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11 *Advocates, Earth Island Institute, Ralph Munro,*  
*and Karen Munro*  
12

13 UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WASHINGTON

14 CENTER FOR BIOLOGICAL DIVERSITY, ) Civ. No.  
15 FRIENDS OF THE SAN JUANS, PEOPLE )  
FOR PUGET SOUND, ORCA )  
16 CONSERVANCY, OCEAN ADVOCATES, ) COMPLAINT FOR DECLARATORY AND  
EARTH ISLAND INSTITUTE, RALPH ) INJUNCTIVE RELIEF  
17 MUNRO, and KAREN MUNRO, )  
)

18 Plaintiffs, )  
)

19 v. )  
)

20 ROBERT D. LOHN, Northwest Regional )  
Administrator of National Marine Fisheries )  
21 Service, and DONALD L. EVANS, Secretary )  
of Commerce, U.S. Department of Commerce, )  
22 )  
)

23 Defendants. )  
)

24  
25 COMPLAINT FOR DECLARATORY AND  
26 INJUNCTIVE RELIEF - 1 -

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1 INTRODUCTION

2 1. This action challenges the National Marine Fisheries Service’s (“NMFS”)  
3 determination that Southern Resident killer whales (also known as orcas) do not warrant listing  
4 under the Endangered Species Act (“ESA”). NMFS made this determination even though it  
5 found the Southern Residents to be a discrete population of orca whales and to be in danger of  
6 extinction. In light of these findings, NMFS acted in violation of the ESA, contrary to the best  
7 available scientific information, and arbitrarily and capriciously in denying Southern Resident  
8 orca whales ESA listing status.

9 PARTIES

10 2. Plaintiff Center for Biological Diversity (the “Center”) is a non-profit corporation  
11 with over 7,000 members and offices in San Diego, Idyllwild, and Berkeley, California; Sitka,  
12 Alaska; Tucson and Phoenix, Arizona; and Silver City, New Mexico. The Center is dedicated to  
13 the preservation, protection, and restoration of biodiversity, native species, and ecosystems. The  
14 Center has members that reside in and around Puget Sound and use the areas that serve as habitat  
15 for the Southern Resident orca whales. Center members and staff include local residents with  
16 educational, scientific research, moral, spiritual, and recreational interests in the Southern  
17 Resident orca whale. The Center, its members, and staff have participated in efforts to protect  
18 and preserve the Southern Resident orca whale and use many of the specific areas where the  
19 Southern Residents survive today. The Center, along with other environmental organizations,  
20 petitioned for the listing of Southern Resident orca whale under the Endangered Species Act.

21 3. Friends of the San Juans is a non-profit membership organization founded in 1978  
22 to protect the San Juan Islands from sprawl and other threats to the islands’ beauty. Using  
23 science, policy, law, education, and citizen activism, Friends of the San Juans works to protect,  
24 preserve, and restore the land, water, and sea of the San Juan archipelago. Friends of the San

1 Juans' activities include orca whale protection; working to obtain an "Orca Pass International  
2 Stewardship Area," beach and marine clean-up; marine research and assessment on forage fish  
3 (surfsmelt, sandlance, herring); eelgrass assessment and protection; shoreline stewardship; and  
4 land use and environmental regulation compliance. Friends of the San Juans' efforts have  
5 produced cleaner beaches, parks, and waters; created inventories of marine and nearshore habitat  
6 to help rebuild depleted salmon stocks; and assisted in protecting our magnificent orca whales.  
7 Members of Friends of the San Juans live, work, and recreate in the San Juan Islands and enjoy  
8 observing orca whales that reside in the surrounding waters.

