

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

<i>In re:</i>) Administrative Law Judge
Proposed Waiver and Regulations Governing the Taking of Eastern North Pacific Gray Whales by the Makah Indian Tribe) Hon. George J. Jordan
) Docket No. 19-NMFS-0001
)
) RINs: 0648-BI58; 0648-XG584
)

MAKAH TRIBE’S PREHEARING BRIEF

The Makah Indian Tribe submits this prehearing brief pursuant to Attachment 1 § 2(b) of the October 25, 2019, Order Approving Hearing Management Proposal. This brief provides an overview of the proceedings and summarizes the anticipated testimony of the Tribe’s witnesses.

OVERVIEW OF THE PROCEEDINGS

More than fourteen years ago, the Makah Tribe submitted a request to the National Marine Fisheries Service (NMFS) for a waiver of the moratorium on taking marine mammals under the Marine Mammal Protection Act (MMPA). The purpose of the request was to obtain authorization under the MMPA for a limited ceremonial and subsistence hunt of gray whales in the Tribe’s usual and accustomed (U&A) waters, thereby enabling the Tribe to exercise its treaty whaling rights.

Article 4 of the Treaty of Neah Bay, 12 Stat. 939 (1855), secures the “right of . . . whaling . . . at usual and accustomed grounds and stations,” making it the only treaty between an Indian tribe and the United States to expressly protect the right to hunt whales. However, in *Anderson v. Evans*, 371 F.3d 475 (9th Cir. 2004), the Ninth Circuit held that the Tribe must obtain a waiver under the MMPA to exercise its treaty right.

After a prolonged review that included preparation of two draft environmental impact statements, computer simulation modeling of hunt impacts, and multiple reviews by the Scientific Committee of the International Whaling Commission (IWC) and the Marine Mammal Commission, on April 5, 2019, NMFS published a proposal to waive the moratorium and issue regulations that would govern the Tribe's hunt and its use of edible and non-edible products obtained from landed whales. NMFS simultaneously scheduled this proceeding pursuant to Section 103(d) of the MMPA, 16 U.S.C. § 1373(d), which provides that the Secretary's ultimate decision to waive the moratorium and prescribe regulations "must be made on the record after opportunity for an agency hearing."

The proposed waiver would enable the Tribe to conduct a limited ceremonial and subsistence hunt of abundant Eastern North Pacific (ENP) gray whales in the Pacific Ocean off the northwest coast of Washington state. NMFS's proposal would allow the Tribe to strike up to 25 whales over a ten-year period. Because the most recent abundance estimate for the ENP stock is in excess of 26,000 whales, it cannot be seriously questioned that NMFS's proposal to authorize the Tribe to strike an average of 2.5 whales per year for ten years will not adversely affect the ENP stock, or that the current unusual mortality event (UME) does not change this conclusion. Nonetheless, NMFS and the Tribe will introduce substantial scientific testimony to demonstrate that NMFS's proposal satisfies all applicable MMPA criteria with respect to the ENP stock notwithstanding the current UME.

Because of the large number of ENP whales and limited number of strikes allowed by NMFS's proposed regulations, the Tribe anticipates that the primary focus of this proceeding will be on the impacts of NMFS's proposal on two smaller groups of gray whales – the Pacific

Coast Feeding Group (PCFG) and whales identified by NMFS as the Western North Pacific (WNP) stock.

The PCFG shares wintering grounds with the larger ENP stock off Mexico's Baja Peninsula. However, unlike the larger ENP stock, which migrates to summer feeding grounds in the Bering, Chukchi and Beaufort Seas, the PCFG utilizes summer feeding grounds off the west coast of the contiguous United States and Canada (although at least some PCFG whales in at least some years utilize summer feeding grounds north and south of the defined PCFG range). The current best estimate of PCFG abundance, based on data collected from 1996 through 2015, is 243 whales (Ex. M-0053).

NMFS has determined that, based on the best scientific evidence currently available, the PCFG is not a "population stock" within the meaning of the MMPA,¹ and NMFS and the Tribe will provide testimony to support that determination. Nevertheless, to protect these whales, NMFS's proposed regulations include the following provisions (among others):

- A limitation on the hunting season in even years to the period from December 1 (of the preceding year) to May 31, when most of the whales in the hunt area will be part of the larger ENP stock on their southern or northern migration;
- A limitation on the number of whales that may be struck or landed in even-year hunts to 3;
- A limitation on the number of whales that may be struck in odd-year hunts to 2, with a further limitation that only 1 whale may be landed in such hunts (thus, if the Tribe successfully lands the first whale it strikes in such years, there would only be one strike in that year);

¹ The MMPA defines a "population stock" or "stock" as "a group of marine mammals of the same species or smaller taxa in a common spatial arrangement, that interbreed when mature." 16 U.S.C. § 1362(11).

