



THE STATE  
of **ALASKA**  
GOVERNOR SEAN PARNELL

**Department of  
Fish and Game**

DIVISION OF WILDLIFE CONSERVATION  
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February 26, 2014

The Honorable Penny Pritzker  
Secretary of Commerce  
United States Department of Commerce  
1401 Constitution Avenue, N.W.  
Washington, DC 20230

Eileen Sobeck  
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Re: Petition to Designate the Central North Pacific Stock of the Humpback Whale (*Megaptera novaeangliae*) as a Distinct Population Segment and Remove the DPS from the List of Endangered and Threatened Species under the Endangered Species Act

Dear Secretary Pritzker and Ms. Sobeck:

The State of Alaska ("State" or "Alaska") hereby petitions the Secretary of Commerce ("Secretary"), through the National Marine Fisheries Service ("NMFS" or "Service"), to classify the Central North Pacific stock of humpback whale (*Megaptera novaeangliae*) as a Distinct Population Segment ("DPS") under the Endangered Species Act ("ESA" or "Act"), 16 USC §§ 1531 *et seq.*, in accordance with the 1996 DPS policy, 61 Fed. Reg. 4722 (February 7, 1996). We further petition the Service to delist this designated Central North Pacific DPS, that is, to remove this DPS from the List of Endangered and Threatened Species under the Act, pursuant to 16 U.S.C. § 1533(b) and 50 C.F.R. § 424.14.

The humpback whale was listed as endangered by a rule dated December 2, 1970. 35 Fed. Reg. 18319 (December 2, 1970) ("Final Rule"). NMFS completed a final recovery plan ("Recovery Plan" or "Plan") for the humpback whale in 1991. On the basis of substantial scientific and commercial information available since the humpback whale's original listing and as summarized in this petition, the

classification of the Central North Pacific stock as a DPS and its subsequent delisting are now warranted for the principle reason that this population segment of the humpback whale has recovered to the point that it is no longer threatened with extinction, and protection under the ESA is no longer required. As such NMFS should delist the Central North Pacific DPS of the humpback whale.

The first section of this delisting petition will provide background information about the best available scientific information regarding the ecology, population structure, and population status of humpback whales in the North Pacific. The second section will discuss the listing history of humpback whales under the ESA and other regulatory schemes. The third section will describe how the Central North Pacific population segment, or stock, of humpback whales meets the criteria for designation as a DPS. Finally, the fourth section will demonstrate that this newly designated DPS satisfies the criteria for delisting under the ESA

## **I. Humpback Whale Ecology, Population Structure, and Population Status**

The humpback whale occurs in all major ocean basins. Although classified taxonomically—and listed under the ESA—as a single species, biologists have long recognized that humpback whales in the northern hemisphere occur in relatively distinct subpopulations, as noted in the Recovery Plan.<sup>1</sup> The Central North Pacific stock designated by NMFS is one readily defined population segment that demonstrates marked separation from other stocks, or population segments, within the North Pacific basin, and has recovered to the point where the protections of the ESA are no longer required.

### **A. North Pacific Humpback Whale General Ecology**

Within the North Pacific, humpback whales migrate seasonally, breeding and calving primarily in winter in subtropical and tropical waters. These whales return in summer to higher latitudes where their prey, including euphasiids and small schooling fish, are seasonally abundant. NMFS 2012. In general, breeding areas are more distinct than feeding areas, and individual whales show strong fidelity to both breeding and feeding areas. *See, e.g.*, NMFS 2010.

Breeding populations are managed as stocks<sup>2</sup> by NMFS under the Marine Mammal Protection Act (“MMPA”), 16 U.S.C. §§1361 *et seq.* Early studies described the humpback whales in the eastern and central North Pacific as “a ‘structured stock’ consisting of several geographically isolated ‘feeding herds’ which intermingle on one or more wintering grounds.” Baker et al. 1986. This hypothesis has been refined over time as more data has become available.

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<sup>1</sup> NMFS 1991 (Recovery Plan) at 2: “The Atlantic and Pacific Oceans [sic] each contain several relatively distinct populations of humpback whales. Each differs somewhat in past and present histories of hunting and in ecological or environmental factors. Each population will therefore have somewhat different management requirements . . . [such as] requir[ing] different periods of time to double in size.”

<sup>2</sup> Under the MMPA, the term “population stock” or “stock” means 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).

For example, in the 1991 Recovery Plan, the term “stock” refers to groups of whales that use geographically distinct winter ranges for breeding, in contrast to “feeding aggregations,” which use geographically distinct summer ranges for feeding. Recovery Plan at 6. Some breeding stocks consist of whales from several different feeding aggregations, but observed rates of interchange between the three major wintering/breeding grounds off Hawai’i, Mexico/Central America, and Asia are low. NMFS 2010.

Based on photo-identification work and genetic data, NMFS currently recognizes three<sup>3</sup> breeding humpback whale populations within U.S. waters in the North Pacific: the, Hawai’i, Asia, and Mexico/Central America breeding populations. *See* NMFS 2012; Calambokidis et al. 1997; Baker et al. 1998. NMFS manages these breeding populations as separate stocks:

- (1) the Central North Pacific (or Hawai’i) stock, which breeds in the Hawaiian archipelago in winter and migrates primarily to feeding grounds off northern British Columbia, Southeast Alaska, the Gulf of Alaska, and the Bering Sea and Aleutian Islands;
- (2) the western North Pacific (or Asia) stock, which winters in Asia and migrates to feeding grounds off Russia and the Bering Sea/Aleutian Islands; and
- (3) the California/Oregon/Washington and Mexico stock (or Mexico/Central America), which breeds in winter off coastal Central America and Mexico and migrates to summer feeding aggregations between California and southern British Columbia.

NMFS 2012. These stocks have formed the basis for monitoring population trends pursuant to the MMPA since the mid-1990s.

Whales in the Central North Pacific stock, for example, breed on the Hawai’i breeding grounds, which draws whales primarily from several distinct feeding areas in Alaska and northern British Columbia (“B.C.”). Humpback whales that breed in Hawai’i are known to migrate to every feeding ground in the North Pacific, although the majority of individuals migrate to the southeastern Alaska feeding grounds. Fleming and Jackson 2011 at 62. In addition, some feeding areas support whales from multiple breeding grounds. The weight of evidence, however, points toward strong behavioral and genetic fidelity to specific breeding and feeding areas over generations, particularly for the Central North Pacific stock.

#### B. Humpback Whales in British Columbia

Humpback whales that feed in Pacific Canada waters are not managed by the U.S. under the MMPA, despite a close association between the majority of humpback whales in British Columbia and humpback whales in Southeast Alaska.<sup>4</sup> The population structure of humpback whales in British Columbia is of substantial interest, however, because Vancouver Island appears to serve as a

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<sup>3</sup> Fleming and Jackson 2011 discusses four stocks. We refer here primarily to the three stocks reported on by NMFS in Stock Assessment Reports.

<sup>4</sup> *See* COSEWIC 2011. [www.sararegistry.gc.ca/status/status\\_e.cfm](http://www.sararegistry.gc.ca/status/status_e.cfm)

demographic boundary between humpback whales that feed in southern British Columbia, Washington, Oregon, and California, and those that feed in northern British Columbia and Alaska. COSEWIC 2011 at 4, citing Calambokidis et al. 1996.

This demographic boundary hypothesis is supported by results from one contribution to the SPLASH project,<sup>5</sup> which reported that whales photographed in summer from central Vancouver Island north toward Alaska were found far more often on the Hawai'i breeding grounds in winter (87%) than on the Mexico (13%) or Central America (0%) breeding grounds. Rambeau and Ford 2010. This northern British Columbia/Southeast Alaska feeding aggregation demonstrates a "strong affiliation" with the Hawai'i breeding grounds, suggesting a closer association with the Central North Pacific stock than with the California/Oregon/Washington and Mexico stock. *Id.* In contrast, from southern Vancouver Island southward, "a high proportion of humpbacks . . . showed a strong affiliation with breeding grounds off mainland Mexico." *Id.* As a result, the SPLASH analyses grouped northern B.C. humpback whales with Southeast Alaska whales, and southern B.C. humpback whales with Washington whales.

The SPLASH study also reported low rates of exchange between northern and southern British Columbia feeding areas. In contrast, the highest rates of exchange among feeding areas surveyed in the SPLASH study were between northern British Columbia and southeastern Alaska. Fleming and Jackson at 54, citing Calambokidis et al. 2008. Thus, within British Columbia waters, humpback whales may comprise two subpopulations, one in the north and one in the south, to which individual whales demonstrate strong feeding site fidelity, but for which breeding site fidelity differs slightly. COSEWIC 2011 at ix; Rambeau and Ford 2010. The observed interface on Vancouver Island appears to represent a demographic boundary between the Central North Pacific stock and the California/Oregon/Washington and Mexico MMPA stocks, as recognized by NMFS in the description of its current stock structure.<sup>6</sup>

Further support for grouping the northern British Columbia whales with the Central North Pacific stock, rather than with the California/Oregon/Washington and Mexico stock, is evident when the DPS criteria are applied to the Central North Pacific stock.<sup>7</sup> Despite their high degree of mixing with Southeast Alaska whales and their strong affiliation with the Hawai'i breeding grounds, humpback whales in northern B.C. currently carry a different conservation status and potentially are subject to different

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<sup>5</sup> Rambeau and Ford 2010; SPLASH stands for Structure of Populations, Levels of Abundance and Status of Humpback Whales in the North Pacific; *see* Calambokidis 2010.