9 4. People for Puget Sound is a non-profit membership organization working to  
10 protect and restore the health of the Puget Sound ecosystem. People for Puget Sound conducts  
11 educational, advocacy, and hands-on restoration projects aimed at appreciation, protection, and  
12 restoration of the Southern Resident community of orca whales. Because these resident orcas are  
13 the top predators of the Puget Sound food web, they serve as an indicator species for the health  
14 of the ecosystem. People for Puget Sound's programs include whale-watching excursions and  
15 events, documentary films about the Southern Resident orca whales, a proposed "Orca Pass  
16 International Stewardship Area" in the heart of the Southern Resident orca range, and numerous  
17 pollution prevention, oil spill prevention, and habitat protection and restoration projects to ensure  
18 clean water and healthy prey populations for these orcas. People for Puget Sound currently has  
19 approximately 10,000 individual members and offices in Mount Vernon, Seattle, and Olympia,  
20 Washington. The vast majority of People for Puget Sound's members, board, and staff live  
21 around Puget Sound and the Northwest Straits.

22 5. Orca Conservancy is non-profit organization that works to advance the welfare of  
23 orca whales and to protect the wild places on which they depend. Orca Conservancy has teamed  
24

1 up with some of the world's top whale research institutions and other non-governmental  
2 organizations to address the decline of Southern Resident Community and the causes of that  
3 decline, as well as identifying and mitigating the impacts to orca populations caused by ships,  
4 tankers, freighters, commercial and recreational whalewatch boats and other vessels. Orca  
5 Conservancy also was integral this summer in the successful rescue, translocation and  
6 repatriation of the orphaned orca A73, or "Springer," from Puget Sound back to its natal pod in  
7 British Columbia, an unprecedented event that captured the imagination of the world. Orca  
8 Conservancy members derive enjoyment from observing orca whales in the wild and would  
9 suffer great loss if the Southern Residents became extinct.

10         6.         Ocean Advocates is a national organization dedicated to the protection of marine  
11 and coastal environments. Ocean Advocates works to protect wildlife and communities that  
12 depend on marine resources for their life and livelihood. It engages in public education and  
13 advocacy before international and domestic decision-making bodies to further the protection and  
14 sustainability of marine and coastal environments, including Southern Resident orca whales and  
15 their habitat. In the Pacific Northwest, Ocean Advocates has worked to improve vessel  
16 navigation and operating procedures to minimize the risk of oil spills, to obtain a speedy and  
17 efficient oil spill response system, to establish protected areas, and to eliminate the release of  
18 pollutants into the marine environment. Ocean Advocates' Board members engage in  
19 professional photography of Southern Resident orca whales and in research on resident orca  
20 whales.

21         7.         Earth Island Institute is an international non-profit environmental organization  
22 that promotes conservation, preservation, and restoration of the Earth. The organization  
23 established the Orca Recovery Campaign, based in Seattle, Washington, to stop the decline of  
24

1 the Southern Resident orca whales and prevent their extinction. The Earth Island Institute Orca  
2 Recovery Campaign provides motivational education to the public using billboards, a website  
3 and printed materials specific to the protection of the Southern Resident orcas and their  
4 environment. Earth Island Institute led the campaign to Free Willy (Keiko), an orca whale held  
5 in captivity and featured in the movie by the same name. It has advocated for listing of Southern  
6 Resident orca whales under the Washington State endangered species act, for a reduction in the  
7 use of toxic substances that affect the orcas' environment and for effective oil spill prevention.  
8 Earth Island Institute co-sponsored a three-day scientific conference (May 2002) in Seattle on the  
9 recovery of Southern Resident orca whales. Earth Island Institute has over 9,000 members,  
10 including over 600 members in Washington State.

11 8. Ralph and Karen Munro are individuals who have long advocated for protection  
12 for Southern Resident orca whales. Both currently serve on the Board of Directors of the Orca  
13 Conservancy. For more than 25 years, Ralph and Karen Munro have been involved in working  
14 to protect the Southern Resident orca whales. In the 1970s, they became leading activists to stop  
15 the live capture of Southern Resident orca whales. They have been active promoters of and  
16 spokespeople for legislation to protect the orcas, scientific orca research, and programs to view  
17 and appreciate orcas in the wild. Observing the Southern Residents has been a significant past-  
18 time for both Ralph and Karen Munro for many decades. They both admire and respect the  
19 charismatic beauty of orca whales and would experience an extreme loss if the Southern  
20 Residents became extinct.