- A prohibition on hunting in all years in the Strait of Juan de Fuca portion of the Tribe's U&A (where PCFG whales are found in higher proportions);
- A presumption that any whale struck in an odd-year hunt is a PCFG whale;
- A limitation on the total number of PCFG whales that may be struck over the ten-year waiver period to 16, and a separate limitation on the total number of female PCFG whales that may be struck over that period to 8;
- A prohibition on hunting in any upcoming hunt season if the most recent PCFG abundance estimate, or the projected PCFG abundance estimate for the upcoming season, is less than 192 whales (or if the associated minimum population estimate or projection is less than 171 whales);
- A sunset clause limiting the waiver to ten years; and
- A limitation on the first hunt permit under the waiver to 3 years (as opposed to the 5-year maximum term under the MMPA) to allow for adjustments as needed in subsequent permits.

NMFS's and the Tribe's experts will testify that, taken together, these and other restrictions in the proposed regulations will ensure that the PCFG will remain a functioning element in its ecosystem and satisfy all other MMPA requirements with respect to the PCFG. The Tribe's marine mammal biologist, Jonathan Scordino, has focused more than a decade of research on gray whales in the Makah U&A. He will explain that the Tribe's hunt will not disadvantage PCFG gray whales or cause them to cease functioning as a significant element of their ecosystem. The Tribe's expert on population dynamics modeling, Dr. John Brandon, will testify that modeling work performed through the IWC's Rangewide Review on the Status of North Pacific Gray Whales demonstrates that, under NMFS's proposed regulations, the Tribe's

hunt will not prevent the PCFG from reaching or maintaining an optimum sustainable population (OSP). This is a primary conservation objective for population stocks under the MMPA, *see* 16 U.S.C. § 1361(2), and its satisfaction for the PCFG – even though it is not a population stock – provides further assurance that all MMPA criteria are satisfied.

The whales that NMFS refers to as the WNP stock comprise gray whales that utilize summer feeding grounds off Sakhalin Island and perhaps other nearby waters in the western north Pacific off Russia. NMFS considers these whales to be a separate “population stock” under the MMPA.² In 2018, it was estimated that this population totaled 290 whales (excluding calves) in 2016, with a 90 percent confidence interval of 271 to 311 whales (NMFS Exs. 2-12, 4-15, 3-89). Of these animals, the exclusively and predominantly Sakhalin-feeding population was estimated at 175 to 192 non-calves (NMFS Ex. 3-89). In 2019, the Sakhalin feeding population was estimated at 191 non-calves in 2018 (NMFS Ex. 4-14).

NMFS’s proposed waiver and regulations do not authorize the Tribe to take these whales. Nevertheless, because it was discovered in recent years that at least some of these whales migrate to North America, NMFS’s proposed regulations include several provisions to protect these whales, including the following:

² The Tribe agrees with NMFS that, based on the best scientific evidence currently available, the WNP whales comprise a distinct “population stock” within the meaning of the MMPA. However, the Tribe disagrees with NMFS that the WNP whales are the same stock that is listed under the Endangered Species Act (ESA). When the ENP stock was de-listed in 1994, NMFS retained the “western North Pacific (Korean) population” as endangered. *See* 59 Fed. Reg. 31094 (June 16, 1994). The western stock was understood to be geographically isolated from the ENP stock and the remnant of an historic western breeding stock that had not recovered from the effects of commercial whaling. *Id.* The Tribe’s genetics expert, Dr. John Bickham, who has studied the WNP and ENP gray whales and whose work is on the leading edge of genomic research into these whales, will testify that the most plausible hypotheses regarding the current WNP whales – and especially those that migrate to North America – are that they are descendants of ENP whales, *not* the historic western breeding population that remains listed under the ESA. The most plausible stock-structure hypotheses developed by the IWC Scientific Committee’s Rangewide Review, based on all available data, likewise treat the whales migrating from Sakhalin Island to North America as descendants of ENP gray whales, *not* of the historic western breeding population.

- A limitation on hunting in odd years to the months of July, August, September and October, when the WNP whales are on their western north Pacific feeding grounds and not in the Makah hunt area;
- A prohibition on striking more than one whale in a 24-hour period (to prevent more than one WNP whale from being struck if they are migrating together);
- A prohibition on any future hunting if NMFS determines that a WNP whale was struck during a hunt, absent measures to ensure that no additional WNP whales will be struck; and
- The various strike and landing limits, the overall limit on the waiver to ten years, and the limit on the initial permit to three years, that are noted above.

