143.
Economic Ranking:E

07-198 **Agua Hedionda Lagoon.**
Calm water within the lagoon makes it a popular swimming, fishing, and water-skiing spot.
Economic Ranking: E

07-199 **South Carlsbad State Beach.**
Campsite located along the bluffs. Beach is noted for swimming, surfing, surf fishing, and diving (760) 438-3143.
Economic Ranking: E

07-200 **Beacon's Beach.**
Formerly known as Leucadia State Beach, a sandy, bluff-backed beach. Popular surfing, swimming, surf fishing, and skin diving area.
Economic Ranking: E.

07-201 **Encinitas Beach.**
Narrow, sandy beach popular for swimming and surf fishing.
Economic Ranking: E.

07-202 **Stone Steps Beach**.
A long, partially stone stairway leads to a very narrow cobble beach used for swimming, surfing, and surf fishing.
Economic Ranking: E.

07-203 **Moonlight Beach.**
A sandy beach popular for surfing, swimming, and surf fishing.
Economic Ranking: E.

07-204 **Swami's**.
Narrow, sand/gravel beach that is known for excellent surfing. Surf fishing, scuba diving, and swimming are also popular.
Economic Ranking: E

07-205 **San Elijo State Beach.**
Cobble beach popular for surf fishing, swimming, skin diving, and surfing (760) 753-5091.
Economic Ranking: E

07-206 **Cardiff State Beach.**
Sandy beach popular for surfing, swimming, and surf fishing. North end of beach is a landing and launch zone for carry-on and soft bottom boats (760) 753-5091.
Economic Ranking: E

07-207 **Tide Beach Park.**
Sandy beach popular for surfing, skin diving, swimming, and surf fishing.
Economic Ranking: E

07-208 **Fletcher Cove Park.**
Sandy beach popular for diving, swimming, surfing, surf fishing, and catching grunion. Park facilities include: basketball, shuffleboard courts, sand volleyball courts, and picnic tables.
Economic Ranking: E

07-209 **Stairway to Beach (Seascape Surf).**
Wooden stairway leading to a sandy beach popular for surfing, skin diving, surf fishing, swimming, and grunion.
Economic Ranking: E

07-210 **Stairway to Beach (Del Mar Shores Terrace).**
Stairway leading to a sandy beach popular for surf fishing, catching grunion, swimming, and surfing.
Economic Ranking: E

07-211 **Del Mar Bluffs City Park.**
Sandy Beach at the mouth of San Dieguito River popular for swimming and surf fishing.
Economic Ranking: E

07-212 **Del Mar City Beach.**
Wide, sandy beach; good swimming and surfing. Other activities include catching grunion and surf fishing.
Economic Ranking: E

07-213 **Seagrove Park.**
Grassy area with paved path and benches on the bluffs overlooking the ocean.
Economic-Ranking: E

07-214 **Torrey Pines State Beach.**
Wide, sandy beach backed by steep sand stone bluffs. Popular activities include picnicking, swimming, surfing, surf fishing, clamming, and skin diving (858) 452-8732.
Economic Ranking: E

07-215 **Torrey Pines City Park**
Park located on sandstone bluffs overlooking the ocean.
Economic Ranking: E

07-216 **Torrey Pines City Beach (Black's Beach).**
Popular sandy beach backed by hazardous bluffs. Beach is noted for good swimming and surf fishing.
Economic Ranking: E

07-217 **La Jolla Shores Beach/Kellogg Park.**
Wide, sandy beach with good swimming, surfing, surf fishing, and skin-diving. Kellogg Park, east of the beach promenade, has grassy areas, picnic tables, and fire pits.
Economic Ranking: E

07-218 **La Jolla Cove.** Small cove with a sandy beach; very popular for diving, swimming, and surf fishing.
Economic Ranking: E

07-219 **Ellen Scripps Park.**
A grassy picnic area on the blufftop includes picnic tables, firepits, and shuffleboard courts. Path and stairs lead down to Boomer Beach, popular for body surfing.
Economic Ranking: E

07-220 **Children's Pool Beach.**
Stairs lead to a sandy beach and to a paved path along the breakwater. Popular swimming and surf fishing spot.
Economic Ranking: E

07-221 **Coast Boulevard Park.**
Shoreline park with benches and picnic tables; paths along Coast Blvd. lead to a sandy beach and rocky shore.
Economic Ranking: E

07-222 **Nicholson Point Park.**
Stairway leading to a sandy beach noted for swimming, diving, fishing, and body surfing.
Economic Ranking: E

07-223 **Marine Street Beach.**
Sandy beach popular for swimming, surfing, skin diving, and surf fishing. Horseshoe Reef, a popular surfing spot, is just north of Marine St.
Economic Ranking: E

07-224 **Wind and sea Beach.**
One of the most popular surfing spots on the coast; swimming is also popular.
Economic Ranking: E

07-225 **La Jolla Strand Park.**
Seasonally sandy beach noted for swimming and surfing.
Economic Ranking: E

07-226 **Hermosa Terrace Park.**
Small, seasonally sandy beach. Popular swimming and surfing spot; fishing from the rocky shore south of Winamar Rd.
Economic Ranking: E

07-227 **La Jolla Hermosa Park.**
Small blufftop park with benches and picnic tables.
Economic Ranking: E

07-228 **Bird Rock.**
Rocky point; popular fishing, surfing, and skin diving spot.
Economic Ranking: E

07-229 **Sun Gold Point.**
Viewpoints overlook a rocky beach with tidepools. Stairway at end of Linda Way leads to rocky cove popular for fishing.
Economic Ranking: E

07-230 **Cal-Met Park.**
Picnic area situated on bluffs above a cobblestone beach.
Economic Ranking: E

07-231 **Tourmaline Surfing Park**
Rocky beach popular for surfing, fishing, skin diving, and sea kayaking.
Economic Ranking: E

07-232 **Palisades Park.**
Paths lead from a grassy picnic area to a wide, sandy beach.
Economic Ranking: E

07-233 **Pacific Beach Park.**
Landscaped picnic area overlooks the ocean; street ends provide access to a sandy beach used for surfing and swimming. Separate paved paths for pedestrians and bicycles parallel the beach.
Economic Ranking: E

07-234 **Crystal Pier.**
Located at the end of Garnet Ave., the pier is open from 7 a.m. to sunset for walking and fishing.
Economic Ranking: E

07-235 **Mission Beach Park.**
Sandy beach with areas posted for surfing and body surfing. A paved promenade runs along the beach and is popular for walking, jogging, roller skating, and bicycling. Belmont Park, located at the old amusement park site, has shops, restaurants, and family amusements. Shops line the promenade south of W. Mission Bay Dr. Basketball courts and a play field are at the south end of the beach.
Economic Ranking: E

07-236 **Bonita Cove.**
Used for swimming, picnicking, over-the-line softball, and volleyball. Transient vessel anchorage allowed in cove.
Economic Ranking: E

07-237 **Ventura Cove.**

Sandy beach, grassy picnic area with fire rings and a paved path. Popular swimming spot for small children. Bahia Point to the north has a grassy picnic area and a small sandy beach.
Economic Ranking: E

07-238 **Santa Clara Point and El Carmel Point.**
Facilities at Santa Clara Point include the city's boathouse, a one-lane concrete boat launch, a dock, a water-ski landing and take-off area, barbecue grills, a baseball field, tennis courts, multi-purpose courts, and a city-operated recreation center (619) 490-0928. The Mission Bay Yacht Club, a parking area, and a sandy beach are located on El Carmel Point, about .4 mile south of Santa Clara Point. A sandy beach is located between the two points in San Juan Cove and continues south through Santa Barbara Cove. Bayside Walk, a bicycle and pedestrian path, parallels the beach.
Economic Ranking: E

07-239 **Sail Bay and Riviera Shores.**
The northwest portion of Mission Bay. Grassy park with a children's play area with access to a sandy beach at sail bay. Bayside Walk, a paved bicycle and pedestrian path, follows the bay shore from Sail Bay south to W. Mission Bay Drive. Riviera Shores is a sandy swimming beach with a water-ski take-off and landing area.
Economic Ranking: E

07-240 **Crown Point Shores.**
Sandy beach area with picnic area, children's play area, physical fitness course, water-ski landing and take-off areas, and public loading dock (619) 276-8200.
Economic Ranking: E

07-241 **Vacation Isle and Ski Beach.**
Vacation Isle is bisected by Ingraham St.; the west side has a hotel and golf course, boat rentals, a youth camp, and a model boat pond. North Cove Public Beach, on the northwest side, is a small sandy beach with picnic tables and a paved path. South Cove is located by the boat basin on the southwest side. Ski Beach, on the east side of the island, is a noted water-skiing and boating spot, with a water-ski take-off and landing area, a four-lane concrete boat launch, a dock, picnic areas, volleyball courts, and a swimming beach (619) 276-8200.
Economic Ranking: E

07-242 **Dana Landing and Quivira Basin.**
24-hour, 5 lane concrete boat ramp across from the landing. Sunset Point is a public park and popular fishing spot with picnic facilities and a paved path. Quivira Basin includes a large grassy picnic area with sport fishing and marina services. A bicycle path runs from the basin east along Sea World Dr. and Friars Rd., and connects with another bicycle path that runs along E. Mission Bay Dr.
Economic Ranking: E

07-243 **Sea World.**
A 135-acre aquarium and theme park located on the southern shore of Mission Bay. Attractions include marine life shows and displays, rides, snack bars, and gift shops (619) 222-6363/226-3800.
Economic Ranking: E

07-244 **Fiesta Island.**

Undeveloped island used for jet skiing and fishing, and for viewing special aquatic events such as speedboat races. There are several swimming beaches around the island with fire rings (619) 276-8200.
Economic Ranking: E

07-245 **East Shore.**
Facilities include Mission Bay Visitor Center, landscaped picnic areas, paved paths, playgrounds, physical fitness course, and basketball courts; swimming and fishing at sandy beaches, which include Playa Pacifica and Tecolote Shores (619) 276-8200.
Economic Ranking: E

07-246 **De Anza Cove.**
Sandy beach and swimming area with large picnic areas, volleyball courts, playground, paved path, four-lane concrete boat ramp, and dock. The cove is used by swimmers and water-skiers (619) 276-8200.
Economic Ranking: E

07-247 **Robb Field and Playground.**
A large park and athletic field at the mouth of the San Diego River with picnic areas and facilities for baseball, tennis, and basketball (619) 531-1563.
Economic Ranking: E

07-248 **Ocean Beach Park.**
Sandy beach with tidepools, a small grassy picnic area, and a paved promenade. The beach is noted for excellent surfing, but swimming and surf fishing are also popular (619) 221-8901.
Economic Ranking: E

07-249 **Ocean Beach Municipal Fishing Pier.**
2,100 foot-long t-shaped pier, located at the south end of Ocean Beach Park, is the longest pier on the west coast (619) 221-8901.
Economic Ranking: E

07-250 **Ocean Beach City Beach.**
A series of small pocket beaches and tidepools along the coast from the Ocean Beach Pier south to the end of Pescadero Avenue; sunbathing and surfing.
Economic Ranking: E

07-251 **Sunset Cliffs Park.**
Several steep trails lead from the parking lot down the cliff face to pocket beaches frequently used by experienced divers and surfers.
Economic Ranking: E

07-252 **Shelter Island.**
Beach area of the island is popular for swimming, fishing, water-skiing, and picnicking. A pedestrian/bicycle path runs the length of the island. Other facilities include: picnic areas, public moorings, hoists, fishing pier, and a 24-hr. boat launch with ten concrete lanes.
Economic Ranking: E

07-253 **La Playa.**

Narrow, sandy beach located on the Point Loma Peninsula just west of Shelter Island.
Economic Ranking: E

07-254 **Cabrillo National Monument.**
Commemorates Cabrillo's discovery of San Diego Bay. The monument features a visitor center with exhibits, interpretive programs, and a gift shop. Hiking trails overlooking the ocean and the bay lead to some of the finest tidepools in Southern California (619) 557-5450.
Economic Ranking: E

07-255 **Spanish Landing Park.**
Sandy beach located just south of the San Diego International Airport. Popular swimming spot with a grassy picnic area near the shore.
Economic Ranking: E

07-256 **Harbor Island.**
Serves primarily as a boating center. Other facilities include hotels, restaurants, shops, and boating services. A path with benches runs the length of the island.
Economic Ranking: E

07-257 **Embarcadero.**
Paved pedestrian bicycle path with benches that runs along the waterfront on the east side of the bay. The Embarcadero also features restaurants, fish markets, and shops.
Economic Ranking: E

07-258 **Maritime Museum.**
Three historic ships moored along the Embarcadero at the end of Ash Street (619) 234-9153.
Economic Ranking: E

07-259 **Embarcadero Marina Park.**
Divided in two sections, but is connected by walkway along the seawall on the bay. Facilities include picnic areas, paved path, basketball courts, and par course.
Economic Ranking: E

07-260 **Bay View Park.**
Small, landscaped park with beaches and paved viewpoint.
Economic Ranking: E

07-261 **Harbor View Park.**
Small, grassy park with benches.
Economic Ranking: E

07-262 **Centennial Park.**
Bayfront park with lawns, benches, paved paths, and a small sandy beach. Fishing pier at landing for pedestrian/bike ferry to San Diego.
Economic Ranking: E

07-263 **Coronado Tide lands Regional Park.**
Large park with baseball diamond, play fields, par course, pedestrian and bike paths, lawns, benches, picnic tables, and a small, sandy beach used for swimming.

Economic Ranking: E

07-264 **Glorietta Bay Park**
Playground, grassy picnic area, small sandy beach, and boat launch (619) 522-7342.
Economic Ranking: E

07-265 **Coronado Shores Beach.**
Wide, sandy beach heavily used for surfing, swimming, and surf fishing.
Economic Ranking: E

07-266 **L.M. " Pop " Pepper Park.**
Public ramp operated by the Port of San Diego. Facilities include a ten-lane concrete boat ramp, a small dock, trailer space, a picnic area with barbecue grills, and a fishing platform (619) 686-6200.
Economic Ranking: E

07-267 **Chula Vista Launching Ramp.**
Concrete boat launch with ten lanes. Facilities include docks, a hoist, picnic areas with barbecue grills, and a playground. Noted for swimming, fishing, and water-skiing (619) 686-6200.
Economic Ranking: E

07-268 **Cays Park.**
Three segments offer tennis courts, volleyball, baseball diamond, and a multi-purpose field.
Economic Ranking: E

07-269 **Silver Strand State Beach.**
Sandy beach noted for swimming, surfing, clamming, surf fishing, and catching grunion. Also provides picnic areas and firepits (619) 435-5184.
Economic Ranking: E

07-270 **Imperial Beach.**
Wide, sandy beach popular for swimming, body surfing, and surf fishing. The Imperial Beach Municipal Pier has a landscaped plaza and a cafe (619) 423-8322.
Economic Ranking: E

07-271 **Border Field State Park.**
Located on U.S. Border with Mexico, park features 2-mile stretch of sandy beach used for swimming, clamming, and surf fishing. Provides picnic areas, and hiking and equestrian trails (619) 435-5184.
Economic Ranking: E

4700 SCENARIOS

4710 International Worst Case Oil Spill (Mexico)

LOCATION: Pacific Ocean in Mexican waters.

SCENARIO:

A. At 0900 on a Thursday in October, the T/V Mas Petrol was enroute to a refinery in Mexico when it lost power and went aground, 5 miles south of the US/Mexico boarder. The T/V was laden with 122,365 barrels of #6 fuel oil. The grounding caused multiple through hull ruptures and the discharge of all of the #6 fuel oil.

B. The wind is WNW from the east. The tide is in the seasonal high ranging from +6 to -1.5. Currently the tide is at low slack water with flood stage to occur in 3 hours. The air temp is in the mid 70's and the water temp is in the low 60's.

C. Actual and potential area affected include:

1) North San Diego Bay.
2) San Diego Bay entrance.
3) Tijuana River Estuary.
4) Silver Strand.
5) Coronado Beach.
6) Northern Baja shoreline.
7) Los Coronados Islands.

D. The required response action elements are listed in chronological sequence. These include initial actions, spill response organization, containment, countermeasures, cleanup strategies, resource requirements, available resources, sources of procurement, time necessary for clean up, disposal options, and demobilization. The following response strategies for this scenario, and estimated times are for planning purposes only.

DAY ONE

1) 0-6 hours (0900-1100)

At 0900, USCG MSO receives notification from Clean-up Contractors of the grounding of the T/V Mas Petrol and the spilling of its cargo. The Coast Guard initiates all internal and external notifications including: NRC, OES, Local OSPR office, Port of San Diego, USN Port Operations, San Diego ODP, District 11, NOAA SSC, RRT and USCG PAC STRIKE TEAM. CG and OSPR initiate internal recalls and mobilize Unified Command using the ICS structure. Command Post is located at the CG Activities San Diego.

At 0920, USCG MSO opens OSLTF with initial 100k ceiling to cover CG costs, and to protect US waters from possible impact of oil. Coastal Cleanliness is contracted to provide two off shore recovery vessels to skim any on water product that crossed into US waters. ETA on scene is 2000.

At 0940, MSO SD immediately requests to launch a helo overflight in Mexican airspace, request denied by Mexican government because Mexican government states that it has the situation under control and does not need the assistance of the US. MSO Pollution Investigator departs for Tijuana River Estuary via response vehicle. A Broadcast Notice to Mariners (BNTM) is issued advising mariners to use caution while transiting the affected area off shore. Predesignated FOSC (USCG Commanding Officer of MSO SD) initiates ICS organization. OSPR investigators dispatched from Kearny Mesa office and OSPR Warden recalled from Oceanside to respond.

At 1010 rcvd authorization to fly into Mexican airspace for aerial observation after contacting local congressman's office for assistance. At 1100 completed overflight of spill. Observed a large black slick, approximately 4 miles in length stretching from the grounded ship to the North. The oil has impacted shoreline from approx. 1 mile north of the grounded ship. Slick is marked with a data marker buoy. Visual observations show the slick migrating North towards the United States. Grande Oil has contacted their contracted OSRO to respond to the spill. CO MSO SD determined immediate action by local contractors was the best course of action to protect U.S. Waters and adjoining shorelines from potential pollution. The FOSC and SOSC decide that the Tijuana River Estuary (TJE) is the first priority for protection and the shoreline berming strategy should be immediately implemented. Border field State Park will be the staging area. At the request of the FOSC County Health closes the beach from the international border north to the Imperial Beach pier pending the arrival of the oil in U.S. waters. Local contractors, CG and State reps converge on the TJE to coordinate berming the estuary. By 1145 CG, State and contractor reps determine that the berming strategy in the ACP is invalid due to the extreme high tide. With the help of the TJE Stakeholders an inter estuary booming strategy is developed and implemented. Initial press release sent. PAC Strike Team and PIAT mobilized. SSC is en route.

2) 6-12 hours

The Unified Command has been fully established with secondary and tertiary notifications made to: SCIC, Trustees for all South San Diego resources at risk and Sea World bird rescue center. A representative from the Mexican Consulate is invited to the Command post to act as a liason between the U.S. and Mexico. CG Headquarters is pursuing proper channels to provide assistance to Mexico should they request it. Initial contacts between the U.S. and Mexico result in Mexico declining U.S. assistance stating that the spill was under control. FOSC analyzes use of dispersants and or possible in-situ burning. Parameters have been exceeded for both options and are ruled out as strategies. At 1230 between local contractors and USCG have deployed 2000 ft of tidal boom within the TJE. Second overflight reveals slick has impacted most of the shoreline from the spill site north to the border and is still moving north. DMB and visual observations show the slick is still moving north. FOSC requests CG VOSS system be deployed, ETA on scene from LA/LB is 0800 the next morning. FOSC requests the assistance of the US Navy for pre treatment of the beaches, providing boom, storage of waste oil and dock space for incoming off shore recovery vessels (OSRVs). The Navy, local contractors and volunteers totaling 350 people scour the beach from the TJE North to North Island NAS removing debris from the beach.

At 1400 oil begins to impact the southern end of the TJE. The inter-estuary boom strategy is working to protect most of the estuary but the entrance to the estuary is severely oiled. The entrance area includes several least tern nesting sites. The FOSC requests that the Navy attempt to use their harbor skimmers in an offshore capacity. The first skimmer returns to SD Bay shortly after passing Point Loma as the sea conditions make the small skimmer ineffective. All Navy skimmers are staged at Ballast Point in case the seas calm or the slick reaches SD Bay. The entrance to SD Bay is boomed off in anticipation of the oil continuing North. SD Bay is closed to all traffic except those vessels involved with the cleanup.

3) 12-24 hours

Coastal Cleanliness skimmers arrive on scene but can not commence skimming ops due to darkness. SD Bay entrance boom is opened to allow the two OSRVs to tie up at the Sub Base. Breaking the boom results in sheening inside the boom.
Command post is now sagging under the weight of all the parties involved and moved to the CG Air Station Hangar to accommodate all the folks.

A first light overflight is planned along with implementing a secondary tiered boom strategy for the entrance to SD Bay. Shoreline Contamination Assessment Teams (SCAT) will be deployed at first light from the Border North to the entrance of Mission Bay. Media interest is frenzied with interest reaching to the international level.
News vans are setting up outside the CG Base as well as along the beach areas of Coronado. Cost ceiling is bumped to One million dollars. CG contracting officer and National Pollution Fund Center Personnel requested to respond to the spill that has been dubbed the "MAS PETROL SPILL".

DAY TWO

First light overflight is used to map the spill. Beaches heavily impacted from Zuniga Jetty south to the Border. The beaches from Point Loma North have not been impacted. Slick extends from the entrance of San Diego Bay all the way South to the spill site. Overflight reveals grounded vessel is boomed off and the Mexican Navy has offshore skimmers deployed as well as several hundred beach cleaners working.
OSRV Skimmers are directed to heaviest concentrations.

Secondary boom is placed in a tiered deflection strategy at either end of the containment area to direct the oil to collection sites as the tide washes in and out.

By noon the CG Cutter with the VOSS is on scene and actively collecting product
Shoreline clean up has been initiated on Coronado and Imperial beaches along with the Silver Strand. Press conference was held with CO MSO SD, SOSC and the Representative from the Mexican Consulate. PAC Strike Team on scene as well as, NOAA SSC, USCG PIAT, additional OSPR personnel and additional personnel from local and regional contractors.

Oiled birds are washing up along the beaches and being transported to Sea World for rehab. Authorized ceiling for the spill is raised to 500 K to cover costs and is expected to be bumped up again as burn rates for contractors and public agencies are captured. Midday overflight reveals the slick has stopped at the entrance to SD Bay and the on water product is swirling around the entrance, washing ashore and being moved by wind and tidal conditions. NRDA unit established. Media interest has increased to a frenzied level.

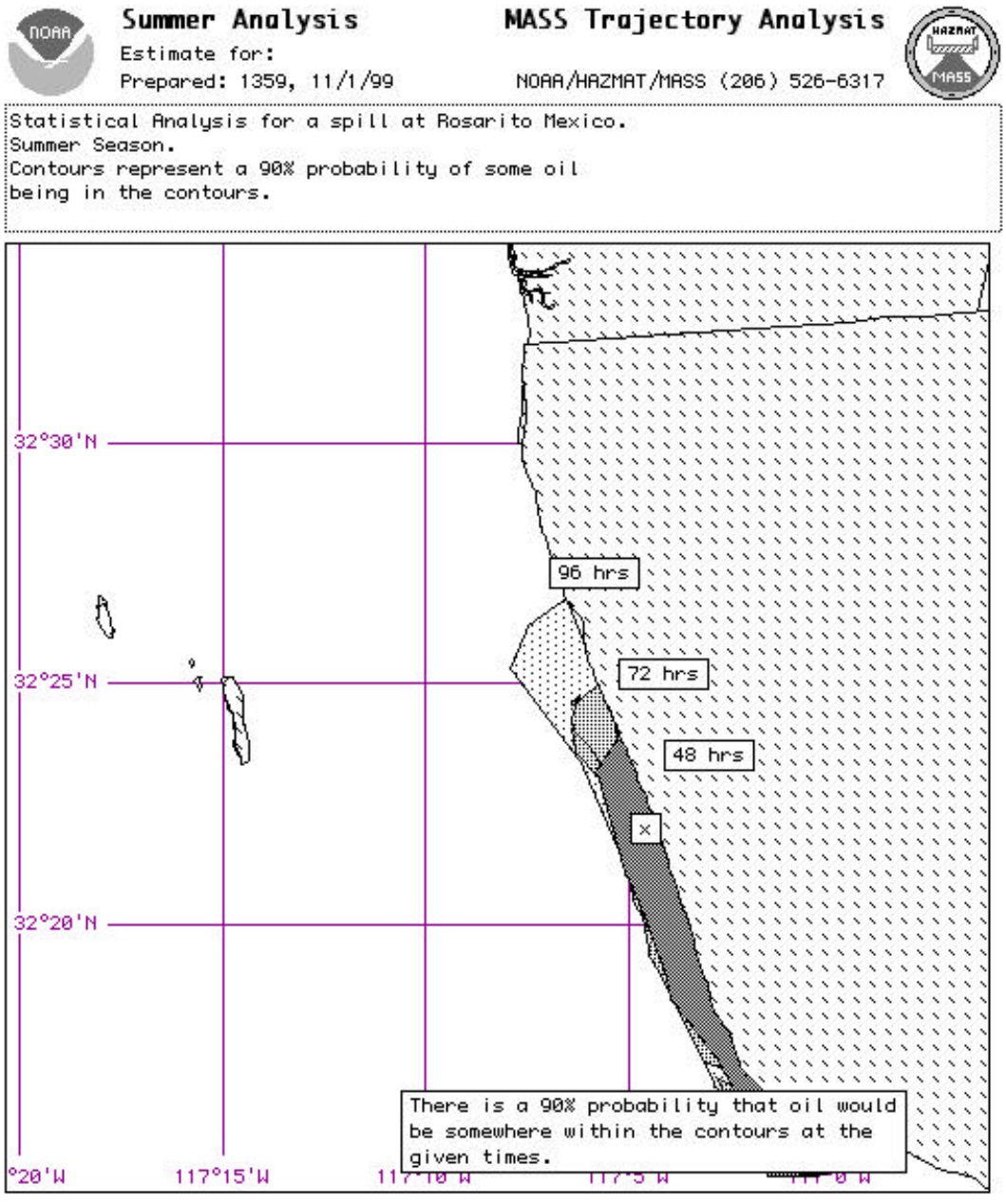
DAY THREE

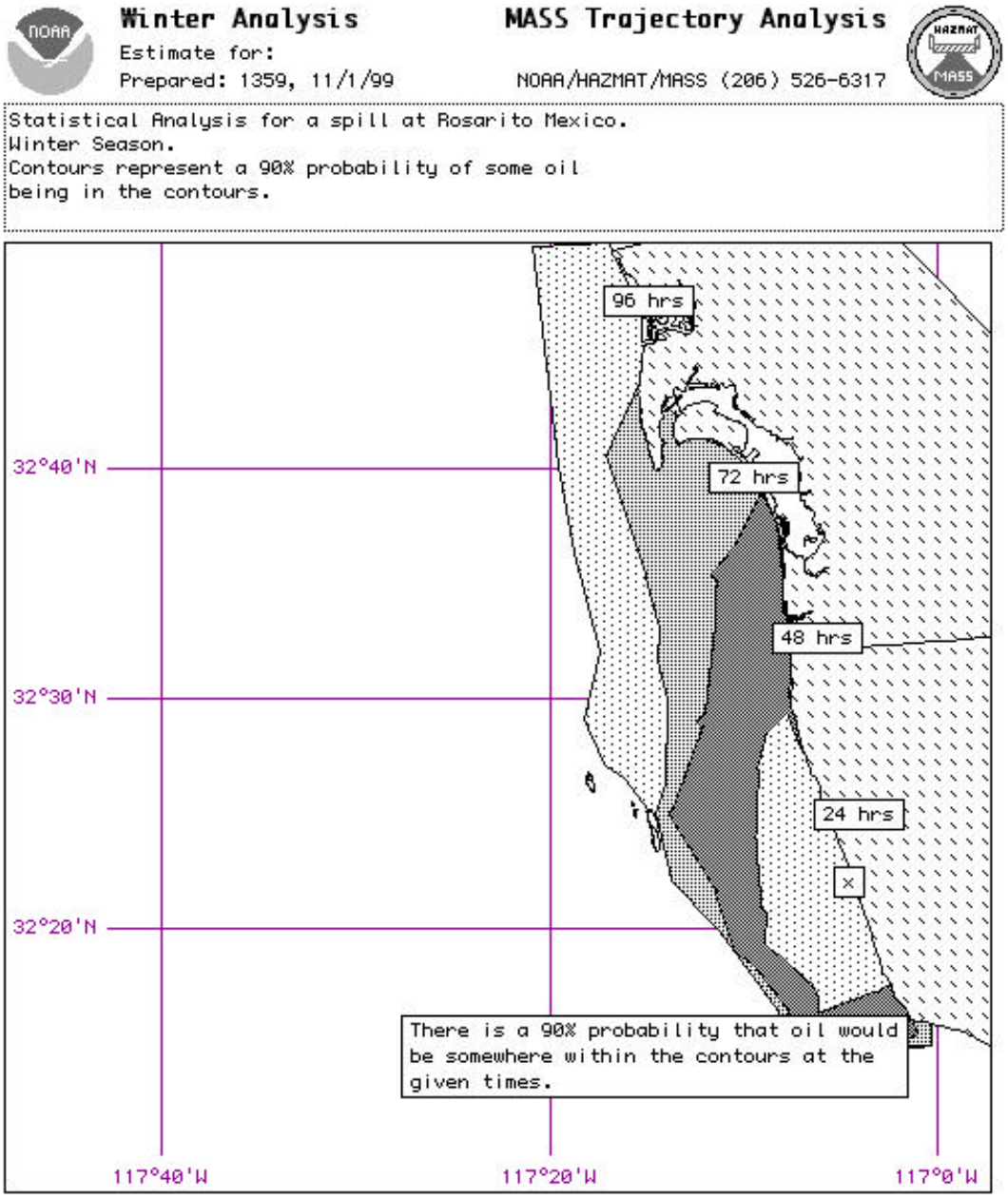
Amount of on water oil is starting to decrease as more is skimmed and washed ashore. Heaviest concentrations remain near the Tijuana River Estuary
Imperial Beach and Coronado Beach are still closed to the public; Coastal Cleanliness and CG skimmers remain in service. Beach clean up is on going and will continue for many days possibly weeks. The weather is the typical night and morning low clouds burning off in the afternoon with late morning to early afternoon winds out of the west at 6-8kts. Equipment decon station is fully operational at Ballast Point. The State Department is working on liability issues with the Mexican Government.

DAY FOUR-END

Skimming ops become unfeasible and all skimmers are demobilized and decontaminated.
Bird rescue center remains open actively trying to rehab oiled birds. NRDA is in full swing. NPFC has set up a claims unit, which is sifting through a barrage of claims. News coverage eventually dies off, as the story grows stale. The City of San Diego sees a large economic boom tied directly to the oil spill. The spill is being called the "Tijuana Estuary spill". Beach clean up and rehab will be underway for weeks as more oil washes ashore.

Attached are two trajectory maps. These two trajectories were actually run for the MAY99 Pemex spill. Although these trajectories are for a point several miles South of this scenario the rates of movement and direction of movement remain valid for this scenario.




Winter Analysis
Estimate for:
Prepared: 1359, 11/1/99
MASS Trajectory Analysis
NOAA/HAZMAT/MASS (206) 526-6317
Statistical Analysis for a spill at Rosarito Mexico.
Winter Season.
Contours represent a 90% probability of some oil
being in the contours.
96 hrs
72 hrs
48 hrs
24 hrs
32°40'N
32°30'N
32°20'N
117°40'W
117°20'W
117°0'W
There is a 90% probability that oil would be somewhere within the contours at the given times.

4720 Worst Case Spill (Water)

LOCATION: Adjacent to San Diego entrance channel buoy "7"

SCENARIO:

A. The 678 ft, fully laden (190,000 bbl) USN oiler USS *Supplier* is outbound from the Naval Fuel Depot Point Loma. The tug BIG BOY, with the 300 ft commercial tank barge *California* in tow, is inbound San Diego entrance channel. The *California* is loaded with 70,349 bbl #6 residual fuel oil. At 0500 on a February morning the *California* collides with the oiler in heavy fog adjacent to San Diego entrance buoy 7. An explosion results, and fires break out in a ruptured JP5 cargo tank splitting the oiler in two. The fire burns out as the bow and stern sections sink resulting in a near instantaneous release of one-third of the cargo (approximately 60,000 bbl of DFM and JP5 fuel oils). Cargo, fuel, and lubrication oil continues to leak at a rate of about 1,000 bbl/hr. A large gash below the waterline along the port side of the barge damages all seven port tanks. Approximately 25,000 bbl of #6 fuel oil are immediately released in the entrance channel. The barge continues to leak at a rate of 500 bbl/hr.

1) AMOUNT SPILLED: 261,000 bbl over six days

2) TYPES OF OIL: DFM, JP5, lube oil, and #6 residual fuel oil

B. The wind is W/NW at 5 kts, seas are 1-2 ft from the west. The tide is at flood stage, with slack water due to occur in 3 hours. By 1700 on the day of the spill, a winter storm has produced winds of 20-25 kts from the south, gusting to 40 kts. By 0500 the next day the storm subsides and winds return to W/NW at 5 kts for the duration of the modeled spill.

C. Affected and potentially affected areas throughout the course of this scenario include:

1) Northern San Diego Bay;
San Diego Bay Entrance (Environmentally Sensitive Site priority A)
Mammal pens (ESS priority A),
Magnetic silencing pier beach ESS priority B),
Shelter Island marina (Economically Sensitive Site priority E),
Commercial basin (ESS priority E),
Harbor Island marina (ESS priority E)

2) Point Loma (ESS priority C);
Point Loma Cabrillo National Seashore (ESS priority C);
Point Loma marine mammal haulout (ESS priority A)

3) Coronado, and Silver Strand beaches (ESS priority C)

5) Mission Bay (ESS priority A)

6) San Diego River (ESS priority A)

7) Ocean Beach, Mission Beach and Pacific Beach (ESS priority C)

8) La Jolla (ESS priority C)

9) Imperial Beach (ESS priority C)

10) Tijuana River Estuary (ESS priority A)

11) Tijuana shoreline (Mexico)

12) Los Coronados Islands (Mexico)

D. The required response action elements are presented in chronological sequence. These include initial actions, spill response organization, containment, countermeasures, cleanup strategies, resource requirements, available resources, sources of procurement, time necessary for cleanup, disposal options, and demobilization. The following response strategies for this scenario, and estimated times, are for planning purposes only.

Table 1. Response Capability Requirements Prescribed by State Regulations.

SKIMMERS*		STORAGE		BOOM
12 hr	2,500 bbl/day	12 hr	31,000 bbl/day	1,000 ft or 2x vessel length
36 hr	15,625 bbl/day	36 hr	60,000 bbl/day	
60 hr	53,125 bbl/day	60 hr	60,000 bbl/day	

* - Derated Capacity

DAY ONE

1) 0 - 2 hours (time: 0500-0700 hrs)

USCG Group San Diego receives notification from the tug *Big Boy* via CH16 at 0500. *Big Boy* reports its location and condition as per above scenario, states intentions, and establishes comms schedule. Tug also notifies company owners via cellular telephone,

The USS *Supplier* notifies CINCPACFLT and COMNAVBASE SAN DIEGO, who then implement their notification procedures. COMNAVBASE dispatches two YTB's to assist.

Activities San Diego notifies the MSO Duty Officer and immediately dispatches a 41" UTB to assist. SAR and firefighting response is initiated IAW USCG District Eleven SAR plan and MSO San Diego Burning Ship Plan. Due to the heavy fog, no aircraft can be sortied. Search and rescue concerns are exclusive of all other concerns. For the purpose of this response strategy, SAR details are assumed executed.

The Coast Guard initiates all internal and external notifications including NRC, Navy Port Ops, Navy Southwest Region Security Office, CA OES, CA Fish and Game (OSPR), San Diego ODP, District Eleven, and scientific Support Coordinator (SSC). CG and OSPR initiate internal recalls and mobilize UCS/ICS. D11 activates the RRT. SSC mobilizes the SSC

network. D11 DRAT en route. Sate of California Cultural Resources specialists are notified.

CG MSO San Diego (predesignated FOSC) initiates pollution and casualty investigation efforts. CG Pollution Investigator and Marine Inspector en route via WPB (or other designated platform). OSPR investigators en route MSO San Diego.

Tug BIGBOY attempting to pull barge off jetty. CG COTP issues order to stop until full investigation evaluation can be made. The tug remains standing by to assist.

COTP establishes Safety Zone closing San Diego Bay from the entrance buoy to the Coronado Bay Bridge. Two Harbor Police vessels on-scene to assist in controlling vessel traffic Broadcast Notice to Mariners initiated.

COMNAVBASE San Diego assumes responsibility for the U.S. Navy portion of the spill. USN Oil Recovery Teams at all San Diego Navy facilities are placed on alert with 7 skimmers ready to be deployed when the fog lifts providing 1,400 bbl/day immediate skimming capacity (Table 2). Navy SUPSALV alerted; 11 skimmers en route, ETD 48 hours.

National Strike Force Coordination Center (NSFCC) alerted. Pacific Strike Team mobilized. Requested PST COMCEN, OWOCR's 32" Munson boat, salvage pumps, storage equipment, cost doc, and one VOSS. ETA 8hrs. CG Public Information Assist Team (PIAT) dispatched.

Tug RP reluctant to assume financial responsibility for the spill due to the Navy involvement. Qualified individual identified and en route San Diego. Due to magnitude of spill and involvement of two parties and lack of action on the part of the civilian RP, FOSC notifies vessel RP and COMNAVBASE of federal assumption. FOSC opens pollution fund, requests initial $5 million obligation ceiling to cover anticipated clean up and Coast Guard costs. OSPR opens California pollution fund. Regional open water recovery assets contracted and dispatched. OSPR and MSO LA/LB agree to release CCW assets from higher volume port. MSRC under contract to Coast Guard. Clean Seas requested, but authority to depart zone remains a question, as well as contracting specifics.

Initial press release issued. District Eleven public affairs staff establishes press operations.

2) 2-6 hours (time: 0700-1100 hrs)

USN oiler is sunk in channel, with masts and upper decks visible. Fire is completely out. Initial reports indicate oil covers entrance channel to Point Loma. Full extent of slick remains undetermined due to fog.

ICS Planning section is working on evaluating barge diagrams and what to do with the barge, assess vessel's current status, identify cargo and condition. Barge tanks sounded, loss rate estimated. SSC provides initial verbal slick trajectory forecast. During the first 12 hours oil is expected to impact Point Loma and Ocean Beach, upper San Diego Bay and Coronado Beach, and threatens the San Diego River. Within 2 hours, a winter storm is expected to arrive, with winds veering to the south maintaining sustained velocity of 30-35 kts, and gusting to 50 kts. The storm effects will tend to drive the oil southward. SSC then departs en route San Diego, ETA 2hrs.

Table 2. On-water skimming response capabilities (bbl/day derated) available from OSRO's. The listed equipment is a limited listing of resources identified in the ACP. These sources represent major equipment providers in the southern California region.

OSRO	Less Than 4 Hours	12 Hour Capability	24 Hour Capability
NAVY	7 Skimmers@ 200 ea.		1-DESMI 1-VOSS
CCW		2-OSRV@ 10,000 1-OSRV 10,000 w/approv. 1-VOSS 3,000 1-VOSS 1,300	1-Lori 4,900
MSRC	1-Skim plat 1,317	3-VOSS 3,017 2-Skim plat. 3,700	1-Calif. Resp. 10,000 1-Skim Plat. 1,371
FOSS	Marko Belt 2,050		
ACTI		1-Marko 1 2,050	
Total	4,767	33,067	16,271
Total Cumulative		37,834	54,105

Establish initial Unified command Post (UCS) at Marine Safety Office San Diego. City of San Diego EOC activated. Begin addressing health and safety issues for response personnel and community-at-large. Vessel RP/QI initiates ICS and internal response organization.

SUBBASE Point Loma designated as primary staging area.

Beach survey (SCAT) teams dispatched to Ocean Beach and Coronado. CA F&G 45' patrol boat TUNA activated. County Emergency Operations Center manned. CCW rep on-scene.

COMNAVBASE (N3) arrives at JCC.
Active planning and prioritizing of resources at risk begins. Significant threatened resources identified are:
Point Loma: rugged, rocky coastline.
Harbor seal haulout: vicinity of Point Loma sewage outfall.
Mission Bay
San Diego River
San Diego Bay
Navy Marine mammal pens
Marine birds and mammals: wildlife Rehabilitation Resources activated.
Tijuana River Estuary

A **protection strategy** is developed to minimize further oil impacts, although it will be complicated by the impending storm. Surf conditions make it impractical to protect ocean beaches and most of Point Loma. Protection efforts will focus on un-impacted inlets.

Priority One: In consultation with Cultural Resource Specialist, deploy protective boom across NW shore inlets within San Diego Bay, from the mouth to Harbor Island. Deploy 2,000' of protective boom along around the USN marine mammal pens. Deploy 3,900' of exclusion boom at the entrance of San Diego Bay in a “V” configuration. Deploy 4,000' of deflection boom between Ballast Point and NAS North Island.

Priority Two: Construct a sand berm across the Sand Diego River along with secondary boom. Deploy protective boom strategy at Mission Bay (5,700'). Encircle the oiler and barge with containment boom to reduce spread of oil continuing to leak (3,500').

Priority Three: Line the remainder of the NW shore inlets within San Diego Bay, from the mouth to Harbor Island. Deploy 1,000' of exclusion boom across the entrance of Shelter Island marina. Deploy 2,000' of exclusion boom across the entrance of Commercial Basin. Deploy five 500' sections of deflection/collection boom along North Island (2,500'). Deploy three 500 ft sections of deflection/collection boom along NW shore from Shelter Island to Harbor Island (1,500'). Deploy 1,500' of exclusion boom across the entrance of Harbor Island marina and Naval Station marina. Immediately after the storm passes, deploy 3,000' of ocean boom to deflect oil away from the Mission Bay/ San Diego River entrance.

Use of alternative countermeasures is considered. Although the initial fire on the oiler is estimated to have consumed 25% of the spilled oil, further in-situ burning is rejected. The lack of available fire boom in southern California, proximity to populated shoreline areas, necessary restrictions on other response vessel activities, and the impending storm make it an impractical alternative. Dispersants are considered. Due to the very heavy viscosity of #6 RFO, dispersants are expected to have little effect. Near shore environmental concerns are also considered a problematic issue. The much lighter DFM dissipates and evaporates somewhat on its own, and will be rapidly dispersed in the forthcoming storm. Additionally, the shallow-water environment near sensitive areas is not a desirable candidate for dispersing the oil into the water column. Dispersants are rejected.

Table 3. Day One Booming Capability Necessary to Contain Vessels and Threatened Environmental and Economic Sensitive Sites.

BOOM LOCATION	BOOM LENGTH (ft)
USS *Supplier*	1,400
Tank Barge	1,000
Entrance to San Diego Bay	7,900
Magnetic Silencing Facility Beach	1,500
Marine Mammal Pens	2,000
Shelter Island Marina	1,000
Commercial Basin	2,000
Harbor Island Marina	1,500
TOTAL	18,300

Cleanup will rely on mechanical recovery by skimmers and manual shoreline remediation.

Table 4. Boom Available for Response Strategies Execution.

Equipment Provider	4 Hr Response Time	12 Hour Response Time
Navy	4,000 ft	10,000 ft
ACTI	6,500 ft	10,000 ft
FOSS	8,000 ft	36,000 ft
CCW	---------	Offshore only
MSRC	4,000 ft	21,600 ft
USCG	2,000 ft	
Total	24,500 ft	77,600 ft
Total Cumulative		102,100 ft

An additional Safety Zone is established closing Mission Bay.

3) 6-10 hours (time: 1100-1500 hrs)

Fog clears. Air station San Diego HH-60 helicopter makes first overflight for spill assessment. OSPR fixed wing airborne for surveillance. Additional staging areas are established at SUBBASE, the NASNI "old" CPO club, Shelter Island boat ramp, and Dog Beach at San Diego River mouth. Components of UCS forming. USCG PST representatives on-scene. SUBBASE ORT encircles barge and tanker with boom. Response contractor is assigned to construct protective sand berm across San Diego River and deploy protective boom strategy inside Mission Bay. Protective booming of Shelter Island Yacht Basin, commercial Basin, and West Basin (Harbor Island) by NASNI ORT and 32nd ST ORT. All available ORT skimmers deployed off Ballast Point to recover incoming oil. Total skimming capacity established at 1,400 bbls/hr.

Identify shortfall of barges to lighter the barge and temporarily store oil recovered from water. Contract with FOSS/Crowley/Wilmington barge companies to provide 100k bbl capacity from Long Beach. ETA 8-12 hours. Nine USN yard oilers (total 62-k bbl capacity) pressed into service to begin lightering barge. COMNAVBASE provides USN divers to conduct underwater assessment on sunken USS SUPPLIER. Towing RP contracts divers to make underwater assessment. Salvor hired and en route. Beach surveys report heavy oiling of Zungia Point (ocean and bay sides), north Coronado Beach, and Point Loma. Light oiling reported on Ocean Beach. County authorities close Ocean Beach, continue to monitor Coronado and the Silver Strand. Health and safety parameters established. Safety plan developed. RRT convenes at Naval Base San Diego. NOAA delivers first hard-copy oil spill trajectory; confirms initial verbal report. Trajectory provided for #6 oil, but will evaporate and dissipate rapidly. Much of the lighter oil will disperse in the anticipated storm.

4) 10-14 hours (time: 1500-1900 hrs)

UCS continues to grow. OSPR Administrator on-scene. FOSC Unified Command holds press conference at 1400. Afternoon overflight reveals slick extending around Point Loma to Ocean Beach, extending up to 2 NM offshore. Heavy concentrations of beached oil reported from SW Point Loma to Ocean Beach. Weather deteriorating as storm approaches.

On-scene reports indicate that oil continues to leak at a rate of 1,000 bbl/hr from the oiler and 500 bbl/hr from the barge. Protective booming operations continue.

San Diego county ODP coordinates beach pre-cleaning with Naval Station North Island and the cities of Coronado, Ocean Beach, Pacific Beach, mission Beach, and the California conservation Corps (CCC) using a combination of manual labor and heavy equipment. CCC provides Beach cleaner training. An estimated 300 laborers are needed for Coronado, and 200 for Mission Beach. Pre-clean operations will be scheduled to begin at 0700 day two. USCG, OSPR, and USN investigations have been opened to determine the cause of the spill. An oil sampling plan is established to aid in establishing later responsibility for cleanup costs.

5) 14-18 hours (time: 1900-2300 hrs)

San Diego River berm construction continues. Most priority 1 and 2 booms in place. Priority 3 booming begins and is suspended when the storm hits. Crews are assigned to tend booms through the storm and night. Lack of sufficient boat crews to maintain 24 hr/day operations becomes a concern. Equipment continues to arrive from outside the area, and is directed to the appropriate staging area. CG Pacific Strike Team equipment arrives. USN SUPSALV representative arrives.

6) 18-24 hours (time: 2300-0500 hrs)

Planning continues into the night. USCG PST and USN SUPLALV are assigned to develop plans to lighter remaining oil from the sunken oiler. CCW conducts aerial surveillance with the RIOSS system to map the movement of the oil during the night.

DAY TWO (from 0500)

The storm subsides by 0500, with the wind returning to W/NW at 5 kts, tending to drive the floating oil ashore and farther up San Diego Bay with the tides. Oil continues leaking at 1000 bbl/hr from the oiler, and 50 bbl/hr from the barge. Much of this oil gets caught in the circular current south of the San Diego Bay entrance, eventually moving up San Diego Bay with the tides, or beaching on Coronado/Silver Strand. CG AIRSTA San Diego launches a dawn overflight to map the spill following the storm. Oil is reported beached from Point Loma north to Mission Beach. A heavy sheen extends 2 NM offshore, with large patches of brown oil and black tar patties. Black oil is working its way south along Coronado. Late morning and afternoon overflights are also made.

CCW, MSRC, Clean Seas, and SUN SUPSALV skimmers arrive on-scene within excess of 57,000 bbl/day of skimming capacity. MSRC skimmers are assigned to recover the farthest offshore oil. The Clean Seas and larger CCW skimmers are assigned to nearshore recovery. The remaining skimmers are assigned at the San Diego entrance and within the bay. San Diego County ODP continues to coordinate beach pre-cleaning activities on un-impacted areas of beaches. Local contractors are hired to provide vacuum trucks to collect oil at each diversion boom on Naval Station North Island. Local contractors also provide manual laborers to remove oil stranded on the beaches. Beach cleaning activities must be conducted with consultation from Cultural Resource Specialists. Additional laborers are brought in from the LA.LB area. Navy ORT provides additional vacuum truck resources.

NOAA, OSPR, and local trustees begin joint injury determinations for the Natural Resource Damage Assessment (NRDA). Wildlife impact reports are being received from multiple sources and are confirmed by on-scene responders. Sea World coordinates with OSPR the establishment of wildlife collection and triage stations at the mouths of Mission and San Diego Bays. International Bird Rescue arrives and establishes a rehabilitation center of San Diego. Teams are assigned to survey impacted areas for injured/oiled wildlife.

USN SUPSALV and USCG PST personnel begin lightering from the oiler. Lightering of the barge continues. Recovering 6000 bbl/day from the barge and 10,000 bbl/day from the oiler. A 1400 press conference is held.

Approximately 54,000 bbl of #6 RFO is estimated to have spilled by the end of the day. Approximately half is stranded ashore, and half remains free-floating. Skimmers recover approximately 12,000 bbl of oil during the first day of recovery efforts. Approximately 3,000 bbl of oil are recovered from ashore.

Priority Three booms are in place by the end of the day.

DAY THREE

Dawn, mid-day and dusk overflights are scheduled. A heavy sheen remains offshore north of San Diego Bay, but most recoverable oil has deposited ashore. Approximately 10 miles of beach are impacted from Coronado to Mission Beach in a uniform one-quarter inch swath that is 5 feet wide. Tar patties continue to wash ashore along the various beaches. Some slugs of black oil are still washing ashore on Coronado Beach. Protection efforts have been successful at keeping oil out of Mission Bay and the San Diego River. Oil has migrated into San Diego Bay past Shelter Island.

By the end of the day, the barge continues to sheen, but no recoverable product is left on board. An estimated total of 18,000 bbl have been lightered off over the past three days. Plans are made to refloat the barge and tow it to a shipyard. The anticipated completion for this project is one week.

Cleanup priority is given to Point Loma. An estimated 10,000 bbl of RFO is estimated recovered by on-water resources, and 1,000 bbl by shoreside resources. Priority planning is given to re-opening of San Diego entrance channel. The channel is reopened to one-way traffic with USCG escort pending survey and marking of a temporary channel.

DAY FOUR THROUGH SEVEN

Overflights are reduced to twice daily. Press conferences continue to be held once per day. An estimated 11,000 bbl's of oil remain on the water, and 15,000 stranded on shore. Recovery resources are recovering 1,000 bbl/day ashore and 2,000 bbl/day on water. Up to 500 beach cleaners plus mechanical equipment is in use.

By day seven, 5,000 remain floating on the water in scattered patches. USCG begins demobilizing larger, more inefficient skimmers.

DAY EIGHT THROUGH THIRTY

Overflights reduced to once per day. Beach surveys and cleanup continues. By day eleven, most on-water recovery resources have been demobilized. Only the small ORT skimmers remain. By day fourteen, beach cleaning is becoming steadily less efficient as most of the oil is recovered. Beach cleaners are being demobilized in increasing numbers. Only 50 cleaners remain at work on beaches north of San Diego Bay, and 100 cleaners on beaches to the south. By day thirty, cleanup is reduced to picking up tarballs still washing ashore.

DAY THIRTY-ONE TO NINETY

Clean up of tarballs and light oiling continues for the next two months. Organized beach cleaning is terminated on day eighty, with continued beach monitoring to day ninety. Unified Command

reduces progress meetings to weekly. Incident Action Plans are scheduled to reflect the UC meeting requirements. Responsible parties are directed to develop a plan to restore damaged wetlands and shorelines. By day forty the containment booms can be removed. By day ninety cleanup is determined to be complete.

SHORTFALL ANALYSIS

1) No trajectory model is available because of the limits of computer models to mimic San Diego Bay currents, tides and wind forces. The trajectory model utilized for this exercise was created using reasonable oil movement estimates based upon familiarity of small spill movements, and known climatic and tidal considerations.
2) No attempt was made to quantify Coast Guard or other agency staffing requirements to support the Unified Command. But, due to the complexity and duration of this scenario a substantial manpower requirement is predictable.
3) Contractors may experience significant delay in responding to an incident that requires a substantial equipment deployment effort in early morning hours. Such delay could result in a rapid spread of product.

4730 Most Probable Worst Case Spill (Water)

LOCATION: The Oil Spill Co, adjacent San Diego Bay near 10th Ave. Marine Terminal.

SCENARIO:

A. At 1400 on Thursday in October, The Oil Spill Company (OSC) was conducting a transfer operation with the M/V SPILLS ALOT at the 10th Ave Terminal (Southern most manifold) and their own tank farm. The connection between the manifold and the transfer hose failed. The failure caused the fuel to shoot into the water outside of the boom in place around the vessel. The spraying fuel severely splashed the shore side PIC resulting in a 15-second delay to shut down the transfer. The transfer was shut down 35econds after the failure. The failure resulted in a release of 500 bbl's of DFM into San Diego Bay.

B. The wind is ENE (Santa Ana conditions) at 13 knots gusting to 18-20 kts, seas are 1-2 ft from the east. The tide is in the seasonal high ranging from +6 to -1.5. Currently the tide is at flood stage with slack water to occur in 4 hours. The air temp is in the mid 70's and the water temp is in the low 60's.

C. Actual and potential area affected include:

1) Central San Diego Bay.
2) South San Diego Bay.
3) Sweetwater Creek.
4) Delta Beach.
5) Coronado.
6) Chula Vista Nature Preserve.
7) Least Tern nesting area in the South Bay.

D. The required response action elements are listed in chronological sequence. These include initial actions, spill response organization, containment, countermeasures, cleanup strategies, resource requirements, available resources, sources of procurement, time necessary for

clean up, disposal options, and demobilization. The following response strategies for this scenario, and estimated times are for planning purposes only.

DAY ONE

1) 0-2 hours (1400-1600)

USCG MSO receives notification from OSC of the above spill at 1415. The Coast Guard initiates all internal and external notifications including: NRC, OES, Local OSPR office, Port of San Diego, USN Port Operations, San Diego ODP, District 11, NOAA SSC and USCG PAC STRIKE TEAM. CG and OSPR initiate internal recalls and mobilize Unified Command using the ICS structure. Command Post is located at the CG Activities San Diego.

MSO SD opens OSLTF with initial 100k ceiling to cover CG costs.

MSO SD immediately requests to launch 41' Utility Boat (UTB) to asses the spill as well as an H-60 Helo overflight. The UTB is launched immediately with MSO personnel on board. Only two Helos are operational and one is conducting long range SAR. MSO Pollution Investigator departs for OSC via response vehicle. A BNTM is issued advising mariners to use caution while transiting South SD Bay. Predesignated FOSC (USCG Commanding Officer of MSO SD) initiates ICS organization. OSPR investigators dispatched from Kearny Mesa office and OSPR Warden recalled from Oceanside to respond. The 41' UTB reports that the area between 10th Ave Terminal and the Coronado Bridge is heavily oiled and the slick is moving south. They estimate the leading edges of the sheen will be will be beyond the bridge in 30 minutes. CO MSO SD closes San Diego bay to all traffic south of the Marriott Marina. SD Harbor Police boats on scene to help control vessel traffic. While second helo is being prepped for overflight it is called out on SAR case. MSO SD Personnel dispatched to the top of the Hyatt Hotel to observe the spill.

AT 1405 OSC contacted their contracted OSRO to respond to the spill. OSC's contracted OSRO will not be on-scene for almost three hours. CO MSO SD determined immediate action was necessary and instructs OSC to immediately conduct a response or the CG would take over the response. OSC qualified individual recognizes the need for immediate action and hires local contractors to conduct response. The FOSC recognizes that more equipment and supplies will be immediately necessary to combat the spill and exercises a Memorandum of Understanding with the Navy to provide the necessary equipment. The FOSC and SOSC decide that the South Bay is the first priority for protection and the South Bay booming strategy should be immediately executed 24th St Marine Terminal will be the staging area. At 1430 local contractors are on scene and recalling personnel and equipment to cover the response as well as starting to deploy boom, boats and personnel. CG personnel dispatched to 24th St Terminal to coordinate booming of South Bay. OSC's OSRO is still mobilizing with skimmers and boom, their ETA is two hours. FOSC requested all US Navy skimmers be activated. 3 skimmers are already on the water and en route to conduct clean up. The other four will be on scene with in 2-3 hours. All available Navy boom already in the water is being collected and transported to the 24th St Marine Terminal as a staging area.

Initial press release sent. PAC Strike Team and PIAT mobilized. SSC is en route.

2) 2-6 hours

The Unified Command has been fully established with secondary and tertiary notifications made to: SCIC, Trustees for all South Bay resources at risk and Sea World bird rescue center. At 1630 between local contractors, US Navy and USCG 13,000 ft of boom has been deployed and is being placed in position from 24th St Terminal to the SE corner of the Naval Amphibious Base. By 1700 the South Bay boom strategy has been completely implemented with a modification closing

the gap to NAB. The bulk of the spill is contained with in the boom but the leading edges of the spill are already past the boom. Long range SAR helo returns and overflies San Diego Bay. Overflight reveals Glorietta Bay is heavily impacted with oil. Shoreline impacted South of NAB to the A-6 anchorage and a light sheen exists with many fingers as far south as the Sweetwater Channel.

In order to prepare for the tide going out an additional 3000 ft of boom is ordered deployed from the Northern most point of 10th Ave Terminal due west, with a vac truck set up at the choke point for skimming ops.
Navy skimmers are skimming in the area just south of the Bridge in the most concentrated area.

3) 8-24 hours

Navy skimming ops continue through darkness with personnel reliefs occurring at 2200.

Dusk and dawn overflights conducted to map extent of spill.

As more personnel and equipment arrive the Command Post is moved to ACTSD Hangar.

Media interest is frenzied with interest reaching to the international level.
Sweetwater Channel is boomed off. Glorietta Bay is also boomed off to prevent the oil from spreading in and out of the bay.

SCAT's are dispatched at first light to assess the area south of NAB. SCAT's report that the shoreline is impacted south to Crown Isle with the heaviest impacted areas being just south of NAB.

NRDA unit established.

11 dead oiled birds have been recovered and 21 oiled birds have been transported to Sea World. In the morning of Day Two, 10 of the 21 birds sent to Sea World have died. More birds continue to be transported. Delta Beach (Least tern nesting area) is heavily impacted, USFWS, SCIC, OSPR, USCG DOE personnel on scene devise restoration/clean-up strategy.

Navy uses more boom to protect piers and moored vessels.

USCG VOSS is enroute on board 180' CG Cutter.

DAY TWO

First light overflight is used to map the spill.

Skimmers are redirected to heaviest concentrations.

Secondary boom is placed in a tiered deflection strategy at either end of the containment area to direct the oil to collection sites as the tide washes in and out.

By noon the CG Cutter with the VOSS is on scene and actively collecting product. OSC has established storage for skimmed oil at 10th Ave Terminal.

Shoreline clean up has been initiated on beaches South of NAB.

A vessel decon station has been set up at both ends of the containment area.

OSC's OSRO skimmers are placed into service in Glorietta Bay.
CG overflights continue but are becoming less effective because of the frequent live feeds from TV News helos.

Press conference was held with CO MSO SD, Owner of OSC, and SOSC.

PAC Strike Team on scene as well as; NOAA SSC, USCG PIAT, additional OSPR personnel and additional personnel from local and regional contractors.

Dead birds continue to be collected and become a focal point for the media.

Authorized ceiling for the spill is raised to 500 K to cover costs and is expected to be bumped up again as burn rates for contractors and public agencies are captured.

DAY THREE

Amount of oil has greatly dissipated with round the clock skimming ops and continued hot dry weather. Heaviest concentrations remain in Glorietta Bay and around the Naval Station trapped within the piers. The South Bay Boom is broken and the northern point of the boom is placed at the western tip of NASSCO to encapsulate the bulk of the remaining product.

South San Diego Bay is open to commercial and Navy Traffic only.

Glorietta Bay is still closed to all traffic, OSRO and CG skimmers remain in service here. Beach clean up is on going and will continue for many days possibly weeks.

Tidal conditions have returned to average tidal hights and the Santa Anna wind conditions have dissipated. The weather is the typical night and morning low clouds burning off in the afternoon with late morning to early afternoon winds out of the west at 6-8kts.

Equipment decon station is set up at the OSC facility. Waterside vessel decon station has been set up at a facility just south of 10th Ave Terminal.

DAY 4-END

Skimming ops become unfeasible and all skimmers are demobilized and decontaminated.

Bird rescue center remains open actively trying to rehab oiled birds. NRDA is in full swing. NPFC has set up a claims unit, which is sifting through a barrage of claims, many of which appear to be fraudulent. News coverage eventually dies off, as the story grows stale. The City of San Diego sees a slight economic boom tied directly to the oil spill. The spill is being called the "10th Ave spill".

4740 Maximum Probable Oil Spill

LOCATION: Pier 6, Naval Station San Diego

SCENARIO:

A. Narrative of operation preceding the spill: While conducting a fuel offload at 1000 on a Tuesday morning in April, the Officer of the Deck aboard the USS NEVERSAIL smelled a strong aroma of diesel fuel at the mid-ship's quarterdeck. He reported the finding to the ship's Damage Control Central area by telephone, and the ship's Engineering Duty Officer (EDO) secured the fuel offload by manually switching off power to the ship's internal transfer pumps. EDO ordered the Sound and Security Rover to shut off the main fuel transfer valves. The Sound and Security Rover accidentally misaligned the fuel valve and caused 8,000 gallons of Diesel Fuel, Marine (DFM), number F-76 to be discharged into the San Diego Bay over a 20 minute period, until the misalignment was corrected.

B. Weather: Winds are light and variable, bay conditions are calm. Tide is 3 hours into the flood and predicted high tide will be 4.2 feet above the mean inter-tidal range.

C. Affected and potentially affected areas throughout the course of this scenario include:
1) San Diego Bay
2) Sweetwater Creek
3) Chula Vista Nature Preserve
4) Coronado
5) Least tern nesting area in the South Bay

D. The required response action elements are presented in chronological sequence. These include initial actions, spill response organization, containment, countermeasures, and cleanup strategies, resource requirements, available resources and sources of procurement, time necessary for cleanup, disposal options, and procedures for terminating the event. The following response strategy for this scenario and estimated times are for planning purposes only and do not reflect performance standards.

DAY ONE

1) 0-2 hours

The Engineering Duty Officer brought the ship to General Quarters for an initial oil spill response, and reported the spill to Port Operations at Naval Station San Diego, in accordance with local instruction. The Naval Station responded with two Boston Whalers to investigate the spill and was at the scene six minutes after the spill was reported. The Naval Station First Response Team (FRT) Leader initially estimated the spill at over 2,000 gallons and radioed for two boom boats, two oil skimmers and four Boston Whalers to respond from Liquid Cargo at the Naval Station. In addition, the FRT Leader dispatched two additional oil skimmers and two additional boom boats from Port Operations, Coronado. Four additional craft were put on 5 minute stand-by notification from Port Operations, Point Loma, but they were not used immediately due to the length of their transit time to the scene.

The USS NEVERSAIL notified the USCG National Response Center (NRC) and the California State Office of Emergency Services (OES. The USS NEVERSAIL notified the Duty Officer for Navy Region South West.

The USS NEVERSAIL was the Pier Senior Officer Present Afloat (SOPA) and augmented their initial spill response with 18 additional personnel from two ships that were also berthed at Pier 6. The ship responders deployed seventy absorbent pads on the spill and deployed 500 feet of absorbent boom from the ship's oil spill response kits. Two additional response kits were used from the neighboring ships.

The Port Operations Duty Officer using the San Diego Bay Oil Spill Response Check List contacted the following by telephone:

- Naval Station Command Duty Officer (CDO)
- Naval Base Coronado CDO
- Naval Base Point Loma CDO
- Navy On-Scene Coordinator (NOSC)
- Port Operations Officer
- Waterfront Environmental Coordinator (WEC)
- Port Operations Leading Chief Petty Officer
- Marine Safety Office (MSO), San Diego

MSO San Diego Pollution Investigator on scene forty minutes after the spill was reported. MSO recalled personnel for ICS based response. All internal and external notifications made. The following designated areas were prioritized in order of significance:

1) Containment boom around spill sources (USS NEVERSAIL).
2) Boom deployed northwest from Mole Pier across the bay to south Coronado to reduce impact on sensitive south San Diego Bay areas.
3) Protective booming of Sweetwater Creek and Seventh Street channel.
4) Implementing the South Bay booming strategy.

The FRT deployed 3,000 feet of boom around USS NEVERSAIL and along the quaywall. The FRT had 80% of the spill contained, one hour after the start of the spill. The FRT laid out 350 oil spill pads, and the four oil skimmers recovered a total of 950 gallons. Two additional boom boats were recalled from Port Operations, Point Loma and were on-scene in 90 minutes.

Captain of the Port (COTP) established a Safety Zone, closing San Diego Bay from the Naval Station south. Broadcast Notice to Mariners initiated to minimize civilian vessel traffic. OSPR investigators on scene. FOSC requests to open OSLTF for $50,000 to cover Coast Guard costs.

2) 2-4 hours

FRT deploys 5000 feet of containment boom from Mole Pier.
MSO schedules and completes overflight. A Unified Navy/Coast Guard/State command is established at 32nd St Naval Station. Overflight reveals a heavy sheen across South bay from the 24th Street Marine terminal to 28th Street pier with scattered patches of brown oil. Oil is dissipating and is expected to evaporate rapidly under the sun. A press conference is held at the NAVSTA. Media interest is high locally with a few regional news agencies showing interest.

3) 4-8 hours

FRT skimmers continue to collect product from the containment area, while Port Operations Coronado and Point Loma skimmers target scattered patches of brown oil. Naval Station boom boats deploy boom across Sweetwater Creek and from the Silver Strand.

U. S. Fish and Wildlife rep on-scene and monitoring for wildlife impacts. Sea World is alerted. Injury Survey commences for National Resource Damage Assessment (NRDA).

4) 8-24 hours

NOAA SSC on scene providing trajectory and weather analysis. Skimmer operations continue until 2100, and commence at 0600 the following day until 1700. High tide is predicted at 4.3 feet above the mean inter-tidal range later that evening. Noon and sunset overflights continue to map the areas of collectible oil. The oil continues to evaporate rapidly and skimming operations are secured at 1700. A few patches of brown oil persist with extensive sheening. All booms remain in place. Four oiled Western Grebes have been transported to Sea World for rehab.

DAY TWO

A first-light overflight at dawn is used to map the extent of the oil.
Skimmers are directed to observed patches of oil. Two of the four birds that were transported to Sea World have died. The second press conference is held with the local media. Protestors are picketing outside the Naval Base. A midday overflight shows that most of the sheen has evaporated. Some light sheening is still observed around the shorelines with small fingers of

sheen running into the bay. The Silver Strand boom is removed, followed by the Mole Pier boom. The Safety Zone is disestablished.

DAY THREE TO END

A morning overflight reveals minor sheening still visible but no recoverable patches remain. Coronado and Point Loma skimmers are released. Boom still remains around the vessel but all other boom is broken and sent to the decon station set up on the Base. Two more birds are transported to Sea World for rehab. Media interest has declined and is no longer the top story. The Navy has set up a claims unit and a boat wash station to handle any possible claims.

The State decides not to pursue NRDA claims for the oiled birds. The Navy conducted an investigation as to why the valve was misaligned in the first place and why it took so long to find the misaligned valve. Results of the investigation were discussed at the Navy Regional Oil Spill Work Group (ROSWG). The ship put out a message to all similar ships with prevention measures to take to prevent similar spills.

4800 OPEN FOR DISTRICT/AREA COMMITTEE DESIGNATION

4900 RESERVED FOR HQ DESIGNATION

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5000 LOGISTICS

5000: LOGISTICS: TABLE OF CONTENTS

Section #	Section	Page#
5100	LOGISTICS SECTION ORGANIZATION	5000-1
5200	ROLES AND RESPONSIBILITIES	5000-1
5210	Logistics Section Chief	5000-1
5220	Service Branch / Director	5000-1
5221	Communication	5000-1
5222	Medical Unit / Leader	5000-1
5223	Food Unit / Leader	5000-2
5230	Support Branch / Director	5000-2
5231	Supply Unit / Leader	5000-2
5231.1	Ordering Manager	5000-2
5231.2	Receiving & Distribution Manager	5000-2
5232	Facilities Unit / Leader	5000-2
5232.1	Security Unit / Manager	5000-2
5233	Vessel Support Unit I Leader	5000-3
5234	Ground Support Unit I Leader	5000-3
5300	COMMUNICATIONS	5000-3
5310	Communication Resources (Refer to Section 5511)	5000-3
5311	Internal Incident Communications	5000-3
5312	External Incident Communications	5000-3
5400	AREA RESOURCES: INFRASTRUCTURE	5000-4
5401	Staging Areas	5400-1
5402	Port/Dock Facilities & Capacities	5400-2
5403	Boat Ramps	5400-4
5404	Aircraft Landing Sites	5400-4
5404.1	Military Airfields	5400-4
5404.2	Civilian Airfields	5400-5
5405	Portable Restrooms	5400-7
5406	Temporary Waste Storage	5400-8
5409	Fueling/Maintenance Facilities	5400-8
5409.1	Ashore Fueling Facilities	5400-8
5409.2	Marine Fueling Facilities:	5400-8
5409.3	Maintenance Facilities	5400-9
5410	Medical Facilities	5400-10
5411	Dining/Lodging Capacities	5400-12
5411.1	Lodging	5400-12
5411.2	Transportation (water)	5400-13
5411.3	Food/Water	5400-13
5412	Car Rentals	5400-16
5500	AREA RESOURCES- RESPONSE EQUIPMENT	5500-1

Section #	Section	Page#
5510	Summary of Area Resources	5500-1
5600	AREA RESOURCES: PERSONNEL AND SERVICES	5600-1
5610	Federal Resources/Agencies	5600-1
5610.1	Trustees for Natural Resources	5600-1
5610.1.1	Indian Tribes	5600-1
5610.1.2	Foreign Trustees	5600-2
5610.2	U.S. Coast Guard Resources	5600-2
5610.2.1	USCG National Strike Force (NSF)	5600-4
5610.2.2	USCG District Response advisory Team (DRAT)	5600-6
5610.2.3	Public Information Assist Team (PIAT)	5600-6
5610.2.4	USCG Reserve	5600-7
5610.2.5	USCG Auxiliary	5600-7
5610.3	NOAA	5600-7
5610.3.1	Scientific Support Coordinator (SSC)	5600-7
5610.3.2	Spill/Discharge Trajectory Modeling	5600-8
5610.3.3	Oceanic & Atmospheric Modeling	5600-8
5610.4	U.S. Navy Supervisor Salvage (SUPSALV)	5600-9
5610.5	E.P.A. Emergency Response Teams	5600-9
5610.6	Agency for Toxic Substance and Disease	5600-9
5610.7	U.S. Department of Energy (DOE)	5600-10
5610.7.1	U.S. Nuclear Regulatory Commission (NRC)	5600-10
5610.8	Federal Emergency Management System (FEMA)	5600-10
5610.9	U.S. Department of the Interior (DOI)	5600-10
5610.9.1	U.S. National Park Service	5600-11
5610.9.2	U.S. Minerals Management Service (NMS)	5600-11
5610.10	U.S. Department of Justice	5600-11
5620	State Resources/Agencies	5600-11
5620.1	Government Official Liaisons	5600-11
5620.2	Trustees for Natural Resources (State)	5600-11
5620.3	State Emergency Response Coordinators (SERCS)	5600-12
5630	Local Resources/Agencies	5600-16
5630.1	Trustees For Natural Resources (Local)	TBD
5630.2	Local Emergency Managers	TBD
5630.3	Local Environmental Agencies	TBD
5630.4	Law Enforcement Agencies (Local)	5600-16
5630.5	Port Authority/Harbormasters	5600-16
5630.6	Fire Departments (Local)	5600-17
5630.7	Hazardous Material Response Teams (Local)	5600-17
5630.8	Weather Service	5600-17
5640	Private Resources	5600-18
5640.1	Clean-up Companies	5600-18
5640.2	Media (Television, Radio, Newspaper)	5600-20
5640.2.1	Government Resources	5600-19
5640.2.2	Wire Services	5600-19

Section #	Section	Page#
5640.2.3	Television	5600-19
5640.2.4	Radio	5600-20
5640.2.5	Newspapers	5600-20
5640.3	Salvage Companies/Divers	5600-21
5640.4	Fishing Cooperatives and Fleets	5600-23
5640.6	Volunteer Organizations	5600-23
5640.7	Marine Pilots Association	5600-24
5640.8	Laboratories	5600-25
5640.9	Environmental Interest Groups	TBD

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5000 LOGISTICS

5100 LOGISTICS SECTION ORGANIZATION

The Logistics Section is responsible for providing facilities, all services and materials needed for the incident. The Incident Commander will determine the need to establish a Logistics Section on the incident. This is usually determined by the size of the incident, complexity of support, and how long the incident may last. Once the IC determines that there is a need to establish a separate Logistics function, an individual will be assigned as the Logistics Section Chief

Six functional units can be established within the Logistics Section. If necessary, a two-branch structure can be used to facilitate span of control. The titles of the units are self-descriptive. Not all of the units may be required, and they will be established based upon need.

5200 ROLES AND RESPONSIBILITIES

Refer to Coast Guard Incident Management Handbook (CGIMH) COMDTPUB P3120.17 for List of Responsibilities.

This section includes a summary of the logistical details associated with providing resources to support a response effort in the area. Under the UCS, the various functions required during an oil spill response are delegated to specific agencies or individuals. It is the role of local governments to provide support to State and Federal response agencies in the form of equipment, personnel and expertise. When the UCS is established, the County of San Diego Office of Disaster Preparedness will assume the responsibilities of the Logistics Section of the Unified Command.