<sup>6</sup> *See* NMFS 2012 at 173: "[T]he Central North Pacific stock . . . breeds in the Hawaiian archipelago and *migrates primarily to northern British Columbia, Southeast Alaska, the Gulf of Alaska, and the Bering Sea and Aleutian Islands* (citations omitted); . . .

<sup>7</sup> Specifically, the DPS Policy provides that a population segment may be considered discrete if "[i]t is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of ESA section 4(a)(1)(D)." 61 Fed. Reg. at 4725.

management of habitat and regulatory mechanisms compared with whales in adjacent Southeast Alaskan waters, simply because they occur on the other side of an international geo-political boundary.

The international boundaries between British Columbia and Alaska to the north and Washington, to the south, obviously pose no barrier to the northern and southern B.C. humpback whales. The whales in British Columbia evidently do, however, exhibit a clear demographic boundary within Canadian waters that developed through cultural and genetic mechanisms over millennia. The divide between the northern and southern B.C. whale populations is thought to occur somewhere off northwestern Vancouver Island.<sup>8</sup> The majority of the whales in the southern B.C. population occur off southwestern Vancouver Island, however, very close to U.S. waters off Washington. Thus, this demographic boundary does roughly correspond to the international boundary between British Columbia and Washington, for southern B.C. whales.

Alternatively, if, as suggested in Rambeau and Ford 2010, 54 degrees latitude (roughly the northern boundary of B.C.) is used as a benchmark, the majority of B.C. whales that associate with Southeast Alaska whales occur near the international boundary between B.C. and Alaska. A comparison of resightings of whales north and south of 54 degrees indicated that intermatching of individual whales decreased with increasing north-south distance. *Id.* Thus, the majority of humpback whales in B.C.—from central Vancouver Island northward—are associated with the Alaska feeding grounds and Hawai'i breeding grounds, but are managed by Canada.

This difference in management arguably satisfies the criteria cited in the DPS policy that a population segment may be considered discrete if it is delimited by international governmental boundaries that result in different management of habitat, conservation status, or regulatory mechanisms. Combined with genetic and behavioral information that demonstrates marked separation from other North Pacific stocks, this finding supports designation of the Central North Pacific stock as a DPS.

### C. Population Genetics Information

The characterization of subpopulations in the North Pacific continues to evolve as more data, particularly genetic data, are analyzed. For instance, a recent publication identifies five “distinct” subpopulations of humpback whales within the North Pacific based on genetic analyses,<sup>9</sup> one of which corresponds to the Central North Pacific stock we recommend for DPS status. This study compares mtDNA between seasonal habitats, rather than just among breeding areas or feeding areas. Baker et al. 2013 suggests that the entire North Pacific basin humpback whale population should be considered a subspecies of humpback whale, based on the degree of genetic isolation from the South Pacific. In turn, this proposed subspecies would include multiple, distinct subpopulations that demonstrate strong fidelity

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<sup>8</sup> Fisheries and Oceans Canada 2013 at 8, citing Ford et al. 2009.

<sup>9</sup> Baker et al. 2013.

to seasonal breeding and feeding areas, not just over individual lifespans, but on an evolutionary scale. *Id.*

Because the ocean habitat of whales presents no geographic barriers to explain the observed genetic differentiation among subpopulations, Baker et al. attributes the development of marked genetic differences among subpopulations at least in part to cultural factors, in the form of behaviors passed down from mother to calf. Humpback whale calves typically remain with their mothers through at least one round-trip migration from breeding ground to feeding ground and back. As a result, the migration routes, feeding grounds, and breeding areas those individuals frequent continue to be targeted, with some exceptions, throughout an individual whale's lifetime—as well as by successive generations, thus perpetuating unique genetic assemblages over time. *Id.*

The five distinct North Pacific subpopulations proposed based on breeding ground affiliation include (1) Okinawa and the Philippines; (2) a second population in the western Pacific for which the breeding grounds remain unknown; (3) Hawai'i; (4) Mexico; and (5) Central America. *Id.* Of these, the proposed Hawai'i subpopulation corresponds with the Central North Pacific population segment we are petitioning to delist.

#### D. Current Range and Population Levels of North Pacific Whales

The best available scientific information indicates that humpback whales in the North Pacific currently are found throughout their historic range, having rebounded significantly following the cessation of commercial whaling. *See, e.g.,* NMFS 2010; NMFS 2012. Although researchers have made tremendous gains in data collection and understanding of whale behavior, movements, and genetic relationships among humpback whale subpopulations since listing, it is clear that more remains to be discovered regarding the ranges of some North Pacific humpback whales.

For example, as discussed above, Baker et al. 2013 hypothesized the existence of a second subpopulation in the western Pacific, for which the breeding grounds remain unknown—a significant information gap. There is uncertainty regarding the wintering area used by a segment of whales that summers in the Aleutians: one hypothesis is that these whales winter somewhere between Hawai'i and Asia. NMFS 2010. Thus, although humpback whales have been observed in increasing numbers throughout the broad outline of their historic range in the North Pacific, details of important sites within that range are lacking for some subpopulations in the western Pacific. In contrast, a very large and detailed database has been amassed for the eastern Pacific stocks, particularly the Central North Pacific stock.<sup>10</sup>

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<sup>10</sup> “Much more is known about the humpback whales occurring east of the Aleutian Islands than elsewhere; and the western feeding grounds remain relatively understudied.” Fleming and Jackson 2011 at 51.

Population levels over time have been estimated in part by reconstructing take from historical whaling records, knowing that these records are likely incomplete due to under-reporting.<sup>11</sup> In the late 1800s, the global humpback whale population probably included more than 125,000 animals. Recovery Plan at 1. Rough estimates of the pre-1905 North Pacific population hypothesize a stable population of 15,000 individuals. Rice 1978. Over the next several decades, until international protections were instituted, modern whaling efforts removed an estimated total of 28,000 whales from the North Pacific. *Id.* By 1966, when the International Whaling Commission (“IWC”) halted the harvest of humpback whales, an estimated 1,000 to 1,400 animals remained. Calambokidis 2010.

Current estimates indicate that the North Pacific basin supports approximately 21,800 humpback whales. Barlow et al. 2011. These recent estimates exceed the pre-1905 population level of 15,000 hypothesized by Rice (1978), emphasizing the uncertainty associated with the earlier estimate. NMFS 2010; Barlow et al. 2011; Fleming and Jackson 2011. The humpback whale population trend today is unequivocally positive for most subpopulations and particularly for the Central North Pacific stock.

## II. Regulatory History

The humpback whale was one of the earliest species listed under the ESA. As a result, the array of protections supplied for humpback whales under the Act does not include some conservation provisions, such as designation of critical habitat, that were adopted in later amendments to the Act.

### A. Listing History under the ESA, MMPA, and Other Regulatory Schemes

Modern whaling in the first half of the 20<sup>th</sup> century is widely recognized as the cause of substantial declines in global humpback whale populations. *See, e.g.*, Fleming and Jackson 2011 at 15. The humpback whale was listed as endangered under the precursor to the ESA in 1970, four years after the IWC halted commercial whaling of the species in 1966. Humpback whale population trends also are tracked by the International Union for the Conservation of Nature (“IUCN”), and international trade is regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES.”)<sup>12</sup>

*ESA and MMPA:* In June 1970, the humpback whale was listed as “endangered” under the Endangered Species Conservation Act of 1969. The endangered designation was carried forward, with no listing criteria cited, when the ESA was adopted in 1973. NMFS listed the humpback whale as a single species in its geographic entirety, with no distinctions regarding any possible subpopulations, and has not designated critical habitat for the species. Adoption of the MMPA in 1972 provided additional

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<sup>11</sup> Under-reporting may be particularly problematic for Soviet whaling efforts in the North Pacific, which continued until 1980. Fleming and Jackson 2011 at 70 (citations omitted).

<sup>12</sup> CITES is an international treaty that seeks to “ensure that international trade in specimens of wild animals and plants does not threaten their survival.” Available at: <http://www.cites.org/eng/disc/what.php>

protections for the humpback whale. The species also was listed in 1973 as “depleted” under the MMPA, a designation required based on its endangered status under the ESA.

*COSEWIC*: In Canada, the North Pacific population and the Western North Atlantic population together were designated by COSEWIC<sup>13</sup> as Threatened in 1982. COSEWIC 2011 at iii. In recognition of their geographic isolation from each other, however, COSEWIC separated these populations in 1985 into two Designatable Units (“DUs”).<sup>14</sup> *Id.* at 5. The North Pacific DU was designated as Threatened at that time. This status was reexamined and confirmed in 2003. In 2011, COSEWIC reexamined the status of the North Pacific population and downlisted it to “Special Concern” status. *Id.* at iii.

COSEWIC’s rationale for downlisting is that the population is recovering:

[The North Pacific population] is no longer considered to be Threatened, [although] it is not yet secure. It was depleted by commercial whaling but has increased substantially since becoming legally protected from whaling in 1966 [by the IWC]. A basin-wide study [the SPLASH study] in 2004–2006 resulted in an estimated abundance of 18,000 animals (not including calves) in the North Pacific and an estimated rate of increase of 4.9–6.8%/year.

*Id.* at viii.<sup>15</sup> Based on the SPLASH study, as of 2006 an estimated 2,145 animals were present seasonally within British Columbia waters, and the population was increasing at approximately 4% per year. *Id.* Canada characterized those numbers as “considerably smaller than the minimum of 4,000 animals that must have been present off the west coast of Vancouver Island in 1905 given the numbers removed by whaling in the early 1900s.” *Id.* Nonetheless, there is no reason to expect that the population has not continued to increase at approximately 4% since 2006. Applying that rate of increase, the 2013 population estimate would be over 2,800 animals, a greater than 30% increase since 2006, and additional evidence of significant recovery in this population.