NMFS's witness Dr. Jeffrey Moore will testify that under these and other provisions in the proposed regulations and based on the best scientific evidence currently available, there is less than a 7.5% chance of a single strike on a WNP whale over the entire ten-year waiver period (which is equivalent to only one WNP whale being struck every *135 years*, on average, if the regulations continued in perpetuity, the maximum number of strikes were made each year, and the WNP and ENP population sizes remained constant). Second Declaration of Dr. Jeffrey Moore ¶ 8. Moreover, the Tribe's expert, Dr. Brandon, will testify that modeling work performed through the Rangewide Review and accepted by the IWC's Scientific Committee demonstrates that, under NMFS's proposed regulations, the Tribe's hunt will not prevent the WNP whales from reaching or maintaining an optimum sustainable population, which, as noted, is a primary MMPA conservation objective.

Overall, NMFS's time-limited proposal is highly conservative and would authorize the Tribe to land only half the number of whales Makah proposed in its 2005 waiver request while

imposing numerous other constraints on the hunt. The combined testimony of the seven biologists that NMFS and the Tribe will present at the hearing will demonstrate that authorization of the Makah hunt, as constrained by the proposed regulations, is consistent with the purposes and policies of the MMPA, will not be to the disadvantage of the ENP stock or any other population or group of gray whales, and will not materially affect the distribution, abundance, breeding and migration of the whales.

NMFS's and the Tribe's expert scientific testimony is buttressed by the agency's exhaustive evaluation of environmental impacts from a Makah gray whale hunt and the IWC's Rangewide Review. In 2018, the IWC's Scientific Committee relied on modeling work performed in the Rangewide Review to conclude that the proposed hunt satisfies the conservation objectives of the IWC for all affected populations or groups of gray whales. As the testimony of Dr. Brandon will show, this demonstrates that the proposed hunt also satisfies the primary objective of the MMPA – to achieve or maintain OSP – for each population or group.

NMFS's and the Tribe's expert scientific testimony also supports the proposed waiver notwithstanding NMFS's determination in May 2019 that ENP gray whales are currently experiencing an unusual mortality event. Although the cause and potential duration of the UME are unknown (and may not be known for months or years, if at all), NMFS's thorough analysis of the 1999-2000 gray whale UME, substantive and procedural protections already built into the proposed regulations (including the requirement that NMFS issue permits to the Tribe), and the IWC Scientific Committee's inclusion of potential future UMEs in its modeling of the proposed hunt (as well as future in-depth reviews of the hunt) indicate that no further delay is warranted in proceeding with the waiver process.

Approval of the proposed waiver and regulations would enable the Tribe to conduct whale hunts on a regular basis and provide meat, blubber, oil and other whale products to meet the cultural and subsistence needs of the Makah community. Thus, for the Tribe, the right secured by its Treaty to hunt and utilize whales is fundamental to the hearing and the ongoing process of securing the court-mandated authorizations under the MMPA. To demonstrate that hunting whales (and use of whale products from successful hunts) under the Treaty is central to the identity of Makahs as a people, the Tribe will present testimony from four Makah tribal members who are deeply connected to the Tribe's efforts to resume whaling, its last successful hunt in 1999, the use of whale products from that hunt, and the many benefits that the Tribe's reinvigoration of its whaling rights has brought to Makahs, including ceremonies, nutrition, language revitalization, spiritual practices, and community cohesion. Further supporting the historical and contemporary importance of whales, whaling, and the treaty right to the Makah people, the Tribe's expert historian, Dr. Joshua Reid, will testify about the constellation of Makah whaling practices through time, the context for the Treaty of Neah Bay's express "right of . . . whaling," and the continuing importance of whaling to Makah culture, subsistence and identity.

For these reasons the Makah Tribe supports, with one exception, the proposed waiver and regulations in their entirety. The Tribe opposes only the provisions in the proposed regulations regarding the use of edible products by non-members outside of the Makah Reservation because they would severely impair the ability of Makahs who reside off-Reservation to share whale meat, blubber and oil with non-Makah family members or guests in their households.³

³ The Tribe acknowledges NMFS's pending motion submitted October 28, 2019, which, among other things, seeks revisions to the proposed regulations regarding non-members and edible whale products. The testimony of the four members of the Makah Tribe and Dr. Reid provide support for those revisions.

Over more than two decades of attempting to resume treaty whaling and manifest the fundamental nature of whaling to the culture, subsistence, and identity of the Makah people, the Tribe has repeatedly been confronted by individuals and organizations ideologically opposed to whaling. In the hearing, that position is represented by Sea Shepherd Conservation Society and Sea Shepherd Legal (collectively “Sea Shepherd”), Animal Welfare Institute (AWI), and Peninsula Citizens for the Protection of Whales (PCPW), which oppose the proposed waiver and regulations notwithstanding the treaty right, the Tribe’s belief that whaling is fundamental to its identity, and the substantial constraints that the proposed regulations impose on the hunt. Their absolute opposition to Makah whaling – and any NMFS proposal to authorize whaling – permeates every position they have taken since the proposed waiver and regulations and this proceeding were announced seven months ago.