5210 Logistics Section Chief

The Logistics Section Chief, a member of the General Staff, is responsible for providing facilities, services, and material in support of the incident. The Logistics Section Chief participates in development and implementation of the Incident Action Plan and activates and supervises Branches and Units within the Logistics Section.

5220 Service Branch / Director

The Service Branch Director, when activated, is under the supervision of the Logistics Section Chief, and is responsible for the management of all service activities at the incident. The Branch Director supervises the operations of the Communications, Medical, and Food Units.

5221 *Communication Unit / Leader*

The Communications Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief is responsible for developing plans for the effective use of incident communications equipment and facilities; installing and testing of communications equipment; supervision of the incident Communications Center; distribution of communications equipment to incident personnel; and the maintenance and repair of communications equipment.

5222 *Medical Unit / Leader*

The Medical Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is primarily responsible for the development of the Medical Emergency Plan, obtaining medical aid and transportation for injured and ill incident personnel, and preparation of reports and records. The Medical Unit may also assist Operations in supplying medical care and assistance to civilian casualties at the incident, but is not intended to provide medical services to the public.

5223 *Food Unit / Leader*

The Food Unit Leader, under the direction of the Service Branch Director or Logistics Section Chief, is responsible for determining feeding requirements at all incident facilities; menu planning; determining cooking facilities required; food preparation; serving: providing potable water; and general maintenance of the food service areas.

5230 Support Branch

The Support Branch Director, when activated, is under the direction of the Logistics Section Chief, and is responsible for development and implementation of logistics plans in support of the Incident Action Plan, including providing personnel, equipment, facilities, and supplies to support incident operations. The Support Branch Director supervises the operation of the Supply, Facilities, Ground Support and Vessel Support Units.

5231 *Supply Unit*

The Supply Unit Leader is primarily responsible for ordering personnel, equipment and supplies; receiving, and storing all supplies for the incident; maintaining an inventory of supplies; and servicing non-expendable supplies and equipment.

5231.1 Ordering Manager

The Ordering Manager is responsible for placing all orders for supplies and equipment for the incident. The Ordering Manager reports to the Supply Unit Leader.

5231.2 Receiving & Distribution Manager

The Receiving and Distribution Manager is responsible for receiving and distribution of all supplies and equipment (other than primary resources) and the service and repair of tools and equipment. The Receiving and Distribution Manager reports to the Supply Unit Leader.

5232 Facilities Unit

The Facilities Unit Leader is primarily responsible for the layout and activation of incident facilities (e.g. Base Camp(s) and Incident Command Post). The Facilities Unit provides sleeping and sanitation facilities for incident personnel and manages base camp operations. Each facility (base or camp) is assigned a manager who reports to the Facilities Unit Leader and is responsible for managing the operation of the facility. The basic functions or activities of the Bas and Cam Manager are to provide security service and general maintenance. The Facility Unit Leader reports to the Support Branch Director.

5232.1 Security Unit

The Security Manger is responsible to provide safeguards needed to protect property from loss or damage.

5233 *Vessel Support Unit*

The Vessel Support Unit Leader is responsible for implementing the Vessel Routing Plan for the incident and coordinating transportation on the water and between shore resources. Since most vessels will be supported by their own infrastructure, the vessel Support Unit may be requested to arrange fueling, maintenance and repair of vessels on a case by case basis.

5234 *Ground Support Unit*

The Ground Support Unit Leader is primarily responsible for 1) support out of service resources 2) coordination of transportation of personnel, supplies, food and equipment, 3) fueling, service, maintenance, and repair of vehicles and other ground support equipment, and 4) implementing the Traffic Plan for the incident.

5300 COMMUNICATIONS

5310 Communication Resources

Refer to Section 5511 Oil Spill Response Equipment

5311 *Internal Incident Communications*

Facsimile Machines	**Telephone (24 Hour)**

Local Listings

5312 *External Incident Communications*

	Communications Vehicles **Telephone (24 Hour)**
San Diego Harbor Police	686-6200
Chula Vista Police Department	691-5151
Coronado Police Department	522-7350
El Cajon Police Department	579-3311
El Cajon Fire Department	441-1600 441-5595
Escondido Police Department	741-4722 741-4611
Escondido Fire Department	741-4701 741-4611
San Diego Sheriff	858-974-2222
San Diego Fire Department	911

Portable Radios	**Telephone (24 Hour)**
San Diego County Department of Information Services	858-571-9580/565-5025

Telephones (Cellular)	**Telephone (24 Hour)**
NEXTEL	888-639-8356

5400 AREA RESOURCES: INFRASTRUCTURE

5401 *Staging Areas*

Refer to current Thomas Brothers Guide for locations.

The following locations have been identified as having potential to be utilized for the staging of equipment and personnel:

Metropolitan Area

a. B Street Pier
b. Belmont Parking Lot
c. Dana Landing Parking Lot
d. Dog Beach Parking Lot
e. G Street Pier Harbor Island
f. La Jolla Cove Parking Lot
g. La Jolla Shores Parking Lot
h. Lifeguard Headquarters, Quivira Basin Parking Lot
i. Lifeguard Tower Parking Lot at Ventura (Mission Beach)
j. Lifeguard Tower Parking Lot on Abbott (Ocean Beach)
k. Marina Park Parking Lot (Behind the Convention Center)
l. NAS North Island
m. Ocean Beach Pier Parking Lot
n. Scripps Institute of Oceanography Parking Lot
o. South Mission Beach Jetty Parking Lot
p. Shelter Island Parking Lot
q. Tide Pool Parking Lots (Point Loma)
r. Vacation Isle Parking Lot (by Ingraham Street Boat Ramp)

North County

a. Del Mar Fair Grounds
b. Oceanside Harbor Parking Lot
c. South Carlsbad State Beach Parking Lot

South Bay

a. Border Field State Park
b. Silver Strand State Beach Parking Lot
c. Naval Amphibious Base Coronado
d. Naval Station
e. Naval Auxiliary Landing Field Imperial Beach

5402 ***Port/Dock Facilities & Capacities***

The following is a list of names, available number of slips, and contact number (in most cases the dockmaster) for marinas within San Diego's area of responsibility. Also included in this section are local commercial marinas. The approximate number of commercial vessels located in these areas is also listed (numbers will fluctuate depending on the time of year).

MARINA	TOTAL SLIPS	CONTACT #
Oceanside		
07-132 Oceanside Harbor	900	(760) 435-4000/4050
Mission Bay		
07-133 Dana Inn and Marina	153	(619) 222-6440
07-134 Dana Landing	180	(619) 224-2513
07-135 Marina Village Marina	634	(619) 224-3125
07-136 Mission Bay Marina	238	(619) 223-5191
07-137 Sea World Marina at Perez Cove	210	(619) 226-3915
Shelter Island Area		
07-138 Shelter Island Marina Inn	188	(619) 223-0301
07-139 Bay Club Marina	154	(619) 222-0314
07-140 Kona Kai Club	264	(619) 222-1191
07-141 Kona Marina	252	(619) 224-7547
07-142 Shelter Cove Marina	151	(619) 224-2471
07-143 Half Moon Anchorage	80	(619) 224-3401
07-144 Sun Harbor Marina	121	(619) 222-1167
07-145 Gold Coast Marina/Fraisers Yachts	35	(619) 225-0588
07-146 San Diego Yacht Club	600	(619) 221-8400
07-148 Silver Gate Yacht Club	144	(619) 222-1214
07-149 Southwestern Yacht Club	387	(619) 222-0438
07-150 Shelter Island Yachtways, Ltd.	50	(619) 222-0481
07-151 Crows Nest Brokerage	20	(619) 222-1122
07-152 San Diego Unif. Pt. Dist. Moorings	44	(619) 686-6227
Commercial Basin Area		
07-153 Driscoll's Boat Works	125	(619) 226-2500
07-154 Koehler Kraft Co.	20	
07-155 Nielsen Beaumont	20	(619) 222-4255
07-156 Shelter Cove Marina	151	(619) 224-2471
07-157 Shelter Island Boat Yard	50	(619) 222-0481
07-158 Sun Harbor Marina	150	(619) 222-1167
07-159 Eichenlaub's	3	
Harbor Island Area		
07-160 Sunroad Resort Marina	609	(619) 574-0736
07-161 Cabrillo Isle Marina	420	(619) 297-6222
07-162 Marina Cortez	522	(619) 291-5985
07-163 Harbor Island West Marina	620	(619) 291-6440
07-164 Sheraton Marina	42	(619) 692-2249

07-165 Marine Corps Recruit Depot	54	(619) 524-4202/1772
MARINA	**TOTAL SLIPS**	**CONTACT #**
Boathouse Marina	50	(619) 524-5269
07-166 Naval Training Center Marina	70	(619) 524-6498
Embarcadero Area		
07-168 Marriott Marina	447	(619) 230-8955
07-169 San Diego Unified Port District Moorings/Laurel St. A-3	154	(619) 686-6227
Coronado		
07-170 Glorietta Bay Marina	109	(619) 435-5203
07-171 Loews Hotel & Marina	80	(619) 575-7245
07-172 San Diego Unified Port District Moorings, A-4 / Marine Ops	170	(619) 686-6340
07-173 Coronado Yacht Club	261	(619) 435-1848
07-174 Coronado Cays Yacht Club	8	(619) 429-0133
07-175 Coronado Cays Marina	56	(619) 423-0011
Chula Vista		
07-176 Chula Vista Marina & RV Park	552	(619) 691-1860
07-177 California Yacht Marina	342	(619) 422-2595
07-178 South Bay Boat Yard	37	(619) 427-6767

Commercial Fishing Marinas

MARINA	**TOTAL SLIPS**	**CONTACT #**
07-179 Fisherman's Landing	21 slips 20 comm. vessels	(619) 222-0391
07-180 H & M Landing	31 slips 25 comm. vessels	(619) 222-1144
07-181 Pt. Loma Sportfishing	27 slips 25 comm. vessels	(619) 223-1627
07-182 lslandia Sportfishing	250 slips 3 comm. vessels	(619) 222-1164
07-183 Seaforth Marina	250 slips 10 comm. vessels	(619) 224-6807
07-184 Helgren's Sportfishing	30 slips 12 comm. vessels	(760) 722-2133
07-185 Harbor Excursion Docks	6 slips 5 comm. vessels	(619) 234-4111
07-186 Tuna Boat Basin	125 slips 72 comm. vessels	(619) 686-6340
07-187 S.D. Fisherman's Village	128 slips 37 comm. vessels	(619) 222-4930

5403 ***Boat Ramps***

North County Thomas Guide Reference 98

Oceanside Harbor	TB 1085 H – 6

Metropolitan Thomas Guide Reference 98

1. Shelter Island Public Boat Launch Ramp	TB 1288 C - 3
2. Mission Bay Aquatic Park	TB 1267 J - 2
3. Santa Clara Recreation Center	TB 1267 J - 1
4. Ingraham Street Boat Ramp	TB 1268 B - 3
5. Vacation Isle	TB 1268 B - 2
6. Shelter Island	TB 1288 C - 3
7. USCG Air Station	TB 1288 H - 1
8. NAS North Island has old Seaplane Ramps that may be suitable for use as boat ramps if required.	TB 1288 E - 3

South County Thomas Guide Reference 98

1. Chula Vista Public Launch ramp	TB 1329 H - 2
2. National City Public Launch Ramp	TB 1309 G – 5

5404 ***Aircraft Landing Sites***

There are four military, twelve County or City operated and nine private airfields within San Diego County. Of these, the four military and six of the twelve local government operated airfields are sufficiently close to the coast with runways at least 2000 feet in length. Those airfields are:

5404.1 Military Airfields

Miramar Marine Corps Air Station (MCAS):

Located 16 miles north of downtown, access is via I-15 and Miramar Way.
Miramar Marine Corps Air Station Ops Duty Officer: (858) 577-4279, 4277
Ops Maintenance Div: (858) 577-4285, 4284
MCAS
San Diego, California 92415

Miramar Marine Corps Air Station has government contract fuel available.
Standard hours of operation is 0800 - 2400 (Monday - Friday) and
0800 -1800 (Saturday - Sunday). The Operations Maintenance Division (Transient Section) has an 11K forklift for off-loading equipment.

HIGHWAY ACCESS:
From Miramar MCAS take Interstate 15 south connecting with Highway 163 south. Exit on Interstate 8 west connecting with Interstate 5 south. Exit on Sassafras and turn right on Pacific Coast Highway. Turn right on Laurel. Veer right to connect with Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office.

From Miramar MCAS take Miramar Road going west. Miramar changes to La Jolla Village Drive. Take Interstate 5 south, which goes to the downtown. Exit on Sassafras and turn right on Pacific Coast Highway. Turn right on Laurel veer right to connect with Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office.

Two other options exist which from Miramar MCAS connects State Highway 163 and 52. Interstate 805 is also an available option to the downtown area.

North Island Naval Air Station: Thomas Guide Page 64, E3. Access is via Coronado Bay Bridge and S-75.

Ream Field (Naval Auxiliary Landing Field Imperial Beach): Thomas Guide Page 71 - A6. Access via I-5 and S75 to 13th Street entrance.

Camp John Pendleton: Thomas Guide - Page 9 -C1. Access via I-5 and Vandergrift Road.
Radio frequencies for Miramar, North Island and Ream Field are 126.2Mhz primary and 340.2Mhz secondary. Radio frequencies for Camp Pendleton are 123.2Mhz primary and 360.3Mhz secondary. Permission to use the Naval Air Station facilities is granted through the Commander, Naval Base San Diego. The Commanding General, USMC Base Camp Pendleton controls the use of the USMC facility.

5404.2 Civilian Airfields

San Diego International Airport: Operated by the Unified San Diego Port District.
Thomas Guide page 59 - F5. Access is via Harbor Drive. Primary radio frequency is 118.3Mhz.

Montgomery Field. Operated by the City of San Diego. Located 10 miles north of downtown San Diego. Montgomery Field is also approximately 7 miles south of Miramar Naval Air Station. Thomas Guide page 53, A2. Access is via S-163and Aero Drive at 3350 Montgomery Drive. Primary radio frequency 119.2Mhz.

Montgomery Field Tower: (858) 277-5601
3750 John J. Montgomery Drive
San Diego, California 92123

Montgomery Field Airport Manager (858) 573-1440
Montgomery Field has no government contract fuel available. Fuel is available and the VISA card is acceptable. Standard hours of operation are available 24 hours. Off-loading equipment is not available however; equipment is available at Hawthorne Rent-It Service located at 1473 G Street. The landing field length is 3,400 feet, which has a weight limit of 12,000 pounds. This is inadequate for a C-130.

HWY ACCESS:
From Montgomery Field, take State Highway 274 west (Balboa Avenue). Exit onto Interstate 5 south. Exit on Sassafras and turn right on Pacific Coast Highway. Turn right on Laurel. Veer right to connect with Harbor Drive and stay on the left hand side and turn left at the Marine Safety Office.

From Montgomery Field, take State Highway 163 south; take the Washington Street exit and approximately 2 miles turn left on Pacific Coast Highway. Turn Right on Laurel. Veer right to connect with Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office.

McClelland Palomar. Operated by the County of San Diego and located in the City of Carlsbad. Thomas Guide page 19 - F2. Access is via I-5 and Palomar Airport road. Primary radio frequency is 122.95Mhz.

Oceanside Airport. Operated by the City of Oceanside. Thomas Guide page 9 - E3.
Access via S-76 at 480 Airport road. Primary radio frequency is 123.0Mhz.

Gillespie Field. Operated by the County of San Diego in the City of El Cajon. Thomas Guide page 56 - B1. Access is I-8 and S67 at 1960 Joe Crosson road. Primary radio frequency is 120.7Mhz.

Gillespie Field Tower: (619) 448-9518
2001 North Marshall Ave
El Cajon, California 92020

For emergency use notification after 2100, call SOCAL TRACON at (619) 537-5916

Gillespie Field has no government contract fuel. Jet fuel (class unknown) is available. Standard hours of operation are 0700 - 2100. Pilot controls field approach lights. Offloading equipment is not available however; Hawthorne Rent-It Service located at 12329 Maple View, Lakeside, CA carries forklifts that handle 11K or better. They are located 5 miles northeast from Gillespie Field. Their phone number is (619) 968-6904. Mr. Eddie Castillo can be reached in an emergency, after hour situation at (Beeper) 440-2345.

HWY ACCESS:
From Gillespie Field, take Fletcher Pkwy to Interstate 8 west connecting with Interstate 5 south. Exit on Sassafras and turn right on Pacific Coast Highway. Turn right on Laurel. Veer right to connect with Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office. Two other options exist from which Gillespie Field connects to State Highways 67, 94, and 125.

Brown Field. Operated by the City of San Diego and located on the U.S./Mexico border. Thomas Guide page 72, F5. Access is via S905. Primary radio frequency 126.9Mhz.

Brown Field Tower: (619) 661-0174
Hours are 8 A. M. – 8 P. M.
Admin: (619) 661-6334
1424 Continental Street Operations: (619) 424-0456
San Diego, California 92173
Paladine Aviation (off-loading equipment) (619) 661-1125
Paladine Aviation President (Beeper) 898-8052
Paladine Aviation Fuel Manager (Beeper) 898-0028
Bearoon Aviation: (619) 661-1121
Brown Field has government contract fuel available.
The landing field length is 8,000 feet.
Standard hours of operation is 0800 - 1900 (Monday - Sunday)
Pilot controls field approach lights.
Brown Field has no off-loading equipment however; equipment is available at Hawthorne Rent-It-Service located at 1473 G Street.

HWY ACCESS:
From Brown Field, take the Otay Mesa road connecting to Cal State Highway 905 west. Connect with Interstate 5 north and take the Ash Street exit. Turn right on Pacific Coast Highway and turn left on Broadway. Turn Right on Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office.

From Brown Field, take the Otay Mesa road connecting to Cal State Highway 905 west and turn right on Interstate 805 north. Take the Imperial Avenue exit and turn left towards downtown. Turn right on Pacific Coast Highway and turn left on Broadway. Turn Right on Harbor Drive and stay on the left-hand side and turn left at the Marine Safety Office.

5405 ***Portable Restrooms***

Commercial: Portable restrooms are available commercially from the following companies:

Portasan (1000)
2130 Mission Rd
Escondido, CA
800-443-3877
619-988-7671 (Manny, 24 hrs)

Deter & Sons (400)
8180 Commercial St
La Mesa, CA
619-460-3925

Lamar (30)
P.O. Box 3940
Chula Vista, CA
619-425-7160
800-338-5730

Non-Commercial: Currently the only non-commercial source for portable toilets is California Transportation.

5406 *Temporary Waste Storage*

For information on temporary/emergency permits within the coastal zone, contact the Energy and Resources unit of the CCC at (415) 904-5285/201-5792.

Temporary/emergency storage facilities can include Baker tanks, tank trucks, oil drums, or empty fuel storage tanks. If suitable containers are not available, oily wastes may be temporarily stored in pits dug in the soil. These pits must be lined with plastic sheeting to prevent oil leakage and soil penetration.

Company Name	Location	Phone Number
Action Cleaning Corp.	San Diego	(619) 233-1881
All Valley Oil Recycle	Garden Grove	(714) 534-8841
Allied Petroleum	Hilmar	(209) 576-8500
Alviso Independent Oil	Alviso	(408) 262-2715
Amberwick Corp.	Long Beach	(800) 300-9990
American Oil Co.	Los Angeles	(213) 469-2277
Asbury Environmental	San Diego	(619) 463-1126 (24 hr.)
Asbury Environmental	Fontana	(323) 350-1840
Golden West Oil Co. Inc.	Bloomington	(909) 350-3252
IT Corporation	Torrance	(310) 378-9933
J.C.'s Grease Buyers	Norco	(909) 736-1198
J.W. Butler Oil, Inc.	Lancaster	(805) 946-2420
Jack Stone Drainage Oil Co.	Long Beach	(562) 427-7216
Jim Knight Drain Oil Service	Long Beach	(562) 434-2419
Oasis Pumping	Whittier	(562) 944-5225
World Pacific Oil Co.	Garden Grove	(714) 539-7002
Pacific Fuel Service	Rancho Cucamonga	(909) 980-1537
R. B. Enterprises	Ridgecrest	(760) 375-7727
Rosemead Oil Production, Inc.	Santa Fe Springs	(562) 941-3261
Speed's Oil Tool Serv., Inc.	Santa Maria	(805) 925-1369
Triad Marine & Oil Cleaning	San Diego	(619) 239-2024

5409 *Fueling/Maintenance Facilities*

5409.1 Ashore Fueling Facilities - TO BE DEVELOPED

5409.2 Marine Fueling Facilities:

Fuel by barge:

Jankovich & Sons
920 Gull Street
San Diego, CA 92101
619-232-4674

Fuel docks:

a. **Cortez Fuel Dock** - Located on Harbor Island at the Cortez Marina, it is capable of handling vessels up to 200' long. The dock has a draft of 12'.

b. **Harbor Island West Fuel Dock**: Located at the West End of Harbor Island. The dock is 120' long, but is capable of fueling vessels greater than 120' in length. Maximum draft is 11'.

c. **High Seas Fuel Dock –** Located on Shelter Island/Commercial Basin

d. **Pearsons Fuel Dock –** Located on Shelter Island.

e. **Islandia Sportfishing Dock** - Located in Mission Bay

Fuel by tank trucks:

a. **Calzona** (9,000 gallon truck)
2351 E. Harbor Drive
San Diego, CA 92113

b. **Fogerty Petroleum** (8,800 gallon truck)
946 W. Hawthorne
San Diego, CA 92101

c. **LCP Marine** (5,000 gallon truck)
241 W. 35th Street
National City, CA 91950

d. **SOCO/Barnacle Oil** (97,500 gallon truck)
P.O. Box 944
El Cajon, CA 92022

5409.3 Maintenance Facilities

Large Vessels: Most vessels of 30' length or greater which would be involved in an oil spill clean-up operation would be staffed with a crew capable of performing normal maintenance and minor repairs. Any major repairs, which require removing the vessel from the operation, would be the responsibility of the operator, in conjunction with the spiller.

Small Vessels: Small utility boats under 30' in length, which were obtained under contract from local cleanup, and/or marine companies are also provided with maintenance personnel. Boats, which are provided with no crew, would need to be maintained by some other means.
[Any vessels oiled must be cleaned prior to entering the harbor for repairs.)

Vehicle Maintenance Facilities: the provider will maintain most vehicles provided under contract. Those vehicles provided by local jurisdictions will be maintained and repaired at the appropriate jurisdictional facility.

5410 Medical Facilities

1. ALVARADO HOSPITAL MEDICAL CENTER
6655 Alvarado Road
San Diego, CA 92120-5298
Phone: (619) 287-3270 (619) 229-3130

2. BALBOA NAVAL HOSPITAL
San Diego, CA 92134
Phone: (619) 532-6019
(619) 532-8275 (Emergency)

Remarks: This facility has a licensed helipad.

3. COMMUNITY HOSPITAL OF CHULA VISTA
751 Medical Center Court
Chula Vista, CA 91910
Phone: (619) 482-5800
(619) 482-5825 (Emergency)

Remarks: This facility has a licensed helipad.

4. CORONADO HOSPITAL
250 Prospect Place
Coronado, CA 92118
Phone: (619) 435-6251 (Emergency)

5. GROSSMONT HOSPITAL
5555 Grossmont Center Dr.
La Mesa, CA 91942
Phone: (619) 465-0711
(619) 589-4401 (Emergency)

Remarks: This facility has a licensed helipad.

6. GREEN HOSPITAL OF SCRIPPS CLINIC
10666 N. Torrey Pines Rd.
La Jolla, CA 92037
Phone: (858) 455-9100
1-800-992-9962

7. MERCY HOSPITAL & MEDICAL CENTER
4077 Fifth Avenue
San Diego, CA 92103-2180
Phone: (619) 294-8111
(619) 260-7000 (Emergency)

Remarks: This facility has a licensed helipad.

8. PARADISE VALLEY HOSPITAL
2400 East Fourth Street
National City, CA 91950
Phone: (619) 470-4321
(619) 470-4141 (Emergency)

Remarks: This facility has a licensed helipad.

9. SCRIPPS MEMORIAL HOSPITAL-CHULA VISTA
435 H Street
Chula Vista, CA 91910
Phone: (619) 691-7000
(619) 691-7290 (Emergency)

10. SCRIPPS MEMORIAL HOSPITAL-ENCINITAS
354 Santa Fe Drive
Encinitas, CA 92023
Phone: (760) 753-6501
(760) 942-7685 (Emergency)

11. SCRIPPS MEMORIAL HOSPITAL-LA JOLLA
9888 Genessee Avenue
La Jolla, CA 92037
Phone: (858) 457-4123
(619) 457-6150 (Emergency)

Remarks: This facility has a licensed helipad.

12. SHARP MEMORIAL HOSPITAL
7901 Frost Street
San Diego, CA 92123
Phone: (619) 541-3400
(619) 541-3411 (Emergency)

Remarks: This facility has a licensed helipad.

13. SHARP CABRILLO HOSPITAL
3475 Kenyon Street
San Diego, CA 92110
Phone: (619) 221-3400
(619) 221-3411 (Emergency)

14. UCSD MEDICAL CENTER
225 Dickinson Street
San Diego, CA 92103-1990
Phone: (619) 543-6222
(619) 543-6400 (Emergency)

Remarks: This facility has a licensed helipad.

5411 *Dining/Lodging Capacities*

5411.1 Lodging

Military Personnel: Military personnel who are brought into the area on Government orders to participate in cleanup operations may be provided with berthing at a local military base on a space available basis. If space were not available they would draw per diem and be put up in a civilian hotel.

MILITARY Bachelor Officer Quarters (BOQ)/Bachelor Enlisted Quarters BEQ

MCAS Miramar
BEQ- (619) 577-1174; BOQ- (858) 577-4233

Naval Air Station North Island
BEQ- (619) 545-9551; BOQ- (619) 545-7545

Naval Amphibious Base Coronado
BEQ- (619) 437-3494; BOQ- (619) 437-3860

Naval Station San Diego
BEQ- (619) 556-8672

Naval Submarine Base San Diego
BEQ- (619) 553-7533; BOQ- (619) 553-9381

USMC Base Camp Pendleton
Billeting- (760) 725-3718

USMC Marine Corps Recruit Depot
BEQ- (619) 524-4401; BOQ- (619) 524-4401

Civilian personnel: should be housed in hotels or motels under contract payable by the RP. See Table 5411.1 for a list of coastal accommodations.

Due to the metropolitan nature of San Diego County, the likelihood of performing clean up operations in a remote area is small. Therefore mobile kitchens may not be necessary. However, they can be obtained through several organizations within the area. These organizations include:

1. American Red Cross:
   619-542-7400

2. California National Guard:
   Headquarters (916) 854-3000
   714-391-4485 (Primary contact number through State OES Region VI)
   213-620-5607 (Secondary)

3. U.S. Forest Service: Region V San Diego, Cleveland National Forest
   858-673-6180 (Primary, Region V San Diego)

858-674-2901 (Secondary)

4. San Diego Sheriff's Office: 858-974-2222

5411.2 Transportation (water)

San Diego Harbor Excursions operates a commercial water taxi on San Diego Bay:

Water Taxi Service
(619) 235-8294

5411.3 Food/Water

CATERING:

Fiesta Catering 9360 Dowdy Drive San Diego, CA (858) 578-0350	One (1) day advance notice required Lunch Truck Day & Night
Moody's Lunch Service 4637 Market Street San Diego, CA 92113 (619) 262-0773	Box lunches (sandwiches, pastry or cookies, fruit drinks, coffee, milk and Kool-aid). Serving industry & construction. Can handle unlimited number of lunches. Please give as much advance notice as possible.
Hero Catering 1160 Old Woman Rd Yucca Valley, CA (760) 364-1101	4-5 hr. notice. Up to 500 people. Delivers to San Diego County.

WATER:

San Diego City Water Dept. Utilities Department San Diego, CA 92108 (619) 515-3525 (24 hrs)	Response time - 1 hour 4 - 500 gallon water trailers will deliver.

California State National Guard can only be used after local supplies are exhausted.
7401 Mesa College Dr.
San Diego, CA 92111
(858) 573-7030

Figure 5000-C

Note: Several Area Code changes will be incorporated by June 2000
HOTEL/MOTEL ACCOMMODATIONS

NAME	ADDRESS	CITY	PHONE
Quality Inn Airport	2901 Nimitz Blvd	San Diego	224-3655
Airport Travelodge	2353 Pacific Hwy	San Diego	232-8931
Days Inn	699 E Street	Chula Vista	585-1999
Andrea Villa Inn	2402 Torrey Pines	La Jolla	459-3311
Balboa Park Inn	3402 Park Blvd	San Diego	298-0823
Bay Club Hotel & Marina	2131 Shelter Isl Dr	San Diego	224-8888
Beach Haven Inn	4740 Mission Blvd	Pacific Beach	272-3812
Beachcomber Hotel	907 Turquoise	San Diego	488-4442
Beachfront Motor Lodge	707 Reed Ave	Pacific Beach	483-7670
Best Western	555 West Ash	San Diego	233-7500
Best Western	275 Orange Ave	Coronado	437-1666
Best Western	2051 Shelter Isl Dr	San Diego	222-0561
Best Western	7830 Fay Ave	La Jolla	459-4461
Best Western	5005 N. Harbor Dr	San Diego	224-3254
Boat & Breakfast	2240 Shelter Isl Dr	San Diego	223-3477
Capri Beach Accommodations	628 Missouri	Pacific Beach	483-5011
Catamaran Resort	3999 Mission Blvd	Mission Beach	488-1081
Clarion Hotel	2223 El Cajon Blvd	San Diego	296-2101
Grand Colonial	910 Prospect	La Jolla	454-2181
Comfort Inn	1955 San Diego Ave	San Diego	543-1130
Comfort Inn	719 Ash Street	San Diego	232-2525
Comfort Inn	3747 Midway Dr	San Diego	225-1295
Coronado Village	1017 Park Place	Coronado	435-9318
Countryside Inn	1661 Villa Cardiff	Cardiff	944-0427
Crown City Inn	520 Orange Ave	Coronado	435-3116
Crown Point View Suite Hotel	480 Crown Point Dr	San Diego	272-0676
Dana Inn & Marina	1710 W Mission Bay	San Diego	222-6440
Days Inn	**3350 Rosecrans**	**San Diego**	**224-9800**
Diamond Head Inn	605 Diamond	San Diego	273-1900
Double Tree	910 Camino del Rio S	San Diego	543-9000
Double Tree	116111 Bernardo Plaza Ct	San Diego	485-9250
Double Tree	11915 El Camino Real	San Diego	481-8900
Embassy Suites	4550 La Jolla Village Dr	La Jolla	453-0400

NAME	ADDRESS	CITY	PHONE
Empress Hotel	7766 Fay Ave	La Jolla	454-3001
Glorietta Bay Inn	1630 Glorietta Blvd	Coronado	435-3101
Grosvenor Inn	3145 Sports Arena	San Diego	225-9999
Half Moon Inn	2303 Shelter Island	San Diego	224-3411
Hacienda Hotel	Juan & Harney	San Diego	298-4707
Hilton 1-800-445-8667 1775	E Mission Bay Dr	San Diego	276-4010

Hilton	15575 Jimmy Durante Blvd	Del Mar	792-5200
Holiday Inn	1617 First Ave	San Diego	239-6171
Holiday Inn	595 Hotel Circle S	San Diego	291-5720
Holiday Inn	3950 Jupiter	San Diego	226-8000
Hotel Del Coronado		Coronado	522-8000
Hyatt Islandia	1441 Quivira Rd	San Diego	224-1234
Hyatt Regency	3777 La Jolla Village Dr	La Jolla	552-1234
Inn By The Sea	7830 Fay Ave	La Jolla	459-4461
Kona Kai Resort	1551 Shelter Isl	San Diego	222-1191
La Costa Resort	Costa Del Mar Rd	Carlsbad	438-9111
La Jolla Cove	1155 Coast Blvd	La Jolla	459-2621
La Jolla Palms	6705 La Jolla Blvd	La Jolla	454-7101
La Jolla Village Inn	I-5 at La Jolla Village Dr	La Jolla	453-5500
La Quinta Inn 1-800-228-9290	150 Bonita Rd	Chula Vista	691-1211
La Vallencia Hotel	1132 Prospect	La Jolla	454-0771
Le Meridien Hotel	2000 2nd Ave	Coronado	435-3000
Marriott 1-800-228-9290	4240 La Jolla Village Dr	La Jolla	587-1414
Marriott	8757 Rio San Diego	San Diego	692-3800
Marriott	333 W Harbor Dr	San Diego	234-1500
Marriott	701 A Street	San Diego	696-9800
Omni Hotel	910 Broadway Circle	San Diego	239-2200
Peachtree Inn	901 F Street	San Diego	233-1100
Prospect Park Inn	1110 Prospect	La Jolla	454-0133
Quality Suites	9880 Mira Mesa Blvd	San Diego	530-2000
Radisson Hotel 1-800-333-3333	1433 Camino del Rio S	San Diego	260-0111
Radisson	1646 Front Street	San Diego	239-6800
Radisson	700 National City Blvd	National City	336-1100
Radisson	11520 W Bernardo Ct	San Diego	451-6600
Ramada 1-800-228-2828 660	K Street	San Diego	696-0234
Ramada	2435 Jefferson	San Diego	260-8500
Ramada	2151 Hotel Circle S	San Diego	291-6500
Ramada Inn	91 Bonta Rd	Chula Vista	425-9999
Ramada Inn	717 S. Highway 101	Solana Beach	792-8200
Red Lion Inn 1-800-547-8010	7450 Hazard Center	San Diego	297-5466
Roadway Inn	778 Broadway	Chula Vista	476-9555
Sands Of La Jolla	5417 La Jolla Blvd	La Jolla	459-3336
Sea Lodge	8110 Camino De Oro	La Jolla	459-8271
Seacoast Suites	4760 Mission Blvd	San Diego	483-6780
Sheraton 1-800-325-3535	1590 Harbor Isl Dr	San Diego	291-6400
Sheraton	10950 Torry Pines	La Jolla	558-1500
Sheraton	1380 Harbor Isl Dr	San Diego	291-2900
Summer House Inn	7955 La Jolla Shores Dr	La Jolla	459-0261
The Inn L'Auberg Del Mar	1540 Camino Del Mar	Del Mar	259-1515

NAME	ADDRESS	CITY	PHONE
Torrey Pines Inn	11480 N Torrey Pines	La Jolla	453-4420
Town & Country	500 Hotel Circle N	San Diego	291-7131
Travelodge	2353 Pacific Hwy	San Diego	232-8931
US Grant Hotel	326 Broadway	Chula Vista	422-8305
US Suites Hotel	3262 Holiday Ct	La Jolla	554-0300

Vagabond Inn 1-800-522-1555 422-8305		**230 Broadway**	**Chula**	**Vista**
Vagabond Inn	625 Hotel Circle S	San Diego	297-1691	
Westgate Hotel	1055 2nd Ave	San Diego	238-1818	

5412 ***Car Rentals***

Avis
Lindbergh International Airport
San Diego, CA 92101
(619) 231-7171

Budget Rent-A-Car
Lindbergh International Airport
San Diego, CA 92101
(619) 297-3851

Hertz
Lindbergh International Airport
San Diego, CA 92101
(619) 231-7000

Local GSA contact:
George Bunting
(619) 557-7218

Commanding Officer
Navy Public Works Center
Naval Base, Code 151B
San Diego, CA 92136-5113
556-7606

5413 ***Mobile Command Posts***

Refer to Section 5511.1 through 5511.8

5510 Summary of Area Resources

Organization

District Response Advisory Team
Commander (Pmr)
Eleventh CG District
Building 50-6, Coast Guard Island
Alameda, CA 94501-5100

5511.1.9 *Area Resources (OSRO's) Response Equipment including Communications*

INVENTORY OF EQUIPMENT
CLEAN COASTAL WATERS, INC.
190 South Pico Avenue
Long Beach, California 90802-6247
(562) 432-1415 (24 hours)

OIL SPILL RESPONSE VESSELS (OSRVs)	LOCATION

CLEAN WATERS I

Berth 59
Port of Long Beach

Dimensions 145' x 35'
Draft 9'
Fuel capacity - 31,800 gal
Potable water - 10,400 gal
Oil storage - 1,510 bbls
Ballast tanks - 1,390 bbls
Main engines - 4 12 V-71 GMC
Speed - 10.5 kts
Accommodations - complete for 8 persons
Electronics - Radar, GPS, 2-VHF Marine, UHF CCW frequency,
Single Side Band, EPIRB, Depth finder, Cellular phone w/fax

Onboard Equipment
4,500' Expandi Model 4300 boom (5 - 750' Roto Packs)
4 - Hydraulic power packs
2 - LORI LORS - 4 brush chains per side
2 - Advancing skimmer jibs w/boom
2 - GT-185 skimmers
2 - Framo TK 150 off loading pumps - 1,257 bbls/hr each
2 - Recovered oil off loading pumps, DESMI DOP 250 - 629 bbls/hr each
Hydraulic crane 12 ton capacity, 50 ft boom
10 bales sorbent pads
600' sorbent boom

RECOVERY 1 Berth 57

Port of Long Beach

Dimensions 100' x 28'
Draft 6' 5"
2 - Caterpillar diesel engines - 535 HP each
Fuel capacity - 2,500 gal
Potable water - 300 gal
Oil storage - 2,215 bbls
2 - Generators - 25 KW w/lights
Speed - 10 kts
Electronics - Radar, GPS, 2-VHF Marine, UHF CCW frequency,
Single Side Band, EPIRB, Depth finder, Auto pilot, Cellular phone w/fax

Onboard Equipment
1,500' Expandi Model 4300 boom (2 - 750' Roto Packs)
2 - Advancing skimmer jibs w/boom
2 - LORI LORS - 4 brush chains per side (heavy and light oil brush)
2 - Recovered oil off loading pumps, DESMI DOP 250 - 629 bbls/hr each
2 - Hydraulic power packs - 42 gpm @ 2,500 psi
Hydraulic crane 6 ton capacity, 30 ft boom
10 bales sorbent pads
600' sorbent boom

RECOVERY 2

Berth 57
Port of Long Beach

Dimensions 100' x 28'
Draft 6' 5"
2 - Caterpillar diesel engines - 535 HP each
Fuel capacity - 2,500 gal
Potable water - 300 gal
Oil storage - 2,215 bbls
2 - Generators - 25 KW w/lights
Speed - 10 kts
Electronics - Radar, GPS, 2-VHF Marine, UHF CCW frequency,
Single Side Band, EPIRB, Depth finder, Auto pilot, Cellular phone w/fax

Onboard Equipment
1,500' Expandi Model 4300 boom (2 - 750' Roto Packs)
2 - Advancing skimmer jibs w/boom
2 - LORI LORS - 4 brush chains per side
2 - GT-185 skimmers
2 - Recovered oil off loading pumps, DESMI DOP 250 - 629 bbls/hr each
2 - Hydraulic power packs - 42 gpm @ 2,500 psi
Hydraulic crane 6 ton capacity, 30 ft boom
10 bales sorbent pads
600' sorbent boom

* **3 - LORI / Barges** — Berth 59, Port of Long Beach

Dimensions 8' x 33'
Draft 4' (loaded)
Oil Storage - 100 barrels

* Onboard Equipment
LORI Bow Collector - 2 brush chain
Hydraulic power pack - 10 gpm @ 1500 psi
Recovered oil off loading pump - 429 bbls/hr

FAST RESPONSE BOATS (FRBs)	LOCATION

RECON 1 — Berth 57, Port of Long Beach

Dimensions 42' x 16'
Draft 3' 8"
2 - Caterpillar diesel engines - 375 HP each
Fuel capacity - 400 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency, EPIRB, Depth finder

Onboard Equipment
1,000' Kepner43" Reel Pack Boom
Hydraulic boom reel 8' x 12'
Power take off
8.0 KW generator w/lights

RECON 2 — Berth 57, Port of Long Beach

Dimensions 42' x 16'
Draft 3' 8"
2 - Caterpillar diesel engines - 375 HP each
Fuel capacity - 400 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency, EPIRB, Depth finder

Onboard Equipment
1,000' Kepner 43" Reel Pack Boom
Hydraulic boom reel 8' x 12'
Power take off
8.0 KW generator w/lights

RECON 3 Berth 57
Port of Long Beach

Dimensions 43' x 16'
Draft 3' 10"
2 - Caterpillar diesel engines - 375 HP each
Fuel capacity - 400 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency,
EPIRB, Depth finder

Onboard Equipment
1,000' Kepner 43" Reel boom
Hydraulic boom reel 8' x 12'
Power take off
8.0 KW generator w/lights

RECON 4 Berth 57
Port of Long Beach

Dimensions 43' x 16'
Draft 3' 10"
2 - Caterpillar diesel engines - 375 HP each
Fuel capacity - 400 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency,
EPIRB, Depth finder

Onboard Equipment
1,000' Kepner 43" Reel boom
Hydraulic boom reel 8' x 12'
Power take off
8.0 KW generator w/lights

* **RESPONSE 1** Berth 57
Port of Long Beach

Dimensions 34' x 12'
Draft 2' 8"
2 – Volvo Penta diesel engines I/O's – 200 HP each
Fuel capacity - 200 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency,
EPIRB, Depth finder

* Vessel Dedicated Shallow Water Equipment (Six hour mobilization required)

LORI skimmer - 2 brush chains
Advancing skimmer jib w/boom
Hydraulic power pack
Oil storage tank - 8 bbls
Off loading pump - 111 bbls/hr
Davit arm

* **RESPONSE 2** Berth 57 Port of Long Beach

Dimensions 34' x 12'
Draft 2' 8"
2 – Volvo Penta diesel engines I/O's – 200 HP each
Fuel capacity - 200 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency,
EPIRB, Depth finder

* Vessel Dedicated Shallow Water Equipment
(Six hour mobilization required)
LORI skimmer - 2 brush chains (heavy & light oil brush)
Advancing skimmer jib w/boom
Hydraulic power pack
Oil storage tank - 8 bbls
Off loading pump - 111 bbls/hr
Davit arm

* Shallow water capable

* **RESPONSE 3** Berth 57 Port of Long Beach

Dimensions 34' x 12'
Draft 2' 8"
2 – Volvo Penta diesel engines I/O's – 200 HP each
Fuel capacity - 200 gal
Speed - 20 kts
Electronics - Radar, GPS, VHF Marine, UHF CCW frequency,
EPIRB, Depth finder

* Onboard Equipment
Walosep W1 stationary skimmer
Hydraulic power and pump pack
Oil/water separating/storage tank - 15 bbls
Off loading pump - 86 bbls/hr
Hydraulic crane 2½ ton capacity, 15 ft boom

WORK BOATS	LOCATION
* **21' ALUMINUM WORK BOAT (SKIMSLED)** w/2 - 90 HP (four stroke) engines	CCW Storage Yard
* Onboard equipment Walosep WM stationary skimmer Hydraulic power and pump pack Oil/water separating/storage tank - 7 bbls	
* **20' ALUMINUM WORK BOAT** w/115 HP engine	CCW Storage Yard
* **18' ALUMINUM WORK BOAT** w/2 40 HP engines w/trailer	Berth 57 Port of Long Beach
* **18' ALUMINUM WORK BOAT** w/2 50 HP (four stroke) engines w/trailer	Berth 57 Port of Long Beach
* **2 - 16' ALUMINUM WORK BOATS** w/2 40 HP engines w/trailers	1 - Clean Waters I 1 - CCW Storage Yard

* Shallow water capable

VESSEL DEDICATED SKIMMERS	LOCATION
3 - WALOSEP SKIMMERS - (Stationary)	
* Model W1 Pump capacity - 300 bbls/hr Derated capacity - 1,330 bbls/day	Response 3
* Model WM Pump capacity - 70 bbls/hr Derated capacity - 336 bbls/day	21' Skimsled
6 - LORI LORS - (Advancing)	
4 Chain Brush System Recovery capacity - 1,032 bbls/hr each Derated capacity - 4,954 bbls/day each	2 - Clean Waters I 2 - Recovery 1** 2 - Recovery 2

* **2 - LORI SIDE COLLECTORS** - (Advancing)

2 Chain Brush System
Recovery capacity - 516 bbls/hr each
Derated capacity - 2,477 bbls/day each

1 - Response 1
1 - Response 2**

* **3 - LORI BOW COLLECTORS** - (Advancing)

2 chain brush system
Recovery capacity - 516 bbls/hr each
Derated capacity - 2,477 bbls/day each

1 - LORI / Barge 1
1 - LORI / Barge 2
1 - LORI / Barge 3

4 - GT-185 SKIMMERS - (Advancing)

Pump capacity - 282 bbls/hr each
Derated capacity - 1,354 bbls/day each

2 - Clean Waters I
2 - Recovery 2

* Shallow water capable
** Vessel equipped with LORI Brush Systems for both heavy oil and light oil

PACKAGED SKIMMING SYSTEMS	LOCATION

DESMI TERMINATOR - (Stationary) — CCW Storage Yard

Pump capacity - 629 bbls/hr
Derated capacity - 3,019 bbls/day
Diesel hydraulic power pack

2 - GT-185 SKIMMERS - (Advancing) (VOSS)

Pump capacity - 282 bbls/hr each
Derated capacity - 1,354 bbls/day each
Diesel hydraulic power pack
Aluminum floating jib w/boom

1 - CCW Storage Yard
1 - M/V Sam Talak

GT-185 SKIMMER - (Stationary)

Pump capacity - 282 bbls/hr
Derated capacity - 1,354 bbls/day
Diesel hydraulic power pack

Barge LBM No. 3

CONTAINMENT BOOM - SOLID FILL TYPE		LOCATION
34,250' SOLID FILL CONTAINMENT BOOM		
7,000'	American Marine (14" x 30")	Ship Services L.A. Harbor
9,100'	Kepner Boom (12" x 24")	
	3,800'	Anaheim Bay
	2,300'	Berth 168 L.A. Harbor
	1,500'	Berth 46 L.A. Harbor
	1,500'	CCW Storage Yard
10,000'	American Marine Boom (8" x 16")	
	1,500'	Anaheim Bay
	1,500'	Newport Bay
	800'	Alamitos Bay
	1,200'	LB Fire Boat Station #15
	1,200'	LB Fire Boat Station #20
	3,800'	CCW Storage Yard
4,500'	American Marine Boom (6" x 12")	
	2,000'	Anaheim Bay
	2,500'	CCW Storage Yard
825'	American Boom (4" x 6")	Anaheim Bay
1,825'	American Boom (3" x 6")	Anaheim Bay
1,000'	American Boom (2" x 6")	Anaheim Bay

CONTAINMENT BOOM - AIR FLOTATION TYPE		LOCATION
3,198' EXPANDI BOOM - MODEL 3000 (14" x 17")		
3,198'	Roto Pack	CCW Storage Yard
45,750' EXPANDI BOOM - MODEL 4300 (20" x 23")		
4,500'	6-750'Roto Packs	Clean Waters I
1,500'	2 - 750' Roto Packs	Recovery 1
1,500'	2 - 750' Roto Packs	Recovery 2
1,500'	2 - 750' Roto Packs	Platform Eva
750'	1 - 750' Roto Pack	Platform Emmy
3,500'	Various Roto Packs	CCW Storage Yard
1,500'	2-750'Roto Packs	Platform Esther
1,400' KEPNER REEL PACK BOOM (18" x 25")		
1,000'	Boom Reel	Recon 1
1,000'	Boom Reel	Recon 2
1,000'	Boom Reel	Recon 3
1,000'	Boom Reel	Recon 4

TEMPORARY OIL STORAGE	LOCATION
* **FIBERGLASS TANK** 70 bbl capacity	Berth 59, Long Beach
* **2 - FAST TANKS** 62 bbl capacity each	CCW Storage Yard
* **3 - DUNLOP DRACONES** Heavy duty sea bag used with any skimmer. Holds 1,200 gallons. Equipped with towing hose assemblies and fittings	CCW Storage Yard
* **2 - KEPNER SEA BAGS** 1,200 gallon capacity each	1 – CCW Storage Yard 1 - King Harbor, El Segundo

DISPERSANT EQUIPMENT	LOCATION
6,575 GAL COREXIT 9527	
Drummed	CCW Storage Yard
AT-802 DISPERSANT APPLICATION AIRCRAFT	
800 gal capacity	Coolidge, Arizona

PUMPS	LOCATION
2 - FRAMO TK 150 OFF LOADING PUMPS	
1,257 bbls/hr capacity each	2 - Clean Waters I
8 - DESMI DOP 250 OFF LOADING PUMPS	
629 bbls/hr capacity each	2 - Clean Waters I 2 - Recovery 1 2 - Recovery 2 2 - CCW Storage Yard
3 - HYDRA TECH OFF LOADING PUMPS	
429 bbls/hr capacity each	1 - LORI / Barge 1 1 - LORI / Barge 2 1 - LORI / Barge 3
3 - DPL40-D3 OFF LOADING PUMPS	
111 bbls/hr capacity each	1 - Response 1 1 - Response 2 1 - CCW Storage Yard
2 - M15 PUMPS	
343 bbls/hr capacity each	1 - Clean Waters I 1 - CCW Storage Yard
TRASH PUMP	
874 bbls/hr capacity	1 - CCW Storage Yard

COMMUNICATIONS EQUIPMENT		LOCATION
BASE UNITS - UHF		
2	454.000 MHz	1 - Clean Waters I
	459.000 MHz	1 - CCW Office
MOBILE UNITS - UHF		
21	454.000 MHz	1 - Recovery 1
	459.000 MHz	1 - Recovery 2
		4 - Recon 1,2,3,4
		3 - Response 1,2,3
		1 - GM's Truck
		1 - OS's Truck
		1 – S Truck
		1 - FOC
		1 - 3-Ton Truck
		1 - ½-Ton Utility Truck
		3 - Crewcab Trucks
		1 - Van
		4 - CR (spares)
PORTABLE UNITS - UHF		
38	454.000 MHz	4 - Clean Waters I
	459.000 MHz	1 - GM
		1 - OM
		1 - MM
		2 - S
		3 - SL
		1 - CCW Office
		25 - CR
MARINE MOB UNITS - VHF		
17	Marine Band	2 - Clean Waters I
		2 - Recovery 1
		2 - Recovery 2
		4 - Recon 1,2,3,4
		3 - Response 1,2,3
		1 - CCW Office
		1 - FOC
PORTABLE UNITS - VHF		
12	Marine Band	1 - Clean Waters I
		1 - S
		1 - SL
		6 - FRB

GM = General Manager MM = Maintenance Manager SL = Section Leader CR = Communications Room at CCW
OM = Operations Manager S = Supervisor FOC = Field Operations Center

CELLULAR PH.

NEXTELS	Handhelds Phones	1 - GM
11 units	2-way Radio	1 - OM
		1 – MM
		2 – S
		3 – SL
		1 - Clean Waters I
		1 – CCW office
	Hardwired	1 - Clean Waters I
6 units		1 - Recovery 1
		1 - Recovery 2
		1 – FOC
		1 – CCW Office
		1 – CR (Spare)

FAX MACHINES

6 units	1 - Clean Waters I
	1 - Recovery 1
	1 - Recovery 2
	1 - FOC
	1 - CCW Office
	1 - CR (spare)

VEHICLES	**LOCATION**
FIELD OPERATIONS CENTER	CCW Storage Yard
TRUCKS	
1 - 3-Ton Stake Bed Truck w/ 2-Ton Hydraulic Crane	CCW Storage Yard
1 - 2-Ton Stake Bed Truck	CCW Storage Yard
1 - 1-Ton Crew Cab Pickup Truck	CCW Storage Yard
2 - 1-Ton Crew Cab Stake Bed Trucks	CCW Storage Yard
2 - ¾-Ton Pickup Trucks	CCW Storage Yard
2 - ½-Ton Pick-up Truck	CCW Storage Yard
VAN - Seven Passenger	CCW Storage Yard

MSRC West Coast Equip. Location	Skimmers	Effective Daily Recovery Capacity bbl/day	Boom		Barges
Everett, WA					
W.C. Park Responder	1 TransRec 350	10,567	675	ft Oil Trawl	1 - 4,000 bbls OSRV
	1 WP - 1	3,017	10,560	ft Sea Sentry Boom	3 - 500 bbl EFC Towable Storage Bladders
	1 Gt 185	1,371	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
	1 Vikoma 3 Weir	5,657	1,216	ft Vikoma 3 Weir	1 - Shallow Water Push Boat
	1 Walosep W 4	3,017	2,000	ft Slickbar Boom	1 - Shallow Water Push Boat (26 ft Munson)
	1 Seawoolf	3,017	2,000	ft Texa Boom	
	1 AardVac	3,840			
Anacortes, WA					
	1 DOP 250 Skimmer	3,017	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (self propelled)
	1 DOP 250 Skimmer	3,017	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
			2,000	ft Texa Boom	
			2,000	ft Slickbar Boom	
			1,320	ft Sea Sentry II Boom	
Port Angeles, WA					
	1 Stress I Skimmer	15,840	1,320	ft Sea Sentry II Boom	1 - 38,000 bbl Offshore Barge
			2,000	Texa Boom	
			900	ft Fire + 400 ft Guide	

MSRC

Neah Bay, WA	1 Desmi Ocean	3,017	3,960	ft Sea Sentry II Boom	1 - Shallow Water Push Boats (26 ft Munson)
			4,000	ft Slickbar Boom	1 - Response Boat (34 ft Munson "Cascade")
					1 - 500 bbl EFC TSB
					Site Characterization Equipment

Astoria, OR					
Oregon Responder	1 TransRec 350	10,567	675	ft Oil Trawl	1 - 4,000 bbl OSRV
	1 Walosep W 4	3,017	9,240	ft Sea Sentry II Boom	1 - 40,000 bbl Offshore Barge
	1 Gt 185	1,371	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
	1 Vikoma 3 Weir	5,657	2,000	ft Texa Boom	1 - Shallow Water Push Boat
	1 AardVac 800	3,840	2,000	ft Slickbar Boom	
	1 Stress I Skimmer	15,840	1,216	ft Vikoma 3 Weir	

Portland, OR	1 Desmi Ocean	3,017	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
			2,000	ft Slickbar Boom	1 - Shallow Water Push Boat

Coos Bay, OR	1 Gt 185	1,371	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
	1 Stress I Skimmer	15,840			1 - Shallow Water Push Boat

Eureka / Humboldt Bay, CA					
	1 Desmi Ocean	3,017	2,860	ft Sea Sentry II Boom	3 - 400 bbl Shallow Water Barges (non-self propelled)
	1 AardVac 800	3,840	2,000	ft Texa Boom	3 - Shallow Water Push Boats (1 - 26 ft Munson)
	1 Komara	275	2,000	ft Slickbar Boom	2 - 500 bbl EFC Towable Storage Bladders
			1,180	ft Simplex (18") Boom	

MSRC

Martinez / Benicia, CA	1 WP-1	3,017	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (self propelled)
			2,000	ft Slickbar Boom	
			2,000	ft Texa Boom	
Richmond, CA					
Pacific Responder	1 TransRec 350	10,567	675	ft Oil Trawl	1 - 4,000 bbls OSRV
	1 Stress I Skimmer	15,840	4,000	ft Texa Boom	1 - 45,000 bbl Offshore Barge
	1 Gt 185	1,371	180	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (self propelled)
	1 DOP 250 Skimmer	3,017	3,800	ft Slickbar Boom	2 - 400 bbl Shallow Water Barge (non-self propelled)
			5,940	ft Sea Sentry II Boom	15 - 500 bbl EFC Towable Storage Bladders
					2 - 3,000 bbl Dunlop Towable Storage Bladders
					2 - Shallow Water Push Boats
San Francisco, CA	1 Gt 185	1,371	1,060	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
					1 - Shallow Water Push Boat
Port of Sacramento, CA			1,000	ft Contractor (12") Boom	
			1,000	ft Contractor (8") Boom	
Port of Stockton, CA			1,000	ft Contractor (12") Boom	
			1,000	ft Contractor (8") Boom	
Port	1 TransRec 350	10,567	675	ft Oil Trawl	1 - 4,000 bbls OSRV

Hueneme, CA					
California Responder	1 Stress I Skimmer	15,840	15,620	ft Sea Sentry II Boom	1 - 32,000 bbl Offshore Barge
	1 Walosep W4	3,017	3,000	ft Texas Boom	3 - 500 bbl EFC Towable Storage Bladders
	1 Vikoma 3 Weir	5,657	1,216	Vikoma 3 Weir	1 - 3,000 bbls Dunlop Towable Storage Bladder
	1 DOP 250 Skimmer	3,017	3,000	ft Slickbar Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
			860	ft Simplex (18") Boom	1 - Shallow Water Push Boats

Long Beach, CA	1 WP-1	3,017	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (self propelled)
	1 Gt 185	1,371	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
					1 - Shallow Water Push Boat

San Diego, CA	1 Gt 185	1,371	60	ft Simplex (18") Boom	1 - 400 bbl Shallow Water Barge (non-self propelled)
	1 AardVac	3,840	1,000	ft Texa Boom	1 - Shallow Water Push Boat
			3,000	ft Slickbar Boom	1 - 500 bbl EFC Towable Storage Bladder

Honolulu, HI Hawaii Responder	1 TransRec 350	10,567	675	ft Oil Trawl	1 - 4,000 bbls OSRV
	1 Gt 185	1,371	9,900	ft Sea Sentry II Boom	1 - 40,000 bbl Offshore Barge
	1 DOP 250 Skimmer	3,017	8,000	ft Slickbar Boom	2 - 400 bbl Shallow Water Barges (self propelled)
	2 Walosep W4	6,034	2,000	ft Texa Boom	2 - 400 bbl Shallow Water Barges (non-self propelled)
	1 Vikoma 3 Weir	5,657	1,216	ft Vikoma 3 Weir	4 - 500 bbl EFC Towable Storage Bladders
	1 Stress I Skimmer	15,840	900	ft Fire + 400 ft Guide	2 - Shallow Water Push Boats

Hilo, HI	1 Desmi Ocean	3,017	1,980	ft Sea Sentry II Boom	1 - 400 bbl Shallow Water Barges (self propelled)
			2,000	ft Slickbar Boom	3 - 400 bbl Shallow Water Barges (non-self propelled)
					3 - Shallow Water Push Boats
					2 - 500 bbl EFC Towable Storage Bladders
					1 - 3,000 bbl Dunlop Towable Storage Bladder
					1 - 57 bbl Fastank
	Skimmers	**BBLS Recovery**	**Feet of Boom**		5 - OSRVs with a total of 20,000 bbls Storage
	46	251,412	134,419		5 - Offshore Barges with 195,000 bbls Storage
					19 - Shallow Water Barges (non-self propelled) (7,600 bbls Storage)
					7 - Shallow Water Barges (self propelled) (2,800 bbls Storage)
					20 - Shallow Water Push Boats

MSRC COMMS EQUIP. DESCRIPTION	FREQ	MODEL/TYPE	Port Hueneme CA	Richmond CA	Eureka CA	TOTAL Quantity West Coast
Telephones		All	50	50	0	**170**
Radio Repeater	VHF	Transpeater II	0	0	0	**1**
Radio Repeater	VHF	MT-1000	0	0	0	**1**
Radio Mobile	VHF	MaxTrac	1	4	0	**50**
Radio Base	VHF	Spectra	4	4	0	**22**
Radio Repeater/Base	VHF	DeskTrac	3	2	1	**17**
Radio Repeater/Base	VHF	MSF5000	2	0	0	**2**
Radio Aviation	VHF	Terra TX-720	2	2	0	**9**
Radio Marine	VHF	Sailor RT2048	1	1	0	**9**
Radio Marine/Flyaway	VHF	Eclipse GX1245S	0	1	0	**1**
Radio Marine	VHF	Furuno FM2610	0	0	0	**2**
Radio Marine	VHF	ANY	2	2	0	**33**
Radio Base/Repeater	VHF	MSR2000	0	0	0	**1**
Radio Base/Repeater	UHF	MSF5000	1	0	0	**2**
Radio Base	UHF	Spectra	2	2	0	**9**

MSRC COMMS						
Radio Mobile	UHF	MaxTrac	8	2	0	**30**
Radio Repeater/Base	UHF	DeskTrac	1	1	0	**5**
Radio Flyaway	UHF	MaxTrac	5	1	0	**9**
Radio Flyaway	VHF	MaxTrac	0	1	0	**9**
Radio Flyaway Aviation	VHF		1	0	0	**3**
Radio Marine	SSB	Ratheon	1	0	0	**2**
Radio Duplexer	UHF		3	0	0	**4**
DISCRIPTION	**FREQUENCY**	**MODEL/TYPE**	**Port Hueneme CA**	**Richmond CA**	**Eureka CA**	**TOTAL Quantity**
Radio Aviation Handheld	VHF	Icom	0	2	0	**4**
Radio Aviation/Base	VHF	Icom	0	1	0	**2**
Radio/Handheld	VHF	Motorola MT-1000	31	20	6	**116**
Radio VHF	Handheld	Icom IC-H19	11	6	0	**78**
Radio/Handheld	UHF/VHF	Yaesu FTH-2070	38	4	0	**75**
Radio Duplexer	VHF Narrow Band		2	2	0	**9**
Radio Duplexer	VHF Wide Band		2	1	1	**6**

MSRC COMMS.						
OPS Trailers			1	0	0	**2**
Comms Trailers			1	1	0	**3**
OSRV	see inventory below	System	1	1		**4**
Mobil Communications Suite	see inventory below	System	1	1	0	**3**

Mobile Comms Suite Inventory			**OSRV Comms Inventory**	
	1	Telephone/Radio Interface		Telephone Radio Interface
	1	HF SSB Marine Radio		HF SSB Marine Radio
	2	VHF Marine Radio		VHF Marine Radio
	1	VHF Aviation Radio		VHF Aviation Radio
	2	VHF Buisiness Band Radio		VHF Buisiness Band Radio
	2	VHF Repeaters		VHF Repeater
	1	UHF Business Band Radio		Satellite Phones
	2	UHF Repeaters		Cell Phones
	1	Ku Band Satallite System		UHF Business Band Radio
	1	MSRC Data Support Package		Hand held Radios
	1	30 KVA Generator		Cell Fax
	20	Hand Held Radios		
	1	Telephone System w/150 Phone Lines		

FOSS ENVIRONMENTAL LONG BEACH & SAN DIEGO COTP ZONES

TRANSPORTATION & COMMUNICATION RESOURCES

Equipment Type	Make/Model	I.D. No.	Date	Location	Storage	Qty.
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2035	1992	Long Beach - FES	Vehicle	1
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2040	1992	Long Beach - FES	Vehicle	1
Trailer, boom, 18’	SPCNS	6070	1979	Long Beach - FES	Trailer	1
Trailer, boom, 20’	Big Tex	6070	1979	Long Beach - FES	Trailer	1
Trailer, response, 12’	Carson	3101	1997	Long Beach - FES	Trailer	1
Trailer, response, 45’ *	TRLMO	3056	1977	Long Beach - FES	Trailer	1
Trailer, sorbent, 12’	Big Tex	W-100	1997	Long Beach - FES	Trailer	1
Trailer, Boom/Skimmer, 28’	Pace	6070	1999	Long Beach - FES	Trailer	1
Trailer, sorbent, 20’	Big Tex	6070	1979	Long Beach - FES	Trailer	1
Trailer, Skiff, 18’	Big Tex	6070	1999	Long Beach - FES	Trailer	1
Truck, diesel, crewcab pickup, 1 ton	Ford F-350	1030	1992	Long Beach - FES	Vehicle	1
Truck, diesel, crewcab pickup, 1 ton	Ford F-350	1094	1999	Long Beach - FES	Vehicle	1
Truck, diesel, pickup, 1 ton	Ford F-250	1068	1997	Long Beach - FES	Vehicle	1
Truck, diesel, pickup, 4x4, 1 ton	Ford F-250	1074	1997	Long Beach - FES	Vehicle	1
Truck, diesel, pickup, 4x4, 1 ton	Ford F-250	1075	1997	Long Beach - FES	Vehicle	1
Truck, diesel, pickup, lift gate, 1 ton	Ford F-250	1078	1998	Long Beach - FES	Vehicle	1
Truck, diesel, pickup, lift gate, 1 ton	Ford F-350	1038	1992	Long Beach - FES	Vehicle	1
Truck, diesel, rolloff, 40,000 gross	Volvo	2043	1987	Long Beach - FES	Vehicle	1
Truck, diesel, stakebed, 1 ½ ton	Ford	1059	1997	Long Beach - FES	Vehicle	1
Truck, diesel, stakebed, 1 ½ ton	Ford	1903	1999	Long Beach - FES	Vehicle	1
Truck, diesel, stakebed, 1 ½ ton	Ford	1903	1997	Long Beach -	Vehicle	1

				FES		
All Terrain Vehicle, 4x4 (3)	Honda		1999	Long Beach - FES	Vehicle	3
Van, diesel, box, 31,500 gross, 24’	Chev	1076	1996	Long Beach - FES	Vehicle	1
Van, gas, personnel	Ford	1051	1992	Long Beach - FES	Vehicle	1
Van, gas, personnel	Ford	1903	1997	Long Beach - FES	Vehicle	1
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2036	1992	San Diego - FES	Vehicle	1
Tractor, diesel, vac pump, 80,000 gross	Freightliner	2010	1992	San Diego - FES	Vehicle	1
Trailer, response, 20’	DICO/SMNLE	3093	1992	San Diego - FES	Trailer	1
Trailer, sorbent, 18’	SPCNS	3005	1979	San Diego - FES	Trailer	1
Truck, diesel, stakebed, 1 ½ ton	Ford	1066	1997	San Diego - FES	Vehicle	1
Truck, diesel, stakebed, crewcab, 1 ½ ton	Ford	1095	1999	San Diego - FES	Vehicle	1
Truck, diesel, stakebed, crewcab, ½ ton	Ford	1086	1999	San Diego - FES	Vehicle	1
Truck, diesel, pickup, ½ ton	Ford	1087	1998	San Diego - FES	Vehicle	1
Truck, diesel, pickup, ¾ ton	Ford	1071	1997	San Diego - FES	Vehicle	1
Truck, diesel, pickup, ¾ ton	Ford	1055	1997	San Diego - FES	Vehicle	1
Truck, diesel, pickup, ¾ ton	Ford	1081	1997	San Diego - FES	Vehicle	1
Truck, diesel, pickup, lift gate, ¾ ton	Ford	1069	1997	San Diego - FES	Vehicle	1
Van, diesel, box, 31,500 gross, 24’	Mack	2027	1989	San Diego - FES	Vehicle	1

Deck Barge	Various	Various	Various	Long Beach - FMC	Moorage	4

Cellular Phone/Radio	NEXTEL	N/A	1997	Long Beach - FES	Office	25
Radio, VHF	Standard	N/A	1997	Long Beach - FES	Office/Boat	10
Radio w/ Repeater	Motorola	N/A	1999	Long Beach - FES	Com Center	12
Cellular Phone/Radio	NEXTEL	N/A	1997	San Diego - FES	Office	10
Radio, VHF	Motorola	N/A	1997	San Diego - FES	Office	10

24-Hour Customer Service Centers in Long Beach and San Diego equipped w/ UHF, VHF, SSB & Microwave Links

* Outfitted with equipment, materials, ppe and hand tools to support a minimum of 150 personnel for shoreline cleanup

FOSS ENVIRONMENTAL

LONG BEACH & SAN DIEGO COTP ZONES

CONTAINMENT RESOURCES

Equipment Type	Make	I.D. No.	Date	Location	Storage	Size (in)	Qty. (ft)	Environ.
Contractor Boom	Am. Marine	6139	1994	Long Beach - FES	27' Monarch	8 x 12	1,800	Inland
Contractor Boom	Am. Marine	6139	1994	Long Beach - FES	Deck Boat	8 x 12	800	Inland
Contractor Boom	Am. Marine	6139	1995	Long Beach - ABM	Bundles	8 x 12	400	Inland
Contractor Boom	Am. Marine	6251	1994	Long Beach - FES	Trailer	8 x 12	1,800	Inland
Contractor Boom	Am. Marine	6251	1994	Long Beach - FES	Trailer	8 x 12	1,800	Inland
Contractor Boom	Am. Marine	6251	1994	Long Beach - FES	Trailer	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6182	1995	Long Beach - FES	40' Container	8 x 12	1,900	Inland
Contractor Boom	Am. Marine	6249	1995	Long Beach - FES	40' Container	8 x 12	1,400	Inland
Contractor Boom	Am. Marine	6252	1995	Long Beach - FES	40' Container	8 x 12	1,200	Inland
Contractor Boom	Am. Marine	6139	1992	Long Beach - FES	40' Container	8 x 12	3,400	Inland
Hi-Sprint	Vikoma	6139	1991	Long Beach - FES	Hydraulic Reel	16 x 18	500	Ocean
Contractor Boom	Am. Marine	F-100	1995	Long Beach - FMC	Bundles	8 x 12	600	Inland
Contractor Boom	Various	A-100	1992	Long Beach - ST	Vessels	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6139	1995	Long Beach - SWM	20' Container	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6246	1995	Long Beach - THUMS	20' Container	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6248	1995	Long Beach - TOSCO	20' Container	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6139	1995	Long Beach - VA	20' Container	8 x 12	900	Inland
Contractor Boom	Am. Marine	6247	1995	Long Beach - WLB	20' Container	8 x 12	1,500	Inland
Contractor Boom	Am. Marine	6139	1995	Long Beach - WTB	Barge	8 x 12	2,400	Inland
Contractor Boom	Am.	6139	1995	San Diego - FES	24' Trailer	8 x 12	1,300	Inland

	Marine							
Contractor Boom	Am. Marine	6139	1995	San Diego - FES	40' Trailer	8 x 12	3,200	Inland
Contractor Boom	Am. Marine	6139	1999	San Diego - FES	24' Trailer	6 x 8	1,800	Inland
Total Containment Boom							**34,200**	

Equipment Type	**Make**	**I.D. No.**	**Date**	**Location**	**Storage**	**Size (ft)**	**Qty.**	**Speed (kts)**
Skiffs w/ outboard	Various	Various	Various	Long Beach - FES	Trailer	12 x 5	9	20
Skiffs w/ outboard	Lund	Various	1995	Long Beach - FES	Trailer	16 x 6	4	20
Command Vessel	Whaler	H-100	1997	Long Beach - FES	Moorage	18 x 6	1	50
Response Vessel	Grady White	H-200	1995	Long Beach - FES	Moorage	27 x 8	1	45
Platform Vessel	Marco	6005	1975	Long Beach - FES	Moorage	27 x 9	1	18
Response Vessel	Monark	6241	1975	Long Beach - FES	Moorage	32 x 10	1	50
Response Vessel	Munson	6010	1990	Long Beach - FES	Moorage	18 x 6	1	30
Response Vessel	Munson	6242	1990	Long Beach - FES	Moorage	18 x 6	1	30
Foss Maritime Tugs	Various	N/A	Various	Long Beach - FMC	Moorage	Various	6	Various
Crewboat	"Devon"	A-500	1992	Long Beach - ST	Moorage	40	1	22
Workboat w/Boom	"Christopher G"	A-600	1995	Long Beach - ST	Moorage	50	1	12
Workboat/Tug	"Clive"	A-200	1973	Long Beach - ST	Moorage	87	1	11
Workboat/Tug	"Richard "	A-300	1976	Long Beach - ST	Moorage	100	1	11
Workboat/Tug	"Paul Revere"	A-400	1975	Long Beach - ST	Moorage	36	1	12
Workboat	Various	V-100/200		Long Beach - VA	Moorage	22	2	25
Workboat	Various	V-300/400		Long Beach - VA	Moorage	33	2	25
Response Vessel	Kvichak	6027	1994	San Diego - FES	Trailer	18 x 6	1	20
Skiffs w/ outboard	Gregor		1974	San Diego - FES	Yard	12 x 4	1	10
Skiffs w/ outboard	Crestliner	6035	1998	San Diego - FES	Yard	14 x 4	1	10
Skiffs w/ outboard	Crestliner	6336	1998	San Diego - FES	Yard	14 x 4	1	10
Skiffs w/ outboard			1990	San Diego - FES	Yard	10 x 4	1	10
Foss Maritime Tugs	Various	N/A	Various	San Diego - FMC	Moorage	Various	4	Various
Workboat/Tug	Various	N/A	Various	San Diego - WM/VA	Moorage	23 to 49	6	16
Total Boats							**49**	

FES = Foss Environmental; FMC = Foss Maritime; ST = Sylvester Tug; VA = Vessel Assist; WM = Western Maritime
SWM = South West Marine; ABM = AB Marine; WT = Wilmington Transportation

ADVANCED CLEANUP TECHNOLOGIES, INC.