*IUCN*: COSEWIC’s conclusion that North Pacific humpback whales that frequent Canadian waters are no longer threatened is supported by the findings of a 2008 global assessment of humpback whales by the IUCN. This IUCN assessment resulted in the species being downlisted from “Vulnerable” to “Least

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<sup>13</sup> COSEWIC, the Committee on the Status of Endangered Wildlife in Canada, was established in 1977 as a national, scientific listing of species at risk. Following implementation of the Species At Risk Act (“SARA”) in 2003, COSEWIC remains as a scientific advisory body on assessments of species considered to be at risk in Canada. COSEWIC 2011 at x. (Humpback Whale Assessment and Status Report).

<sup>14</sup> Similar to the criteria for a DPS under the ESA, the COSEWIC criteria for a Designatable Unit include an assessment of whether a population is “discrete”—belonging to different ocean basins, representing a natural disjunction of the species’ geographic range—and “significant” based on genetic differences. COSEWIC 2011 at 5.

<sup>15</sup> The recommended downlisting of humpback whales to Special Concern was referred back to COSEWIC in March 2013 for “further consideration” relating to the “structure of the designatable unit” on which the downlisting was based. *See* <http://laws-lois.justice.gc.ca/eng/regulations/SI-2013-28/FullText.html>

Concern.” IUCN Red List, *Megaptera novaeangliae*, at 5.<sup>16</sup> The IUCN first listed the humpback whale in 1986 as Endangered. That status changed in 1990 to Vulnerable, and remained in that category until the 2008 change to Least Concern. *Id.*

The IUCN based its 2008 status change on its conclusion that recent rates of increase make it “unlikely that [the population] is below the threshold (50% of the 1940 level) that would qualify the species for inclusion in the Vulnerable category under criterion A.” Further, the humpback whale’s range is not restricted, as required for IUCN Criterion B. In addition, current population estimates of more than 60,000 individuals are “well above the C and D criteria thresholds for the Vulnerable category.” *Id.*

Because the species fails to meet the criteria for “Vulnerable,” the IUCN changed its status to “Least Concern,” citing the following reasons:

- (i) In the areas for which data are available, the population has continued to increase in the 10 years since the previous assessment;
- (ii) Abundance and trend data are available for more areas than were available for the previous assessment; and
- (iii) The criteria for Vulnerable have been changed: the threshold reduction for the A1 criterion was changed from 20% to 50%.

*Id.* Despite the positive worldwide trend in humpback whale populations, however, the Red List does express some concern about a few “apparently discrete and small subpopulations . . . for which information is lacking.” *Id.* Among these subpopulations of concern is the western North Pacific stock, for which data are somewhat limited and breeding and feeding grounds are not well defined. *Id.*

#### B. 1991 Recovery Plan: Threats, Goals, and Recommended Actions

Overharvest by commercial whalers is widely recognized as the principal source of the humpback whale population decline. *See, e.g.*, Recovery Plan at 25. The 1991 Plan summarizes the then-current status of humpback whales worldwide, with particular attention to populations occurring in waters under U.S. jurisdiction in the North Atlantic and North Pacific oceans. In addition, the Plan reviews the natural history of humpback whales; discusses known and potential impacts to the species and its habitats; sets interim and long-term goals; and recommends improved, standardized population estimation and monitoring methods and recovery actions.

The Plan seeks three categories of success: biological, numerical, and political. “Biological success” is defined as humpback whales “occupy[ing] all of their former range in sufficient abundance to buffer their populations against normal environmental fluctuations or anthropogenic environmental catastrophes” such as a large oil spill. *Id.* at 33. “Numerical success” would be reached when humpback whale populations increase to levels where “population dynamic responses indicate density dependent reductions in productivity,” although the Plan recognizes that achieving pre-commercial

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<sup>16</sup> Accessed online 1/3/2014 at: <http://www.iucnredlist.org/details/13006/0>.

whaling population levels likely is not feasible. *Id.* “Political success” would be achieved when the humpback whale can be downlisted or delisted. *Id.*

Numerically, the Plan’s interim goal was to double the humpback whale population size within 20 years, as demonstrated by (1) statistically significant trends of population increase within the current range, and (2) statistically significant trends of population increase within portions of the range known to have been historically occupied. *Id.* at 2. The Plan’s stated long-term goal was to increase humpback whale populations to at least 60% of the numbers existing before commercial exploitation or of current environmental carrying capacity. *Id.* at 3.

The Plan was written prior to the standardization or regular use of the DPS concept under the Act. Thus, although the Plan was directed at the listed entity—the global humpback whale population, with no officially designated subpopulations—it recognizes that “several relatively distinct populations” exist within ocean basins, each of which may require different management and different expectations regarding the time required to double in size. *Id.* at 2. It is therefore reasonable to expect that the general goals stated in the Plan can be tailored to distinct population segments, as we recommend here.

Since the Plan was published, substantial scientific information has accrued regarding humpback whale ecology, including use by individual whales of distinct breeding and feeding grounds and strong fidelity to both breeding and feeding areas. These data clearly demonstrate that the North Pacific population overall has increased by almost 16-fold from its low point in the mid-20<sup>th</sup> century. Further, the more detailed available data show that “it is very clear that a great deal of structural complexity exists within the North Pacific and that it does not contain a single panmictic population.” Fleming and Jackson 2011 at 51. The extensive data acquired by NMFS and others since the humpback whale was listed—particularly regarding distinctions among population groups within the North Pacific populations—warrants additional evaluation by NMFS of the current status of the species. The Central North Pacific stock is one subpopulation for which genetic and behavioral details are well defined. The numerical survey data demonstrate its recovery, and for these reasons, it should be delisted.

### C. Current U.S. Regulatory Status

NMFS initiated a status review for the humpback whale in August 2009, 74 Fed. Reg. 40568 (August 12, 2009). The resulting technical memorandum, issued in March 2011,<sup>17</sup> summarizes the best available scientific information at that time on population structure, spatial distribution, migratory connections, and genetic differentiation within and among populations. In 2010, NMFS also issued a Negligible Impact Determination (“NID”) for the Central North Pacific stock,<sup>18</sup> pursuant to the MMPA,

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<sup>17</sup> Fleming and Jackson 2011.

<sup>18</sup> NMFS 2010. MMPA section 101 provides for NMFS to issue take permits for marine mammals designated as depleted under the MMPA because they are listed as endangered under the ESA. Before issuing a permit, NMFS

documenting that current levels of incidental mortality and serious injury from commercial fisheries will have a negligible impact on this stock.

In August 2013, NMFS issued a positive 90-day finding on a petition to identify the North Pacific population of the humpback whale as a DPS and delist the DPS under the ESA, thus initiating another status review, 78 Fed. Reg. 53391 (August 29, 2013).<sup>19</sup> Alaska submitted comments on the 90-day finding that express support for the Hawai'i Fishermen's petition.<sup>20</sup> Alaska agrees with the petition's conclusion that the North Pacific population is discrete and significant in relation to the South Pacific population. Nonetheless, the best available scientific information more strongly supports a rule that divides the North Pacific population into several DPSs, based not only on physical, physiological, ecological, and behavioral factors, but also on geo-political factors and differences in management.

For example, as described above, the recently downlisted western Pacific population in Canada is thought to consist of a southern and a northern subpopulation. The northern subpopulation, which occupies most of British Columbia waters except for southwestern Vancouver Island, shows a strong genetic and behavioral affinity with the Central North Pacific stock. Although this demographic boundary does not coincide precisely with the international boundary between the U.S. and Canada, the Canadian portion of this stock currently is subject not only to a different conservation status and regulatory mechanisms but also to different population and habitat management standards, including management of prey populations. All of these factors are significant in light of the provisions of ESA section 4(a)(1)(D), which evaluates the adequacy of existing regulatory mechanisms, as well as in evaluating whether a population meets the criteria to be designated as a DPS under the 1996 DPS policy.

The best available scientific evidence supports a focus on the breeding stocks identified by NMFS, particularly those that breed primarily within U.S. waters, as entities that warrant evaluation as DPSs and delisting under the ESA. Of these stocks, the Central North Pacific stock has been studied most extensively. Sufficient information exists to demonstrate that the Central North Pacific stock has met recovery goals and is no longer endangered, whereas less is known about the other stocks in the North Pacific.

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must first determine whether incidental mortality and serious injury from commercial fisheries will have a negligible impact on listed species or stocks.

<sup>19</sup> The April 17, 2013, petition from the Hawai'i Fishermen's Alliance for Conservation and Tradition, Inc. requested that NMFS designate the North Pacific population of humpback whales as a DPS and then delist that DPS.

<sup>20</sup> Alaska Department of Fish and Game (ADF&G) Response, 90-Day Finding, Hawai'i Fishermen Humpback Whale Delisting Petition. October 28, 2013.

### **III. The Central North Pacific Stock is a Distinct Population Segment**

Although the ESA provides for listing or delisting of a “distinct population segment,” the term is not defined in the Act or regulations. NMFS and FWS clarified their interpretation of the term in a 1996 joint policy document, which details the analytical approach the Services follow and which we apply here to the Central North Pacific stock to demonstrate that this stock meets the criteria for designation as a DPS.