In attempting to achieve their ultimate objective of denying the Tribe the ability to exercise its treaty whaling rights, the waiver opponents will raise concerns regarding the current UME, climate change, impacts to individual whales, and impacts to PCFG and WNP gray whales. Instead of providing testimony affirmatively demonstrating the scientific basis for their concerns, they speculate about dire scenarios that are at odds with current scientific understanding of gray whales and their ecosystem and the minimal impacts that the proposed hunt would have on affected populations or groups of gray whales. While the future of any animal species and its ecosystem always involves some degree of uncertainty, NMFS and the Tribe will explain through expert testimony that the extremely conservative hunt will adequately safeguard against such uncertainty with a variety of mechanisms and review processes that ensure ongoing satisfaction of the MMPA’s requirements. For example, the proposed waiver is for only ten years, which greatly limits the long-term impacts of the waiver and allows for on-

going review of the impacts of climate change on gray whale populations before any additional hunting is authorized. Within those ten years, the proposed regulations will require Makah to obtain at least *three* separate permits, where NMFS's review and approval would include evaluation of current information on the status of gray whales (incorporating any climate-change impacts) and the impacts of any hunting conducted under the waiver. In addition to the overall limit of an average of 2.5 strikes per year and an alternating season structure to minimize and balance potential impacts to the PCFG and WNP, the hunt includes a minimum abundance requirement for PCFG whales, PCFG-specific strike limits, and a hunt-cessation rule in the event NMFS determines a WNP whale is struck.

In addition to NMFS's ongoing review through the permit process, the IWC Scientific Committee will evaluate gray whale catch limits at least every two years and intends to conduct in-depth Implementation Reviews in 2020 and approximately six years later where it will assess all new gray whale science and impacts of the hunt and provide advice accordingly. The IWC's reviews will inform NMFS's ongoing regulation of the hunt and decisions on hunt permit applications. In sum, the waiver opponents have provided no credible scientific testimony that the proposed hunt, which is highly constrained by the regulations and will be subject to ongoing expert review, fails to meet the standards of the MMPA.

THE TRIBE'S TESTIMONY

The Tribe's witnesses for the hearing are as follows:

1. **Greig Arnold** is a member of the Makah Tribe, a whaler who hunted in 2000, and a former chairman, vice chairman, and member of the Makah Tribal Council.

2. **Polly DeBari** is a member of the Makah Tribe and was integral to the success of the 1999 hunt.
3. **Maria Pascua** is a member of the Makah Tribe and teaches Makah language courses at Neah Bay High School on the Makah Reservation.
4. **Daniel Greene, Sr.** is a member of the Makah Tribe and a commercial fisherman who trained with whaling crews in 1999 and 2000.
5. **Joshua L. Reid, Ph.D.**, is a historian specializing in American Indians and the indigenous Pacific, a professor at the University of Washington, and the author of *The Sea Is My Country: The Maritime World of the Makahs*. Dr. Reid will provide expert testimony at the hearing.
6. **Jonathan Scordino** is a marine mammal biologist employed by the Tribe since 2007 who conducts scientific research on gray whales and other marine mammals, directs the Makah Marine Mammal Program, and provides scientific advice to the Tribe regarding gray whales and other marine mammals, including in support of the Tribe's efforts to obtain a waiver and resume hunting gray whales under the Treaty. Mr. Scordino will provide expert testimony and testimony based on his personal knowledge.
7. **John W. Bickham, Ph.D.**, is a geneticist specializing in the genetics of natural populations of fish and wildlife and a professor emeritus in the Department of Wildlife & Fisheries Sciences at Texas A&M University. Dr. Bickham will provide expert testimony and testimony based on his personal knowledge of the IWC Scientific Committee's Rangewide Review on the Status of North Pacific Gray Whales.

8. **John R. Brandon, Ph.D.**, is a biometrician specializing in population dynamics modeling, statistical analysis, management strategy evaluation, and survey design. Dr. Brandon will provide expert testimony and testimony based on his personal knowledge of the IWC's review of aboriginal subsistence whale hunts and the Tribe's proposed hunt.

A. Testimony About the Makah Tribe's Treaty Right to Hunt Gray Whales.

The testimony of Makah tribal members Greig Arnold, Polly DeBari, Maria Pascua and Daniel Greene, Sr. and historian Joshua Reid will address the essential nature of hunting whales to the Makah people. Whaling and the use of whales are deeply connected to the Tribe's identity and critical to Makah culture and subsistence through ceremonies, songs, dances, stories, and the nutritional benefits derived from whale products. They will also testify that hunting whales is necessary to exercise the "right of . . . whaling" that Makahs reserved for themselves in the 1855 Treaty of Neah Bay and cannot be replaced by non-consumptive activities like whale watching.