UNIT#	MAKE	MODEL	YEAR	'SERIAL NUMBER	LICENSE NO:	'ASSIGNED
TRACTORS:						
103	PETERBILT	CONVENTIONAL/70 BBL.	1992	1XPFL59X6ND320758	4P13570	SAN DIEGO
137	PETERBILT	CONVENTIONAL	1993	1XPCD69XOPD324085	9B38834	SAN DIEGO
J116	FORD	GUZZLER/ COMBO	1995	1FDZW90T7SVA53493	5B84164	SAN DIEGO
106	PETERBILT	CONVENTIONAL	1990	1XPCD29X0LD283542	9A65862	SAN DIEGO
TANK TRAILER:						
109T	BRENER	S.S. TANK TRAILER	1991	10BGW6219MF0A2429	1VT4092	SAN DIEGO
133T	THOMPSON	TANK TRAILER	1999	1T9TK3822X1405404	1WJ3578	SAN DIEGO
UTILITY TRUCKS:						
361	FORD	F-SUPER DUTY	1997	3FELF47F8VMA30498	5R57663	SAN DIEGO
368	FORD	F-350 SUPER DUTY	1997	3FELF47F9VMA64045	5S91822	SAN DIEGO
355	FORD	F-350 C/C	1995	2FTJW35G5PCA58652	5U59177	SAN DIEGO
372	FORD	F -SUPER DUTY	1997	IFTHX25F3BVEC55999	5S92349	SAN DIEGO
TRACTOR TRAILERS:						
114VB	TRAIL MOBILE	BOX VAN TRAILER	1980	V36534	1VR1521	SAN DIEGO
PICK UP TRUCKS:						
385	FORD	EXPEDITION	1998	1FMRU1863XLA14215	4EFU050	PM
351	FORD	F-250	1997	1FTHX25F9VEB00633	5N07216	TECH
344	FORD	F-250 2 DR	1996	1FTHF25H1TLB56398	5H19574	SAN DIEGO
371	FORD	F-250 SUPER CAB	1997	1FTHX26F1VEC73416	5S92306	SAN DIEGO
SKIMMERS:						
SK719	ELASTEC	SKIMMER 100	1998	1W9UC1212WH155058		SAN DIEGO
UTILITY TRAILERS:						
458	ALKOTA	PRESSURE WASHER	1998	4HXSU1227WCOO1767	1GS6042	SAN DIEGO
563	CARSON	MARINE TRLR.	1998	4HXEN2025WCOO1768	1VX4786	SAN DIEGO
567	CARSON	ABS. PAD TRLR.	1998	4HXSU1628WCOO1769	1GS6410	SAN DIEGO
556	UTILITY TANDEM	PRESSURE WASHER	1997	4HXSU1225VC003127	1GP3883	SAN DIEGO
568	CARSON	HARD BOOM TRLR.	1997	4HXSU1622WCOO1766	1GS6409	SAN DIEGO
553	WALLSTRONG	PUNT TRAILER	1997	1W9BC2629VH155042		SAN DIEGO
417	INGERSOLRAND	L6 LIGHT TOWER	1994	189026U91825	SE430636	SAN DIEGO
	INGERSOLRAND	AIR COMMPRESOR				SAN DIEGO
425	FLEX O LITE	ARROW BOARD	1994	6LD2603189318/9226		SAN DIEGO
RESERVED FOR OUTBOARD MOTORS:						
1020	MERCURY	9.9 BOAT MOTOR	1998	0G490100		SAN DIEGO
1021	MERCURY	9.9 BOAT MOTOR	1998	0G490097		SAN DIEGO
1022	MERCURY	9.9 BOAT MOTOR	1998	0G490099		SAN DIEGO
1023	MERCURY	9.9 BOAT MOTOR	1998	0G462314		SAN DIEGO

RESERVED FOR PUNTS AND BOATS:						
1050	KLAMATH	#1 14' BOAT	1998	KLOJ8104B898		SAN DIEGO
1051	KLAMATH	#2 14' BOAT	1998	KLOJ8106B898		SAN DIEGO
1052	KLAMATH	#3 14' BOAT	1998	KLOJ8103B898		SAN DIEGO
1053	KLAMATH	#4 14' BOAT	1998	KLOJ7980J798		SAN DIEGO
1054	KLAMATH	#5 14' BOAT	1998	KLOJ7978J798		SAN DIEGO
1055	KLAMATH	#6 14' BOAT	1998	KLOJ7979J798		SAN DIEGO
MISCELLANEOUS EQUIPMENT:						
SD1	CANNONBALL	GAS METER	1997			SAN DIEGO
SD2	CANNONBALL	GAS METER	1997			SAN DIEGO
SD3	PID	GAS METER	1997			SAN DIEGO
SD4	MITSUBISHI	FORKLIFT	1995	AF82B-03223		SAN DIEGO
SD5	WILDEN	M-15 AIR PUMP STAIN/S				SAN DIEGO
SD6	VERSA MATIC	M-15 AIR PUMP	RED			SAN DIEGO
SD7	WILDEN	M-8 AIR PUMP	RED			SAN DIEGO
SD8	VERSA MATIC	M-8 AIR PUMP	RED			SAN DIEGO
SD9	WILDEN	M-4 POLY AIR PUMP	WHITE			SAN DIEGO
SD10	DELTA	12" DRILL PRESS	1997			SAN DIEGO
SD11	OHIO FORGE	8" BENCH GRINDER	1997			SAN DIEGO
SD12	CRAFTSMAN	71/4" SAW	1997			SAN DIEGO
SD13	OLIMPIA	5" BENCH PRESS	1997			SAN DIEGO
SD14	MARQUETTE	BATTERY CHARGER	1998			SAN DIEGO
SD15	HONDA	EX5000 GENERATOR	1997			SAN DIEGO
SD16	MEDALLION	7.5 H.P. AIR COMPRESOR	1997	970710202		SAN DIEGO
INSIDE WAREHOUSE:						
SD10001	3" HOSES	VACUUM HOSES	16			SAN DIEGO
SD10002	2" HOSES	VACUUM HOSES	18			SAN DIEGO
SD10003	6" HOSE	FLEXIBLE HOSE BLACK	200'			SAN DIEGO
SD10004	4" HOSE	FLEXIBLE HOSE BLACK	100'			SAN DIEGO
SD10005	1" HOSE	WATER HOSES	16			SAN DIEGO
SD10006	2"HOSE	STEAM HOSE	2			SAN DIEGO
SD10006	STEEL CONDUCT	GUZZLER COND.6"	5			SAN DIEGO
SD10007	HARD HOSE	GUZZLER HOSE 8"	3			SAN DIEGO
SD10008	HARD HOSE	GUZZLER HOSE 6"	1			SAN DIEGO
SD10009	MARINE	ANCHORS	6			SAN DIEGO
SD10010	TRAFFIC CONTROL	TRAFFIC CONES	20			SAN DIEGO
SD10011	MARINE	BUY'S	5			SAN DIEGO
SD10012	GENIE	SHOP VACUUM	1			SAN DIEGO
SD10013	36" WRENCH	PIPE WRENCH	1			SAN DIEGO
SD10014	1" CHAIN	LINK CHAIN W/ HOOK	5			SAN DIEGO
SD10015	CRAFTSMAN	AIR BLOWER	1			SAN DIEGO
SD10016	SCOTT	SCBA'S BOTTLES	6			SAN DIEGO
SD10017		3 TON FLOOR JACK	1			SAN DIEGO
SD10018		6 TON JACK STANDS	2			SAN DIEGO
SD10019	INTERNATIONAL	AIR SYSTEM	1			SAN DIEGO

MATERIAL IN STOCK:					
SD10020	POOL'S	DEACON POOL'S (smll)	7		SAN DIEGO
SD10021	VIZQUEEN	PLASTIC SHEETING	6		SAN DIEGO
SD10022	ROPE	3/8" YELLOW ROPE	1		SAN DIEGO
SD10023	DRUMS	POLY DRUMS 55 G.	21		SAN DIEGO
SD10024	SPC PADS	ABSORBENT PADS	175		SAN DIEGO
SD10025	SPC BOOM	ABSORBENT BOOM	UNIT#567		SAN DIEGO
SD10026	SPC SWEEP	ABSORBENT SWEEP	39		SAN DIEGO
SD10027	SPC ROLL	SWEEP ROLL	2		SAN DIEGO
SD10028	OIL SNARE	POM POMS	136		SAN DIEGO
SD10029	SORBENT BOOM	BOOM 810 IN BAG	2		SAN DIEGO
SD10030	OIL SORB ENT	SORBENT IN CASE	3		SAN DIEGO
SD10031	SORBENT PADS	ACID PADS BLACK	2		SAN DIEGO
SD10032	SORBENT BOOM	PILLOWS IN BAG	4		SAN DIEGO
SD10033	KITS	SPILL KITS	12		SAN DIEGO
SD10034	HARD BOOM	HARBOR BOOM	#VB114	5000 Ft.	SAN DIEGO
SD10035	HARD BOOM	HARBOR BOOM	#568	1800 Ft.	SAN DIEGO
PERSONAL PROTECTIVE EQUIPMENT :					
SD10036	SUITS	RAIN SUITS CASES	3		SAN DIEGO
SD10037	SUITS	TYBEK	5		SAN DIEGO
SD10038	EAR PL UGS	EAR PROTECTION Cs.	2		SAN DIEGO
SD10039	SAFETY GLASES	EYE PROTECTION CS.	2		SAN DIEGO
SD10038	PVC GLOVES	HAND PROTECTION Dns.	3		SAN DIEGO
SD10040	LEATHER GLOVES	HAND PROTECTION Dns.	2		SAN DIEGO
SD10041	COTTON GLOVES	HAND PROTECTION Dns.	3		SAN DIEGO
SD10042	RUBBER BOOTS S/T	FOOT PROTECTION Pr.	14		SAN DIEGO
SD10043	HIP WADERS	LOWER BODY PROTEC.	2		SAN DIEGO
SD10044	DRUMS	55 GAL. O/T METAL	67		SAN DIEGO

Pollution Response Equipment

MSO San Diego

All equipment on-sight Activities San Diego unless stated.

Equipment **Quantity**

21ft Pace American Trailer 02
(Pre-positioned: 24th St. Marine Terminal, Oceanside Harbor)

16ft Pace American Trailer 01
(On-site MSO)

Callen 6x6x10 Band-Aid Response Trailer 01

Boom

Texaboom Petrel TXB-36, 8x28, Harbor Boom w/ 8 anchoring systems
(Pre-positioned: 2000 ft. @ Oceanside Harbor, 2000 ft @ 24th St. Marine Terminal)

Tideboom (Shorebarrier) 450 ft
TXECHO-400 Blower 01
TXFLOTO-Pump w/ 25 ft of discharge hose 01
Towing bridles 04

18 inch Harbor Boom 1800 ft

Parker Systems Bag-O-Boom 10inch 250 ft

Sorbant Boom 100 ft
Sorbant Sweep 700 ft
Sorbant Pads 6 bales

Miscellaneous Response Equipment

Pro 6000E Gasoline Generator	01
P-1 Portable Pump	01
Tripod PUL-1000QT Surplus Lamps	02
Fenders	06
Foul Weather Gear	04 bags
Eye Wash Station	01
1 inch polypropylene line	05 spools
Cotton small stuff	01 spool
Nylon line w/ eye splices	200 ft
Shot line	02 spools
Shovel	04
Brooms	02
Boat Hooks	03
Rubberizer	01 5 gal. Can
Rotating Lights (Red/Yellow)	02

PPE (goggles, gloves canvass/rubber, hard hats, boots.

VOSS

The Vessel of Opportunity Skimming System (VOSS)

Should be included for DRAT and PST.

The VOSS is loaded on a 48' flatbed trailer for easy transport and can equip any suitable vessel to be a complete oil recovery platform with boom, skimmers and storage for recovered product. Sub systems can also be used individually as needed during emergency oil spill operations. If a vessel is available approximate response time for this system is 4 hours.

Located in San Pedro, CA

Sub systems:

Boom:

Type	Fast Sweep
Model	Oil Stop
Service	Ocean
Sections	4/31' with 8'6" apex section
Length	62'
Dedicated to facility	N/A
Connector	Universal Slide Type 1
Flotation	24" inflatable
Skirt Length	32"
Transport	1/48' Trailer

Skimmers:

Type	Weir
Make/Model	DESMI/Archimedean
Dispatch time	1 hour
Number of units	2
Recovery (bbls/day)	5000
Storage	none

Barges/storage:

Type	barge
Make/model	Lancer
Dispatch time	1 hour
Number of units	2
Storage	620 bbls.

Cargo transfer pumps:

Type	submersible
Make/model	CCN 150-5C
Number of units	2
Power source	hydraulic
Fitting size	6"
Rated GPM	2000
Dispatch time	1 hour

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5600 AREA RESOURCES: PERSONNEL AND SERVICES

5610 Federal Resources/Agencies

5610.1 Trustees for Natural Resources

The President is required to designate in the NCP those federal offic ials who are to act on behalf of the public as trustees for natural resources. These designated federal officials shall act pursuant to section 1006 of the OPA. “Natural resources” means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled (hereinafter referred to as “managed or controlled”) by the United States, including the resources of the exclusive economic zone.

The following individuals shall be the designated trustee(s) for general categories of natural resources, including their supporting ecosystems. They are authorized to act pursuant to section 1006 of the OPA when there is injury to, destruction of, loss of, or threat to natural resources, including their supporting ecosystems as a result of a discharge of oil. Notwithstanding the other designations in this section, the Secretaries of Commerce and the Interior shall act as trustees of those resources subject to their respective management or control.

(1) The Secretary of Commerce shall act as trustee for natural resources managed or controlled by DOC and for natural resources managed or controlled by other federal agencies and that are found in, under, or using waters navigable by deep draft vessels, tidally influenced waters or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf. However, before the Secretary takes an action with respect to an affected resource under the management or control of another federal agency, he shall, whenever practicable, seek to obtain concurrence of that other federal agency. Examples of the Secretary’s trusteeship include the following natural resources and their supporting ecosystems: marine fishery re-sources; anadromous fish; endangered species and marine mammals; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

(2) The Secretary of the Interior shall act as trustee for natural resources managed or controlled by DOI. Examples of the Secretary’s trusteeship include the following natural resources and their supporting ecosystems: migratory birds; anadromous fish; endangered species and marine mammals; federally owned minerals; and certain federally managed water resources. The Secretary of the Interior shall also be trustee for those natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.

(3) Secretary for the land managing agency. For natural resources located on, over, or under land administered by the United States, the trustee shall be the head of the department in which the land managing agency is found. The trustees for the principal federal land managing agencies are the Secretaries of DOI, USDA, DOD, and DOE.

(4) Head of Authorized Agencies. For natural resources located within the United States but not otherwise described in this section, the trustee is the head of the federal agency or agencies authorized to manage or control those resources.

5610.1.1 *Indian Tribes*

The tribal chairmen (or heads of the governing bodies) of Indian tribes, as defined in section 1.5, or a person designated by the tribal officials, shall act on behalf of the Indian tribes as trustees for the natural resources, including their supporting ecosystems, belonging to, managed by, controlled by, or

appertaining to such Indian tribe, or held in trust for the benefit of such Indian tribe, or belonging to a member of such Indian tribe, if such resources are subject to a trust restriction on alienation. When the tribal chairman or head of the tribal governing body designates another person as trustee, the tribal chairman or head of the tribal governing body shall notify the President of such designation.

5610.1.2 *Foreign Trustees*
Foreign Trustees. Pursuant to section 1006 of the OPA, foreign trustees shall act on behalf of the head of a foreign government as trustees for natural resources belonging to, managed by, controlled by, or appertaining to such foreign government.

5610.2 U.S. Coast Guard Resources

All **Coast Guard Marine Safety Office (MSO) San Diego** personnel can be reached at the same address and the same phone number, during the normal working hours (7:00 a.m. - 4:00 p.m. Monday - Friday, except Holidays). A team of Coast Guard reservists augments MSO San Diego on Saturdays and Sundays (7:00 a.m. - 3:30 p.m.). Outside of the hours when the MSO is staffed, Activities San Diego Operations Center (ACT SD OPCEN) or the MSO Duty Officer (MSDO) should be contacted for any incidents requiring response by the MSO personnel.

Commanding Officer (FOSC)	(619) 683-6500
U. S. Coast Guard	FAX 683-6504
Marine Safety Office San Diego MSDO:	(619) 571-2512 (Nextel)
2716 N. Harbor Drive OPCEN:	(619) 683-6470/71
San Diego, CA 92101	

The total active duty and reserve personnel resources are 19 officers and 43 enlisted. In the event of a large oil spill, personnel resources will be assigned, based on need, to the Unified Command System.

These sections reports MSO SD active duty and reserve officer and enlisted personnel allowances and identifies the Unified Command positions these personnel would fill in the event of a large oil spill. Several key UCS positions are pre-designated to be filled by appropriate active duty MSO SD personnel. The source document for the assignment of all MSO SD personnel is the unit's billet allocation listed in the Unit Organization Manual. The magnitude of the spill will determine the extent to which the various MSO SD personnel will be assigned to the Unified Command. In the event of a worst case or Spill of National Significance (SONS), it is anticipated that all MSO SD personnel will initially be assigned to the Unified command until reservists and other Coast Guard resources are mobilized.

In the event of a large spill, the need to mobilize personnel rapidly will be important to the execution of an effective response. Personnel resources will be utilized/requested in the following order:
1. MSO SD Personnel
2. MSO SD Reserve Personnel
3. Other Local Active Duty Resources
4. Other Local Reserve Resources
5. Active Duty Resources Within Coast Guard District 11
6. Other Reserve & Active Duty Resources Outside District 11

The preference is to use local personnel to the maximum extent possible. Current procedures to involuntarily activate reservists require a Secretary of Transportation order and would likely take days or weeks. Therefore, it is assumed that reservists will be mobilized most rapidly on a voluntary basis utilizing the District Commander's authority to order not more than 10 officers and 100 enlisted ready reservists in one district for not more than 30 days (COMDTINST M1001.27A). Since these active duty orders are voluntary, the exact number of reservists available for active duty is impossible to predict.

Additional reservists could be activated utilizing ADT or TEMAC orders. For immediate needs (during the first 1-2 days) local Coast Guard Island personnel will be requested to assist.

The following table identifies the Unified Command Section that both MSO active duty and reservists are available for. Note that of the personnel identified for jobs, a number and an R, for example, [3 R]; indicate those filled by reservists.

UNIFIED COMMAND POSITION	NUMBER/TYPE OF PERSONNEL	
COMMAND		
FOSC	1 OFF	CO MSO SD
Deputy FOSC	1 OFF	XO MSO SD
COMMAND STAFF		
	5 OFF [2 R], 12 ENL [12 R]	
Safety Branch:	1 OFF 3 ENL [3 R]	Require assistance from D11 Occupational Health
Liaison Branch:	1 OFF [1 R] 2 ENL [2 R]	
Public Affairs Branch:	1 OFF 1 ENL [1 R]	Require assistance from D11 Public Affairs
Investigations Branch:	1 OFF 2 ENL [2 R]	
Information Management Branch:	1 OFF [1 R] 4 ENL [4 R]	
Legal Branch:		Require assistance from D11 Legal Officers
PLANNING SECTION		
	4 OFF, 5 ENL [4 R]	
Chief	1 OFF	Port Contingency Planner
Strategy Branch:	1 OFF 3 ENL	
Technical Branch:	1 OFF 1 ENL [1 R]	
Documentation Branch:	1 OFF 1 ENL [1 R]	Require assistance from D11 (DRAT) & NPFC Case Team

OPERATIONS SECTION

5 OFF [2 R], 19 ENL [14 R]

Chief	1 OFF	Chief, Port Operations, MSO
Assistant Chief	1 OFF	Marine Environmental Protections, MSO
Recovery & Protection Branch:	1 OFF 4 ENL [2 R]	
Emergency Response Branch:	1 OFF 4 ENL [2 R]	
Site Management Branch:	2 OFF [1 R] 10 ENL [9 R]	
Wildlife Branch:	1 OFF [1 R] 1 ENL [1 R]	

LOGISTICS SECTION

2 OFF [2 R], 5 ENL [3 R]

Chief	1 OFF [1 R]	
Communications Branch:	1 OFF 1 ENL	
Service Branch:	1 ENL [1 R]	
Personnel Branch:	1 OFF [1 R] 1 ENL [1 R]	

FINANCE SECTION

1 OFF, 20 ENL [1 R]

Cost Branch:	1 OFF 2 ENL [1 R]	Require Assistance from D11 (DRAT) & NPFC Case Team

5610.2.1 *USCG National Strike Force (NSF)*

The National Strike Force (NSF) was created in 1973 as a Coast Guard staffed “Special Force”. This special force assists On-Scene Coordinators (OSCs) responding to potential and actual oil and hazardous material spills as directed by the National Contingency Plan (NCP).

The NSF is composed of four units including three, 35 member Strike Teams. These teams are:

The Atlantic Strike Team located in Fort Dix, NJ **(609) 724-0008**;
The Gulf Strike Team located in Mobile, AL **(205) 639-6601**; and
The Pacific Strike Team located in Novato, CA **(415) 883-3311**.

The Strike Teams are managed by a fourth unit, the National Strike Force Coordination Center (NSFCC) located in Elizabeth City, NC **(919) 331-6000/6032**. **Fax (919) 331-6012/6013**

Address: **Commanding Officer**
National Strike Force Coordination Center
1461 US Hwy 17 North
Elizabeth City, NC 27909

NSF Mission: The NSF is a unique, highly trained cadre of Coast Guard professionals who maintain and rapidly deploy with specialized equipment in support of Federal On-Scene Coordinators preparing for and responding to oil and chemical incidents in order to prevent adverse impact to the public and to reduce environmental damage.

NSF capabilities include:

-Responding with trained personnel and specialized equipment to prevent, contain and/or remove spills of oil and releases of hazardous materials;
-Providing spill management expertise;
-Assisting with response planning and consultation;
-Conducting operational training in oil and chemical spill response techniques and equipment usage;
-Identifying, locating, and assisting in the transportation of specialized equipment needed for spill response; and
-Providing support from the Public Information Assist Team (PIAT) to OSCs during pollution response.

The NSF can provide OSCs with expertise in many areas, including:

-Operating spill response equipment;
-Supervising / monitoring response personnel on sites;
-Outlining, establishing, monitoring site safety requirements during the conduct of hazardous material spill/release operations;
-Providing resource and photographic documentation support;
-Providing command, control and communications support.

The NSF equipment inventory includes:

-Lightering and transfer systems - including pumping equipment capable of handling all oils, corrosives and other chemical cargoes;
-Containment barriers and skimming systems; Open Water Oil Containment and Recovery System (OWOCRS) and Vessel of Opportunity Skimming System (VOSS);
-Offshore inflatable containment boom;
-Temporary storage devices for oil and hazardous materials;
-Mobile command posts and communications equipment;
-Generators, light towers, air compressors;
-Air monitoring equipment;
-Levels A, B and C HAZMAT response entry capabilities;
-Trailerable and inflatable boats to support deployment of equipment and provide logistics;
-Photographic and video documentation equipment. Request for Strike Team Assistance: As outlined in the NCP, “The OSC may request assistance directly from the Strike Teams. Requests

for a team may be made to the Commanding Officer of the appropriate team, the USCG member of the RRT, or the Commandant of the USCG through the NRC". OSCs are encouraged to use the NSF whenever it's expertise or equipment is needed, or to augment the OSC's staff when it is overburdened by a response to a given incident.

The NSF should be used when:

-A medium or major discharge or potential discharge occurs;
-Control of the discharge requires the special knowledge or special equipment of the NSF;
-Response will require in excess of two days to complete removal operations and augmentation by NSF personnel will release local forces to return to normal operations; or
-In the judgment of the OSC, NSF capabilities are necessary.

Upon receiving a request, personnel and equipment will be deployed to the scene in the most expeditious manner possible. This may involve over-the-road transport: all three strike teams have tractor-trailer rigs which give them rapid deployment capabilities. In the event air transport of equipment is required, aircraft support will be coordinated by the appropriate Area Commander.

By requesting assistance from any one strike team, an OSC immediately gains access to the entire NSF personnel roster and equipment inventory. Each team maintains a state of readiness, which enables them to dispatch two members immediately, four members within two hours, and up to twelve members within six hours as the circumstances of the incident dictate. Equipment would be dispatched within four hours of a request for assistance.

Note: Since response support if time critical, early notification of Strike Team assistance (or potential assistance) will allow the teams to begin logistical planning even before a formal request is made.

Logistical Considerations: Strike Teams make every effort to be as logistically independent, however, assistance may be required from the OSC in arranging the following support:
-Heavy lifting equipment, such as cranes and forklifts capable of handling a 16,000-lb. containment barrier box;
-Fork extensions for forklift;
-Small boats, vessels of opportunity;
-Electrical power, landlines for phones and computers, potable water supply and fuel supply for command posts.

5610.2.2 *USCG District Response Group (DRG) and District Response Advisory Team (DRAT)*

The District Response Group (DRG) is a framework within each Coast Guard district to organize district resources and assets to support USCG OSCs during response to a pollution incident. Coast Guard DRGs assist the OSC by providing technical assistance, personnel, and equipment, including the Coast Guard's pre-positioned equipment.
Each DRG consists of all Coast Guard personnel and equipment, including fire fighting equipment, within it's district, additional pre-positioned equipment, and a District Response Advisory Team (DRAT) that is available to provide support to the OCS in the event that a spill exceeds local response capabilities. The D11 DRAT, **510-437-2954/59/40 pgr 510-448-8217,** is located at the Eleventh Coast Guard District Office in Alameda, CA. Address:

Commander (Pmr)
Eleventh Coast Guard District
Bldg 50-6, Coast Guard Island
Alameda, CA 94501-5100

5610.2.3 *Public Information Assist Team (PIAT)*

The Public Information Assist Team (PIAT) **(919) 331-6006/6032** is an element of the NSFCC staff which is available to assist OSCs to meet the demands for public information during a response or exercise. It's use is encouraged any time the OSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC.
Address:

Commanding Officer (PIAT)
National Strike Force Coordination Center
1461 US Hwy 17 North
Elizabeth City, NC 27909

5610.2.4 *USCG Reserve*

In the event of a spill incident, the preference is to use local Coast Guard Personnel to the maximum extent possible. Current procedures to involuntarily activate reservists require a Secretary of Transportation order and would likely take days or weeks. Therefore, it is assumed the reservists will be mobilized most rapidly on a voluntary basis utilizing the District Commander's authority to order not more than 10 officers and 100 enlisted ready reservists in one district for not more than 30 days (COMDTINST M1001.27A). Since these active duty orders are voluntary, the exact number of reservists available for active duty is impossible to predict. Additional reservists could be activated utilizing ADT or ADSW/AC (TEMAC) orders. For immediate needs (during the first 1-2 days) local Coast Guard personnel will be requested to assist.
Further information on utilization of Coast Guard Reserve Forces can be obtained from the local Marine Safety Office, or by contacting the Eleventh Coast Guard District's Force Optimization and Training Office (fot) in Alameda at **510-437-2781/2783.**

The following number of reserve forces are assigned to each MSO (As of July 1999):

MSO SD: Enlisted = **48**; Officer = **16 (**As of Oct 2003)
MSO LA/LB*: Enlisted = **55**; Officer = **18**
MSO SFB: Enlisted = **47**; Officer = **10**
*Includes MSD Santa Barbara

5610.2.5 *USCG Auxiliary*

The Coast Guard Auxiliary is a voluntary organization, which supports Coast Guard operations and may be utilized in the event of a spill incident. The Auxiliary flotillas are organized under the Group Commander and can be requested to assist the Incident Commander through the Group Commander. The group contact numbers within the Eleventh Coast Guard District are as follows:

CG Group San Francisco: **415-399-3417/3530**
CG Group Los Angeles/Long Beach: **562-980-4444**
CG Activities San Diego: **619-683-6470/71**

Additional information regarding the employment of the Coast Guard Auxiliary in support of the Marine Environmental Protection Program can be obtained by contacting COMDT G-OCX at **202-267-1001.**

5610.3 National Oceanic and Atmospheric Administration (NOAA)

5610.3.1 *Scientific Support Coordinator*

The NOAA SSC D11 can be reached at **(510) 437-5344 or (800) 759-8888 PIN 579-8818**
NOAA Scientific Support Coordinators (SSCs) are the principal advisors to the USCG OSC for scientific issues, communication with the scientific community, and coordination of requests for assistance from State and Federal agencies regarding scientific studies. The SSC leads a scientific team and strives for a consensus on scientific issues affecting the response but ensures that differing opinions within the community are communicated to the OSC. The SSC can also assist the OSC with information relating to spill movements and trajectories. The NOAA SSC serves as the OSC's liaison between damage assessment data collection efforts and data collected in support of response operations. The SSC leads the synthesis and integration of environmental information required for spill response decisions in support of the OSC, coordinating with State representatives, appropriate trustees and other knowledgeable local representatives.

Address: **NOAA SSC**
Bldg 50-5 Coast Guard Island
Alameda, CA 94501-5100

5610.3.2 *Spill/Discharge Trajectory Modeling*

The Trajectory Analysis Team develops estimates that combine visual spill observations made from aircraft over-flights or remote sensing platforms with computer model calculations that include observed, predicted, and statistical information on weather and ocean currents. Integrating and interpreting data from field observations and computer models allows the Team to provide complex information in a form the On-Scene Coordinator can use. For hazardous materials spills, projections can be made for the pollutants' movement in water and air.

The Team gives the Scientific Support Coordinator information on a spill's projected movement and behavior in the water or air. There are often two or more team members at each spill scene: one team member is responsible for participating in aircraft overflights of the actual spin scene and for briefing the SSC, the Coast Guard, and other operational personnel on the slick movement. Overflights by trained observers provide critical information to decision-makers about the location, quantity, and changes in the oil. The information also serves to verify and update data in trajectory models, which use statistical averages until actual observations are available. During these overflights, the Team member will direct the pilot's flight track and aircraft flight elevation in order to best measure the course of the spill in the water. This person often may deploy oil-tracking instrumentation, such as drogues or dye pills to mark the path of the pollutant and look for visual confirmation of the spill's movement and behavior. The other on-scene Trajectory Analysis Team member usually works out of the on-scene command post. This Team member is responsible for interfacing with the "home team," the Seattle-based component of the Team that provides data from the spill model and literature searches to the on-scene team. The spill model uses information on the location and time of the spill and its rate of release, area tides, currents, any unique circulation features, both observed and forecasted weather conditions, and the pollutant's composition. The model takes this information and generates maps that graphically estimate the expected movement of the spill. The command post member analyzes data received from the home team and consults local experts on the physical and chemical properties of the oil and on the particular oceanography of the area to help them make informed, accurate recommendations.

Collectively, the Trajectory Analysis Team has about seventy-five years of experience in dealing with spills and their fate in the marine environment. (NOAA Scientific Support Team Reference Guide)

5610.3.3 *Oceanic & Atmospheric Modeling*

Contact NOAA SSC for required/appropriate modeling provided by NOAA.

5610.4 U.S. Navy Supervisor Salvage (SUPSALV)

U.S. Navy Supervisor of Salvage (SUPSALV): **(202) 781-3889.** The U.S. Navy (USN) is the Federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage related and open sea pollution incidents.

SUPSALV can provide salvage expertise and maintains a warehouse on each coast stockpiled with salvage and response gear. (See NSFCC Spill Response Resource Inventory <SRRI> for a listing of SUPSALV equipment). Individual Navy facilities also locally stockpile some response equipment, which is already listed in the SRRI.

SUPSALV pollution response inventory can be accessed through the following Internet website:

http://www.supsalv.org

5610.5 EPA Emergency Response Teams

EPA Emergency Response Team (ERT) **(732) 321-6740** or **(732) 321-6660 (24hr)** has expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering. The ERT can provide the OSC access to special equipment to deal with chemical releases, and can provide the OSC with advice concerning hazard evaluation, multimedia sampling and analysis, risk assessment, on-site safety, cleanup techniques, water supply decontamination and protection, use of dispersants, environmental assessment, degree of cleanup required, and the disposal of contaminated materials. The ERT also offers various training courses to prepare response personnel.

Address: **Environmental Response Team**
U.S. Environmental Protection Agency
Edison, NJ 08817

5610.6 Agency for Toxic Substance and Diseases (ATSDR)

The Agency for Toxic Substances and Disease Registry (ATDSR) **(415) 947-4316/203-0971 (cell)/ 947-4323 (fax) or (888) 517-4394 (pgr)** maintains appropriate disease/exposure registries, provides medical care and testing of individual during public health emergencies, develops, maintains, and informs the public concerning the effects of toxic substances, maintains a list of restricted or closed areas due to contamination, conducts research examining the relationship between exposure and illness, and conducts health assessments at contaminated sites. The ATDSR also assists the EPA in identifying most hazardous substances at CERCLA sites, develops guidelines for toxicological profiles of hazardous substances, and develops educational materials related to the health effects of toxic substances. ATDSR resources are an important tool for the OSC to use in assessing the possible effects of an emergency on the public's health.

Address: **ATSDR Region IX, Ste 100**
75 Hawthorne St. MS: (HHG-1)
San Francisco, CA 94105
Contact: Bill Nelson (e-mail: wqn1@cdc.gov)

5610.7 U.S. Department of Energy (510) 637-1952 24 hr

The DOE generally provides designated OSCs that are responsible for taking all response actions with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under its jurisdiction, custody, or control, including vessels bareboat-chartered and operated. In addition, under the FRERP, DOE provides advice and assistance to other OSCs/RPMs for emergency actions essential for the control of immediate radiological hazards. Incidents that qualify for DOE radiologic I advice and assistance are those believed to involve source, by-product, or special I nuclear material or other ionizing radiation sources, including radium, and other naturally occurring radionuclides, as well as particle accelerators. Assistance is available through direct contact with the appropriate DOE Radiological Assistance Program Regional Office.

5610.7.1 *Nuclear Regulatory Commission* (301) 816-5100 24 hr

Notify of any incident involving radiological material; Federally designated OSC.

5610.8 Federal Emergency Management Agency (800) 427-2354

FEMA provides guidance, policy and program advice, and technical assistance in hazardous materials, chemical, and radiological emergency preparedness activities (including planning, training, and exercising). FEMA's primary point of contact for administering financial and technical assistance to state and local governments to support their efforts to develop and maintain an effective emergency management and response capability is the Preparedness, Training, and Exercises Directorate. Notified of any incident that could result in large-scale evacuation or relocation of people.

5610.9 U.S. Department of the Interior (510)-817-1476/(415) 420-0524 (cell)/(800) 310-9914

The DOI may be contacted through Regional Environmental Officers, who are the designated members of RRTS. Department land managers have jurisdiction over the national park system, national wildlife refuges and fish hatcheries, the public lands, and certain water projects in western states. In addition, bureaus and offices have relevant expertise as follows:

(a) United States Fish and Wildlife Service and other Bureaus: Anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; and effects on natural resources.

(b) The National Biological Survey performs research in support of biological resource management; inventories, monitors, and reports on the status and trends in the Nation's biotic resources; and transfers the information gained in research and monitoring to resource managers and others concerned with the care, use, and conservation of the Nation's natural resources. The National Biological Survey has laboratory/research facilities.

(c) Geological Survey: Geology, hydrology (ground water and surface water), and natural hazards.

(d) Bureau of Land Management: Minerals, soils, vegetation, wildlife, habitat, archaeology, and wilderness.

(e) *Minerals Management Service: Oversight of offshore oil and gas exploration and production facilities and associated pipeline facilities under the Outer Continental Shelf Lands Act and the CWA; oil spill response technology research; and establishing oil discharge contingency planning requirements for offshore facilities.

(f) Bureau of Mines: Analysis and identification of inorganic hazardous substances and technical expertise in metals and metallurgy relevant to site cleanup.

(g) Office of Surface Mining: Coal mine wastes and land reclamation.

(h) *National Park Service: General biological, natural, and cultural resource managers to evaluate, measure, monitor, and contain threats to park system lands and resources; archaeological and historical expertise in protection, preservation, evaluation, impact mitigation, and restoration of cultural resources; emergency personnel.

(i) Bureau of Reclamation: Operation and maintenance of water projects in the West; engineering and hydrology; and reservoirs.

(j) Bureau of Indian Affairs: Coordination of activities affecting Indian lands; assistance in identifying Indian tribal government officials.

(k) Office of Territorial Affairs: Assistance in implementing the NCP in American Samoa, Guam, the Pacific Island Governments, the Northern Mariana Islands, and the Virgin Islands.

5610.9.1 *National Park Service* (510) 817-1300

Notify of any discharge that has impacted or threatens to impact national parklands (See DFG Pollution Response Manual).

5610.9.2 *Minerals Management Service* (805) 389-7550 24 hr

Notify during any incidents that may involve the offshore drilling industry.

5610.10 U.S. Department of Justice

455 Golden Gate Ave
Suite 11000
San Francisco, CA 94102-3664
Work: (415) 703-5523

Contact for possible federal legal or law enforcement issues.

5620 State Resources/Agencies

5620.1 Government Official Liaisons

State law identifies the Administrator of the Department of Fish and Game's Office of Spill Prevention and Response (OSPR) as the State coordinator for marine oil spills and serves as the liaison to the Governor's Office and other State agencies, including the coordination of all State resources.

5620.2 Trustees for Natural Resources

The California Department of Fish and Game are trustees for the living natural resources of the State of California. The California State Lands Commission is a resource trustee for the State-owned land beneath navigable waters of the State. The California Department of Parks and Recreation is a resource trustee for resources present on property owned by that Department of parks and Recreation.

5620.3 State Emergency Response Committees

The State Interagency Oil Spill Committee (SIOSC) was created by the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act and, among other responsibilities, is charged with the responsibility of creating and updating a list of resources and special forces available to them in the event of a significant spill. The agencies listed below are members of the SIOSC that are likely to have resources that can be useful in response efforts. Contact persons are identified below.

OFFICE OF EMERGENCY SERVICES
2800 MEADOWVIEW ROAD
SACRAMENTO, CA. 95832

State Warning Center
Phone: (916) 845-8911 Fax: (916) 845-8910 1-800-852-7550

(STATE OES IS THE PRIMARY RESOURCE FOR NETWORKING WITH OTHER AGENCIES AND SHOULD BE CONTACTED ASAP**) **24 hr line: 1-800-852-7550****

(Local OES office may also need to contacted to determine their level of involvement)

DEPARTMENT OF PARKS AND RECREATION
1416 NINTH STREET, ROOM 1431
P.O. BOX 942896 - 94296-0001
SACRAMENTO, CA. 95814

Work: (916) 653-9962 24 Hour Cell: (916) 296-2408
Fax: (916) 657-4747 After Hours: 1-800-548-1431 or (408) 649-2817

DEPT. OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES
801 K ST MS 20 - 20
SACRAMENTO, CA. 95814

Work: (916) 445-0806 Fax: (916) 323-0424

CA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
POC: Ellen Faurot-Daniels

Work: (415) 904-5296 Fax: (415) 904-5400
24 Hour Pager: (415) 904-5285

Work: (415) 904-5244
Work: (415) 904-5246

STATE WATER RESOURCES CONTROL BOARD
CA EPA
10001 I ST, 17th Floor
SACRAMENTO, CA. 98512-2815

Work: (916) 445-3846 Fax: (916) 324-0908

STATE LANDS COMMISSION
MARINE FACILITIES DIVISION
200 OCEANGATE, SUITE 900
LONG BEACH, CA 90802-4335

Work: (562) 499-6312 Fax: (562) 499-6317

24 hr. Answering Service: (562) 590-5201/499-1528

Gary L. Gregory (pager): (888) 979-2634
Kevin Mercier (pager): (888) 833-9845

For questions re: cascading major response equipment: (562) 499-6312, or **24 Hour** - (562) 590-5201

STATE FIRE MARSHAL
PIPELINE SAFETY DIVISION

P.O.BX. 944246, SACRAMENTO-94244-2460
1131 S STREET
SACRAMENTO, CA 95814 (9/97)
(916) 445-8477
(916) 445-8526 fax

Glenn Tong
Work: (916) 445-8419 Fax: (916) 445-8526 Cell: (916) 747-1398

DEPARTMENT OF WATER RESOURCES
DIVISION OF OPERATIONS AND MAINTENANCE
STATE WATER PROJECT OPERATIONS CONTROL OFFICE
3310 EL CAMINO AVE
SACRAMENTO, CA. 95814

Work: (916) 574-2714 Fax: (916) 574-1785

Dispatcher @ state water project: 24 HRS/7 DAYS: (916) 574-2714

CALIFORNIA DEPARTMENT OF TRANSPORTATION
1120 N STREET, MS 31
SACRAMENTO, CA. 95814

Work: (916) 643-8855 Fax: (916) 643-8870 Cell: (916) 825-7650

Dispatch (24 hr.): (916) 653-3442/654-4497/Fax: (916) 653-3291

CALIFORNIA HIGHWAY PATROL
COMMERCIAL VEHICLE SECTION
444 N. THIRD STREET, SUITE 310
SACRAMENTO, CALIFORNIA 95818

Emergency: (916) 227-6388 Work: (916) 657-7261 Fax: (916) 657-4087
Emergency Notification Tactical Alert Team (24 hr. OES): (916) 845-8931
Watch Commander
(916) 861-1363

AFTER HOURS:
Notify Tactical Alert Team (above)

DEPARTMENT OF TOXIC SUBSTANCES CONTROL
CA EPA
10001 I ST, 11th Floor
SACRAMENTO, CA. 98512-2815

Daytime duty officer
Phone: (800) 260-3972 Fax: (916) 255-6621

24 hours, contact OES: 1-800-852-7550 (Ask for DTSC Duty Officer)

CALIFORNIA CONSERVATION CORPS
1719 24th STREET
SACRAMENTO, CA 95816

Work: (916) 341-3100 24 Hour Pager: (916) 341-3160

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
CA EPA
10001 I ST, 11th Floor
SACRAMENTO, CA. 98512-2815
Don Johnson (OES Coordinator)
Work: (916) 322-8284 Pager: (916) 282-4542

24 hours, contact OES: 1-800-852-7550

CALIFORNIA DEPARTMENT OF FORESTRY
1416 NINTH STREET, ROOM 1646-10
SACRAMENTO, CA. 94244-2460

Sacramento Command Center
(916) 653-8360

Dave Goldenberg, Deputy Chief
Work: (916) 845-8680 Fax: (916) 845-8692 24 Hour: (916) 653-8360

CALIFORNIA NATIONAL GUARD
9800 GOETHE ROAD
SACRAMENTO, CA. 95826-9101
Fax: (916) 854-3475

Duty officer: (non-business hours): (916) 854-3000

STATE ATTORNEY GENERAL
300 S. SPRING STREET, # 500
LOS ANGELES, CA. 90013

Work: (213) 897-2000 Fax: (213) 576-7142

State Environmental Agencies-

In addition to the environmental agencies listed in 5623 above, the Resources Agency is a member of the SIOSC.

Law Enforcement Agencies

Several members of the SIOSC have law enforcement authority, including the California Highway Patrol, the California Department of Fish and Game, the California Department of Parks and Recreation, the State Fire Marshal.

Hazardous Materials Response Teams

Although a few State agencies have teams that are capable of doing site assessment at oil and hazardous materials spills, the only State agency with true hazardous materials response team is the Department of Toxic Substances RAPID team. The likelihood of them being routinely deployed for marine spills of hazardous materials is believed to be low, however. Their main focus is on spills of hazardous materials from railroad mishaps.

5630.5 Port Authority/Harbormasters

The San Diego Unified Port District was established to manage the harbor, operate the international airport at Lindberg Field, and administer the public tidelands surrounding San Diego Bay. The "Port District" encompasses an area that includes the cities of San Diego, National City, Chula Vista, Imperial Beach and Coronado. The Port District, under the direction of the Board of Port Commissioners, is responsive to the needs of the public and works to provide the facilities and services that will offer the greatest public benefit.

The Port District can be contacted as follows:

The San Diego Unified Port District
3165 Pacific Highway
San Diego, CA 92101
(619) 686-6200
Website: www.portofsandiego.org

5630.6 Fire Departments (Local)

Local fire departments respond to all fires and emergencies within their respective city boundaries. All local fire departments are participants in the Mutual Aid Agreement with the other cities in the San Diego area and will respond when requested. A detailed listing of city fire department jurisdictions can be found in Section 201 of the Burning Ship Contingency Plan.

Fire Department Dispatch 911

5630.7 Hazardous Material Response Teams

The San Diego Fire Department (SDFD) and the San Diego County Department of Health Services, Hazardous Materials Management Division (HMMD) Hazardous Materials Response Teams are the two organizations that comprise San Diego's local Special Forces. These two teams have a total workforce of thirty (30) personnel that meet the requirements of the California Specialized Training Institute (CSTI) HazMat Technician and/or Specialist. These two teams can provide services which include establishing and working under the Incident Command System, assisting with coordination of local, state federal, mutual and automatic aid agencies, assisting Incident Commanders and Scene Managers with HazMat incident action planning, safety and medical planning, risk assessment, resources development, mitigation, containment, and control. Additionally, team members will provide product identification, neutralization and clean-up of small spills and leaks, public health and safety evaluations, make recommendations regarding evacuations, and perform assessments on the environmental impact during the emergency phase of all chemical emergencies.

These teams can be contacted as follows:
1. SDFD HazMat Team
525 "B" Street, Suite 805
San Diego, CA 92101
(619) 238-1212

2. HMMD HazMat Team
1700 Pacific Highway
San Diego, CA 92101
(619) 338-2284/2222

5630.8 Weather Service

The National Weather Service (NWS), which is a line office within the National Oceanic and Atmospheric Administration (NOAA), is responsible for providing up-to-date weather information in response to oil spills. NWS can provide such information as wind direction and speed, air and sea temperatures, and direction and height of sea and swell. The NWS can also provide weather forecasts, which are updated daily, and can range anywhere from two to five days. Additionally, if the spill is in, or near a riverine system, the NWS's River Forecast Office can provide river flow rates and predicted flow rates as well. In a spill response, river and weather information will be provided to the Federal On Scene Coordinator by the NWS via the NOAA Scientific Support Coordinator (SSC). An agreement between NOAA's Hazardous Materials Response and Assessment Division, and NWS establishes the SSC as the point of contact in order to streamline the flow of information and to provide specialized weather needs without affecting the normal operating procedures of the forecast office. Furthermore, the agreement provides for a dedicated Meteorologist to assist NOAA in obtaining the most accurate and current information for operational planning and trajectory analysis.

The NOAA Scientific Support Coordinator can be contacted at:
NOAA/HMRAD
Coast Guard Island, Bldg. 50-5
Alameda, CA 94501
Phone: (510) 437-5344
Pager: (800) SKY-PAGE PIN #579-8818

5640 Private Resources

5640.1 Clean-up Companies

This section of the plan includes a list cleanup contractors, companies and agencies point of contact to mobilize the available response equipment.

CLEANUP CONTRACTORS/COMPANIES/AGENCIES

ADVANCED CLEANUP TECHNOLOGIES, INC. (ACTI)
3021 Moore St
San Diego, CA 92110
(619) 702-6008 Fax: (619) 702-6223 Cell: (619) 843-7341 (24 hr)

Response Time: 1-2 HRS

CLEAN COASTAL WATERS
190 Pico Avenue
Long Beach, CA 90802
Phone: (562) 432-1415 (24 HRS)
(562) 437-1510 (FAX)

Response Time: 3-6 HRS

CLEAN SEAS
1180 Eugenia Place
Suite 204
Carpinteria, CA 93013
Phone: (805) 684-3838 (24 hr) Fax: (805) 684-2650

Response Time: 6-12 HRS

FOSS ENVIRONMENTAL SERVICES/NATIONAL RESPONSE CORP (NRC)
1839 Water St
San Diego, CA 92113
Phone: (619) 235-3320 Fax: (619) 232-4093
Response Time: 1-2 HRS

FOSS ENVIRONMENTAL SERVICES/NRC (LA/LB)
Pier D, Berth D47
Long Beach, CA 90802
Phone: (562) 432-1304 (24 hr) Fax: (562) 432-1826

Response Time: 4-6 HRS

MARINE SPILL RESPONSE CORPORATION (MSRC)
20780 Leapwood Ave.
Carson, CA 90746
(805) OIL-SPILL Fax: (805) 488-3141

Response Time: 12-48 HRS

NAVAL STATION 32ND STREET (ALL NAVY ASSESTS)
Waterfront Operations
San Diego, CA 92136
Phone: (619) 556-8006 (Oil Recovery Team)
(619) 556-8123 (Yard Oilers)
Duty Watchstander

Response Time: 1-2 HRS

EQUIPMENT SUPPLIERS

HAWTHORNE RENT-IT SERVICE
PO Box 708
San Diego, CA 92112
Phone: (619) 232-2084 Cell: (619) 921-7485

CLAIREMONT EQUIPMENT RENTALS, INC.
7651 Ronson Rd
San Diego, CA 92111
Phone: (858) 278-8338 Fax: (858) 279-4845 Cell: (619) 778-4765 (24 hr)

UNITED RENTALS
5580 Kearny Villa Rd.
San Diego, CA 92123
Phone:(858) 565-7122 Fax: (858) 565-6279

5640.2 Media (Television, Radio, Newspaper)

This section provided to contact and identify points of contact, phone numbers and FAX numbers for wire services, television, radio and newspapers.

5640.2.1 *Government Resources*

The District Public Affairs Office is ready to assist an OSC by providing Public Affairs Specialists for media liaison and photo documentation. This office should be contacted early as the primary resource for public affairs assistance. D11 Public Affairs Officer may be contacted at (310) 980-4300 (X-144) during the normal working hours (8:00 a.m. - 4:00 p.m.). After hours, the duty Public Affairs Officer can be paged at (310) 762-3510. The FAX number for D11 Public Affairs office is (310) 980-4373. A Coast Guard Public Information Assist Team (PIAT) is also available to OSC's when additional personnel or expertise are required to accommodate the media. PIAT is a specialized, self contained, public affairs resource which is available through the National Response Center (800) 424-8802, or the National Strike Force Coordination Center at (919) 331-6000. All public affairs resources will work directly for the OSC. In the event a JIC is established, the spiller should be encouraged to provide a spokesman to the JIC to facilitate "one stop shopping" for the media.

5640.2.2 *Wire Services*

Affiliation	**Phone #**	**Fax #**
AP Wire	619-231-3587	619-291-2098
UPI	202-898-8000	202-898-8057

5640.2.3 *Television*

Affiliation	**Phone #**	**Fax #**
KGTV	619-237-1010	619-527-0369
KUSI	858-571-5151	858-571-4852
KFMB	858-571-8888	858-560-0627

5640.2.4 *Radio*

Affiliation	Phone #	Fax #
KFMB	858-495-8670	858-495-7557
KOGO	858-292-2000	858-715-3364
KCBQ	800-873-1210	858-535-1212

5640.2.4 *Newspapers*

Affiliation	Phone #	Fax #
Union-Tribune	619-299-3131	619-293-1896
LA Times	619-544-6001	619-544-6051
NY Times	323-658-8984	323-
Coronado Journal	619-437-8800	619-437-8635
San Diego Log	619-226-1608	619-226-1037

5640.3 Salvage Companies/Divers

C & W Diving Services, Inc.
P.O. Box 2433
National City, CA 91950
(619) 474-2700 24Hrs

Global Diving and Salvage,
Seattle, WA
(206) 623-0621

Worldwide Salvage and Oil Pollution Control. Can provide 15 to 20 divers as well as project managers. One 70 ft tugboat, other boats and cranes. Offers custom-built salvage equipment such as high-capacity pump systems (up to 3,000 GPM) and two-ton lift bags.

Marine Services **Hydrostatic testing, diving system maintenance (no divers)**
PO Box 258
Chula Vista, CA 91912
(619) 422-8918

Presley Precision Diving
2330 Shelter Island Drive
San Diego, CA 92106
(619) 223-3234

RE Staite Engineering Inc.
2140 Tidelands
National City, CA 91950
(619) 477-7900
All purpose marine construction co. Tugs, pumps, divers, etc… Subcontractor of MSRC.

TOW BOATS/BARGES:

Pacific Tugboat Service
997 "G" St.
PO Box 1940
Chula Vista, CA
91912
(619) 409-1827
(800) USE-R-TUG
Contact Steve Fraily (24 hrs): (619) 840-2489
Excellent resource for SD region. Tugs, barges, boom. (1000 ft.) Great source for networking for local resources. Also has resources in LA/LB. Subcontractor of MSRC.

Marine Corp.
1500 S Barracuda Berth 270/271
Terminal Island, CA 90731
(310) 547-0919

Harbor Tug & Barge
P.O. Box 13995
San Diego, CA 92113
(619) 223-1558
(619) 233-3805
One 1100 HP TB, Metola-A
One 60'x20'x6', AMCO
Flexifloats from sizes 20'x10'x5' to 80'x40'x5'

RE Staite Engineering Inc.
2140 Tidelands
National City, CA 91950
(619) 477-7900
All purpose marine construction co. Tugs, pumps, divers, etc… Subcontractor of MSRC.

Foss/NRC Maritime
1839 Water Street
San Diego, CA
(619) 234-8228/7940
5 tugs in San Diego HP is 1000 to 2250

Note: Subject to availability, 8 Tugs in LA area. All of the above towboats have 5 tank barges in LA. a 2-hour response time to cover 2 1000 GPM pumps in LA w/ 48' discharge head crew and supply. There is no operating limitation other than fuel.

U.S. Navy, Waterfront Operations
San Diego, CA
Contact Duty Officer:
(619) 556-3138
and Port Services Office:
6 Schwes Tugs (85'): 2400 HP,
Firefighting monitors, Radar.

Note: Two tugs are always on immediate standby, and the remaining 4 are on 1 hour standby. These vessels are designated for harbor service and carry no navigation equipment other than a Radar. Maximum offshore range is approximately 25 miles.

HEAVY LIFT CRANES

Southwest Marine Inc.
P. O. Box 13308
San Diego, CA 92170-3308
(619) 238 1000

Barge HEAVY LIFT
Barge mounted crane capable of lifting 400 tons

5640.4 Fishing Cooperatives and Fleets - To be Developed

5640.6 Volunteer Organizations

The following groups may be utilized by the FOSC in various pollution response activities:

American Red Cross
3650 Fifth Avenue
San Diego, CA 92103
(619) 291-2620

Aid and comfort workers

Salvation Army
825 Seventh Avenue
San Diego, CA 92101
(619) 239-8027

Aid and comfort workers.

Sea World
1720 South Shores Road
San Diego, CA 92109
(619) 222-6363
(800) 541-7325
Fax: (619) 226-3696
POC: Animal Care
Environmental Coordinator office

Take care of various wildlife. Will pick up Pinnepeds (seals, etc.) Cetaceans (dolphins, whales, etc.) They can handle 50 Pinnepeds and various numbers of Cetaceans depending After hours on their tank capacity at the time. They can also handle approximately 30 birds at a time. These birds must be dropped off at the security at Sea World.

Project Wildlife Take care of various wildlife.
P.O. Box 80696
San Diego, CA 92038-0696
(619) 225-9453
POC: Seabird Team Leaders

Sierra Club
San Diego Chapter
House of Hospitality
Balboa Park, CA
(619) 299-1744

5640.7 Marine Pilots Association

The San Diego Bay Pilots Association, Inc. is made up of four U.S. Coast Guard licensed and San Diego Unified Port District designated harbor pilots. All Pilots are regulated by the Port Tariff and by the confines of their respective licenses. All work is shared through a watch rotation and equal compensation system voluntarily agreed by each pilot. For liability reasons, each pilot is an independent contractor and not responsible for any negligence of any other pilot. The office phone number is forwarded to the duty pilot each shift. A back-up/stand-by pilot is always available for potential conflicts in job scheduling. Port Pilots can be contacted as follows:

San Diego Bay Pilots Association, Inc.
627 Switzer Street
San Diego, CA 92101
(619) 233-3096

Individual Cellular Phones:
Capt. Edward Silva: (619) 957-0901
Capt. Eric Ireland: (619) 957-0902
Capt. Phillip Ryan: (619) 957-0903
Capt. William Bartsch: (619) 957-0904
Capt. Lyle Donovan: (619) 957-0905

No other individual is authorized to perform pilot services in San Diego Bay for vessels subject to Pilotage in the Port of San Diego.

5640.8 Laboratories

Field of Testing (SHORT) Version

SAN DIEGO County

H & P Mobile Geo Chemistry

148 South Binewood St
Escondido, CA 92029
Phone No: (760) 735-3208
Certificate No: 1561 Expires on: 07/31/2005

Fields of Testing
9-Physical Testing of Hazardous Waste
12-Organic Chemistry of Hazardous Waste (measured by GC/MS combination)
13-Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS)

Note: This is a mobile test unit that can be dispatched on-scene.

Pacific Analytical, Inc.
6056 Corte Del Sadro
Carlsbad, California
Phone No: (760) 931-1766
Certificate No: 1466 Expires on: 03/31/2005

Fields of Testing
9-Physical Testing of Hazardous Waste
12-Organic Chemistry of Hazardous Waste (measured by GC/MS combination)
13-Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS)

Note: Don't handle oil samples

San Diego Gas & Electric Company Environmental Laboratory

6555 Nancy Ridge Dr., Suite 300
San Diego, California
Phone No: (619) 260-5747
Certificate No: 1289 Expires on: 08/13/2004

Fields of Testing

9-Physical Testing of Hazardous Waste
10-Inorganic Chemistry & Toxic Elements of Hazardous Waste
11-Extraction Tests of Hazardous Waste
12-Organic Chemistry of Hazardous Waste (measured by GC/MS combination)
13-Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS)

Transglobal Environmental Geochemistry, Inc.
Southern California Division.
432 N. Cedros Ave.
Solana Beach, California
Phone No: (858) 793-0401
Certificate No: 1839 Expires on: 01/31/2005
Certificate No: 1667 Expires on: 11/30/2003
Certificate No: 1745 Expires on: 04/30/2004
Certificate No: 1746 Expires on: 04/30/2004
Certificate No: 1317 Expires on: 09/30/2004
Certificate No: 1561 Expires on: 07/31/2005
Certificate No: 2543 Expires on: 03/31/2005
Certificate No: 2278 Expires on: 10/31/2003
Certificate No: 2530 Expires on: 12/31/2003
Certificate No: 2088 Expires on: 08/31/2005

Mobile Labs are dispatched from this office but only on the land side

Fie lds of Testing

13-Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS)

JMR Environmental Services

3491 Kurtz St
San Diego, California
Phone No: (619) 222-0544
Certificate No: 1455 Expires on: 09/28/2004 NAVLAP 200067-0 Accreditation

Fields of Testing

14-Bulk Asbestos Analysis

Navy Public Works Center

Environmental Engineering Laboratory
Bldg. M-9, NAS North Island
San Diego, California
Phone No: (619) 545-8431
Certificate No: 1301 Expires on: 08/31/2000

Fields of Testing

9-Physical Testing of Hazardous Waste
10-Inorganic Chemistry & Toxic Elements of Hazardous Waste
11-Extraction Tests of Hazardous Waste
12-Organic Chemistry of Hazardous Waste (measured by GC/MS combination)
13-Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS)
14-Bulk Asbestos Analysis

Design for Health
3574 Kettner Blvd.
San Diego, California
Phone No: (619) 291-1777
Certificate No: 2060 Expires on: 05/31/2001

Fields of Testing

14-Bulk Asbestos Analysis

5640.8 Environmental Interest Groups (To be Developed)

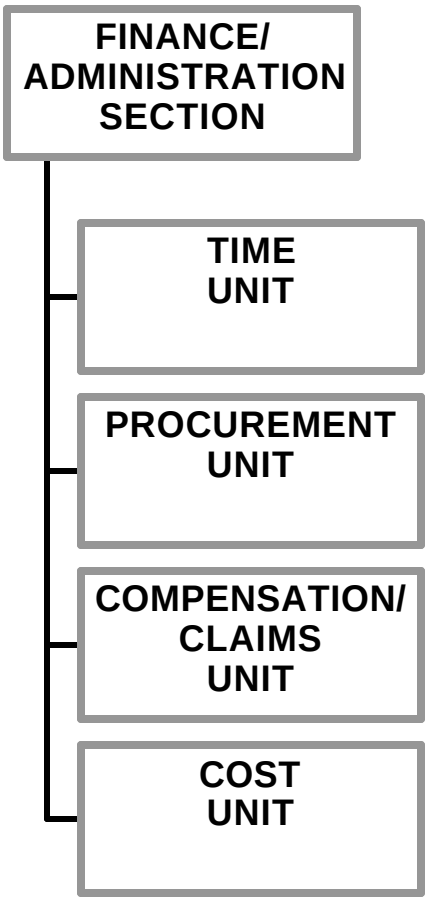
6000 FINANCE/ADMINISTRATION TABLE OF CONTENTS

Section #	Section	Page#
6100	Finance/Administrative Section Organization	6000-2
6110	Finance/Administrative Section Planning Cycle Guide	6000-3
6200	Roles and Responsibilities	6000-4
6210	Finance Section Chief	6000-4
6220	Time Unit / Leader	6000-4
6221	Equipment Time Recorder	6000-4
6222	Personnel Time Recorder	6000-4
6230	Procurement Unit / Leader	6000-4
6240	Compensation/Claims Unit / Leader	6000-4
6250	Cost Unit / Leader	6000-4
6300	FOSC Access to Oil Spill Liability Trust Fund	6000-4
6310	National Pollution Fund Center (NPFC)	6000-4
6320	Oil Spill Liability Trust Fund	6000-5
6330	Comprehensive Environmental Response, Compensation & Liability Act	6000-5
6400	Other Access To Funds	6000-6
6410	State Access to the Oil Spill Liability Trust Fund - Direct and Indirect	6000-6
6420	Local Access to the State Oil Spill Response Trust Fund (OSRTF)	6000-6
6430	Lead Administrative Trustee Access to the OSLTF	6000-6
6440	Claims Against Fund	6000-7
6500	Cost Recovery & Documentation Procedures	6000-7

6100 FINANCE/ADMINISTRATIVE SECTION ORGANIZATION

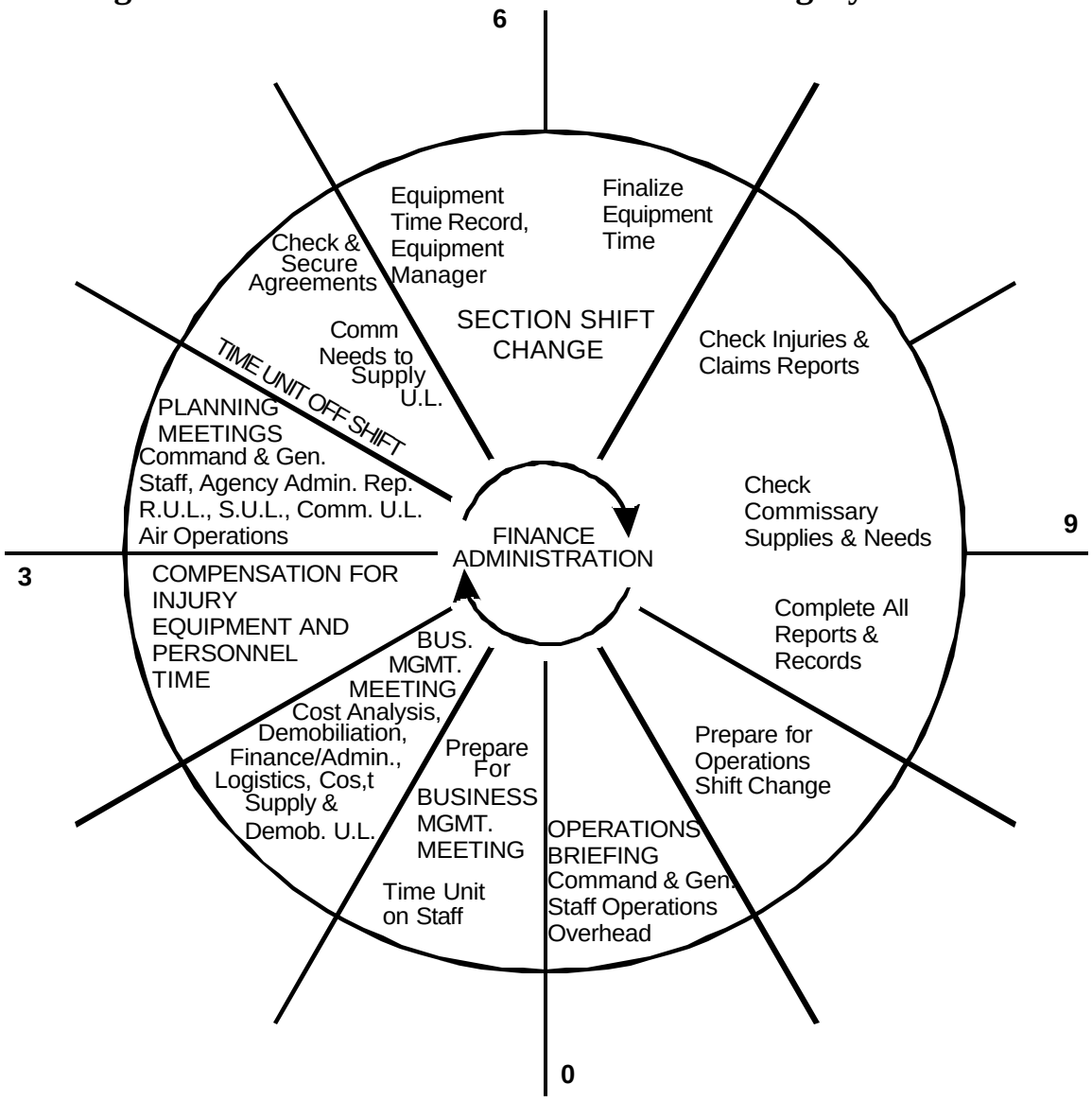
The Finance Section is responsible for all-incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit and Cost Unit. The IC will determine the need for a Finance/Administration Section, and designate an individual to perform that role. If no Finance Section is established, the IC will perform all finance functions. The Finance/Administration Section is set up for any incident that may require on-site financial management. More and more, larger incidents are using a Finance/Administration Section to monitor costs. Smaller incidents may also require certain Finance/Administration functions. For example, the IC may establish one or more units of the Finance/Administration Section for such things as procuring special equipment, contracting with a vendor, or for making cost estimates of alternative strategies.
The Finance Section may establish four units as necessary. Not all of the units may be required, and they will be established based upon need.

FINANCE/ADMIN SECTION DIAGRAM
FIGURE 6000-A



6110 Finance/Administrative Section planning Cycle Guide

Figure 6000-B: Finance/Admin Section Planning Cycle Guide



Based on a 12 hour operational period, may be modified based on actual duration of operational period (e.g. 24, 36, etc.)

ABBREVIATIONS & ACRONYMS

Agency Admin. Rep.:	Agency Administrator Representative
Bus. Mgmt.:	Business Management
Comm. U.L.:	Communications Unit Leader
Demob. U.L.:	Demobilization Unit Leader
Finance/Admin.:	Finance/Administration
Gen.:	General
I.A.P.:	Incident Action Plan
R.U.L.:	Resources Unit Leader
S.U.L.:	Situation Unit Leader
U.L.:	Unit Leader

6200 ROLES AND RESPONSIBILITIES

Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17) for List of Responsibilities.

6210 Finance Section Chief

The Finance/Administration Section Chief, a member of the General Staff, is responsible for all financial and cost analysis aspects of the incident and for supervising members of the Finance/Administration Section.

6220 Time Unit / Leader

The Time Unit Leader is responsible for equipment and personnel time recording.

6221 *Equipment Time Recorder*

Under Supervision of the Time Unit Leader, Equipment Time Recorder is responsible for overseeing the recording of time for all equipment assigned to an incident.

6222 *Personnel Time Recorder*

The Personnel Time Recorder reports to the Time Unit Leader and records personnel information.

6230 Procurement Unit / Leader

The Procurement Unit Leader is responsible for administering all financial matters pertaining to vendor contracts.

6240 Compensation/Claims Unit / Leader

The Compensation/Claims Unit Leader is responsible for the overall management and direction of all Compensation for Injury Specialist and Claims Specialists assigned to the incident.

6250 Cost Unit / Leader

The Cost Unit Leader is responsible for collecting all cost data, performing cost effectiveness analyses, and providing cost estimates and cost saving recommendations for the incident.

6300 FOSC ACCESS TO OIL SPILL LIABILITY TRUST FUND (OSLTF) (Reference **40 CFR 300, 33 CFR 133,** and **33 CFR 136**)

6310 National Pollution Fund Center (NPFC)

The National Pollution Funds Center (NPFC) is the fiduciary agent for the Oil Spill Liability Trust Fund (OSTLF) and CERCLA/Superfund manager for the funds provided by EPA for hazardous materials incident response.

6320 Oil Spill Liability Trust Fund (OSLTF)

The Oil Spill Liability Trust Fund (OSTLF) is the Fund established under section 9509 of the Internal Revenue Code of 1986 (26 USC 9509). The following procedures apply to OSCs (either Coast Guard or EPA) who are performing oil removal operations under the NCP and require funding support from the OSTLF.

1. The OSC contacts the cognizant CG District Commander and requests issuance of an FPN and a corresponding ceiling amount.

2. The District Commander issues the FPN and associated ceiling amount to the OSC by priority message. Additional information needed includes:

    a. Name of all known vessels and/or facilities involved;
    b. Source of the discharge or potential discharge, if known;
    c. Responsible Party, if known;
    d. Location and date of discharge;
    e. Identification of the body of water impacted or threatened;
    f. The distribution of funds between contractor costs and all other costs;
    g. Clean up contractors selected, if any.

3. All ceiling messages, POLREPS, or others messages related to the incident where the OSTLF has been accessed that shall include the OSC, NPFC, CG FINCEN, and cognizant MLC contracting branch as INFO addees, in addition to current reporting requirements.

6330 Comprehensive Environmental Response, Compensation & Liability Act (CERCLA)

The Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) is the CERCLA fund. The following procedures apply to OSCs (either Coast Guard or EPA) who are performing hazardous substance response operations under the NCP and require funding support from the CERCLA Fund.

1. The OSC contacts the NPFC Case officer and requests issuance of a CERCLA Project Number (CPN) and a corresponding ceiling amount. Additional information needed includes:

    a. MSO and OSC Point of Contact;
    b. Name of incident, location (city/county, state);
    c. LAT/LONG
    d. Date incident occurred/discovered and date OSC action commenced;
    e. Description of threat;
    f. Ceiling amount requested;
    g. Contractor(s) hired and amount obligated for each.
2. The NPFC will respond promptly to all requests, with confirmation by priority message no later than the next business day.

3. Initial CERCLA Ceiling requests are limited to $250,000.

4. All messages, POLREPS, or others messages related to the incident where the CERCLA Fund has been accessed that shall include the OSC, NPFC, District (m), CG FINCEN, and cognizant MLC contracting branch as INFO addees, in addition to current reporting requirements.

5. There are special OSC requirements for CERCLA incidents that place additional reporting requirements. See the NPFC User Guide for more information.

6400 OTHER ACCESS TO FUNDS

6410 State Access to the Oil Spill Liability Trust Fund (OSLTF) - Direct and Indirect (Reference 33 CFR 133)

Information about state access to the Fund is found in 33 CFR 133 and 33 CFR 136 with additional guidance in the National Pollution Funds Center's User Reference Guide. Information from the User Guide can be obtained by contacting the Eleventh Coast Guard District Marine Safety Division Office at phone number **510/437-2940**. For additional information regarding these procedures or related subjects, State representatives, OSCs, and other interested parties are urged to contact the **NPFC** at **202/493-6780**.

6420 Local Access to the State Oil Spill Response Trust Fund (OSRTF)

If the Oil Spill Liability Trust Fund is opened to provide funds for a spill incident, local agencies should seek reimbursement through the OSC. If federal funds are not available or will not be available in an adequate period of time, and a responsible party does not exist or is unable or unwilling to provide adequate and timely cleanup and to pay for the damages resulting from a marine oil spill, then the State of California Oil Spill Response Trust Fund shall be used to pay necessary costs for responding to, containing, and cleaning up the oil spill. Information regarding these procedures can be obtained from the State of California Office of Spill Prevention and Response Cost Recovery Unit at phone number **916/327-9407.**

6430 Lead Administrative Trustee (LAT) Access to the OSLTF

Executive Order 12777 (October 22, 1991) requires the federal natural resource trustees to select a representative as the federal lead administrative trustee (LAT). In general, the LAT serves as the federal contact for all aspects related to damage assessment, resource restoration, and federal funding for NRDA activities. Depending on the resources affected and other relevant factors, it might be appropriate for most administrative duties to be undertaken by a lead trustee from a non-federal agency. In such cases, a LAT would still be selected to work with the representatives of the OSTLF to secure federal funds to initiate the damage assessment. The non-federal lead trustee would coordinate all other administrative duties regarding damage assessment activities. This lead trustee or trustee agency shall be selected by consensus of all participating trustees. The trustees will notify the Coast Guard of the LAT and, when applicable, non-federal lead trustees as soon as possible after oil spill.

The trustees intend to execute a general Memorandum of Agreement (MOA) to coordinate their damage assessment and restoration activities. Among other things, the MOA will identify trustees, establish criteria for selecting the LAT, and provide procedures for decision making and monetary recoveries.

The LAT will contact the OSC or his/her representative to secure money to initiate the assessment of natural resource damages following an oil spill. The LAT will provide an outline of studies jointly agreed upon by the participating trustees for which funding are sought and how such funds will be allocated among the trustees. Each participating trustee will provide documentation of all expenditures, costs and activities. The LAT is responsible for coordinating all such documentation to the representatives of the OPA Fund.

6440 Claims against the Fund

Information about claims against the Fund can be found in 33 CFR 133 and 33 CFR 136 with additional guidance in the National Pollution Funds Center's User Reference Guide. A full copy of the User Guide can be obtained by contacting the Eleventh Coast Guard District Marine Safety Division Office at phone number 510/437-2940. For additional information regarding these procedures or related subjects, State representatives, OSCs, and other interested parties are urged to contact the NPFC at **202/493-6780.**

6500 Cost Recovery & Documentation Procedures (Reference 33 CFR 136, Subpart B)

Information about Cost Recovery and Documentation and cost recovery/documentation forms are in 33 CFR 133 and 33 CFR 136 with additional guidance in the National Pollution Funds User Reference Guide. Information from the User Guide can be obtained by contacting the Eleventh Coast Guard District Marine Safety Division Office at phone number **510/437-2940**, or the local Marine Safety Office. For additional information regarding these procedures or related subjects, State representatives, OSCs, and other interested parties are urged to contact the NPFC at **202/493-6780**.

7000 HAZARDOUS MATERIALS

7000: HAZARDOUS MATERIALS: TABLE OF CONTENTS

Section #	Section	Page#
7100	Hazardous Materials	7000-1
7110	Introduction	7000-1
7115	Background Information	7000-1
7120	Governmental Policy & Response	7000-1
7130	Federal Policy	7000-1
7140	State Policy	7000-3
7150	Local Government Policy	7000-4
7200	COMMAND	(Refer to Section 2000)
7230	Public Affairs	7000-9
7300	OPERATIONS	(Refer to Section 3000)
7330	Reporting Requirements	7000-10
7340	Initial Response Actions	7000-10
7350	Initiating a Federal HazMat Response	7000-11
7360	Response Actions	7000-11
7370	Required Correspondence	(Refer to Section 3400)
7375	Response Priorities	(Refer to Section 3500)
7380	Response Strategies	(Refer to Section 3600)
7400	PLANNING	(Refer to Section 4000)
7470	Scenario Development	7000-12
7475	Scenario I	7000-13
7480	Scenario II	7000-14
7500	LOGISTICS	(Refer to Section 5000)
7555	Natural Resource Trustees	7000-18
7600	FINANCE	(Refer to Section 6000)
7630	FOSC Access to Funds	7000-18

7100 HAZARDOUS MATERIALS

7110 Introduction

The Hazardous Materials section outlines the jurisdictional boundaries of hazardous materials (HAZMAT) incident response between federal, state, and local agencies, outlines locally available response assets and contains scenarios based on potential real world incidents.

7115 *Background Information*

The Hazardous Materials section was developed in accordance with the requirements of Title 33, United States Code, Section 1321(j)(l) and the National Oil and Hazardous Substances Pollution Contingency Plan.

This section was developed with input from representatives from the Federal, State, and local agencies that would likely be involved in the abatement of a hazardous substance release or substantial threat of a release. Coordinated planning was required to ensure an effective, cooperative response be initiated in the event of an actual incident.

