

16591  
LEW000001  
P (1-12-13)

**FINDINGS OF FACT**

**PROPOSED REPLACEMENT  
OF THE  
STATE ROUTE 520 BRIDGE  
ACROSS LAKE WASHINGTON  
AT  
SEATTLE, KING COUNTY, WASHINGTON**

**P (1-12-13)**

**APPLICANT:**

State of Washington  
(Washington State Department of Transportation)  
WSDOT  
600 Stewart Street Suite 520  
Seattle, Washington 98101

**Prepared by:**

Randall D. Overton  
Bridge Administrator

3/02/2012  
Date

THIRTEENTH COAST GUARD DISTRICT (dpw)  
915 SECOND AVENUE (RM3510)  
SEATTLE, WA 98174-1067

**I. ADMINISTRATIVE EVALUATION:**

**1. Applicant Information:**

- a. **Applicant's Name:** Washington State Department of Transportation (WSDOT) (encl 1)
- b. **Agent's Name:** WSDOT Permit application submittal (encl 1)
- c. **Date of Application:** December 14, 2011 (encl 1).

**2. Navigability determination:**

Lake Washington is navigable waters of the United States in accordance with 33 CFR §2.36(a)(3). (encl 2)

**3. Proposed Bridge Structure:**

The State of Washington proposes to replace the existing State Route 520 (SR 520) Bridge, also known as the Governor Albert D. Rosellini Bridge (aka the Evergreen Point Bridge), across Lake Washington. The existing SR 520 Lake Washington Bridge consist of an elevated east approach with a fixed navigational opening, an elevated west approach with a fixed navigational opening, and the main section which is a floating structure with a movable span to provided a navigational opening. The new bridge and approaches will be comprised of an aggregate of elevated fixed span structures and a fixed floating structure. The proposed replacement bridge will not have a movable span therefore vertical clearance will be restricted by the east and west fixed structures. The proposed structure's overall length is approximately 14,740 feet with a maximum width of 252 feet.

a. **Date of Plans:**

Plan sheets 1-10, dated February 2012 (encl 3)

- b. **Type of bridge:** Highway bridge consisting of fixed raised approaches and a floating main span. The typical section consist of two 11ft all purpose vehicular lanes, and a 12 ft High Occupancy Vehicle (HOV) lane in each direction (east and west bound), 10ft outside shoulders and a 4ft inside shoulders in each direction, and a 14ft multiuse pedestrian/bike lane on the eastbound side of the bridge.

c. **Length:**

Overall length approximately 14,740 ft; floating section length approximately 7640 ft

d. **Width of proposed:**

The proposed bridge will have an out-to-out width which varies from approximately 116 ft to a maximum width of 252 ft.

e. **Legal authority for proposed action:**

The General Bridge Act of 1946

f. **Dimensions of the proposed navigational openings:**

The new bridge provides three fixed navigational openings one on the east approach and two on the west approach.

1) **Proposed Clearance:**

**East approach structure** (Medina, WA side)

<u>Vertical:</u>	<u>Horizontal:</u>
70 ft above Ordinary High Water	231 ft between piers

**West approach structure** (Seattle, WA side) - 2 navigation channels

<u>Vertical (minimum):</u>	<u>Horizontal:</u>
44 ft above Ordinary High Water	142 ft between piers

NOTE: there are two navigation channels under the west approach of the bridge, one channel will provide 47 ft of vertical clearance and the other will provide 44 ft of vertical clearance; both will provide 142 ft of horizontal clearance.

2) **Proposed Clearance (Temp) during construction:**

The new bridge is being built immediately to the north of the existing bridge. Periodic temporary closures of both the east (closes to Medina, WA) and west (closes to Seattle, WA) navigation channels will be required for the duration of construction activities (approximately 3 years); however, at no time shall both east and west navigation channels be closed or blocked simultaneously. The piers and floating components of the new bridge will be offset (not in align with) the piers and floating components of the existing bridge. During construction and prior to the removal of the existing to-be-replaced bridge the east and west navigation channels will have restricted clearances as follows.