On May 17, 1999, a Makah whaling crew successfully hunted a gray whale, and for the first time in decades the Makah community had access to fresh whale meat and blubber and other whale products obtained from a treaty hunt. The Tribe's testimony will show that hunting whales is essential to exercising the treaty right and realizing the benefits that flow from the Treaty. Declaration of Greig Arnold ¶ 17; Declaration of Maria Pascua ¶ 21. This includes the intense physical and spiritual preparation over an extended period of time for the hunters as well as their spouses and extended family. Arnold Decl. ¶¶ 7, 16; Declaration of Daniel J. Greene, Sr. ¶¶ 5, 7-9; Declaration of Polly DeBari ¶¶ 5-6. These preparations are necessary for a successful hunt, but they also have far-reaching benefits for the Makah community by connecting Makahs

across generations, fostering tribal unity, and reinforcing Makah culture, teamwork of the crew and individual health and spirituality. Arnold Decl. ¶¶ 7, 16, 25; Greene Decl. ¶ 15; DeBari Decl. ¶¶ 7, 16; Pascua Decl. ¶¶ 8, 11. As an example of the many benefits flowing from the 1999 hunt, the Tribe hosted a community feast attended by people throughout the region which showcased “the great importance of the whale as a food resource and central part of our culture.” Pascua Decl. ¶ 14; Greene Decl. ¶ 6. Twenty years later, the successful hunt remains a vivid and emotional experience for Makahs who were alive at the time. DeBari Decl. ¶¶ 10-11; Greene Decl. ¶ 6.

The impacts from the absence of whaling also speak volumes about the importance of the whale hunt by illustrating what is missing when a hunt cannot occur. Greig Arnold, a former elected Council member and member of a whaling crew, will testify that:

The past 19 years have been difficult because we have been prevented from whaling, which is where all of the benefits I described flow from – cultural, spiritual, physical, community, and family. While our identity as Makahs and whalers persists without an active whale hunt and many aspects of our unique relationship with whales has been maintained over the generations without active hunting, it is much harder to realize the full benefits of whaling without a hunt because we cannot practice certain whaling ceremonies, songs and dances and we have no whale products to utilize in the community. Even if a whale comes to us by some way besides a hunt (such as a stranding or ship strike), this chance occurrence cannot replace the regular hunting activity that sustained our people for thousands of years. Without the prospect of going whaling, crews will be reluctant to undergo the intense physical, spiritual and emotional training that is required for a successful hunt, and the benefits that spread to the community as a whole will not occur.

Arnold Decl. ¶ 17. Another whaler, Daniel Greene, Sr., stated that the “absence of whaling since 2000 has been heart-wrenching, especially after the two years of hunting where our culture was living and breathing.” Greene Decl. ¶ 11. As the years have passed without a hunt, elders with knowledge of whaling have died and a new generation has lived their entire lives without “whaling in our village.” Pascua Decl. ¶ 16; Arnold Decl. ¶ 11; DeBari Decl. ¶¶ 10-11.

Whaling provides the Tribe with a plentiful, fresh supply of natural food that benefits Makah families and the community as a whole through Makahs' traditional practice of sharing the bounty of their harvest of fish, shellfish, wild game, berries and other resources. Pascua Decl. ¶¶ 18-19 (sharing "is part of our custom as Makahs"); DeBari Decl. ¶ 12 (health benefits of eating traditional foods); Greene Decl. ¶ 16 ("food that sustained Makahs for thousands of years"). Many people contributed to butchering the 1999 whale, and the meat and blubber were shared among Makahs and with guests at the Tribe's feast and through individual meals. DeBari Decl. ¶¶ 8-9, 14; Pascua Decl. ¶¶ 13-14, 19-20; Greene Decl. ¶¶ 5-6; Arnold Decl. ¶¶ 10, 25. Eating whale products connects Makahs with their ancestors and is a deeply spiritual experience. DeBari Decl. ¶ 13 ("it is more than nutrition; the animal was feeding my spirit").

In light of the tremendous importance of whales as a nutritional resource for Makahs and their families, a permissive approach to sharing, possession and consumption of edible whale products, especially within Makah households, is essential to fulfilling the core treaty purpose of hunting whales to meet subsistence needs. As Greig Arnold will testify, however, the proposed regulations regarding sharing and consuming edible whale products outside of the Makah Reservation with non-members, §§ 216.113(b)(1)(i)-(ii), 216.115(a)(14), 216.115(b)(2), would make it very difficult, if not impossible for him to share whale products with his non-member wife in their off-reservation apartment and for his son to provide whale meat and blubber for his entire family in their Everett-area home, because his wife is also not an enrolled Makah. Arnold Decl. ¶ 20.