7120 Governmental Policy & Response

The response systems for governmental agencies are based on each agency capabilities, responsibilities, response strengths and authorities. The following sections describe the response actions for Federal, State, and local agencies.

7130 Federal Policy

In accordance with section 311 (c) of the Clean Water Act (CWA), as amended by the Oil Pollution Control Act of 1990, the On-Scene Coordinator (OSC) is delegated authority to ensure the effective and immediate removal of a discharge and mitigation or prevention of a substantial threat of discharge of a hazardous substance.

The Coast Guard provides the OSC for oil discharges and hazardous substance release into or threatening the coastal zone. Environmental Protection Agency provides OSCs for oil discharges and hazardous substance releases into or threatening the inland zone. The boundaries between the Coast Guard and EPA zones can be found in section 7100. This section outlines the response policies of the Coast Guard.

Based on section 300.135(d) of the NCP, the United States Coast Guard Captain of the Port (COTP) has been designated the local hazardous materials response team to be the initial responder to incidents in the coastal zone. The COTP will remain the OSC and make notifications to the NRC and assist in the coordination of response efforts, if required. If the incident is beyond the capabilities of local responders, the COTP/OSC WILL exercise the ACP and will initiate the formation of the Incident Command System. Based upon the Memorandum of Agreement between the USCG COTP and the County of San Diego Hazardous Incident Response Team (HIRT), The OSC will request the Teams assistance.

For releases exceeding the capabilities of HIRT, the OSC will request other Federal resources. The OSC may request the assistance of the:

a) National Strike Force (NSF), including the three USCG Strike Teams, the Public Information Assist Team (PIAT), and the National Strike Force Coordination Center (NSFCC).

The NSF can provide the OSC with:

1) Technical assistance, equipment and other resources to augment the OSC staff.
2) Assistance in coordinating the use of private and public resources.
3) Assistance in locating spill response resources using the NSFCC'S national and international computerized inventory of spill response equipment.
4) Provide PIAT to assist the OSC with the demands for public information.

b) The NOAA Scientific Support Coordinator (SSC). The SSC can provide the OSC with:

1) Information regarding the released chemical(s), including chemical properties, response techniques, health and safety issues, and protective equipment required.
2) Chemical plume trajectory modeling. Based on the information derived from this modeling, the SSC can provide information on concentration ranges, exposure levels, and protective actions.
3) Current on-site weather conditions.
4) Forecasting of expected weather changes and the resulting effects on the plume model.
5) Information on resources at risk.
6) Assistance with air monitoring issues.

c) Coast Guard Activities San Diego. Local Coast Guard resources that could be requested by the OSC are:

1) Two 41' SAR/Firefighting boats.
2) Three 110' patrol boat (San Diego Harbor-USCGC Tybee, Edisto, Long Island).
3) Three HH60J Helicopters.
4) Two 378' Cutters (CGC Hamilton, Chase)

d) Federal Fire Department Hazardous Materials Response Teams. There are two such teams in the San Diego area. These teams are located at the 32nd Street Naval Station and Naval Air Station North Island. These teams can provide the OSC with:

1) ICS Command Center representative who can asses U. S. Navy resources.
2) State of California certified HazMat technicians and/or specialists.
3) Two response units which are fully equipped with state of the art monitoring and sampling equipment as well as Computer Data Bases to aid in identification and hazard assessment.
4) The response units are fully equipped with personnel protective equipment in order to perform all levels of entry (level D through level A).
5) Decontamination equipment is carried giving the technicians the ability to set up the most elaborate decontamination site(s).
6) Equipment and agents are carried on the vehicles to contain, control, absorb, and neutralize most common and exotic chemical spills.
7) A cascade system in order to recharge air bottles.
8) A Light and Air vehicle (located at 32nd Street Naval Station). This tractor-trailer is equipped to respond to larger incidents where more equipment and materials could be required. Larger quantities of containment, absorption, and neutralization materials are carried on this apparatus on pallets. The Light and Air Unit contains the following equipment:

    a. A 6.0 Kilowatt generator with telescoping light fixtures.

b. 700 gallons of AFFF.
c. An air compressor and charging system.
d. A bobcat tractor that can be utilized to move pallets or equipment, or to dig dikes and construct dams for the containment of hazardous materials.

9) An inflatable Command Center Tent.
10) A test bed for communications. This unit allows all units to communicate with each other via a patch through the system.
11) Access to Firefighting equipment including crash trucks with AFFF and an AFFF Resupply vehicle (800 gallons of AFFF concentrate).
12) Access to 6 contract tugs with Firefighting/AFFF capacities. These tugs have two monitors per tug, which have a capacity of supplying 3000 G.P.M. of water/AFFF.
13) Access to two U.S. Navy tugs that have a capacity of 1500 G.P.M. of water/AFFF.
14) Access to AFFF stored on U.S. Naval vessels in San Diego.
15) Access to the Naval Supervisor of Salvage resources.

For releases of hazardous substances, pollutants, or contaminates, when the release is on, or the sole source of the release is from any facility or vessel under the jurisdiction, custody or control of the Department of Defense (DOD), the agency is responsible for designating the OSC. In the San Diego area, Commander Naval Base San Diego is designated as the OSC for the Naval Facilities. The Coast Guard COTP will coordinate with the Commander Naval Base and provide assistance as requested.

7140 State Policy

The States main role in any HazMat incident is to assist local government, and take part in the unified command as appropriate. Certain resources exist at the State level, and if requested can be made available to assist Federal and local responders in a marine HAZMAT incident.

In California the primary State agencies that will assist the incident responders are the following:

Department of Fish & Game (DFG) - DFG, as a state trustee for fish and wildlife, is the lead state authority for any off-highway spill. The Department serves as the State Agency Coordinator, the primary contact between the Unified Command and the participating state agencies. If the incident exceeds the capabilities of local response agencies, the Department may assume the Incident Commander role. The Department can provide recommendations for containment and cleanup operations, determine cleanup completion when fish, wildlife, or their habitat are threatened, conduct investigations and collect evidence for civil or criminal prosecution.

Department of Toxic Substances Control (DTSC) - DTSC, as a part of California's Environmental Protection Agency (Cal EPA), DTSC has expertise handling and responding to situations involving hazardous materials. DTSC can provide recommendations on the course of action for cleanup, environmental risk, breakdown products, and determine both the short and long-term fate and effects of the product on the environment.

California Highway Patrol (CHP) - CHP will function as the State Agency Coordinator or Incident Commander for a hazardous materials incident which occurs on a highway or its right-of-way within CHP jurisdiction (freeways, highways, and roads in unincorporated areas). CHP can provide technical expertise regarding commercial vehicle equipment regulations and hazardous material transportation provisions. CHP has authority to conduct investigations and collect evidence for criminal or civil prosecution.

Department of Transportation (CALTRANS) - CALTRANS is responsible for maintaining the state highway system. They maintain contracts with cleanup companies statewide to provide cleanup on highways; however, response is limited to the highway and right-of-way area only.

Department of Forestry and Fire Protection (CDF) - CDF, in addition to carrying out the responsibilities of a local fire suppression agency during a hazardous materials incident, they can provide logistical and communications support to a Unified Command as well as emergency feeding operations for large numbers. The California State Fire Marshal is also a part of this department. Their Pipeline Safety Division publishes the *Guide to Hazardous Liquid Pipeline Operators* to provide general information regarding the location and phone numbers of hazardous liquid pipeline operators to fire services. Pipeline rupture, fire, or explosions must be reported to California OES at 800-852-7550, who will relay the information tot he State Fire Marshal.

Regional Air and Water Boards - are both a part of Cal EPA and have jurisdiction for air and water quality in their respective areas.

HAZMAT responses will be conducted under the auspices of the California Standardized Emergency Management System (SEMS) (Chapter 1, Division 2, Title 19, California Code of Regulations). SEMS defines the principles of the Incident-Command System, incident resources and facilities, and common responsibilities. The key components of SEMS are:

1) Five levels of emergency management will be used state wide to create uniform organization and terminology. The five levels are field/incident, local government, operational area, region, and state.
2) Five standard functions of the emergency response organization at all levels will be used. The five levels are command/management, operations, plans/intelligence, logistics, and a finance/administration.
3) The Operational Area (county) will be the central coordination point for information and resources at a major local incident.
4) A statewide master mutual-aid system exists for coordination of operational area, regional, and state resources during major emergencies.
5) An Operational Area Satellite Information System (OASIS) can be used to link all operational area and OES via satellite communications.
6) All state and local agencies must use SEMS during disaster responses and it is an eligibility requirement for local governments and agencies to receive state reimbursement following a disaster.
7) SEMS guidelines and information on an approved course of instruction are available from state OES.

7150 Local Governmental Policy

Pursuant to the California Health and Safety Code Chapter 6.95, local governments have developed local area plans documenting policies and procedures for responding to HazMat incidents. It is anticipated that local responders will be the first to arrive on-scene.

The main responsibilities of the response agencies are to rescue and treat victims, perform fire suppression, isolate contaminated areas from the general public, control and contain hazardous materials, and facilitate any public evacuations or shelter-in-place operations.

For most HazMat emergencies, local-government responders will be on scene first at an incident within their jurisdiction. Generally, in any HazMat incident, assisting agencies will respond from three functional areas:

1) Fire Services - Certain fire departments have established a HazMat response team whose organizational structure will provide the necessary supervision and control for the essential functions required at HazMat incident as well as fire suppression capabilities.
2) Law Enforcement - The local law-enforcement agency will respond to most HazMat incidents. Law enforcement agencies may assist the On-scene Coordinator by isolating the incident area, managing crowd control, traffic control, providing protective public action, such as evacuations or sheltering-in-place, and managing criminal investigations.
3) Environmental Health Agencies - In most cases, the local or state environmental health agency will be at the scene. These agencies will assist in determining the nature and identity of the hazardous material, establishing the criteria for cleanup and disposal of the material, declaring the site safe for reentry by the public, providing the medical history of exposed individuals, monitoring the surrounding environment, assisting in the cleanup of the site, and providing technical advise.

Responses to Hazardous Materials Incidents
Within the San Diego Operational Area

The Hazardous Materials (HAZMAT) Incident Response Team (HIRT) is a program of the Unified San Diego County Emergency Services Organization. It is a regional program intended to responds to all hazardous materials incidents within the San Diego Operational Area. The HIRT consists of responders from the San Diego Fire Department Hazardous Materials Unit as well as representatives from the San Diego County Department of Environmental Health (DEH) Hazardous Materials Division (HMD).

A typical HIRT response will be provided by one hazmat vehicle from San Diego Fire with four (4) hazardous materials specialists and one hazmat vehicle from HMD with two (2) additional specialists. In this configuration the team is able to effectively respond to any Hazmat incident up to, and including, large spills requiring level "A" entry.

When a HIRT Unit is requested and dispatched (normally through San Diego Fire dispatch) to the scene of a Hazmat emergency, that unit automatically becomes a resource of the Incident Commander. It must be remembered that HIRT will never assume Incident Command responsibility. HIRT is a resource for the Incident Commander (IC) and will assist and advise to the best of their ability.

The minimum standards for HIRT are as follows:

I. TRAINING STANDARDS

All HIRT providers will:

1) Be trained to NFPA standards.
2) Meet all operational requirements of CCR Title 8 Section 5192 and 29 CFR 1910.120

3) Be trained to perform entry in both level "A" and level "B" protective equipment.

II. OPERATING STANDARDS

A. Mitigation/Control Capabilities

HIRT will:

1) Respond to reported incidents and advise the Incident Commander (IC) on additional local, state, federal and private resources required to manage and/or mitigate the problem.

2) Perform technical response procedures in accordance with established standard operating procedures (SOPs), personal protection guidelines and all applicable State regulations.

3) Request use of the State of California Emergency Reserve Account (ERA) for emergency cleanup.

4) Provide technical expertise, assistance and equipment at the incident.

5) Perform duties as directed by the IC.

6) Act as the IC's agent in the management of cleanup operations.

B. Public Health and Safety Capabilities

HIRT will be able to:

1) Identify, or assist in the identification of, unknown spilled material at the scene.

2) Act as technical advisor on characteristics and direct health and environmental effects of the hazardous materials at the scene.

3) Assist the IC in determining the necessity for evacuation and establishing reentry criteria.

4) Sample contaminated soil, water or air to determine the extent of contamination and identify any public health concerns.

5) Provide analytical laboratory support as needed.

6) Assist the IC in identifying potential sources of hazardous materials release.

7) Provide information on proper protective actions at the scene.

8) Recommend cleanup levels and advise on the adequacy of cleanup both during and after the emergency.

9) Assist the IC in obtaining financial and other resources necessary for any required cleanup.

10) Assist the agency having jurisdiction in obtaining appropriate enforcement action against any responsible party.

11) Provide on-scene liaison with Poison Control, Emergency Medical Services (EMS) and State and Federal Agencies.

C. Capabilities Required of All Providers

The HIRT will be able to perform the following functions:

1) Understand what hazardous materials are, the risks associated with them at an incident and the potential outcomes associated with a HAZMAT emergency.

2) Recognize the presence of hazardous materials in an emergency situation.

3) Identify hazardous materials.

4) Understand the role of the individual trained to the first responder awareness level as well as the role of the DOT Emergency Response Guidebook.

5) Recognize the need for additional resources and advise the IC to make the appropriate notifications.

6) Basic hazard and risk assessments.

7) Select and use proper specialized chemical protective equipment.

8) Understand basic HAZMAT terms.

9) Basic and advanced control, containment and/or confinement operations within the capabilities of the resources and PPE available within the unit.

10) Understand and implement decontamination procedures.

11) Understand the relevant SOPs and termination procedures.

12) Implement an employers (business) emergency response plan.

13) Classify, identify and verify known and unknown materials using field survey instruments and equipment.

14) Function within an assigned role in the incident command system.

15) Understand basic chemical and toxicological terminology and behavior.

16) Understand HAZMAT medical management protocols as established by the California Emergency Medical Services Authority (EMSA).

17) Rescue/Evacuation.

18) Isolation/Deny entry.

19) Contain/Control.

20) Exposure protection.

21) Communicate with the IC, first responder agencies, dispatch centers and State and federal regulatory agencies.

III. BACKUP TEAMS

A backup team MUST be provided as a rescue team for the personnel working in the hot zone. The backup team shall:

1) Be protected at the same level of protection as the team working in the hot zone.

2) Maintain line of sight contact among personnel operating in the hot zone.

3) Visually monitor personnel operating within the hot zone.

IV. RESPONSE TIMES

1) Each HIRT provider will meet a maximum response time of sixty minutes for ninety percent of all hazardous materials incidents dispatched.

2) A second, simultaneous, response will require a maximum response time of ninety minutes.

3) Response time begins at the time of dispatch and ends when the unit arrives on scene.

VI. RELEASE FROM SCENE

The following standardized criteria will be utilized by the Incident Commander in determining when to release HIRT Units from an emergency scene. These Guidelines are necessary to ensure the availability of HIRT resources for multiple or escalated HazMat emergencies in the San Diego Operational Area.

Although this guideline covers a variety of situations, there will be times when special circumstances may necessitate the release of HIRT resources. Common sense should be exercised in these instances. HIRT may be released from the scene:

1) Whenever the local jurisdiction has the ability to complete the incident plan in an approved, safe and acceptable manner.

2) When HIRT is notified of a second incident and it is determined that the local jurisdiction has the ability to carry out the incident plan in a safe and approved manner.

3) When the product or material does not pose a threat to people or the environment and can be isolated from the public.

4) Once the Incident Commander determines that the emergency phase of the operation and all entries into the exclusion zone are complete.

When the incident is above the capabilities of the local fire department hazardous materials teams, the HIRT unit(s) will be dispatched to the scene. Both organizations may be called out to respond simultaneously for larger incidents. Should the incident exceed the capabilities of the combined local

resources, OES may request HIRT units from other counties in Southern California to be dispatched to the scene.

When HIRT is requested, they will investigate to determine the magnitude of the spill or release, the conditions and type of containers, if any, and the material involved. HIRT will attempt to locate the spiller/generator and/or property owner. If the material is suspected or found to be a CERCLA product or products, and the responsible party cannot be located or is taking inadequate action, the HIRT will initiate a request for State Super Funds. HIRT will also assist the Incident Commander OSC in coordinating proper containment and cleanup operations.

For larger scale incidents (those requiring a multi-agency response) the local response organizations will provide representatives to the Incident Commander/On-Scene Coordinator to assist with the coordinated response. These representatives will fill various positions in the ICS structure.

7200 COMMAND SECTION

Reference section 2000 from this plan.

7210 Command Structure: Unified Command

Reference section 2100 from this plan.

7220 Command/Staff Elements: Roles & Responsibilities

Reference section 2200 from this plan.

7230 Public Affairs

One aspect of the ICS is the public affairs division. During recent incidents, inaccurate, and contradictory information has been released to the press by various agencies involved in the response. This resulted in significant problems as it caused undue panic/concern on the part of the public. It is imperative that all agencies participating in a response have a representative in this division and train their personnel to direct all press inquiries to these individuals.

7300 OPERATIONS SECTION

Reference section 3000 from this plan.

7310 Operations Section Organization

Reference section 3100 from this plan.

7320 Roles & Responsibilities

Reference section 3200 from this plan.

7330 Reporting Requirements

A release or threatened release of a hazardous material within the State of California must be reported. Hazardous material includes any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant or potential hazard to human health or safety or to the environment, if released. If there is any question as to whether the material poses a threat, a report should be made to the appropriate authorities.

An immediate verbal report of any release or threatened release of hazardous material must be made to:

1) The National Response Center at 1-800-424-8802.

2) The local emergency response agency (such as 911, or the fire or health department, as directed by local laws).

3) The Governor's Office of Emergency Services (OES) at 800-621-3362.

This report should include:

1) Location of the release or the threatened release.

2) The name(s) of the person(s) reporting.

3) Hazardous material involved.

4) Estimates of the quantity.

5) Status of the release source (secured, still leaking, etc.).

6) Any know injuries.

7) Any actions taken or being taken to secure source and/or site.

7340 Initial Response Actions

As stated in section 7150 of this plan, the United States Coast Guard Captain of the Port (COTP) FOR San Diego has been designated the local hazardous materials response team to be the initial responder to incidents in the coastal zone. The COTP will remain the OSC and make notifications to the NRC and assist in the coordination of response efforts, if required.
If the incident is beyond the capabilities of local responders, the COTP/OSC will exercise the ACP and will initiate the formation of the Incident Command System. Based upon the Memorandum of Agreement between the USCG COTP and the County of San Diego Hazardous Incident Response Team (HIRT), the OSC will request the Team's assistance. Should the incident be too large for these agencies to handle, the OSC will initiate a federal response.

At this time, OES will also be notified of the need for assistance and will start contacting other HazMat teams from other counties and request that they be dispatched to the scene to assist.

7350 Initiating A Federal HazMat Response

In accordance with the Clean Water Act (CWA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) OF 1980, and the National Contingency Plan (NCP), the OSC/RPM has the authority to remove or arrange for the removal of releases and threatened releases of hazardous substances or pollutants/contaminants which may present an imminent and substantial endangerment tot he public health or welfare. A federal response will only be initiated if the responsible party fails or refuses to take appropriate actions to abate the spill.

The OSC's determination of the appropriate extent of a federal removal is guided by considerations similar to those that apply to initiating a removal. As a general rule, the OSC should pursue a cleanup until all environmental and public health and welfare concerns have been addressed; that is, the magnitude of the harm posed by the release has been reduced to insignificant levels. Once the immediate threat has been eliminated, the OSC should turn the site over to the EPA for possible extended planned removal or remedial action.

7360 Response Actions

The OSC shall evaluate the situation and ensure that the following issues are addressed:

1) The source of the release is secured.

2) The site is secured.

3) All non-essential personnel are evacuated from the scene.

4) Determine the properties of the spilled substance(s).

5) Ensure the responsible party has been notified and directed to take appropriate actions to contain/cleanup the hazardous materials in question.

6) Coordinate with state and local response agencies to complete a preliminary assessment and develop a situation specific response action plan.

7) For a situation requiring a federal response, open the CERCLA Fund (see section 7600) and commence documentation procedures.

8) Designate members of each branch/division of the ICS.

9) Continually evaluate the ongoing response actions to insure that they are adequate for the changing situation.

10) Once the immediate threat has been abated, ensure that a complete turnover to EPA is accomplished.

11) A site safety plan is implemented.

7370 Required Correspondence

Reference section 3400 from this plan.

7375 ***Response Priorities***

Reference section 3500 from this plan.

7380 Response Strategies

Reference section 3600 from this plan.

7400 PLANNING

7410 Planning Section Organization

Reference section 4100 from this plan.

7420 Roles & Responsibilities

Reference section 4200 from this plan.

7430 Compliance Guidance

Reference section 4300 from this plan.

7440 Response Priorities

Reference section 4400 from this plan.

7450 Response Strategies

Reference section 4500 from this plan.

7460 Environmental Sensitivity Information

Reference section 4600 from this plan.

7470 Scenario Development

Two planning scenarios have been developed to describe typical actions for a specific incident. The scenarios described here were developed based upon the collective expertise of the San Diego Area Responders. These scenarios are only examples of possible incidents, and one method of responding to these incidents. Each actual spill/release must be evaluated based on the specific conditions at the time in determining which actions to take.

The given scenarios do not reflect the probability of any given organization/company causing a spill/release. These scenarios were chosen to create situations that would allow area responders to consider many factors that would need to be considered in a real event.

7475 *Scenario I*

LOCATION: Southbound Interstate 5 at the Buena Vista Lagoon Overpass.

SCENARIO:

A. At 0900 on a weekday, an acid trailer (MC 312 cargo tank) full loaded with 1500 gallons of 90% concentrated sulfuric acid swerves into a freeway guard rail at high speed. The trailer overturns on top of the Buena Vista Lagoon overpass. The trailer's man-way cover, located at the rear of the trailer, breaks open, allowing sulfuric acid to spill onto the highway, and down into the estuary, which is also a California State Ecological Reserve and continuing Wildlife Preservation Project.

1) AMOUNT SPILLED: 750 gallons (250 gallons reach the lagoon/water).
2) PRODUCT SPILLED: 90% concentrated Sulfuric Acid.

B. Winds are from the West at 5 kts, air temperature is 65 deg F, water temperature is 60 deg F, and the tide is slack high water.

C. Affected/potentially effected areas throughout the course of this scenario include:

1) Buena Vista Lagoon & Reserve

2) Pacific Ocean

3) The cities of Carlsbad/Oceanside/Vista

D. The required response action elements are presented in chronological sequence. These include initial actions, spill response organization, containment, countermeasures, cleanup strategies, resource requirements, and time necessary for initial reactions. The following response strategy for this scenario and estimated times are for planning purposes only and do not reflect performance standards.

DAY ONE

1) 0-2 Hours (0900-1100)

The driver is unhurt and is able to exit the cab safely. She immediately retreats from the scene of the accident, as toxic fumes and a small gaseous plume, caused by the reaction of the acid as it hits the ground and the surface of the water, begins to affect the surrounding atmosphere. A passing motorist calls 911 from their cellular phone and reports the incident.
The dispatcher contacts the San Diego Fire Department, HIRT, and the US Coast Guard. Resources/personnel are dispatched to the scene. The dispatcher also notifies the California Highway Patrol (CHP). The Carlsbad, Vista, and Oceanside Fire Departments are immediately notified. All three arrive on scene within the next 15 minutes.

The CHP officers arrive on scene. Traffic is stopped and rerouted in both directions, and the CHP assumes command of the incident. The area is secured and a Unified Command System is established. The US Coast Guard representative arrives on scene within 15 minutes. Cal-Trans crews, San Diego Fire HazMat team, and San Diego County Environmental Health arrive on scene within the next 25 minutes.

The HazMat Teams suit up in appropriate response gear, including SCBAs, and secure the source to ensure that no further material is released.

The sulfuric acid has already corroded the freeway asphalt, cement curbing, and metal guard posts on its way to the lagoon. As the acid reaches the water, it sinks and mixes violently with the water. This reaction produces a yellowish toxic cloud. This drifts in an easterly direction, hugging the earth's surface through the thick morning fog. The acid in the water begins to kill some of the exposed wildlife and surrounding vegetation.

The airborne plume threatens not only the initial safety zone, but also nearby neighborhoods. A major shopping mall and sewage disposal plant is located one mile east of the spill. Evacuation of these areas begins, and the safety zone perimeter is enlarged.

The HazMat Teams begin to neutralize the landside using soda ash. The on-scene fire departments initiate a fog/water "curtain" to knock down the gas cloud, while being cautious not to introduce water to the tank truck directly, or the acid on the ground.

Construction of a sand berm is discussed to keep the acid from washing out into the Pacific Ocean. Due to the lack of significant water movement in the lagoon and the greater potential for damage to the environment, it is decided that this will be put on hold for the time being.

Media interest is high and news crews begin to arrive on-scene.

2) 2-4 Hours (1100-1300)

The bulk of the acid spilled on land is neutralized. Air sampling equipment is deployed to check the "downwind" air concentrations. Water sampling is started to ensure that the acid is neutralized.

A press release is issued and a press conference is held to get the information out to the public.

Wildlife impact assessment commences with representatives from the California Department of Fish & Game (DFG).

3) 4 Hours through end

Air sampling and water sampling continue until it is determined that the acid is completely diluted and that the toxic cloud has dispersed and no longer poses a threat to the public.

Wildlife impact assessments will continue in order to evaluate the overall effect of the spill.

7480 Scenario II

LOCATION: Harbor Drive Chevron Facility's Lower Tank Farm/San Diego Bay

SCENARIO:

A. On a Wednesday at 12:30 p.m., an earthquake, with a magnitude of 5.2, occurs in San Diego. The lower tank farm at the Harbor Drive Chevron Facility experiences a complete failure of tanks 27 and 28. The tanks were full at the time and 39,778 barrels of unleaded gasoline were released.

The quake destroys part of the containment wall separating the tank farm from Southwest Marine. The containment wall, designated to hold 29,781 barrels (110% of the largest tank), is damaged but still retains 22,336 bbls of the premium unleaded gasoline released when the tank collapsed.

The remaining 17,442 bbls (732,564 gallons) pours over the damaged containment wall onto the Southwest Marine shipyard and into San Diego Bay.

At the time of the earthquake, the area shipyards (NASSCO, Southwest Marine, and Continental Maritime were in full operation including hot work.

1) AMOUNT SPILLED: 732,564 gallons

2) TYPE OF OIL: Unleaded and Premium Unleaded Gasoline

B. It is summer, with clear skies, the air temperature is 80 deg F, and the water temperature is 65 deg F, with winds from the West at 5 knots. There is a flood tide with a current of 2 knots under the Coronado Bay Bridge.

C. Affected/potentially effected areas throughout the course of this scenario include:

1) North San Diego Bay
2) South San Diego Bay
3) Glorietta Bay and the Silver Strand/Coronado Cays
4) Chula Vista Boat Basin
5) Sweetwater River and Chula Vista Nature Preserve
6) Otay River
7) A-8 Anchorage (live-aboards & vessels)
8) Cities of Imperial Beach, San Diego, Chula Vista, and National City
9) NASSCO, Southwest Marine, and Continental Maritime shipyards
10) 32nd Street Naval Station and Naval Amphibious Base

D. The following strategic objectives were developed during the response planning:

1) Search & Rescue
2) Fire/spill containment and protection strategies
3) Fire extinguishing
4) Crowd/traffic control (vehicles, air space, trains, etc.)
5) Local area evacuations & public notifications (in "downwind" areas)
6) Hazardous waste disposal
7) Natural resource damage assessments (short & long term)

E. The following specific response action elements are presented in chronological sequence. These include all of the specific tasks necessary to accomplish the strategic objectives outlined above. The following response strategy for this scenario and estimated times are for planning purposes only and do not reflect performance standards.

DAY ONE

1240 USCG MSO receives the report of the spill and resulting fire from Chevron personnel.
1245 USCG MSO COTP assumes the role of OSC and opens the Oil Spill Liability Trust Fund. ODP receives notification of spill from HMMD.

1250 OSC closes Port of San Diego/San Diego Bay to all traffic and issues a Broadcast Notice to Mariners. FAA is contacted and the air space for a radius of 2 miles is closed to all non-response air traffic. ODP begins notification and EOC activation process.

1255 First San Diego Fire Department units arrive on-scene and commence laying out cooling and protection hose lines. 2 Harbor Police vessels arrive on-scene and commence using 1500 GPM water monitors to help contain the waterside fire. 2 USCG patrol boats arrive on-scene. One vessel commences SAR operations north of the scene between the Coronado Bay Bridge and the incident. The second vessel commences SAR operations south of the incident.

1300 2 USCG helicopters are launched enroute to the scene to perform landside and waterside SAR operations. Operational Area Emergency Operations Center (EOC) activated. Media Team activated. Some Media Team assets put at disposal of Unified Command.

1310 ODP recommends to City of San Diego that they proclaim a local emergency/request the Governor proclaims a State of Emergency. ODP begins process of proclaiming a local emergency/requesting the Governor proclaim a State of Emergency for the operational area.

1315 OSC requests 2 Navy and 2 Navy contract tugs (from 32nd Street Naval Station) are dispatched to the scene. OSC also requests that the 32nd Street Naval Station ORT deploy boom from the pier, one at the Naval Station out 4000' to contain the spread of oil on the flood tide. OSC/IC requests ODP activate LIFE/EAS. Messages go out regarding evacuation in the immediate area of the spill/fire.

1320 OP Area EOC contacts Red Cross and requests they establish shelters for potential evacuation of the impacted area.

4 Navy tugs arrive on-scene and commence using their 3000 GPM to control the waterside fire and contain/extinguish the shoreside fire. EOC dispatches representatives to the UCS. Op Area EOC ready to provide support to responding agencies. San Diego County Animal Control units arrive on-scene to support Fish & Game in wildlife protection/rescue.

1335 Op Area EOC requests helicopter support from NAS North Island in response to request from OSC/IC.

1350 Op Area EOC representatives arrive at Command Post and report to the Liaison Officer.

1400 San Diego Fire continues to provide exposure protection with an awareness to avoid depositing the fire streams into the burning fuel. Cooling fog is directed to cool other tanks in the containment area.

1415 OSC requests that the 32nd Street Naval Station Fire Department dispatch all available AFFF to the scene. AFFF supplies are collected and inventoried in the upper yard area at the Chevron Facility. EOC Staff Briefings.

1430 County Chief Administrative Officer (CAO) delegates Local Agency Representative authority to Director, Office of Disaster Preparedness.

1500 Waterside resources have extinguished the waterside fire and the shoreside structure fires with the exception of the tank farm involved. These resources are directed to continue providing structure protection on the bay side of the tank farm to keep the fire from spreading from the tank farm containment area.

1530 With the waterside fire extinguished the OSC requests that the Navy ORT and Foss Maritime coordinate resources to deploy boom to enclose the spill area and contain any oil that may move when the tide shifts.

1600 Sufficient quantities of foam have been assembled in the upper yard area at the Chevron facility. The OSC and San Diego Fire decide to strategically position foam supplies and commence fire suppression application of AFFF.

1630 Due to the natural evaporation, only 38% of the original spill volume remain floating on the water. With current wind conditions, the majority of the remaining spill is held along the shoreline. Due to this rapid evaporation, product properties, and ongoing fire fighting efforts, the OSC decides to let the spill evaporate instead of attempting mechanical clean-up operations (which would put cleanup personnel at risk for limited benefit).

1800 San Diego Fire extinguishes fire in tank farm containment area. Teams continue to apply AFFF to maintain the vapor suppressing foam blanket. Other teams continue to direct water streams at the containment walls to cool the product remaining in the containment area. These teams are conscious not to allow cooling streams to hit the AFFF blanket inside the containment.

2000 The product remaining in the containment area is cooled to a point where it can be safely pumped from the containment area into tank trucks which are standing by. Product in other “uninvolved" tank is also removed using installed pumps and piping (to tanks in the upper tank farm).

2330 Product removal from containment area is complete.

Day 2 to End

Product remaining in the water would remain boomed and allowed to evaporate. This process would take approximately one additional day according to the NOAA Modeling for this incident.

The California Department of Fish & Game would complete Natural Resource Damage Assessments. A short-term field monitoring of water quality impacts would be conducted utilizing water monitoring capability of San Diego Sanitation District and commercial environmental consultants (Days 1-14). This short-term monitoring would be followed by long-term biological impact studies using San Diego State University and commercial environmental consultants to develop and carry out a monitoring plan (Days 7-as necessary).

7500 LOGISTICS

7510 Logistics Section Organization

Reference section 5100 from this plan

7520 Roles & Responsibilities

Reference section 5200 from this plan

7530 Communications

Reference section 5300 from this plan

7540 Area Resources: Response Equipment

Reference section 5400 from this plan

7550 Area Resources: Personnel & Services

Reference section 5500 from this plan

7555 *Natural Resource Trustees*

The OSC should notify the appropriate land managing agencies or trustees of natural resources whenever there is any indication of resources potentially being affected by a hazardous substance release. These individuals can give the OSC valuable information about natural resources to be impacted in the area and any special seasonal concerns that the OSC should be aware of when initiating the response.

List of land managing agencies/trustees and owners/operators for the environmentally sensitive, economically significant, and historical & culturally significant sites are listed on each site description in section 7400 of this plan.

7600 FINANCE/ADMINISTRATION

7610 Finance Section Organization

Reference section 6100 from this plan

7620 Roles & Responsibilities

Reference section 6200 from this plan

7630 FOSC Access to Funds

Local and State agencies will use allocated, individual agency funds to respond to a hazardous materials incident until/if it becomes necessary for the Federal OSC to initiate/assume control of the response efforts. At this point, the OSC would contact the USCG District Operations Center (510-437-3700) and request to open the CERCLA account. The OSC should provide an estimate of the response costs when submitting the request for the appropriate accounting data. The OSC may obligate up to $25,000 for removal costs (including vendor costs and out-of-pocket costs reimbursable to the Federal/State agencies) without prior approval from the district commander or the EPA. The district commander may authorize amounts in excess of the OSC's limits, up to $250,000, without prior EPA approval. Requests for authority to obligate CERCLA Funds over $250,000 must be made to the Emergency Response Division, EPA Headquarters via the USCG National Pollution Fund Center. The USCG is limited to $1,000,000 to conduct the immediate mitigation of an incident. If the incident will require more than this amount, the EPA will assume the role of the OSC and complete the response/cleanup activities. Local and State agencies participating in the response would be required to enter into agreements with the OSC which state their response activities to be carried out and their total amount of CERCLA money they are authorized to spend to complete the tasks outlined. The agency representative to the ICS and the OSC or his/her designated representative will sign these agreements.

7640 Other Access to Funds

Reference section 6400 from this plan

7650 Cost Recovery/Documentation

Reference section 6500 from this plan

8000 MARINE FIREFIGHTING

THE MSO SAN DIEGO BURNING SHIP CONTINGENCY PLAN STANDS ALONE AS A SEPARATE DOCUMENT

CONTACT MSO PLANNING SECTION @ (619) 683-6495 for copy.

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9000 - AREA PLANNING DOCUMENTATION: TABLE OF CONTENTS

Section #	Section	Page
9000	**Area Planning Documentation**	
9120	**Area Committee Charter & Membership** (Refer to Section 1300)	**9000-3**
9200	**Plan Review and Exercise Process** (Refer to Section 1700 & 1800)	
9300	**Planning Assumptions: Background Information**	**(**TBD**)**
9400	**Spill & Discharge History**	**9000-7**
9500	**Scenarios**	**(**Refer to Section 4700)
9600	**Reserved**	
9710	**Wildlife Response Plan for California (**document stands alone**)**	**9000-8**
9800	**Reserved**	
9910	**Glossary**	**(**Refer to Section 1000)
9920	**Conversion Tables** (Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17))	
9930	**Sample Documents**	**9900-81**
9931	**Forms (ICS Forms Index)**	**9900-81**
9932	**Plans**	**9900-82**
9933	**Letters**	(Refer to Section 3400)
9934	**Notices**	**9900-102**
9934.1	**Notice to Mariners**	**9900-102**
9934.2	**Safety & Security Zones**	**9900-102**
9934.3	**COTP & Administrative Orders**	**9900-102**
9934.4	**Press Releases**	**9900-102**
9934.5	**Proposition 65 (State of Calif)**	**9900-102**
9935	**Reports (SITREP/POLREP)**	(refer to 3414)
9940	**Reference Documents**	**9900-103**
9950	**ART Check-off Lists**	(Refer to 4550)
9960	**Memorandums of Understanding/Agreement (MOU/MOA)**	**9900-103**

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9100 AREA COMMITTEE CHARTER & MEMBERSHIP (Also refer to Section 1300)

The San Diego Area Committee was established as a result of the Oil Pollution Act of 1990 (OPA 90) requirement to plan for a coordinated "community" response to an oil discharge or hazardous substance release. Committee is tasked with planning for all sizes of discharges or releases, up to an including a worst case scenario (see Annex I, available on the website only). OPA requires that Area Committee be composed of qualified members of Federal, State and local government agencies.

Area Committee Members (see 9120) The predesignated Federal On Scene Coordinator (FOSC) and the Captain of the Port San Diego is the chair of the San Diego Area Committee. The Chair directs and coordinates the Committee's efforts in the development, exercise and update of the Area Contingency Plan. The FOSC has designated the California Department of Fish and Game, Office of Spill Prevention and Response as the vice-chair of the Committee. For local membership, the FOSC has appointed representatives from local counties, cities, and towns who are responsible for coordinating environmental issues and emergency response operations. Other individuals chosen to serve on the Committee represent agencies with environmental responsibilities for the area. The FOSC has also included members of other Coast Guard commands as well as the Department of Defense for participation in subcommittee activity, particularly that which is related to government resource capabilities.

Subcommittees and Members (see 9130) The subcommittee participants include such individuals as facility and vessel owners/operators, cleanup contractors, emergency response officials, marine pilots association, environmental groups, academia, concerned citizens, etc. FOSC encourages these and other organizations to voice their input to the Area Committee through the respective subcommittee chairperson.

Note: To receive information and participate in the Area Committee as a member or a subcommittee member, contact the Coast Guard Marine Safety Office San Diego Area Contingency Planner at:

Coast Guard Marine Safety Office San Diego
2716 N. Harbor Drive, San Diego, CA 92101
Attn: Area Contingency Planner
Phone: (619) 683-6500

9120 Area Committee Members

Chair:

U. S. Coast Guard Captain of the Port San Diego — Federal On Scene Coordinator
(619) 683-6500; FAX 683-6504

Vice-chair:

CA Department of Fish and Game — Office of Spill Prevention and Response
(858) 467-4215; FAX 327-0907

Members:

Federal -
United States Coast Guard Contingency Planner
Marine Safety Office San Diego (619) 683-6500; FAX 683-6504

United States Coast Guard Commander Activities San Diego	(619) 683-6470/6301; FAX 683-6474
United States Navy Code N3 Commander, Naval Base San Diego	(619) 532-1820; FAX 532-3181
Federal Occupational Safety Team Leader and Health Administration	(619) 557-2909; FAX 557-6001
National Marine Fisheries Service Joe Covdaro John Cubit	(562) 980-4041 (562) 980-4017 (562) 980-4081
National Park Service Chief Ranger	(619) 557-5450; FAX 557-5469
U. S. Environmental Protection Agency	Section Chief (415) 744-2216; FAX 744-1917 E.P. Specialist- 744-2327
State -	
CA Coastal Commission	Joint CCC/BCDC Oil Spill Program (415) 904-5240; FAX 904-5400
CA Department of Fish and Game Office of Spill Prevention and Response	Environmental Specialist III (858) 467-4201; FAX 467-4299
CA Department of Parks and Recreation	Chief Ranger (858) 642-4200; FAX 642-4222
CA Environmental Protection Agency	
CA Office of Emergency Services	Emergency Services Coordinator (916) 845-8911; FAX 845-8910
CA State Lands Commission Assistant Division Chief	(562) 499-6312; FAX 499-6317
CA Occupational Safety and Health	Area Manager (619) 767-2280 FAX 767-2299 (714) 939-8611
Local -	
City of Chula Vista Planning Director	(619) 691-5101; FAX 691-5171
City of Coronado Fire Chief	(619) 522-7376; FAX 435-2742
City of Del Mar Lifeguard Lieutenant	(858) 755-1556; FAX 259-3264

City of Imperial Beach City Manager (619) 423-8303; FAX 429-9770

City of National City Fire Chief (619) 336-4277; FAX 477-4054

City of Oceanside Planning Department (760) 435-3520; FAX 435-3538

City of San Diego Senior Engineer (858) 627-3200; FAX 627-3297

City of San Diego Planning Officer
Office of Emergency Management (619) 236-6876; FAX 236-1078

City of Solana Beach Marine Safety Lieutenant (858) 755-1569; FAX 793-7734

County of San Diego HIRT Director
Office of Disaster Preparedness (858) 565-3490; FAX 565-3499

County of San Diego Hazardous Materials Specialist
Environmental Health Services (619) 338-2216; FAX 338-2377

Regional Water Quality Control Board

San Diego Unified Port District Asst. Environ. Management Coordinator
(619) 686-6254; FAX 686-6467

9130 Subcommittee Titles and Chairpersons

Environmental Sensitivity
Chairperson: (OSPR)

Economic Significance
Chairperson: (OSPR)

Response Resources
Chairperson: (CG MSO San Diego)

Response Strategy
Chairperson: (CG MSO San Diego)

Communications
Chairperson: (MSO San Diego)

Waste Disposal/Temporary Storage
Chairperson: TBD

Logistics & Support Infrastructure
Chairperson: (County of SD ODP)

Worker Safety & Public Health
Chairperson: (CG MSO San Diego)

Finance
Chairperson: (CG MSO San Diego)

Public Affairs/Information
Chairperson: (CG MSO San Diego)

Wildlife Rescue/Rehabilitation
Chairperson: (OSPR)

Salvage Operations
Chairperson: (MSO San Diego)

Firefighting
Chairperson: (CG MSO San Diego)

Natural Resources Damage Assessment
Chairperson: (OSPR)

Investigation
Chairperson: (CG MSO San Diego)

Port/Traffic Management
Chairperson: (CG MSO San Diego)

Scenario Development
Chairperson: (CG MSO San Diego)

Air Operations
Chairperson: (CG Air Station SD)

Volunteer/Manpower Coordination
Chairperson: TBD

9200 PLAN REVIEW & EXERCISE PROCESS (Also refer to Section 1700-1800)
9300 PLANNING ASSUMPTIONS: BACKGROUND INFORMATION: to be developed

9400 SPILL & DISCHARGE HISTORY

Historical Spill Considerations

Historically, spills in the San Diego COTP zone have been relatively few and minor in nature. Due to the low volume of merchant traffic and the large number of sport fishers and pleasure craft in San Diego harbor, the majority of pollution incidents have been limited to 5-10 gallons of gasoline/diesel oil spills in boat marinas or natural catch basins. Areas of high frequency include Shelter Island and Harbor Island. In addition, Naval vessels at the 32nd St. Naval Station and North Island carrier piers have been involved in pollution discharges on numerous occasions. The size of these spills is generally from 5 to 100 gallons.

Spill Data. Spill data was extracted from the U.S. Coast Guard Marine Safety Information System and MSO San Diego's Oil Spill Pollution Statistics for the 10 year period 1989-1998 (latest available data). The number of oil spills recorded each year is as follows:

1989	101 oil spills	1990	202 oil spills
1991	125 oil spills	1992	213 oil spills
1993	345 oil spills	1994	370 oil spills
1995	392 oil spills	1996	362 oil spills
1997	368 oil spills	1998	313 oil spills
1999	212 oil spills (data through 01Oct99)		

These figures represent the number of spills reported to, or discovered by the U.S. Coast Guard. In general, they under represent the actual number of spills, since many spills go unreported. The overall rise in number of reports are due to improved reporting and record keeping, rather than an increase in actual spills.

From 1989-1998 a total of 2791 oil spills were reported. These ranged in size from 1 gallon to 12,000 gallons. Of these, approximately 43% were from unknown sources. The vast majority of spills were less than 25 gallons, frequently from bilge pumping or minor fueling mishaps. Since 1985, 16 spills were greater than 1,000 gallons. 12 of the 16 largest oil spills were from U.S. Naval vessels or facilities.

Average Discharge. According to data contained in the USCG MSIS, the average reported oil spill occurring within the San Diego coastal zone between CY 1989-1998 (most recent data available) was less than 5 gallons. Typically, light fuel oil or bilge slops were spilled.

Largest Spill in Last Decade. San Diego's largest recorded discharge occurred in June 1992 when the USN barge YON 31 spilled 12,000 gallons of waste oil during a transfer to an oil donut.

Risk Assessment

Worst Case Spill. A worst case spill for a vessel is defined as loss of a vessel's entire cargo in adverse weather conditions. For a facility, it is the largest foreseeable discharge in adverse weather conditions.

Due to San Diego's low traffic volume and generally favorable weather patterns, the risk of a worst case spill is considered **very low**. There have been no major marine casualties, such as collisions or groundings, reported in San Diego in the last five years. The largest recorded pollution incident was 12,000 gallons of waste oil, which occurred during a transfer between the USN YON 31 and an oil donut.

However, there is a significant volume of oil that is transported, stored, or consumed as fuel within the San Diego area. Any number of factors, such as human error, equipment failure, sabotage, natural disaster, fire, and explosion have been known to result in large oil spills even though the likelihood of such an event seemed remote. The largest foreseeable vessel discharge could result from a collision between two vessels near the entrance to San Diego Bay and may result in the discharge of over 260,000 barrels of oil. On land, fixed oil storage facilities present the greatest potential volume spill spills. A 1 million-barrel oil spill was postulated as the result of multiple tank failures during a significant earthquake along the Silver Strand fault line. However, no specific historical data are available to indicate actual fuel storage tank vulnerability resulting directly from ground tremors or earth subsidence, or indirectly from flying debris, fires, and explosions common in major earthquakes.

Sample planning scenarios for both of these incidents are located in Section 4700.

Maximum Most Probable Discharge. The maximum most probable discharge is based on the largest recorded marine oil spill in the San Diego Area. From 1995, there were 6 oil spills greater than 1,000 gallons. In 1992, there was a 12,000 gallon spill at the 32nd Street Naval Station from the USN barge YON 31. Based on the historical data, one spill per year in excess of 1,000 gallons can be anticipated. The maximum most probable discharge is 12,000 gallons of diesel fuel or light waste oil spilled into San Diego Bay during transfer operations.

A sample planning scenario for this incident is contained in Section 4700.

Most Probable Discharge. The most probable discharge was calculated by averaging the size of all oil spills reported from 1994-1998. This was determined to be less than twenty-five gallons of diesel or waste oil. Based on the last 5-year period, approximately 5 spills per week can be anticipated. If you subtract the 6 largest spills in the past five years, the average drops to less than 10 gallons per spill.

A planning scenario for this incident is contained in Section 4700.

9500 SCENARIOS (Refer to Section 4700)

Contact Coast Guard MSO San Diego, planning section, for spill scenarios at 619-683-6495.

9600 OPEN FOR DISTRICT/AREA COMMITTEE DESIGNATION

9700 REFERENCE PLANS

WILDLIFE RESPONSE PLAN
for California

9710 Wildlife Response Plan For California

9710.1 Introduction & Background
Federal and State Law Mandates
Natural Resource Trustees
Interagency Agreements Regarding Wildlife Response Activities

9710.2 California Wildlife Operations (Wo): Personnel, Equipment And Other Resources
Wildlife Branch Director
Department of Fish and Game-Office of Spill Prevention and Response (DFG-OSPR or OSPR)
Oiled Wildlife Care Network (OWCN)
Potential Responsible Party
Volunteers
Specialized WO Equipment
Wildlife Databases

9710.3 Activation Of Wildlife Operations
Activation of the OSPR's WO Resources
Activation of OWCN
Role of Area Contingency Plan in Initial Response
Developing the Initial Action Plan
Tiered Level Response

9710.4 Wildlife Operations Procedures

9710.4.1 *Prevention of Impacts to Wildlife: Considerations for Implementing* Response Countermeasures
Use of Spill Response Countermeasures in Wildlife Areas
Human-Related Disturbance to Wildlife
Personnel Safety during WO

9710.4.2 *Wildlife Reconnaissance Group*
Aerial Survey Unit
Boat Survey Unit
Shoreline Survey Unit
Use of Reconnaissance Data for Near Real-Time Survey Mapping

9710.4.3 *Hazing Group*

9710.4.4 *Wildlife Recovery and Transportation Group*
Capture and Transport of Oiled Birds
Capture and Transport of Marine Mammals
Capture and Transport of Sea Otters

9710.4.5 *Wildlife Processing Group*
Intake Unit
Wildlife Impact Documentation Unit

9710.4.6 *Veterinary Services Group*
Bird, Pinniped and Sea Otter Units

9710.5 Demobilization

FIGURES AND TABLES

Figure 1 Wildlife Branch Position in the UC/ICS Organization
Figure 2 Wildlife Branch Organization

Figure 3 Map of Oiled Wildlife Care Network Facilities

Table 1 Participating Centers of the Oiled Wildlife Care Network
Table 2 Recommended Tiered Level Response of Personnel and Equipment for WO

ATTACHMENTS: Forms

1. Wildlife Reconnaissance Survey Form
2. Chain of Custody Intake Log
3. Live Bird/Mammal Log
4. Dead Bird/Mammal Log
5. Codes for Live & Dead Bird/Mammal Logs

APPENDICES:

(Special Note. The following Appendices are not included in the hardcopy version of the Area Contingency Plan. However, they all can be found in their entirety on the CDFG-OSPR web site at **www.dfg.ca.gov/ospr/index.html)**

Appendix I: REFERENCE MATERIALS

a. List of Wildlife Reference Documents
b. Interagency Agreements
c. List of Acronyms used in the Wildlife Response Plan

Appendix II: OILED WILDLIFE CARE NETWORK and VOLUNTEERS

a. OWCN Mission and History
b. Volunteers in Wildlife Operations

Appendix III: SPECIAL PROCEDURES

a. Wildlife Intake Unit Protocols (& Forms)
   - Chain of Custody Intake Log
   - Live Bird/Mammal Log
   - Dead Bird/Mammal Log
   - Codes for OWCN/OSWRT Live & Dead Bird/Mammal Logs
   - Species Codes and Status
b. Wildlife Hazing Plan & Equipment Resource Lists
c. Sea Otter Oil Spill Contingency Plan

Appendix IV: FORMS

a. Wildlife Reconnaissance Survey Form:
   -Shoreline or On-Water Observations
b. OWCN Oiled Bird Intake Form
c. OWCN Oiled Bird Daily Progress Form

9710 Wildlife Response Plan For California

When oil spills occur in California, response actions concerning the identification, protection, rescue, processing and rehabilitation of oiled or threatened wildlife are performed by the Wildlife Branch, a subsection of the Operations Section within the Unified Command/Incident Command System (UC/ICS, sections 2100-2210) and commonly referred to as Wildlife Operations (WO) (Figure 1). Under the direction of the Wildlife Branch Director (WBD), WO are dedicated to prevent, reduce, document and mitigate spill impacts on wildlife.

This Area Contingency Plan's (ACP's) Wildlife Response Plan describes the responsibilities and capabilities of WO, including the procedures to be used and the personnel and equipment resources necessary to meet the wildlife protection responsibilities of the Federal and State governments in California oil spills. Section 9710.1, below, describes the statutory, policy and procedural bases for WO. Section 9710.2 describes the organizational infrastructure for wildlife response operations. Sections 9710.3 discusses initial WO activation and the factors to consider when developing a response. Section 9710.4 describes the various WO Group and Unit functions and procedures, including wildlife reconnaissance, protection, capture, transportation, veterinary treatment and rehabilitation activities in a spill. Section 9710.5 briefly addresses demobilization of WO. The Appendices include: a complete list bibliographic information on the documents cited in the text; detailed protocols for the processing and hazing groups; the Sea Otter Oil Spill Contingency Plan; Oiled Wildlife Care Network and volunteer information; and various forms to be used in WO. **Special Note.** The Appendices are not included in the hardcopy version of the Area Contingency Plan. However, they all can be found in their entirety on the USCG and CDFG-OSPR web sites at www.uscg.mil/pacarea/pm/Graphic/Response.htm and www.dfg.ca.gov/ospr/index.html, respectively.

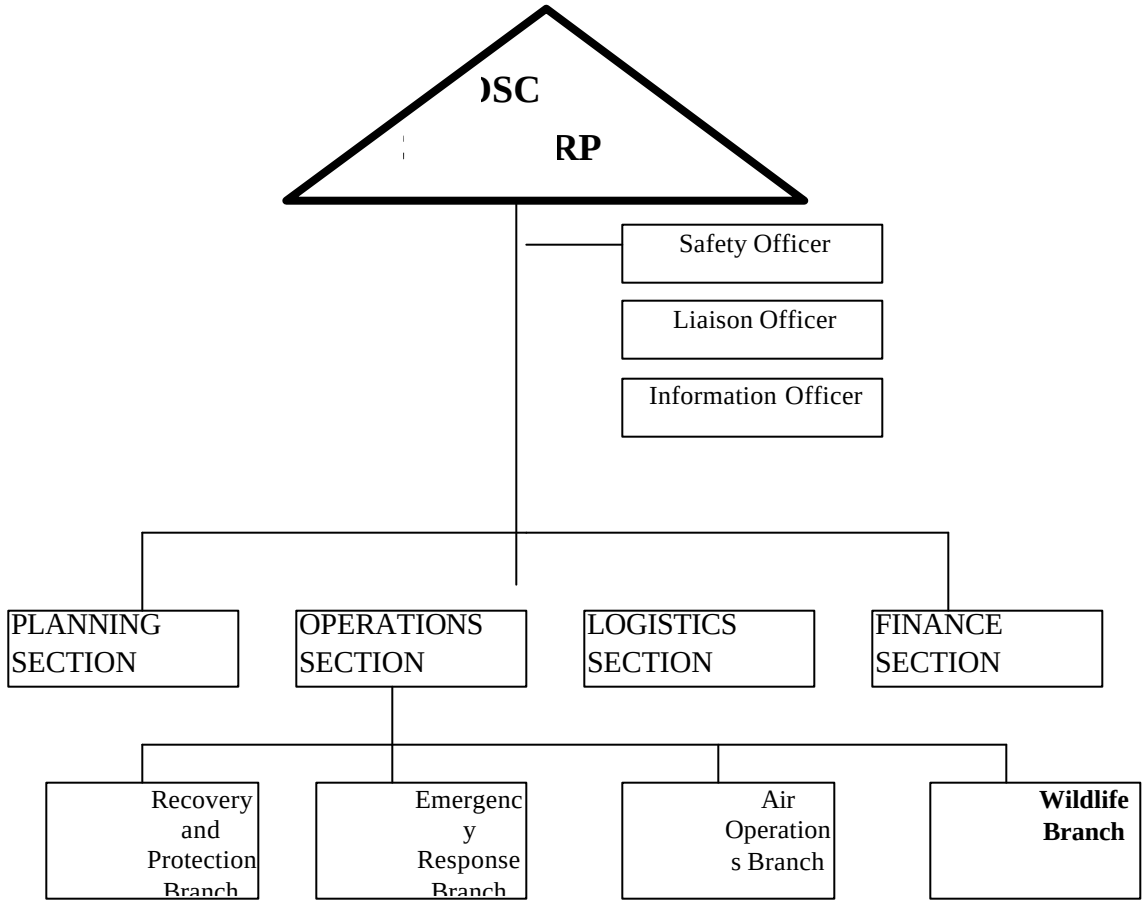
The Wildlife Response Plan for California has been developed jointly by the members of the wildlife operations subcommittee of the San Francisco Bay/Delta Area Committee. The Committee included personnel from the: California Department of Fish and Game - Office of Spill Prevention and Response, U. S. Coast Guard, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, National Park Service, San Francisco Bay Conservation and Development Commission, the California Coastal Commission, Oiled Wildlife Care Network, and the Exxon Corporation. The Plan has been developed to meet the National Area Contingency Plan's Fish and Wildlife and Sensitive Environments Plan requirements set forth in 40 CFR Part 300, Section 300.210(c)(4), and to be usable throughout California.

While the Wildlife Response Plan has been designed principally to cover oil spills into marine waters as required by Federal and State law, it is applicable to inland oil and non-oil spills as well. The organizational structure, roles and responsibilities remain the same, although some functions may be altered as appropriate.

9710.1 Introduction & Background

Marine wildlife in California is abundant and diverse; occurring in habitats that range from deep offshore waters to shallow tidelands, from steep rocky shores to sandy beaches and wetlands. About 200 species of coastal and marine birds, 33 species of cetaceans (whales and dolphins), six species of pinnipeds (seals and sea lions), and aquatic mammals including the California sea otter, river otters, and beavers are residents or migrants in the offshore, coastal,

Figure 1. Wildlife Branch position in the UC/ICS Organization



bay and estuary waters of California. Also, intertidal and subtidal habitats contain thousands of other species of fish, invertebrates and seaweeds (Leet et al., 1992). All marine wildlife species and their habitats are vulnerable to an oil spill (Bonnell, Ford and Casey, 1993).

The principle objectives of WO during spill response and cleanup are to: (1) protect wildlife and habitats from oiling; (2) protect wildlife and habitats from adverse effects of response measures; (3) minimize unavoidable injuries to wildlife and habitats; (4) rescue and rehabilitate the maximum number of impacted wildlife possible; and (5) document for the Unified Command (UC) the resources at risk and the impacts to marine wildlife. To ensure that these objectives are achieved with maximum efficiency, WO coordinates and manages the activities of the federal, state, local agencies; along with commercial and non-profit organizations responsible for marine wildlife protection and management who fall under the authority of the UC during spill response. Successful WO are accomplished within the UC by the timely and effective deployment and coordination of equipment and trained personnel who carry out established protocols to avoid and minimize wildlife casualties, document impacts, and treat affected wildlife.

Federal and State Law Mandates. The Federal Oil Spill Pollution Act of 1990 (OPA-90) requires, as part of the National Contingency Plan for oil spills, that a Fish and Wildlife and Sensitive Environment

Plan be developed in consultation with the U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration (NOAA), and other interested parties, including state fish and wildlife agencies (33 U.S.C. § 1321(d)(2)(M)). The plan must include "immediate and effective protection, rescue, rehabilitation of, and the minimization of risk of damage to fish and wildlife resources and habitat that are harmed or that may be jeopardized by a discharge." The requirements for this plan as an annex to Area Contingency Plans are set forth in 40 CFR Part 300, Section 300.210(c)(4). The "Wildlife Response Plan" has been written in conjunction with other sections of the Area Contingency Plan, to address the Federal requirements.

The fish and wildlife provisions of California's Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA) (Government Code §§ 8574.7, 8670.37.5) parallel or exceed the OPA-90 fish and wildlife response protection provisions in most respects. Under OSPRA, the Administrator of the California Department of Fish and Game-Office of Spill Prevention and Response (DFG-OSPR or OSPR) must develop contingency plans for the protection of fish and wildlife, assess injuries to natural resources, establish rescue and rehabilitation stations for marine wildlife, and require restoration plans for wildlife resources including habitat following spills. OSPRA also provides for the establishment and funding of the Oiled Wildlife Care Network (OWCN) (Government Code § 8670.37.5) as an essential component of California's wildlife response capability (Mazet et al., 1999).

Natural Resource Trustees. In any spill, the potential responsible party or discharger (PRP) is responsible to federal and state resource trustees, to federally-recognized Indian tribes, and to foreign trustees, all of whom are empowered to enforce remediation and seek compensation for injuries to natural resources caused by a discharge of oil (40 CFR Part 300, Subpart G). These trustee agencies also have a voice in determining the methods used so that wildlife operations comply with each trustee's governing laws and their obligations to preserve and protect wildlife and habitat. During a spill response, the wildlife trustee agencies will advise the Wildlife Branch Director (WBD) on local wildlife resources, especially sensitive species or habitats, logistical consideration, and other issues that arise.

The state and federal trustee agencies that are most likely to participate in WO decisions and response activities are as follows:

Federal:
- Department of the Interior
  - National Park Service (NPS)
  - U.S. Fish and Wildlife Service (USFWS)
- Department of Commerce
  - National Oceanic and Atmospheric Administration (NOAA)
  - National Marine Sanctuaries (NMS)
  - National Marine Fisheries Service (NMFS)
- Department of Defense (DOD)

Although they are not natural resource trustee agencies, the U.S. Coast Guard (USCG) and/or the U.S. Environmental Protection Agency (EPA) are the lead federal agencies in a spill and also participate fully in WO decisions.

The California Department of Fish and Game-Office of Spill Prevention and Response is the lead state trustee agency for wildlife and habitat during oil spills. Other California trustee agencies, or agencies that may otherwise participate in WO decisions, include:

- California Department of Fish and Game (CDFG)
- California Department of Parks and Recreation (CDPR)
- State Lands Commission (SLC)
- California Department of Water Resources (CDWR)
- California State Water Resources Control Board (SWRCB)

Interagency Agreements Regarding Wildlife Response Activities. In an effort to provide a more efficient and coordinated response to the UC and natural resources, principal federal and State fish and wildlife trustees have signed cooperative agreements regarding a variety of issues during oil and toxic substance spills. These issues include agency response roles, capture, treatment, rehabilitation, and release of impacted wildlife. The agencies involved include the CDFG, the USFWS, and the NMFS. All of the documents can be found in Appendix Ib.

The first document, "Memorandum of Understanding Designating California Department of Fish and Game as Primary Contact for Fish and Wildlife Issues in the Event of Oil or Toxic Substances Spill within the State of California," acknowledges the fact that the USFWS and the CDFG share trustee responsibilities for endangered species, migratory birds and migratory fishes. This document identifies the CDFG to designate a primary contact person for support of the UC regarding fish and wildlife issues in the State of California during oil spill response. The stated duties of this person are to: advise on and coordinate activities related to fish and wildlife problems and issues related to the spill; advise and direct efforts to minimize injury to wildlife; coordinate efforts to recover and care for oiled wildlife; maintain communication with the USFWS; and adhere to permit conditions for both the federal and State wildlife permits. These duties correlate directly with the responsibilities of the WBD. In a second agreement between the USFWS and the CDFG, authorization is given to the CDFG to "take" federally endangered and threatened species during emergencies. The document entitled "Cooperative Agreement Between the California Department of Fish and Game and the U.S. Fish and Wildlife Service Endangered and Threatened Fish, Wildlife and Plants," establishes a cooperative agreement between agencies regarding the conservation and recovery of endangered, threatened and rare fish, wildlife and plants, pursuant to Section 6© of the Endangered Species Act of 1973 and the California Endangered Species Act of 1984. The agreement contains provisions for any employee or agent of the CDFG who is designated by that agency for such purposes may, when acting in the course of his official duties, take federally listed endangered and threatened fish, wildlife or plant species without a permit if such action is necessary. Those necessary actions are further defined in the Agreement in Appendix Ib. This gives the CDFG and its agents, such as the OWCN, permission to handle protected species during emergency spill response.

In a similar agreement to that with the USFWS, the CDFG has entered into an agreement with the NMFS to govern the rescue and rehabilitation of pinnipeds (seals and sea lions), cetaceans (dolphins and whales), and sea turtles. The document is entitled "Memorandum of Agreement Between the California Department of Fish and Game Office of Spill Prevention and Response and the National Marine Fisheries Service Southwest Region Regarding the California Marine Mammal Stranding Network and the Oiled Wildlife Care Network" (Appendix Ib). The primary purposes of this agreement are (a) to ensure that pinnipeds, cetaceans, and sea turtles affected by oil spills in marine waters of the State receive the best achievable treatment and (b) to ensure the collection of sound biological and chemical data on such affected resources. The Agreement ensures consistency with and incorporates the NMFS guidelines and protocols on the rescue and release of live-stranded pinnipeds, cetaceans, and sea turtles into the OWCN protocols for response, rescue, rehabilitation and medical treatment of these animals, as outlined in the NMFS/OSPR Contingency Plan (Attachment A of this Memorandum). Other conditions include the required use of the California Marine Mammal Stranding Network (CMMSN) and OWCN personnel and facilities in the rescue and rehabilitation of pinnipeds, cetaceans, and sea turtles; cooperative information and data exchange programs, and the development of training materials.

9710.2 California Wildlife Operations: Personnel, Equipment And Other Resources

Wildlife Branch Director. All California WO during spill response are directed by the Wildlife Branch Director (WBD), who should be a representative of one of the natural resource trustee agencies (see Section 9710.1, above). The WBD is responsible for minimizing wildlife losses during spill response. The WBD coordinates early aerial, ground, and on-water reconnaissance of the wildlife in the spill area; employs wildlife hazing measures when required; ensures that a wildlife processing center is established and maintained; and recovers and rehabilitates impacted wildlife, and coordinates operations among the Federal and State trustee agencies (see Section 9710.1) and the OWCN (see below). The WBD also oversees activities of any other private wildlife care groups in addition to the OWCN, including those employed by the PRP. A full description of the WBD's duties and responsibilities is in Section 3250.

The five groups of the WO Branch -- Wildlife Reconnaissance Group, Hazing Group, Recovery and Transportation Group, Processing Group, and Veterinary Services Group -- serve under the direction of the WBD. The activities of these groups are described in Section 9710.4 below. The OWCN Supervisor and the OWCN Volunteer Coordinator also work under the direction of the WBD. Figure 2 shows the relationship of these groups within WO, and the units and teams that operate under each group. See Sections 3250 to 3255 of duty statements each position.

Because of the great sensitivity of wildlife and habitat resources and the potential dangers of working with wild animals, all WO personnel must have received any specialized training, such as animal handling training, that is necessary for safe, competent completion of their assignments. Most WO activities require the involvement of at least one professional wildlife biologist with knowledge of coastal resources and, preferably, previous oil spill response experience. Staff and volunteers trained by OWCN possess the skills and expertise to participate in many units within WO. The WBD is ultimately responsible for ensuring that qualified personnel perform each WO task safely and properly.

Office of Spill Prevention and Response (OSPR). Because the Department of Fish and Game is the lead state trustee agency for wildlife resources in California, it often takes the lead in the implementation of California WO. Further, as discussed previously, OSPR is subject to state statutory requirements to protect California wildlife in a spill. As principal developers and custodians of the environmentally sensitive sites listed in the ACP, OSPR biologists are uniquely knowledgeable about marine and coastal wildlife and experienced in issues during wildlife response operations. Thus, in a spill OSPR will bear significant responsibility for informed and timely decisions about the allocation and deployment of specialized wildlife protection, rescue, and rehabilitation resources. This includes decisions regarding staff, equipment, and contractors, in coordination with the trustees. In all larger California spills to date the WBD has been an OSPR employee.

Oiled Wildlife Care Network. In addition to the OSPR, the OWCN, a statewide cooperative system of specialized wildlife health centers set up by legislative mandate (see Government Code § 8670.37.5), is integral to WO. The OWCN maintains a corps of professionally trained volunteers, paid staff and veterinarians. When California wildlife are affected by an oil spill, these personnel retrieve the oiled animals, evaluate the animals' need for treatment, and remove the toxic products from the animals. OCWN personnel then rehabilitate impacted animals, locate suitable release sites, release animals, and monitor post-release survival. The OWCN has instituted 24 permanent wildlife care participant facilities along the California coast (see Figure 3 and Table 1) for use during a spill (Mazet et al., 1999). For more information on the OCWN, see Appendix IIa and the OCWN web page at www.vetmed.ucdavis.edu/OCWN .

Potential Responsible Party. The potential responsible party (PRP) or discharger may have existing agreements with the OWCN or individual wildlife rehabilitation and care organizations. The PRP may activate their own wildlife care contractors and/or designate staff to WO Branch positions. In either case, all personnel and equipment supplied by the PRP to WO will be managed by the WBD under the UC/ICS.

Volunteers. As noted above, WO personnel may include pre-identified, trained volunteers and/or "convergent" volunteers, who are not pre-identified and whose training may range from highly skilled to completely untrained. Most volunteers are provided by and/or coordinated through the OWCN. Volunteer management efforts for tasks unrelated to the OWCN volunteers (*e.g.* pre-impact beach assessments, post-spill economic impact surveys) are coordinated instead by the OSPR Statewide Volunteer Coordinator. During a spill, the WBD, in coordination with the OWCN Response Director and the Veterinary Services Group Supervisor, will appoint a Volunteer Coordinator to manage the influx of convergent and pre-identified volunteers. The OWCN or the Volunteer Coordinator will screen convergent volunteers who wish to assist with oiled wildlife. Table 1 lists volunteer organizations that participate in the Oiled Wildlife Care Network, which can be activated by the OWCN as needed through the Wildlife Operations Branch. WLP Appendix II contains a full discussion of the complexities of volunteer management specific to oiled wildlife care.

Figure 2: **Wildlife Branch Organization**

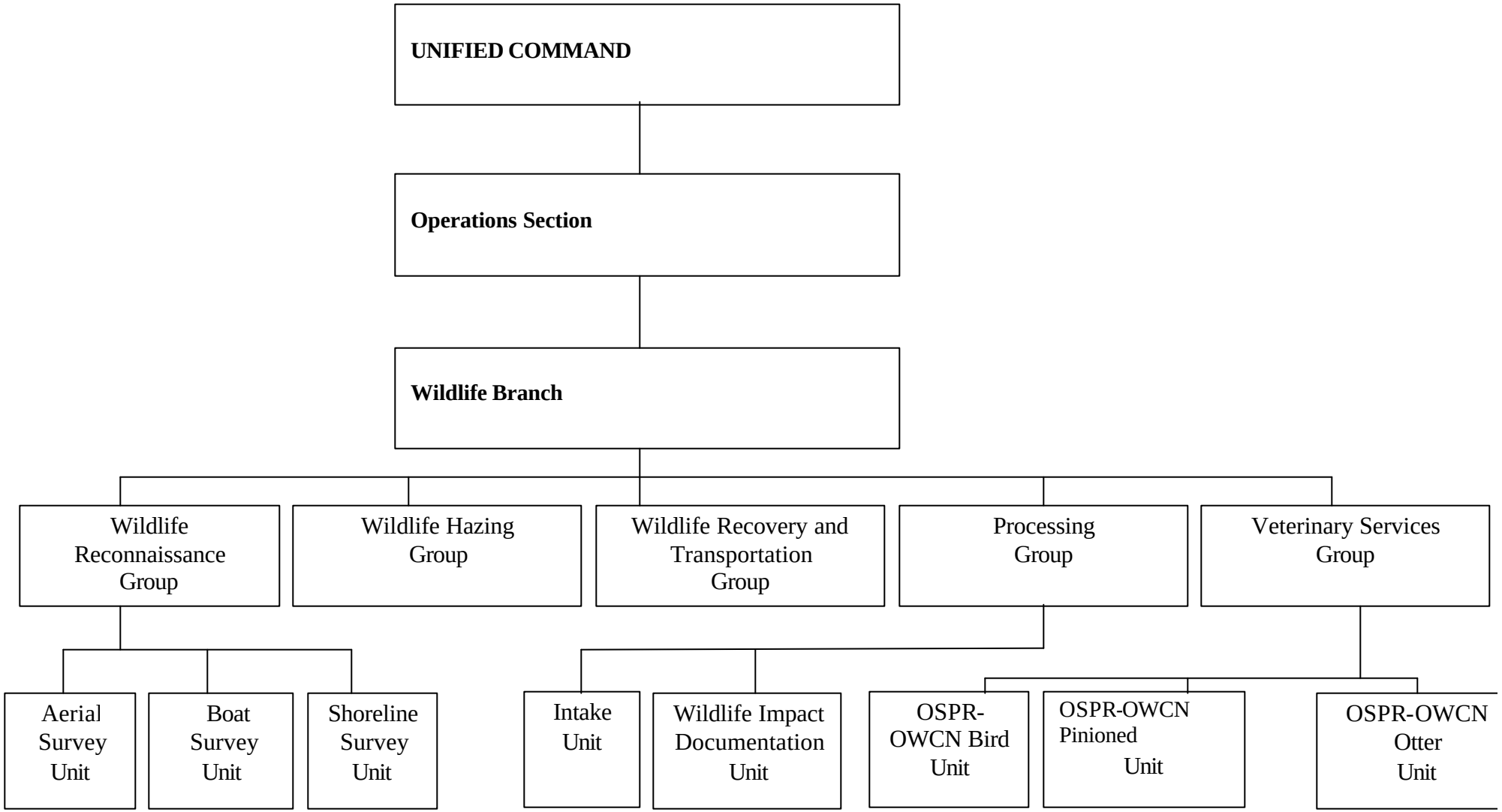


Figure 3.