#### **A. DPS Designation**

The DPS policy requires that the Service consider three elements, in step-wise fashion. The first element is whether the population segment in question is “discrete” in relation to the remainder of the species, based on analysis of two criteria (discussed in more detail below). If the Service finds that the segment is discrete, then the agency will consider whether the segment is “significant” in relation to the remainder of the species. *Id.* If a population segment is found to be both discrete and significant, it may be designated as a DPS, which may then qualify as an entity for listing or delisting under the ESA. It is at that point that the Service may consider the third element: the population segment’s current conservation status. That is, if the Service treats the DPS as a “species” under the Act, it must evaluate whether that species is endangered or threatened under the provisions of the Act. *Id.*

With respect to the first DPS element, a population segment may be may be considered *discrete* if it satisfies either one of the following conditions:

1. It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation.
2. It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of ESA section 4(a)(1)(D).

61 Fed. Reg. at 4725.

With respect to the second DPS element, a population segment found to be discrete may be considered *significant* based on one or more of the following factors:

1. Persistence of the discrete population segment in an ecological setting unusual or unique for the taxon;
2. Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon;
3. Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; or

4. Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

*Id.* If a population segment is found to be discrete *and* significant, the Service will then apply the ESA section 4(a) listing and delisting factors to evaluate its conservation status as endangered, threatened, or recovered. The DPS policy further provides that “[i]t may be appropriate to assign different [conservation] classifications to different DPS’s [sic] of the same vertebrate taxon,” depending on the threats existing in different portions of the range. *Id.*

#### B. DPS Analysis for the Central North Pacific Stock

The best available scientific information indicates that the Central North Pacific humpback whale population satisfies both elements of the criteria for designation as a DPS: the population is both discrete and significant compared with the remainder of the North Pacific population. The population is markedly separate from other North Pacific populations based on physical, behavioral, and management factors. Further, the population is significant to the taxon both in terms of its unique genetic attributes and because loss of this discrete population segment would result in a significant gap in the range of the taxon.

##### *Discreteness*

For the three North Pacific breeding stocks recognized by NMFS, the majority of breeding and observed breeding behaviors occur within geographically discrete areas, with demonstrated high fidelity of individual whales to breeding areas. NMFS 2012. Out of 845 unique genotypes identified from breeding ground SPLASH data, only 14 cases of movement between breeding areas were observed. This translates to a movement rate of 1.66% among the North Pacific breeding stocks. Steel and Baker 2010. Such low rates of movement among breeding stocks can result in reproductive isolation, since the majority of breeding behavior for each stock occurs on the breeding grounds.

The potential for reproductive isolation of humpback whales in the North Pacific Ocean was further analyzed by Baker and Steel (2010), who asserted that “significant reproductive units or ‘breeding stocks’ could be defined by differences in nuclear (nu) DNA [microsatellite loci].” Statistically significant differences in microsatellite allele frequencies were documented in the North Pacific, suggesting five breeding stocks, including Hawai’i as its own significant reproductive unit. *Id.* Genetic analysis can provide a longer-term view of stock fidelity, and the reported quantitative measures of genetic discontinuity provide further evidence of the marked separation of the Central North Pacific stock from other breeding stocks in the North Pacific, given physical separation of the majority of breeding individuals. *Id.*

Some breeding behavior has been observed on the feeding grounds and during migration, however, and some individual whales from other breeding grounds have been observed on the Central North Pacific feeding grounds. *See e.g.*, Baker et al. 2013. Nonetheless, the “relatively low” observed rates of

interchange with other areas decrease with distance, indicating that “individuals seen in multiple feeding grounds were most often previously seen in the adjacent feeding areas.” Fleming and Jackson 2011 at 52. Moreover, this low level of interchange among populations, in combination with the high observed levels of fidelity to breeding and feeding grounds, is not likely to result in population-level genetic effects.<sup>21</sup>

Nor does a minimal level of genetic interchange negate a positive “discreteness” finding in the DPS analysis. Some level of interbreeding<sup>22</sup> “is a necessary, but not a sufficient condition for classification as a DPS.” NMFS has taken the position that:

The ESA requirement that a group of organisms must interbreed when mature to qualify as a DPS is a necessary but not exclusive condition. Under the definition, although all organisms that belong to a DPS must interbreed when mature (*at least on some time scale*), not all organisms that share some reproductive exchange with members of the DPS must be included in the DPS. The DPS policy outlines other relevant considerations for determining whether a particular group should be delineated as a DPS (i.e., “marked separation” as a consequence of physical, physiological, ecological or behavioral factors).

*Modesto Irr. Dist. v. Gutierrez*, 619 F.3d 1024, 1032 (9th Cir. 2010) (citing 71 Fed. Reg. at 838 (emphasis added)).<sup>23</sup> Here, the “necessary but not exclusive condition” that a group of organisms must “interbreed when mature” to be grouped in a DPS is clearly met for the Central North Pacific humpback whales. Interbreeding within the stock, evincing “marked separation” from other stocks, is

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<sup>21</sup> Baker et al. 2013 failed to discern evidence of significant male-biased dispersal, despite confirming evidence of male-biased gene flow; this failure is attributed to the substantially higher sample size required to detect male-biased dispersal using mtDNA, rather than nuclear microsatellite techniques. Some degree of male-biased dispersal is likely, however, as is common in many mammal species, and “a significant male bias has often been observed on breeding areas. Fleming and Jackson 2011 at 57. Baker et al. 2013 hypothesized that “male humpback whales could use a mixed-strategy over the course of a lifetime, involving occasional alteration among breeding grounds and gametic dispersal, without abandoning individual natal fidelity. Females could also visit alternate breeding grounds for mating opportunities, but unless this dispersal was permanent or contributed a female offspring through a migratory cycle, it would not contribute to mtDNA gene flow.” *Id.* at 302. Also, although NMFS reports that “mtDNA data may indicate that populations are discrete . . . in species where female and male movement patterns differ, nDNA data may indicate that the populations are homogeneous.” 78 Fed. Reg. 68032, 68034 (November 13, 2013). Unlike the case of humpback whales, NMFS found that DPS status was not warranted for sperm whales in the Gulf of Mexico, where nDNA analysis “indicates that successful reproductive-mixing [sic] is occurring and that the [Gulf of Mexico] sperm whales are not reproductively isolated,” although “mtDNA analysis indicates some population structuring.” *Id.* at 68036. In contrast, genetic and behavioral data indicate that humpback whales in the North Pacific demonstrate substantial population structuring, *See, e.g.*, Fleming and Jackson 2011.

<sup>22</sup> Under the ESA, “the term ‘species’ includes any subspecies of fish or wildlife . . . and any distinct population segment . . . that interbreeds when mature.” 16 U.S.C. § 1532(16) (emphasis added).

<sup>23</sup> 71 Fed. Reg. 834 (January 5, 2006). Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead; Final Rule. *See also Am. Forest Res. Council v. Ashe*, 2014 WL 235362 (D.D.C.).

demonstrated by genetic and behavioral factors, including maternal fidelity to feeding grounds and natal philopatry to breeding grounds. These traits evolved on a generational scale and, together with abundant evidence of current breeding, demonstrate interbreeding “at least on some time scale,” as is necessary for classification as a DPS.

Nonetheless, interbreeding alone is not an “exclusive” or “sufficient” condition that would require every individual whale that breeds with a member of the Central North Pacific stock—or conversely, a Central North Pacific whale that breeds with a member of another stock—to be included in a DPS. The very low current level of interbreeding with individuals from other stocks does not preclude designating the Central North Pacific stock of humpback whales as a DPS. Nor does evidence of past interbreeding between stocks “on some time scale” defeat designation of this DPS.

The research by Baker et al. (2013) further confirms the marked separation of the Hawai’i breeding population, which corresponds to the Central North Pacific stock, from all other breeding populations. Although the SPLASH study demonstrated “varying degrees of mixing between feeding and breeding grounds,” the genetic data support separation of this stock from other North Pacific stocks. For example, SPLASH data show that whales on the southeastern Alaska feeding grounds show a “high degree of interchange with northern British Columbia and the northern Gulf of Alaska,”<sup>24</sup> and the same population shows migratory connections only to the Hawai’i breeding ground. This southeastern Alaska population “appears to be a pure feeding stock that mixes with others on the Hawaiian breeding grounds.” Baker et al. 2013 at 302. Other whales that frequent the Hawai’i breeding grounds migrate to the northern Gulf of Alaska and other feeding areas, and SPLASH data indicate that whales from the northern Gulf of Alaska have a relatively high rate of interchange not only with southeastern Alaska, but also the western Gulf of Alaska.<sup>25</sup> Not surprisingly, then, Hawai’i differed in frequency of mtDNA haplotypes from all other breeding grounds and all feeding grounds except the northern Gulf of Alaska and eastern Aleutian Islands.<sup>26</sup> Baker et al. 2013.

Although “there are no simple divisions of the oceanic population into migratory subpopulations that remain isolated year-round,” the level of functional genetic interchange is minor. *Id.* at 303. The best available genetic information indicates that Central North Pacific stock comprises humpback whales

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<sup>24</sup> Fleming and Jackson 2011 at 54.

<sup>25</sup> SPLASH data show that “[h]umpback whales breeding in Hawai’i have been observed to migrate to every feeding ground in the North Pacific with the majority of individuals migrating to southeastern Alaska. (citation omitted). The neighboring regions of northern British Columbia and the northern Gulf of Alaska were also very common migratory destinations for whales that wintered in Hawaii. The Bering Sea was also a common destination. Among those individuals from the Bering Sea that matched to any breeding area, the vast majority of whales were from Hawaii.” Fleming and Jackson 2011 at 62.

<sup>26</sup> The observed differentiation between Hawai’i and the northern Gulf of Alaska and eastern Aleutian Islands feeding grounds was not significant, and may be attributable to small sample size.

from several Alaska feeding grounds that all congregate on the Hawai'i breeding grounds, and thus constitute a discrete population from a genetic standpoint.