The Tribe's testimony will demonstrate that hunting whales is essential for Makah families to practice certain songs and dances in whaling ceremonies that cannot be performed in the absence of a harvested whale. Arnold Decl. ¶ 11; Pascua Decl. ¶ 8. Some ceremonies

reinforce that a living thing has surrendered its life to the hunters, while others provide a way for hunters to show their appreciation for members of their family and the community who supported them in a successful hunt. Arnold Decl. ¶ 21; DeBari Decl. ¶ 9. Ceremonies bring families together and contribute to the unity of the entire Makah community. Arnold Decl. ¶ 11. If the Tribe could not hunt whales, in addition to losing an important food source it would mean giving up ceremonies, prayers, songs, and dances. Or, as Greig Arnold put it – “Makahs would lose their identity.” Arnold Decl. ¶ 22. On an individual level, without whaling it is difficult to engage in and sustain the high level of physical and spiritual preparation required to bring home a whale. Greene Decl. ¶¶ 7, 11.

Whaling plays an important role in the Tribe’s efforts to revitalize use of the Makah language and to maintain the connection Makahs have with their ancestors who secured their treaty whaling rights. Maria Pascua will testify that the use of Makah words associated with whaling and whaling songs and stories taught in high school language classes were brought to life through the 1999 hunt. Pascua Decl. ¶ 8. Daniel Greene, Sr. will testify about the ways in which the Makah language is an important part of being a whaler, including learning from elders speaking Makah, studying whaling terminology and culture in school, and using his native language in preparing for another hunt. Greene Decl. ¶¶ 12-14. Whaling also enables Makahs to connect with their heritage by honoring their ancestors and departed kin through continuing to hunt and utilize whales. As Polly DeBari will testify, when the whale was landed in 1999, she felt that “all of our ancestors were standing with us on the beach.” DeBari Decl. ¶¶ 10, 16; Arnold Decl. ¶ 22 (“Makahs . . . have always intended to go whaling again. Keeping true to that commitment is a way to honor our ancestors and our culture and look out for the needs of future generations.”).

Dr. Joshua Reid, a professor of history at the University of Washington who has extensively researched the Makah Tribe's maritime and whaling activities through time, will testify about Makahs' relationship with the ocean, the context and negotiation of the Treaty of Neah Bay, and the Tribe's historic and contemporary whaling under the Treaty. Drawing on primary and secondary sources from a range of archives and historical oral accounts made by Makahs, Dr. Reid examined the history of Makah whale hunting, whaling culture, use of whale products, and the whaling rights that Makahs reserved in the Treaty. He will testify that "as part of their broader relationship with the sea, whaling defines who the Makahs are as both a people and as an Indigenous nation from the distant past through the present and into the future." Declaration of Joshua L. Reid at 7. He will also testify that Makah whaling consists of a constellation of practices, which represent the most important aspect of Makahs' relationship with the sea (and specifically with whales), and that Makahs' identity as whalers shapes who they are now and who they will continue to be in the future. Reid Decl. at 10. Finally, Dr. Reid's testimony will demonstrate that an "active practice of hunting whales is necessary for maintaining Makah culture and nationhood" and that non-hunting alternatives are inconsistent with Makah treaty whaling rights and undermine Makahs' long and respectful relationship with whales. Reid Decl. at 10-11.

B. Testimony About Gray Whale Biology, Genetics and Population Dynamics.

In addition to the Makah tribal member witnesses and Dr. Reid, the Tribe will present three witnesses who are experts in gray whale biology, genetics and population dynamics. Together with NMFS's witnesses, the Tribe's experts – Jonathan Scordino, Dr. John Bickham and Dr. John Brandon – will demonstrate that the proposed waiver and regulations satisfy all MMPA criteria and are supported by the best available scientific evidence and that the Tribe's

hunt, as constrained by the regulations, will not have a material adverse effect on the ENP stock of gray whales or PCFG or WNP gray whales.

1. Testimony About Gray Whale Genetics and Population Structure.

Dr. John W. Bickham, a geneticist and professor emeritus at Texas A&M University, will testify about gray whale populations, with an emphasis on the PCFG and WNP, based on recent scientific literature about the genetics of these whales and the analyses and conclusions of the IWC's Rangewide Review of the Status of North Pacific Gray Whales. With respect to the PCFG, Dr. Bickham will testify that this group of gray whales does not represent a breeding population or "population stock," as that term is used in the MMPA. Declaration of John W. Bickham at 26, 31-32. Instead, the PCFG is properly viewed as a feeding group of the eastern breeding stock, *i.e.*, the ENP stock, under the MMPA. *Id.* Dr. Bickham's testimony will also explain that every stock structure hypothesis determined to be plausible in the IWC's Rangewide Review considered the PCFG to be a feeding group and part of the large eastern breeding stock, not a separate breeding population. *Id.* at 23. This conclusion is consistent with the conclusion reached by NMFS.