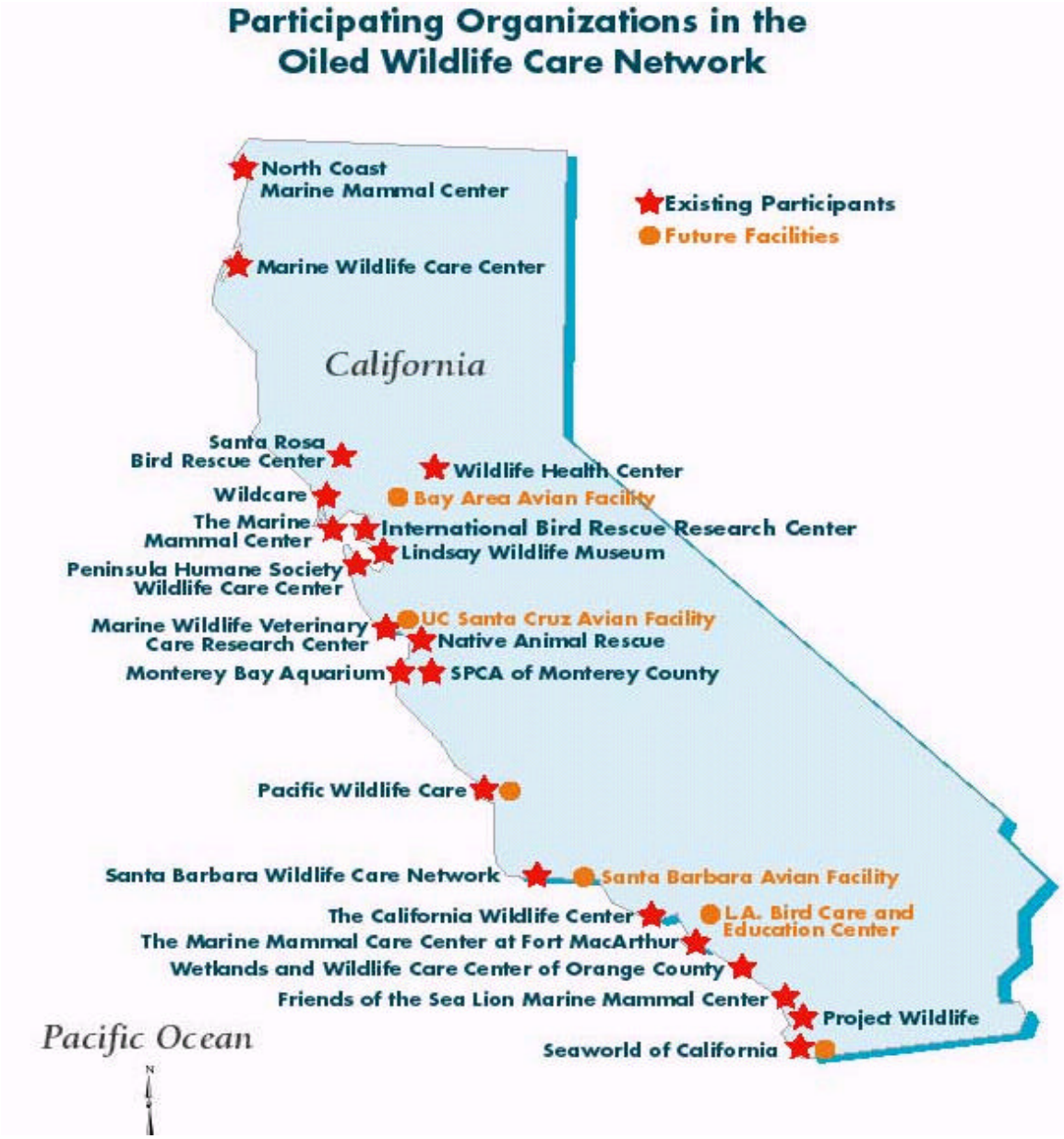

Participating Organizations in the Oiled Wildlife Care Network
Existing Participants
Future Facilities
North Coast Marine Mammal Center
Marine Wildlife Care Center
California
Santa Rosa Bird Rescue Center
Wildlife Health Center
Wildcare
Bay Area Avian Facility
The Marine Mammal Center
International Bird Rescue Research Center
Lindsay Wildlife Museum
Peninsula Humane Society Wildlife Care Center
UC Santa Cruz Avian Facility
Marine Wildlife Veterinary Care Research Center
Native Animal Rescue
Monterey Bay Aquarium
SPCA of Monterey County
Pacific Wildlife Care
Santa Barbara Wildlife Care Network
Santa Barbara Avian Facility
The California Wildlife Center
L.A. Bird Care and Education Center
The Marine Mammal Care Center at Fort MacArthur
Wetlands and Wildlife Care Center of Orange County
Friends of the Sea Lion Marine Mammal Center
Project Wildlife
Seaworld of California
Pacific Ocean
N

Table 1: Participating Centers of the Oiled Wildlife Care Network

	Organization	Primary Response Facility	Activation	Maximum Caseload
1.	North Coast Marine Mammal Center, Crescent City	*	Nov. 1995	15 marine mammals
2.	Marine Wildlife Care Center, Arcata	*	Jan. 1997	400 birds
3.	Santa Rosa Bird Rescue Center, Santa Rosa		Aug. 1995	25 birds
4.	Wildcare, San Rafael		Aug. 1995	25 birds
5.	The Marine Mammal Center, Sausalito	*	Dec. 1995	40 marine mammals 10 sea otters
6.	International Bird Rescue Research Center (existing), Berkeley		Mar. 1996	100 birds
	International Bird Rescue Research Center, Cordelia (construction of new facility)	*	May 2000	1000 - 4000 birds
7.	Lindsay Wildlife Museum, Walnut Creek		Aug. 1995	50 birds
8.	Peninsula Humane Society Wildlife Care Center, San Mateo		Aug. 1995	50 birds
9.	UC Santa Cruz Avian Facility, Santa Cruz (construction of new facility)	*	Aug. 2000	400 birds
10.	Marine Wildlife Veterinary Care Research Center, Santa Cruz	*	July 1997	125 sea otters, 50 birds, 10 other marine mammals
11.	Native Animal Rescue, Santa Cruz		Aug. 1995	25 birds
12.	Monterey Bay Aquarium, Monterey	*	Apr. 1997	10 sea otters
13.	Monterey SPCA, Monterey		Mar. 1996	25 birds
14.	Pacific Wildlife Care, San Luis Obispo (construction of new facility)	*	Apr. 2000	200 birds
15.	The California Wildlife Center		Pending	200 birds
16.	Institute of Marine Science, UC Santa Barbara, Santa Barbara		Pending	100 birds
17.	Santa Barbara Wildlife Care Network, Santa Barbara		Aug. 1995	50 birds
18.	L.A. Bird Care and Education Center, San Pedro	*	Sept. 1999	1000 birds
19.	The Marine Mammal Center at Fort MacArthur, San Pedro	*	Nov. 1995	20 marine mammals
20.	Wetlands and Wildlife Care Center of Orange Co., Huntington Beach Wetlands Conservancy, Huntington Beach	*	Mar. 1997	400 birds
21.	Friends of the Sea Lion Marine Mammal Center, Laguna Beach		Aug. 1995	5 marine mammals
22.	Sea World of California, San Diego	*	Dec. 1996	20 marine mammals including sea otters; 400 birds; sea turtles as needed
23.	Project Wildlife, San Diego		Aug. 1995	25 birds
24.	Wildlife Health Center UC Davis, School of Veterinary Medicine, Davis		June 1995	Intensive care unit: birds and endangered species as needed

Specialized WO Equipment. Some of the equipment used within the Operations Section (*e.g.*, booms, skimmers, and shallow water vessels) will serve the mission of WO and can be drawn from industry and oil spill response organization inventories. Some equipment, however, is specialized for WO and dedicated to that purpose. As with personnel, the amount of specialized equipment deployed for WO can vary from a relatively small core of items to a full-scale deployment (see Table 2 delineating three basic levels at which equipment and personnel may be deployed). Among the equipment the OSPR has dedicated for immediate deployment are:

- Air boats (1);
- All-terrain vehicles (ATVs) (3);
- Capture boats (4);
- DFG fixed wing airplane (1);
- Hazing equipment and capture equipment (various);
- Mobile vet lab (2);
- One-ton wildlife truck (1);
- Vet truck (1);
- Wildlife care trailer (2);
- Wildlife supplies trailers (4) (contain hazing, capture, and transportation equipment);
- Wildlife transport trailer (1).

Additional equipment can be obtained from the CDFG and from other government agencies, the OWCN, and response contractors. For example, the equipment that OWCN can provide includes four-wheel drive vehicles, ATVs, a rigid-hull inflatable boat, hand-held dip nets, herding boards, spotlights, animal carriers, cages, crates, protective clothing, and all-weather gear.

Wildlife databases. Throughout California, wildlife resources and critical habitats that are sensitive and vulnerable to oil have been identified through the ongoing, systematic collection of baseline data by OSPR, the Area Committee's Sensitive Site/Geographic Response Subcommittee, and other agencies. These baseline data are used to project the level of risk to sensitive wildlife resources under different spill scenarios (Bonnell et al, 1993, Ford and Bonnell, 1995; and Section 9973 and the Geographic Response Plan Maps in that section). The data collected include annual aerial censuses of major marine bird colonies (*e.g.*, Carter et al., 1996, etc.), intermittent comprehensive breeding marine bird surveys (Carter et al., 1992), at-sea surveys of resident and migratory marine birds and mammals, semi-annual sea otter surveys, annual pinniped rookery censuses, weekly shoreline surveys (Roletto et al., 1998), and sensitive habitat and wetlands identification (RPI, 1994, 1996, 1998).

Relevant baseline data are compiled by OSPR in computerized Geographic Information Systems (GIS). Critical wildlife habitats in the GIS and the associated protection strategies in the ACP can be quickly identified and plotted. For example, salt marshes are delineated, along with recommended booming configurations to protect them. The GIS coverage's as well as the NOAA Environmental Sensitivity Index (ESI) resource information can be produced on maps. In advance of a spill, these maps can be a planning tool to determine the relative sensitivity of each coastal region of California at risk from the spill. The data and maps also can be used in conjunction with those developed from real-time data during on-scene reconnaissance to evaluate the likely wildlife impacts and to guide the response decisions of the WBD, Planning Branch, and UC in the early stages of a spill. Additionally, information from these databases has been used to plan and locate wildlife care facilities and spill response equipment.

9710.3 Activation Of Wildlife Operations

Activation of the OSPR WO Resources. The best time to prevent wildlife impacts after a spill has occurred is during the earliest stages of the spill response. Therefore, it is imperative that OSPR be notified in a timely manner. Under California's OSPRA, the OSPR has the mandate and the capacity to

mobilize its wildlife protection resources immediately, if necessary, to provide the best achievable protection for the state's wildlife, in accordance with the state contingency plan and the ACP (Government Code §§ 8574.7, 8670.3(c)(1), 8670.5, and 8670.7(b)). Therefore, the ACP and the UC may anticipate that WO will be initiated by OSPR immediately upon first notification of a spill. When taking early actions, OSPR will maintain close coordination with the evolving UC. Such early, but prudent, initiation of a wildlife response will ensure timely mobilization of dedicated resources will minimize resource impacts, and will contribute to effective cost containment. In these instances, OSPR's early WO will be guided by the ACP and will be integrated with the UC as it is formed. As soon as feasible, but in any event after the first 24 hours of a spill, the WBD will direct the development of the wildlife operations element of the Incident Action Plan (IAP) for the review and approval of the UC. Wildlife operations response activities should be described on the "Work Assignment Form" (ICS Form 204) and integrated into the daily IAP to be approved by the UC. The IAP will identify and authorize WO response actions for the duration of the spill.

Activation of the OWCN. The OWCN responds hand-in-hand with the OSPR during WO and, if needed, activation can be virtually simultaneous. Activation may be initiated by OSPR through the Duty Officer at OSPR's Headquarters Operations Center in Sacramento, upon first notification of a spill or at some later point by the WBD or an Incident Commander (IC) in consultation with the UC. Through OWCN, dedicated wildlife operations equipment (such as shallow-water vessels) and specially trained response contractors and personnel can be deployed immediately in combinations dictated by spill-specific circumstances (see Table 2). In consultation with the UC and the WBD, the OWCN Response Director may begin early notification actions of the OWCN response personnel and facilities, placing them on stand-by and enabling them to prepare their facilities. The OSPR and OWCN can be contacted directly, regarding spill notification and WO response, or through the USCG at any one of the following telephone numbers:

CDFG-OSPR Dispatch:	(916) 445-0045
OWCN: General:	(530) 752-4167
	(916) 556-7509
	(916) 523-7941
USCG-National Response Center:	1-800-424-8802
USCG-Marine Safety Office (MSO) San Francisco Port Area:	(415) 399-3547
USCG-MSO Los Angeles/Long Beach Port Area:	(310) 732-2000
USCG-MSO San Diego Port Area:	(619) 683-6495(day)

Role of Area Contingency Plan in Initial Response. Under the terms of a 1997

Memorandum of Understanding (MOU) between the USCG and OSPR (see Section 9960), the ACP shall be used as the primary guidance document regarding natural resource protection in a California spill. Primary responsibility for oiled wildlife protection, rescue and rehabilitation will most likely be delegated to OSPR because of its legal mandates and specialized California wildlife expertise. Key portions of the Area Contingency Plan that will be used to identify wildlife and habitat protection concerns include "Sensitive Site Summaries and Strategies" the "Geographic Response Plans" and the "Oiled Wildlife Response Operations Plan" (this section) and their related databases, which are developed and maintained by OSPR personnel in conjunction with other Area Committee members.

Developing an Initial Action Plan. Upon spill notification the WBD must evaluate a rapidly changing situation and develop an initial action plan, often literally while on the way to the spill site. Often, all the only initial source of information is the PRP's initial report of product, amount, and location, or observations by land managers of oiled wildlife strandings on beaches. It is a rare when all variables (*e.g*., oil type and volume, location, geographic range of spill, wildlife at risk, etc.) are known prior to on-

site reconnaissance. This section describes some of the information and variables that the WBD must consider to create the Wildlife Branch and provide an effective response.

The WBD must evaluate the situation in light of available staff, equipment resources and deployment options within the context of the applicable ACP. In order to determine which resources to mobilize, many different factors influence the response and must be considered. Some of these factors include:

- Type of oil (including persistence and emulsification properties);
- Quantity of oil;
- Frequency of oil deposition and oiled wildlife strandings;
- Concentrations of wildlife in the spill area;
- Presence of threatened or endangered species and/or critical habitat;
- Potentially affected habitats/ESI Rankings;
- Wildlife resources at risk;
- Human health hazards (Site Characterization);
- Time of Year/Season (i.e., presence of migratory or breeding birds and mammals; and
- Weather and oceanographic conditions.

After reviewing the relevant factors with WO and Planning Section personnel, the WBD can verify the resources at risk; evaluate WO resource needs; assess the available wildlife personnel and equipment resources, and develop initial response objectives, such as identifying the areas with abundant wildlife that must be protected first and the tactics that should be implemented to maximize protection; and deploy wildlife recovery teams to likely stranding locations. Using this information, the WBD can formulate the initial wildlife operations action plan, which will include prioritized response objectives, an immediate call-out and implementation of personnel and equipment, and group and unit designations and task assignments.

While the initial evaluation process is described in some detail here, in practice it may be accomplished in a matter of a few moments, capitalizing on the WBD's experience and prior knowledge of wildlife resources and protection strategies (*e.g.*, hazing). The development of WO initial response strategies and their re-evaluation throughout the spill response, is an iterative, dynamic process that calls for good information, knowledge, experience and judgement.

Tiered Level Response. Activation of personnel and equipment is based on a number of variables as was discussed above, but primarily on anticipated wildlife impacts. In California, WO experiences have been extremely varied, ranging from a catastrophic release during migratory shorebird and waterfowl season; to "mystery" spills with very little oil on the shore, but yet significant seabird impacts; to a more "typical" spill of a few barrels of petroleum resulting in a few dozen wildlife casualties. OSPR has attempted to develop a generalized response table to meet a variety of spills and WO needs. Three basic levels of WO personnel and equipment response are shown in Table 2. Most often WO will mobilize personnel and equipment at the lowest level, *i.e.*, Level I. It is important to note, however, that these categories are not rigid and that the response for each spill should be tailored on a case-by-case basis. Some extraordinary circumstances (*e.g.*, a tanker grounding and rupture, with a known discharge) would justify Level II or III (highest) mobilization at the outset. WO will notify the UC immediately of changes in the deployment of staff and equipment as they occur (see Section 9710.3).

9710.4 Wildlife Operations Procedures

9710.4.1 *Prevention of Impacts to Wildlife: Considerations for Implementing Response Countermeasures*

The primary purpose of WO is to prevent injury to wildlife or habitats either from the oil spill or from the implementation of response countermeasures. The task of the WBD is to weigh the alternatives at every juncture and identify the potential strategies, including "no action," that will produce the fewest adverse

effects to wildlife and wildlife habitat. In conjunction with the Planning Section, the WBD also may be required to evaluate tradeoffs among sites and decide which sites or wildlife resources will inevitably be affected. This will help save wildlife at a different location that may have been assigned a higher response priority (see Section 9973).

Use of Spill Response Countermeasures in Wildlife Areas. The simplest means of protecting marine wildlife from an oil spill is to prevent the oil from reaching areas where they are concentrated, through ongoing coordination with the UC Planning and Operations Sections. In many cases, this can be accomplished by tailoring the use of standard spill response equipment and techniques to wildlife protection requirements. Such countermeasures include mechanical offshore recovery methods, alternative response technologies (ARTs), and shoreline recovery techniques (see Section 4500). The application of these countermeasures, whether for wildlife protection or for other aspects of spill response, should at all times be guided by the sensitivity and vulnerability of the wildlife and habitats in the spill response area. Similarly, staging areas for equipment should be selected carefully to avoid collateral impacts. Such techniques and their wildlife protection capabilities and limitations are addressed elsewhere in this ACP (see Section 4500).

The use of standard spill response countermeasures in areas supporting abundant wildlife creates a risk of adverse effects to wildlife that arise out of, but are not always directly caused by, the spilled oil. Before use, each response strategy proposed in wildlife areas should be evaluated for its potential harmful impacts. The Planning Section and the WBD should weigh the capacity of standard spill response countermeasures to aid wildlife operations against the potential of these same technologies to cause harm to wildlife, selecting the least harmful alternative. For example, if the use of helicopters is considered during response, it is important to establish minimum altitude limits and no-fly zones in environmentally sensitive areas, such as bird colonies and marine mammal haul-outs. All of this must be accomplished in an expedited time frame, consistent with the overall response needs.

Any time ARTs are considered, special attention should be paid to their potential effects on wildlife, their method of application, and monitoring during application. When in-situ burning (ISB) is considered, wildlife within the burn area should be hazed away or captured if they have already become contaminated. Moreover, the application of dispersants over concentrations of birds, sea otters, kelp forests, and other sensitive species should be avoided. Evidence suggests dispersants wash natural oils off feathers and fur, reducing insulation and buoyancy and may be directly toxic to wildlife. After dispersants have mixed with water, the risk is significantly reduced, but not entirely eliminated. Areas where concentrations of wildlife have been observed during reconnaissance flights and other wildlife operations should be eliminated from operational plans when dispersant use is considered.

Human-Related Disturbance in Wildlife Areas. Oil impacted or ill wildlife will not typically strand on a shoreline that has constant human activity, causing them to stay at sea or search for more isolated locations. This delay in stranding causes a delay in capture and subsequent rehabilitation. In order to recover as many spill-affected animals as possible, human disturbance along oiled beaches and shorelines as well as known stranding areas should be minimized. Thus, when feasible, it is advisable for the UC to close such areas to the public, and allow access only to response personnel designated to capture oiled wildlife. Personnel involved in response activities, particularly on islands and along shorelines in the spring and summer months, should be alerted to the presence of nesting birds, bird colonies, pinniped breeding and haul-out areas, and salt marshes, which are vulnerable to the effects of disturbances and trampling. Sensitive areas should be posted and access should be restricted.

Both response personnel and the public should be instructed not to attempt to capture, disturb, or dispose of oiled wildlife. The public should also be alerted (via the Joint Information Center) to leave both live stranded animals and dead animals in place and undisturbed so that they may be retrieved by trained response personnel. The location of live stranded animals can be flagged by response personnel to alert wildlife recovery teams and aid in expedited capture.

Table 2: Recommended Tiered Level Response of Personnel and Equipment for Wildlife Operations

Use as general guide to activate WO resources. This table has been developed from response experience to a variety of spills (*i.e.* oil type and volume, location, season), but is based primarily on expected wildlife impacts as outlined for each tier level. It represents dedicated resources to be provided by OSPR, OWCN and other natural resource trustee agencies. WO resources should be tailored specifically to meet the needs of each incident.

LEVEL I (Incidents where WO projections are for at least dozens of marine birds impacted; typically a smaller geographic area with no marine mammals)	
Staff and Contractors Wildlife Branch Director (1) OWCN Response Director/Veterinarian (1) Group Leader (1) OWCN Staff/Unit Personnel (6) OWCN Regional Facility	Equipment Mobile Vet Lab (1) Wildlife Care Trailer (1) Vet Truck (1) One-Ton Wildlife Truck (1) ATV (2) Capture/Reconnaissance Boat (1) Air boat (1) Wildlife Supplies Trailer w/various Hazing Equipment (1) GPS Receivers Cellular phones or radios
LEVEL II (Incidents where WO projections are for up to low hundreds of marine birds, and a few marine mammals): All of the resources shown in Level I **plus:**	
Staff and Contractors Deputy Wildlife Branch Director (1) Group Leaders (2) Processing Group Team (5) OSPR & Contract Veterinarian (2) OWCN/CMMSN Staff (mammals) (6) Reconnaissance/Recovery/Vet Services Group Staff (15) OWCN Trained Volunteers (15) Specialized Wildlife Experts (contractors) (4) Wildlife Aerial Response Team (3) OWCN Regional Facility (as needed)	Equipment Mobile Vet Lab (1) Wildlife Care Trailer (1) ATV (2) Capture/Reconnaissance Boat (3) Wildlife Transport Trailer (1) Wildlife Supplies Trailer (2) Air boat (1) DFG Fixed Wing Aircraft (1) GPS Receivers Cellular phones or radios
LEVEL III (Incidents where WO projections are for high hundreds or thousands of marine birds and tens to dozens of marine mammals): All of the resources shown in Levels I and II **plus:**	
Staff Contract Veterinarian (3) Group/Unit Personnel (6) Additional OWCN Facilities (as needed) OWCN staff and Trained Volunteers (90)	Equipment Capture Boat (4) Air boat (3) Wildlife Supplies Trailer (1) ATV (4) Helicopter Support

Personnel Safety during WO. Worker safety must be considered before any wildlife reconnaissance, protection or retrieval effort is conducted. The safety hazards that may confront WO personnel include toxic vapors, fire hazard, hazardous weather and seas, unsafe footing and injuries inflicted by wild animals. Therefore, all WO activities must conform to the Site Safety Plan (see Sections 2222 and 9932.1). All personnel involved in WO must have appropriate job-specific safety training for the tasks to be performed. They must be adequately protected with the appropriate personal protection equipment (PPE) (rubber boots, safety glasses, gloves, etc.) and trained in wildlife handling techniques that ensure worker safety and present the least amount of stress to wildlife (Chen Valet and Camlin, 1995). Additional training issues are addressed in the Volunteer Coordination and Management Plan (see Section 9720). The detailed protocols followed by OCWN personnel, describing the capture, transport, and rehabilitation of oiled wildlife are contained in OWCN manuals (OWCN 1998a and 1998b).

9710.4.2 *Wildlife Reconnaissance Group*

The WO Reconnaissance Group identifies wildlife resources at risk by collecting real-time wildlife species abundance and location information in order for the WBD to develop and implement effective wildlife response strategies (Figure 2). While baseline data, as discussed in Section 9710.2, are essential, variations from baseline conditions, due to daily and seasonal movements of birds and mammals, necessitate rapid, real-time characterization or reconnaissance of wildlife concentrations in the spill area. Depending upon the size and type of the spill and the habitats involved, real-time data will be collected using aircraft, boat and ground surveys. Specific standardized, repeatable methodologies have been developed for each type of survey (ECI, 1992).

The Wildlife Reconnaissance Group is directed by the Group Supervisor (for duties, see Section 3251). The Group Supervisor is responsible for establishing and supervising the Aerial, Boat and Shoreline Reconnaissance Units, and for making survey team assignments. Reconnaissance Group personnel include the Aerial Survey Unit Leader (for duties, see Section 3251.1); the Boat Survey Unit Leader (for duties, see Section 3251.2) and the Shoreline Survey Unit Leader (for duties, see Section 3251.3). Because these units all operate in the field collecting real-time information, it is critical that each team maintain a means of communication to the command post (*e.g.*, Unit leader, a Group supervisor, or WBD).

Reconnaissance Group staff may include professional wildlife biologists, trustee agency representatives, OWCN personnel, the OSPR Aerial Wildlife Response Team (an OSPR contingency contractor), and other trained people. If specialized surveys for threatened and endangered species are needed, the Reconnaissance Group Supervisor or WBD may call in additional wildlife specialists. These specialists will advise the WBD and the UC about threats to listed species, the locations and numbers of oiled animals, and the need for capture, hazing or other protection strategies. These experts will survey on foot or by boat and will use species-specific observation protocols. In 1997 and 1998, for example, such specialists conducted useful surveys of California brown pelicans, western snowy plovers and marbled murrelets during oil spills.

Aerial Survey Unit. The aerial survey team will characterize the abundance, distribution, and species identification of on-water marine birds and mammas in or near the spill area (ECI, 1992). These flights complement, but do not replace, operational overflights for mapping oil. Using a global positioning system (GPS) linked to a laptop computer, the results of observations made on flight transects can be recorded, and in some cases, may be relayed near real-time by radio to a GIS specialist to produce graphical representations of current wildlife concentrations and locations

The OSPR Aerial Wildlife Response Team should make an initial flight covering a broad area of open water that includes the spill location and its likely trajectories. This should be done within a few hours following WO activation. Search patterns usually involve defined transect lines perpendicular to the coast. Such flight transects will most likely be flown in a CDFG twin engine observation aircraft at an altitude of 200 feet. Reconnaissance flights should be repeated each morning and afternoon, or at

appropriate intervals based on such variables as wildlife resources at risk, amount of oil on water, trajectories, weather, or as otherwise directed by the WBD. Such reconnaissance activities should be closely coordinated with Air Operations within the UC (see Section 3220).

Boat Survey Unit. On-water survey teams may be dispatched to assess oiled and at-risk wildlife in offshore or nearshore coastal waters, bays or sloughs. While boat surveys most often involve searching open water areas, they are also frequently used to search shorelines that are inaccessible by land. Teams will characterize species abundance and distribution of wildlife within the spill area. In most cases, personnel will be observing seabirds and marine mammals. Observations of other natural resources such as schooling fish, sea turtles and plankton blooms are also notable. This information is commonly known as "ephemeral" or "time-critical."

Observers will collect information on species present and their condition -- live, dead, oiled and unoiled; basic weather and sea conditions; and any other notable occurrence, which may be useful to WO or the UC response. As a guide, information can be recorded on the Wildlife Reconnaissance Survey Form (see Attachment 1 and Appendix IV) with appropriate notations of the transect location, search time and methods. In some cases, on-water survey teams may also be responsible for collecting dead wildlife and catchable live oiled animals. If this is a designated team assignment, personnel on board must have the necessary minimum qualifications, along with specialized training and equipment needed to capture animals expected to be found. Otherwise, sightings of recoverable wildlife will be relayed to the Recovery and Transportation Group for immediate follow up. In any case, teams must update their chain of command frequently regarding progress, observations, and issues.

Specific search patterns and techniques will depend on the survey type, habitat (*e.g.*, nearshore or bay) and species at risk (*e.g.*, marbled murrelets). In general, searches will be performed at constant speeds, cruising along fixed ladder-shaped or grid-pattern transect lines over a predefined search area. The search area and distance around the spill area will depend on the habitat, weather, sea conditions, water depth, and predicted tides and currents. These factors should be defined before beginning the survey. In small bays and sloughs transects may involve navigating up channels and/or following shorelines.

To effectively document search areas, track information derived from a differential GPS is recommended. Each team should also maintain appropriate communications with the Boat Unit leader, Reconnaissance Group supervisor, and/or WBD via cellular phone or VHF radio. Timely, regularly scheduled reports of observations are essential to keep the UC informed and provide the best possible response.

Boat survey teams should include more than two people for safety and search efficiency considerations. Depending on the boat and search area, two persons are minimum and three are optimal for each boat. In all cases, at least one member of the team must be qualified to operate the boat considering the habitat, weather and sea conditions that exist during the spill. Other personnel must be qualified to observe wildlife at sea and on-water.

Boat survey teams may operate from a variety of craft depending on the habitat and conditions. Any coastal surveys will be done from a boat certified for ocean use and suitable for expected weather and sea conditions. This may include 20 to 30ft workboats, such as Boston Whalers, or inflatable boats. In small bays or sloughs shallow-draft boats are preferred. These may include skiffs, inflatables, airboats, hovercraft, canoes or kayaks.

Shoreline Survey Unit. Shoreline survey team will be dispatched to gather ephemeral or time-critical information via surveys in shoreline areas that are oiled or that is expected to be oiled. These reconnaissance surveys will provide information regarding: biological resources (live and dead; oiled and non-oiled); shoreline habitats; seasonal features such as bird and pinniped rookeries; marine mammal haul-out areas; estuarine mudflats and marshes; streams blocked by natural seasonal berms and rivers flowing to the ocean.

During the initial stages of a spill, shoreline survey teams will be assembled by the WBD. One person on each team will be designated as the team leader. This person will be responsible for decisions relating to human safety and data integrity; for reporting reconnaissance information back to the Unit Leader, Group Supervisor or WBD prior to each daily pre-planning meeting; and for disseminating the following day's assignment to team members.

The Reconnaissance Group Supervisor or Shoreline Survey Unit leader will assign sections of the coast to survey and tasks to each team (Carter and Page, 1989). Each team should receive survey and reporting instructions. Reporting instructions should include the name and phone number to whom to report findings, as well as specific items which need to be reported, *(e.g.*, live vs. dead species, numbers and/or species of oiled and unoiled resources at risk, endangered and threatened species, etc.). Each team should also receive instructions on the disposition of samples or animals collected, survey forms, and the locations of intake stations. Members of the survey teams should receive a daily phone list for the WBD and his/her alternate at the Incident Command Post, the Group Supervisor, the intake station(s), and contacts to gain access to special or secure areas. Communications must be open throughout the day to provide new direction or report observations up the chain of command.

Survey teams should be provided with data on resources at risk, including environmentally sensitive site and response strategy information from Section 9973, and the Wildlife Reconnaissance Survey Form (Attachment 1 and Appendix IV). All shoreline survey teams should use the same version of each form. Other suggested survey equipment includes proper and necessary personnel protective equipment (PPE);

Regional maps that include consistent beach names, numbers and access routes;

- Waterproof notebooks;
- Binoculars;
- "Clicker counters;"
- Cellular phones or VHF radios; and
- GPS receiver units.

While it is not the primary function of the Shoreline Survey Unit to collect wildlife, Reconnaissance Group teams may be paired with Recovery and Transportation Group teams (at the direction of the WBD or Group Supervisor) to increase the speed and efficiency of shoreline surveys. In such instances, both groups may perform survey and recovery tasks simultaneously. In any case, uncaptured, impacted wildlife sightings should be reported to the Recovery and Transportation Group leader. In past spill responses, attempts have been made to join Wildlife Reconnaissance Teams with Shoreline Cleanup Assessment Teams (SCAT). Because of their different objectives, types of information collected, and the method and speed of surveys, it is not recommended to combine these functional teams.

During moderate-sized spills, survey teams should consist of a minimum of two people for safety and to expedite the surveys, although studies (Roletto et al., 1998) have shown that on long, broad sandy beaches a survey team of three people is optimal for efficiency. Team tasks can be divided among team personnel in any number of ways (*e.g.*, by shore zone, by function, or by expertise). For example, on a two-person team, one member can conduct wildlife observations, recording numbers and species of birds and mammals, both oiled and unoiled, and assessing the potential for capture of oiled wildlife. The second member can investigate the wrack line and shore for evidence of oiling and identification of any dead oiled wildlife.

Walking beaches on foot is the most effective method for locating wildlife with little disturbance. However, vehicle use can also be effective to expedite survey search time, depending on the terrain and the size of the area to be covered. Special considerations pertaining to collateral impacts on wildlife must be addressed before reconnaissance surveys via ATVs are authorized by the WBD. Authorization from the appropriate trustee agencies also must be obtained prior to authorizing any activities using ATVs in national parks and wilderness areas. Because ATVs will potentially haze animals back into the water,

caution and planning must be exercised. Close coordination with the Recovery Group should occur so as not haze injured wildlife.

Shoreline survey teams generally are staffed by professional wildlife biologists, who most likely will have previous oil spill and specific coastal field observation experience. At the discretion of the Reconnaissance Group Supervisor, survey teams also may include qualified OWCN staff and/or trained observers with knowledge and experience in oiled wildlife identification and handling. At a minimum, personnel conducting wildlife reconnaissance should be experienced at identifying species of pinnipeds and California coastal birds, including gulls, alcids, shorebirds and diving birds, and should be able to identify both breeding and alternate plumage in order to determine whether a live bird is oiled. Teams will likely conduct most surveys on foot, however, ATVs are often used which will require additional training.

Use of Reconnaissance Data for Near Real-Time Survey Mapping. Within minutes after receiving data from an aerial, boat or shoreline survey team, a GIS specialist, most likely from the Technical Specialist Unit in the Planning Section or the Wildlife Impact Documentation Unit, can create, and provide to the UC, a map depicting resources at risk on open water and shorelines, using pre-established grid block units. This map will assist the WBD in identifying and ranking wildlife response strategies. For example, site-specific booming or hazing actions may be recommended based on this information. Also, the presence of an especially sensitive wildlife resource in a spill trajectory might prompt or preclude the use of dispersants or other ARTs. The integration of pre-spill (baseline) data and reconnaissance information provide the WBD and the Planning Section Chief with the ability to develop a common understanding of, and strategy to protect wildlife resources at risk during response.

9710.4.3 *Hazing Group*

Once oiled, habitats that have been traditionally attractive to wildlife may be candidates for hazing actions (Figure 2). If oil-free and disturbance-free habitats are known to be available in the vicinity and continued exposure to oil in the contaminated traditional use areas is anticipated, hazing may protect wildlife from an oil spill by deterring them from entering oil-contaminated areas on water or land (Greer and O'Connor, 1994; Thomas, 1994; USDA 1997a, 1997b, 1997c).

The Hazing Group, which will undertake these activities, is directed by the Hazing Group Supervisor (for duties see Section 3252) who reports to the WBD. The Group Supervisor is responsible for minimizing wildlife impact and losses during spill responses. Other personnel in the Hazing Group may include state or federal trustee agency biologists and university or OWCN personnel with appropriate authorization and training.

If wildlife impacts are deemed to be unavoidable due to the predicted movement of oil in the hours and days following a discharge, then hazing can be initiated with little risk of exacerbating impacts. Hazing should always be considered in heavily oiled habitats, particularly when clean sanctuaries can be designated in the area. Hazing is likely to be most effective when birds are concentrated in coastal lagoons, estuaries and bays. Hazing is likely to be ineffective or counterproductive, however, if the spill area is too large to focus deterrent actions or if animals are likely to be pushed into oiled habitat. Wildlife that has already been oiled should not be dispersed, since this can lead to the introduction of oiled animals into uncontaminated areas and populations. Rather, oiled animals should be captured as soon as practical.

> Hazing activities must take place only under the authority and oversight of the trustee agencies, in coordination with the UC. The recommendation to haze will be guided by site-specific and species-specific factors operating at the time of the spill, and by proven hazing techniques. A variety of hazing devices are available and can be deployed to meet the situation, such as propane cannons, cracker shells, alarms and whistlers, flags, predator models, human effigies, and others. These techniques, specialized hazing equipment and

special hazing considerations for wildlife are described in detail in the General Wildlife Hazing Plan included in Appendix IIIb.

9710.4.4 *Wildlife Recovery and Transportation Group*

Wildlife recovery and transportation involves the collection of dead and live oiled wildlife and their transport to processing centers (see Sections 9710.4.5 and 9710.4.6). The Wildlife Recovery and Transportation Group perform these activities, in close coordination with the UC and the State and federal trustee agencies. The appropriate trustee agency representative(s), such as someone from the CDFG, USFWS or NOAA/NMFS, must approve wildlife collection by any organization, including participating OWCN organizations (see 14 CCR 679(d); Section 9710.2, above).

At any time during the year, a California beach is likely to reveal various marine bird and mammal carcasses or stranded live animals that may or may not be spill related casualties (Stenzel, 1988). It is not feasible, reliable, or practical to attempt to discriminate between spill-related and non-spill-related casualties while conducting beach surveys during the response. For example, scavenged carcasses or dark plumage and wet carcasses that may be spill related are not always identifiable in the field as such. Additionally, seabirds are known to succumb to the effects of oil ingested during feeding or preening even when no oil is apparent on their plumage. Therefore, it is recommended that all animals live and dead be collected and processed for more definitive triage.

Oiled wildlife collection, treatment and rehabilitation are legislatively mandated and are important for spill documentation, humane and public relations reasons (Jessup and Mazet, 1999). In addition, the prompt removal of disabled and dead oiled animals from the environment can be critical to minimize the effects of secondary oiling such as poisoning of predators and scavengers. Appropriate measures must be undertaken by the PRP and the UC to insure that dead animals are collected appropriately, identified, documented and not disposed of until approved by the trustees.

During a spill, the public views any dead animal, regardless of the cause of death, as a problem requiring the attention of response personnel. The problem is best resolved by removing all dead animals. The systematic processing of the collected wildlife provides the UC with the necessary data to make informed statements about the status of affected wildlife and the environmental consequences of an oil spill (see Section 9710.4.5).

The Recovery and Transportation Group is directed by the Recovery and Transportation Group Supervisor (for duties see Section 3253) who reports to the WBD. The Group Supervisor is responsible for the recovery of dead and live, oiled and unoiled wildlife that have been identified by the Reconnaissance Group or other individuals, and for the transportation of affected wildlife to processing/rehabilitation centers. The Group Supervisor should frequently update and coordinate with the Situation Unit of the Planning Section.

Once animals have become oiled, habitat-specific and species-specific strategies to recover and remove disabled and dead wildlife are required. Systematic shoreline surveys for affected wildlife ideally should be carried out several times per day. Preferred search times are before dawn, at dusk, and in the middle of the day. Surveys are often conducted on foot or by boat, however, the use of ATVs and four-wheel-drive trucks can expedite search times. Caution should be exercised with ATVs as they may scare wildlife back into the water or cause the animal(s) to flee the site. Successful captures not only depend on the condition of the animal, but also on the training and experience of the handler, and techniques and equipment used. For detailed and specific information on wildlife capture training, techniques and tools, see OWCN 1998a and 1998b.

Each team should work in pairs and be outfitted with the resources and equipment necessary to complete their assignment. Technological advancements and improvements have been incorporated into the information-gathering phase of this overall task. For example, GPS receivers can now be used to mark

locations of collections and survey transects. This GPS information can be downloaded to a GIS specialist who can graphically depict wildlife recovery sites and stranding locations. Additionally, field tag labels with preprinted barcodes can be affixed to live and/or dead animal bags or carriers. The use of barcodes will allow the Group Supervisor and WBD to track the individual animals through the capture/collection, processing, and for live animals the rehabilitation and release process via a computer database. Specialized equipment is identified in OWCN 1998a, 1998b. Other more basic equipment will include:

- Proper and necessary PPE;
- Dead bird body bags (collection containers);
- Pillow cases and pet carriers;
- Field tags to label to record collection information and Chain of Custody;
- Regional and Segment maps;
- Cellular phones or VHF radios;
- GPS receivers; and
- Basic capture equipment (e.g., nets).

Depending on the spill size, wildlife search, recovery and transportation can be accomplished with combinations of personnel from various WO groups or units. If response circumstances are favorable and properly trained personnel are available, wildlife recovery personnel may be integrated with Reconnaissance Unit teams who perform frequent (at least daily) systematic surveys of beaches/shoreline within the spill boundaries. For example, information on the location of captures and collections of dead and live animals throughout the survey area should be recorded to guide subsequent efforts and inform the UC of impacts to specific geographic areas (see Section 9710.4.5). When live animals are located, transfer arrangements must be made to promptly so transfer teams can take live birds and mammals to an OWCN rehabilitation facility. The timely deployment and coordination of recovery and transportation teams is best accomplished through open radio communications on dedicated frequencies or by cellular phone.

Recovery and Transportation personnel are from the OCWN, OSPR, other State and federal trustee agencies, and approved contractors. As with other WO activities, Recovery and Transportation personnel will include a high proportion of professional wildlife biologists as well as trained, qualified volunteers obtained through the OWCN and/or OSPR Volunteer Coordinators.

Capture and Transport of Oiled Birds. Teamwork is essential to minimize stress in oiled birds (OWCN 1998a). As they lose their waterproofing, many species of birds move to shore, first preening on open beaches and riverbanks and later hiding under cover.

Success at recovering wildlife (especially flightful or mobile individuals) depends on proper technique and timing. Methods used for search and collection will be dependent upon the location of the spill and the modes of transportation made available through the UC. Bird retrieval techniques are most effective if begun shortly before dawn. Qualified teams on foot with handheld nets should retrieve birds. Small projectile nets, linear sections of net placed on the ground and baited walk-in or swim-in traps may also be used. For more information on capture equipment and techniques, see OWCN 1998a.

Handling captured birds poses risks to both handler and birds. Because of the potential for birds to inflict injury on the handler, proper PPE is essential. Eye protection should always be worn. Use of appropriate gloves and outer clothing to prevent oiling of the handler are also important. To prevent further injury to wildlife, the use of proper handling techniques by trained personnel is essential. For details on proper handling techniques, see OWCN 1998a and “Wildlife Handling” in Appendix IIIa.

After capture, birds should be immediately placed in pillowcases or ventilated solid-sided pet carriers, cardboard boxes, or plastic airline kennels for transport. Social, nonaggressive birds (such as common murres) can be placed with one or two conspecifics, but aggressive species, such as loons and cormorants, should be individually housed. Once captured, oiled live birds should be transported to the designated OWCN facility as soon as possible. If marine bird species must be transported for long distances or remain in per carriers for longer than three hours, net-bottomed floors should be used. Since hypothermia is an important biomedical problem which affects oiled wildlife, it is advisable to bring oiled birds into a warm indoor environment as soon as possible, and to transport them in warm ventilated vehicles.

Capture and Transport of Marine Mammals. The need for marine mammal capture should be evaluated on a case-by-case basis by the WBD in consultation with those trustee agencies that have specific regulatory authority: the USFWS, the NMFS, and the CDFG. The protocols that guide decisions to capture and transport marine mammals are described in Appendix Ib and in OWCN 1998b. If oiled pinnipeds, sea otters, or cetaceans are determined to be ill and require retrieval, capture will be instituted by the WBD in conjunction with the CDFG, NMFS, the USFWS for sea otters, the California Marine Mammal Stranding Network (CMMSN) and the OWCN. Capture and transportation of oiled mammals should be performed only by qualified personnel who have received the appropriate safety training as well as marine mammal handling and restraint training. For more information regarding actual search and collection techniques of marine mammals, see OWCN 1998b.

Generally, the potential benefits of capture must outweigh the potential negative consequences. A decision to capture should consider the size of the individuals and their location with respect to other marine mammals. The method of capture may vary accordingly. While sea otters and fur seals can be immediately and acutely affected by oil, other pinnipeds may be able to withstand some short-term external exposure to oil. Captures will generally be considered for isolated individuals on beaches, spits, tide flats or other relatively flat surfaces, using herding boards and nets (brail, breakaway, or steel frame pole). Less often, captures may be attempted from rock jetties, piers, docks or even in the water for severely debilitated animals. Long-handled dip nets, floating bag nets and a net gun have all been used with some success. Depending on the species involved, aquatic captures may use tangle nets, float nets or Wilson traps. Animals will be placed into kennel carriers or similar cages of an appropriate size, and immediately transported to designated marine mammal care facilities (see Table 1 and Figure 3). Shaved ice or water will sometimes be needed to avoid overheating.

Capture and Transport of Sea Otters. Sea otters are a special case because of their extreme susceptibility to oil and their status as a federally listed species. The capture and treatment of sea otters is addressed separately in Appendix IIIc, the Sea Otter Oil Spill Contingency Plan.

9710.4.5 *Wildlife Processing Group*

All dead and live wildlife encountered in the spill response area should be retrieved by the Recovery and Transportation Group (see Section 9710.4.4, above) and transported to the wildlife processing center(s), regardless of the condition (degree of decomposition, degree of oiling, etc.) of the carcass or live animal. The Processing Group then logs these animals into the center to receive treatment (live animals) or be placed in storage (dead animals). The Processing Group maintains an accurate record of all impacted wildlife. Each animal is brought to the center and the status and progress of each individual is tracked by the Processing Group through the WO system. This systematic documentation of adverse effects on wildlife will provide an understanding of the short- and long-term consequences of oil spills to wildlife populations and assist in the guidance of spill response actions.

The Processing Group is directed by the Processing Group Supervisor (for duties see Section 3254), who reports to the WBD (see Figure 2). The Group Supervisor, who may be the same as, and will in any event coordinate closely with, the Veterinary Services Group Supervisor, is responsible for establishing and maintaining centralized wildlife processing centers to receive all affected wildlife collected (dead or alive), and documenting and transporting dead wildlife to a secure storage facility (see Live and Dead

Bird/Mammal Intake Logs, Appendix IIIa). The Supervisor establishes and directs the operations of both the Wildlife Intake Unit Leader (for duties see Section 3254.1) and the Wildlife Impact Documentation Unit Leader (for duties see Section 3254.2). The Group Supervisor will coordinate unit activities with the Veterinary Services Group and Recovery and Transportation Group Supervisors. Wildlife processing personnel may include trained agency and OWCN scientists and also may be conducted by trained staff under an OSPR contingency contract.

Intake Unit. Depending on the geographic range of the spill and the numbers of animals impacted, one or more wildlife processing centers may be established and directed by the Processing Intake Unit Leader. It is the responsibility of the Processing Group Supervisor to assess the need for multiple centers, and to set up, staff, establish record keeping procedures, and coordinate each center.

Staff in this Unit can include six basic positions at each center: the Unit leader, a Receiver, a Data Collector, a Data Processor, a Photographer, and an Animal Handler. More staff may be necessary if the number of animals entering the center is overwhelming; or less, under light impact situation where staff can perform multiple duties. For detailed information regarding specific tasks of each position, see the Wildlife Unit Protocols in Appendix IIIa. Since most of the wildlife likely to be oiled are birds, wildlife intake and processing in WO should be conducted by field biologists trained in the systematic collection of information from dead and live birds (Schuster et al., 1998).

With each processing center there will be two sections (live and dead animals), each containing two basic stations (Intake and Processing). As live and dead wildlife comes to the processing center, they enter the Intake Station first. This is where all wildlife is logged in and information regarding the collector should be obtained and recorded on the Chain of Custody Intake Log (Attachment 2 and Appendix IIIa). The Processing Station is where all information necessary to complete either the Live or Dead Bird/Mammal Log is performed, as well as photographing the individual, prior to entering the rehabilitation process or dead animals going to storage. All information regarding wildlife processed through the system should be recorded on standard Live and Dead Bird/Mammal Log Forms (see Attachments 3 and 4, and Appendix IV). Barcodes from field tag labels can be scanned and an immediate identity given to that individual while in the system. Information documented on the forms include such items as: the collection location, species identification, plumage, presence and degree of oiling, injuries, band number if present, degree of decomposition, evidence of scavenging, etc should be noted (Ainley et al., 1994 and Appendix IV). All processing intake personnel should use the Live and Dead Bird/Mammal Log and the Chain of Custody Intake Log forms to ensure consistency of data. In addition, photographs should be taken and feather samples should be collected and preserved for future use if chemical fingerprinting of the oil becomes necessary. These data will help to determine whether or not the birds collected are spill-related casualties, and will provide the UC with sufficient documentation to make timely accurate statements concerning wildlife impacts. More detailed procedures are located in the Wildlife Processing Protocols in Appendix II.

Following intake and documentation, dead animals should be systematically packaged and transported to a secure freezer for storage. In recent years, this location has been the CDFG freezer at the Marine Wildlife Veterinary Care and Research Center (MVCRC) at Santa Cruz. This action will protect the interests of the trustees, the PRPs, and the USCG. If necessary, the carcasses can be re-examined to resolve problems with body counts, species identification or to secure additional samples for investigations. In some instances, necropsies may be performed concurrent with response activities to identify cause of death or disease outbreaks (see Section 9710.4.6). Disposal of the carcasses will occur when the federal and state trustee agencies give the authorization and will be disposed of in accordance with federal and state laws.

Wildlife Impact Documentation Unit. The Wildlife Impact Documentation Unit, directed by the Wildlife Impact Documentation Unit Leader, will maintain the database of information received from the Intake Unit in order to anticipate rates and locations of strandings and establish the status of impacted

wildlife. Reports of locations, species and numbers of dead and live animals received are provided to the WBD and the Situation Unit in the Planning Section on at least a daily schedule.

Information from the Live & Dead Bird/Mammal Logs will be summarized for the WBD and UC. In the past, this has been done by hand in a tabular format. With increasing use of GPS, barcodes and databases, we now have the ability to integrate this information into a GIS, and graphically depict collection sites or any other information layer as needed. Currently, the CDFG is developing a spill response database that will allow for the direct input of the Live & Dead Bird/Mammal Logs, Chain of Custody Logs, and patient medical record information. This technology should expedite information summarization and record keeping.

Through this process, the UC can document adverse effects on wildlife resources, communicate this information through the Joint Information Center, anticipate work loads and estimate the duration of the response. This type of documentation is also important for public information. The public often gauges the significance of a spill by the numbers of affected animals. The legislature and the media also demand to know how wildlife has been impacted. The number of dead and live birds is one index. It is important to emphasize, however, that the animals recovered through WO can give only a rough indication of the kinds of species and resources affected, and that a clear understanding of the magnitude and consequences of spill impacts will necessarily depend upon post-response follow-up studies, an analysis of the data collected during the spill and comparisons with baseline conditions.

9710.4.6 *Veterinary Services Group*

The Veterinary Services Group within WO ensures that wildlife exposed to petroleum products can receive the best achievable treatment, by providing access to trained personnel and permanent wildlife rehabilitation facilities statewide (see Figure 2 and Table 1). The Group is directed by the Veterinary Services Group Supervisor (for duties see Section 3255), who reports to the WBD (see Figure 2). The Group Supervisor is responsible for activating and maintaining wildlife rehabilitation centers during a response. The Supervisor is also responsible for receiving live oiled wildlife from the Intake Unit (see Section 9710.4.5, above) and processing into the veterinary services/rehabilitation system, which involves conducting triage, treatment, rehabilitation and release. The Veterinary Group Supervisor may be the same as, and will coordinate closely with, the Recovery and Transportation Group and Processing Group Supervisors. In the majority of past spill responses in California, the OWCN Response Director has filled this position.

Bird, Pinniped, and Sea Otter Units. The Group includes three units to handle specialized wildlife rehabilitation issues: the Bird Unit, the Pinniped Unit and the Sea Otter Unit. All of these groups operate under the direction of the Veterinary Services Group Supervisor. The group also coordinates the combined resources and capabilities of the OWCN and any other private wildlife care organizations to provide optimum treatment and rehabilitation services.

Each Unit Leader under the direction of the Veterinary Services Group Supervisor is responsible for receiving live oiled birds, pinnipeds, or sea otters requiring extended care and treatment at established treatment centers, recording essential medical information, conducting triage, stabilization, treatment and rehabilitation (see OWCN Oiled Bird Intake and Daily Progress Forms in Appendix IV). Specific protocols regarding these animals will not be addressed here as they are highly specialized, requiring special permits, expertise and veterinary care. Details can be found in one or more of the following references: OWCN, 1998a in, Oiled Wildlife Care Network: Protocols for the Care of Oil-affected Marine Birds; and OWCN, 1998b in, OWCN Protocols for the Care of Oil-Affected Marine Mammals; and the Sea Otter Oil Spill Contingency Plan (Appendix IIIc); and the interagency agreements (Appendix Ib). The most current information on rehabilitation can be found on the OWCN website at www.vetmed.ucdavis.edu/owcn.

If marine mammals are involved in a spill, the NMFS or the CMMSN can provide assistance with capture and treatment (Geraci and Lounsbury, 1993; Appendix Ib). If necessary, the CDFG-OSPR mobile

veterinary laboratory and animal care trailer can be dispatched to the field so veterinarians and staff can perform preliminary examinations and stabilize wildlife prior to being transported to the veterinary facility. Birds can also be examined and stabilized at remote locations in the mobile veterinary lab.

Birds are the most abundant wildlife taken in at the processing centers and are often treated and released within three weeks. However, the time in care depends on the location of the spill, product involved, species, preexisting injuries, and other logistical concerns. When rehabilitated animals are scheduled for release, local wildlife managers are consulted to identify oil-free and disturbance-free release sites. As a part of the spill response actions, birds and mammals are banded or tagged and, in some cases, fitted with telemetry equipment for post-release monitoring. Released birds and mammals that behave abnormally or are noticed by the public may be recaptured if necessary.

Necropsies on selected dead animals may be conducted by wildlife pathologists concurrent with spill response, to inform the response and guide Veterinary Services Group in the treatment of remaining animals. There are several reasons for necropsies during a spill response (Appendix Ib). For example, captivity-related diseases may necessitate necropsies to identify pathogens so that corrective medical actions can be taken (Jessup and Leighton, 1996). Fatalities to apparently unoiled wildlife may necessitate necropsies to determine if ingestion of petroleum has occurred or if there are other naturally occurring reasons for death (*e.g.* starvation).

Veterinary facilities designed for oil spill response must meet minimal space requirements and incorporate all required aspects of wildlife treatment and rehabilitation activities. An ideal facility should include: an intake/physical exam/evidence processing area; a veterinary hospital with isolation capabilities, indoor wildlife housing/caging, food storage and preparation facilities, animals washing and rinsing areas, indoor drying pens, outdoor pool and pen areas, and pathology facilities; volunteer training/eating area with restrooms; administrative offices with multiple phone/fax lines and conference space; storage; and access to a large parking area.

9710.5 Demobilization

Upon conclusion of WO, its activities are demobilized, following standard checkout procedures identified through the ICS and the UC. WO demobilization follows a conclusive determination by the WBD, in consultation with the Veterinary Services Group Supervisor and other WO Group Supervisors that all wildlife affected by the spill have been accounted for. Demobilization of WO groups and units will generally lag behind that of response equipment and personnel, due to variables such as animals remaining in rehabilitative care, the presence of residual oil, and the presence of visibly oiled pinnipeds and free-flying birds. This lag time may last several weeks.

The last resource of the UC to be demobilized will likely be personnel and equipment of the Veterinary Services Group and the OWCN facilities used during the spill. Due to the time involved in the cleaning, treatment and rehabilitation of oiled wildlife, animals that may come into the rehabilitation center late in the response will likely be in care for a few weeks, and so may require care after other response resources have demobilized. In general, the rehabilitation center will continue to operate for three weeks following admission of the last animal into rehabilitation. During that time, as more animals are released and fewer animals remain in care, personnel and equipment resources will be gradually demobilized. After the last animal leaves care, the center should be sanitized and prepared for the next response before closing down.

Attachments

Forms:

1. Wildlife Reconnaissance Survey Form
2. Chain of Custody Intake Log
3. Live Bird/Mammal Log
4. Dead Bird/Mammal Log
5. Codes for Live & Dead Bird/Mammal Logs

1. Incident Name: _____ **2. Observation Team**: _____

3. Date: _____ **4. Time Start**: _____ **5. Time End**: _____

6. Segment Name: _____ **7. Segment No.**: _____

8. Survey Length: _____ ft. **9. Survey Width**: _____ ft. **10. Latitude**: _____ N **11. Longitude**: _____ W

12. Survey Mode: Foot ☐ Vehicle ☐ Boat/Ship ☐ Airplane ☐ Helicopter ☐ **13. Tide Table Data at Start of Survey**: _____ ft.

14. Weather: _____ (Describe Briefly) **15. Beaufort Scale**: _____ (See Chart) **16. Visibility**: < 0.1 mi. ☐ 0.5 mi. ☐ 1.0 mi. ☐ 1.0 mi. ☐ (< 160 m) (800 m) (1.6 km) (> 1.6 km)

17. Round Trip Mileage: _____(miles) **18. Round Trip Driving Time**: _____(hours) **19. Trip Prep Time**: _____(hours)

Species Name (See Four Letter Code Sheet)	No. of Animals	Condition Live/Dead	Oiled Yes/No	Scavenged Yes/No	Band or Tag No.	Photo Yes/No	Toe Clipped Yes/No	Comments on Wildlife (recoverable, catch technique, etc.)
Species Name (See Four Letter Code Sheet)	No. of Animals	Condition Live/Dead	Oiled Yes/No	Scavenged Yes/No	Band or Tag No.	Photo Yes/No	Toe Clipped Yes/No	Comments on Wildlife (recoverable, catch technique, etc.)

Chain of Custody Intake Log
Oiled Wildlife Care Network/Oil Spill Wildlife Response Team

Date: **Station Number:** **Location/Spill Name:**

Intake Number	Field Personnel	Signature	Phone Number	OWCN/OSWRT Personnel	Signature	Time Received	Species	Collection Location

INSERT Attachment 3 - Live Bird/Mammal Log

Station:	**LIVE BIRD/MAMMAL LOG**	Station Manager:
Location/Spill Name:	**OWCN/OSWRT**	Data Collector:

Year of Processing:	Data Recorder:
Page of	Photographer:

Intake No.	Date Coll'ted m/d	Date Arrived m/d	Date Proc'd m/d	Coll'tion Location	Time Proc'd 24 hr	Species	Band Number	Extern. Oil Visible?	Oil not visible but oiled?*	Feather/oil Sample Taken ?	Photo Taken ?	Disp. Status	Disp. Date m/d	Morgue Bag/ Box	Bar Code

*Oil not visible but animal is oiled based on one or more of the following: smell oil, plumage malaligned/parted or sticky, skin wet/not water-proof, skin burns

Station:	**DEAD BIRD/MAMMAL LOG**	Station Manager:
Location/Spill Name:	**OWCN/OSWRT**	Data Collector:

Year of Processing:	Data Recorder:
Page of	Photographer:

Bar Code	Morgue Bag/ Box	Photo Taken?	Feather/Oil Sample Taken ?	Where Oiled	Depth of Oil	%Bird Oiled or Sheened	Oil not visible but oiled ?*	Extern. Oil Visible?	Cond-ition	Band Number	Species	Time Proc'd 24 hr	Coll'tion Location	Date Proc'd m/d	Date Arrived m/d	Date Coll'ted m/d	Intake No.

*Oil not visible but animal is oiled based on one or more of the following: smell oil, plumage malaligned/parted or sticky, skin wet/not water-proof, skin burns

Codes for OWCN/OSWRT Live & Dead Bird/Mammal LOG Forms

Record collection station number and location, year, and get printed names and initials of personnel present at the collection station while the animals listed on the page were processed.

Intake #: Using a different sequence for each station, record I.D. number which animal was given upon arrival.

Date Collected: Record the date on which the animal was collected.

Date Arrived: Record the date on which the animal was brought to the collection station. Include year only if different from year of processing.

Date Processed: Record month and day of processing.

Collection Location: Location from which the animal was retrieved.

Time 24hr: Record the time when processing for this animal began. Use 24hr military format.

Species: Use the standard four-letter abbreviations if the species name is known. If the species is unknown, indicate the lowest taxonomic category that can be determined (i.e. gull; alcid; bird).

Band #: For all recovered birds (live or dead) enter the color and number (i.e. B198 if Blue band #198) or simply the band number (if USFWS band) of the band placed on the metatarsus. If carcass is incomplete, the band can be placed elsewhere (i.e. sternum) or else should be secured to the carcass with string or wire. For turtles or phocids, plastic NMFS tags should be fitted on the hind flipper. For otariids, tags go on front flipper

Condition: (for dead animals only) **1**=freshly dead; **2**=decomposing whole carcass; **3**=body parts only fresh; **4**=body parts only decomposing; **5**=desiccated, mummified carcass.

External Oil Visible: 1=yes; **2**=no, may be jet fuel, diesel, gasoline, vegetable oil, fish oil or other.

Oil Not Visible But Oiled?: 0=no; **1**=yes, smell oil; **2**=yes, plumage malaligned or parted; **3**=yes, plumage sticky; **4**=yes, skin wet/not waterproof; **5**=yes, skin burn.

% of Bird Oiled or Sheened: (for dead animals only) **1**=<2% of body; **2**=2-33% of body; **3**=34-66% of body; **4**=67-100% of body covered; **5**=oil detected but extent undeterminable due to state of carcass; **6**=no oil detected but this may be due to state of carcass; 7=was not evaluated.

Depth of Oil: (for dead birds only) **0**=no apparent oil; **1**=superficial; **2**=moderate; **3**=deep; **4**=tar; **5**=not evaluated.

Where Oiled: (for dead animals only) **0**=no apparent oil; **1**=dorsal side only; **2**=ventral side only; **3**=entire body; **4**=bill/mouth area only; **5**=head only; **6**=wings only/fore flippers; **7**=feet only/hind flippers; **8**=more than one area but not entire body; **9**=was not evaluated.

Sample Taken?: Take a sample from oiled locations. If no apparent oil, take samples from areas that are frequently oiled. **0**=no; **1**=feather/fur sample taken; **2**=tissue sample taken. Place a copy of Intake #, species code, band number, processing date, spill event name, and processing station on both the envelope AND foil in which sample is placed.

Photo Taken?: 0=no; **1**=yes. If yes, attach barcode and write the time it was taken on photo (if Polaroid). In photo itself backdrop should clearly show: date, intake #, species code, and band number, and processing station

Morgue Bag/Box Color/#: Indicate the Color/Number combination of the morgue bag in which the corpse is placed for storage, i.e. Y5 for yellow bag number 5. If morgue bags were placed in boxes for movement or storage, indicate box number here.

Bar Code: Attach bar code sticker.

Notes: Indicate whether any notes have been taken for this animal on the reverse side of the data sheet. On this reverse side write the Intake #; and notes may include any of the following: measurements taken; age, sex or breeding condition if determined; which parts were recovered if body not whole; any conspicuous cause of death if not related to oil (e.g. gun shot wound); and a note if the specimen was known to have been contaminated by other petroleum products (e.g. if it was wrapped in plastic) or other carcasses. Other observations or details of collection can be recorded here.

9720 Volunteer Plan

9720.1 Volunteer Cell Placement Within The ICS Structure (Please also refer to the Volunteer Guidance Manual)

The Volunteer cell is organized under Resources in the Planning Section. The Volunteer cell will be opened upon decision by the Unified Command and notification to the Volunteer Coordinator. The Planning Section, the Resources Unit or the State IC notifies the SVC that volunteers may be needed or that telephone coverage is needed to inform/update the public about the status of volunteer utilization. The cell can consist of one person and one phone line, multiple people and lines, or an entire Volunteer Operations Center (VOC). It can expand as the need expands. All volunteers (except OWCN program volunteers) will be requested through Planning and Resources Section.

9720.2 Health & Safety

A. Human health and safety is the first priority in decisions regarding the use of volunteers at an oil spill incident.

B. California Code of Regulations stipulates that all persons working with hazardous materials, including crude oil, must receive specific health and safety training. Training courses are described in Section _____.

C. Volunteers will not be utilized to work directly in the recovery of oil. Volunteers will not be assigned to work in areas where there is known a potential health hazard due to chemical exposure such as oil recovery, etc.

9720.3 Responsibility For Volunteers

A. The determination to use volunteers at an incident is the responsibility of the Unified Command.

B. The Volunteer Coordinator oversees the volunteer cell activities at the incident.

C. Volunteers may be utilized by RP's in accordance with their oil spill contingency plan procedures or volunteers may be employed as unpaid state workers for the purpose of workers' compensation by the Administrator of the Office of Spill Prevention and Response (OSPR).

D. A volunteer is covered for workers compensation under the State of California only if the OSPR Administrator (or delegate) has sanctioned the use of the volunteers and the volunteer has been officially sworn in. Individuals independently working at the incident site who do not have approval to do so are not entitled to receive benefits. If there is a responsible party (RP), the RP is ultimately responsible for costs.

9720.4 Volunteer Coordinators

A. STATE (SVC)
Office of Spill Prevention and Response
Volunteer Coordinator
Box 944209
Sacramento, CA 94244-2090
Telephone: (916) 324-6250
Fax: (916) 327-0907

*B. AREA (AVC)
(To be selected and listed in each ACP) (Optional)

*C. LOCAL (LVC) (Optional)
(To be selected and listed in each ACP) Optional
Local governments can work together and appoint an area coordinator if local coordinators are not available).

Selection Criteria:

(Refer to the Volunteer Guidance Manual for responsibilities of Coordinators)
Coordinators should be chosen based on availability of staff that meets the criteria. Each area should determine how many coordinators are needed to ensure a program is in place and knowledgeable trained staff is available for volunteer-related incident response. Every city and county does not need to select a local coordinator. However, contact of organizations in the area, development of agreements, and maintenance of a database of trained volunteers when coordinated among several people is more manageable. Of course, staff who are already performing similar functions may be more ideal (OES, Volunteer Centers, Local Govt. Volunteer Coordinators). It is also desirable that the person be interested in the volunteer program and like to network in the community. Other criteria includes:

1. Be available to respond to an incident, if requested.
2. Be familiar with database software or be willing to learn in order to set up a volunteer database if the area or local plans indicate a database of organized volunteers will be maintained.
3. Be able and willing to attend Volunteer Coordinator meetings.
4. Be able and willing to participate in drills that include volunteer issues.

9720.5 Types Of Volunteers

A. Organized - Volunteers who have been registered and trained prior to a spill. OSPR has trained over 100 volunteers in Hazwoper Training. The volunteer's names addresses and

telephone numbers are filed for reference. At the time of this writing, it has not been determined whether the database will be maintained centrally by OSPR for the entire state. An alternative is to have a Volunteer Coordinator at each of the area levels with databases for the areas. (Refer to the Section on Coordinator Planning Responsibilities in the Volunteer Guidance Manual).

B. Convergent - Volunteers who arrive at the scene of a spill and who are not previously registered. They may or may not be experienced and trained.

(Members of the public who are volunteering on their own are not recognized as sanctioned volunteers until brought into the Volunteer cell and registered to perform approved tasks).

9720.6 Volunteer Function Progression Through Stages During An Incident

The following is an overview of a four-stage process for volunteer activity during an incident:

STAGE I - The Incident occurs and the 800 volunteer number is activated. It is unknown whether volunteers will be needed. SVC does not respond to the incident. A press release is submitted for approval to the UC and Public Information Officer.

STAGE II- SVC reports to the incident and refers the 800 line to the incident.

STAGE III- A VOC is set up and coordinated with area centers if agreement is in effect.

STAGE IV- Volunteers are brought in and registered.

A. STAGE I

1. Incident Occurs

2. OSPR Operations Center is opened.

3. OSPR Operations Center begins taking calls from volunteers and volunteer organizations.

4. OSPR Operations Center notifies OSPR Volunteer Coordinator (SVC) that the 800 volunteer hotline needs to be set up to take volunteer calls.

5. SVC asks for an incident status report to put in the 800 message to report to volunteers

6. SVC calls OSPR Telecommunications Specialist and requests the 800 line be taken off of "message only" status and transferred to the Volunteer Coordinator desk with a new recorded message for "off hours."

7. SVC begins taking calls from volunteers and logging the volunteer's name, address, telephone number and brief background (no extensive screening is done at this time as it is not know whether volunteers will be needed at the incident).

8. SVC releases canned press release and prepares other canned flyers that may be revised for the spill.

A sample press release is included at the end of this section.

B. STAGE II

1. Communication begins between UC and SVC

a. Incident Commander or other UC representative requests the SVC to report to the incident.

b. SVC asks UC rep for the telephone number of the telephone where the 800 number will ring, if known.

c. SVC asks UC representative if volunteers are needed. If yes, perform tasks in Stage II and Stage III. If no, Stage II only.

2. SVC may call either Local or Area Coordinator (if one exists) and ask them to report to the incident to represent the Volunteer Coordinator (the Local and Area Coordinators should be trained prior to being called to represent the SVC. Prior to being trained, they may be called to assist).

3. SVC calls the OSPR Telecommunications Specialist and a) asks to have the 800 number transferred to another line; b) gives the telephone number and approximate time it will be needed (time SVC will arrive at the incident); or c) tells the Specialist that he will be called when the number is known.

4. SVC either transfers calls (if frequent) to the Operations Center while enroute to the incident or lets messages go onto the voicemail (if infrequent) while enroute.

5. If Local or Area Coordinator(s) report to the incident, they coordinate with the SVC on the telephones. The SVC would continue to answer the calls while the Local or Area Coordinator is enroute and then fax the information to them.

6. SVC or representative reports to the incident, checks in through Liaison and Resources and sets up the Volunteer Cell.

C. STAGE III

UC requests OSPR Volunteer Coordinator to set up the VOC. The OSPR coordinator may call in a local or area coordinator to assist or to serve as the Volunteer Coordinator in the Volunteer Cell. (The Volunteer Guidance Manual gives detailed set up instructions).

D. STAGE IV

The Volunteer Coordinator in the Volunteer Cell will refer to the Volunteer Guidelines for procedures for organizing the VOC, working with area volunteer centers and operating the VOC.

9720.7 Approved Volunteer Jobs and Training Required
(Listed By Category)

The description of each job listed in this chart follows the chart and is titled, "Volunteer Job Descriptions."

CATEGORY of VOLUNTEER JOB and Noted with "C" if appropriate for Convergent Volunteers

TASK **TRAINING**

ICS/VOC

C OFFICE WORKERS AT VOC and other ICS functions - Performs a variety of general office duties in the VOC or other ICS location or at an OWCN facility. needed. See Data Entry Specialist, File Clerk/Office Asst., Interviewer, Accounts Specialist, Administrative Coordinator/Office Manager, Receptionist, Runner, Scheduler/Time Card Asst., Command Center Administrative Specialist; Training Asst., Housing Asst., Transportation Asst., Supply Asst. 2 Hr. Workplace H&S

****REHAB. FACILITY***

C California Conservation Corps (CCC) will be called out first. Volunteers will be called if CCC needs backup. REHABILITATION FACILITY MAINTENANCE SPECIALIST - May include carpentry, plumbing, welding, or electrical to support the OWCN rehabilitation facility as requested. 2 Hr. Workplace H&S

C OWCN Rehab Facility volunteers will be utilized first.

REHABILITATION FACILITY SUPPORT - See Driver, Equipment Cleaner and Rehabilitation Facilities Specialist; Transportation of wildlife and wildlife food; picks up food from suppliers; loads/unloads coolers; scrubs cages, moves equipment, washes vehicles, washes and folds towels used for drying animals. Cleans office areas at OWCN rehabilitation facility. 4 Hr. Hazcom

OWCN Rehab Facility volunteers will be utilized first.

WILDLIFE CARE WORKER - See Wildlife Care Worker, Wildlife Handler/Washer and Wildlife Monitor; May assist with capture and rehabilitation of wildlife; may cut up fish for wildlife. 24 Hr. HAZWOPER

BEACH

BEACH CLEANUP - Removes tarballs 2 Hr. Workplace H&S

OTHER

FIRST AID RESPONDER - Provides emergency first aid for volunteers and other response personnel 4 Hr. Hazcom

DFG will be called first. If not available, volunteer will be given specifics on what to photograph. VOLUNTEER SUPERVISOR - Monitors volunteers to ensure they are following health and safety practices. TRAFFIC MONITOR - Oversees beach (site) access points to ensure only authorized persons enter; ensures habitat protection. PHOTOGRAPHER - Provides photographic coverage of oil spill events for data collection, damage assessment, historical and for future training. 4-Hr. Hazcom 4-Hr. Hazcom 2 Hr. Workplace H&S

*Refer to the Section "Oiled Wildlife Care Network"

9720.8 Volunteer Job Descriptions

The following are descriptions of the jobs listed above within various categories.

Accounts Specialist - Maintains files and accounts of expenses attributable to the volunteer effort; communicates with the Finance Section of the Incident Command Center to determine accounting needs and system to be used. SKILLS REQUIRED: Must be detail oriented; experienced with 10-key data entry and be familiar with common computer software accounting and spreadsheet systems (e.g., Quicken, Lotus 123) highly desirable. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Administrative Coordinator/Office Manager - Oversees office administrative activities at a Volunteer Operations Center (VOC), in the Volunteer Management cell within an Incident Unified Command Center, or other location; supervises work of file and data specialists; oversees development, maintenance and accuracy of computer and paper files of volunteer records; procures and distributes reports and provides updates to the Volunteer Operations Center Coordinator and the State Volunteer Coordinator as required. SKILLS REQUIRED: Good working knowledge of computer word processing and spreadsheet software, as well as excellent organizational, supervisory and communication skills. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Beach Cleanup - Cleanup of tarballs that may appear seasonally on the beaches and rocky shores. TRAINING REQUIRED: Workplace Health and Safety.

Command Center Administrative Specialist - Provides backup and supplemental skills for Incident Unified Command Center staff. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Computer Operator - Enter personnel information into established computer database. SKILLS REQUIRED: Familiarity with computer use. Particular software may be taught on the job if necessary. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Data Entry Specialist - Enters wildlife and/or personnel information into established computer database(s). SKILLS REQUIRED: Familiarity with computer use. Particular software may be taught on the job if necessary. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Driver - Provides ground transportation services as needed; may transport people using a sedan or van; may transport wildlife and wildlife food to various facilities or sites by truck; loads and unloads coolers used to transport animal food; picks up food from the supplier and delivers to facilities; keeps vehicle bed clean. All driving responsibilities require current driver's license, clean driving record, proof of insurance (if personal vehicle is used). TRAINING REQUIRED: Workplace Health and Safety, Site Safety, 4-hour hazcom if transporting wildlife.

File Clerk/Office Assistant - Performs general office tasks; files documents in office (usually at a Volunteer Operations Center) as appropriate; prepares outgoing memos and mail; sends and receives faxes; makes photocopies. SKILLS REQUIRED: Telephone skills, word processing, and development of graphics presentations. Computer spreadsheet/database experience is desirable but not required. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

First Aid Responder - Provides emergency first aid for volunteers and other response personnel. SKILLS REQUIRED: Current First Aid Certification. TRAINING REQUIRED: 4 Hr. Hazcom

Housing Assistant - Works with the Facilities Unit of the Logistics Section to identify housing for volunteers; receives housing requests; procures and distributes housing materials (sleeping bags, blankets, tents), if necessary; makes housing assignments and maintains expense records related to housing.
TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Interviewer - Works in Volunteer Operations Center (VOC), processing volunteers who arrive in the area or persons referred to the VOC by a county volunteer center; establishes rapport with

prospective volunteers to appropriate tasks or jobs based on their experience and current volunteer job needs in the oil spill response effort. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Photographer - Provides photographic coverage of oil spill incident for data collection, historical documentation, and future training purposes. Experience with still photography and/or handheld video photography is required. Experience photographing wildlife, preferably in documentary and fast-action settings is desirable. Personal photographic equipment needed. (DFG photographer will be called first). TRAINING REQUIRED: 24 hour Hazwoper, site safety.

Receptionist - Greets volunteers arriving at the Volunteer Operations Center (VOC) and directs them through the processing stages. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Rehabilitation Facility Maintenance Specialist - May include carpentry, plumbing, welding, and electrical support to the OWCN rehabilitation facility as requested.
CCC would be called before a volunteer was called. TRAINING REQUIRED: Workplace Health and Safety.