**East approach structure** (Medina, WA side)

<u>Vertical (temp):</u>	<u>Horizontal (temp):</u>
57 ft above Ordinary High Water	188 ft between piers

**West approach structure** (Seattle, WA side) – 1 channel (temp)

<u>Vertical (temp):</u>	<u>Horizontal (temp):</u>
43 ft above Ordinary High Water	85 ft between piers

g. **Location of project:**

1) **Waterway name:**

Lake Washington

- 2) **Milepoint:**  
N/A
- 3) **Name of nearest city and state:**  
Seattle, Washington
- 4) **Geographic location (center)**  
Latitude: 47°38'25"N  
Longitude: 122°15'34"W

- h. **Purpose of project:**  
The SR 520 Bridge is being replaced because it is structure deficient and operationally obsolete.
- i. **Cost of low-level bridge with only sufficient clearance to pass high water:**  
N/A, A calculated figure for the cost of a low-level bridge with only sufficient clearance to pass high water was not given for this project. **Total project cost** is estimated at \$1.5 billion.
- j. **Increase in bridge cost attributable to navigational clearances:**  
N/A

**4. Existing bridge:**

- a. **Name of bridge:**  
SR 520 Lake Washington Bridge, aka Governor Albert D. Rosellini Bridge, aka: Evergreen Point Floating Bridge,
- b. **Milepoint:**  
N/A
- c. **Type of bridge:**  
Floating drawbridge, 2 travel lanes in each direction.
- d. **Operating regulation:**  
33 CFR § 117.1049 Lake Washington – The proposed replacement bridge is a fixed bridge therefore not subject to operating regulation under 33 CFR 117
- e. **Dimensions of vertical and horizontal clearances:**

**East approach structure** (Medina, WA side)

<u>Vertical:</u>	<u>Horizontal:</u>
57 ft above Ordinary High Water	207 ft between piers

**West approach structure** (Seattle, WA side) - 2 navigation channels

<u>Vertical (minimum):</u>	<u>Horizontal:</u>
44 ft above Ordinary High Water	206 ft between piers

**Moveable span** (center)

**Vertical (open):**

Unlimited

**Horizontal (open):**

200 ft between fenders

f. **Date of original permit:**

Original permit issued by the Army Corps of Engineers dated April 28, 1955, with latest revision by the Army Corps of Engineers dated March 27, 1961. The Coast Guard issued a permit amendment for the modification of the fender system of the bridge Amendment 126-71 dated September 21, 1971 (**encl 4**)

g. **Extent of removal:**

All parts of the of the existing to-be-replaced SR 520 Bridge Lake Washington, not utilized in the new bridge which are located within the waterway shall be removed down to or below the natural bottom of the waterway. All other parts shall be removed down to or below the natural ground line.

**5. Present governing bridge or aerial structure on the waterway:**

a. **Identify governing horizontal clearance:**

There are only two bridges which cross Lake Washington the I 90 Highway Bridge and the SR 520 Highway Bridge. The main navigation channel of the I 90 Bridge is located approximately 5 mile south of the SR 520 Bridge. The I 90 Bridge is the horizontal governing structure in Lake Washington and provides a horizontal clearance of 200 feet through its navigation opening on the east side of Mercer Island.

b. **Identify structure governing vertical clearance:**

The I 90 Highway Bridge is the current governing structure for vertical clearance in Lake Washington and provides a vertical clearance of approximately 71 ft. The proposed SR 520 Bridge will provide a minimum vertical clearance of 70 ft at the edge of the navigation channel limits and a vertical clearance equal to or greater than 71 ft throughout the majority of the navigational channel.

**6. Protests, if any, against the existing bridges on this waterway:**

I have no record of protest concerning the existing bridge on Lake Washington with regards to their impacts of navigation.

**7. Waterway characteristics:**

a. **Width of the waterway at bridge site:**

At the proposed bridge site Lake Washington is approximately 1.8 miles wide.

- b. **Depth of the waterway at bridge site:**  
The depth of the Lake Washington across the bridge site varies from 20 ft to over 200 ft. The minimum depth within the east and west navigation channels is approximately 20 ft.
- c. **Other limiting factors:**  
Prudent seamanship is all that should be necessary to safely navigate the waterway.

**8. Summary of preliminary conferences and early coordination or scoping efforts with applicant and/or other interested parties:**

Public Involvement and Agency Coordination was extensive and thorough during the whole of the project development and study of alternatives. Refer to chapter 11 of the FEIS for details of public and agency involvement and coordination. The FEIS can be found at the project website <http://www.wsdot.wa.gov/projects/SR520Bridge/>.