With respect to the whales that feed off Sakhalin Island, Dr. Bickham will testify that these whales are properly classified as a "population stock" under the MMPA based on evidence of genetic differences between them and the ENP stock. Bickham Decl. at 27-28, 30-31. However, he will also testify that, based on all available evidence, it is not likely that these whales, and especially those that migrate to North America, are descendants of the historic western breeding stock that is listed as endangered under the Endangered Species Act. *Id.* at 27-28, 31. Instead, the most plausible hypothesis is that the Sakhalin whales that migrate to North America are descendants of ENP gray whales that have diverged genetically from the ENP stock

as a result of recent isolation and subsequent founder effect or genetic drift in a small population. *Id.* at 15, 17, 27-28, 31. Dr. Bickham will identify multiple lines of evidence to support this conclusion. He will also explain that, after reviewing all available evidence, the IWC's Rangewide Review determined that two stock-structure hypotheses were most plausible and that, in those hypotheses, the historic western breeding stock is either extinct or migrates solely to wintering grounds in the western north Pacific – not to North America. *Id.* at 27-28.

2. *Testimony about Population Dynamics Modeling of the Impacts on Gray Whale Populations or Groups from the Proposed Makah Hunt.*

Dr. John R. Brandon is a biometrician specializing in population dynamics modeling who has more than a decade of experience modeling aboriginal subsistence whale hunts with the world's leading whale scientists in the IWC's Scientific Committee. Dr. Brandon will testify about the Scientific Committee's evaluation in the five-year Rangewide Review of the proposed Makah hunt and its conclusion that the hunt will meet the IWC's conservation objectives for all affected populations or groups of gray whales, including the ENP, PCFG and WNP. Declaration of John R. Brandon at 33-44. He will explain the relevance of the IWC's conclusion to evaluating the proposed waiver and regulations under the MMPA, namely that the IWC's objective of maintaining stocks at or above their "highest net recruitment" level is equivalent to the MMPA's "maximum productivity" level, which NMFS considers to be the threshold for an "optimum sustainable population."⁴ *Id.* at 13-16. Thus, as Dr. Brandon will testify, a proposed

⁴ In the MMPA, "[t]he term 'optimum sustainable population' means, with respect to any population stock, the number of animals which will result in the *maximum productivity* of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element." 16 U.S.C. § 1362(9) (emphasis added). NMFS's implementing regulations state that "[o]ptimum sustainable population is a population size which falls within a range from the population level of a given species or stock which is the largest supportable within the ecosystem to the population level that results in maximum net productivity. Maximum net productivity is the greatest net annual increment in population numbers or biomass resulting from additions to the population due to reproduction and/or growth less losses due to natural mortality." 50 C.F.R. § 216.3 (emphasis in original).

hunt that satisfies the IWC's conservation objectives for aboriginal subsistence hunting – as the Scientific Committee's thorough review determined the proposed Makah hunt would – also satisfies the primary objective of the MMPA to achieve or maintain OSP. *Id.* at 13-16, 44.

Dr. Brandon will also testify about the current gray whale UME and provide context for it by describing the comprehensive scientific review of the gray whale UME that occurred in 1999-2000. Declaration of John R. Brandon re Testimony on ENP Gray Whale Unusual Mortality Events. He will testify that during the previous gray whale UME, the PCFG increased in abundance, and, from 2001 through at least 2016, the ENP rebounded to an abundance at or near the stock's carrying capacity, which makes it more likely to experience volatility in response to changed environmental conditions. *Id.* at 6, 9-11. Dr. Brandon will explain how the IWC Scientific Committee's modeling of the proposed Makah hunt included consideration of future UMEs and still reached the conclusion that the hunt satisfies the IWC's conservation objectives (and therefore the MMPA's OSP objective) for each population or group of gray whales. *Id.* at 11-13. Finally, Dr. Brandon will testify that the IWC Scientific Committee conducts in-depth Implementation Reviews approximately every six years, during which it will consider any new scientific information pertaining to gray whales (including the UME), and the next such review is scheduled for 2020. Brandon Decl. at 17, 36.

3. Testimony about the General Biology of Gray Whales and the Impact of the Makah Hunt on the Pacific Coast Feeding Group and Sakhalin Whales.

Jonathan Scordino is the Makah Tribe's marine mammal biologist. Since 2007 he has directed the Makah Marine Mammal Program, conducted research on gray whales and other marine mammals with a focus on the Tribe's U&A, and participated in and contributed to IWC Scientific Committee meetings addressing the impacts to gray whales from aboriginal subsistence hunts by the Tribe and Chukotka Natives of Russia. He will testify about a broad

range of topics involving the biology of gray whales and their environment, the effect of hunting and training activities on gray whales, gray whale stock structure, and gray whale abundance, surveys, photo-identification matching, and behavior within the Makah U&A.