Rehabilitation Facilities Support Specialist - Cleans animal pens and holding areas; moves equipment as needed; washes vehicles; washes and folds towels used for drying animals; cleans and disinfects carrying cages and other contaminated animal capture and transport equipment, following established protocols. TRAINING REQUIRED: 4-Hr. Hazcom

Runner - Shuttles messages and materials among incident locations, such as between the VOC and UC or to a Rehabilitation facility or other oil spill response sites. Valid driver's license required. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Scheduler/Time Card Assistant - Assures maintenance of sign-in and sign-out records for volunteers; ensures that all volunteers on site are properly cleared and trained (and are not exceeding scheduled hours, in accordance with the Incident Commander's guidance); develops and monitors scheduling to ensure that sufficient volunteers are on hand at all times, according to the needs of the sites, facilities and staffs. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Supply Assistant - Assists with identification of volunteers' logistical requirements and with issue and control of personal equipment and supplies to volunteers deployed to oil spill sites. Experience is desirable in ordering, issuing, stocking, accounting for maintenance and recovery of items of equipment and supplies from user personnel.
TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Traffic Monitor - Overseas beach (site) access points to ensure only authorized persons enter; ensures habitat protection. TRAINING: 2-hour Workplace Health and Safety, Site Safety.

Training Assistant - Coordinates required training for volunteers; arranges for class presentations by trainers; oversees audiovisual equipment and programming, determines appropriate training and availability for each volunteer; schedules volunteer training sessions to meet multiple training requirements; presents training classes as appropriate. SKILLS REQUIRED: excellent organizational and communications skills. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Transportation Assistant - Works with the Transportation Unit of the Logistics Section to determine volunteer transportation needs including frequency, routing and type of transportation (private car, state vehicle, van, truck, commercial shuttle, bus); determines volunteer drop-off and pick-up schedules for multiple sites; coordinates and verifies appropriate volunteer driver authorizations; monitors vehicle condition and maintenance among vehicles assigned to volunteer use (from government agencies or private industry pools) in accordance with guidance of the UC and maintains appropriate vehicle use records. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Volunteer Supervisor - Monitors volunteers to ensure they are following health and safety practices. TRAINING REQUIRED: Workplace Health and Safety, Site Safety.

Wildlife Care Worker - Captures wildlife. OWCN facility handles. Volunteer is utilized only if OWCN exhausts resources. TRAINING REQUIRED: 24 Hr. Hazwoper, Site Safety.

Wildlife Handler/Washer - Helps move animals in and out of transport carriers; restrains wildlife for veterinary examination and at the wash table; performs repeated washing and rinsing of oiled wildlife. TRAINING REQUIRED: 24 Hr. Hazwoper, Site Safety.

Wildlife Monitor - Conducts behavioral observations on cleaned animals; responsible for monitoring health of one to four animals at a time; keeps detailed records of animal behavior, condition, and overall health; feeds animals; communicates observations and perceptions to animal husbandry supervisor or veterinarian; may also be involved in post-release wildlife tracking and monitoring. TRAINING REQUIRED: 24 Hr. Hazwoper, Site Safety.

9720.9 Training Course Descriptions

In the best interests of all concerned, volunteers will be given appropriate training before being assigned. This may cause delays in assignment if the volunteer has to be trained at the spill site, but will avoid needless injuries. Volunteers must be trained to perform the tasks they are asked to do. An inexperienced and untrained volunteer will not be assigned to perform a task requiring training and/or experience.

1. 24-hour HAZWOPER Training - Is for volunteers identified prior to a spill that will back up the Oiled Wildlife Care Network (OWCN) capturing oiled birds and mammals. They would be in the hot or warm zone, within permissible exposure limits. OWCN has primary responsibility for capture and care of oiled wildlife; therefore, other volunteers will be called in only when the capacity of OWCN is exhausted.
2. 8-Hour annual HAZWOPER refresher training is required for volunteers who have had the 24-hour training. The State Department of Fish and Game, Office of Spill Prevention and Response will provide refresher training for a pre-determined number of volunteers who are identified as OWCN backup.
3. 4-Hour HAZWOPER - If the supply of 24-hour Hazwoper trained volunteers is exhausted and more are needed to backup OWCN at an incident, 4-hour on-scene HAZWOPER training will be given for those volunteers. Individuals trained at the 4-hour level may use this training only once, at a single incident. If the individual finds that they may need to attend future spills, this person must secure training at the appropriate level.

4. 4-hour Hazard Communication (Hazcom) Training - For volunteers who would be a backup in the rehabilitation facility. There is no refresher. The volunteer cannot be in the warm or hot zone.

   The 4-hour HazCom includes:

   a. Fundamentals of Toxicology
   b. Chemical/physical properties of Petroleum products
   c. Physical Hazards (noise, thermal, lifting safety, slips, trips and falls, electrical safety.
   d. Biological hazards (zoonotic diseases, soil/water borne diseases; snakes, spiders and insects of concern).
   e. Personal protective equipment (boots, gloves, worksuits, safety glasses, hearing protectors).
   f. Decontamination of personnel and equipment
   g. Reporting injuries, worker compensation forms, and deadlines

5. 2-hour Workplace Health and Safety Training will be conducted onsite for volunteers who will be working in the support zone (not be in the warm or hot zone). For example, tasks could include
   a. clerical, phone, pre-beach cleanup, transportation of animals, etc. The 2-hour training includes:
   b. Physical hazards (safe lifting; slips, trips and falls; general office ergonomics; general electrical safety.
   c. Chemical hazards (toner, disinfectants, rubber cement, etc.)
   d. Safe driving
   e. Rest breaks/replacement for exhausted workers
   f. Reporting of injuries, worker compensation forms, and deadlines
6. Site Safety Training (approximately 5-20 minutes) to orient the volunteer of hazards at the site of the spill.

*HAZWOPER - Title 8, California Code of Regulations (CCR), Section 5192 (It is the same as 29 Code of Federal Regulations 1910.120.

9720.10 Oiled Wildlife Care Network (OWCN) Rehabilitation Facilities

OWCN Affiliation to the Volunteer Program -The State of California, Department of Fish and Game, Office of Spill Prevention and Response, has a Memorandum of Understanding with various wildlife rehabilitation facilities statewide. The program is called the "Oiled Wildlife Care Network" (OWCN). The facilities capture, clean and rehabilitate oiled animals.

OWCN Facilities Utilization of Volunteers -OWCN facilities has both paid and unpaid workers and both may be called "volunteers." If they need more volunteers to respond to a spill, the Incident Volunteer Coordinator (Volunteer Cell) may refer volunteers to them to screen for

wildlife capture or may screen and refer volunteers to them for backup tasks (building, electrical, wildlife washing, etc.).

How OWCN is activated during a spill -The UC will call the rehabilitation facility directly (through the wildlife care unit).

Paid Vs. Unpaid and Workers Compensation Entitlement - For the purposes of the ACP and Local Contingency Planning, to be entitled for State benefits, the volunteer cannot be a paid worker. If the "volunteer" is paid, the rehabilitation facility is responsible for the volunteer's benefits. If the volunteer is unpaid, the State will cover the benefits. In both cases, as previously stated, the RP is ultimately responsible for costs.

Unpaid volunteers must be sworn in to be deemed a State employee and be entitled to workers compensation, using form Std. 689.

9720.11VOC Location

Each ACP is to insert alternate locations here. The following criteria may help in the selection:

A facility designated should have adequate facilities for central registration, training, assignment, deployment and demobilization of volunteers. The location of the Volunteer Operations Center should be close enough to the focus of activity to be efficient without interfering with site operations. The following should be considered:

1. Estimated number of volunteers expected
2. Types of assignments necessary
3. Locations and times needed
4. Parking
5. Accessible
6. Adequate space for registration, training, etc.
7. Adequate sanitary facilities
8. Multiple phone lines available or can be put in
9. Outlets for fax, and Xerox.

9720.12 Press Releases

The initial press release included with this section is revised to fit the incident and released (in Stage I described above) through the Public Information Officer. As the incident progresses and the status of volunteer utilization changes, the Volunteer Coordinator writes additional press releases and sends them to the Public Information Officer or the JIC manager for approval or editing and distribution to the media.

CONTACT:	Cindy Murphy	**DATE:**	
PHONE:	916-324-6250	**TIME:**	

VOLUNTEER HOT-LINE ACTIVATED

(City Name) — In response to the approximate ____-gallon oil spill in/at _____, the California Department of Fish and Game's Office of Spill Prevention and Response (OSPR) has activated the Volunteer Hotline: **800-228-4544**. Hotline staff will record the caller's name, telephone number and applicable skills or training, and let the caller know whether or when volunteers will be utilized for spill response, and other event-specific information as needed.

Federal, State, and local governments, in a cooperative effort, have determined what tasks are appropriate for volunteer effort, have identified and pre-trained an existing group of volunteers statewide, and have developed a system to activate those volunteers. The system will be activated if the Unified Command at the spill decides that volunteers are needed for the response effort. At that time, a volunteer operations center will be established, and if additional volunteers are needed, the hotline listing will be publicized through the news media.

Volunteers and other people are advised to stay away from the spill site, as their presence can hamper clean-up efforts and increase danger factors. Oil is a hazardous material, and to work in or near the oil, one is required to complete 24 to 40 hours of training in Hazardous Waste Operations and Emergency Response (HAZWOPER). Additionally, for the safety of both the public and animals, only trained wildlife specialists should attempt to handle oiled wildlife.

The public can help at this time by reporting any oiled animals to (name of Rehab Facility), at telephone ____, or (name of 2nd rehab facility) at telephone ____. These facilities belong to the statewide Oiled Wildlife Care Network (OWCN), organized and directed by the OSPR, to focus on individual oiled animals and their survival after an environmental disaster. Modern technology, properly equipped facilities, and new care and rehabilitation protocols standardize care throughout the OWCN, increasing survival rates. The less contact any wild creatures have with humans, the better for the animals.

9730 Salvage

This section describes marine salvage.
Note: The Coast Guard Captain of the Port has jurisdiction over vessel salvage situations occurring within his/her zone; this does not preclude any other agencies' interests with respect to spill response.

A vessel casualty and oil spill or potential oil spill, may require the following responses:

(1) Search and rescue
(2) Oil spill containment/clean-up
(3) Fire fighting
(4) Vessel salvage

The first priority in a vessel casualty is the safety of the crew and any other personnel in the area. Secondary concerns are for environmental protection and vessel salvage. A casualty-scene information that will become essential to the early efforts at salvage should be completed by the responders aboard the vessel.

1. Search and Rescue Operations.

The SAR (Search and Rescue) Mission Coordinator (SARMC) will respond by deploying Coast Guard resources. This individual will be the local Coast Guard Group Commander or District Commander whose zone includes the vessel casualty. Upon notification, the Coast Guard will designate the SARMC and respond, as necessary, with on-scene resources.

2. Pollution Response Operations.

The Federal On-Scene Coordinator will ensure pollution response efforts are conducted in accordance with this plan. However, pollution response operations will be accomplished on a not-to-interfere basis with search and rescue operations. While pollution response clearly takes priority over salvage efforts, the two responses may necessarily be conducted concurrently. Salvage operations could be critical to preventing any further discharge of oil. The FOSC will prioritize actions to avoid interference between salvage and pollution response efforts.

3. Fire Fighting.

Refer to section 8000 of this plan and the Local Marine Safety Office Burning Ship Contingency Plan for marine fire fighting activities.
The salvage issues regarding firefighting should be considered while fire fighting activities are being completed. The de-watering, ballasting, and counter-flooding aspects of fire fighting will be coordinated by the FOSC. Follow on issues of hull integrity due to weakening from heat fatigue must be considered in the salvage effort.

4. Salvage Operations.

Salvage is a term used to describe all services rendered to save property from marine peril. This broad definition encompasses not only actions undertaken to save a vessel or cargo, but also includes wreck removal, harbor clearance, and deep water search and recovery.

Salvage includes:

- Providing firefighting assistance.
- Refloating a vessel from a stranding.
- Offloading cargo or water to prevent foundering, or removing sound cargo from impending peril.
- Shoring, patching and making temporary repairs to correct structural, stability, or mechanical problems.
- Rescue towing of an incapacitated vessel to a safe haven.
- Preventing pollution.

Salvage Tug

A Salvage tug is a tugboat equipped to attend to vessels in distress in coastal or ocean conditions, and to render assistance either by towing, provision of pumping equipment, or similar aid. Such tugs historically have been large, powerful, and stationed at high-risk locations for ship traffic.

Rescue Tug

A rescue tug is generally a "tug boat of opportunity", having adequate horsepower or bollard pull strength to assist in controlling a distressed vessel until salvage resources arrive. A rescue tug would generally be capable of providing emergency towing, and quite possibly render a degree of firefighting assistance, since many of the newer tugs are equipped with firefighting water monitors. Rescue towing involves taking an incapacitated vessel under tow at sea and towing it out of harm's way, generally to a safe haven or port, but sometimes for beaching.

Salvage Masters

In order to conduct a proper salvage you must have someone in charge that has the knowledge of how to respond to the specific situation. The person in charge of a salvage operation is known as the salvage master.

A Salvage Master should have direct experience in ship salvage, demonstrating experience in the use of salvage ships and craft, ground tackle, heavy lift craft, cranes and booms, oil pollution containment equipment, and all ancillary types of salvage equipment (e.g. pumps, compressors, welding equipment, etc.). The salvage master acts under the direction of the FOSC; he generally assumes complete control of salvage, harbor clearance, and related engineering operations.

9731 Federal Salvage Resources

9731.1 Navy Supervisor of Salvage Assistance (SUPSALV)

In the event that the Responsible Party does not respond to the casualty, the federal government may respond to the salvage requirement, utilizing the services of Navy Supervisor of Salvage. However, financial responsibility remains with the responsible party.

Navy Supervisor of Salvage services may be obtained by:

a. Telephoning Supervisor of Salvage Operations **(202) 781-3889**
After hours and weekends (NAVSEA Duty Officer) **(202) 781-3889**

b. Initiating a message to: CNO WASHINGTON DC//N312/N866//

Add the following if applicable:

//N45// for oil pollution
//N873// for diving support

Info copy to: COMNAVSEASYSCOM WASHINGTON DC//OOC//

Message text should include a brief description of services required; location; urgency; point of contact; and telephone number. If the task is urgent and requires immediate mobilization, the message should amplify this and include a statement that funding will be provided by separate correspondence.

SUPSALVAGE can provide the services of naval architects, may provide the services of naval salvage vessels, and has access to contracts, which will provide the services of commercial salvors and equipment. SUPSALVAGE developed and has available software for rapid analysis of longitudinal strength and intact/damaged stability. The software is known as Program of Ship Salvage Engineering (POSSE).

9731.2 US Coast Guard Marine Safety Center Support

Technical support is also available from the Marine Safety Center (MSC) Salvage Team. This group can evaluate vessel stability, hull strength and salvage plans, and may also be available for on-scene assistance. The MSC may be able to provide vessel plans if the ship is U.S. flag. The Federal On-Scene Coordinator may obtain services of MSC by calling **(202) 366-6481** during business hours, or by calling FLAGPLOT at **(202) 267-2100**, after hours. The checklist should be completed and faxed to the MSC at the earliest opportunity. The Marine Safety Center fax number is **(202) 366-3877**.

9731.3 U.S. Coast Guard Pacific Strike Team

The Pacific Strike Team can be on the scene quickly to provide initial response assistance with pumps, personnel, pollution control equipment, and miscellaneous salvage hardware. The Strike Team can be contacted 24 hrs a day **at (415) 883-3311**. The National Strike Force Coordination Center in North Carolina can also be notified at **(252) 331-6000.**

9732 ***Potential threats***

The threat is greatest from cargo vessels that carry hazardous materials in large quantities, such as break bulk; containerized cargoes; dangerous liquids; and pressurized or liquified gases. Vessels that are regulated, such as oil tank ships and barges, pose a substantia l threat to the marine environment, they have been the main target of federal and state oil spill prevention regulations. Yet, in some cases it is the unregulated cargo vessel that may pose a bigger potential pollution hazard. There are far more cargo vessels than tank vessels, cargo vessels may carry more bunker fuel than the cargo capacity of some oil barges, additionally, cargo or freight vessels may be carrying products far more hazardous in nature than oil.

9733 *Salvage Response Considerations*

This section describes salvage situations and the general guidelines to follow in responding to a salvage situation. In addition, this section also describes actions to be taken in response to vessel strandings, the relationship between the on-scene coordinator, the responsible party, the vessel's master, and the salvor. Information pertaining to salvage procedures was adapted from Chapter 8 of Volume I of the U.S. Navy Salvage Manual. All parties involved in a salvage response should refer to the manual for specific information relating to salvage techniques.

Salvage efforts may be divided into three phases: stabilization, refloating, and post-refloating. During the stabilization phase, salvors take steps to limit further damage to the vessel, and to keep the ship from being driven harder aground or broaching. Response leaders gather information and formulate a salvage plan; that plan specifies actions to be taken during the refloating and post-refloating phases of the salvage. The refloating phase commences when the salvage plan is executed and ends when the ship begins to move from her strand. During post-refloating, the vessel is secured and delivered to the designated port facility.

Parties involved in salvage response should refer to Chapter 8, Volume I of the U.S. Navy Salvage Manual for specific information relating to salvage techniques.

9733.1 Stabilization Phase:

This phase of operations must take into account the potential discharge of oil and hazardous substances into the environment. Upon stranding the Vessel's master SHOULD take the following steps:

1. Have ships personnel report to their emergency stations.
2. Take action to determine the vessel's condition and stabilize the vessel.
3. Secure watertight closures.
4. Notify Coast Guard and vessel's Operations center.
5. Request salvage assistance.
6. Note course and speed at time of stranding.
7. Obtain and provide if necessary, accurate cargo stowage plan.
8. Evaluate the following:
    - Safety of personnel
    - Weather and sea conditions
    - Forecast for change in weather and sea conditions
    - Nature of the sea floor and shoreline.
    - Depth of water around ship
    - Ground reaction
    - Damage to hull
    - Damage to shafting, screws, and rudder
    - Risk of further damage
    - Prospect of maintaining communications
    - Ground reaction
    - Likely draft and trim after refloating

- Potential for discharge of pollutants
- Position of vital and cargo systems' valves
- The liquid level of all tankage (e.g. fuel, ballast, cargo, etc.)

The Vessel's Master should not:
1. Jettison weight to lighten the vessel in an attempt to back the vessel off.
2. Attempt to back the vessel off when the bottom is torn open.
3. Fail to take action to stabilize the vessel and to determine its condition.

The Vessel's Master should request salvage assistance immediately, and not delay pending the results of an early attempt to refloat the vessel. If the damage assessment indicates the vessel is not in danger of broaching, sinking or capsizing, the master may attempt to back the vessel clear using full engine power on the next high tide.

The Responsible Party should take the following steps:
1. Contact the Coast Guard. Provide a current status of the situation.
2. Implement a Unified Command System response organization.
3. Identify salvage resources available and determine time required for those resources to arrive on scene:
   - Salvage Master
   - Salvage Vessel's
   - Tug Boats
   - Beach Gear
   - Barges with Ground Tackle
   - Lightering Resources
   - Lifting Vessels
   - Appropriate portable cargo transfer pumps and hoses
   - Hull patching equipment
4. Initiate salvage response. Over-estimate the quantity of resources needed.
5. Keep the vessel's master informed of all actions taken.
6. Obtain the services of a Naval Architect.
7. Conduct damage stability and longitudinal strength calculations.

Upon being assigned responsibility for the salvage action, the salvor should:

- Advise the vessel that he (his organization, vessel, etc.) is enroute to assist, and provide ETA (estimated time of arrival) on-scene.

- Ensure that the master is aware of the information covered in the proceeding paragraphs that relates to early attempts to refloat the vessel.

- Obtain all information available regarding the vessel's particulars and details of the stranding. This should include:
  - An accurate position of the stranding (latitude/longitude)
  - Means used to fix position
  - Drafts at time of sailing
  - Estimated drafts at time of stranding
  - Applicable chart numbers
  - Drafts after stranding, with state of time and tide
  - Soundings along side from forward to aft, corrected to datum of the chart of the area

- Soundings of all tanks and voids, noting changes in contents
- Ships course and speed at time of stranding
- Ships heading after stranding and details of changes
- Liveliness of the vessel in response to swells and surf
- Weather conditions
- Sea and current conditions
- Extent of vessel damage
- Location of grounding points and estimated ground reaction
- Seafloor type
- Status of vessel's machinery and piping systems
- Vessels loading plan or cargo manifest
- Amount and location of hazardous substances
- Locally available resources (tugs, cranes, bulldozers)

Upon arrival, the salvage ship or vessels, and personnel should conduct damage control and position stabilization. Damage control actions may range from augmenting the ship's crew, to conducting firefighting and flooding control. Position stabilization consists of securing the ship at the first opportunity to prevent it from broaching or being driven further ashore.

Prior to developing a salvage plan, the salvor must conduct a thorough salvage survey of the vessel and its immediate surroundings. The survey is defined in the Navy Salvage Manual as being comprised of: the preliminary survey; the detailed hull survey; the topside survey; the interior survey; the diving survey; the hydrographic survey; and the safety survey. The salvor should refer to Section 8-2.6 of Volume I of the Navy Salvage Manual for details. The information should be recorded on the salvage survey form included in Appendix I, Chapter 8, Volume I of the Navy Salvage Manual, or an equivalent.

Based on information received from the vessel, the salvor should evaluate the following:
1. Vessel's original estimates of ground reaction and freeing force.
2. Stability afloat and residual strength.
3. Ship's machinery condition and retraction power available locally.
4. Ship's ability to proceed to a safe haven after refloating.

The salvor should then advise the master based on these evaluations, and takes the following steps to mobilize the salvage force:
1. Determine personnel and material required
2. Collect information about the stranded ship. Sources include:
    - Owner
    - Vessel's classification society
    - Coast Guard
3. Ensure needed navigation material is on board.
4. Begin recording written record of information and actions taken.
5. Ensure that salvage vessels enroute will be prepared to respond upon arrival to the stranding site.

Upon arrival (in coordination with the response organization/OSC where applicable), the salvage master should conduct damage control and stabilization. Damage control actions may range from augmenting the vessel's crew for firefighting and flooding control. Position stabilization consists of securing the vessel to prevent broaching or being driven further ashore. The salvor must then, in preparation for the development of the salvage plan, conduct a thorough salvage survey. This

survey is defined and described in the Navy Salvage Manual, Volume 1 Section 8-2.6, as being comprised of the preliminary survey, a detailed hull survey, a topside survey, an interior survey, a diving survey, a hydrographic survey and a safety survey. The information gathered during the surveys should be recorded on a survey form as found in Appendix of the aforementioned manual.

1. Basic information identifying the ship's characteristics and the condition of the stranding.
2. An analysis prepared by the salvor and naval architect, which provides estimates of:
    - The ground reaction
    - The freeing force
    - Location of the neutral loading point (point at which weight can be added w/out change in ground reaction)
    - Stability - grounded and afloat
    - Strength of hull girder, damaged areas, attachment points, and rigging
    - A summary of the engineering rationale employed for selection of retraction and refloating techniques
    - Hydrographic information
    - Potential pollution risks
3. List of specific safety hazards involved
4. Potential pollution risks
    - Lightering Considerations
    - Booming Considerations
    - Standby Equipment
5. Means for controlling interference between pollution response efforts and salvage efforts
6. Appendices that provide detailed information regarding techniques to be employed.
7. Location to which the vessel will proceed following refloating.
8. Means for controlling the vessel as it is freed.
9. Vessel escort, if any, to be employed.
10. Means for delivering vessel to destination (tow, own power).
11. Any preparation of vessel necessary to gain permission for entry into port of destination.
12. Means of disposal, if other than above.

9733.2 Refloating Phase:

The salvage plan is implemented during this phase. The plan should be considered a flexible working plan with appropriate changes made in response to changing conditions. During this phase, all parties must be in close communication, and the process should be brought to a halt if significant safety problems develop. The salvor, responsible party, and the Captain of the Port have the authority to stop salvage operations in this case.

Consideration to assuring that the problem will not be made worse must be addressed thoroughly. In the case of a heavily damaged vessel, the risk to the port and the environment may not warrant allowing the vessel to be brought into the harbor. In some cases, it may be desirable to allow the vessel to sink in deep water to mitigate environmental damage, or minimize risk to life. Obviously, these are decisions that will have all parties in the salvage effort fully involved, and the FOSC must take the lead to assure that the best management of the incident/threat is achieved.

Working with the Responsible Party and the naval architect, the salvor must develop a salvage plan. The plan must detail actions to be taken and resources to be used, and it must set organizational responsibilities and the anticipated schedule. **After the plan is prepared and**

prior to initiating salvage operations, the Responsible Party must submit the plan to the Federal On Scene Coordinator or his designated representative, for review. The Federal On Scene Coordinator will review the plan, and approve or disapprove it based upon real or potential risks to port safety and the environment. Any plans for the intentional jettisoning of cargo will be reviewed as part of the salvage plan.

9733.3 Post Refloating Phase:

(1) This phase commences when the ship begins to move off the strand, and is completed when the ship has been delivered to a safe haven or repair facility. In addition, salvage resources and equipment should be removed from the salvage site. The options for disposal of the vessel include:

- Steaming into port, or to another location within the port
- Towing to safe haven
- Anchoring in preparation for tow or temporary repairs
- Beaching if the ship is in danger of sinking
- Scuttling or sinking

(2) The following salvage plan items are to be updated, as necessary, following refloating:

- Overall seaworthiness
- Vessel's bottom, for damage hidden by the strand
- Condition of piping systems and machinery
- Condition of all ship's systems necessary for the transit
- Ship's stability, list, and trim (may necessitate loading or shifting of weights)
- Patching and pumping arrangements for compartments in way of damage
- Towing bridle, day marks, and navigation lights (an insurance line should be rigged even when the ship proceeds under its own power)

(3) Following this phase, the Responsible Party shall submit a completed form CG2692 to the Officer in Charge of Marine Inspection and submit all requested information to the Senior Investigating Officer of the Marine Safety Office.

9734 *Salvage Response for Other Than Strandings*

Salvage assistance may also be required for vessel sinking and rescues (towing). In these cases, the relationships between the various parties remain the same as for strandings. For sinking, the salvor must focus on methods for refloating the vessel, and vessel stability as it is refloated. For rescue situations, development of a comprehensive salvage plan may not be necessary. Use of good marine practice in establishing and maintaining the tow, and coordination with the vessel's master, tow vessel, Coast Guard SARMC, the Captain of the Port, and the vessel's owner/operator may suffice. In either of these cases, the user of this plan should follow the guidelines presented, adapting them to the specific salvage requirements at hand.

9740 NRDA Procedures

9741 *Introduction*

The overall goals of the natural resource damage assessment (NRDA) process are to restore the injured natural resources to pre-spill conditions and to obtain compensation for all documented losses and is a separate process from response. In general, this process may require several phases to complete, including the individual phases of documenting injuries, assessing damages, settling claims, and undertaking restoration programs. This document addresses the NRDA process only during the initial stages while response efforts are underway. This document attempts to describe the NRDA process, identify the principle participants in NRDA activities, and clarify the relationship of NRDA within the framework of the Incident Command System (ICS). Additional information is provided concerning funding for NRDA activities and the requirements for specific federal, state, and local permits necessary to collect information for assessments of natural resource damages.

It is highly desirable for natural resource trustees to coordinate their NRDA activities and to consult with local governments and interest groups from the affected area to produce a single NRDA for all injuries to public trust resources. The trustees are encouraged to coordinate these activities with the efforts of a cooperative responsible party (RP) to the extent that trustee responsibilities are not compromised.

9742 *Background And Structure*

Significant oil spill incidents initially lead to two primary actions: a response to contain and cleanup the spilled oil, and an assessment of the injuries to natural resources caused by the pollutant. In 1990, Congress enacted the Oil Pollution Act (OPA 90; 33 U.S.C. 2701 et. seq.). OPA 90 authorizes Federal resource trustees (Department of Agriculture, Department of Commerce, Department of Defense, Department of Energy, Department of the Interior), State resource trustees (designated by the governor of each state), federally-recognized Indian tribes, and foreign trustees to seek compensation for injuries to natural resources caused by the discharge of oil. For purposes of this document, these groups are referred to as either "trustees" or "trustee agencies". In California, the Governor has designated the Secretary of the Resources Agency and the Secretary of the California Environmental Protection Agency as the State Trustees for natural resources within their purview. The Lead State Trustee generally is selected based upon the types of natural resources affected by the spill.

Damage assessments for natural resources shall be coordinated by representatives from each of the trustee agencies with affected resources. These trustee agencies typically work as a team to develop a single approach to the assessment process. The "NRDA Team" consults with members of government and interest groups from the affected area to address local concerns. Cooperative RP(s) may be invited to participate with the NRDA Team activities to develop one unified NRDA plan for public trust resources. A cooperative damage assessment could reduce costs by eliminating parallel assessments by the trustees and the RP. However, due to the statutory responsibilities, the trustees must maintain management and oversight of any cooperative damage assessment.

9742.1 NOAA Regulations

The National Oceanic and Atmospheric Administration (NOAA) promulgated final regulations for NRDA of injuries resulting from a discharge of oil (15 C.F.R. Part 990). NOAA published

the final rules on January 5, 1996 in the Federal Register (61 Fed. Reg. 440). These regulations supersede the Department of the Interior's (DOI) NRDA regulations (43 C.F.R. Part 11) implementing portions of the Comprehensive Environmental Response, Compensation and Liability Act (42 U.S.C. 9601 et. seq.) (CERCLA) and the Clean Water Act (33 U.S.C. 1251 et. seq.) (CWA) for oil spills. Any assessment of damages prepared in accordance with the regulations promulgated by NOAA shall have the force and effect of a rebuttable presumption of correctness on behalf of the trustees.

In addition to the final NRDA rule, NOAA has developed guidance documents covering various aspects of the NRDA process. The NOAA rule has similar advantages to the DOI rules but is more specific to oil-related injuries and the dynamics following an oil spill incident.

9742.2 California's Oil Spill Prevention and Response

The California Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPRA) was enacted shortly after OPA 90. Under OSPRA, spillers are held strictly liable for damages, including natural resource damages, resulting from a discharge of oil into marine waters of the State. Damages can be sought under federal or state law or both but may be claimed by trustees only once. Double recovery of damages is not permitted. Hence, it is imperative with spills of significance that Federal and State trustees consider the interests of affected local governments and coordinate claims for all public trust natural resource damages. The monetary damages based on NRDA activities are compensatory in nature to the public and, therefore, are separate from fines and penalties that are largely punitive to the responsible party.

9742.3 CERCLA and Clean Water Act

CERCLA, enacted in 1980, authorizes Federal and State governments and federally recognized Indian tribes to act as public trustees of natural resources and pursue damages from the RP(s) for injuries to natural resources caused by release of a hazardous substance. Section 1321 of the Clean Water Act authorizes the trustees to assess damages to natural resources caused by a release of oil. Pursuant to CERCLA and CWA, the DOI promulgated the first NRDA regulations ("DOI Rules") establishing procedures that trustees may follow. The procedures, as modified by *Ohio* v. *U.S. Dept. of the Interior*, 880 F.2d 432 (D.C. Cir. 1989) and *Colorado* v. *U.S. Dept. of the Interior*, 880 F.2d 481 (D.C. Cir. 1989), provide guidance for measuring injuries to natural resources and quantifying damages (dollars) for the injuries.

The DOI issued a revised final NRDA rule for Type B assessments on March 25, 1994 (59 Fed. Reg. 14262) and a proposed rule for economic valuation on May 4, 1994 (59 Fed. Reg. 23098), in response to the Ohio decision. The DOI also issued a revised Type A (simplified) assessment rule on May 7, 1996 (61 Fed. Reg. 20560). The overall framework set forth in the DOI rules is the basis for NOAA's NRDA regulations. It is also important to understand the procedures and standards set forth in the DOI rules because CERCLA still applies to oil spills in which the oil is mixed with a hazardous substance as defined in 42 U.S.C. 9601(14).

9742.4 Assessment Procedures

The assessment procedures set forth in the DOI rules are not mandatory. However, they must be used by trustees to obtain a rebuttable presumption that a specific assessment of damages is correct. The DOI rules set out two types of assessment procedures. The "Type A" procedure uses a computer model to calculate damages and is a simplified assessment process. The "Type B"

procedures involve more comprehensive assessment activities but may be tailored for individual cases.

Five steps are described in the DOI rules for determining and quantifying injury to resources and assessing monetary damages. The steps include: (1) conducting an initial preassessment; (2) conducting a preassessment screen; (3) preparing an assessment plan; (4) conducting the assessment following either the "Type A" or "Type B" rule; and, (5) preparing a post-assessment report. Although the regulations provide the option for the trustees to use either "Type A" or "Type B" procedures in a given case, both may be employed in practice as long as there is no double recovery of damages. The speed and simplicity of the "Type A" procedures may prove useful for certain spills or types of injury, whereas the "Type B" procedures may be used if a full assessment is warranted.

NOAA has identified three phases to a damage assessment: (1) Preassessment; (2) Restoration Planning; and, (3) Restoration Implementation. If injuries to natural resources or the services provided by natural resources are expected to continue following response actions, and feasible restoration alternatives exist to address those injuries, then trustees may proceed beyond the Preassessment phase to Restoration Planning and Implementation.

9742.5 Injuries and Lost Services

Initial steps in the NRDA process require documentation of a pathway for the spilled oil, demonstration of oil exposure (direct and indirect) with specific resources along the pathway, and quantification of the injuries caused by the spilled oil. Natural resources and/or the services provided by such resources may be injured or disrupted through direct or indirect exposure to released substances.

The methods used to assess the injuries arise largely from scientific practices and best professional judgement. The DOI rules and NOAA rule provide guidance on specific types of biological injuries (e.g., death, physiological malfunctions such as decreased reproductive capacity) that may be used to claim damages. The scope of possible injuries extends beyond impacts to single organisms and may include effects on populations, habitats, and ecosystems. "Services" include physical and biological functions provided by the natural resources to the ecosystem as well as other functions related to human use of the resources. Production of food, protection from predators, maintenance of community diversity, and provision of habitats are examples of some services provided to the ecosystem or its constituents. Examples of services provided to humans by natural resources include recreational opportunities such as fishing, wildlife viewing and beach activities. Other services provided by resources to humans are often less visible and can relate to the knowledge that a resource exists and is healthy or will continue to exist for the benefit of future generations.

9742.6 Preliminary Damage Estimates

Expected damages should be estimated as soon as possible to determine the potential scope of the case and the prudence of undertaking certain types of studies. Preliminary damage estimates should include: (1) the reasonable costs of injury assessment, (2) the cost of restoring, rehabilitating, replacing or acquiring the equivalent of the injured resources; and, (3) the value of interim losses including both direct use (e.g., recreational) and passive use (e.g., existence value) of resources pending restoration or natural recovery.

9742.7 NRDA Process

Successful pursuit of NRDA actions, either by the trustees alone or in cooperation with the RP(s), is a complex process comprising numerous tasks that generally involve the interaction of scientists, economists, lawyers, and administrators. The DOI rules and NOAA rule reduce some of the complexity by establishing an assessment process and providing a mechanism for determining the merits of going forth with the assessment and claim. The process provides a record of the trustees' decisions.

Other advantages to following the federal regulatory assessment processes may warrant use of the procedures. Results obtained by following the DOI and NOAA rules are presumed correct. The rebuttable presumption shifts the burden of proof to the party challenging the correctness of those results. Additionally, these rules provide national standards on injury measurement, describe methods for quantifying natural resource injuries into monetary values, and assist trustees in planning restoration of impacted resources.

9743 *NRDA and the ICS*

The Incident Command System (ICS) is an organizational framework designed to efficiently and effectively manage personnel and resources during emergency incidents. The system is designed to be adaptable to any size event, and can be changed in structure to conform to the needs of the response. One objective of the ICS is to reduce or eliminate the duplication of efforts by the numerous response agencies while attempting to control or contain the spill and mitigate possible impacts of the spilled oil. A small group consisting of the On-Scene Coordinator (OSC), the State Incident Commander (State IC), and a representative of the RP form the Unified Command (UC), coordinates and directs the actions of the response.

Concerns of the affected local governments related to spill response or cleanup are generally presented to the UC through a Multi-Agency Coordination (MAC) group representative. The local government claims for spill damages associated with services provided by natural resources should be coordinated with the Trustee NRDA Team to avoid overlap within assessments. For additional details on the ICS consult Annex B, Appendix II, of the Area Contingency Plan.

Assessment of injuries and damages resulting from spilled oil need to begin as soon as possible following the initial release of the pollutant. This necessitates that NRDA activities be conducted simultaneously with response efforts and coordinated through the UC. Portions of the NRDA process should be integrated into the ICS to improve communication, expedite both response and NRDA activities, and make efficient use of personnel and equipment. To avoid potential conflicts in duties, it is recommended that members of the NRDA Team not have responsibilities for the spill cleanup or general response activities.

The primary role of the NRDA Team is to document a pathway for the spilled oil, measure levels of injuries resulting from the spill, and determine damages. The UC, in contrast to the NRDA Team, focuses primarily on response, cleanup, and minimizing impacts of the oil spill. Although the UC and NRDA Team often have different responsibilities and needs, some of their activities overlap and require coordination. Examples of activities to be coordinated immediately following a spill include collecting samples (e.g., access to restricted sites, sampling prior to cleanup), gathering information pertinent to measuring actual or potential adverse changes to natural resources, using equipment (boats, helicopters, etc.), communications, surveying spill sites, identification of protective measures and potential need for emergency restoration.

Uninterrupted communication between the UC and the NRDA Team is essential to ensure that needs and efforts of the NRDA Team are not in conflict with response strategies and activities selected by the UC. Information concerning, for example, the spill trajectory forecasts, cleanup strategies, and beach and port closures should be made available to the NRDA Team to assist sample and data collection in a timely fashion. Conversely, information concerning potential injuries to natural resources caused by oiling or response techniques should be made available to the Planning Section before implementation of cleanup responses by the Operations Section.

It is important to note that the RP is part of the UC but may not necessarily be part of the trustees' coordinated NRDA activities. For this reason, the NRDA Team must remain separate from the ICS to ensure that statutory responsibilities of the trustees are not compromised. The trustees retain the option of inviting the RP to participate in all or part of the damage assessment process. Some NRDA activities, however, are best coordinated through the UC. The NRDA Team will provide a Representative(s) to the Liaison Officer of the ICS to present the needs of the NRDA Team and other response information to the incident command. The NRDA Representative(s) will also act as historian or recorder of information critical for an accurate assessment of spill damages and will attend appropriate incident command meetings to secure knowledge of the up-to-date response activities.

9744 *Notification Procedure for Initiating NRDA*

In the event of a spill, each trustee is responsible for notifying its own members of the NRDA Team. Individual federal, state, and local agencies may be notified through various channels depending on the size and location of the spill. In all incidents that might require NRDA action, the Office of Spill Prevention and Response (OSPR) of the California Department of Fish and Game (CDF&G) will attempt to notify representatives from each of the trustee agencies expected to participate in the NRDA process.

9745 *Identification of Lead Administrative Trustee*

Executive Order 12777 (October 22, 1991) requires the federal natural resource trustees to select a representative as the federal lead administrative trustee (LAT). In general, the LAT serves as the federal contact for all aspects related to damage assessment, resource restoration, and federal funding for NRDA activities. Depending on the resources affected and other relevant factors, it might be appropriate for most administrative duties to be undertaken by a lead trustee from a non-federal agency. In such cases, a federal LAT would still be selected to work with the representatives of the Oil Spill Liability Trust Fund to secure federal funds to initiate the damage assessment. The non-federal lead trustee would coordinate all other administrative duties regarding damage assessment activities. This lead trustee or trustee agency shall be selected by consensus of all participating trustees. The trustees will notify the Coast Guard of the federal LAT selection and, when applicable, non-federal lead trustee as soon as possible after oil spill.

The trustees intend to execute a general Memorandum of Agreement (MOA) to coordinate their damage assessment and restoration activities. Among other things, the MOA will identify trustees, establish criteria for selecting the LAT, and provide procedures for decision making between the trustees signing the agreement.

9746 Funding Issues

9746.1 Oil Spill Liability Trust Fund (OPA Fund)

The federal LAT will contact the OSC or his/her representative to secure money to initiate the assessment of natural resource damages following an oil spill. The LAT will provide an outline jointly agreed upon by the participating trustees describing funding needs and how such funds would be allocated among the trustees. Each participating trustee will provide documentation of all expenditures, costs, and activities. The LAT is responsible for coordinating the submission of all such documentation to the representatives of the OPA Fund.

9746.2 California Oil Spill Response Trust Fund

If the federal funds are not available, or will not be available in an adequate period of time, and an RP does not exist or is unable or unwilling to provide adequate and timely payment for cleanup and damage assessment activities, the State Administrator of OSPR may access the California Oil Spill Response Trust Fund (COSRTF). Money from the COSRTF may be used to cover State damage assessment costs.

9746.3 Contacts With Responsible Party(ies)

The trustees will need early access to representatives of the RP(s) to determine the availability of funding, personnel, and equipment for damage assessment activities. The federal LAT or non-federal lead trustee will first notify the appropriate representative of the USCG or UC and request a meeting between the trustees and the RP's representative. Should the USCG or UC fail to arrange a timely meeting, the trustees will establish contact directly with the RP's representative.

9747 ***Supporting References***

CASES

1) *Ohio* v. *United States Department of the Interior*, 880 F.2d 432 (D.C. Cir. 1989).

2) *Colorado* v. *United States Department of the Interior*, 880 F.2d 481 (D.C. Cir. 1989).

3) *Kennecott* v. *United States Department of the Interior*, 88 F.3d 1191 (D.C. Cir. 1996).

GUIDANCE DOCUMENTS

1) NOAA. 1996. Natural Resource Damage Assessment Guidance Document: Pre-assessment Phase (Oil Pollution Act of 1990). National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

2) NOAA. 1996. Natural Resource Damage Assessment Guidance Document: Specifications for Use of the NRDA/CME Version 2.4 to Generate Compensation Formulas. National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

3) NOAA. 1996. Natural Resource Damage Assessment Guidance Document: Injury Assessment (Oil Pollution Act of 1990). National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program,

Silver Spring, MD.

4) NOAA. 1996. Natural Resource Damage Assessment Guidance Document: Primary Restoration (Oil Pollution Act of 1990). National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

5) NOAA. 1996. Natural Resource Damage Assessment Guidance Document: Restoration Planning (Oil Pollution Act of 1990). National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

6) NOAA. 1997. Natural Resource Damage Assessment Guidance Document: Scaling Compensatory Restoration Actions (Oil Pollution Act of 1990). Public Review Draft. National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

REGULATIONS

1) 40 C.F.R. 300.600 (Identification of Federal Trustees; CERCLA)
2) 40 C.F.R. 300.605 (Identification of State Trustees; CERCLA)
3) 15 C.F.R. Part 990 (NOAA NRDA rule - see 61 Fed. Reg. p. 440 et.seq.)
4) 43 C.F.R. Part 11 (DOI rules - see 59 Fed. Reg. p. 14262 et. seq.)

STATUTES

1) Government Code section 8670.1 et. seq. (OSPRA)
2) Title 14, California Code of Regulations, section 679(d)
3) 33 United States Code 1251 et. seq. (Clean Water Act)
4) 33 United States Code 2701 et. seq. (Oil Pollution Act of 1990)
5) 42 United States Code 9601 et. seq. (CERCLA)

9750 Public Affairs Procedures

9751 *Check-list for Public Affairs Response to Pollution Incidents*

1. Where a potential risk to the health & safety of local communities exists, consider coordinating an **EDIS** broadcast through the local Office of Emergency Services (OES).

2. The Federal On-Scene Commander (FOSC) designates an incident **Lead Information Officer (IO)** — generally a Public Affairs Officer (PAO) from either the Coast Guard or DFG-OSPR, experienced in California spill response. Ensure that all PAOs know who the IO is, and understand that they report to him or her. The IO reports directly to the three Unified Commanders.
3. Complete a basic fact sheet and prepare a 30-second **media statement** (about 150 words, maximum).

4. Establish **Joint Information Center (JIC)** if the size or impact of the incident generates enough media or public interest in the spill and response. (Also see Section **2221.1** for additional JIC information.)

5. Contact district (Pcp) and DFG-OSPR at outset of any medium-to-large spill to arrange for **PA back-up**. (See Section **2221.2** for contacts and phone numbers).

6. Establish **phone bank** for answering media calls (on large spills, consider staffing on 24-hour basis during initial crisis), and deploy adequate PA staff to answer all incoming phones.

7. Have a minimum of four **phone lines** available for public affairs use: Two each, incoming (published) and outgoing (unpublished) phone and FAX.

8. Schedule media **availability with the FOSC** at least daily when media interest is great. Preference is immediately following UCS operations meeting. This allows the three key parties (FOSC, SOSC & RP) to attend and field questions.

9. Contact the Coast Guard's National Strike Force Coordination Center (**NSFCC**), Public Information Assistance Team (**PIAT**) to alert for back-up, in case of any potential major incident. Note: FOSC may request PIAT at any time, regardless of spill size. (See Section **5612.3** for information and phone contact for PIAT)

10. In major spills, designate a **Protocol Officer** to handle VIP visitors. Do not, under any circumstances, assign this function to the Information Officer or JIC staff as a collateral responsibility.

9752 ***Suggested Equipment Needs for JIC/Public Affairs:***

1. Minivans (six passenger or greater) and a fuel-purchase card.

2. FAX machines (two or more)

3. At least four modem-quality telephone lines (incoming & outgoing phone & FAX, + modem)

4. Complete computer system (including printers, modems, & software)

5. Office supplies (paper, pens, file folders, tape, paper clips, push-pins, easels, felt pens, etc.)

6. Desks, chairs, file boxes, erasable white boards, pens, & erasers

7. Cellular phones, batteries, & charging units

8. VHF-FM radios (at least one)

9. Scanners for VHF-FM (to monitor response activities)

10. Voice Pagers

11. Photocopiers and paper

12. Televisions/VCRs

13. Podium w/PA system (for news conferences)

14. Charts, maps, and a way to display them (easels, tape to walls, magnets, etc.)

15. Bulletin boards / Erasable boards and supplies

16. Answering machine (for nights when JIC is not staffed)

17. AM-FM Radio

18. Pain relievers (aspirin, acetaminophen, and ibuprofen)

19. Bottled water, coffee, juices, soft drinks (caffeine)

20. VCR and monitor on tall, movable stand, for use in Press Room (or news conferences)

21. Security (for JIC when unstaffed, and for news conferences)

22. Paper towels, facial tissues (Kleenex)

9753 *Public Affairs Section Staffing*

In accordance with the U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17), there will be one **Lead Information Officer (IO)**, assigned from either the USCG or OSPR. The IO heads the entire public affairs effort, and is responsible for developing and releasing information about the incident to the news media, to incident personnel, and to other appropriate agencies and organizations. S/he has direct contact with the Unified Command (UC), attends UC meetings, and informs the UC of the news media's focus and areas of particular interest. S/he answers directly to the State and Federal On-Scene Commanders, and ensures that information flows in both directions between the UC, PA staff, and media/public. S/he supervises the Deputy Information Officer, Joint Information Center (JIC) Chief, and Community Relations Officer.

Only one Information Officer will be assigned for each incident, including incidents operating under Unified Command (UC) and multi-jurisdictional incidents. The IO may have as many assistants, responsible for specific public affairs tasks, as necessary. The assistants my also represent assisting agencies or jurisdictions. The assistants will fill the following positions within a JIC, under the direction of the lead IO. The IO should make these assignments in consultation with ICS, based on the expertise of each assistant. Qualified PA personnel may fill all assistant positions from the USCG, OSPR, RP, or other responding organizations and no single agency should dominate the lead positions.

1. **Deputy Information Officer** — Assists the IO directly, and serves as facilitator between the IO and the JIC Chief, Media Relations Supervisor, and others as needed. Is responsible for internal information flow from JIC to the response community (ICS responders & "home office" staff).

2. **JIC Chief** — This should be an experienced, well-organized PA specialist with working knowledge of oil spill response issues, ICS, basic supervision, and, if possible, the local media. The JIC Chief is responsible for managing the JIC, under the direct guidance of the lead IO. The JIC Chief will:

a. Determine staffing needs for the JIC. Assess the experience, skills, capabilities, and interests of available PA staff, and match staff with appropriate positions within the JIC (telephones, information coordinators, media relations, writing/production, support, etc.);

b. Review information supplied by information coordinators and determine appropriate method for dissemination (to writers/production for news releases, fact sheets & updates, copying and writing on status board for JIC staff, etc.);

c. Elevate sensitive or unresolved issues to the Lead IO;

d. Ensure news releases, fact sheets, and media advisories are distributed to JIC staff, Command staff, on- and off-site news media, and other interested parties;

e. Provide orientation for newly arriving or assigned staff (this task may be delegated to the JIC Deputy Chief or other staff as appropriate).

3. **JIC Deputy Chief** — Reports to JIC Chief and carries out assignments as given. Should be from a different organization than Chief. Supervises media relations, production and support groups, and must be able to carry out all the responsibilities of the JIC Chief when necessary. May be called on to be JIC Chief during night shifts.

4. **Information Coordinators** — Report to the JIC Chief and gather information about the spill response effort directly from Operations, Planning, Logistics, and Finance sections. Information coordinators will work closely with the appropriate section supervisor and/or designated public information contact. Information gathered is provided to the JIC Chief immediately, for dissemination to the media, public, and entire response community. Information coordinators are assigned to Operations (on- and off-shore, as needed), Planning/Environmental (wildlife, habitat, NRDA), Planning/Situation, Logistics, and Finance, and will use status sheets to help determine what information and activities should be recorded. Specific information to be collected by Information Coordinators includes the following:

a. **Off-Shore Operations** —
Information on the vessel(s) involved in the incident (i.e.: name, ownership, registry, destination)
Size and type (single hull, double hull, freighter, tanker, barge, yacht...)
Cargo and fuel type
Extent of damage to vessel(s), and (if known) cause of damage
Information on crew status (injuries, missing) and search & rescue operations
Size (area covered) and volume of spill
Information on the spilled material
Safety restrictions or advisories (Notice to Mariners, closed air space, etc.)
Number & activities of oil skimmers and other on-water response operations (amount of boom deployed & location, types of equipment, names of contractors, etc.).
Amount of spilled material recovered
Stabilization, salvage, and other activities directed at the vessel(s) involved in the incident.

b. **On-Shore Operations —**
Locations of equipment and staging areas
Number and activities of shoreline clean-up crews

Amount of oil and oiled debris recovered
Waste storage and disposal activities
Any special provisions for local residents (medical monitoring, decontamination stations, etc.)

c. **Environmental —**

Number, status and description of oiled wildlife (species, # captured, collected dead, estimated oiled)
Status and description of oil slick (trajectories, from NOAA)
Environmentally sensitive areas impacted or threatened by spill
Protective actions that will be taken in sensitive areas
Activities taking place at wildlife care centers and OSPR vet van
Volunteer activities (if any) and desirability of convergent volunteers (give 800 phone #)

d. **Planning-Logistics-Finance —**

Weather and tides
Incident Action Plan (overall response objectives)
Noteworthy logistical activities (equipment from out-of-state, etc.)
Claims processing information (telephone number for 3rd party claims against spiller)
Total number of people involved in response effort (and organizational breakdowns)

5. **Media Relations** — Positions in this group are filled by experienced PA staff that has media experience and local knowledge (particularly geographical features), if possible. The media relations group, headed by a **Media Relations Supervisor (MRS)**, answers news media questions, sets up facilities for news conferences, and reports to the JIC Deputy Chief. The MRS ensures that all media relations staff have the most current information available on the spill response effort.

Media Phone Staff must include at least one representative each from the USCG, OSPR, and RP. Other affected local governments and organizations may also provide staff. Typically this might include PAs from the National Park Service or State Dept. Of Parks and Recreation (closed beaches or parks), impacted city or county, NOAA, etc. Phone staff will answer inquiries from the news media, direct calls to appropriate staff when an "agency" or "RP" response is warranted, and provide the MRS with questions and "rumors" that need to be checked-out. There must be enough phone staff on duty to answer all phone lines in the JIC.

On-Site Media Staff will monitor news coverage and:

a. Assist reporters at command post or spill site;
b. Work with MRS to locate appropriate staff for interviews;
c. Escort reporters and photographers through command post and/or spill site;
d. Set-up facility for news conferences and facilitate pool coverage when necessary;
e. Provide directions to field locations as appropriate;
f. In absence of clerical support staff, do clerical support tasks, as needed.

6. **JIC Production Staff** consists of writers and a graphic designer/artist, and reports to the JIC Deputy Chief. The Production staff prepares news releases, updates, fact sheets, media advisories, maps, and other graphics materials for the news media and public. The **Production Supervisor** ensures written and graphics materials are produced as needed for public dissemination, news conferences, and public meetings. **Writers** must have solid journalistic abilities, know AP Style, and be proficient with computers and word

processing programs (i.e.: WordPerfect and/or MS Word). Writers prepare materials as directed by the Production Group Supervisor or JIC Chief. The **Graphic Designer** prepares maps, status boards, and other graphic materials for use in news conferences, public meetings, and for dissemination through the media.

7. **JIC Support Staff** are PAs or knowledgeable clerical support personnel with above-average communication skills, and report to the JIC Deputy Chief. The JIC Support staff will:

   a. Make copies of news releases, fact sheets, maps, advisories, etc.;

   b. Disseminate materials as directed to internal OSCs, Operations, Planning, Logistics, Finance sections, Liaison & Safety Officers) and external recipients (media and off-site agency/company representatives);

   c. Maintain status boards (update hourly) and map of spill response actions (update hourly);

   d. Answer phones & take messages, ensure the JIC has necessary office supplies, perform other support duties as required by the JIC Deputy Chief.

Note: Two staff groups that are sometimes associated with Public Affairs — Community Relations and Government Relations — are handled in California by the **Liaison Officers (LO)**, who are part of the Unified Command Staff. The lead IO and LO communicate frequently, sharing information regarding media and VIP tours of the spill site, most frequently-asked questions, and information updates from areas within the response organization. Efforts should be made to keep VIP and media tours separate, so officials aren't tempted to use the occasion to "grandstand," and reporters aren't tempted to use the occasion to interrogate officials, or interview them regarding unrelated issues. We want to keep everyone on-track. Under no circumstances should VIP/protocol or community relations be a collateral duty of the media relations staff, during a major incident.

9754 *Logistical Concerns for News Conferences*

Pollution incidents that generate significant media interest require news conferences, at least in the first few days of emergency response. These media gatherings provide an opportunity for the three Incident Commanders (FOSC, SOSC, & RP) to tell the media what has happened and what they're doing about it. It also gives reporters a chance to photograph and ask questions of senior response officials.

If the incident is large enough for the JIC to have a Media Relations Supervisor (MRS), s/he is responsible for scheduling news conferences, managing the "press room" or conference site, advising the media in advance of upcoming news conferences, and ensuring that news releases, updated fact sheets, or press packets, podium & PA system (if needed), and visual aids (large charts, maps, diagrams) are in place before news conferences begin. In absence of a MRS, the lead Information Officer or a PAO s/he designates will be responsible for media relations activities.

News conferences should, ideally, be held in a dedicated "press room," preferably in the same building as the command post, but completely separated from the Unified Command's room or

area where operations and planning staff are working. (The JIC should be between the pressroom and UC's meeting room.) Ideally, it would be near the entrance to the building and have entries from both sides of the room. Such a dedicated room allows the MRS to leave charts, maps, and diagrams posted for reporters and photographers to see, throughout the response phase. These must be updated, as often as new information becomes available, and would typically include enlarged aerial photos, spill trajectories, NOAA-generated displays, wildlife injury/mortality counts, and maps indicating the locations of oil, boom, skimming operations, closed beaches, and environmentally-sensitive areas (Threatened & Endangered Species' habitats).

If a room at the command post is not available, news conferences could also be conducted next to a mobile command post, such as the Pacific Strike Force trailer. The outer walls of the trailer can be posted with the maps, charts, etc. A major drawback to outdoor news conferences is a lack of acoustics. It is more difficult to hear a speaker outside, especially if there is much wind or any ambient sound (such as traffic, surf, clean-up equipment, etc.). Even a slight breeze will cause papers to blow away, and wind can make a distracting noise when it blows across a microphone. News conferences held at a spill site must be carefully controlled, to mitigate safety hazards and prevent any interference with clean-up operations.

Both print and TV photographers will want access to the spill site. California Penal Code Title 11, Section 409.5(d) exempts "duly authorized representatives of any news service, newspaper, or radio or television station or network from entering the areas closed" to the public by law enforcement, because of any calamity or disaster. Reporters may not interfere, but they may observe and photograph an incident site. The UC may require media to check-in and -out, and provide proof that they represent legitimate media outlets. A business card that matches some photo I.D., or letter of introduction on company letterhead will suffice, for those who lack official CHP press credentials. They are responsible for their own safety. (Exceptions to the media exemption from PC 409.5 are crime scenes and air crashes, where an investigation is necessary.)

Direct access to private property such as facilities, vessels, or barges will remain under the control of the owner. If possible, a Coast Guard vessel should be made available for media tours of the affected area from the waterside. When media interest exceeds the capacity of the vessel, it will be necessary to form a press pool. The selection of participants is best left to members of the media, but generally includes equal representation from print, TV, Radio, and "wire" service (AP, UPI, et al.). News organizations may also obtain their own vessel, plane, or helicopter for surveillance. Unless granted specific access by appropriate authority (FOSC), they will continue to be governed by any security or safety zones around the site.

The lead Information Officer is responsible for briefing the three Incident Commanders (ICS) in advance, advising them of the subjects in which media seem most interested that day, and facilitating the news conference. (S/he may delegate the latter task.) One successful format has been this:

1. Lead IO welcomes media, introduces self and ICs (who should be seated at a front table, if possible), then describes the format.

2. S/he explains that each IC will make a statement regarding his/her organization's area of responsibility, then answer questions from reporters.

3. After all three ICs have made their statements, the IO will request that reporters who have questions raise their hands, and when s/he recognizes them, identify themselves and their

organization, before asking their questions. S/he will have assigned a member of the Media staff to record the names and organizations of each reporter, for the record.

4. If a time limit has been established prior to the news conference, the IO should say so, while describing the format. When the allotted time has nearly passed, the IO should tell the reporters (i.e.: "We only have a few minutes before the Incident Commanders need to get back to the spill response..."). At the end of the available time, the IO wraps it up, thanks the reporters for coming, and points out Media Staff who can answer additional questions. A uniformed USCG or OSPR law enforcement officer will escort the ICs from the pressroom or site.

The lead IO or his/her designee should request security at news conferences, escalating the degree if there is any indication of possible demonstrations or "gate-crashing" by people outside the legitimate media.

9755 ***Internal Information***

Purpose

Informing the members of the response community of the status of the response is vital, if consistent and accurate information is to be conveyed to all interested parties. Likewise, the UCs needs to know what subjects are of greatest interest to the media and community. Internal information is the process of informing our own people of the status of our activities, and of public interest in the incident.

Discussion

At a minimum, all personnel assigned to response duties should be provided with access to the daily fact sheet(s) prepared by the media relations supervisor. Conversely, all PAs need frequent updates on the response activities, wildlife casualty counts, etc. This will help ensure a consistent and accurate flow of information. The Deputy Information Officer shall be responsible for internal information dissemination.

Action

1. Distributing copies of the fact sheets and news releases to the cooperating agencies and their employees is a function of the internal information staff. During clean-up operations of a lengthy duration, consideration may be given to a computer-generated or hard copy publication, published at regular intervals.

2. To facilitate the flow of information and ensure that the information given to the media by JIC staff is the most current available, the Support unit of the Logistics section will provide the JIC with at least one "runner." The runner(s) will gather updated information from other units (Situation, Wildlife, Ops, Planning) for use by the JIC writers, and take updated fact sheets and news releases to each section or branch in and near the Command Post.

9756 ***Photo Documentation***

Purpose

Photo documentation, both still and video, has a three-fold purpose: (1) Additional resource material for news media outlets, (2) briefing materials for town meetings and protocol-sanctioned visits, and (3) historical documentation. It is not the intention of establishing this unit to provide documentation for a legal action against the responsible party or spiller. Separate arrangements must be made by legal entities to provide this function for litigation.

Discussion

As a unit reporting directly to the Deputy Information Officer, the needs of the Unified Command are prioritized and assigned by this individual. When the news media cannot visit locations due to safety concerns, it is the responsibility of the photo documentation unit to provide this information.

Action

Resources available to fill this requirement begin with the three lead agencies of USCG, OSPR, and the RP. Access and assistance from the DOD's Combat Camera should be solicited by the FOSC by message traffic, early in the clean-up effort.

1. One person should be designated Chief Photographer for each incident. Depending on the size and complexity of the incident, s/he may request assistance. If additional photographers (still and/or video) are employed, consideration should be given to balancing the organizations represented (i.e.: USCG, OSPR, and RP). The resulting photographic record should represent as many areas of response as possible, and all response organizations (not just the photographer's own organization).

9757 ***Administration***

Purpose
Provide administrative support to the various branches of the public affairs effort. This includes the JIC, Community Relations, and Photo Documentation units. The Support branch of the Logistics section provides record-keeping, purchasing, and logistical support.

Action
Support staff report directly to the Deputy IO and are assigned tasking, according to the needs of the Public Affairs branches.

Staffing
Immediate staffing (first 48 hours) should consist of at least one (1) Yeoman and one (1) Storekeeper with District, Reserve, and Auxiliary (See Section **5612** for CG Personnel Resources) augmentation following for the longer duration. Support staff may also be provided by the DFG/OSPR, the RP, and volunteers.

9758 ***Community Relations***

Background

Providing information directly to members of the impacted community, free of the filtering and potentially distorting effect of the media, is critical to public understanding of the incident

response. Community relations may include scheduling of public meetings, preparing speeches and coordinating public activities with the Liaison Officer and local government MAC representative. If a spill's impact justifies a Community Relations branch, it should be within the Public Affairs section.

Discussion

In order to ensure that important constituencies are not overlooked or slighted during a major response, it is important that a **Community Relations Officer (CRO)** and necessary support staff be assigned within the public affairs branch. Under no circumstances should community relations be a collateral duty of the media relations staff, during a major incident. A local government official should be considered for the position. Additional community relations officers should be sought from the RRT and regional EPA office, to provide expertise to this important aspect of the public affairs program.

Action

Important considerations for establishing a separate Community Relations branch include public health & safety, damage claims, and transportation disruptions. The media may not provide detailed information to their audiences on issues that affect smaller groups of individuals. It is incumbent on community relations staff to provide answers to the impacted communities.

A well-run community relations program is a two-way street in a successful public affairs program. Authoritative answers to important individual questions are given and the UC gains a "grass-roots" feel for the concerns of the individuals directly impacted by the spill. Those concerns can then be addressed by the Command Staff to mitigate problems before the problems begin to drive the clean-up effort.

1. Public Health and Safety

The primary, initial concern of the community relations staff should be addressing the public health & safety issues. When warranted, an EDIS alert should be issued, outlining the specific health & safety concerns.

2. Phone Banks

Consideration should be given to establishing an "800" telephone bank for general public inquires, which should be answered by community relations staff (**not** the media relations staff). A team of operators separate from media phone staff would disseminate information about public health & safety, transportation disruptions, third-party claims, etc. Ideal staffing would include representatives from Federal, State, and local governments, and community affairs personnel from the responsible party. This conduit would serve as rumor control and provide the UCs with the current concerns of local citizens. Spokespersons should use the "Rumor Inquiry" form to track these.

The OSPR has two existing "800" numbers for use during spills. One is a pre-recorded outgoing message containing spill information (**800-999-1043**), controlled by the OSPR Public Affairs Officer. It is updated (as needed) by the OSPR PAO; it does not record incoming messages. The other is answered by the OSPR Volunteer Coordinator (VC), in the Planning Section's Resources unit (**800-228-4544**). It has voice mail, for times the VC is not available to answer it.

3. Town Meetings

Local community meetings should be considered by the UC when communities suffer severe environmental, recreational, economic, or cultural impact. In extremely large communities, arrangements should be made for teleconference sites in addition to the "live" site. The CRO should arrange town meetings with the Liaison Officers, in consultation with the UC.

4. Claims

Questions about damage to private property, loss of income, and disruption of transportation become real concerns in a major oil spill. Information directing individual recourse must be addressed early in the clean-up process. The Responsible Party will take the lead on addressing these issues and provide the Community Relations branch with information that alleviates and mitigates these real concerns. It is imperative that the JIC staff (all PAs) knows the "claims phone" number, to give media and other callers who request information.

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9800 RESERVED FOR CG HQ DESIGNATION

9900 APPENDIX

9910 Glossary of Terms (Refer to Section 1000)

9920 Conversion Table
Refer to U.S. Coast Guard Incident Management Handbook (COMDTPUB P3120.17) for conversion table.

9930 Sample Documents

9931 ***Incident Command System Forms Index***

INCIDENT COMMAND SYSTEM (ICS) FORMS
The following ICS forms are in MS Word format

ICS FORM NUMBER	ICS FORM NAME
201	In-Brief Cover Page
201-2	In-Brief Summary of Current Actions
201-3	In-Brief Initial Incident Organization
201-4	In-Brief Local Resources Summary
201-5	In-Brief Site Safety and Control Analysis
201-6	In-Brief Meteorological Data/General Info
201-7	In-Brief Initial Site Assessment
201-8	In-Brief Tanker Information
202	IAP Incide nt Objectives/Response Priorities
203	IAP Organizational Assignment List
204	IAP Division/Group Assignment List
204-2	IAP Task Force/Strike Team Personnel
205	IAP Incident Radio Communications Plan
205-1	IAP ICS Positions/Phone Numbers
206	IAP Medical Plan
207	Organization Chart
208	Incident Schedule of Meetings
209	IAP Inland Situation Status Summary
209-1	Situation Status Update
209-2	IAP Marine Situation Status Summary
211	Check In/Out Log
213	General Message/Resource Request
214	Unit Log
214-1	Unit Log Continuation
215	IAP Operational Planning Summary
215-1	Operational Planning Worksheet
216	Field Resources
218	Support Vehicle Inventory
220	Air Operations Summary
222	Supply/Materials Request
223	IAP Health & Safety Message
224	IAP Environmental Unit Summary Sheet

226 Long Term Planning Activities Worksheet

Forms were provided by California Dept. of Fish & Game, OSPR

1 Form is significantly changed from the original ICS version.

2 ICS form has been slightly modified for oil spills, either version can be used.

3 No ICS form equivalent.

* Commonly used in written Incident Action Plans (IAP)

These ICS Forms can be obtained via the Internet at:

http://www.uscg.mil/pacarea/pm/ICSforms/ICS.htm

9932 ***Plans***

9932.1 Health & Safety

See also, OSHA 3172 "Training Marine Oil Spill Response Workers Under OSHA's Hazardous Waste Operations and Emergency Response Standard" http://www.osha.gov/Publications/osha3172.pdf

Applicable Regulations.

The regulations regarding Hazardous Waste Operations and Emergency Response (HAZWOPER), references (a) and (b), apply to: a) cleanup operations, required by a governmental body, involving hazardous substances, that are conducted at uncontrolled hazardous waste sites, and b) emergency response operations for releases of, or substantial threats of release of, hazardous substances without regard to the location of the hazard; unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards. These regulations also define crude oil, fuel oils no. 1,2,4,5,6, aviation fuel, and gasoline as hazardous substances. An uncontrolled hazardous waste site is defined as, "an area identified as an uncontrolled hazardous waste site by a governmental body, whether Federal, state, local, or other, where an accumulation of hazardous substances creates a threat to the health and safety of the individuals or the environment or both." OSHA considers an area impacted by an oil spill as an uncontrolled hazardous waste site.

Most oil spill emergency response and cleanup operations will fall within the scope of the HAZWOPER regulations. Any governmental agency or private employer involved in such operations, must comply with HAZWOPER regulations as a matter of pre-planning, in order that a response to an actual situation may be safe, timely, and effective. Therefore, it is prudent for each employer to take action to meet as many of the requirements of the HAZWOPER regulations before an incident occurs. Some of the specific items that can be done, partially or completely, prior to an incident are, written standard operating procedures and workplans, written emergency response plan, written site safety plan, general site worker safety and health training, respiratory protection training, emergency responder training, medical surveillance program, written personal protective equipment program, site monitoring strategies, decontamination procedures.

Operations falling within the scope of the HAZWOPER regulations are not excluded from the requirements of other safety regulations, such as hazard communications, respiratory protection, occupational noise exposure, benzene, injury illness prevention, and others. In addition, health and safety hazards those have no mandatory standard such as heat stress, manual lifting, ergonomics, slips/trips &

falls, biological hazards, and extremely low frequency vibrations, must also be addressed in training and the site safety plan.

9932.1.1 *Site Safety*

Any scenario for a large oil spill will usually begin as an emergency response. Section (q) of references (a)&(b) covering employers whose employees are engaged in emergency response, requires that an emergency response plan be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The first emergency response organization on scene must therefore develop and implement this plan. When other employers become involved in the emergency response the emergency response plans should be modified to cover their employees. Each employer must provide written draft of those sections that contain information specific to their employees and their duties.

The vast majority of large oil spills in the marine environment will generate cleanup operations separate from the emergency operation and ultimately the associated emergency response will be downgraded to a post-emergency response. These cleanup operations and post-emergency response operations will be subject to sections (b) through (o) of references (a)&(b) and require site safety plans. Therefore both an emergency response plan and a site safety plan is usually required. Since the two plans have many common elements and an emergency response plan is required as part of the site safety plan, it would be prudent to develop a combined plan.

The Office of Spill Prevention and Response has generated a generic site safety/emergency response plan to assist local government, public entities, and professional volunteer groups in writing their own required plan. This plan meets the requirements of CAL OSHA and is recommended as a model for developing generic site safety plans. A generic site safety/emergency response plan should be prepared as a pre-planning document. The site-specific safety and health/emergency response plan can be generated quickly if the generic plan already exists. Those workers operating under the plan must be familiar with the plan prior to the start of work and agree to obey and follow all elements of the plan while performing certain work in designated control zones on-site. The Safety Staff of the Unified Command will review and approve all site safety plans for all agencies responding to a pollution incident, prior to site entry. An example of OSPR's site safety plan can be found in OSPR's guidance document for the preparation of a marine facility and vessel oil spill contingency plan that covers "Workforce Safety Training Requirements" and the State of California "Marine Oil Spill Contingency Plan."

OSPR's grant process requires certain response agencies, including municipal and county governments and volunteer groups to submit generic site safety planning documents in advance of an incident. All site safety plans submitted to OSPR for review must be formatted as closely as possible to the generic site safety plan for the purpose of consistency and ease in finding essential elements of site safety plan by the reviewer. Copies of the generic site safety/emergency response plan are available for all parties identified in the Oil Spill Prevention and Response Act who anticipate submitting their completed plans to OSPR for review and approval.

A large spill in the marine environment may impact several physically separated sites. Therefore, it may be more convenient to treat these sites independently when writing and maintaining site safety and emergency response plans.

The following is a list of specific requirements, from references (a)&(b), that must be met prior to initial site entry or before an individual employee is allowed on site.

1) Employees who are expected to become involved in cleanup operations must be trained in accordance with section (e) before being permitted to participate in such operations.
2) Employees who are expected to wear a respirator must be covered under a respiratory protection program.
3) Employees must be enrolled in a medical surveillance program if;

    a) they are or may be exposed to hazardous substances or health hazards at or above the permissible exposure limits for 30 days or more a year,
    b) they wear a respirator for 30 days or more a year,
    c) they are injured, become ill, or develop signs or symptoms due to possible overexposure involving hazardous substances,
    d) they are a member of a HAZMAT team.

4) The employer must make required medical examinations and consultations available to the employee prior to assignment.
5) The emergency response plan and/or site safety plan must be written prior to initial site entry.
6) Employees who are required to wear a respirator while working at a hazardous waste site must have received 40 hours off-site instruction before they are permitted to engage in hazardous waste operations. In addition they must receive three days' actual field experience under the direct supervision of a trained, experienced supervisor.
7) Employees who are not required to wear a respirator and are unlikely to be exposed above permissible exposure limits while working at a hazardous waste site must have received 24 hours off-site instruction before they are permitted to engage in hazardous waste operations. In addition they must receive one-day actual field experience under the direct supervision of a trained, experienced supervisor.
8) The SSHP shall provide for pre-entry briefings to be held prior to initiating any site activity and at such times as necessary to ensure that employees are appraised of the SSHP.
9) A preliminary evaluation of a site's characteristics shall be performed prior to site entry.
10) Required Information. The employer prior to allowing employees to enter a site shall obtain the following information to the extent available:

    a) Location and approximate size of the site.
    b) Description of the response activity and/or the job task to be performed.
    c) Duration of the planned employee activity.
    d) Site topography and accessibility by air and roads.
    e) Safety and health hazards expected at the site.
    f) Pathways for hazardous substance dispersion.
    g) Present status and capabilities of emergency response teams that would provide assistance to hazardous waste cleanup site employees at the time of an emergency.
    h) Hazardous substances and health hazards involved or expected at the site, and their chemical and physical properties.

11) Appropriate site control procedures shall be implemented to control employee exposure to hazardous substances before cleanup work begins. The site control program shall include as a minimum: a site map; site work zones; the use of a buddy system; site communications including alerting means for emergencies; the standard operating procedures or safe work practices; and identification of the nearest medical assistance.

12) A decontamination procedure shall be developed, communicated to employees and implemented before any employees or equipment may enter areas on-site where potential for exposure to hazardous substances exists.

13) An emergency response plan shall be developed and implemented by all employers ... prior to the commencement of hazardous waste operations.

The following requirements pertain to initial entry.

1. PPE for initial site entry must be appropriate for the hazards identified during the preliminary evaluation.
2. During initial site entry, if positive-pressure self-contained breathing apparatus is not used, and if respiratory protection is warranted by the potential hazards identified during the preliminary site evaluation, an escape self-contained breathing apparatus of at least 5 minutes duration shall be carried by employees during initial site entry.
3. If the preliminary site evaluation does not produce sufficient information to identify the hazards or suspected hazards of the site, an ensemble providing protection equivalent to level B PPE shall be provided as minimum protection, and direct reading instruments shall be used as appropriate for identifying IDLH conditions.
4. During initial site entry hen the preliminary site evaluation produces information that shows the potential for IDLH conditions, or when the site information is not sufficient to reasonably eliminate these possible conditions, monitoring the air with appropriate direct reading test equipment for IDLH and other conditions that may cause death or serious harm shall be conducted.

9932.1.2 *Respiratory Protection*

All workers that are required or allowed to wear a respirator during an emergency response or cleanup operation must be covered under an employer's respiratory protection program that meets the requirements of reference (c) and have received appropriate training as required in references (a), (b), and (c). Under the HAZWOPER regulations, the worker would require 40 hours of hazardous waste operations site safety and health training.