The picture is not so clear for other North Pacific stocks, primarily because of lack of information. It appears, for example, that NMFS' currently designated western North Pacific stock may not accurately represent all of the breeding and feeding grounds for whales in that area. Instead, Baker et al. 2013 posits the existence of a second western North Pacific population for which the breeding ground has not yet been identified. The lack of information is problematic for this subpopulation, which is potentially subject to unregulated exploitation along the Japanese and Korean coasts, as well as higher levels of habitat degradation due to pollution. *Id.* As described above, concern for subpopulations in this area has also been expressed by the IUCN and others.<sup>27</sup>

### *Significance*

Given that the Central North Pacific stock satisfies the definition of "discrete," we argue that it is also significant to the taxon as a whole, and therefore qualifies as a DPS. To determine significance, NMFS considers available scientific evidence of a discrete population segment's importance to the taxon to which it belongs. Of the four significance factors enumerated above, two are applicable to the Central North Pacific stock: first, factor (2), "evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon," and second, factor (4), "evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics." Thus, the Central North Pacific stock is significant as well as discrete, and qualifies as a DPS under the 1996 policy.

Evidence for the significance of this stock comes from several sources. Regarding the significant gap that would be caused by the loss of this population segment, the Hawaiian archipelago constitutes the breeding ground for approximately one half of the North Pacific Ocean's humpback whale population of approximately 21,063 individuals, as estimated from SPLASH data. NMFS 2012; Barlow et al. 2011. Of this number, an estimated 10,103 (7,469-10,103) individual whales are found seasonally in the main Hawaiian Island breeding grounds. Calambokidis et al. 2008; NMFS 2012.

Moreover, the Central North Pacific humpback whale population has expanded its breeding distribution in Hawai'i and is now known to overwinter in the Northwest Hawaiian Islands, an area estimated to provide twice the expanse of available habitat as the main Hawaiian Islands. Johnston et al. 2007;

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<sup>27</sup> Calambokidis 2010 at 9: "While the overall humpback whale abundance and trends in the North Pacific are encouraging, some areas should be of concern, especially Asia. The western-most feeding and wintering areas were distinct from the rest of the North Pacific with a very low level of interchange between Asian wintering or feeding areas and those in the central and eastern North Pacific. Abundance estimates in this area are low (below historical levels based on the number taken in this region) and whales along the Asian coast appear to be subject to a high level of incidental mortality."

Lammers et al. 2011. Loss of the Central North Pacific distinct population segment would result in a loss of approximately one half of the North Pacific population, which would unequivocally result in a significant gap in the range of the species. Even considering the Central North Pacific population's biological and ecological significance in light of congressional guidance to the Services to use their authority to list DPSs "sparingly,"<sup>28</sup> the population is indisputably significant.

The significance of the Central North Pacific stock is bolstered even further by genetic data, which demonstrates that this discrete population segment differs markedly from other populations of the species, including within the North Pacific, in its genetic characteristics. The recent publication by Baker et al. 2013 found that haplotype frequencies were markedly different among feeding regions, indicating strong maternal fidelity to feeding regions. In addition, haplotype frequencies were markedly different among breeding regions, indicating strong natal fidelity to whale birthplaces. Haplotype frequencies were significantly different even among breeding and feeding areas known (e.g., by photo-identification) to have strong connections through migration of individuals. *Id.* It appears that migratory fidelity works independently on breeding and feeding regions on an evolutionary time scale, but it is reinforced by "cultural" and behavioral factors within individual lifespans and from generation to generation, because the behavior is passed down from mother to calf. *Id.*

The best available genetic information shows significant differentiation in mtDNA haplotypes and in microsatellite allele frequencies among breeding grounds within the North Pacific, indicating marked genetic separation among humpback whale breeding grounds, which supports the designation of separate DPSs within this ocean basin. This observed differentiation between breeding populations "is consistent with the criteria for 'significance' used in determining DPS[s]" under the ESA. *Id.* at 303.

For feeding grounds, the best available genetic information draws a picture that is more complicated than the traditional view of North Pacific humpback whale stocks as "reproductively isolated, migratory units defined by longitudinal boundaries." *Id.* at 304. Nonetheless, for the Central North Pacific stock, the picture drawn by the existing data corresponds with a markedly separate, discrete, and significant population segment that qualifies as a DPS under the ESA.

#### *Conservation Status of the Population Segment*

For a population segment found to be distinct and significant, NMFS then may consider that segment's conservation status in relation to the ESA's standards for listing (i.e., whether the population segment, when treated as if it were a species, is endangered or threatened). The Recovery Plan recognized that each of the "several relatively distinct populations of humpback whales" in the North Pacific and North Atlantic "will . . . have somewhat different management requirements. Different populations may require different periods of time to double in size, but reaching that milestone within two decades will be evidence of meaningful progress." Recovery Plan at 2.

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<sup>28</sup> S. Rep. No. 96-151 at 1397 (1979).

Criteria for DPS evaluation were not yet established at the time of the humpback whale's listing, and the Recovery Plan did not distinguish among populations in stating its goals. Nonetheless, the Central North Pacific stock, arguably one of the Plan's "relatively distinct populations" within the Pacific Ocean, clearly has exceeded—by an order of magnitude—the Plan's milestone of doubling its size within two decades. Therefore, the stock is distinct, significant, and has far exceeded the numerical recovery goals set for subpopulations of the species. The Central North Pacific population segment is no longer threatened or endangered under the criteria set out in the Act, and therefore delisting of this segment is warranted.

#### **IV. The Central North Pacific DPS Warrants Delisting**

The ESA and its implementing regulations set out five factors to be considered, either singly or in combination, to determine whether a listed species should be reclassified or removed from the list. Consideration of these factors with regard to the Central North Pacific population segment of humpback whales indicates that this population segment is no longer threatened or endangered. Threats to habitat are sufficiently controlled or neutralized; overutilization has been halted, allowing the population to make a remarkable recovery in numbers; neither disease nor predation is known to pose a threat; post-listing regulatory mechanisms are adequate to maintain or increase the population; and there are no other natural or manmade factors that threaten this population with extinction, now or in the foreseeable future. This DPS has recovered, and no longer requires the protections of the ESA. Delisting is warranted at this time.

##### **A. Statutory and Regulatory Framework for Delisting**

After conducting a status review, to list or delist a species the Service must consider the best available scientific and commercial data available regarding the following five factors as they relate to the definitions of endangered or threatened species:

- (A) The present or threatened destruction, modification, or curtailment of habitat or range;
- (B) Overutilization for commercial, recreational, scientific, or educational purposes;
- (C) Disease or predation;
- (D) The inadequacy of existing regulatory mechanisms; or,
- (E) Other natural or manmade factors affecting its continued existence.

16 U.S.C. § 1533(a)(1); 50 C.F.R. § 424.11(c). The Secretary, through the Service, may delist or reclassify a species on the basis of any one or a combination of these five factors. *Id.* The regulations provide that delisting can occur only if the best available data support a finding that the species is neither endangered nor threatened because it is extinct, recovered, or the original classification was in error. 50 C.F.R. §424.11(d). A delisting proposal can be generated by the Service or by a written petition from an interested person. 50 C.F.R. §424.14(a).

*Petition Process*

The ESA provides that “after receiving the petition of an interested person under section 553(e) of Title 5” to “remove a species” from the list of species determined to be threatened or endangered, the Secretary “shall make a finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted.” 16 U.S.C. § 1533(b)(3)(A).

The regulations adopted by NMFS closely track the relevant statutory provisions, while elaborating on the standards the Secretary should apply. The regulations specify that “substantial information” means “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted.” 50 C.F.R. § 424.14(b)(1).

The petition process establishes “mandatory bright lines of both timing and behavior that are readily open to judicial review.” *Wyoming v. U.S. Dep’t of Interior*, 360 F. Supp.2d 1214, 1229 (D. Wyo. 2005). In those cases in which the Secretary determines that a petition does present “substantial scientific or commercial information” that indicates that the requested delisting “may be warranted,” the Secretary is then required to “promptly commence a review of the status” of the species at issue. 16 U.S.C. § 1533(b)(3)(A).

Thereafter, the Secretary must, within 12 months of initially receiving the petition, make one of the following findings:

- (i) The petitioned action is not warranted, in which case the Secretary shall promptly publish such finding in the Federal Register.
- (ii) The petitioned action is warranted, in which case the Secretary shall promptly publish in the Federal Register a general notice and the complete text of a proposed regulation to implement such action . . .
- (iii) The petitioned action is warranted, but that –
  - (I) the immediate proposal and timely promulgation of a final regulation implementing the petitioned action . . . is precluded by pending proposals to determine whether any species is an endangered species or a threatened species, and
  - (II) expeditious progress is being made to add qualified species to either of the lists published under subsection (c) of this section and to remove from such lists species for which the protections [under the ESA] are no longer necessary;

in which case the Secretary shall promptly publish such finding in the Federal Register, together with a description and evaluation of the reasons and data on which the finding is based.

16 U.S.C. § 1533(b)(3)(B)(i)-(iii). A finding that the petition is “not warranted” under clause (i), or that the petition is “warranted” but “precluded” under clause (iii), is subject to judicial review. 16 U.S.C. § 1533(b)(3)(C)(ii).

While the Secretary is not required to undertake a status review for every petition it receives, the “standard for evaluating whether substantial information has been presented by an ‘interested person’ is not overly burdensome,” in that “conclusive information” is not required at this stage of the process, and a “reasonable person” standard is used to determine whether “substantial information has been presented to indicate that the action may be warranted.” *Moden v. U.S. Fish and Wildlife Service*, 281 F. Supp. 2d 1193, 1204 (D. Or. 2003).