After providing an overview of the Tribe's hunting methods, Mr. Scordino will testify about studies of hunting impacts on gray whale distribution and abundance, both in Russia where Chukotka Natives hunt approximately 120 whales per year, and in the Makah U&A. Declaration of Jonathan Scordino at 22-27. Mr. Scordino will also testify about the response of gray whales to approaches and unsuccessful harpoon attempts. *Id.* at 27-29.

Mr. Scordino has spent over a decade researching and observing gray whales in the Makah U&A and he will testify about his research surveys and photo-identification efforts, which contribute to the extensive scientific information available about PCFG whales and gray whales in general. Scordino Decl. at 30-36. In particular, Mr. Scordino's testimony will explain what is currently known about the PCFG, including range, abundance, internal and external recruitment, movements and feeding behavior, genetics research, human-caused mortality from fisheries bycatch and ship strikes, and the mixing proportions of PCFG and non-PCFG whales available to the Makah hunt. *Id.* at 29-64. Mr. Scordino will explain that distribution and abundance of gray whales, including the PCFG, is largely dependent on the availability of a sufficient quantity and quality of prey. *Id.* at 59, 63. In addition to his thorough review of PCFG science, Mr. Scordino will also testify about the current scientific information on gray whales that utilize summer feeding grounds off Sakhalin Island in Russia ("Sakhalin whales" or "western feeding group"). *Id.* at 64-71.

Mr. Scordino will describe gray whale stock structure analyses conducted by the IWC's Rangewide Review and NMFS's gray whale task force. Scordino Decl. at 74-78. Drawing on

multiple lines of evidence in the scientific literature and applying his own analysis, he will testify that the PCFG is accurately viewed as a feeding aggregation within the larger ENP stock and is not a separate stock under the MMPA. *Id.* at 73-74. Mr. Scordino will testify that Sakhalin whales have a more complex stock structure than the PCFG and, while statistically significant genetic differences between Sakhalin and ENP whales could be the result of sampling multiple groups of whales that feed at Sakhalin, the weight of evidence supports classifying them as a separate stock under the MMPA. *Id.* at 71-72, 77. However, Mr. Scordino will also emphasize that Sakhalin whales that migrate to North America are different from the geographically isolated gray whales in the western north Pacific that are listed as endangered under the Endangered Species Act. *Id.* at 71.

Mr. Scordino will testify that the extensive protections for PCFG whales in the proposed regulations, the IWC Scientific Committee's evaluation of impacts from the proposed hunt, the variability in gray whale distribution driven by prey availability, and the limited effect that non-lethal hunting and training activities are likely to have on individual whales demonstrate that the Tribe's hunt will not disadvantage PCFG gray whales or cause them to cease functioning as a significant element of their ecosystem. Scordino Decl. at 62-64, 101-102. With respect to Sakhalin whales that may migrate through the hunt area, Mr. Scordino will testify that the extremely low probability that such a whale would be struck during a Makah hunt, protective measures in the proposed regulations, and the IWC Scientific Committee's conclusions from its five-year evaluation of hunt impacts on Sakhalin whales inform his opinion that the hunt will not disadvantage such whales, impair their function within the ecosystem, or otherwise be inconsistent with the purposes and policies of the MMPA. *Id.* at 82, 102-103.

Finally, Mr. Scordino will testify about cumulative impacts on gray whales from fisheries bycatch, ship strikes, climate change, and other ongoing and reasonably foreseeable human activities and environmental conditions, which provide important context for considering the impacts of the proposed Makah hunt. Scordino Decl. at 82-99. With respect to climate change, Mr. Scordino will testify that there is uncertainty regarding whether potential impacts to gray whales will be positive, negative or neutral and the time frame in which such impacts may occur. *Id.* at 90, 104. As he will explain, however, such uncertainty is mitigated by the ten-year sunset of the waiver, which would allow NMFS to re-evaluate hunt impacts as more data about climate change becomes available, and the IWC Scientific Committee's regular, in-depth reviews of the Chukotka and Makah gray whale hunts, which will include evaluating changes in the environmental pertinent to gray whales and potential impacts of the proposed hunt. *Id.* at 104.

CONCLUSION

NMFS's proposed waiver and regulations would authorize the Tribe to conduct a limited ceremonial and subsistence hunt under the Treaty of Neah Bay and realize the extensive benefits that whaling and the use of whale products have always provided to the Makah people. The numerous safeguards for ENP, PCFG, and WNP gray whales in the proposed regulations will ensure, based on the best scientific evidence available and consistent with the policies and purposes of the MMPA, that these whales will remain a significant functioning element of their ecosystem and that all the applicable requirements of the MMPA are satisfied.

Respectfully submitted this 7th day of November, 2019.

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