9932.1.3 *Training Requirements*

All individuals responsible for responding to oil spill must meet the health and safety requirements mandated in regulations by both State and Federal Occupational Safety and Health Administrations (OSHA). The amount of health and safety training required for each individual to respond to an oil spill will depend upon: the kind of tasks performed, the degree of exposure encountered, and the type of operation (emergency response vs. post-emergency cleanup). Training shall be conducted by a qualified instructor and certified in writing upon completion. Proof of proper health and safety training will be required for each individual requesting entrance to the spill site. Proof of training should include: name

of training class, hours of training received, dates of class, signature of the administrator of the employer's health and safety program, and description of course material covered in the class.

The initial training requirements for workers involved in the cleanup of uncontrolled hazardous waste sites and post-emergency response operations is summarized below.

a. General/Occasional Site Workers exposed above the PELs and/or required to wear respirators - 40 hours off-site and three days (24 hrs) actual field experience under the supervision of a trained supervisor.

b. General/Occasional Site Workers exposed below PELs and not required to wear respirators - 24 hours off-site and one day (8 hrs) actual field experience under the supervision of a trained supervisor.

c. Management and Supervisors of workers exposed below PELs and not required to wear respirators - 24 hours off-site plus 8 hours specialized training and one-day actual field experience under supervision of a trained supervisor.

d. Management and Supervisors of workers exposed above PELs and/or required to wear respirators - 40 hours off-site plus 8 hours specialized training and three days actual field experience under supervision of a trained supervisor.

e. Although there is no provision in references (a) or (b), Federal OSHA and CAL OSHA have both stated in references (c) and (d) respectively, that during the post-emergency response cleanup of an oil spill, for job duties and responsibilities with a low magnitude of risk, a minimum of 4 hours site safety and health training may be appropriate. Neither agency has granted a blanket exclusion but has allowed the FED OSHA representative to the RRT to make the determination based on an assessment of the cleanup operation. Some of the criteria considered in this decision are:

    i. This is the worker's first involvement in post-emergency response or cleanup operations and it is unlikely the worker will be involved in response activities in future incidents.

    ii. Cleanup is performed in an area that has been monitored and fully characterized by a qualified person indicating that exposures are presently and can be expected to, remain under permissible exposure limits and other published exposure limits.

    iii. Health risks from skin absorption are minimal.

f. Employers who can show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that required in references (a) and (b) shall not be required to provide the initial training to such employees and shall provide a copy of the certification or documentation to the employee upon request.

The training curriculum for the four-hour training course provided to the one-time workers described in section 9932.1.3.e., must include:

- emergency response plan/site safety plan
- hazard communications
- decontamination procedures
- water safety

- hypothermia
- heat stress
- safety hazard controls
- personal protective equipment
- other safety training as needed.

At a large oil spill, special groups of workers such as the California Conservation Corp, environmental groups, and vessels of opportunity may participate in the response and/or cleanup. These groups are identified in advance for emergency planning purposes and are likely to become involved as often as needed. Therefore, they must receive 24 or 40 hours of off-site training and appropriate supervised field experience depending on the potential level of exposure to hazardous substances. The Office of Spill Prevention and Response (OSPR) intends to provide 24 hours of training to members of these groups. OSPR has developed a curriculum, for this 24-hour training. This curriculum , shown at the end of this annex, is recommended as a guide for developing other training programs. These workers may not enter an environment where they may be exposed above permissible exposure limits nor may they be required or allowed to wear respirators during response or cleanup operations unless 16 additional hour of off-site training and 16 additional hours of supervised field experience is provided.

Eight hours of refresher training is required annually for all site workers, managers, and supervisors. CAL OSHA has further interpreted this to mean that if a worker does not receive refresher training by each anniversary date of the completion of initial training, the initial training must be repeated.

Occasional/Regular Site Worker OSPR Oil Spill Health and Safety Course Curriculum.

Regulations: Employee and Employer Roles and Responsibilities:

- T8, CCR, Section 5192 HAZWOPER
- Fed/OSHA Directive CPL 2-2.51 Post-Emergency Response Operations
- T8, CCR, Section 3203 Injury Illness Prevention Program
- T8, CCR, Section 3204 Access to Employee Exposure and Medical Reports
- T8, CCR, Section 3220 Emergency Action Plan
- T8, CCR, Section 3383 Body Protection
- T8, CCR, Section 3384 Hand Protection
- T8, CCR, Section 3385 Foot Protection
- T8, CCR, Section 3389 Life Rings and Personal Flotation Devices
- T8, CCR, Section 3400 Medical Services and First Aid
- T8, CCR, Section 5095-5100 Hearing Conservation Program
- T8, CCR, Section 5155 Airborne Contaminants
- T8, CCR, Section 5162 Emergency Eyewash and Shower Equipment
- T8, CCR, Section 5194 Hazard Communication
- Labor Code: Section 142.7 Hazardous Substance Removal
- Labor Code: Section 6100 Workers' Compensation
- Labor Code: Section 6300 Jurisdiction and Duties of the Occupational Safety and Health Act
- Labor Code: Section 6400 Health and Safety Responsibilities of Employees and Employers

- T8, CCR, Section 5157 Confined Spaces (Recognition of Confined Space Hazards)
- T8, CCR, Section 341 (Recognition of Shoring and Excavation Hazards)
- T8, CCR, Section 3661 and 3664 Industrial Trucks, Tractors, Haulage Vehicle and Earthmoving Equipment (Recognition of Heavy Equipment Operation Hazards During Oil Spill Cleanup Operations)

Operational Activities: Under The Unified Incident Command System

- Communication and coordination with any and all agencies having authorized activities dealing with oil spills (roles and responsibilities).
- Local contingency plans jurisdiction when dealing with oil spills. Discussion of purpose, components, value and limitations of pre-event and event specific planning.
- Incident Command System and unified version, describe the basic implementation and how it manages an oil spill and demonstrate proper information flow from ICS stall to the incident commander.

Site Health and Safety Plan for Oil Spills

- Site Description
- Hazard Identification and Recognition
- Personal Protective Equipment
- Hazard Evaluation/Risk Identification
- Exposure Monitoring Program (General area and breathing zone)
- Onsite Control
- Decontamination
- Safe Distances and Places of Refuge
- Evacuation Routes and Procedures
- Emergency Medical Treatment/First Aid
- Emergency Alert and Response Procedures

Hazard Communication

- Health Effects and Chemistry of Oil (Benzene, Toluene, Xylene, Hydrogen Sulfide, Diesel Fuel, Gasoline, Crude Oil, Bunker C, MTBE, etc.)
- Thermal Stress
- Water Safety (Personal Flotation Devices)
- Physical Hazards (including electrical, heavy equipment, confined spaces, trenches, shoring, excavation, etc.)
- Biological Hazards
- Slips, Trips, and Falls
- Ergonomics
- Hearing Conservation
- Workers' Compensation
- Accident Prevention and Reporting

Animal Handling Techniques

- Occupational health and safety hazards associated with the capture, transport, cleaning, rehabilitation, and release of oiled marine wildlife:
    a. Required personal protective equipment
    b. Decontamination of personal protective equipment
    c. Slips, trips, and falls (e.g. mob cart)
    d. Safe lifting and handling techniques of large mammals
    e. Water safety during capture and release of animals
    f. Bites, pecks, and scratches
    g. Zoonosis

Oil Spill Cleanup Techniques

- Health and safety hazards associated with manual oil cleanup activities
- Safe work practices with oil cleanup tools and equipment

Reference and Resource Documents:

29 CFR 1910.120 - OSHA Regulations for Hazardous Waste Operations and Emergency Responses. (HAZWOPR).

8 CCR 5192 HAZWOPER

40 CFR 300 - National Oil and Hazardous Substances Pollution Contingency Plan.

OSHA Compliance Guidelines CPL 2-2.51 (11/5/90) “Inspection Guidelines for Post Emergency Response Operations Under 29 CFR 1910.120.

49 CFR Subchapter B Part 130 - Oil Spill Prevention and Response Plans.

NIOSH/OSHA/USCG/EPA Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (NIOSH 85-115)(Phone 800-356-4674).

“Oil Spill Contingency Planning,” October 1990, DOT and EPA Status Report to the President.

NIOSH Health Evaluation Report “Exxon Valdez Alaska Oil Spill” (HETA 89-200 and 89-273-2111, May 1991).

Standard for Professional Competence of Responders to Hazardous Materials Incidents - NFPA 472.

Control of Gas Hazards Aboard Vessels - NFPA 306.

“Rehabilitating Oiled Sea Birds - A Field Manual.” International Bird Rescue Research Center; 699 Potter St, Berkeley, CA (510-841-9086).

“Oiled Bird Rehabilitation - A Guide for Establishing and Operating a Treatment Facility for Oiled Birds.” 1989 Tri-State Bird Rescue and Research, Inc. Newark, DE 19711 (Phone: 302-737-7241/9543, pgr 800-710-0695)

"Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices." American Conference of Governmental Industrial Hygienists, Cincinnati, OH (Phone: 513-742-2020).

9932.2 Waste Management Plan

One of the major issues associated with an oil spill response is the proper management of the recovered petroleum product, as well as the contaminated cleanup materials, soil, and debris. How these are managed is dependent on how they are characterized - as a solid waste, hazardous waste or a hazardous material (used or reused). This subsection presents a general approach to the management of the various types of wastes collected during an oil spill.

Waste Management Options

Under California law, a hazardous substance released or discharged to marine waters of the state is defined as a waste and must be characterized as either hazardous or nonhazardous and managed accordingly. Once the waste is characterized and its final disposition is determined, the waste may be redefined and managed as a material, rather than a waste.

In accordance with **CHSC 25143.2**, recovered hazardous wastes may be managed as a hazardous **material** rather than a hazardous **waste** by utilizing any one of the following methods:

- The material is used or reused as an ingredient in an industrial process to make a product, and is **NOT** reclaimed;
- The material is used or reused as a substitute for commercial products, and is NOT reclaimed;
- Without first being reclaimed, the material is returned to the original process from which it was generated as a substitute for raw material feedstock, as long as the material is returned as a substitute for raw material feedstock, and the process uses raw materials as principal feedstocks;
- The material is shipped to the site from where it was generated or managed, or to another site owned by the same generator, and is either burned as a fuel or is recombined with normal process streams to produce a fuel. However, it should be noted that the DTSC has agreed with DFG/OSPR that recovered oil originally headed for a refinery will NOT be considered a hazardous waste and may still be sent to the refinery.

Remember, hazardous "material" management activities need to comply with a different set of regulations, which include, in part, the local fire code for storage and handling requirements, and 49 CFR for shipping requirements. Do NOT use a hazardous waste manifest when shipping hazardous materials use a **Bill of Lading**.

In managing hazardous wastes, one must also be responsible for adhering to the waste minimization philosophy behind good waste management practices. Waste generation and disposal can be minimized through proper waste characterization, handling, segregation, treatment, and recycling; while only solid, non-recyclable wastes are actually "disposed" of. The following waste management hierarchy should always be used in the management of both hazardous and nonhazardous wastes:

1. Eliminate or minimize the amount of waste generated
2. Source reduction
3. Use and reuse as a material
4. Reclaim or recycle

5. Treatment
6. Disposal ….. *Dispose of waste **only** if the above priorities are not feasible* !!

The need to minimize the volume and toxicity of all hazardous wastes has been made clear and explicit in state and federal regulations; however, other reasons to minimize waste would include protection of public health and the environment, as well as economic incentives, liability incentives, and public relations incentives.

Crude oil and Refined Petroleum Product. Crude oil spilled into marine waters that is recovered and transported to the refinery of original destination or a refinery that can accept the crude oil for use or reuse may be considered a "material" rather than a "waste" and, therefore, not subject to the more stringent hazardous waste management laws and regulations [California Health and Safety Code (CHSC), Section 25143.2]. Refined petroleum products that are recovered from marine waters may also be handled as a product if they can be used for their originally intended purpose (i.e. fuel, fuel oil, etc.), per CHSC 25250.3.

There are other avenues by which recovered petroleum may be managed as a material (CHSC 251143.2). These approaches include recycling the petroleum through incineration, as a fuel, a substitute for raw material feedstock, or as an ingredient used in the production of a product (i.e. asphalt). The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) should be consulted for more information on these and other management options. The latest published list of companies that recycle oil and the latest published list of licensed used oil haulers can be obtained from DTSC.

Recovered petroleum "products" or "materials" that are not accepted by a refinery as a material, should then be recycled. Since state law requires the generator of a waste to consider recycling before other waste management methods, recycling should be the next waste management priority. To ensue that the appropriate waste management method is utilized for the recovered petroleum, the generator must characterize the waste either through knowledge of the waste or through analysis by a State certified laboratory to determine if the waste is hazardous or non-hazardous. It is the responsibility of the Responsible Party (RP) to have the waste accurately characterized for proper disposition [Title 22, Section 66260.200(c) of the California Code of Regulations (22 CCR)].

Discharge to Sea of Water Separated From Recovered Oil. Oil recovered at sea typically contains significant amounts of seawater. In order to maintain the efficiency of the skimming process this water must be separated/decanted from the oil and discharged back to the ocean during recovery operations. Separated sea water typically contains elevated levels of hydrocarbons and thus the discharge of this material may constitute a discharge of a pollutant; therefore, in 1995, a Memorandum of Understanding (MOU) had been entered by the SWRCB and OSPR which addresses all permits and requirements pertaining to the incidental discharge of wastewater during oil spill response activities. The MOU finds that these discharges are exempt from the regulation under a National Pollution Discharge Elimination System (NPDES) permit. Additionally, the MOU also provides that the SWRCB will recommend that the coastal RWQCB waive the issuance of waste discharge requirements for these types of discharges.

The "discharge" of separated/decanted water is recognized by the Federal On-Scene Commander (FOSC) as an integral part of offshore skimming operations and as an excellent waste minimization tool. The FOSC or designee, therefore, may authorize the discharge of separated/decanted water back into the sea within the catenary area of a boom/skimming system outside of State waters (3 miles), in accordance with the MOU between SWRCB and OSPR. The exception to this will be in NOAA Marine Sanctuary waters. With the addition of the Monterey Bay National Marine Sanctuary a significant portion of the coastline is now part of the National Marine Sanctuary program. Other sanctuaries include Point Reyes/Farallon Island, Channel Islands San Miguel, Santa Cruz, Santa Rosa, Anacapa, Santa Barbara Island, Richardson

and Castle Rock), and Cordel Banks. Federal law prohibits the discharge of material, such as separated water, to marine sanctuaries unless permitted by the Administrator of the sanctuary program. negotiations are presently under way seeking pre-approval to discharge separated waters during an emergency response to oil spills within the sanctuaries. Until pre-approval is obtained, permit for the discharge of separated water must be obtained from the Sanctuary Program, via the appropriate field office, before any discharge can take place. The phone numbers for the Sanctuary field offices are as follows: Monterey Bay @ (408) 647-4258; Channel Islands @ (805) 966-7107; and Farallones and Cordell Book @ (415) 556-3509.

Contaminated Debris. Contaminated debris including organic material, contaminated cleanup equipment (i.e., PPE, sorbents, booms, etc.) and other contaminated materials that cannot be recycled must be managed as a waste. The materials must also be characterized before the appropriate waste management option is determined.
If the debris is contaminated only with petroleum or any of its fractions, then it is exempt from regulation under Section 25143.12 of the Health and Safety Code if ALL of the following conditions are met:

- The debris consists exclusively of wood, paper, textile materials, concrete rubble, metallic objects, or other solid manufactured objects;
- The debris is not subject to regulation as a hazardous waste under the federal act;
- The debris does not contain any free liquids, as determined by the paint filter test specified in the regulations adopted by the department;
- The debris is disposed of in a composite lined portion of a waste management unit which is classified as either a Class I or Class II landfill in accordance with 23 CCR 2530, *et seq*., the disposal is made in accordance with the applicable requirements of the California Regional Water Quality Control Board and the California Integrated Waste Management Board, and, if the waste management unit is a Class II landfill, it is sited, designed, constructed and operated in accordance with the minimum standards applicable on or after 10/9/93 to new or expanded municipal solid waste landfills, which are contained in 40 CFR 258.1, *et seq*.

Oiled Animal Carcasses. Oiled animals and carcasses should be collected and turned over to the California Department of Fish and Game, Office of Spill Prevention and Response (OSPR) representatives who are responsible for wildlife rehabilitation and collection of carcasses for natural resource damage assessment (NRDA) . The identification and location of OSPR representatives can be provided by the Unified Command Center. OSPR will be responsible for the disposal of the oil-contaminated carcasses.

Waste Minimization and Recycling Opportunities

Debris Avoidance. It is generally not possible to avoid the generation of oily debris resulting from the contact of floating oil with waterborne solids, however, it is possible to minimize the generation of oily debris in the coastal intertidal zone if the anticipated area of oil impact can be cleaned prior to stranding of the spilled oil. This has been successfully accomplished in a small number of past spills.

Personnel can be deployed to remove debris from beach intertidal areas to above the high tide line in order to minimize oiling of stranded debris/trash. It is important to note that such crews are not likely to be certified as required under OSHA 1910.120 and can only perform this task prior to the stranding of spilled oil. An Industrial Hygienist and/or Health & Safety specialist should be consulted regarding the limitations of these crews and the effective establishment of exclusion zones in the area of beach impact.

Selection of Personal Protective Equipment. Depending upon climatic conditions and material compatibilities of personal protective equipment (PPE), waste can be minimized through the selection of reusable equipment, when possible. For instance, the use of reusable PPE (such as gloves and boots) instead of disposable PPE can minimize the generation of the oil-contaminated disposable PPE, as long as such equipment use is approved by the site safety officer. Such decisions should be made early in the response process in order to minimize the generation of contaminated PPE that is generally considered a hazardous waste and managed at a Class I hazardous waste management facility.

Recovered Oil and Oilv-water. In order to maximize skimmer efficiency and effectiveness, water should be decanted to the spill impact area with the approval of the FOSC and relevant state agency representatives. Operational standards (e.g., decanting only in the impact area where water depth is sufficient; no free oil) should be established as soon as skimming is initiated. In federal waters, decanting can be approved through a request to the FOSC. As discussed earlier, in state waters approval must be secured from the Regional Water Quality Control Board (see the MOU between the SWRCB and OSPR).

Both oil and oily-water recovered from skimming operations should be off-loaded to facilities (i.e.; terminals, refineries) where it can be effectively managed as a material, or recycled as a wastestream at an off-site recycling facility (i.e.; commercial refiners, reclaimers, recyclers). These facilities may be able to provide temporary waste storage in their tank or container storage areas. Prior to commencing any storage activities, however, the facility may have to obtain an emergency permit from the DTSC (approval is usually over the phone, followed by the appropriate paperwork in the mail). Additionally, any oiled debris that is recovered along with the skimmed oil must also be maintained in a secure, temporary waste storage area until it is sufficiently characterized for final disposition.

Sorbent Use/Reuse: Synthetic sorbents (i.e., pads, sweeps, and booms) have become standard response materials in the "mechanical recovery" of spilled oil. Their oleophilic, hydrophobic character makes them efficient at separating oil and water and they are routinely used to recover oil from solid surfaces as well (e.g., rubble, cobble and boulder shorelines; equipment/gear; vessels; etc.). Since oiled sorbent material often constitutes a substantial percentage of the oily solid waste generated during spill response and cleanup, opportunities for minimizing this waste volume should be considered.

Some sorbents are designed to be reusable (i.e., mechanized rope-mop skimmers) or can be recycled on-site with inexpensive gear (e.g., appropriate barrel-mounted wringers). Sorbent manufacturer instructions should be followed regarding the limits of effective reuse for their individual products. It is also possible to replace sorbent sweeps and booms with recyclable boom and other appropriate gear in circumstances where floating oil can be efficiently recovered without generating oiled sorbents. For example, in good-access, low energy shoreline areas (harbors, bays, inlets), it may be possible to use containment-boom and recover the trapped oil with vacuum trucks instead of contaminating large volumes of sorbent.

Petroleum-contaminated Soil Recycling and Reuse: While the volume of petroleum-contaminated soil associated with coastal spills is generally lower than such volumes resulting from large inland spills, opportunities for recycling/reuse should be considered. For soils satisfying the waste profiling requirements of the state and commercial facilities, beneficial reuse as daily landfill cover after appropriate treatment is an available option in California (see Response Resources list). Recycling of oil-contaminated soil as aggregate in cold-mix and hot batch asphalt is available at four facilities in the State of Washington. Furthermore, a recently completed study of the incorporation of oily/solid residuals into construction materials concluded that a large market exists in California and that these recycling/reuse opportunities should be pursued and encouraged. It is important to note that both the costs and benefits of such recycling (less than $100/ton and low future liability) versus disposal in a California Class I or II disposal facility (greater than $100/ton and moderate to high future liability) are substantial.

Removal of contaminated soil from temporary storage will require the authorization Unified Command, FOSC, or SIC.

Temporary Storage

To expedite removal of spilled oil, refined products, and contaminated materials from marine waters during an emergency-response, containment activities (to include temporary waste storage) may be conducted at appropriate on-shore locations [22 CCR 66270.1(c)3]. The transportation of oil and contaminated material to temporary waste storage sites during an emergency response is exempt from transportation and manifesting requirements, per the draft MOU between OSPR and DTSC (these requirements are also exempted per 22 CCR 66263.30 and/or 66263.43 for transportation-related emergency responses.

During an immediate response, all oil and/or oily materials may be recovered, transported, or transferred to temporary waste storage sites and are exempt from any hazardous waste generator and facility permit requirements for a period of 30 days, per the draft MOU between OSPR and DTSC. Additional 30-day extensions may be granted by DTSC, under appropriate circumstances.

Temporary storage sites can be an area or facility approved by the IC or Unified Command for characterizing and/or temporarily storing recovered oil and/or oily materials used, collected, or recovered during an oil spill response. Such an area may include, but is not limited to, permitted or interim status hazardous waste storage facilities, other non-permitted facilities, vessels, barges, tanks, vacuum trucks, barrels, containers, storage piles, or other appropriate containment methods and locations that may be used to hold recovered oil and/or oily materials. Temporary storage sites need not be owned, operated, or leased by the RP. Temporary storage sites that are on-shore should be established at locations that are convenient to the recovery operations for the temporary storage of recovered petroleum products, and contaminated materials and debris. Siting of the temporary storage site, however, must be done with the concurrence of the following:

- FOSC
- SIC
- DTSC [The DTSC duty officer can be contacted at one of the following phone numbers: Region 1 (Sacramento) @ 916-255-3564; Region 2 (Oakland) @ 510-540-3739; Region 3 (Glendale) @ 818-551-2830; and Region 4 (Long Beach) @ 310-590-4968.]
- California Coastal Commission/Bay Area Conservation and Development Commission Joint Oil Spill Program (BCDC/CCC) [for further information on obtaining temporary and/or emergency permits within the coastal zone, contact the CCC/BCDC at (415) 557-3683]
- Regional Water Quality Control Board (RWQCB), and
- Local health, fire and emergency service departments.

If a Unified Command is established, OSPR will facilitate the contact of the state and local government agencies through the Liaison Officer.

Initial Treatment

Petroleum and petroleum contaminated cleanup materials can potentially be treated at the temporary storage site. One of the treatment processes that may be used is Transportable Treatment Units (TTU). The most likely treatment process undertaken with a TTU will be separation of water from collected petroleum. Another treatment method employed for separating water on-site is decanting water from temporary storage tanks.

Any water generated through the separation of petroleum and seawater may be potentially discharged to a sanitary sewer system or back to marine waters. A discharge to the sanitary sewer will require a permit from the local sanitation district that will establish effluent requirements for the discharged water. Should a sanitation district not allow the discharge of water to its system, the recovered sea water would either be discharged back to the adjacent marine waters or transported off-site for disposal. The discharge of recovered sea water to state waters will require a NPDES permit from the local RWQCB, if it isn't under the scope of the OSPR/SWRCB MOU. A portable incinerator may be another type of TTU available during a spill response for use with contaminated material. The use of an incinerator will require a permit from DTSC and the local air pollution control district or air quality management district. The potential use of any TTU and regulatory standards must be discussed with DTSC.

Characterization of Recovered Material

Recovered petroleum and contaminated debris not recycled must be characterized to determine their waste classification before the waste can be shipped to a proper waste management facility for final disposition. A State of California certified hazardous waste laboratory might conduct the actual testing on representative samples of each type of waste.

It is the responsibility of the generator , or the responsible party (RP), to have the recovered petroleum and other contaminated materials accurately characterized as either hazardous or nonhazardous for proper disposition [22 CCR 66260.200(c)]. A generator who incorrectly determines and manages a hazardous waste as non-hazardous is in violation of the hazardous waste requirements and may be subject to DTSC enforcement action.

According to 22 CCR 66264.13 and 66265.13, before an owner or operator of a treatment, storage, or disposal facility transfers, treats or disposes of any hazardous waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. An analysis of the waste, therefore, must be provided to the hazardous waste management facility (HWMF) via a profile sheet that can be obtained from the HWMF. The HWMF then determines whether or not the waste can be accepted prior to its shipment. State criteria for characterizing a waste hazardous or nonhazardous is found in 22 CCR 66261.10 and 66261.20-66261.24 while federal criteria is presented in 40 CFR 261.30-261.33 (see Figure E.VI.2). These criteria can apply to any oily-water, sorbents, booms, and debris generated as a result of an oil spill clean up. Based on waste characterization, the wastes can be further defined as either a Federal Resource Conservation and Recovery Act (RCRA) waste (hazardous waste regulated under federal regulations), a non-RCRA waste (hazardous waste regulated under California regulations only), or a non-hazardous waste. Be aware, however, that some non-hazardous wastes may be defined as a "designated waste" per 23 CCR 25522,and should be managed accordingly. Once the waste is characterized, disposition options can then be selected. Removal of recovered material from temporary storage will require authorization by the Unified Command, FOSC, or SIC.

Transportation

Recovered petroleum product not accepted at a refinery for reuse must be transported to an approved waste management facility. The type of waste management facility will be based on the results of the waste analysis performed.

Hazardous Waste: Waste classified as hazardous under either federal or State regulations must be transported to a permitted or interim status hazardous waste management facility. Any shipments of hazardous waste must be done by a transporter who is registered with DTSC as a hazardous waste hauler (a list is available from the DTSC) and has a valid EPA Identification Number. Prior to removal of the hazardous material from temporary storage, a California Uniform Hazardous Waste Manifest (EPA Form

8700-22A) must be prepared by the generator (RP or designee) for recovered petroleum and other contaminated materials (22 CCR 66263.20-66263.23). While preparing the manifest, the RP may request assistance from the on-scene DTSC representative or the DTSC regional duty officer.
All hazardous materials and wastes shipped off-site must be transported in compliance with applicable regulations. These include the RCRA regulations in 40 CFR 262-263, DOT Hazardous Materials Regulations (49 CFR 171-178), and any applicable state regulations (22 CCR 6626.20-6626.23).

Nonhazardous Waste: Waste that is determined to be nonhazardous but is a "designated waste" (per 23 CCR 2522) will be transported to a Class II waste management facility. Manifesting of the waste is not required but a Bill of Lading is required for transportation. The appropriate Regional Water Quality Control Board (RWQCB, list in Table E.VI.3) and local health department should be contacted to determine what waste management facility will accept the waste and any additional test requirements the facility might require (see tables E.VI.4). Removal of nonhazardous waste from temporary storage will require authorization by the Unified Command, FOSC, or SIC.

Off-Site Waste Management Facilities

Depending on the type of waste and how it is to be managed, you need to identify an appropriate off-site waste management facility, as follows:

- **Non-hazardous waste/designated waste (per 23 CCR 2522)**: Transport to a Class II waste management facility*.

- **Non-hazardous waste/non-designated waste (per 23 CCR 2522)**: Transport to a Class III waste management facility*.

- **Hazardous waste**: Transport to a facility as a "material" for use/reuse; or to an authorized Class I hazardous waste management facility for recycling, treatment, storage, or disposal.

  ***** *The Regional Water Quality Control Boards should be consulted for information on the location and disposal requirements of facilities in their region.*

To avoid confusion and panic at the time of a spill incident, it usually helps to plan ahead and identify the waste management facilities (primary and alternates) to use for the different types of waste streams that are expected to be generated during a spill response and clean-up.

For a list of Recyclers within California, as well as in other states, call DTSC/Resource Recovery Unit at (916) 323-6042 for a copy of the *California Waste Exchange Directory of Industrial Recyclers and Listing of Hazardous Wastes Available for Recycling*.

9932.2a Example Waste Management Plan

Example
WASTE MANAGEMENT PLAN
for the Careless Corporation Oil Spill
September 10 - 28, 1997

OBJECTIVES

To handle recovered oil, oily debris, and contaminated sand/dirt resulting from the subject oil spill so that the wastes do not cross-contaminate other areas that are clean. To ensure that all recovered oil and oiled debris are managed in accordance with state and federal regulations, while keeping operating costs down.

GENERATOR:

- **Name:** Careless Corporation
- **Gene rator's EPA ID:** 000 000 000

COLLECTION SITES

Collection Site Locations:
1. Yahoo Bay Yacht Club
   1212 Wave Ave., Long Beach

2. Dolphin Beach Naval Storage Station
   9875 Riptide Blvd., Long Beach

Approximately 8 **Vacuum trucks** (with attached skimmers) will recover oil directly from collection points and off-load at the Careless Corp. Terminal (CCT), Tank #11-XTC (130,000 bbl capacity).

The Coastal On-Water (COW) **recovery barge** (45,000 bbl capacity) will be emptied tomorrow morning at the CCT. Four additional tanks are also available with a capacity of 175,000 bbl on an as needed basis. Currently, Tank #12-XTC (130,000 bbl capacity) is available to accept oil from the barge. The recovered oil off-loaded by both the barge and vacuum trucks will later be processed into gasoline at the Careless Corp. Refinery.

WASTE TYPE & MANAGEMENT METHOD

Decanted Water: Water that is decanted from offshore skimming operations will be released back to the ocean within the operational area, per the MOU between the State Oil Response Agency and the State Water Board.

Recovered Oil: Managed as a recovered product, and not a waste, as it will be used/reused as raw material as part of the process at the Careless Corp. Refinery.

Solid Oily Debris:
If non-hazardous (oiled dirt/sand, PPE, trash, wood, seaweed, etc.) = No-Waste, Inc. and Action Clean-Up Company will transport waste to the Union Pacific Railroad loading facility (245 Pacific Rim Drive, Wilmington) and shipped to WasteCo (class II landfill) located in-state.

If hazardous = transport to the Union Pacific Railroad loading facility in Wilmington and on to Burn-It Industries (class I Waste Management Facility) in Utah.

No-Waste is currently doing beach pre-cleanup, while Action Clean-Up and Wacco Waste Co. are available to be contracted out by Careless Corp. to do waste sampling, transport to lab, clean-up, and HW transportation, as needed. All three contractors are available for oily debris beach clean up in the event oil does impact the shoreline.

Oily Sand/Dirt: Sand and/or dirt that is oiled will be placed in bins stored at the temporary waste storage area (if no bins area available, the sand/dirt can be stockpiled at the staging areas - lined and covered with visqueen), until results of the samples reveal whether or not the oiled sand/dirt is hazardous or non-hazardous. If hazardous, will transport to Burn-It Industries; if non-hazardous, it will be transported to Ace Asphalt for use in their asphalt processes.

Waste from Decon Operations: Liquid Waste: Two Baker Tanks (each with a capacity of 500 bbls) will be located at each field staging areas/command posts. Oily water waste will be held in the Baker Tanks and off-loaded by vacuum trucks and transported to Cryer & Underwood in Wilmington for recycling. Solid Waste: Solid wastes resulting from decontamination operations will be placed in the bins labeled "Contaminated Waste "(which are already located at the temporary storage sites, next to the field staging areas/command posts) and will be managed the same way as the solid oily debris.

Waste from Wildlife Rehab Operations: Liquid Waste - All oily water recovered from rehab operations will be stored in a portable tank for further analysis/waste characterization. If the oily water is acceptable for re-use, it will be brought back to the Careless Corp. Refinery and used as a "material" in the refinery process. If not acceptable for re-use, the oily water waste will be discharged to the sewer with an approved NPDES permit (local sanitation district has already given approval). Solid Waste - All solid oily wastes from rehab operations will be placed in visqueen-lined roll-on/roll-off bins and will be managed the same as solid oily debris.

Oiled Animal Carcasses: Any oiled animal carcasses will be handled and managed by state Oil Response Agency wildlife personnel.

WASTE MINIMIZATION:

Careless Corp. will brief field responders and contractors on waste minimization practices (e.g.: minimize use of sorbents and waste segregation), types of waste, labeling, packaging, etc.

Pre-beach cleanup: Pre-beach cleanup of wood, seaweed and other debris prior to oil impacting the shoreline is being conducted by No-Waste, with Action Clean-Up and Wacco Waste are on stand-by.

Segregation of contaminated and non-contaminated wastes: Roll-off bins will be labeled as either "Contaminated Debris" or "Non-Contaminated Debris", so as to avoid any cross-contamination.

TEMPORARY STORAGE SITES

Temporary Storage Site Locations: Yahoo Surf State Beach, Parking lot #8; and Dolphin Beach State Park, parking lot # 19. Both temporary storage sites are adjacent to the staging areas, and near the field command posts.

Ten roll-off bins lined with visqueen will be located at each temporary storage site. Each bin will be labeled "Contaminated Debris" and "Non-Contaminated Debris", so as to avoid any cross-contamination.

Each bin will be numbered in a chronological manner as they are received on-site (i.e.: #1 - 10), and letters to identify the site (i.e.: "YS" for Yahoo Surf, "DB" for Dolphin Beach). The identification numbers should, therefore, look as follows: *YS-1, YS-2; DB-1, etc*.

Each bin will be further identified by origin of waste (e.g.: "Yahoo Yacht Club", etc.). Use duct tape and marker pen w/ indelible ink. Oil Response Agency and Careless Corp. representatives will assess contents of bins before transporting to an off-site facility. Bins will be marked as "hold" or "OK to transport" by the Oil Response Agency and Careless Corp. representatives. Assessment of bins may take up to 2 weeks, therefore, bins marked hold will be temporarily stored at the Careless Terminal, until the bins are assessed.

A State Oil Response Agency representative will also witness gauges of Baker Tanks containing liquid wastes.

Siting & Construction : Appropriate state agencies (Oil Response, Water Board, Coastal Commission, and Toxic Substances) have approved the siting and construction of temporary storage sites prior to storage. All agencies have approved siting of temporary storage areas.

Temporary Storage Site Permits Required: State Toxic Substances Department and the Coastal Commission have granted emergency permits to operate the temporary storage sites as described above.

DECONTAMINATION SITES

Decontamination of response equipment (boat, boom, etc.) and personnel, as well as recreation and fishing boats, will be conducted at the following designated locations:

1. Yahoo Yacht Club
2. Ito Industries Dock
3. Mira Marina

GAUGING OF RECOVERED OIL

Skimmed oil from marine waters:
1. From COW vessels to Barge #119. A state Oil Response Agency representative will be on-scene to witness gauging. Barge #119 to Careless Terminal to off-load into Tank #12-XTC. A state Oil Response Agency representative will witness gauges, watercut, and will sample oil prior to any transfers. Additionally, Marine Terminal Safety Inspectors from the State Lands Commission-Marine Facilities Inspection Division will assist the state Oil Response Agency with gauging and oil transfer operations issues, as needed.

2. During Lightering of the damaged Barge, oil will be skimmed from damaged tanks. This oil will be handled SEPARATE from the recovered skimmed oil, as this is oil that has not been spilled.

3. Oil skimmed from the water at collection points will be transported to Careless Terminal Tank #11-XTC by vacuum truck. A Careless Corp. representative (or designee) will record each load amount and the collection point from which the vacuum truck came from. A state Oil Response Agency Representative will conduct daily spot checks.

4. State Oil Response Agency will witness all final closing gauges when transfers are finished.

Recovered oil from the beaches: . State Oil Response Agency will be assessing the amount of oil accumulated in the bins at the temporary storage sites along with the Careless representative (or designee). Bins will not leave the temporary storage sites until this has been completed.

SAMPLING PROTOCOL

Protocol: Sampling of the recovered oil and oily debris will be followed in accordance with the attached Sampling Protocol. Sampling will be conducted by the state Oil Response Agency and/or the Careless representative (or designee). All analytical results will be shared amongst Careless Corp., state Oil Response Agency, U.S. Coast Guard, and NOAA (NRDA Team).

State Certified Hazardous Waste Laboratory: Careless Corp. already has a contract in place with **Del Lago Analytical**. Representative waste samples will be analyzed for flashpoint, state metals, and TCLP EPA Method 8240 to determine whether or not the waste is hazardous.

TRANSPORTATION

1. **Highway:** Action Clean-Up and/or No-waste. Both are registered hazardous waste haulers and are certified by the state Toxic Substances Department.
2. **Rail:** Union Pacific

Recovered oil that is considered a hazardous waste does not need a manifest to transport from the spill site to the Careless Refinery or Terminal, as it is a transportation-related spill incident and is exempt from that requirement (per regulation section xxxxx). Recovered oil that is not considered a waste, but a material to be used/reused at the terminal, does not require manifests for transportation from the spill site to the Careless Terminal. Manifests will be used when transporting hazardous wastes (and a Bill of Lading for non-hazardous wastes) from the spill site and/or the Careless Terminal to the Wilmington Railroad transfer facility and then by rail to Burn-It Industries.

OFF-SITE WASTE MANAGEMENT FACILITY

1. **Burn-It Industries**, located in Utah.
2. **Ace Asphalt**, located in Azusa, California

REQUIRED PERMITS/GOVERNMENT AGENCY CONTACTS

1. **State Toxic Substances Department** @ (800) 555-4998. To obtain emergency permits for the temporary storage sites. The Toxic Substances Dept. has granted an emergency permit over the phone for the temporary storage sites.

2. **State Coastal Commission** @ (800) 555-3886. For work at the temporary storage sites which occurs within the coastal zone. The Coastal Commission has granted an emergency permit for the temporary storage sites and will hand-deliver it by 5:00 p.m. today.

9933 ***Letters*** (Refer to Section 3400)

9934 ***Notices***

9934.1 Notice to Mariners

For development of a Notice to Mariners in the event of a spill situation, refer to the Coast Guard Aids to Navigation Manual-Administration, COMDTINST 16500.7, Ch. 13.D.3.

9934.2 Safety and Security Zones

Detailed information describing Safety & Security Zones can be found in 33 CFR 165.1 thru 165.33. Information on delegation of authority to COTPs to establish and enforce Safety & Security Zones, and Regulated Navigation Areas can be found in 33 CFR 1.01-30 and 33 CFR 160.5.

9934.3 COTP & Administrative Orders

Information on Captain of the Port Orders and other special orders applying to vessel operation can be found in COMDTINST 16000.6, Marine Safety Manual, Volume 1, Administration and Management, Ch 12, Sect I; COMDTINST 16000.11, Marine Safety Manual, Volume VI, Ports and Waterways Activities, Ch. 1, Sect 1.E;
33 CFR 160, Subpart B.

9934.4 Press Releases

Guidance on preparing a press release can be found in the Coast Guard Public Affairs Manual, COMDTINST M-5728.2A, Ch. 2, Sec. E (pgs 2-10 thru 2-14).

9934.5 State of California Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) was passed by the voters of California in November 1986, and became effective January 1, 1987. The Act required the Governor to publish a list of chemicals known to the State to cause cancer or reproductive toxicity no later than March 1, 1987. Updates and revisions to the list are required no less than annually. For chemicals so listed, warnings are required 12 months after listing for knowing and intentional exposure, and knowing and intentional discharges to the State's drinking water sources are prohibited 20 months after listing. The lead agency for implementation of this Act is the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment.

The Act provides three mechanisms by which a chemical is listed: (1) if in the opinion of the State's qualified experts it has been clearly shown through scientifically valid testing according to generally accepted principles to cause cancer or reproductive toxicity; (2) if a body thought to be authoritative by such experts has formally identified it as causing cancer or reproductive toxicity; or (3) if an agency of the State or federal government has caused it to be labeled or identified as causing cancer or reproductive toxicity. The list currently includes 379 carcinogens and 128 reproductive toxicants.

Regulations which are intended to provide guidance and reduce the uncertainties associated with the Act and the list of chemicals are published in Division 2 of Title 22 of the California Code of Regulations, Sections 12000 *et seq*. They are also printed in Title 26, Division 21.5 beginning

with Section 22-12000. The list of chemicals is updated in the California Regulatory Notice Register, which is published by the California Office of Administrative Law **(916) 323-6225.**

9940 Reference Documents

a. This document can be found on the World Wide Web at: www.uscg.mil/pacarea/pm/Graphic/SDacp.htm (for N.Coast, SFB & D, Cent. Coast, LA/LB N & S, and San Diego)
b. Field Operation Guide (FOG) Incident Command System (ICS); U.S. Coast Guard.
c. 33 CFR
d. COMDTINST 16000.6, Coast Guard Marine Safety Manual, Vol. 1
e. COMDTINST 16000.8, Coast Guard Marine Safety Manual, Vol. 3
f. COMDTINST 16000.9, Coast Guard Marine Safety Manual, Vol. 4
g. COMDTINST 16000.10, Coast Guard Marine Safety Manual, Vol. 5
h. COMDTINST 16000.11, Coast Guard Marine Safety Manual, Vol. 6
i. COMDTINST 16000.15, Coast Guard Marine Safety Manual, Vol. 10
j. COMDTINST 16465.1, Spills Of National Significance Response Management System, 15 July 1997
k. National Contingency Plan (40 CFR Part 300)
l. COMDTINST 16471.1 Adoption of NIIMS ICS, 9 Feb 1996
m. COMDTINST 16471.2, Incident Command System Implementation Plan, 23 May 1997

9950 ART Check-Off Lists (Refer to section 4550)

9960 MOU's

List of Applicable Memorandums of Agreement/Understanding

Several other Interagency agreements can be found in COMDTINST M16000.15, Marine Safety Manual, Volume 10.

(* Copy of MOU/MOA text is included in this ACP)

*MOA on Oil Pollution and Response Between Commander, Eleventh Coast Guard District and the State of California—Signed 1997

*MOA Between Department of Fish and Game's Office of Spill Prevention and Response and the State Water Resources Control Board Relating to Discharges Associated with Response Activities Conducted Pursuant to CH. 7.4, Division 1 of the Government Code.

*Memorandum Of Understanding Relating To The Handling And Transport Of Materials Used Or Recovered During An Oil Spill Between The Department Of Fish And Game's Office of Spill Prevention and Response And The Department Of Toxic Substances Control. 1997

*LOA Among U.S. Coast Guard (USCG), Environmental Protection Agency (USEPA), National Oceanic and Atmospheric Administration (NOAA), and Department of Interior (USDOI) Concerning the Use of In-Situ Burning as a Response Method to Oil Pollution for the Area 35-200 Nautical Miles Off the Coast of California.—Signed 10 April 1997. (See Section 4550)

MOU Between U.S. Coast Guard and the Environmental Protection Agency — Signed 4 January 1982

MOU Between the Departments of Interior and Transportation Concerning Respective Responsibilities Under the National Oil and Hazardous Substances Pollution Contingency Plan — Signed 16 August 1971

Interagency Agreement Between the U.S. Fish and Wildlife Service and the U.S. Coast Guard for Participation in Pollution Incidents — Signed 24 July 1979

Instrument of Redelegation of Sections 2(d), 2(f), 2(g), 3(a), and 4(b) of Executive Order 12316 of October 2, 1981 from the U.S. Coast Guard to the Environmental Protection Agency on Response Actions.

Interagency Agreement (IAA) between the United States Navy and the United States Coast Guard for Cooperation in Oil Spill Clean-up Operations and Salvage Operations — Signed 15 September 1980

MOU Among the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration, the United States Coast Guard and the United States Environmental Protection Agency – Signed 18 December 1980

MOU Between the Minerals Management Service of the Department of the Interior and the United States Coast Guard of the Department of Transportation Concerning Regulation Activities and Facilities on the Outer Continental Shelf of the United States — Signed 29 August 1989

MOU Between the Environmental Protection Agency and the United States Coast Guard Concerning the Mitigating of Damage to the Public Health or Welfare Caused by a Discharge of a Hazardous Substance under Section 311 of the Clean Water Act (33 USC 1321) — Signed 3 October 1979

MOU Between the Environmental Protection Agency and the United States Coast Guard on Assessment of Civil Penalties for Discharges of Oil and Designated Hazardous Substances — Signed 17 August 1979

MOU Between the Department of Transportation and the Department of the Interior Regarding Offshore Pipelines — Signed 6 May 1976

MOU Between the Department of Transportation, Department of Interior and the Environmental Protection Agency Regarding Jurisdictional Responsibilities for Offshore Facilities — Signed 14 December 1993

MOU Between the [CA] Department of Fish and Game's Office of Spill Prevention and Response and the [CA] State Lands Commission.

MOU Between the California Department of Fish and Game and California Department of Forestry and Fire Protection.

MOA on Oil Spill Prevention and Response Between Wildlife Protection Division and Office of Spill Prevention and Response.

MEMORANDUM OF AGREEMENT
ON
OIL POLLUTION PREVENTION AND RESPONSE
BETWEEN
THE COMMANDER, ELEVENTH COAST GUARD DISTRICT
AND
THE-STATE-OF CALIFORNIA

WHEREAS, Congress enacted the Oil Pollution Act of 1990 (OPA 90) to protect the waters of the United States from oil pollution and to plan for the effective and immediate response in the event of an oil spill, and the President subsequently designated the Coast Guard as the Federal On Scene Coordinator ZOSC) within the California coastal zone; and

WHEREAS, Congress has decided in a number of enactments, including OPA 90, not to preempt the various States from regulating certain matters associated with the protection of waters within their jurisdiction from oil pollution, which matters are also subject to regulation by the Coast Guard under OPA 90 and other statutes; an

WHEREAS, Congress explicitly provided that the provisions of OPA 90 do not: (1) preempt or affect the authority of any state to impose additional liability or requirements respecting oil discharges or other oil pollution within such a state or removal activities in connection with such a discharge; (2) affect the authority of any state to establish or continue to fund, any purpose of which, is to pay for oil pollution or the substantial threat of oil pollution costs or damages, or to require any person to contribute to such a fund; or (3) affect the authority of any state to impose any fine or penalty for violation of law relating to a discharge; and

WHEREAS, the State of California has enacted the LempertKeene-Seastrand Oil Spill Prevention and Response Act of 1990, hereinafter referred to as the California Act, to protect the waters of the State from oil pollution and to plan for the effective and immediate response, removal, abatement, and cleanup in the event of an oil spill and to augment State authority for the prevention and response to spills in waters under the jurisdiction of the State; and

WHEREAS, the California Act provides that the Administrator of the Office of Spill Prevention and Response (OSPR) is appointed by and acts at the direction of the Governor. The Administrator acts as chairperson of the State Interagency Oil Spill Committee (SIOSC) and coordinates actions through the State committee and review subcommittee; and

WHEREAS, the Administrator, subject to the Governor, and through the Department of Fish and Game, has the primary State authority to direct prevention, removal, abatement, response containment and cleanup efforts, with regard to all aspects of any oil spill in the State waters, in accordance with any applicable marine facility or vessel contingency plan, and the State Oil Spill Contingency Plan; and

WHEREAS, the State Lands Commission has the primary State authority to adopt rules, regulation, guidelines and commission leasing policies for reviewing the location, type, character, performance standards, size, and operation of all marine facilities on lands leased from the Commission and all existing and proposed marine terminals within the State; and

WHEREAS, the Commander, Eleventh Coast Guard District is the senior Coast Guard officer within the State of California, exercising Federal authority under the Oil Pollution Act of 1990 and other

Federal laws with respect to oil pollution planning and response in waters subject to the jurisdiction of the United States in and outside the State of California and matters dealing with areas of vessel manning and safety equipage; and

WHEREAS, marine oil spills require a rapid, efficient, and coordinated response and cleanup by Federal, State, and local agencies as well as from private entities to minimize the deleterious effects on human, wildlife, and other natural resources; and

WHEREAS, both the Coast Guard and the State recognize the critical roles each has within their respective areas of authority in preventing oil-spills and in planning for and responding to oil spills; and

WHEREAS, the Parties recognize the cooperation between them in the implementation and exercise of their respective statutory and regulatory authority is essential to avoid conflict and unnecessary duplication; and

WHEREAS, the Parties believe and intend that by acting in a cooperative and coordinated manner, the effect will be a synergistically enhanced oil spill prevention and response effort in the State of California;

NOW THEREFORE, the Parties agree, to the extent permitted by law, and as consistent with their respective policies and available resources, to cooperate and to coordinate their efforts in implementing and exercising their respective statutory and regulatory duties related to oil spill prevention and response.

I
PARTIES

The Parties to this Memorandum of Agreement are the Eleventh Coast Guard District ("Coast Guard") and the State of California ("State").

II
PURPOSE OF THE AGREEMENT

The purpose of this Memorandum of Agreement (MOA) is to ensure the Parties exercise their respective authorities regarding oil spill prevention, planning, and response in a manner so as to avoid unnecessary duplication and conflict and to ensure best achievable protection from the impact of pollution incidents for the navigable waters of the United States which are within or may impact the State waters of California; subject to each Party's statutory, regulatory, and policy requirements.

III
DEFINITIONS

Except where otherwise specifically defined in the context of its use herein, or where specifically set forth below, terms used in this Memorandum of Agreement (MOA) shall have the meaning as set forth in Federal law and applicable State law.

A. Specific definitions:

1. State Waters: Federal regulations designate the Coast Guard as the Federal On Scene Coordinator (OSC) within the California coastal zone. The Environmental Protection Agency (EPA) is the OSC for oil spills within the inland zone. The jurisdictional boundary between these zones is

specified in the Federal Region IX Regional Response Team Contingency Plan. The term "State waters" shall mean those navigable waters of the United States which lie within the jurisdiction of the State of California and over which the Coast Guard has concurrent Federal authority for oil spill response.

2. Marine Oil Spill Contingency Plan: The Marine Oil Spill Contingency Plan is an addendum to the State Oil Spill Contingency Plan, which in turn is a part of the State Hazardous Materials Incident Contingency Plan. Under this scheme the Department of Fish and Game Director is the State Incident Commander for inland oil spills and the Administrator of OSPR is the State Incident Commander for marine oil spills.

IV
INFORMATION SHARING

The exchange of information between the Federal government and the State relative to historic pollution events and current risks is necessary to develop appropriate prevention and response systems. Both Parties maintain information systems that are relevant to both historical and real-time incidents. The Parties require the fullest degree of information sharing from available and pertinent data bases in order to make accurate and timely decisions to prevent and or respond to oil pollution.
Transmissions of information shall be in accordance with procedures adopted by the Parties for that purpose.

A. Action:

1. The Parties agree to share information on Prevention Through People (PTP) programs sponsored by Coast Guard, or other human factor initiatives that either party may undertake.

2. The Eleventh Coast Guard District will advise the State of information it receives of the following events occurring in the navigable waters, or that may impact the State, involving vessel disablings, collisions, groundings, explosions, rammings, allisions, distress and other events when oil pollution or substantial threat of oil pollution results. The State will ensure that its emergency notification systems report these incidents to the Coast Guard.

3. The Parties agree to identify and share existing data bases, including the Marine Safety Information System (MSIS), and work toward developing risk management programs that provide risk data sharing for vessels and access by both parties to all data, subject to the requirements of applicable law, regulation, and policy, in a manner to conserve and leverage agency resources.

4. Initiatives taken to limit the introduction on nonindigenous aquatic nuisance species into State waters will be sought through appropriate State or federal regulation. The Parties as appropriate shall share information concerning aquatic nuisance species programs.

5. The Parties agree, subject to limitations imposed by applicable law or regulations, to share information from relevant studies.

V
OIL SPILL RESPONSE PREPAREDNESS

The National Contingency Plan (NCP) establishes the response organization within the United States and requires tiered contingency planning efforts. The State, consistent with the NCP, defines its response organization through the State Hazardous Material Plan and addenda to the Oil Spill Contingency Plan.

A. Planning Documents

1. National Oil and Hazardous Substances Pollution Contingency Plan ("National Contingency Plan - NCP"):

The Environmental Protection Agency (EPA) is the lead agency in drafting, and the Coast Guard and EPA are jointly responsible for implementing, the NCP which governs actions concerning spill response and cleanup for Federal, State, local agencies, responsible parties, clean-up contractors and others participating in such actions in United States waters.

a. Action: The State will work with the Coast Guard to ensure State plans and policies for marine environmental protection are consistent with the NCP.

2. State Hazardous Material Incident Contingency Plan and the State Oil Spill Contingency Plan:

The State Office of Emergency Services (OES) is responsible for developing and maintaining the Statewide Contingency Plan that details State responsibilities, policies, and actions governing response to spills in waters of the State. The OSPR has specific statutory authority and responsibility concerning oil spills.

a. Action: The Coast Guard will consult with the State to ensure State plans and policies for marine environmental protection are consistent with the NCP.

3. Area Contingency Plan:

The Area Committees, established by the President under the authority of the Oil Pollution Act of 1990, are responsible for the development of Area Contingency Plans for those Areas under the direction of the Federal On Scene Coordinator (OSC). The Area Contingency Plans describe the responsibilities of owners, operators and Federal, State and local agencies in responding to oil spills or threats of spills, list equipment and personnel available to respond, describe procedures for the use of dispersants and describe how the Area Contingency Plan integrates with other plans. Area Contingency Plans are adopted by amendments to the State Contingency Plan to facilitate and coordinate on-going work with local municipalities and coastal counties. Through the OSPR Local Grant Program, municipal and county governments are also included in State and Federal planning documents. The objective is to create consistency between the local, State, and national contingency plans.

a. Action: The Parties agree to consult with each other to enhance contingency planning and to ensure that the Area Contingency Plans and Statewide Master Plan are consonant and uniform, subject to the requirements of existing law.

4. Facility Oil Spill Response Plans:

Both Federal and State law require facility Oil Spill Response Plans. These plans describe facility capabilities to prevent and respond to pollution emergencies. The State and the Coast Guard will coordinate with the Department of Transportation (DOT), Mineral Management Service (MMS), and the Environmental Protection Agency (EPA) in assessing facility contingency plans.

a. Action:

(i) Subject to the requirements of applicable law, regulations and policy, the Parties will develop a system to coordinate, to the extent practicable, the Parties' cooperative review and approval of facility contingency plans. The Parties agree to conduct reviews of facility contingency plans in as much of a coordinated and non-duplicative manner as is permitted by applicable laws, regulations and procedures.

(ii) The Coast Guard and the State will cooperate to ensure that requirements for facility response plans are compatible and do not conflict. The Parties will work together to determine the feasibility of the Coast Guard accepting State review of facility contingency plans, subject to Coast Guard oversight.

5. Vessel Oil Spill Response Plans:

Both Federal and State law require vessel oil spill response plans. These plans describe vessel capabilities to prevent and respond to pollution emergencies.

a. Action:

(i) Although the Parties recognize the need to independently review vessel plans for compliance with their respective laws and regulations, the Parties agree to conduct reviews of vessel contingency plans in as much of a coordinated and non-duplicative manner as permitted by applicable laws, regulations and procedures.

(ii) The State shall accept to the maximum extent practicable the Federal vessel contingency plan requirements and shall prepare supplementary forms for parties to comply with State requirements in areas such as preventive measures which are in addition to Federal requirements.

(iii) The Parties will cooperate to ensure that requirements for vessel contingency plans are compatible and do not conflict. The Parties will work together to determine the feasibility of the Coast Guard accepting State review of vessel contingency plans, subject to Coast Guard oversight.

B. Government Committees

The National Contingency Plan (NCP) directs the organization of government committees to prevent and respond to pollution emergencies.

1. Regional Response Team:

The Region IX - Regional Response Team (RRT) is established as a coordinating committee by the NCP and includes the State along with the Federal agencies with pollution prevention and pollution response responsibilities.

a. Action: The Parties agree to jointly participate as members of the Regional Response Team (RRT). RRT participation includes both attending regularly scheduled meetings and responding during incident specific RRT mobilization.

2. Area Committees:

Area Committees were established by OPA 90 to maximize State and local participation in contingency planning.

a. Action: The Parties agree to coordinate local response planning by jointly participating in the Area Committee planning process. Both Parties are strongly committed to participating in Area Committee Plan development and the use of the Area Committees in conducting exercises and drills, consistent with the provisions of the NCP and applicable State contingency plan.

3. Mexico/United States Pact (MEXUSPAC) Joint Regional Response Team:

The MEXUSPAC Joint Regional Response Team (JRRT) is established in accordance with the NCP to prepare for and respond to pollution emergencies that may impact the international border area between the United States and Mexico on the Pacific coast.

a. Action: The Coast Guard will advise the State of all agreements, plans, and standard operating procedures (SOP) developed to coordinate pollution response with Mexico. During an incident specific mobilization of the MEXUSPAC JRRT, the State will be represented through the State RRT representative who will be from the Department of Fish and Game.

4. State Interagency Oil Spill Committee (SIOSC): SIOSC is responsible for coordinating oil spill prevention, response, planning and policy at the State level.

a. Action: The Coast Guard is invited to provide input and recommendations to the SIOSC.

5. State Harbor Safety Committees: State Harbor Safety Committees are responsible to evaluate and recommend ways to improve the safety of navigation in harbors and harbor approaches.

a. Action: The Coast Guard is invited to provide input and recommendations to the Harbor Safety Committees.

C. Drills and Exercises:

Drills and exercises are required by both Parties to ensure the readiness and interoperability of pollution response organizations. It is the intention of the Parties to encourage coordination, participation, and cross-training in periodic drills and exercises to facilitate a better understanding of each Party's duties and responsibilities as well as to ensure a combined, effective, familiar working relationship at oil spill incidents.

a. Action:

(i) The Parties agree to interact in the planning, scheduling, design, conduct and evaluation of exercises as time and resources permit. In this context, the Parties recognize the role of the National Strike Force Coordination Center, as the focal point for exercise strategy for all elements of the National Response System, in scheduling, designing, executing, evaluating and providing feedback on all National Response System PREP exercises in conjunction with the appropriate RRT and Area Committees.

(ii) The Parties agree to make available, as time and resources permit, any published annual reports as required by OPA 90 and State statutes concerning evaluations of drills and recommended changes to the National and Area Contingency Plans.

D. Certification of Oil Spill Response Organizations:

Both Parties evaluate, categorize, and certify oil spill response organizations.

1. Action:

a. The Coast Guard and the State will cooperate to the maximum extent practicable to evaluate, categorize, and certify oil spill response organizations. The Parties will develop joint certification guidelines and conduct independent or joint reviews as necessary or desirable.

b. The State shall accept to the maximum extent practicable the Federal compliance documents for Federal certification and shall prepare supplementary forms for compliance with State regulations.

VI
PREVENTION OF OIL SPILLS

A. Cooperative Implementation:

The Parties are coordinating their efforts to prevent oil spills in the marine environment.

1. Action: To the extent permitted under applicable laws, the Parties agree to cooperate in the execution of their respective regulatory responsibilities, to minimize duplication of effort, and to identify opportunities for innovative implementation of casualty prevention plans. Both Parties recognize the importance to encouraging cross-training in each other's regulations and rules including the areas of inspection and response. Each Party must exercise its own rulemaking implementation responsibilities independently and in accordance with applicable rulemaking procedures. Federal inspection requirements associated with vessel safety are not subject to supplemental State regulation.

B. Vessel Inspections:

Each Party recognizes that the other must independently exercise its respective examination responsibilities in accordance with applicable law, regulations and policies. The Coast Guard conducts inspection programs for the purpose of enforcing both international agreements and domestic law aboard United States and foreign flagged vessels. The State, under the California Act, is required to evaluate that inspection process and make recommendations for improvement.

1. Action:

a. The Parties agree to work together to avoid inconsistent requirements and to find ways to conduct vessel inspections in such a way that disruption to the industry is minimized and efficiency and safety maximized.

b. In implementing any State examination programs, the State agrees to avoid conflicts and unnecessary duplication in reviewing Federal inspection programs by on-going consultation with the Coast Guard.

c. Review of inspection records: The Parties agree to make inspection records available to the other and to cooperatively review inspection results, subject to applicable laws, regulations, and procedures.

d. The State shall report to the responsible officer in charge, marine inspection (OCMI), recognized discrepancies in meeting the requirements of international agreements believed to exist aboard United States and foreign flagged vessels.

e. Requirements in State Waters: The Parties will cooperate to establish consistent pollution prevention requirements, and to cooperatively monitor, examine and exchange information relative to those requirements, for vessels to operate in State waters.

f. The State will promptly inform the cognizant OCMI, and the Coast Guard will promptly inform the Administrator or his designee, of any situation or circumstance relative to a vessel whose condition or equipment may significantly increase the potential for an unauthorized discharge or create an unusual or an unacceptable risk to public health and safety or the safety of navigation within State waters.

g. The Parties agree to share all applicable information obtained from their respective vessel inspections and examinations.

C. Vessel Screening:

The Coast Guard, under Federal law, through the District Commander and the Captain of the Port (COTP), has the authority to regulate the entry of vessels, including those determined to be a threat to the environment. The State may establish the means by which it can determine whether tank vessels entering the State waters pose a substantial risk of harm to public health and safety and the environment.

1. Action: When the State determines that a particular vessel or vessels pose a substantial risk, that determination will be forwarded to the cognizant Captain of the Port (COTP). The COTP shall consider that information in making a determination under Federal law as to appropriate action to be taken, if any, including the possibility of denial of entry.

D. Tank Vessel Equipment:

The Coast Guard conducts inspections and examinations to ensure compliance with requirements for equipment to ensure safety of life at sea aboard vessels. The California Act authorizes the Administrator to conduct vessel inspections. Both Parties conduct examinations to ensure compliance with requirements for pollution prevention and pollution response equipment.

1. Action: The Parties will cooperatively examine pollution prevention and pollution response equipment aboard vessels and report noncompliance to the other Party.

E. Tank Vessel Manning:

The Coast Guard establishes and enforces requirements for manning, competence, and documentation of personnel aboard tank vessels.

1. Action:

a. The State will assist the Coast Guard to evaluate and coordinate additional requirements for manning, training, and qualification requirements through the manning standards process.

b. The Parties agree to actively promote and coordinate research projects, such as PTP, to identify human factors that need to be regulated to prevent pollution incidents.

F. Tank Vessel Transfer Operations:

Monitoring tank vessel transfer operations has been identified as an effective pollution prevention action.

1. Action:

a. The Parties will cooperate to monitor transfer operations aboard tank vessels, including, but not limited to, dockside transfers at facilities and lightering and bunkering operations. The Coast Guard acting through the Marine Safety Offices (MSO's) and the State agree to cooperate in the scheduling of monitoring vessel transfer operations to make best use of limited resources and avoid redundant oversight and disruptions to industry. Each Party will advise the other of violations observed.

b. The Parties will cooperatively monitor and examine pollution prevention and pollution response equipment during transfer operations. Each Party will advise the other of violations observed.

c. The Parties agree to make transfer monitor records available to each other and to cooperatively review monitoring results, subject to applicable laws, regulations and procedures.

G. MARPOL 73/78

MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto:

MARPOL 73/78 is an international agreement implemented to reduce pollution from vessels.

1. Action: The Parties will cooperate in the enforcement of existing MARPOL requirements. The Coast Guard will keep the State informed concerning MARPOL regulations, and both Parties will work together to develop disposal services adequate to support port operations.

H. Facility Inspections:

Facility inspections are conducted by both Parties to ensure compliance with pollution prevention and pollution response regulations. The State has statutory responsibility for oil transfer facilities and their operation within the State. Included in this responsibility is the requirement to establish regulation and inspection programs governing oil transfer facilities. This includes regulation and inspection of oil transfer operations between marine facilities and tank vessels.

1. Action:

a. Facility Inspection: The Parties will coordinate their respective inspection and monitoring activities to the extent practicable to utilize the resources of both Parties efficiently and

effectively. Cognizant inspectors from both Parties may carry out inspections and other activities jointly where appropriate.

b. Equipment: The Parties will cooperatively enforce requirements for pollution prevention and pollution response equipment at marine facilities.

c. Manning: The Parties will cooperatively enforce requirements for trained and qualified personnel to be responsible for transfer operations at marine facilities.

d. MARPOL Reception Facilities: The Parties will work together to ensure adequate facilities are present to receive garbage, sewage, and oily wastes from vessels.

e. The State will promptly inform the COTP, and the USCG will promptly inform the State, of any situation or circumstance relative to facilities whose operation or equipment may significantly increase the potential for an unauthorized discharge or create an unusual or an unacceptable risk to public health and safety, or the safety of navigation within State waters.

I. Waterways Management:

1. Port and Waterways Safety

The Captain of the Port (COTP) is the predesignated Federal official with primary responsibility to exercise control of vessels to ensure the safety and security of ports and waterways. Under the California Act, Harbor Safety Committees are created and are responsible for the planning of safe navigation and operation of tankers, barges, and other vessels in harbors and harbor approaches.

a. Action

(i) The State will promptly inform the COTP, and the Coast Guard will promptly inform the appropriate State authority, of any situation or circumstance relative to vessels whose operation or equipment may significantly increase the potential for an unauthorized discharge or create an unusual or an unacceptable risk to public health and safety, or the safety of navigation within State waters.

(ii) The State is guided by recommendations from the Harbor Safety Committee for the planning of safe navigation and operation of tankers, barges and other vessels within each harbor. The State, in adopting regulations to implement the Harbor Safety Plan will coordinate with the COTP.

3. Vessel Traffic Services (VTS)

The Ports and Waterways Safety Act authorizes the Coast Guard to construct, operate and maintain vessel traffic services in the areas subject to the jurisdiction of the United States. The Federal system of VTS is designed and empowered to inform, advise, and direct marine traffic in designated areas. Federal VTSs require the participation of certain classes of vessels and may direct the movement of those vessels to reduce navigational risks.

In 1991, the Coast Guard completed a VTS Ports Needs Study to determine which United States ports would gain the most benefit from the presence of a Federal VTS. The California ports and waterways included in the Port Needs Study were Los Angeles/Long Beach, Santa Barbara Channel and the ports in and around San Francisco Bay.

a. Action:

(i) The Coast Guard maintains a Federal VTS in San Francisco Bay. The State will cooperate with the Coast Guard to ensure expansion of the existing VTS system within San Francisco, San Pablo, Suisun Bays as well as the Gulf of the Farallones.

(ii) A Vessel Traffic Information System (VTIS) for Los Angeles/Long Beach is maintained under a joint partnership between the Marine Exchange, the State and the Coast Guard.

3. Pilots

Federal law requires pilots aboard vessels sailing within the coastwise trade. Foreign vessels or United States vessels engaged in foreign trade may be controlled by State pilotage requirements. In the absence of State pilotage regulations, the Federal government may impose pilotage requirements on those vessels.

a. Action: The Coast Guard and the State intend to enter into a memorandum of agreement with California's port and harbor authorities for the purpose of creating a state pilotage system ; except for the port and harbor authorities falling under pilotage jurisdiction of the Board of Pilot Commissioners for San Francisco, San Pablo and Suisun Bays, where the Coast Guard recognizes the State regulation of pilotage.

4. Tug Escorts

Federal and State law authorize the regulation of the use of tug escorts and may require either equipment or standards of performance deemed necessary for the function.

a. Action:

(i) The State and the Coast Guard agree to consult with each other in issuing any regulations requiring tug escorts to ensure that they are consistent to the extent permitted by law.

(ii) Towing Equipment: The Parties agree to review requirements for tow equipment for barges and tank vessels carrying oil in bulk, with the purpose of determining whether additional standards for equipment, maintenance, operation, and inspection should be adopted.

5. Aids to Navigation (ATON)

The Coast Guard establishes, regulates, and maintains a uniform system of aids to navigation within the United States.

a. Action: The State will assist the Coast Guard by recommending changes, improvements, or repairs that may improve aids to navigation, in cooperation with the Harbor Safety Committees.

J. Public Information/Education

The Parties agree that public education in areas of pollution prevention, which includes oil, hazardous substances and garbage, is a high priority and that each agency shall seek opportunities to coordinate pollution prevention public awareness and education programs.

1. Action:

a. Marinas: Public information and education will be cooperatively developed and implemented targeting marina operations to reduce pollution from oil, toxic substances, garbage, and sewage.

b. Small Oil Transfer Facilities: Public information and education will be cooperatively developed and implemented targeting small oil transfer facilities to reduce pollution from oil, toxic substances, garbage, and sewage.

c. Recreational Vessels: Public information and education will be cooperatively developed and implemented targeting the recreational boating community to reduce pollution from oil, toxic substances, garbage, and sewage.

VII
RESPONSE

Federal law established the Coast Guard as the primary Federal agency tasked with responding to oil spills on the navigable waters of the United States. In such cases, the Federal On Scene Coordinator (OSC) is the predesignated official responsible for directing response actions. The OSC may direct or monitor all Federal, State, and private actions in response to an oil spill or a potential oil spill in State waters. The Parties will respond to marine oil spills as required by and in accordance with the National Contingency Plan (NCP). The OSC will consult, as required by OPA 90 and other applicable Federal law, with the OSPR Administrator or designee concerning oil spill response activities. State law provides that OSPR is responsible for coordinating State oil spill cleanup efforts.

A. Notification: The Parties agree to provide the earliest possible notification of discharges of oil and hazardous substances and imminent threats of such discharges to each other in accordance with applicable law, regulations and policies consistent with the National Oil and Hazardous Substances Pollution Contingency Plan and applicable area contingency plans. In order to provide a single point of contact for the OSC in the event of a marine oil spill, the OSPR Administrator or designee will represent all State agencies and will be the primary point of contact.

B. Incident Command System (ICS)/Unified Command Structures (UCS):

The Incident Command System (ICS)/Unified Command Structure (UCS) establishes functional responsibilities, lines of communication, information sharing and control for the conduct of an oil spill response operation.

1. Action:

a. The Parties agree to work together within the framework of their respective authorities to ensure a coordinated effort with a minimum of duplication in response to oil spills.

b. The Parties agree to implement an ICS/UCS to ensure coordination of emergency response decision-making during a pollution incident. In those circumstances where governmental action is required to develop and direct action to clean up or abate the effects of an oil spill, the Parties agree to consider best utilization of existing resources, avoiding duplication, while taking advantage of resource availability. The OSC may request the State to undertake response actions on a case-by-case basis. If the State assumes responsibility for response activity, the State will conduct those activities, as directed by the OSC, in accordance with the National Contingency and Area Contingency Plans.

c. Response Decisions: The OSC will coordinate with the State in decision-making relating to the conduct of oil spill response operations including, but not limited to: salvage, lightering, safe haven and other matters affecting the discharge of spilled oil, its containment or its cleanup.

d. The Parties agree to establish a joint public information center to provide for the coordinated dissemination of information during a response operation. This provision does not preclude the Parties from making independent responses to the media and the public.

C. Natural Resource Protection

Both Parties recognize the importance of protecting and preserving natural resources in responding to an oil spill. Both Parties agree that response strategies and procedures will be established through the Unified Command Structure (UCS), in accordance with applicable laws, regulations, and policies, and procedures. The Area Contingency Plan (ACP) will be used as the primary guidance document regarding resource protection.

D. Response Monitoring and Technology

Both Parties agree that the methods used to clean up oil and oily debris shall be established through the Incident Command System (ICS)/UCS which will determine the level of action which is required.

1. Action:

a. Both Parties agree, through the Incident Command System, to provide timely input and recommendations to the Unified Command, to the extent practicable, on dispersant usage, in situ burning, bioremediation, and other non-mechanical cleanup technologies.

b. Both Parties agree that decisions to discontinue clean up operations and demobilize response activities shall be made through the Unified Command Structure. The State retains the right to undertake response, remedial or mitigating actions beyond the response actions completed by the OSC.

E. Incident Command System (ICS) Training

Both Parties acknowledge the necessity for increased and ongoing training in ICS procedures to maintain a qualified pool of response personnel.

1. Action:

a. Both Parties agree to establish training criteria appropriate to their agencies.

b. Both Parties agree to pursue joint training opportunities and instruction.

c. To better prepare for an oil spill where a responsible party is not present or not identified, the State and each COTP shall prepare an action plan for, and exercise the Incident Command System. Such action plans shall be reviewed, updated, and exercised as needed.

VIII
NATIONAL POLLUTION FUNDS CENTER INFORMATION

A. The Oil Spill Liability Trust Fund (The Fund).

The Fund provides funding under certain conditions for oil discharge removal actions. The Fund is available in certain circumstances to compensate the State for incurred costs and damages associated with oil discharges. To the extent allowed, a State may access the Fund under current regulations and National Pollution Fund Center (NPFC) procedures.

1. Action: Upon the publication of regulations implementing Section 1012(d)(2) of OPA 90, the State may negotiate directly with the NPFC to establish a cooperative agreement to provide access to the Fund under Section 1012(d)(2). Any agreement between the State of California and the National Pollution Fund Center shall be attached as an annex to this MOA.

B. The National Pollution Fund Center (NPFC)

1. The NPFC administers the Oil Spill Liability Trust Fund (The Fund) in order to: provide funding for oil removal activities, provide State access to the Fund, conduct cost recovery, accept and process claims, and evaluate requests by Federal trustees to fund initiation of natural resource damage assessments. The NPFC also administers Certificates of Financial Responsibility and provides CERCLA/Superfund funding to Coast Guard On Scene Coordinators (OSC) responding to hazardous material incidents.

2. The State may receive payment from the Fund in the State's role as a response organization engaged in removal activities consistent with the National Contingency Plan, as an appropriate claimant for damages, and in the State's role as a natural resource trustee. In addition to the text herewith concerning Section 1012(d)(2) of the Oil Pollution Act of 1990 (OPA 90), the State recognizes the following provisions outline alternative funding methods for State removal activity:

a. Section 1012(d)(1). Regulations under Section 1012(d)(1) of OPA 90 allow the NPFC, upon request of the Governor of a State and as authorized by the Federal On Scene Coordinator (OSC), to obligate The Fund for payment in an amount not to exceed $250,000 for removal costs, consistent with the National Contingency Plan (NCP), required for the immediate removal of a discharge, or the mitigation or prevention of a substantial threat of a discharge, of oil. The NPFC's Technical Operating Procedures (TOPS) for State access under Section 1012(d)(1) of OPA 90, and the TOPS for resource documentation under OPA 90 are approved guidelines for State use to access the Fund under this section.

b. Claims. Regulations under Section 1012(a)(4) of OPA 90 authorize use of The Fund for the "payment of claims in accordance with Section 1013 of OPA 90 for uncompensated removal costs determined by the President [Coast Guard] to be consistent with the NCP or [for] uncompensated damages." Procedures for claims are found in 33 CFR Part 136. States have a special status under Section 1013 of OPA 90 regarding claims for uncompensated costs which allows States to make such claims directly to The Fund rather than first to the responsible party.

c. The State agrees to eliminate excessive overhead expenses associated with the cost recovery program so that only those individual claims in excess of a dollar amount to be determined through consultation with the Coast Guard and eligible for compensation shall be submitted to the Fund.

d. Working Directly for the OSC. State agencies may work directly for the On Scene Coordinator (OSC) in performing removal actions. In these situations, the OSC issues a Pollution Removal Funding Authorization (PRFA) to the State to establish a contractual relationship and to obligate The Fund. The OSC actively directs and is responsible for the response actions. The OSC may request State assistance and participation in emergency removal actions under CERCLA in response to a hazardous materials incident or threatened incident and where funding for these actions are established in a PRFA.