21 9. Members of the plaintiff organizations live and recreate throughout the Southern  
22 Resident orca's range. They derive aesthetic, recreational, scientific, inspirational, and  
23 educational benefits from the Southern Residents' existence in the wild. Plaintiffs and their  
24

1 members observe and study the orcas, make guided and unguided whale watching trips to view  
2 orcas, and photograph and paint orcas in their native habitat. The individual plaintiffs and many  
3 members of the plaintiff organizations own property near marine habitat used by the Southern  
4 Resident orca whales. They derive aesthetic, recreational, scientific, inspirational, and  
5 educational benefits from these activities and have an interest in preserving the opportunity to  
6 engage in them in the future. The expectation and understanding that Southern Resident orcas  
7 are present and healthy in their native waters is integral to plaintiffs' and their members' use and  
8 enjoyment of these waters.

9 10. Plaintiffs and their members will suffer irreparable injury to their aesthetic,  
10 recreational, scientific, educational, and conservation interests unless NMFS revisits its decision  
11 not to list Southern Residents and affords the Southern Residents critically needed ESA  
12 protections.

13 11. Robert D. Lohn is the Northwest Regional Administrator of NMFS. NMFS is the  
14 federal agency to which the Secretary of Commerce has delegated responsibility for listing  
15 marine species, such as orca whales. 16 U.S.C. § 1532(15); 50 C.F.R. § 17.2(b). Defendant  
16 Lohn is sued in his official capacity.

17 12. Donald L. Evans is the Secretary of Commerce, the federal official vested with  
18 responsibility for listing marine species, such as orca whales, under the ESA. 16 U.S.C. §  
19 1532(15); 50 C.F.R. § 17.2(b). Defendant Evans is sued in his official capacity.

#### 20 JURISDICTION

21 13. This Court has jurisdiction pursuant to 16 U.S.C. § 1540(g)(1). As required by 16  
22 U.S.C. § 1540(g)(2), on August 6, 2002 and September 26, 2002, plaintiffs sent 60-day notices to  
23 defendants Lohn and Evans of their intent to seek judicial review if the legal violations are not  
24 corrected. More than 60 days have passed since defendants Lohn and Evans received these

1 notices. Alternatively, this Court has jurisdiction pursuant to 28 U.S.C. § 1331 to determine  
2 under the Administrative Procedure Act, 5 U.S.C. § 706, whether the Secretary acted arbitrarily,  
3 capriciously, and contrary to the ESA in failing to list Southern Resident orca whales under the  
4 ESA. Venue lies in this judicial district by virtue of 16 U.S.C. § 1540(g)(3)(A) and 28 U.S.C. §  
5 1391(e) because the violations occurred in this district, defendant Lohn resides in this district,  
6 and several of the plaintiffs have their principal offices in this district.

#### 7 THE ESA STATUTORY FRAMEWORK

8 14. Congress enacted the ESA “to provide a program for the conservation of ...  
9 endangered species and threatened species” and “to provide a means whereby the ecosystems  
10 upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. §  
11 1531(b). As the first step in the protection of these species, Section 4 of the ESA, 16 U.S.C. §  
12 1533, requires the Secretary to list species as endangered or threatened when they meet the  
13 statutory listing criteria.

14 15. The Act defines species to include “any subspecies of fish or wildlife or plants,  
15 and any distinct population segment of any species of vertebrate fish or wildlife which  
16 interbreeds when mature.” *Id.* § 1532(16). A species is “endangered” when it “is in danger of  
17 extinction throughout all or a significant portion of its range,” *id.* § 1532(6), and it is  
18 “threatened” when it is likely to become endangered within the foreseeable future. *Id.* §  
19 1532(20).

20 16. The Secretaries of Commerce (for most marine species) and Interior (for other  
21 species) are charged with listing species as threatened or endangered based “solely on the basis  
22 of the best scientific and commercial data available . . .,” *id.* § 1533(b)(1)(A), and whenever  
23 listing is warranted based on any one of the following five listing factors:

24 (A) the present or threatened destruction, modification, curtailment of its

- 1 habitat or range;
- 2 (B) overutilization for commercial, recreational, scientific, or educational
- 3 purposes;
- 4 (C) disease or predation;
- 5 (D) the inadequacy of existing regulatory mechanisms; or
- 6 (E) other natural or manmade factors affecting its continued existence.