In assessing whether a petition meets the “may be warranted” threshold, the Secretary is directed to consider whether the petition:

- (i) clearly indicates the administrative measure recommended and gives the scientific and any common name of the species involved;
- (ii) contains detailed narrative justification for the recommended measure, describing, based on available information, past and present numbers and distribution of the species involved and any threats faced by the species;
- (iii) provides information regarding the status of the species over all or a significant portion of its range; and,
- (iv) is accompanied by appropriate supporting documentation in the form of bibliographic references, reprints of pertinent publications, copies of reports or letters from authorities, and maps.

50 C.F.R. § 424.14(b)(2)(i)-(iv).

The regulations indicate that a species may be delisted only if the petition-submitted information “substantiate[s] that [the species] is neither endangered nor threatened for one or more of the following reasons:”

- (1) the species is considered to be extinct;
- (2) the species has recovered to the point that “protection under the Act is no longer required;”  
or
- (3) the initial classification of the species as endangered or threatened was in error.

50 C.F.R. § 424.11(d)(1)-(3). The Secretary must take into account the efforts of states or foreign nations to protect the species. *Id.* § 424.11(f).

The Secretary’s decision to delist a species for these reasons “should be based on the information presented by the petitioner.” U. S. Fish and Wildlife Service and NMFS, *Endangered Species Petition Management Guidance*, Division of Endangered Species, July 1996, at 14. The Secretary “will make a ‘substantial’ 90-day finding if information submitted with and referenced in the petition and unassessed

information added to the Service's files after a species was listed indicates that the species *may* have achieved the recovery objectives for . . . delisting.” *Id.* at 15 (emphasis added).

#### *Recovery Criteria*

A species is considered to have recovered if the best scientific and commercial data available indicate that it is no longer endangered or threatened.<sup>29</sup> “Threatened species” means “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20). “Endangered species” means “any species that is in danger of extinction throughout all or a significant portion of its range . . . .” *Id.* at § 1532(6).

A species reaches “recovery” when there is “improvement in the status of listed species to the point at which listing is no longer appropriate under the criteria set out in [16 U.S.C. § 1533(a)(1)].” 50 C.F.R. § 402.02.<sup>30</sup> Importantly, recovery does not mean that all threats to a species have been eliminated. Rather, recovery means that threats to the species have been “controlled.”<sup>31</sup> Thus, recovery represents the point at which a species is no longer declining and threats to its survival have been controlled or neutralized, but not necessarily eliminated.

This broad policy is reflected in the Recovery Plan, which provides that the intent is to assist humpback whale populations “to grow and reoccupy areas where they were historically found.” Recovery Plan at 1. The Plan notes, however, that a goal for humpback whale populations “to reach the equilibrium carrying capacities that prevailed before commercial hunting” may not be feasible, because of increased use of humpback whale habitat by humans. *Id.*

Although a published recovery plan provides useful guidance in the Service's decision to delist a species, it is not binding and the Service may rely on other factors in determining whether a species has recovered. *Friends of Blackwater v. Salazar*, 691 F.3d 428, 434 (D.C. Cir. 2012) (In holding recovery plan not binding on Service's decision to delist, the court reasoned that “as with a map, it is possible to reach one's destination—recovery of the species—by a pathway neither contemplated by the traveler

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<sup>29</sup> 50 C.F.R. § 424.11(d)(2); *see also* Endangered and Threatened Wildlife and Plants: Notice of Interagency Cooperative Policy on Information Standards Under the Endangered Species Act, 59 Fed. Reg. 34271 (July 1, 1994) (discussing “best scientific and commercial data”).

<sup>30</sup> *See also* NMFS, Interim Endangered and Threatened Species Recovery Planning Guidance Version 1.3, June 2010; 122 pp. at § 1.1 (“Recovery is the process by which listed species and their ecosystems are restored and their future is safeguarded to the point that protections under the ESA are no longer needed.”).

<sup>31</sup> 2008 Recovery Plan for the Steller Sea Lion Eastern and Western Distinct Population Segments (*Eumetopias jubatus*) Revision. National Marine Fisheries Service, National Oceanic and Atmospheric Administration. P. VII-4; *See also* *Center for Biological Diversity v. Kempthorne*, 607 F. Supp. 2d 1078, 1088 (D. Ariz. 2009) (recovery is “the process that stops or reverses the decline of a species and neutralizes threats to its existence”) (quoting *Defenders of Wildlife v. Babbitt*, 130 F. supp. 2d 121, 131 (D.D.C. 2001)).

setting out nor indicated on the map.”). The humpback whale Recovery Plan recognizes the dynamic nature of such a plan, stating that “[r]ecoverly efforts may be modified, reduced or ended at any point during the planning process as new information becomes available or if there is sufficient evidence to indicate that protection under the ESA is no longer necessary.” Recovery Plan at iii.

## V. Analysis of Endangered Species Act Delisting Factors

The five statutory factors the Service must consider in determining whether a listed species should be reclassified or removed from the list of endangered and threatened species are discussed below as applied to the Central North Pacific stock of humpback whales. This analysis indicates that delisting of the Central North Pacific DPS of humpback whale is warranted.

***Factor A: The present or threatened destruction, modification, or curtailment of its habitat or range has been sufficiently controlled or reduced to the point that protections under the ESA are no longer needed.***

The Central North Pacific population of the humpback whale utilizes a variety of habitats in its breeding grounds, feeding areas, and in migration. Areas used during breeding and calving are generally less than 200 m in depth and maintain an average temperature of at least 21.1°C. Johnston et al. 2007.

Productive coastal habitats tend to be used for feeding, but offshore areas are used as well. Straley 2010; Alaska Natural Heritage Program (“ANHP”) 2013. Humpback whales are considered generalists, but may exhibit regional food preferences. The majority of their diet consists of euphasiids and small schooling fish. ANHP 2013. In Alaska, Straley (2010) cited herring (*Clupea* sp.), capelin (*Mallotus villosus*), and sandlance (*Ammodytes* sp.) as common in individual whale diets in offshore areas, whereas zooplankton was more common in inshore diets.

Widespread exploitation from commercial whaling caused the precipitous decline of humpback whale populations, including the Central North Pacific stock. Since this threat was halted, however, the global population has rebounded substantially. Several potential threats to humpback whale habitat persist, however, that if not controlled could theoretically hamper their continued recovery. Recovery Plan at 25. Known and potential threats to habitat range-wide include chemical pollution, coastal development, and competition for resources with humans. *Id.* at 30-32. There is no evidence, however, that any of these threats has prevented the substantial recovery of the Central North Pacific humpback whale population to date, suggesting that these threats are sufficiently controlled or reduced within the range of this stock.

As the Recovery Plan states, “[c]urrent levels of offshore oil and gas development do not appear to prevent the potential for recovery of humpback whale populations.” *Id.* at 30. This assertion is confirmed by the strong population recovery noted in terms of consistent annual rates of increase of approximately 7%, which have led to the growth of the Central North Pacific population from an

estimated 3,000 to 5,000 in 1993, to an estimated 10,103 individuals in 2006, despite increases in the level of offshore oil and gas development since the Recovery Plan was written. Barlow et al. 2011; NMFS 2012. Moreover, Elfes (2010) concluded that concentrations of persistent organic pollutants sampled during the SPLASH study did not represent a significant conservation threat to the Central North Pacific population, since all Alaska feeding areas demonstrated concentrations of less than 1000ng/g of contaminants analyzed.

Additionally, the Alaska Department of Environmental Conservation's ("ADEC") agency mission involves the permitting and authorization of actions relating to oil and gas development, oil spill prevention and response, pollutant discharges and other activities affecting the waters of Alaska. The Industry Preparedness Program ("IPP") requires regulated facilities and vessels to develop state-approved oil spill response and contingency plans, to establish a facility-wide spill prevention program, and to ensure that personnel, equipment and financial resources are available to respond to spills. In the event of a spill, the Prevention and Emergency Response Program ("PERP") serves as the State's emergency responders to oil and hazardous substance spills and ensures that cleanup measures are implemented as soon as possible.

The ADEC Water Division regulates water quality through the water quality and wastewater standards found at 18 AAC 70, 18 AAC 72, and 18 AAC 83. These regulations provide specificity for the State's implementation of the federal Clean Water Act, 33 U.S.C. § 1251 *et seq.* Alaska's water-quality standards apply to both marine and fresh waters and protect water quality for a wide variety of uses, including growth and propagation of aquatic life. The Division's Alaska Pollutant Discharge Elimination System ("APDES") regulates wastewater discharge from municipal systems, cruise ships, engineering and mining operations, industrial operations, seafood processing facilities, and stormwater pollution, through review and approval of construction, operation, and pollution prevention plans.

Despite increased coastal development in its Hawai'i breeding grounds, the Central North Pacific population of humpback whales has been increasing since at least 1979, and has been expanding its distribution within the Hawaiian archipelago. Lammers et al. 2011. Numbers of humpback whales have increased substantially in the waters off the island of Hawai'i, as well as Kauai. In addition, breeding behavior and calving has been documented in the northwest Hawaiian Islands area. Johnston et al. 2007. These areas are protected within the Papahānaumokuākea Marine National Monument, of which 14,700 km<sup>2</sup> consists of suitable breeding and calving habitat for humpback whales. The Monument is protected from coastal development and provides almost double the humpback whale breeding habitat as that within the waters of the main Hawaiian Islands. *Id.*

Currently, both the ESA and MMPA provide protection for humpback whales and their habitat, including prey populations. In addition, the Magnuson-Stevens Fishery Conservation and Management Act ("MSA"), and the Fisheries Act of Canada provide for sustainable state and federal fisheries management, which contributes to humpback whale conservation. Fisheries management by the State of

Alaska is based on careful monitoring and scientific assessments, in accordance with the maximum sustained yield principle as mandated by the constitution of Alaska, and is regarded by many as a model of successful natural resource stewardship. For example, the state's science-based management and regulation of take of herring benefits humpback whales when feeding in Alaska waters.<sup>32</sup> Importantly, following delisting of the Central North Pacific humpback whale DPS, the MMPA and the existing federal and Canadian fishery management regime will continue to provide protections for whales and their habitat, including prey populations.