3. Natural Resource Damage Assessments. **A** State natural resource Trustee may request access to the Fund for the initiation of an assessment of natural resource damages resulting from a discharge of oil, through a Federal Lead Administrative Trustee (one of the Federal Trustees designated in the NCP), in accordance with the procedures established by the NPFC (Section 6002(b) of OPA 90).

IX
ENFORCEMENT

Enforcement action by either Party may include civil and criminal penalties. The Coast Guard may also take action against Coast Guard merchant marine licenses and seamen's documents.

A. Action:

1. Subject to the requirements and limitations of applicable State and Federal law, the Parties agree to cooperate to the fullest extent possible in marine casualty investigations and pollution investigations including, but not limited to: the sharing of information regarding witnesses, reports, analyses, and other available information, or evidence that may assist in determining the cause of the casualty or pollution incident.

2. Enforcement action undertaken by each of the Parties must occur independently in accordance with applicable laws and regulations. The Parties agree that to the extent they can, they will consult with each other as to intended enforcement action.

3. The Parties agree to investigate the feasibility of the Coast Guard utilizing the Department of Fish and Game Petroleum Chemistry Laboratory for the analysis of Coast Guard oil samples.

X
RULEMAKING

A. Issuance of Regulations

The Oil Pollution Act of 1990 and other-Federal law provides for the issuance of regulations pertaining to the prevention of oil spills from vessels. The Commandant of the Coast Guard has the authority to promulgate such regulations. The Commander, Eleventh Coast Guard District, and the respective Captains of the Port have limited authority to promulgate local regulations. Acting under its inherent regulatory authority and under authority not preempted by Federal law, the State has the authority to

promulgate regulations concerning oil spill prevention which do not conflict with, and which are not otherwise preempted, by Federal law. It is the intention of the parties to maintain close communications to reduce conflict between each Party's permits, directives, and instructions.

1. Action:

a. The intent of this section is to avoid conflict and inconsistent regulation in rulemaking wherever possible, subject to applicable procedural rules, and to endeavor to provide a coordinated, synergistic response to oil pollution planning and response. It is the intent of the Parties to endeavor under their respective authorities to assure the best achievable protection for the waters of the State.

b. In addition, the respective Federal and State procedures for noticing the opportunity to comment on proposed rules, the Parties anticipate that through their participation on committees and day-to-day working communications, the concerns of each will be discussed and given due consideration.

B. Containment and cleanup for refueling, bunkering or lightering operations

OPA 90 and other Federal laws regulate refueling, bunkering and lightering operations. Federal regulations enforced by the Coast Guard govern these operations. Subject to the requirement that they be consistent with Federal regulations, the State may issue its own regulations relating to these same operations.

C. Tank Vessel Response Equipment Rules

Federal law governs the standards for response equipment. State law authorizes the adoption of State standards for spill response equipment to be maintained on tank vessels operating in waters of the State. State rules must be consistent with Federal spill response equipment standards.

XI
AGREEMENT

A. This agreement represents a voluntary understanding between the Eleventh Coast Guard District and the State of California.

B. The terms of this agreement may be changed at any time by the Parties by a written, signed amendment hereto with or without notice to any other person.

C. The agreement may be terminated by either party at any time without notice to any person other than the other party.

D. No rights, duties, obligations, or liabilities enforceable at law are created by this agreement.

E. No action based upon this agreement may be brought against the United States or the State of California by any person.

F. This agreement does not alter, modify, abridge, or in any way affect any rights, duties, obligations, or liabilities of any person under the laws of the United States or the State of California.

G. In the event that individual and several portions of this agreement are found to be in conflict with either State or Federal law, regulations or policies, and therefore of no effect, the agreement will remain in effect without those provisions, unless either Party notifies the other in writing that the entire agreement is terminated.

H. Any action to modify, amend or terminate this agreement may only be taken by the Governor of the State of California or the Commander, Eleventh Coast Guard District or person to who this, authority is specifically delegated by them.

I. This MOA supercedes and replaces the MOA signed on June 2, 1993.

FOR THE STATE OF CALIFORNIA:

PETE WILSON
Governor
State of California

Date:

FOR THE UNITED STATES COAST GUARD:

R. T. RUFE
Vice Admiral, USCG
Commander,
Eleventh Coast Guard District

Date:

MEMORANDUM OF UNDERSTANDING
BETWEEN THE
DEPARTMENT OF FISH AND GAME'S
OFFICE OF SPILL PREVENTION AND RESPONSE
AND THE
STATE WATER RESOURCES CONTROL BOARD
RELATING TO
DISCHARGES ASSOCIATED WITH RESPONSE ACTIVITIES
CONDUCTED PURSUANT TO CH. 7.4, DIVISION 1
OF THE GOVERNMENT CODE

WHEREAS, The Administrator; of the Office of Spill Prevention and Response (hereinafter referred to as OSPR) and the Executive Director of the State Water Resources Control Board (hereinafter referred to as SWRCB), acting for the SWRCB and the Regional Water Quality Control Boards (RWQCBs), are directed by Government Code section 8670.7, as amended by Stats. 1993, ch. 736, to enter into a memorandum of understanding (MOU) to address discharges, other than dispersants, that are incidental to, or directly associated with, the response, containment, and clean up of an existing or threatened oil spill in marine waters, conducted pursuant to Chapter 7.4, Division 1 of the Government Code; and WHEREAS, It is the intent of this MOU that all incidental discharges as defined herein shall occur within the response area in or proximate to the area in which the oil recovery activities are taking place for the purpose of returning any oily water back into the response area; and

WHEREAS, Both the Administrator of OSPR and the SWRCB share the same goal of minimizing any unnecessary deleterious impacts to the environment, or to the public health and safety; and

WHEREAS, The Administrator of OSPR has the primary authority to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in or threatening the marine waters of the State; and

WHEREAS, The SWRCB and the RWQCBs have the primary authority for regulating and ensuring the quality of the waters of the State; and

WHEREAS, This MOU is not effective until approved by the SWRCB and the Administrator of OSPR; and

NOW, THEREFORE, the Administrator of OSPR and the Executive Director of SWRCB (the Parties) have reached the following agreement and clarification of existing law concerning discharges, other than dispersants, that are incidental to, or directly associated with, the response, containment, and clean of an oil spill in marine waters, pursuant to Chapter 7.4, Division 1 of the Government Code.

I. Definitions

The Parties agree that for the purposes of this MOU the following definitions shall apply:

a. Incident Command System or Unified Command Structure:

For the purpose of this section the terms "Incident Command System or Unified Command Structure" mean the procedures established for directing personnel, facilities, equipment, and

communications during the response, containment, and cleanup of an oil spill incident in marine waters.

b. Incidental Discharge

"Incidental discharge" means the release of oil and/or oily water within the response area in or proximate to the area in which the oil recovery activities are taking place during and attendant to oil spill response activities. Incidental discharges include, but are not limited to, the decanting of oily water; in order to conserve oil storage capacity, and the wash down of vessels, facilities, and equipment used in the response

c. Marine Waters:

"Marine waters" include all waters defined as marine waters in California Government Code Section 8670.3(h) and all water otherwise within the jurisdiction of the Administrator of OSPR. under Chapter 7.4, Division 1 of the Government Code.

d. National Pollution Discharge Elimination System Permit (NPDES Permit):

An NPDES Permit is any permit issued by the SWRCB or the RWQCBs pursuant to California Water Code section 13370 et seq., as required or authorized by the Federal Clean water Act, Title 33 U.S.C. 1251 et seq.

e. Oily water:

Oily Water means any substance, matter, or medium containing or permeated with any kind of petroleum, liquid hydrocarbons, or petroleum products or any fraction or residues therefrom, including, but not limited to, crude oil, bunker fuel, gasoline, diesel fuel, aviation fuel, oil sludge, oil refuse, oil mixed with waste, and liquid distillates from unprocessed natural gas. Waste includes, but is not limited to, seaweed, driftwood, debris, and other similar types of materials.

f. Response:

Response means the time period when response personnel, acting under the authority of the Administrator, the Federal On-Scene Coordinator, the State On-Scene Coordinator, through the Incident Command System or Unified Command Structure, are performing Response Activities that are reasonably necessary to prevent, reduce, or mitigate damages to persons, property, and/or natural resources of this State due to an oil spill incident in marine waters.

g. Response Activities:

Response Activities means those activities, consistent with the National Contingency Plan, the State Oil Spill Contingency Plan, or taken at the direction of the Administrator or Federal On-Scene Coordinator through the Incident Command System or Unified Command Structure, in response to a spill, that entail the removal of oil from marine waters of the State. This includes all activities conducted on-water or onshore relating to the separation, recovery, containment, transfer, or treatment of marine waters of the State contaminated by oil and/or oily materials.

h. Response Area:

Response Area means the area of marine waters where response activities are occurring as defined by the daily work plan approved under the Incident Command System or Unified Command Structure by the Administrator, Federal On-Scene Coordinator, or State On-Scene Coordinator.

i. Waste Discharge Requirements

"Waste Discharge Requirements" are a set of requirements issued by the RWQCBs, pursuant to California water Code section 13260 et seq., regulating the discharge of waste that could affect state waters. Waste Discharge Requirements may be issued by the SWRCB upon the review of an action or failure to act by a RWQCB, pursuant to Water Code section 13320.

II. NPDES Permits

The Parties agree that:

The incidental discharges covered by this MOU are consistent with the State Contingency Plan and the National Contingency Plan. Incidental discharges as described in this MOU which are in compliance with the instructions of the On-Scene Coordinator, pursuant to the National Contingency Plan or the applicable Coast Guard regulations, are excluded from regulation under an NPDES permit, as provided by the Federal Environmental Protection Agency regulation 40 C.F.R. 122.3(d), are consistent with Federal laws and regulations, and do not constitute a prohibited discharge.

III. Waste Discharge Requirements

The Parties agree that:

a. It is in the public interest for the RWQCBs for the North Coast, San Francisco Bay, Central Coast, Los Angeles, Santa Ana and San Diego Regions to waive the issuance of waste discharge requirements for incidental discharges, within the response area during a spill response as provided in Water Code section 13269. The SWRCB will recommend such action to the RWQCBs.

b. Such discharges do not create a vested right to discharge, but rather such discharges are privileges, as provided by California Water Code section 13263(g).

IV. Miscellaneous

a. The terms of this agreement may be changed at any time by the Parties by a written, signed amendment hereto with or without notice to any other person.

b. Either party may terminate the agreement at any time without notice to any person other than the other party.

c. No rights, duties, obligations, or liabilities enforce able at law are created by this agreement.

d. This agreement does not alter, modify, abridge, or in any way affect any rights, duties, obligations, or liabilities of any person under the laws of the State of California.

e. In the event that individual and severable portions of this agreement are found to be in conflict with either state or federal law, regulations or policies, and, therefore, of no effect, the agreement will remain in effect without those provisions unless either party notifies the other in writing that the entire agreement is terminated..

f. Any action to modify, amend, or terminate this agreement may only be taken by the Administrator of OSPR and the Executive Director of SWRCB, or persons to whom this authority is specifically delegated by them. Any such modification is not effective until approved by the SWRCB.

FOR THE OFFICE OF OIL SPILL PREVENTION AND RESPONSE:	FOR THE STATE WATER RESOURCES CONTROL BOARD:
Pete Bontadelli Administrator Date:	Walt Pettit Executive Director Date:

State of California

M e m o r a n d u m

To : Ben D. Kor, NCRWQCB
Steven R. Ritchie, SFBRWQCB
Roger Briggs, CCRWQCB
Robert P. Ghirelli, LARWQCB
Gerard J. Thibeault, SARWQCB
Arthur L. Coe, SDRWQCB

Date: APR 28 1995

Walt Pettit
Executive Director

From : STATE WATER RESOURCES CONTROL BOARD
901 P Street, Sacramento. CA 95814 Mail Code G-8

Subject: WAIVER OF WASTE DISCHARGE REQUIREMENTS FOR INCIDENTAL DISCHARGES ASSOCIATED WITH OIL SPILL RESPONSE ACTIVITIES

In 1993 the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act was amended to require that the Administrator of the Office of Spill Prevention and Response (OSPR) and the Executive Director of the State Water Re-sources Control Board (SWRCB) enter into a memorandum of understanding (MOU), which addresses all permits and other requirements pertaining to the incidental discharge of wastewater during oil spill response activities. An MOU was subsequently signed in 1995. A copy is attached for your reference as Attachment l.

The MOU addresses discharges of oily water which occur during oil spill response activities within or proximate to oil spill response areas. The MOU finds that these discharges are exempt from regulation under a National Pollutant Discharge Elimination System (NPDES) permit. The MOU also provides that the SWRCB will recommend that the coastal Regional Water Quality Control Boards (RWQCBs) waive the issuance of waste discharge requirements for these types of discharges.

The purpose of this memorandum is to request that you take appropriate action to amend the waiver resolution or water quality control plan, as appropriate, for your region to include incidental discharges on the list of discharges for which waste discharge requirements are waived. Waiver of this type of discharge would be in the public interest, as provided' in Water Code section 13269, because the issuances of waste discharge requirements under the circumstances could significantly impede oil spill cleanup. Also, the addition of incidental discharges to an RWQCB's waiver list could be considered categorically exempt from the California Executive Officers.

Environmental Quality Act, Public Resources Code section 21000, et seq. under the emergency project exemption. See 14 C.C.R. § 15269. The addition of incidental discharges to an RWQCB's waiver list would also be exempt from review by the Office of Administrative Law under the Administrative Procedure Act, Government Code section 11340, et seq. See Gov. Code § 11352(b).

Sample language for inclusion in the RWQCB's waiver resolution is contained in Attachment 2. Please contact Sheila Vassey, Senior Staff Counsel, in the Office of the Chief Counsel at (916) 657-2408 or Calnet 8-437-2408 if you would like further information regarding this matter.

Attachments (2)

cc: Pete Bontadelli Administrator Office of Spill Prevention and Response Department of Fish and Game
1700 K Street, Suite 250 Sacramento, CA 95814

Barry R. Ogilby Carlsmith, Ball, Wichman, Murray, Case & Ichiki
555 South Flower Street, 25th Floor Los Angeles, CA 90071-2326

MEMORANDUM OF UNDERSTANDING
RELATING TO
THE HANDLING AND TRANSPORT OF MATERIALS
USED OR RECOVERED DURING AN OIL SPILL
BETWEEN THE
DEPARTMENT OF FISH AND GAME'S
OFFICE OF SPILL PREVENTION AND RESPONSE
AND
THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL

WHEREAS, The Administrator of the Office of Spill Prevention and Response within the Department of Fish and Game (hereinafter referred to as OSPR) and the Director of the Department of Toxic Substances Control (hereinafter referred to as DTSC) are interested in developing a preapproved process for the handling and transport of materials used or recovered during an oil spill response, including materials that may be classified as hazardous waste; and

WHEREAS, Both the Administrator of OSPR and the Director of DTSC share the same goal of minimizing any unnecessary deleterious impacts to the environment, or to the public health and safety; and

WHEREAS, The Administrator of OSPR has the primary authority to direct prevention, removal, abatement, response, containment, and cleanup efforts with regard to all aspects of any oil spill in the marine waters of the State; and

WHEREAS, The Director of DTSC has the primary authority for regulating the handling, transport, recycling, treatment, and disposal of all hazardous waste within the State; and

WHEREAS, Both the Administrator of OSPR and the Director of DTSC are required under State law to establish a process for the handling and transport of materials used or recovered during an oil spill response.

NOW, THEREFORE, the Administrator of OSPR and the Director of DTSC (the Parties) have reached the following Memorandum of Understanding (MOU) and clarification of existing law concerning the handling and transport of materials used, collected, or recovered during an oil spill response.

I. Definitions

The Parties agree that for the purposes of this MOU the following definitions will apply:

a. Emergency Permit

"Emergency permit" means a permit issued by the DTSC in accordance with Title 22, California Code of Regulations, Section 66270.61.

b. Federal On Scene Coordinator

"Federal On Scene Coordinator" means the federal designated representative from the U.S. Coast Guard or the U.S. Environmental Protection Agency who represents the federal government within the Unified Command.

c. Immediate Response

"Immediate response" means the time period when response activities are undertaken that are reasonably necessary to prevent, reduce, or mitigate damages to persons, property, or natural resources of this State due to a threatened or actual spill of oil and/or oily materials.

d. Incident action plan

"Incident action plan" means the document(s) that describe those response activities approved by the Incident Commander or Unified Command.

e. Incident Commander

"Incident Commander" means the state designated representative for coordinating response to oil spills. The Administrator of OSPR or his or her designee is the Incident Commander during a spill and represents the state within the Unified Command.

f. Oil and/or oily materials

"Oil and/or oily materials" means any substance, matter, or medium containing or permeated with any kind of petroleum, liquid hydrocarbons, or petroleum products or any fraction or residues therefrom, including, but not limited to, crude oil, bunker fuel, gasoline, diesel fuel, aviation fuel, oil sludge, oil refuse, oily water, oil mixed with waste, and liquid distillates from unprocessed natural gas.

g. Orphan spill

"Orphan spill" means a situation where a Responsible Party does not exist, is unknown, or the Responsible Party is unable or unwilling to provide adequate and timely cleanup and/or to pay for the damages resulting from the spill.

h. Response Activities

"Response activities" means those activities that render care, assistance, or advice in accordance with the National Contingency Plan (40 CFR 300 et seq.), the State Oil Spill Contingency Plan, or at the direction of the Incident Commander or Unified Command during an immediate response to a spill or threatened spill of oil and/or oily materials. Response activities are approved in the incident action plan and include for the purposes of this MOU, but are not limited to, separation, recovery, containment, transfer, or transport of oil and/or oily materials to temporary storage sites.

i. Response Area

"Response area" means the area where response activities are occurring or will be occurring as designated and approved by the Incident Commander or Unified Command within the incident action plan. Response area may include, but is not limited to, the

location(s) of temporary storage sites and areas associated with a response vessels or other vehicle routes to such sites.

j. Response personnel

"Response personnel" are those individuals or entities performing response activities. Response personnel includes, but is not limited to, all employees, agents, designees, or subcontractors of the Responsible Party, including oil spill cleanup organizations as well as local, state or federal agency employees, volunteer workers, or individuals or entities acting under the direction of the Incident Commander or the Unified Command.

k. Responsible Party

For the purposes of this MOU, "Responsible Party" means any of the following:

(1) The owner or transporter of oil and/or oily materials or a person or entity accepting responsibility for the oil and/or oily materials; or

(2) The owner, operator, or lessee of, or person who charters by demise, any vessel or marine facility; or

(3) A person or entity who, as a shore-based representative of a vessel or facility owner or operator, has full written authority to implement an oil spill contingency plan or otherwise accepts responsibility for the vessel or marine facility.

To the extent permitted by law, oil spill response organizations are not considered a Responsible Party solely due to their performance of response activities authorized in this MOU.

l. Spill or discharge

"Spill" or "discharge" means any release of oil and/or oily materials into or any federal, state, or local government entity does not authorize that impacts state waters that.

m. Temporary Storage Site

"Temporary storage site" means an area or facility approved by the Incident Commander or Unified Command for characterizing and temporarily storing recovered oil and/or oily materials used, collected, or recovered during an oil spill response. Such an area may include, but is not limited to, permitted or interim status hazardous waste storage facilities, other non-permitted facilities, vessels, barges, tanks, barrels, containers, storage piles, or other appropriate containment methods and locations that may be used to hold recovered oil and/or oily materials. Temporary storage sites need not be owned, operated, or leased by a Responsible Party.

n. Unified Command

"Unified Command" consists of the state Incident Commander, the Federal On Scene Coordinator and the Responsible Party. The Unified Command determines the procedures for directing personnel, facilities, equipment, and communications during the response, containment, and cleanup of an oil spill.

II. Implementation

The Parties agree that:

a. The Director of DTSC will designate individual(s) (hereinafter DTSC representative(s)) in advance or when notified by OSPR, the Office of Emergency Services, or the U.S. Coast Guard that a threatened or actual spill or discharge of oil and/or oily materials has occurred who are authorized to implement and ensure compliance with all terms and conditions of this MOU.

b. The DTSC representative(s) will immediately report to the Incident Commander or Unified Command for assignment where needed and represent the DTSC throughout the response, containment, and cleanup of the spill.

c. The DTSC representative(s) will ensure that all appropriate federal, state, and local agencies are kept informed of potential or actual hazardous waste issues throughout the response and related disposal activities.

d. The Administrator of OSPR agrees to take appropriate efforts to ensure that a Responsible Party reimburses DTSC for all reasonable and necessary response costs incurred and to fund the positions of all reasonably necessary DTSC personnel throughout the duration of an orphan spill.

III. Immediate Response Exemption

The Parties agree that:

a. During an immediate response, all response activities conducted on water within the response area will be exempt from obtaining a hazardous waste facility permit pursuant to section 66270.1(c)(3)(A), Title 22, California Code of Regulations, Division 4.5,and 66263 (hazardous waste manifesting)for treatment or containment activities.

b. Response personnel will use the generator identification number issued for emergency response actions. However, other than the Responsible Party, owners and operators of response equipment, including but not limited to, tanker vessels, barges, or other waterborne craft, vacuum trucks, or other vehicles performing response activities shall not be deemed hazardous waste generators for the purposes of this MOU and shall not require generator identification numbers.

c. During an immediate response all oil and/or oily materials used, collected, or recovered within the response area will be allowed to be expeditiously removed, transferred, or transported to temporary storage sites without uniform hazardous waste manifests.

d. The immediate response exemption created in Article III shall be in effect at all times, for a period of up to thirty (30) days, while oil and/or oily materials are being recovered, transported, or transferred to temporary storage sites for material characterization. Additional thirty (30) day extensions may be granted under appropriate circumstances.

IV . Temporary Storage Sites

The Parties agree that:

a. As soon as practicable once an immediate response has commenced, the Incident Commander or Unified Command will designate or approve temporary storage sites for storing all oil and/or oily materials used, collected, or recovered during a spill response.

b. The Incident Commander will notify DTSC of all designated or approved temporary storage sites, and, to the extent practicable and feasible, will work in conjunction with the DTSC representative(s) and other state and local agencies to avoid any unnecessary deleterious impacts to the environment or threats to the public health and safety when designating or approving temporary storage sites.

c. The Incident Commander will ensure that DTSC representatives have full access to all temporary storage sites to perform all appropriate regulatory activities.

d. Permitted or interim status hazardous waste facilities, or other authorized facilities will obtain an emergency permit from DTSC to modify or necessitate modifying any existing permits issued by DTSC for acting as a temporary storage site. The Responsible Party will be liable for all costs associated with the emergency permit.

e. Oil and/or oily materials stored or otherwise contained at temporary storage sites may not be transferred, transported, treated, disposed, processed, used or re-used, or otherwise utilized until the Incident Commander or Unified Command authorizes such activities. Authorization will not be given until such materials have been characterized (as described in Article V.), and a volumetric determination of the amount of such materials recovered has been made or approved by the Incident Commander.

V. Material Characterization

The Parties agree that:

a. Once the oil and/or oily materials have been contained at the temporary storage site, the Responsible Party, or, in the event of an orphan spill, the Incident Commander in conjunction with DTSC, must expeditiously determine:

(1) Those materials that are capable of being processed, used or re-used, or otherwise utilized as an ingredient in the manufacture of petroleum products or other products and therefore not a waste or hazardous waste; or

(2) Those materials that are waste but are nonhazardous waste; or

(3) Those materials that are hazardous waste.

b. Materials capable of being processed, used or re-used, or otherwise utilized as an ingredient in the manufacture of petroleum products or other products will be expeditiously transported to any facility that is otherwise authorized during non-spills to perform such activities. Facilities performing such activities will obtain emergency permits from DTSC before processing, using or re-using, or utilizing such materials. The Responsible Party will be liable for all costs associated with the emergency permit.

c. Recovered oil and/or oily materials deemed a waste by the Responsible Party, or by DTSC, must undergo chemical waste characterization as provided in Title 22, California Code of Regulations, sections 66264.13 and 66265.13, to determine whether the materials recovered are hazardous waste.

d. Materials characterized as hazardous waste after undergoing characterization will be managed in accordance with all applicable statutes, regulations, or permits prior to and during transfer, or transport to a hazardous waste management facility.

e. Notwithstanding V.(a)-(d) or any other provision of law, debris that is contaminated only with petroleum or any of its fractions is exempt from regulation under Chapter 6.5, of Division 20 of the Health and Safety Code if all of the following conditions are met:

(1) The debris consists exclusively of wood, paper, textile materials, concrete rubble, metallic objects, or other solid manufactured objects.

(2) The debris is not subject to regulation as a hazardous waste under the federal act.

(3) The debris does not contain any free liquids, as determined by the paint filter test specified in the regulations adopted by the department.

(4) The debris is disposed of in a composite lined portion of a waste management unit which is classified as either a Class I or Class II landfill in accordance with Article 3 (commencing with Section 2530) of Chapter 15 of Division 3 of Title 23 of the California Code of Regulations, the disposal is made in accordance with the applicable requirements of the California regional water quality control board and the California Integrated Waste Management Board, and, if the waste management unit is a Class II landfill, it is sited, designed, constructed, and operated in accordance with the minimum standards applicable on or after October 9, 1993, to new or expanded municipal solid waste landfills, which are contained in Part 258 (commencing with Section 258.1) of Subchapter I of Chapter 1 of Title 40 of the Code of Federal Regulations, as those regulations read on January 1, 1996.

VI. Emergency Permit

The Parties agree that:

a. Once oil and/or oily materials have been deemed hazardous waste at the temporary storage site(s), the DTSC representative will expeditiously determine if the storage of such materials creates an imminent and substantial endangerment to human health or the environment.

b. If such determination is made, the DTSC representative will immediately issue an emergency permit to the Responsible Party, or to the Incident Commander in the event of an orphan spill, for the temporary storage site(s).

c. The emergency permit will thereafter be valid throughout the duration of the response activities but in no case in excess of ninety (90) days unless extended in writing by DTSC pursuant to Title 22, California Code of Regulations, Section 66270.61.

d. The emergency permit shall allow all response personnel to expeditiously perform all other response activities (within the scope of DTSC's authority) that are reasonably necessary to prevent, reduce, or mitigate damages to persons, property, or natural resources of this State including transfer, treatment, storage, resource recovery, or disposal of materials used, collected, or recovered during the oil spill response.

VII. Miscellaneous

The Parties agree that:

a. The terms of this MOU may be changed at any time by the mutual consent of both Parties by a written, signed amendment hereto.

b. In the event that individual and severable portions of this MOU are found to be in conflict with either State or Federal law, regulations or policies, and, therefore, of no effect, the MOU will remain in effect without those provisions unless either party notifies the other in writing that the entire MOU is terminated.

c. Any action to modify, amend, or terminate this MOU may only be taken by the Administrator of OSPR and the Director of DTSC, or persons to whom this authority is specifically delegated by them.

FOR THE OFFICE OF OIL SPILL PREVENTION AND RESPONSE: CONTROL:

Pete Bontadelli
Administrator

FOR THE DEPARTMENT OF TOXIC SUBSTANCES

Jesse Huff
Director

FOR THE DEPARTMENT OF FISH AND GAME:

ACP Contact Directory

List of all stakeholders referenced in this plan along with their contact information. Sorted by ACT Affiliation.

All Stakeholder Contact Information from The ACP 2000 Updated Jan 2004

Organization	Department/Position/ Office	Affiliation	Gov. Level/Type of Business	Area Code	Phone Number
CDFG-OSPR Dispatch	Dispatch	Activation of the OWCN	Local	916	445-0045
OWCN		Activation of the OWCN	Local	530	752-4167
USCG-Marine Safety Office (MSO) San Francisco Port Area		Activation of the OWCN	State	415	399-3547
USCG-MSO Los Angeles/Long Beach Port Area		Activation of the OWCN	State	310	732-2000
USCG-MSO San Diego Port Area		Activation of the OWCN	State	619	683-6495
USCG-National Response Center		Activation of the OWCN	Local	800	424-8802
CA Coastal Commission	Joint CCC/BCDC Oil Spill Program	Area Committee Members	State	415	904-5240
CA Department of Fish and Game	Office of Spill Prevention and Response	Area Committee Members	State	858	467-4201
CA Department of Fish and Game	Vice-Chair and Office of Spill Prevention and Response	Area Committee Members	Local	858	467-4215
CA Department of Parks and Recreation		Area Committee Members	State	858	642-4200
CA Environmental Protection Agency		Area Committee Members	State		
CA Occupational Safety and Health		Area Committee Members	State	619	767-2280
CA Office of Emergency Services	Emergency Services Coordinator	Area Committee Members	State	916	845-8911
CA State Lands Commission	Assistant Division Chief	Area Committee Members	State	562	499-6312
City of Chula Vista	Planning Director	Area Committee Members	Local	619	691-5101
City of Coronado		Area Committee Members	Local	619	522-7376
City of Del Mar Lifeguard		Area Committee Members	Local	858	755-1556
City of Imperial Beach	City Manager	Area Committee Members	Local	619	423-8303
City of National City		Area Committee Members	Local	619	336-4277
City of Oceanside	Planning Department	Area Committee Members	Local	760	435-3520
City of San Diego		Area Committee Members	Local	858	627-3200
City of San Diego	Office of Emergency Management	Area Committee Members	Local	619	236-6876
City of Solana Beach Marine Safety		Area Committee Members	Local	858	755-1569

County of San Diego	Environmental Health Services	Area Committee Members	Local	619	338-2216
County of San Diego HIRT	Office of Disaster Preparedness	Area Committee Members	Local	858	565-3490
Federal Occupational Safety and Health Administration	Member, Team Leader	Area Committee Members	Federal	619	557-2909
National Marine Fisheries Service	Member	Area Committee Members	Federal	562	980-4041
National Marine Fisheries Service	Member	Area Committee Members	Federal	562	980-4017
National Marine Fisheries Service	Member	Area Committee Members	Federal	562	980-4081
National Park Service	Member	Area Committee Members	Federal	619	557-5450
Regional Water Quality Control Board		Area Committee Members	Local		
San Diego Unified Port District	Asst. Environ. Management Coordinator	Area Committee Members	Local	619	686-6254
U. S. Coast Guard Captain of the Port San Diego	Chair and Federal On Scene Coordinator	Area Committee Members	Local	619	683-6500
U. S. Environmental Protection Agency	E.P. Specialist	Area Committee Members	Federal	415	744-2216
United States Navy Code N3	Member, Commander, Naval Base San Diego	Area Committee Members	Federal	619	532-1820
USCG	Member, Contingency Planner	Area Committee Members	Local	619	683-6500
USCG	Member, Commander	Area Committee Members	Federal	619	683-6470
Clean Coastal Waters, Inc		Area Resources (OSRO's) Response	Local	562	432-1415
Fiesta Catering		Catering	Local	858	578-0350
Hero Catering		Catering	Local	760	364-1101
Moody’s Lunch Service		Catering	Local	619	262-0773
California State National Guard		Catering/Water	Local	858	573-7030
San Diego City Water Dept.	Utilities Department	Catering/Water	Local	619	515-3525
Brown Field		Civilian Airfields	Local	619	661-0174
Gillespie Field		Civilian Airfields	Local	619	448-9518
McClelland Palomar		Civilian Airfields	Local		
Montgomery Field Tower		Civilian Airfields	Local	858	277-5601
Oceanside Airport		Civilian Airfields	Local		
ADVANCED CLEANUP TECHNOLOGIES, INC. (ACTI)		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	619	702-6008
CLAIREMONT EQUIPMENT RENTALS, INC.		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	858	278-8338

CLEAN COASTAL WATERS		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	562	432-1415
CLEAN SEAS		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	805	684-3838
FOSS ENVIRONMENTAL SERVICES	NATIONAL RESPONSE CORP (NRC)	CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	619	235-3320
FOSS ENVIRONMENTAL SERVICES	NRC (LA/LB)	CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	805	OIL-SPILL
HAWTHORNE RENT-IT SERVICE		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	619	232-2084
NAVAL STATION 32ND STREET	ALL NAVY ASSESTS Waterfront Operations	CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	619	556-8006
UNITED RENTALS		CLEANUP CONTRACTORS/COMPANIES/AGENCIES	Local	858	565-7122
Fisherman's Landing		Commercial Fishing Marinas	Local	619	222-0391
H & M Landing		Commercial Fishing Marinas	Local	619	222-1144
Harbor Excursion Docks		Commercial Fishing Marinas	Local	619	234-4111
Helgren's Sportfishing		Commercial Fishing Marinas	Local	760	722-2133
lslandia Sportfishing		Commercial Fishing Marinas	Local	619	222-1164
Pt. Loma Sportfishing		Commercial Fishing Marinas	Local	619	223-1627
S.D. Fisherman's Village		Commercial Fishing Marinas	Local	619	222-4930
Seaforth Marina		Commercial Fishing Marinas	Local	619	224-6807
Tuna Boat Basin		Commercial Fishing Marinas	Local	619	686-6340
California Department of Parks and Recreation	Office of Historical Preservation, Information Centers Coordinator	Culturally & Archaeologically Sensitive Areas	State	916	653-9125
California Department of Parks and Recreation	Office of Historical Preservation, CEQA Information	Culturally & Archaeologically Sensitive Areas	State	916	653-6624
California Department of Parks and Recreation	Office of Historical Preservation, Resource Protection Division	Culturally & Archaeologically Sensitive Areas	State	916	653-4529
California State Lands Commission	Environmental Specialist	Culturally & Archaeologically Sensitive Areas	State	916	322-0530
Local Native American Representatives	Professional Native American Cultural Resource Monitors	Culturally & Archaeologically Sensitive Areas	Local	909	694-0509

Native American Heritage Commission		Culturally & Archaeologically Sensitive Areas		916	653-4082
South Coastal Information Center		Culturally & Archaeologically Sensitive Areas	Local	619	594-5862
American Red Cross		Dining/Lodging Capacities	Local	619	542-7400
California National Guard	Headquarters	Dining/Lodging Capacities	Local	916	854-3000
MCAS Miramar	BEQ	Dining/Lodging Capacities	Local	619	577-1174
MCAS Miramar	BOQ	Dining/Lodging Capacities	Local	858	577-4233
Naval Air Station North Island	BEQ	Dining/Lodging Capacities	Local	619	545-9551
Naval Air Station North Island	BOQ	Dining/Lodging Capacities	Local	619	545-7545
Naval Amphibious Base Coronado	BEQ	Dining/Lodging Capacities	Local	619	437-3494
Naval Amphibious Base Coronado	BOQ	Dining/Lodging Capacities	Local	619	437-3860
Naval Station San Diego	BEQ	Dining/Lodging Capacities	Local	619	556-8672
Naval Submarine Base San Diego	BEQ	Dining/Lodging Capacities	Local	619	553-7533
Naval Submarine Base San Diego	BOQ	Dining/Lodging Capacities	Local	619	553-9381
San Diego Sheriff's Office		Dining/Lodging Capacities	Local	858	974-2222
U.S. Forest Service: Region V San Diego	Cleveland National Forest	Dining/Lodging Capacities	Local	858	673-6180
USMC Base Camp Pendleton	Billeting	Dining/Lodging Capacities	Local	760	725-3718
USMC Marine Corps Recruit Depot	BEQ	Dining/Lodging Capacities	Local	619	524-4401
USMC Marine Corps Recruit Depot	BOQ	Dining/Lodging Capacities	Local	619	524-4401
Chula Vista Police Department		External Incident CommunicationsCommunications Vehicles	Local	619	691-5151
Coronado Police Department		External Incident CommunicationsCommunications Vehicles	Local	619	522-7350
El Cajon Fire Department		External Incident CommunicationsCommunications Vehicles	Local	619	441-1600
El Cajon Police Department		External Incident CommunicationsCommunications Vehicles	Local	619	579-3311
Escondido Fire Department		External Incident CommunicationsCommunications Vehicles	Local	619	741-4701
Escondido Police Department		External Incident CommunicationsCommunications Vehicles	Local	619	741-4722
NEXTEL		External Incident CommunicationsCommunications Vehicles	Local	888	639-8356

San Diego County Department of Information Services		External Incident CommunicationsCommunications Vehicles	Local	858	571-9580
San Diego Fire Department		External Incident CommunicationsCommunications Vehicles	Local	911	
San Diego Harbor Police		External Incident CommunicationsCommunications Vehicles	Local	619	686-6200
San Diego Sheriff		External Incident CommunicationsCommunications Vehicles	Local	858	974-2222
Agency for Toxic Substance and Diseases (ATSDR)		Federal Resources/Agencies	Federal	415	947-4316
Atlantic Strike Team		Federal Resources/Agencies	Federal	609	724-0008
EPA Emergency Response Teams		Federal Resources/Agencies	Federal	732	321-6740
Federal Emergency Management Agency		Federal Resources/Agencies	Federal	800	427-2354
Gulf Strike Team		Federal Resources/Agencies	Federal	205	639-6601
National Oceanic and Atmospheric Administration (NOAA)	Scientific Support Coordinator	Federal Resources/Agencies	Federal	510	437-5344
National Park Service		Federal Resources/Agencies	Federal	805	389-7550
National Strike Force Coordination Center (NSFCC)	Commanding Officer	Federal Resources/Agencies	Federal	919	331-6000/6032
Nuclear Regulatory Commission		Federal Resources/Agencies	Federal	301	816-5100
Pacific Strike Team		Federal Resources/Agencies	Federal	415	883-3311
Public Information Assist Team (PIAT)	Commanding Officer (PIAT)	Federal Resources/Agencies	Federal	919	331-6006/6032
U.S. Department of Energy		Federal Resources/Agencies	Federal	510	637-1952
U.S. Department of Justice		Federal Resources/Agencies	Federal	415	703-5523
U.S. Department of the Interior		Federal Resources/Agencies	Federal	510	817-1476
U.S. Navy Supervisor Salvage (SUPSALV)		Federal Resources/Agencies	Federal	202	781-3889
US Coast Guard, Marine Safety Office San Diego MSDO	Commanding Officer (FOSC)	Federal Resources/Agencies	Local	619	683-6500
USCG Auxiliary	CG Group San Francisco	Federal Resources/Agencies	Local	415	399-3417
USCG Auxiliary	CG Group Los Angeles/Long Beach	Federal Resources/Agencies	Local	562	980-4444
USCG Auxiliary	CG Activities San Diego	Federal Resources/Agencies	Local	619	683-6470

USCG District Response Group (DRG) and District Response Advisory Team (DRAT)	CDR Eleventh Coast Guard District	Federal Resources/Agencies	Federal	510	437-2954/59/40
USCG Reserve		Federal Resources/Agencies	Federal	510	437-2781
Marine Safety Center (MSC) Salvage Team		Federal Salvage Resources	Federal	202	366--6481
Telephoning Supervisor of Salvage Operations		Federal Salvage Resources	Federal	202	781-3889
U.S. Coast Guard Pacific Strike Team		Federal Salvage Resources	Federal	415	883-3311
Jankovich & Sons		Fueling/Maintenance Facilities	Local	619	232-4674
Cortez Fuel Dock		Fueling/Maintenance Facilities/ Fuel Dock	Local		
Harbor Island West Fuel Dock		Fueling/Maintenance Facilities/ Fuel Dock	Local		
High Seas Fuel Dock		Fueling/Maintenance Facilities/ Fuel Dock	Local		
Islandia Sportfishing Dock		Fueling/Maintenance Facilities/ Fuel Dock	Local		
Pearsons Fuel Dock		Fueling/Maintenance Facilities/ Fuel Dock	Local		
Calzona		Fueling/Maintenance Facilities/ Fuel Trucks	Local		
Fogerty Petroleum		Fueling/Maintenance Facilities/ Fuel Trucks	Local		
LCP Marine		Fueling/Maintenance Facilities/ Fuel Trucks	Local		
SOCO/Barnacle Oil		Fueling/Maintenance Facilities/ Fuel Trucks	Local		
D11 Public Affairs Officer		Government Resources	District	310	980-4300
Office of Emergency Services	OES	Governor	Local	800	621-3362
HMMD HazMat Team		Hazardous Material Response Teams	Local	619	338-2284
NOAA/HMRAD	NOAA Scientific Support Coordinator	Hazardous Material Response Teams	Local	510	437-5344
SDFD HazMat Team		Hazardous Material Response Teams	Local	619	238-1212
Southwest Marine Inc.		Heavy Lift Cranes	Local	619	238-1000
Airport Travelodge		Hotels/Motels	Local		232-8931
Andrea Villa Inn		Hotels/Motels	Local		459-3311
Balboa Park Inn		Hotels/Motels	Local		298-0823
Bay Club Hotel & Marina		Hotels/Motels	Local		224-8888
Beach Haven Inn		Hotels/Motels	Local		272-3812
Beachcomber Hotel		Hotels/Motels	Local		488-4442
Beachfront Motor Lodge		Hotels/Motels	Local		483-7670
Best Western		Hotels/Motels	Local		233-7500

Best Western	Hotels/Motels	Local	437-1666
Best Western	Hotels/Motels	Local	222-0561
Best Western	Hotels/Motels	Local	459-4461
Best Western	Hotels/Motels	Local	224-3254
Boat & Breakfast	Hotels/Motels	Local	223-3477
Capri Beach Accommodations	Hotels/Motels	Local	483-5011
Catamaran Resort	Hotels/Motels	Local	488-1081
Clarion Hotel	Hotels/Motels	Local	296-2101
Comfort Inn	Hotels/Motels	Local	543-1130
Comfort Inn	Hotels/Motels	Local	232-2525
Comfort Inn	Hotels/Motels	Local	225-1295
Coronado Village	Hotels/Motels	Local	435-9318
Countryside Inn	Hotels/Motels	Local	944-0427
Crown City Inn	Hotels/Motels	Local	435-3116
Crown Point View Suite Hotel	Hotels/Motels	Local	272-0676
Dana Inn & Marina	Hotels/Motels	Local	222-6440
Days Inn	Hotels/Motels	Local	585-1999
Days Inn	Hotels/Motels	Local	224-9800
Diamond Head Inn	Hotels/Motels	Local	273-1900
Double Tree	Hotels/Motels	Local	543-9000
Double Tree	Hotels/Motels	Local	485-9250
Double Tree	Hotels/Motels	Local	481-8900
Embassy Suites	Hotels/Motels	Local	453-0400
Grand Colonial	Hotels/Motels	Local	454-2181
Hilton	Hotels/Motels		792-5200
Holiday Inn	Hotels/Motels		239-6171
Holiday Inn	Hotels/Motels		291-5720
Holiday Inn	Hotels/Motels		226-8000
Hotel Del Coronado	Hotels/Motels		522-8000
Hyatt Islandia	Hotels/Motels		224-1234
Hyatt Regency	Hotels/Motels		552-1234
Inn By The Sea	Hotels/Motels		459-4461
Kona Kai Resort	Hotels/Motels		222-1191
La Costa Resort	Hotels/Motels		438-9111
La Jolla Cove	Hotels/Motels		459-2621
La Jolla Palms	Hotels/Motels		454-7101
La Jolla Village Inn	Hotels/Motels		453-5500
La Quinta Inn	Hotels/Motels		691-1211
La Vallencia Hotel	Hotels/Motels		454-0771
Le Meridien Hotel	Hotels/Motels		435-3000

Marriott	Hotels/Motels			587-1414
Marriott	Hotels/Motels			692-3800
Marriott	Hotels/Motels			234-1500
Marriott	Hotels/Motels			696-9800
Omni Hotel	Hotels/Motels			239-2200
Peachtree Inn	Hotels /Motels			233-1100
Prospect Park Inn	Hotels/Motels			454-0133
Quality Inn Airport	Hotels/Motels	Local		224-3655
Quality Suites	Hotels/Motels			530-2000
Radisson	Hotels/Motels			239-6800
Radisson	Hotels/Motels			336-1100
Radisson	Hotels/Motels			451-6600
Radisson Hotel	Hotels/Motels			260-0111
Ramada	Hotels/Motels			696-0234
Ramada	Hotels/Motels			260-8500
Ramada	Hotels/Motels			291-6500
Ramada Inn	Hotels/Motels			425-9999
Ramada Inn	Hotels/Motels			792-8200
Red Lion Inn	Hotels/Motels			297-5466
Roadway Inn	Hotels/Motels			476-9555
Sands Of La Jolla	Hotels/Motels			459-3336
Sea Lodge	Hotels/Motels			459-8271
Seacoast Suites	Hotels/Motels			483-6780
Sheraton	Hotels/Motels			291-6400
Sheraton	Hotels/Motels			558-1500
Sheraton	Hotels/Motels			291-2900
Summer House Inn	Hotels/Motels			459-0261
The Inn L'Auberg Del Mar	Hotels/Motels			259-1515
Torrey Pines Inn	Hotels/Motels			453-4420
Town & Country	Hotels/Motels			291-7131
Travelodge	Hotels/Motels			232-8931
US Grant Hotel	Hotels/Motels			422-8305
US Suites Hotel	Hotels/Motels			554-0300
USCG District Operations Center	Hotels/Motels		510	437-3700
Vagabond Inn	Hotels/Motels			422-8305
Vagabond Inn	Hotels/Motels			297-1691
Westgate Hotel	Hotels/Motels			238-1818
Design for Health	Laboritories	Local	619	291-1777
H & P Mobile Geo Chemistry	Laboritories	Local	760	735-3208

JMR Environmental Services		Laboritories	Local	619	222-0544
Navy Public Works Center	Environmental Engineering Laboratory	Laboritories	Local	619	545-8431
Pacific Analytical, Inc.		Laboritories	Local	760	931-1766
San Diego Gas & Electric Company Environmental Laboratory		Laboritories	Local	619	260-5747
Transglobal Environmental Geochemistry, Inc.		Laboritories	Local	858	793-0401
Agua Hedionda Lagoon		Marinas/Recreational Areas	Local		
Bay View Park		Marinas/Recreational Areas	Local		
Beacon's Beach		Marinas/Recreational Areas	Local		
Bird Rock		Marinas/Recreational Areas	Local		
Bonita Cove		Marinas/Recreational Areas	Local		
Border Field State Park		Marinas/Recreational Areas	Local	619	435-5184
Buccaneer Park		Marinas/Recreational Areas	Local		
Cabrillo National Monument		Marinas/Recreational Areas	Local	619	557-5450
Cal-Met Park		Marinas/Recreational Areas	Local		
Camp Pendleton Beach Access		Marinas/Recreational Areas	Local	760	725-3360
Cardiff State Beach		Marinas/Recreational Areas	Local	760	753-5091
Carlsbad City Beach		Marinas/Recreational Areas	Local		
Carlsbad State Beach		Marinas/Recreational Areas	Local	760	438-5143
Cays Park		Marinas/Recreational Areas	Local		
Centennial Park		Marinas/Recreational Areas	Local		
Children's Pool Beach		Marinas/Recreational Areas	Local		
Chula Vista Launching Ramp		Marinas/Recreational Areas	Local	619	686-6200
Coast Boulevard Park		Marinas/Recreational Areas	Local		
Coronado Shores Beach		Marinas/Recreational Areas	Local		
Coronado Tidelands Regional Park		Marinas/Recreational Areas	Local		
Crown Point Shores		Marinas/Recreational Areas	Local	619	276-8200
Crystal Pier		Marinas/Recreational Areas	Local		
Dana Landing and Quivira Basin		Marinas/Recreational Areas	Local		
De Anza Cove		Marinas/Recreational Areas	Local	619	276-8200
Del Mar Bluffs City Park		Marinas/Recreational Areas	Local		
Del Mar City Beach		Marinas/Recreational Areas	Local		
East Shore		Marinas/Recreational Areas	Local	619	276-8200
Ellen Scripps Park		Marinas/Recreational Areas	Local		
Embarcadero		Marinas/Recreational Areas	Local		
Embarcadero Marina Park		Marinas/Recreational Areas	Local		

Encinitas Beach		Marinas/Recreational Areas	Local		
Fiesta Island		Marinas/Recreational Areas	Local	619	276-8200
Fletcher Cove Park		Marinas/Recreational Areas	Local		
Glorietta Bay Park		Marinas/Recreational Areas	Local	619	522-7342
Harbor Beach		Marinas/Recreational Areas	Local	760	966-4580
Harbor Island		Marinas/Recreational Areas	Local		
Harbor View Park		Marinas/Recreational Areas	Local		
Hermosa Terrace Park		Marinas/Recreational Areas	Local		
Imperial Beach		Marinas/Recreational Areas	Local	619	423-8322
L.M. " Pop " Pepper Park		Marinas/Recreational Areas	Local	619	686-6200
La Jolla Cove		Marinas/Recreational Areas	Local		
La Jolla Hermosa Park		Marinas/Recreational Areas	Local		
La Jolla Shores Beach/Kellogg Park		Marinas/Recreational Areas	Local		
La Jolla Strand Park		Marinas/Recreational Areas	Local		
La Playa		Marinas/Recreational Areas	Local		
Linear Park		Marinas/Recreational Areas	Local		
Marine Street Beach		Marinas/Recreational Areas	Local		
Maritime Museum		Marinas/Recreational Areas	Local		
Mission Beach Park		Marinas/Recreational Areas	Local		
Moonlight Beach		Marinas/Recreational Areas	Local		
Nicholson Point Park		Marinas/Recreational Areas	Local		
Ocean Beach City Beach		Marinas/Recreational Areas	Local		
Ocean Beach Municipal Fishing Pier		Marinas/Recreational Areas	Local	619	221-8901
Ocean Beach Park		Marinas/Recreational Areas	Local	619	221-8901
Oceanside City Beach		Marinas/Recreational Areas	Local	760	966-4580
Oceanside Pier		Marinas/Recreational Areas	Local	760	966-4580
Pacific Beach Park		Marinas/Recreational Areas	Local		
Palisades Park		Marinas/Recreational Areas	Local		
Robb Field and Playground		Marinas/Recreational Areas	Local	619	531-1563
Sail Bay and Riviera Shores		Marinas/Recreational Areas	Local		
San Diego City Parks & Recreation Department (city parks and beaches)	San Diego Lifeguard Services Division	Marinas/Recreational Areas	Local	619	221-8899
San Elijo State Beach		Marinas/Recreational Areas	Local	760	753-5091
San Onofre State Beach.		Marinas/Recreational Areas	Local	949	492-0802
Santa Clara Point and El Carmel Point		Marinas/Recreational Areas	Local	619	490-0928
Sea World		Marinas/Recreational Areas	Local	619	222-6363
Seagrove Park		Marinas/Recreational Areas	Local		
Shelter Island		Marinas/Recreational Areas	Local		

Silver Strand State Beach		Marinas/Recreational Areas	Local	619	435-5184
South Carlsbad State Beach		Marinas/Recreational Areas	Local	760	438-3143
South Oceanside Beach		Marinas/Recreational Areas	Local	760	466-4580
Spanish Landing Park		Marinas/Recreational Areas	Local		
Stairway to Beach (Del Mar Shores Terrace)		Marinas/Recreational Areas	Local		
Stairway to Beach (Seascape Surf)		Marinas/Recreational Areas	Local		
Stone Steps Beach		Marinas/Recreational Areas	Local		
Sun Gold Point		Marinas/Recreational Areas	Local		
Sunset Cliffs Park		Marinas/Recreational Areas	Local		
Swami's		Marinas/Recreational Areas	Local		
Tide Beach Park		Marinas/Recreational Areas	Local		
Torrey Pines City Beach (Black's Beach)		Marinas/Recreational Areas	Local		
Torrey Pines City Park		Marinas/Recreational Areas	Local		
Torrey Pines State Beach		Marinas/Recreational Areas	Local	858	452-873
Tourmaline Surfing Park		Marinas/Recreational Areas	Local		
Vacation Isle and Ski Beach		Marinas/Recreational Areas	Local	619	276-8200
Ventura Cove		Marinas/Recreational Areas	Local		
Wind and sea Beach		Marinas/Recreational Areas	Local		
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	233-3096
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	957-0901
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	957-0902
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	957-0903
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	957-0904
San Diego Bay Pilots Association, Inc.		Marine Pilots Association	Local	619	957-0905
Office of Emergency Services		Media Contact		800	852-7550
Office of Spill Prevention and Response	Public Affairs	Media Contact		916	327-9948
Office of Spill Prevention and Response	Public Affairs	Media Contact		916	323-6286
Coronado Journal		Media/Newspaper	Local	619	437-8800
LA Times		Media/Newspaper	Local	619	544-6001
NY Times		Media/Newspaper	Local	323	658-8984
San Diego Log		Media/Newspaper	Local	619	226-1608
Union-Tribune		Media/Newspaper	Local	619	299-3131
KCBQ		Media/Radio	Local	800	873-1210

KFMB		Media/Radio	Local	858	495-8670
KOGO		Media/Radio	Local	858	292-2000
KFMB		Media/Television	Local	858	571-8888
KGTV		Media/Television	Local	619	237-1010
KUSI		Media/Television	Local	858	571-5151
AP Wire		Media/Wire Service	Local	619	231-3587
UPI		Media/Wire Service	National	202	898-8000
ALVARADO HOSPITAL MEDICAL CENTER		Medical Facilities	Local	619	287-3270
BALBOA NAVAL HOSPITAL		Medical Facilities	Local	619	532-6019
COMMUNITY HOSPITAL OF CHULA VISTA		Medical Facilities	Local	619	482-5800
CORONADO HOSPITAL		Medical Facilities	Local	619	435-6251
GREEN HOSPITAL OF SCRIPPS CLINIC		Medical Facilities	Local	858	455-9100
GROSSMONT HOSPITAL		Medical Facilities	Local	619	465-0711
MERCY HOSPITAL & MEDICAL CENTER		Medical Facilities	Local	619	294-8111
PARADISE VALLEY HOSPITAL		Medical Facilities	Local	619	470-4321
SCRIPPS MEMORIAL HOSPITAL	CHULA VISTA	Medical Facilities	Local	619	691-7000
SCRIPPS MEMORIAL HOSPITAL	ENCINITAS	Medical Facilities	Local	760	753-6501
SCRIPPS MEMORIAL HOSPITAL	La Jolla	Medical Facilities	Local	858	457-4123
SHARP CABRILLO HOSPITAL		Medical Facilities	Local	619	221-3400
Sharp Memorial Hospital		Medical Facilities	Local	619	541-3400
UCSD MEDICAL CENTER		Medical Facilities	Local	619	543-6222
Miramar Marine Corps Air Station	Ops Duty Officer	Military Airfields	Local	858	577-4279
Marine Safety Office LA/LB		Notification	Local	526	980-4444
Marine Safety Office San Diego		Notification	Local	619	683-6470
Marine Safety Office San Francisco Bay		Notification	Local	415	399-3547
National Response Center		Notification	National	800	424-8802
Office of Emergency Services (OES)		Notification	State	800	852-7550
CA EPA, DTSC		Notification, CA OES	State	916	324-1826
California Highway Patrol (CHP)		Notification, CA OES	State	707	551-4100
CALTRANS		Notification, CA OES	State	510	286-6356

County & City Police Department(s)	Notification, CA OES	County		
County Fire Department(s)	Notification, CA OES	County		
County Health Department(s) (or designated local emergency contact)	Notification, CA OES	County		
County OES	Notification, CA OES	County		
Harbormaster(s)/Port Authority(s)	Notification, CA OES	County		
CA DFG/OSPR	Notification, CG MSO (SF, LA, SD)	State	916	445-0045
CA Office of Emergency Services (OES)	Notification, CG MSO (SF, LA, SD)	State	800	852-7550
CG PACAREA/D11 OPC	Notification, CG MSO (SF, LA, SD)	State	510	437-3700
NOAA SSC	Notification, CG MSO (SF, LA, SD)	Federal	800	579-8818
PIAT	Notification, CG MSO (SF, LA, SD)	Federal	919	331-6006/6032
USCG Activities San Diego	Notification, CG MSO (SF, LA, SD)	Local	619	295-3121
USCG Group San Francisco	Notification, CG MSO (SF, LA, SD)	Local	415	399-3417/3530
USCG Group/Airsta Humboldt Bay	Notification, CG MSO (SF, LA, SD)	Local	707	839-6116
USCG Group/MSO LA/LB	Notification, CG MSO (SF, LA, SD)	Local	562	980-4444
USCG Pacific Strike Team	Notification, CG MSO (SF, LA, SD)	National	415	883-3311
USCG Public Affairs (north)	Notification, CG MSO (SF, LA, SD)	Federal	510	437-3324
CA Coastal Commission	Notification, OSPR	State	415	904-5285
CA Dept. of Parks & Recreation	Notification, OSPR	State	916	296-2408
CA Office of Emergency Services	Notification, OSPR	State	800	852-7550
CA State Lands Commission	Notification, OSPR	State	800	852-7550
Farallones Nat'l Marine Sanctuary	Notification, OSPR	National	415	561-6622
IBRRC Marine Mammal Center	Notification, OSPR	Local	415	289-7325
International Bird Rescue Research Center (IBRRC	Notification, OSPR	International	510	841-9086
National Park Service/GGNRA	Notification, OSPR	National	415	561-4462
State Interagency Oil Spill Committee (SIOSC) Confidential Notification List	Notification, OSPR	State		

U.S. Fish & Wildlife Service (appropriate field office)		Notification, OSPR	Federal		
State of California Office of Spill Prevention and Response Cost Recovery Unit		OSRTF	Local	916	327-9407
OSPR	Public Affairs Officer Recorded Msg	Phone Banks	Federal	800	999-1043
OSPR	OSPR Volunteer Coordinator (VC)	Phone Banks	Federal	800	228-4544
San Diego Unified Port District		Port Authority/Harbormasters	Local	619	686-6200
District Moorings, A-4 / Marine Op	Coronado	Port/Dock Facilities	Local	619	686-6340
Bay Club Marina		Port/Dock Facilities	Local	619	222-0314
Boathouse Marina	Harbor Island Area	Port/Dock Facilities	Local	619	524-5269
Cabrillo Isle Marina	Harbor Island Area	Port/Dock Facilities	Local	619	297-6222
California Yacht Marina	Chula Vista	Port/Dock Facilities	Local	619	422-2595
Chula Vista Marina & RV Park	Chula Vista	Port/Dock Facilities	Local	619	691-1860
Coronado Cays Marina	Coronado	Port/Dock Facilities	Local	619	423-0011
Coronado Cays Yacht Club	Coronado	Port/Dock Facilities	Local	619	429-0133
Coronado Yacht Club	Coronado	Port/Dock Facilities	Local	619	435-1848
Crows Nest Brokerage		Port/Dock Facilities	Local	619	222-1122
Dana Landing		Port/Dock Facilities	Local	619	224-2513
Driscoll's Boat Works	Commercial Basin Area	Port/Dock Facilities	Local	619	226-2500
Eichenlaub's	Commercial Basin Area	Port/Dock Facilities	Local		
Glorietta Bay Marina	Coronado	Port/Dock Facilities	Local	619	435-5203
Gold Coast Marina/Fraisers Yachts		Port/Dock Facilities	Local	619	225-0588
Half Moon Anchorage		Port/Dock Facilities	Local	619	224-3401
Harbor Island West Marina	Harbor Island Area	Port/Dock Facilities	Local	619	291-6440
Koehler Kraft Co.	Commercial Basin Area	Port/Dock Facilities	Local		
Kona Kai Club		Port/Dock Facilities	Local	619	222-1191
Kona Marina		Port/Dock Facilities	Local	619	224-7547
Loews Hotel & Marina	Coronado	Port/Dock Facilities	Local	619	575-7245
Marina Cortez	Harbor Island Area	Port/Dock Facilities	Local	619	291-5985
Marina Village Marina		Port/Dock Facilities	Local	619	224-3125
Marine Corps Recruit Depot	Harbor Island Area	Port/Dock Facilities	Local	619	524-4202
Marriott Marina	Embarcadero Area	Port/Dock Facilities	Local	619	230-8955
Mission Bay Marina		Port/Dock Facilities	Local	619	223-5191
Naval Training Center Marina	Harbor Island Area	Port/Dock Facilities	Local	619	524-6498
Nielsen Beaumont	Commercial Basin Area	Port/Dock Facilities	Local	619	222-4255

San Diego Unif. Pt. Dist. Moorings		Port/Dock Facilities	Local	619	686-6227
San Diego Unified Port District Moorings/Laurel St. A-3	Embarcadero Area	Port/Dock Facilities	Local	619	686-6227
San Diego Yacht Club		Port/Dock Facilities	Local	619	221-8400
Sea World Marina at Perez Cove		Port/Dock Facilities	Local	619	226-3915
Shelter Cove Marina		Port/Dock Facilities	Local	619	224-2471
Shelter Cove Marina	Commercial Basin Area	Port/Dock Facilities	Local	619	224-2471
Shelter Island Boat Yard	Commercial Basin Area	Port/Dock Facilities	Local	619	222-0481
Shelter Island Marina Inn		Port/Dock Facilities	Local	619	223-0301
Shelter Island Yachtways, Ltd.		Port/Dock Facilities	Local	619	222-0481
Sheraton Marina	Harbor Island Area	Port/Dock Facilities	Local	619	692-2249
Silver Gate Yacht Club		Port/Dock Facilities	Local	619	222-1214
South Bay Boat Yard	Chula Vista	Port/Dock Facilities	Local	619	427-6767
Southwestern Yacht Club		Port/Dock Facilities	Local	619	222-0438
Sun Harbor Marina		Port/Dock Facilities	Local	619	222-1167
Sun Harbor Marina	Commercial Basin Area	Port/Dock Facilities	Local	619	222-1167
Sunroad Resort Marina	Harbor Island Area	Port/Dock Facilities	Local	619	574-0736
Dana Inn Dana Inn and Marina		Port/Dock Facilities	Local	619	222-6440
Oceanside Harbor		Port/Dock Facilities & Capacities	Local	760	435-4000
Deter & Sons		Portable Restrooms	Local	619	460-3925
Lamar		Portable Restrooms	Local	619	425-7160
Portasan		Portable Restrooms	Local	800	443-3877
California Department of Fish and Game/OSPR	Dispatch Office	Regional Response Team (RRT)	State	916	445-0045
California Department of Fish and Game/OSPR		Regional Response Team (RRT)	State	916	445-8285
California Department of Fish and Game/OSPR	Operations Duty Officer	Regional Response Team (RRT)	State	916	445-0045
Department of Commerce		Regional Response Team (RRT)		301	713-2989
Department of Commerce	HAZMAT Duty Officer	Regional Response Team (RRT)		206	526-4911
Department of Commerce, NOAA SF Bay	Site Manager	Regional Response Team (RRT)	Local	415	556-0858
Department of the Interior		Regional Response Team (RRT)	Federal	510	817-1476
Department of the Interior	Regional Biologist, Northern California	Regional Response Team (RRT)	Local	916	414-6600
Department of the Interior	Regional Biologist, Central California	Regional Response Team (RRT)	Local	805	644-1766
Department of the Interior	Regional Biologist, Southern	Regional Response Team	Local	760	431-9440

	California	(RRT)			
Environmental Protection Agency (EPA)	Co-Chair	Regional Response Team (RRT)		415	972-3132
Environmental Protection Agency (EPA)		Regional Response Team (RRT)		415	972-3072
NOAA/HAZMAT	Scientific Support Coor.	Regional Response Team (RRT)		510	437-5344
USCG	D11(mr)	Regional Response Team (RRT)		510	437-2794
USCG	D11(mr-2)	Regional Response Team (RRT)		510	437-2959
USCG	D11(m)	Regional Response Team (RRT)		510	437-5754
Continental Maritime		Registered Marine Aquaculture Facilities	Local	619	234-8851
Driscoll Boat Works, Inc.		Registered Marine Aquaculture Facilities	Local	619	226-2500
Driscoll's Mission Bay		Registered Marine Aquaculture Facilities	Local	619	226-2500
HUBBS-SEA WORLD	White Seabass Fish Hatchery	Registered Marine Aquaculture Facilities	Local	619	434-9501
MARITECH OCEANRANCHING	San Diego Bay	Registered Marine Aquaculture Facilities	Local	619	226-3448
National Steel and Shipbuilding Co.		Registered Marine Aquaculture Facilities	Local	619	544-8401
Neilsen Beaumont		Registered Marine Aquaculture Facilities	Local	619	222-4255
Shelter Island Boatyard		Registered Marine Aquaculture Facilities	Local	619	222-0455
South Bay Boat Yard		Registered Marine Aquaculture Facilities	Local	619	427-6767
Southwest Marine Inc.		Registered Marine Aquaculture Facilities	Local	619	238-1000
	Mission Bay Quivera Basin	Registered Marine Aquaculture Facilities	Local		
Avis	Lindbergh International Airport	Rental Cars	Local	619	231-7171
Budget Rent-A-Car	Lindbergh International Airport	Rental Cars	Local	619	297-3851
Hertz	Lindbergh International Airport	Rental Cars	Local	619	557-7218
Local GSA Contact		Rental Cars	Local	619	557-7218
Navy Public Works Center	Commanding Officer	Rental Cars	Local	619	556-7606
State Coastal Commission		REQUIRED PERMITS/GOVERNMENT AGENCY CONTACTS	State	800	555-3886
State Toxic Substances Department		REQUIRED PERMITS/GOVERNMENT AGENCY CONTACTS	State	800	555-4998
Enforcement Bay Area AQMD	Director	RRT Contact List		415	749-4760
Mendocino County APCD Courthouse		RRT Contact List	County	707	463-4354
Monterey Bay Unified		RRT Contact List		831	647-9411

APCD					
North Coast Unified AQMD		RRT Contact List		707	443-3093
Northern Sonoma County APCD		RRT Contact List	County	707	433-5911
San Diego County APCD		RRT Contact List	County	858	650-4700
San Luis Obispo County APCD		RRT Contact List	County	805	781-5912
Santa Barbara County APCD		RRT Contact List		805	961-8800
South Coast AQMD		RRT Contact List		909	396-2000 x2699
Ventura County APCD		RRT Contact List	County	805	662-6960
Ventura County APCD		RRT Contact List	County	805	662-6960
C & W Diving Services, Inc.		Salvage Companies/Divers	Local	619	474-2700
Global Diving and Salvage		Salvage Companies/Divers	Local	206	623-0621
Marine Services	Hydrostatic testing, diving system maintenance (no divers)	Salvage Companies/Divers	Local	619	422-8918
Presley Precision Diving		Salvage Companies/Divers	Local	619	223-3234
RE Staite Engineering Inc.		Salvage Companies/Divers	Local	619	477-7900
CA COASTAL COMMISSION		State Emergency Response Committees	State	415	904-5296
CALIFORNIA DEPARTMENT OF FORESTRY	Sacramento Command Center	State Emergency Response Committees	State	916	845-8680
CALIFORNIA CONSERVATION CORPS	CA EPA	State Emergency Response Committees	State	916	322-8284
CALIFORNIA DEPARTMENT OF TRANSPORTATION		State Emergency Response Committees	State	916	643-8855
CALIFORNIA HIGHWAY PATROL	COMMERCIAL VEHICLE SECTION	State Emergency Response Committees	State	916	657-7261
CALIFORNIA NATIONAL GUARD	Duty Officer	State Emergency Response Committees	State	916	854-3000
DEPARTMENT OF PARKS AND RECREATION		State Emergency Response Committees	State	916	653-9962
DEPARTMENT OF TOXIC SUBSTANCES CONTROL	CA EPA DTSC Duty Officer	State Emergency Response Committees	State	800	260-3972
DEPARTMENT OF WATER RESOURCES	DIVISION OF OPERATIONS AND MAINTENANCE STATE WATER PROJECT OPERATIONS CONTROL OFFICE	State Emergency Response Committees	State	916	574-2714

DEPT. OF CONSERVATION	DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES	State Emergency Response Committees	State	916	445-0806
OFFICE OF EMERGENCY SERVICES	State Warning Center	State Emergency Response Committees	State	916	845-8911
STATE ATTORNEY GENERAL		State Emergency Response Committees	State	213	897-2000
STATE FIRE MARSHAL	PIPELINE SAFETY DIVISION	State Emergency Response Committees	State	916	445-8477
STATE FIRE MARSHAL	PIPELINE SAFETY DIVISION	State Emergency Response Committees	State	916	445-8419
STATE LANDS COMMISSION	MARINE FACILITIES DIVISION	State Emergency Response Committees	State	562	499-6312
STATE LANDS COMMISSION	MARINE FACILITIES DIVISION	State Emergency Response Committees	State	888	979-2634
STATE LANDS COMMISSION	MARINE FACILITIES DIVISION	State Emergency Response Committees	State	888	833-9845
STATE WATER RESOURCES CONTROL BOARD	CA EPA	State Emergency Response Committees	State	916	445-3846
California Coastal Commission	Bay Area Conservation and Development Commission Joint Oil Spill Program (BCDC/CCC)	Temporary Storage	Local	415	557-3683
DTSC	Region 1 (Sacramento)	Temporary Storage	Local	916	255-3564
DTSC	Region 2 (Oakland)	Temporary Storage	Local	510	540-3739
DTSC	Region 3 (Glendale)	Temporary Storage	Local	818	551-2830
DTSC	Region 4 (Long Beach)	Temporary Storage	Local	310	590-4968
Action Cleaning Corp.		Temporary Waste Storage	Local	619	233-1881
All Valley Oil Recycle		Temporary Waste Storage	Local	714	534-8841
Allied Petroleum		Temporary Waste Storage	Local	209	576-8500
Alviso Independent Oil		Temporary Waste Storage	Local	408	262-2715
Amberwick Corp.		Temporary Waste Storage	Local	800	300-9990
American Oil Co.		Temporary Waste Storage	Local	213	469-2277
Asbury Environmental		Temporary Waste Storage	Local	323	350-1840
Asbury Environmental		Temporary Waste Storage	Local	619	463-1126
Golden West Oil Co. Inc.		Temporary Waste Storage	Local	909	350-3252
IT Corporation		Temporary Waste Storage	Local	310	378-9933
J.C.'s Grease Buyers		Temporary Waste Storage	Local	909	736-1198
J.W. Butler Oil, Inc.		Temporary Waste Storage	Local	805	946-2420
Jack Stone Drainage Oil Co.		Temporary Waste Storage	Local	562	427-7216
Jim Knight Drain Oil Service		Temporary Waste Storage	Local	562	434-2419
Oasis Pumping		Temporary Waste Storage	Local	562	944-5225
Pacific Fuel Service		Temporary Waste Storage	Local	909	980-1537

R. B. Enterprises		Temporary Waste Storage	Local	760	375-7727
Rosemead Oil Production, Inc.		Temporary Waste Storage	Local	562	941-3261
Speed's Oil Tool Serv., Inc.		Temporary Waste Storage	Local	805	925-1369
Triad Marine & Oil Cleaning		Temporary Waste Storage	Local	619	239-2024
World Pacific Oil Co.		Temporary Waste Storage	Local	714	539-7002
Foss/NRC Maritime		Tow Boats/Barges	Local	619	234-8228
Harbor Tug & Barge		Tow Boats/Barges	Local	619	223-1558
Marine Corp.		Tow Boats/Barges	Local	310	547-0919
Pacific Tugboat Service		Tow Boats/Barges	Local	619	409-1827
RE Staite Engineering Inc.		Tow Boats/Barges	Local	619	477-7900
U.S. Navy, Waterfront Operations	Duty Officer	Tow Boats/Barges	Local	619	556-3138
Water Taxi Service		Transportation	Local	619	235-8294
Office of Spill Prevention and Response	Volunteer Coordinator	Volunteer Coordinators	State	916	324-6250
American Red Cross		Volunteer Organizations	Local	619	291-2620
Project Wildlife	Seabird Team Leaders	Volunteer Organizations	Local	619	225-9453
Salvation Army		Volunteer Organizations	Local	619	239-8027
Sea World	Animal Care - Environmental Coordinator Office	Volunteer Organizations	Local	619	222-6363
Sierra Club	San Diego Chapter	Volunteer Organizations	Local	619	299-1744
Sanctuary Program	Monterey Bay	Waste Management Plan	Local	408	647-4258
Sanctuary Program	Channel Islands	Waste Management Plan	Local	805	966-7107
Sanctuary Program	Farallones and Cordell Book	Waste Management Plan	Local	415	556-3509
Hubbs-SeaWorld	Hatchery Mgr, White Sea bass Fish Hatchery	Water Intake Facilities	Local	760	434-9501
Kelco		Water Intake Facilities	Local	619	232-0604
NASSCO		Water Intake Facilities	Local	619	544-8401
Scripps Institute	Trouble Deck	Water Intake Facilities	Local	858	534-2930/3851
SDG&E Encina Power Plant	Duty Engineer	Water Intake Facilities	Local	760	268-4000
SDG&E Silvergate Power Plant		Water Intake Facilities	Local	800	684-8123
SDG&E South Bay Power Plant	Duty Engineer	Water Intake Facilities	Local	619	420-7383
Sea World Mission Bay	Security	Water Intake Facilities	Local	619	222-6363
So. California Edison San Onofre Power Plant	Duty Engineer	Water Intake Facilities	Local	949	368-3000
U.S. NavSta	Public Works Center	Water Intake Facilities	Local	619	556-7341

Western Salt Co.	Water Intake Facilities	Local	619	423-3388
Center for Marine Conservation	Wildlife Contacts		415	375-4509
Marine Mammal Center	Wildlife Contacts		415	289-7325
Marine Mammal Center	Wildlife Contacts		831	289-7325
Friends of the Sea Otter				
Pacific Wildlife Care Center	Wildlife Contacts		805	489-0411
Save Our Shores	Wildlife Contacts		831	462-5660
Associated Press	Wire Service		415	495-1708
Associated Press	Wire Service		213	626-1200
Bay City News	Wire Service		415	552-8900
United Press Int'l	Wire Service		415	389-1935
United Press Int'l	Wire Service			