**9. Public Notification:**

In addition to the extensive public involvement and notification outlined in chapter 11 of the FEIS the Coast Guard Thirteenth District issued public notice PN 01-12 (encl 5)

- a. **Date of Public Notice:** January 9, 2012.
- b. **Coast Guard Public Notice mailed to all in District's mailing list:** Yes, PN 01-12 availability notification (encl 6) was mailed to all resource agencies and to all adjacent property owners on January 9, 2012. The USCG PN 01-12 was posted to website: <http://www.navcen.uscg.gov/?pageName=pnBridges&Active=1&region=13> per current standard distribution procedures.
- c. **Date of Local Notice to Mariners:** LNM 02/12 dated January 10, 2012. The District 13 Local Notice to Mariners can be found at <http://www.navcen.uscg.gov/?pageName=lnmDistrict&region=13> (encl 7)
- d. **Date of Coast Guard Public Hearing:** N/A – no CG public hearing.
- e. **Summary of views of governmental agencies, navigational interests or other interested parties:**
  - 1) Letter from the Muckleshoot Indian Tribe, dated January 11, 2012, stating that the Tribe does not oppose the issuance of a Coast Guard Bridge Permit for the SR520 Bridge replacement project. (encl 8)
  - 2) In an email dated January 12, 2012, Isabel Tinoco, Fisheries Director for the Muckleshoot Indian Tribe confirmed that a Memorandum of Agreement had been signed which WSDOT's commitment to a set of

- specific measures to offset treaty fishing impacts. **(encl 8a)**
- 3) Letter from WSDOT which summarizes the MOA between WSDOT and the Muckleshoot Indian Tribe. WSDOT and the Muckleshoot Indian Tribe have requested and the that the actual MOA not be made part of the public record, as an enclosure to this Finding of Facts, because there are sensitive financial details contained within.
  - 4) Letter from Jorgen Bader, dated February 5, 2012, requesting the Coast Guard incorporate into our Record of Decision (ROD) a letter from the Washington Department of Transportation dated July 19, 2011, to the Seattle Department of Parks and Recreation concerning 4(f) property impacts. Mr. Bader's letter also request the Coast Guard seek a letter from WSDOT offering property known as the Frolund Site as mitigation for section 4(f) impacts. **(encl 9)**
  - 5) Letter from Ravenna-Bryant Community, dated February 7, 2012, requesting the Coast Guard incorporate into our Record of Decision (ROD) a letter from the Washington Department of Transportation dated July 19, 2011, to the Seattle Department of Parks and Recreation concerning 4(f) property impacts. **(encl 10)**
  - 6) Letter from University Community Council, dated February 8, 2012, requesting the Coast Guard incorporate into our Record of Decision (ROD) a letter from the Washington Department of Transportation dated July 19, 2011, to the Seattle Department of Parks and Recreation concerning 4(f) property impacts. **(encl 11)**

## **II. NAVIGATIONAL EVALUATION:**

### **1. Do vessels engaged in emergency operations, national defense activities or channel maintenance operate on the waterway?**

Seattle Harbor Patrol, a division of the Seattle Police Department operates boats on Lake Washington - phone number 206-684-4071, website: <http://www.seattle.gov/police/units/harbor/default.htm>. There are no channel maintenance activities at the bridge location.

- a. The proposed replacement bridge will provide navigational clearances which will allow safe efficient passage for all vessels operated by the Seattle Harbor Patrol.

### **2. Has the Corps of Engineers completed or does it plan to complete a federal navigation project on the waterway?**

No, there is no authorized federal navigation channel and there is no plan to complete a navigational channel in this area.

### **3. Present and prospective recreational navigation:**

Numerous types and sizes of pleasure/recreation vessels ply these waters. Vessels range from small motorboats and canoes to large cabin cruisers and sailboats. The proposed bridge will provide navigational clearances to allow

safe efficient passage for all known recreational vessels that currently ply this waterway or that are expected to ply this waterway in the future.

**4. Present and prospective commercial navigation and the cargoes moved on the waterways:**

Commercial navigation consists primarily of three user groups: Marine construction contractors such as Foss, and Manson Construction; Passenger Cruise and Excursions such as Argosy Cruise Lines; and occasionally tug and barge cargo transport such as Island Tug and Barge Company which infrequently move sand and gravel through the bridge site.