***Factor B: Overutilization for commercial, recreational, scientific, or educational purposes is no longer a threat.***

The global decline of humpback whale whales is universally attributed to direct mortality from commercial whaling practices, which were banned by the IWC in 1966. *See, e.g.*, IWC 2013; ANHP 2013; Fleming and Jackson 2011 at 15.<sup>33</sup> Neither commercial nor recreational harvest of humpback whales is allowed under the MMPA, and human-caused mortality in the Central North Pacific population from subsistence harvest or take during scientific research is virtually nil. Some humpback whales may still be taken by Japan under their "scientific whaling" program, but the number of whales taken is few and would almost certainly come from the western North Pacific stock, rather than the Central North Pacific population, due to the extremely low level of interchange among breeding areas.

Commercial and educational whale watching is increasing in both Alaska and Hawai'i, raising concerns regarding potential disturbance from vessel noise and potential collisions with ships. NMFS 2012. NMFS promulgated regulations<sup>34</sup> to address these concerns: in Hawai'i, the regulations prohibit approach within 100 yards of humpback whale whales, establish a minimum overflight altitude, and provide a NOAA hotline to report interactions. In Alaska, restrictions are in place that prohibit approaching humpback whales within 100 yards, and vessel operations must take place at a "slow, safe speed." Despite the potential negative effects of the increase in vessel traffic, the Central North Pacific population is still increasing at 7% per year, and NMFS has repeatedly issued negligible impact determinations for this stock. NMFS 2012; NMFS 2010.

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<sup>32</sup> Although conservation groups submitted a petition to list Southeast Alaska herring stocks to NMFS in 2008 and NMFS is currently conducting a status review, the alleged decline runs counter to ADF&G data on herring stocks in Southeast. We are confident that listing will be found not warranted at this time.

<sup>33</sup> "Modern whaling caused substantial declines in all humpback whale populations in the mid-20<sup>th</sup> century, but since the 1966 ban on commercial humpback whaling, whaling is no longer a significant factor impeding recovery."

<sup>34</sup> 50 CFR 224.103 (Special Prohibitions for Endangered Marine Mammals.)

**Factor C: Disease or predation is not a threat**

The Recovery Plan does not list disease or predation as a known or potential impact to humpback whales, but acknowledges that little is known about natural mortality in this species. Recovery Plan at 11. The killer whale (*Orcinus orca*) is thought to be the most common predator of humpback whale whales, but predation by large sharks is also likely, and attacks by false killer whales (*Pseudorca crassidens*) have been reported. COSEWIC 2011. Juveniles appear to be more susceptible to predation events, but the continued positive rate of population increase indicates that predation is not limiting the strong recovery observed over the last 30 years. Mehta et al. 2007.

The only diseases and parasites known to occur within the Central North Pacific population are limited to those endemic to the population. To date there is no indication that disease or parasites have had population level impacts. Recovery Plan at 11.

**Factor D: Existing regulatory mechanisms are adequate to conserve the species**

Virtually all of the scientific literature indicates that the most important protection for the humpback whale has been the 1966 international ban on commercial whaling of this species by the IWC in 1966. In 1982, the IWC implemented a “pause” in commercial whaling on all stocks from the 1985-86 season forward. This “commercial whaling moratorium” remains in effect, although Norway and Iceland take whales under an objection to the moratorium. IWC 2014. More relevant to humpback whales in the North Pacific, the Russian Federation registered but currently does not exercise an objection to the moratorium decision. *Id.*

Currently, both the MMPA and ESA provide protections for humpback whales, and prey species are highly regulated under the MSA. Though delisting the humpback whale will remove ESA protections, commercial and recreational harvest of humpback whales will remain prohibited under the MMPA, with limited exceptions for subsistence harvest. *See* 16 U.S.C. § 1371. Just as the MMPA provides adequate protections for the Central North Pacific population for waters under U.S. jurisdiction, the Marine Mammal Regulations of the Fisheries Act, as well as SARA, afford legal protections to humpback whales in Canada. COSEWIC 2011. Although the species was recently downlisted in Canada to the “Special Concern,” category, under that designation it will still be monitored and protected under SARA.<sup>35</sup>

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<sup>35</sup> SARA (S.C. 2002, c.29) subsection 65 provides that “[i]f a wildlife species is listed as a species of special concern, the competent minister must prepare a management plan for the species and its habitat. The plan must include measures for the conservation of the species that the competent minister considers appropriate and it may apply with respect to more than one wildlife species.”

The MSA provides further protection to humpback whales in part by providing for appropriate fisheries management. Under the MSA, each fishery management plan must include standardized methodologies to minimize bycatch and to maintain healthy and stable fish stocks. *See, e.g.* 16 U.S.C. §1853(a)(1) and (10). This not only protects the humpback whales themselves, but also protects the ecosystem in which they live as a whole. If necessary, further conservation actions can also be pursued by federal, state, and local governments to ensure that the whales are adequately protected.

Additionally, breeding ground habitat is protected by the U.S. Marine Protection, Research, and Sanctuaries Act of 1972, which created the Humpback Whale National Marine Sanctuary. The creation of the Papahānaumokuākea Marine National Monument in 2006 also has contributed substantially to breeding ground habitat protections. In addition, Canada in 2010 established the Gwaii Haanas National Marine Conservation Area Reserve, which protects a marine area of 3400 square kilometers in a primary feeding habitat for humpback whales in British Columbia waters. COSEWIC 2011 at 21.

Protections of humpback whales under existing regulatory mechanisms, including the ESA, have led to the strong recovery of this population, resulting in the achievement of all recovery goals. After delisting, any potential threats from human disturbance can be controlled through continued monitoring and management under the MMPA, the MSA, the Fisheries Act of Canada, and SARA, as well as the IUCN, IWC, and CITES.

Moreover, even after delisting, the ESA will provide additional protections in the form of continued monitoring obligations. Section 4(g) of the ESA requires that NMFS cooperate with states to implement a monitoring system for at least five years to document the status of all species that have recovered and to ensure that species have correctly been removed from the threatened and endangered species lists. In particular, after a final rule to delist a species has become effective, NMFS:

shall implement a system in cooperation with the States to monitor effectively for not less than five years the status of all species which have recovered to the point at which the measures provided pursuant to this Act are no longer necessary [and] which . . . have been removed from either of the lists.

16 U.S.C. § 1533(g)(1). Thus, if the humpback whale is delisted, NMFS is committed to conducting at least 5 years of monitoring of whale populations to ensure that the population remains stable or improving.

The purpose of this post-delisting monitoring is to verify that a species delisted due to recovery remains secure from the risk of extinction after it no longer has the full protections offered by the ESA. If monitoring results indicate that the well-being of a recovered species is at significant risk, then NMFS can use the emergency listing provisions of the ESA to re-list the species. *See* 16 U.S.C. § 1533(g)(2). Thus, the ESA has a built-in regulatory mechanism that requires NMFS to develop and implement a monitoring plan to ensure protection of the humpback whale.

As detailed above, existing non-ESA regulatory mechanisms adequately protect the humpback whale. Protection of the Central North Pacific population of humpback whales will be further secured by the post-delisting monitoring plan. Such a plan can address any potential future threats and provide for research and monitoring of the potential impacts of increased vessel traffic and tourism. Long-term monitoring also will provide insight into migration routes, poorly understood areas of occurrence (e.g., the Aleutian Islands), and behavior of non-migratory individuals.

***Factor E: Other natural or manmade factors affecting its continued existence have been sufficiently reduced or do not pose a threat***

The Recovery Plan identifies entrapment and entanglement in fishing gear (Recovery Plan, pp. 25-6), collisions with ships (Recovery Plan, pp. 26-7), and acoustic disturbance (Recovery Plan, pp. 27-30) as manmade impacts that can potentially affect humpback whale population levels.

#### *Interactions with fisheries*

Both Category I and Category II fisheries occur within the range of the Central North Pacific population of humpback whales. NMFS has documented low levels of non-serious interactions as well as serious injuries and mortalities in the past decade. NMFS 2010. From 2003 to 2007, an average annual non-lethal “take” of 5.4 animals occurred in the Alaska and Hawai’i fisheries. *Id.* The 2010 NID concluded that “the annual mortality and serious injury incidental to commercial fisheries in Hawai’i (0.2) and Alaska (5.2) . . . will have a negligible impact for purposes of issuing a permit under section 101(a)(5)(E) of the MMPA . . . [t]he expected level of mortality and serious injury incidental to commercial fisheries will not cause more than a 10% increase in the time to recovery of [Central North Pacific] whales.” *Id.* at 39. Moreover, despite a trend cited by the 2010 NID of increasing entanglements for this stock, the observed Alaska and Hawai’i commercial-fisheries related mortality and serious injuries decreased from 2006 through 2010, to an average of 2.6 animals per year, as reported in the 2012 Stock Assessment Report. NMFS 2012.

#### *Ship strikes*

Serious injuries and mortalities are also reported in Alaskan and Hawaiian waters from ship strikes, as might be expected given the considerable increase in whale numbers. Neilson et al. 2012. For the period of 2003 to 2007, the average annual mortality and serious injury rate for humpback whales in the Central North Pacific population due to ship strikes was 1.3 animals per year. NMFS 2010. From 2006 through 2010, this figure remained consistent, with an average annual take of 1.4 animals reported in the 2012 Stock Assessment. NMFS 2012.

Documented incidents of ship strikes and entanglement in fishing gear combined for the period from 2003 to 2007 was 7.2, “well below PBR<sup>36</sup> (20.4) of this stock.” NMFS 2010. Including more current data from the SPLASH project, NMFS calculated PBR at 61.2 animals. NMFS 2012. All available data on ship strikes in the North Pacific show that this factor is not affecting the continued recovery of the Central North Pacific population of humpback whales.

#### *Acoustics*

Anthropogenic acoustic disturbances also are considered a possible threat to humpback whales, and as such are included in the assessment for the 2010 NID for the central North Pacific stock. NMFS 2010. Various studies, however, report individual whale reactions ranging from “no effect” to slight changes in distribution following exposure to acoustic disturbances. *Id.* In addition, NMFS has recently proposed new standards for acoustic disturbances that will address this potential threat.<sup>37</sup> Thus, there is no evidence of any population-level impact on this population from acoustic disturbances.

#### *Pollutants*

The SPLASH study included an assessment of effects of pollutants in the North Pacific on humpback whales. This assessment concluded that concentrations of persistent organic pollutants sampled did not represent a significant conservation threat to the central North Pacific whale population: all Alaska feeding areas sampled had concentrations less than 1000ng/g of contaminants analyzed. In addition, several federal agencies and the State have in place programs to minimize the possibility of an oil spill and to respond should an oil spill occur. For example, the IPP requires regulated facilities and vessels to develop state-approved oil spill response and contingency plans, to establish a facility-wide spill prevention program, and to ensure that personnel, equipment, and financial resources are readily available to respond to spills.

#### *Climate change*

As noted in the Hawai’i Fishermen’s delisting petition, “there are no known adverse effects to humpback whales from global climate change, although several possible impacts have been suggested, including impacts to abundance and distribution of prey.”<sup>38</sup> The best available scientific information is insufficient, however, to evaluate any direct and indirect effects of climate change on humpback whales in the Central North Pacific stock. As noted previously, humpback whales are considered generalists and use a variety of habitats within their breeding grounds, feeding areas, and in migration. Generalist

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<sup>36</sup> Potential Biological Removal, or PBR, is defined under the MMPA as “the product of the minimum population estimate, one-half the maximum theoretical net productivity rate, and a recovery factor:  $PBR = N_{MIN} \times 0.5 R_{MAX} \times F_R$ . . . . For the Central North Pacific stock of humpback whale . . . PBR is calculated to be 61.2 animals ( $5,833 \times 0.035 \times 0.3$ ).” NMFS 2012 at 176.

<sup>37</sup> See 78 Fed. Reg. 78822 (December 27, 2013): Draft Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammals—Acoustic Threshold Levels for Onset of Permanent and Temporary Threshold Shifts

<sup>38</sup> Hawai’i Fishermen’s Petition at 23 (citing Fleming and Jackson 2011).

life history strategies provide resilience to short- and long-term habitat changes, provided mortality is kept in check. Thus, humpback whales are likely to be quite resilient in the face of changes in climate within the foreseeable future.

In summary, although the factors described above may cause isolated impacts on individual humpback whales, they are controlled at levels that do not present in any substantial risk to the population's continued recovery or long-term existence.

#### **V. The Central North Pacific Stock Has Recovered to the Point that It No Longer Requires Protection Under the ESA**

If consideration of the delisting factors discussed above indicates that a species is neither endangered nor threatened, the ESA provides that it may be delisted on the basis that it has recovered. 50 C.F.R. § 424.1 l(c)-(d). Recovery, as the principal goal of the Services under the ESA, is reached when a species no longer requires protection under the Act. The Central North Pacific population of the humpback whale clearly meets the identified recovery goals, is no longer endangered or threatened, and no longer requires protection under the Act.

Population and distribution data on the Central North Pacific population indicate that it has met both the interim and long-term goals delineated in the recovery plan. “Biological success” under the plan would be reached when Humpback whales occupy all of their former range in sufficient abundance to buffer their populations against normal environmental fluctuations or anthropogenic environmental catastrophes” such as a large oil spill. Recovery Plan at 33. The interim goal set in the Recovery Plan was to double population sizes within 20 years. The Plan specified that achievement of that goal would be measured by (1) statistically significant trends of population increase and (2) statistically significant trends of population increase in portions of the range known to have been historically occupied. *Id.* In addition, the long-term goal established in the Plan was to increase humpback whale populations to at least 60% of the numbers existing before commercial exploitation or of current environmental carrying capacity. *Id.* at 3. The Plan also refers to a “political goal” of “being able to change the classification of particular stocks . . . from ‘endangered’ to ‘threatened’ . . . or of removing them from the list of protected species.” *Id.* at 33.

These goals have been met for the central North Pacific population, which is now present throughout its historic range, contains approximately half the individuals present in the North Pacific basin, and has been increasing at documented rates from 4.9 to 10% per year since 1980 (depending on the years and data analyzed). NMFS 2012. For perspective, the 2010 NID for this population references a maximum net productivity rate of 7% to calculate a conservative estimate for PBR, which calculates total allowable human-caused mortality; the 7% growth rate figure is also used in NMFS stock assessment reports. NMFS 2010; NMFS 2012. Population estimates for the Hawai’i breeding grounds have reported substantial and consistent increases in population, from a low of 550 to 790, as reported in the

Recovery Plan for 1979, to 3,000 to 5,000 for the early 1990s, to 10,103 as of 2006. The Hawai'i breeding population is also estimated to constitute approximately half the current population of the North Pacific basin. Recovery Plan at 22; Barlow et al. 2011; Calambokidis et al. 2008.

Calving rates are generally high as well, as evidenced by winter aerial surveys in Hawai'i in the 1970s and 1980s, in which 6-11% of all animals observed were calves. Recovery Plan at 20. Moreover, Herman et al. (2011) analyzed re-sighting data of humpback whales and calves in Hawai'i over spans of 10-32 years. The calving rate (average number of calves per female per year) was 0.48, with calving reported over a 20-year span for some females, and individual female calf production as high as 8 calves in a 9-year period. These positive population parameters demonstrate a continuous, steady rate of recovery in this population.

The current population estimate is more than 15 times the post-commercial whaling population size estimated in the Recovery Plan, thus far exceeding the interim recovery goal. The Recovery Plan's long-term goal of attaining at least 60% of historical or current carrying capacity was not accompanied by numerical goals because of the uncertainty involved in population estimates. Thus, although the Recovery Plan did not determine a specific numerical target, the best available scientific information demonstrates that the Central North Pacific population currently occupies the majority of its historical range and habitat, and its numbers are meeting or exceeding estimated historical levels. Strong, positive population trends such as these argue for delisting this population, an action that would achieve the Plan's "political goal" of downlisting or delisting humpback whale stocks.

From an international standpoint, the IUCN Red List status for humpback whale whales globally is currently "Least Concern," downgraded from "Vulnerable" in 2008. The IUCN cites as support for the downgrade current estimates of approximately 41,800 whales worldwide as well as an estimated global rate of increase of 4.9 %. Within the range of the Central North Pacific population, Canada in 2011 down-listed its Pacific humpback whale population to "Special Concern" from "Threatened," stating that the population is recovering. COSEWIC 2011. These findings support delisting of the Central North Pacific population segment and document that, with a few possible exceptions, global humpback whale populations are well on their way to recovery.

## **VI. Conclusion: NMFS Should Delist the Central North Pacific DPS**

After consideration of the five delisting criteria discussed above, and based on substantial scientific and commercial information, it is clear that the classification as a DPS of the Central North Pacific stock of the humpback whale and subsequent delisting of that DPS are now warranted. The threats leading to the population's endangered status have been either completely eliminated or sufficiently reduced or controlled so that the long-term survival of the species is ensured and the protections provided by the ESA are no longer necessary. Likewise, the salient recovery criteria outlined in the Recovery Plan itself have all been satisfied. As such, the Central North Pacific population of the humpback whale is no

longer a species which “is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(19) (definition of “threatened”). Therefore, delisting of this DPS is appropriate.

The Central North Pacific population of humpback whale is clearly not in danger of extinction now, nor is it likely to be in danger of extinction in the foreseeable future. It has shown consistent increases in distribution as well as abundance, and sufficient regulatory protections are in place to ensure that these trends continue. Consequently, the State of Alaska respectfully requests that NMFS take immediate action to classify the Central North Pacific stock of the humpback whale as a DPS and to remove this DPS from the endangered list under the ESA, pursuant to 16 U.S.C. § 1533(b) and 50 C.F.R. § 424.14.

The recovery of the humpback whale is an ESA success story and a good example of government and non-governmental agencies and other stakeholders working together to develop and implement conservation actions to recover a species from significant declines. We offer our assistance in the delisting process. It is important to prioritize this delisting, both to document this ESA success story and to accurately reflect the healthy status of the Central North Pacific population of humpback whale.

Thank you for the opportunity to provide you with this petition and information. Copies of all references cited in this petition are available upon request. I can be contacted to discuss this petition and the next step in the delisting process at [douglas.vincent-lang@alaska.gov](mailto:douglas.vincent-lang@alaska.gov) or (907) 267-2339.

Respectfully,



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cc:

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