**5. Will the bridge project block access of any vessel presently using local service facilities?**

According to the Navigable Waterways Discipline Report of 2009 and the Navigable Waterways Discipline Report Addendum and Errata May 2011, construction crane with vertical clearance requirements greater than 70 feet can be modified in order to pass beneath the new bridge. Marine Derricks (cranes) that can transit the Ballard Locks (in route to Lake Washington) can be "boomed down" to clear the existing SR 520 East Channel Bridge, this booming down of a crane is a no cost issue. During previous studies cranes that have been used for bridge repair and maintenance along with other marine construction activities on the lake south of SR 520 have been evaluated and it was concluded that the need to get under the I-90 East Channel Bridge was the limiting factor on crane heights. The clear height of that channel is 71' above the Lake Level.

**6. Are alternate routes bypassing the proposed bridge available for use by vessels unable to pass the bridge? No.**

**7. Will the proposed bridge prohibit the entry of any vessels to the local harbor of refuge? No.**

**8. Will the proposed bridge be located within one-half mile of a bend in the waterway? No**

**9. Are there other factors located within one-half mile of the proposed bridge that would create hazardous passage through the proposed structure?**

Yes, the west navigation channel is adjacent to the entrance/exit of the Lake Washington Ship Canal. Both east and west navigational channels are adjacent to private boat docks which line the shore of Lake Washington.

**10. Do local hydrologic conditions increase the hazard of passage through the proposed bridge?**

No.

**11. Do local atmospheric conditions increase the hazard of passage through the proposed bridge?** Intense storms and high winds are common in this geographical area which presents a challenge to all modes of transportation.

**12. Have guide clearances been established for the waterway?** No.

**13. State any other factors you consider necessary for safe, efficient passage through the proposed bridge structure.**

Prudent seamanship is all that should be necessary to safely navigate the proposed bridge structure.

### **III. ENVIRONMENTAL EVALUATION:**

**1. NEPA consideration:**

a. **Identify lead agency:** Federal Highway Administration (FHWA), and Washington State Department of Transportation (WSDOT), Find FEIS on webpage <http://www.wsdot.wa.gov/projects/SR520Bridge/> (**encl 12**)

b. **Identify cooperating agencies:** U. S. Coast Guard, in addition to 19 other agencies, is listed as a cooperating agency on the EIS. A complete list of cooperating agencies can be found in Section 1.6 (page 1-10) of the FEIS and in the FEIS Executive Summary on page 6 (**encl 12**).

c. **Identify Consultant(s):**

As with any large transportation project numerous consultants and sub-consultants were utilized to complete the requisite reports and studies, however the Washington State Department of Transportation (WSDOT) submitted the permit application directly instead of using a consultant. (**encl 1**)

d. **Type of environmental document:**

Coast Guard adopted the FEIS and NEPA reevaluation on February 27, 2012. NEPA Environmental Reevaluation 2012, FWHA Record of Decision (ROD), Final Environmental Impact Statement and Section 4(f) and Section 6(f) Evaluation, (FEIS), FHWA Supplemental draft EIS (SDEIS), and FHWA Draft Environmental Impact Statement (DEIS). For information on filing dates for the above documents see enclosure 18 of this case file.

e. **Date document(s) approved:**

Coast Guard Adoption Statement for Environmental Documentation dated February 27, 2012 (**encl 13**).

Floating Bridge and Landings NEPA Environmental Reevaluation, dated January 2012 (**encl 14**).

FHWA ROD signed August 4, 2011 (**encl 12**) Find ROD at:  
[http://www.wsdot.wa.gov/NR/rdonlyres/AEB86C3D-4666-4F91-A22D-932539B20CA7/0/520\\_ROD\\_I5toMedina\\_ROD\\_Final.pdf](http://www.wsdot.wa.gov/NR/rdonlyres/AEB86C3D-4666-4F91-A22D-932539B20CA7/0/520_ROD_I5toMedina_ROD_Final.pdf)

FHWA FEIS signed May 26, 2011 (**encl 12**), Find FEIS at:  
<http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm#FEIS>

FHWA Supplemental draft EIS (SDEIS) Jan. 22, 2010 (**encl 12**)  
<http://www.wsdot.wa.gov/Projects/SR520Bridge/EIS.htm#SDEIS>

FHWA Draft Environmental Impact Statement August 11, 2006 (**encl 12**)  
<http://www.wsdot.wa.gov/Projects/SR520Bridge/DraftEIS.htm>

**2. Water Quality Certification (WQC):**

The Washington Department of Ecology (WDOE) has issued Water Quality Certification pursuant to Section 401 under the Clean water Act. The WDOE Water Quality Certification order number is 9011 dated February 15, 2012. (**encl 15**). Krista Rave-Perkins of Environmental Protection Agency (EPA) Region 10, Regional Aquatic Resources Unit was notified, February 27, 2012, of the WDOE issuance of WQC pursuant to section 401. Ms Rave-Perkins, EPA Region 10 stated that the EPA was closely engaged with WDOE during review of and issuance of WQC for the project. Ms. Rave-Perkins also stated the EPA had no object to the issuance of the WQC for the project (**encl 16**).

**3. Coastal Zone Management (CZM): Does the state have a federally approved coastal zone management program? Yes. Is the proposed project within the boundaries of the zone? yes.**

**a. Date Applicant certified CZM consistency:**

August 10, 2011. (**encl 17**).

**b. Does Coast Guard concur and adopt the applicant's certification?**

Yes

**c. Date state agency concurred with the applicant's certification:**

Yes the Washington Department of Ecology concurred that the SR 520 Bridge replacement project across Lake Washington is consistent with Washington's Coastal Zone Management Program (**encl 17**)

**4. Floodplains: Is the proposed project in the base floodplain?**

No

**a. Describe extent of encroachment:**

No encroachment on the base floodplain

**b. Describe effect on drift and flood heights.**

No effect on drift or flood heights

c. **Cite 100 year flood elevation:**

There is no 100 year flood elevation established at the bridge location

5. **Historic Properties: Does the proposed project have any impact on properties listed in or eligible for inclusion in the National Register of Historic Places?**

Evergreen Point Bridge, which is eligible for the National Register of Historic Places and the Washington State Historic Register, will be destroyed.

Although WSDOT would mitigate the removal of the bridge through photo documentation and other measures, it would no longer exist after completion of the project. WSDOT identified over 300 historic properties, two historic districts, and one traditional cultural property within the Area of Potential Effects (APE), for the entire SR 520 project. A programmatic agreement between FHWA, WSDOT, SHPO, ACHP, the Corps, NOAA and the Section 106 concurring parties regarding measures to resolved adverse effects to historic properties eligible for listing on the National Register of Historic Places was executed in June 2011. This interagency programmatic agreement can be found as attachment 9 of the FEIS and also as attachment 1 to the FHWA ROD (**encl 12**).

6. **Wetlands: Does the proposed project require the use of any wetlands?**

The Ecosystems Discipline Report (Attachment 7 to the FEIS) details the presence, extent, and characteristics of wetlands in the project area, along with impacts to wetlands and the proposed mitigation. For the project as a whole, there are no reasonable and feasible alternatives that would avoid impacts to wetlands. The floating bridge and east approach would not affect any wetlands. In the west approach area, the project would fill approximately 0.1 acre of wetland and 0.4 acre of wetland buffer, and would shade 4.3 acres of wetland and 0.9 acre of buffer. The affected wetlands are primarily lake fringe wetlands containing aquatic bed, emergent, scrub-shrub, and forested vegetation classes. Mitigation for wetland impacts was determined in consultation with resource agencies through the Natural Resource Technical Working Group, and is documented in the Conceptual Wetland Mitigation Plan; attachment 9 of the FEIS (**encl 12**). Wetland mitigation for the west approach includes creation and/or enhancement of wetlands at three sites: the Union Bay Natural Area, the WSDOT peninsula, and the Cedar River floodplain/Elliot Bridge site.

7. **Fish and Wildlife: Will the proposed project have any impacts on fish and wildlife?**

a. **Discuss impact to threaten or endangered species or critical habitat and/or essential fish habitat.**

Three federally listed ESA fish species occur in the project area: bull trout (*Salvelinus confluentis*), chinook salmon (*Oncorhynchus tshawytscha*), and steelhead (*O. mykiss*). The floating bridge and approaches would

result in a relatively small area of aquatic substrate displacement (up to 20,600 feet) and up to 44.6 acres of over-water shading. Because the area of in-water impact is small, and the shading would generally be less intense (in the west approach area) or in deep-water areas not used extensively by fish (in the floating bridge area), these impacts are not expected to have a significant effect on fish use or populations in the lake.

b. **Briefly document coordination/consultation efforts with the U. S. Fish and Wildlife Service and National Marine Fisheries Service.**

FHWA and WSDOT prepared a Biological Assessment (BA) to document project effects to federally listed Endangered Species and Essential Fish Habitat (**encl 19**). FHWA initiated formal consultations with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on November 23, 2010. USFWS and NMFS issued their Biological Opinions on April 15, 2011 and May 20, 2011, respectively (**encl 20**), (**encl 21**). Both Services concurred that the project may affect, but is not likely to adversely affect threatened and endangered species and critical habitat. NMFS identified a list EFH Conservation Recommendations that WSDOT will implement to avoid and minimize impacts to EFH. After completion of formal consultation with USFWS and the NMFS minor changes were made to the first design-build stage of the project. These minor changes are covered in the NEPA reevaluation dated January 2012. Because of the changes since formal consultation FHWA reinitiated consultation with USFWS and NMFS. USFWS, after reviewing the NEPA reevaluation, concluded that no amendment to their April 15, 2011 Biological Opinion (BO) was necessary and the Incidental Take Statement, required Reasonable and Prudent Measures, and implementing Terms and Conditions remain unchanged; USFWS letter dated January 10, 2012 (**encl 22**). NMFS concluded that “While the changes to the proposed design cause changes in the amount and extent of take, they do not change NMFS’ opinion that the proposed action is not likely to jeopardize the continued existence of Puget Sound (PS) Chinook salmon or PS steelhead or destroy or adversely modify PS Chinook salmon designated critical habitat.” Changes to the extent and amount of take from the NMFS Biological Opinion dated May 20, 2011 include changes to take from: elevated suspended sediment; impact pile driving; increased shading from over-water structures; and increased smallmouth bass habitat from over-water structures. The NMFS made a minor administrative correction to their original take statement (May 20, 2011) with regards to take from storm water; correction was for the abbreviation for micrograms per liter. The changes to the amount and extent of take did not require NMFS to issue additional reasonable and prudent measures (RPM) or terms and conditions. However, NMFS clarified one term and condition (RPM 3 from the May 20, 2011 BO) and extending the reporting deadline of another term and condition (RPM 5 from the May 20, 2011 BO); NMFS letter dated January 11, 2012 (**encl 23**).

- c. **Briefly discuss mitigation efforts to reduce impacts:**  
USFWS and NMFS provided Incidental Take Statements and Reasonable and Prudent Measures as part of their BO and amendments (**encls 20 – 23**)

**8. Noise, briefly discuss noise impacts:**

The project will result in both construction and operational noise impacts. Noise impacts from the project are discussed in detail in chapter 5 of the FEIS and in the Noise Discipline Report, Attachment 7 of the FEIS (**encl 12**). Construction activities will comply with local jurisdictions maximum noise criteria or obtain appropriate variances. The primary construction noise would result from impact methods such as pile driving. During pile-driving, ambient noise levels could exceed 100 decibels within 100 feet of the active construction area, although these levels would drop off quickly with distance. Underwater noise levels without mitigation would result in behavioral effects on juvenile and subadult salmonids within 72 to 446 feet of the pile installation. The use of vibratory pile installation techniques wherever feasible would minimize ambient noise, while the implementation of bubble curtains for in-water pile driving would minimize effects on underwater noise. Pile driving impacts and mitigation are discussed in more detail in the Biological Assessment (**encl 19**). To address operational noise impacts from the highway WSDOT conducted noise modeling to identify those properties that would exceed the state noise abatement criteria. For those properties that would exceed the criteria WSDOT identified mitigation measures, primarily noise barrier walls that would reduce the noise. During project operation, a combination of 4-foot traffic barriers with noise-absorptive coating and quieter concrete pavement throughout the corridor would reduce noise in most areas to below current and No Build levels.

**9. Air: Briefly discuss impacts on air quality:**

Air quality impacts from the project are discussed in detail in the Air Quality Discipline Report (Attachment 7 of the FEIS) and in the Air Quality Discipline Report dated December 2009 (Attachment 7 of the SDEIS 2010) (**encl 12**). Attachment 7 of the FEIS has incorporated recent changes to the National Ambient Air Quality Standards (NAAQS). EPA designated the Central Puget Sound region as maintenance status for CO in 1996. The I-5 to Medina project, therefore, is located in an area that is currently designated a maintenance area for CO. The Central Puget Sound region is currently in attainment for the remaining criteria pollutants. In nonattainment and maintenance areas, the federal Clean Air Act and the Washington Clean Air Act require transportation projects to conform to the State Implementation Plan (SIP), the state's plan for meeting and maintaining compliance with the NAAQS. Conformity with the SIP means that transportation activities will not produce new air quality violations, worsen existing violations or delay timely attainment of the NAAQS. In addition, "regionally significant"

projects must be included in the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP). Because the project is in a maintenance area for CO, a project-level analysis was necessary to verify that no localized effects would cause or contribute to a violation of the NAAQS. WSDOT performed an emissions burden analysis as well as mobile source air toxics (MSAT) and project-level conformity analyses. In 2030, the Preferred Alternative would result in slightly lower emissions of criteria pollutants and MSATs in the SR 520 corridor than current or No Build conditions as a result of mobility improvements. The project also would comply with federal air quality conformity requirements. In addition, greenhouse gas emissions in the SR 520 corridor would be lower as a result of the project. Because the project is not anticipated to create any new violations, nor increase the frequency of an existing violation of the CO standard, it conforms with the purpose of the current SIP and the requirements of the federal Clean Air Act and the Washington Clean Air Act. The proposed project is included in the regional transportation plan (RTP), *Transportation 2040* (PSRC 2010a), and in the 2010-2013 Transportation Improvements Program, also known as the Transportation Improvement Program (TIP) (PSRC 2010b). The RTP and the TIP meet the conformity requirements identified by federal and state regulations for CO.

**10. Wild and Scenic Rivers:**

There are no Wild and Scenic Rivers located within the boundaries of the proposed project.

**11. Prime and Unique Farmlands:**

There are no Prime and Unique Farmlands located within the boundaries of the proposed project

**12. Relocation and Displacement:**

- a. **Permanent impacts:** Two parcels in Medina, WA (east approach), which are located west of Evergreen Point Road and just north of the existing bridge have been acquired by WSDOT. WSDOT will remove the two houses (currently vacant) which occupy the acquired parcels. One of the acquired vacant properties has a dock which will be removed.
- b. **Temporary impacts:** In addition to the two parcels including one dock described above, one additional private dock on the east approach side (Medina, WA) and north of the existing bridge would be removed to provide space for a temporary work trestle during construction of the project. The dock will be replaced following the removal of the work trestle.

**13. Other Impacts:**

Other impacts (positive and negative) discussed in the FEIS include impacts to transportation, community cohesion (social), recreation (Section 4f), visual quality, energy consumption, greenhouse gases, and structure seismic

stability. Of particular interest:

- a. **Section 4f:** Section 4f impacts are covered in detail in chapter 9 and attachment 8 of the FEIS (**encl 12**). The Selected Alternative for the entire project (SR 520 improvement from Interstate 5 to Medina, WA) would use (as defined by 23 CFR 774.17) six parks and three trails. Section 4f properties which are affected as a result of the SR 520 Bridge across Lake Washington (this portion of the overall project) include: On the west approach: Washington Park Arboretum(including the Arboretum Waterfront Trail), Foster Island, and McCurdy Park; On the east approach: Points Loop Trail and Fairweather Park.
- b. **Section 6f:** Section 6f impacts are covered in detail in Chapter 10 of the FEIS (**encl 12**). In 1965 Congress passed the Land and Water Conservation Fund Act (LWCFA) (16 USC 4601). The act established the Land and Water Conservation Fund (LWCF), a program that provides grants to help pay for the acquisition and development cost of outdoor recreation sites and facilities (USDOJ, 2008). Section 6(f) of the LWCFA requires the evaluation of any project that would convert properties that were acquired or developed with LWCF grant assistance. Section 6f properties which occur in the over-all project include the Arboretum Waterfront Trail and the Ship Canal Waterside Trail and the associated parks. The Ship Canal Waterside Trail and associated park fall outside the SR520 Bridge and approaches across Lake Washington but fall within the area for a new bridge proposed to be constructed across the Lake Washington Ship Canal adjacent to the existing Montlake Bascule Bridge; this bridge will be permitted under a different permit action. The Arboretum Waterfront Trail and portions of the associated Washington Park Arboretum do fall within the scope of the SR 520 Bridge across Lake Washington. The part of the Arboretum subject to Section 6(f) is in the northern portion of the park; it consists of the landscape that surrounds and supports the Arboretum Waterfront Trail, including Foster and Marsh Islands. Approximately 3 acres of section 6f property associated with the Washington Park Arboretum will be converted as a result of this project; 0.1 acre conversion on Marsh Island for a construction easement. This area would be available for recreational use after construction is completed. The second location would be a 2.9-acre conversion on Foster Island adjacent to the existing SR 520, which includes both permanent acquisition and a long-term easement. A permanent conversion of 1.0 acre at the Foster Island location would become WSDOT right-of-way with the new wider SR 520, although the Arboretum Waterfront Trail would continue to travel through this area and underneath SR 520 after construction, as it does today. The 1.9-acre temporary conversion would be for a long-term construction easement. This area would also be available for recreational use after construction is completed. In compliance with the LWCFA's replacement requirement for section 6f properties, and using a search criteria established through a multi-agency technical working group (TWG) a replacement property was selected.

Full details of the section 6f selection process are outlined in chapter 10 of the FEIS (encl 12).

**14. Cumulative/secondary impacts: Briefly discuss potential cumulative or secondary impacts, if any.**

Cumulative and secondary impacts from the project are discussed in detail in the Biological Assessment (encl 19) and the Final Indirect and Cumulative Effects Analysis Discipline Report (Attachment 7 of the FEIS) (encl 12). The analyses found that the project could result in minor increases in cumulative effects on ecosystems, tribal fishing, and cultural resources, while providing small net decreases in cumulative effects on water resources, air quality, recreation, and transportation. In general, no secondary (indirect) impacts are expected to occur as a result of the project.

**IV. CONCLUSIONS:**

- 1. Navigation:** The proposed bridge, based on the preceding facts, meets the reasonable needs of existing and prospective navigation.
- 2. Environment:** Based on full consideration of the preceding facts and the environmental documentation presented by Federal Highway Administration and the Washington State Department of Transportation it has been determined that the proposed project's impacts of the selected (preferred) alternative cannot be avoided, and all planning and mitigation to minimize these impacts have been accomplished.

**V. STRATEGIC GOALS, PRIORITIES AND CONTRIBUTIONS:**

The estimated total yearly commercial shipping on the Lake Washington Ship Canal as captured in Part 4 of the USACE Waterborne Commerce of the United States published by the Waterborne Commerce Statistics Center for CY 2009 is approximately 584,700 short tons and consist primarily of crude materials. The proposed project will contribute to the Commandant's strategic goals and the Department of Homeland Security's national security goals by providing a safe structure for both navigation and vehicular traffic.

**VI. RECOMMENDATIONS:**

It is recommended that a bridge permit approving the location and plans for the proposed bridge project be issued under permit number P(1-12-13). It is further recommended that the following conditions be included in the permit:

1. Standard no deviation condition....
2. Standard construction of falsework, cofferdams or other obstructions, if required, condition...

3. Issuance of this permit does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of any federal, state or local authority having cognizance of any aspect of the location, construction or maintenance of said bridge.
4. Design Build Condition – Prior to commencement of construction, the permittee shall submit to the District Commander.... The final design chosen shall.....on approved plan sheet.... Failure by the.... (Example 5.171a)
5. A bridge fendering system shall be installed and maintained in good condition by and at the expense of the owner of the bridge. Said installation and maintenance shall be for the safety of navigation and be in accordance with plans submitted to and approved by the District Commander.
6. Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridge when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander....
7. All parts of the of the existing to-be-replaced SR 520 Bridge across the Lake Washington not utilized in the new bridge which are located within the waterway shall be removed down to or below the natural bottom of the waterway. All other parts shall be removed down to or below the natural ground line. The waterway shall be cleared to the satisfaction of the District Commander when in the judgment of the District Commander the construction of the replacement bridge has reached a point where such action should be taken.
8. Standard future removal condition....
9. 5 & 9 year time limits...(WSDOT actually requested "...a 15-year expiration period (**encl1**)..." for the permit. I informed WSDOT that I would recommend a start within 5 year and complete within 9 year condition on the permit.)