7 Id. § 1533(a)(1). The Secretary of Commerce has delegated his responsibilities under the ESA to

8 NMFS. 50 C.F.R. § 17.2(b).

9 17. The ESA establishes a process for citizens to petition for the listing of species.

10 Within 90 days after receiving a petition, NMFS is required to make a finding as to whether the

11 petition presents substantial scientific or commercial information indicating that the listing may

12 be warranted. 16 U.S.C. § 1533(b)(3)(A). If NMFS finds that the petition presents such

13 information, it must commence a review of the status of the species, which it typically does by

14 convening a biological review team comprised of scientific experts in pertinent disciplines. Id.

15 Within 12 months after receiving the petition, NMFS must make a finding that the listing: (i) is

16 warranted; (ii) is not warranted; or (iii) is warranted but precluded at that time. 16 U.S.C. §

17 1533(b)(3)(B). A finding that a listing is not warranted is subject to judicial review. Id. §

18 1533(b)(3)(C)(ii). If NMFS finds that listing is warranted, it must publish a proposed listing

19 regulation in the Federal Register. Id. § 1533(b)(3)(B)(ii). Within one year of a warranted

20 finding (or after a six-month extension), the Secretary must either publish in the Federal Register

21 a final regulation listing the species or withdraw the proposed listing. Id. § 1533(b)(6)(A).

22 Designation of critical habitat for the species must accompany or soon follow a final listing

23 regulation. Id. § 1533(b)(6)(C).

24 18. Once a species is listed, various safeguards apply to prevent activities that will

25 cause harm to members of the species or that will jeopardize the survival and recovery of the

26 species in its native ecosystem. See id. §§ 1536, 1538. The ESA's ultimate goal is recovery of

1 listed species to the point where they no longer need ESA protection, *id.* §§ 1531(b)-(c); 1532(3).

2 STATEMENT OF FACTS

3 I. THE KILLER WHALE (*ORCINUS ORCA*)

4 19. Orcas or killer whales are one of the most recognized and treasured marine  
5 mammals. They are an integral part of the natural and cultural heritage of both indigenous and  
6 western cultures and have been intertwined with human societies for thousands of years. As an  
7 alluring and charismatic marine animal, orca whales are now a mainstay of tourist economies.

8 20. Orca whales have striking pigmentation. They have black bodies with white  
9 underbellies, a conspicuous white oval patch located slightly above and behind the eye, and a  
10 white or gray saddle patch behind the dorsal fin. In adult males, the dorsal fin is tall and straight,  
11 while in females it is short and curved. Because each orca's saddle patch patterns, dorsal fin size  
12 and shape, and other markings are unique, practiced observers can identify and track individual  
13 whales.

14 21. Orcas are long-lived with average life expectancies of 29 years for males and 50  
15 years for females. Orcas are top predators in the food chain and are most abundant in coastal  
16 habitats and high latitudes. They are social predators, working cooperatively to feed upon a  
17 variety of marine organisms.

18 22. Orcas live in matriarchal units comprised of a mother and one or more of her  
19 offspring. These matriarchal units congregate into larger social groups known as pods. Breeding  
20 does not occur with members of the same pod. Gestation spans approximately 17 months,  
21 followed by nursing throughout the first and second year of rearing. A juvenile period extends  
22 up to 10 years followed by a 3-5 year adolescence. Non-reproductive females are commonly  
23 found, a pattern shared with humans and elephants but few other species.

24 23. Orca whales are highly intelligent. They develop an acoustic repertoire or

1 language that is unique to one or more pods.

2 II. CLASSIFICATION OF ORCA WHALES IN THE EASTERN NORTH PACIFIC  
3 OCEAN

4 24. Currently orca whales are classified as a single, globally distributed species  
5 known as *Orcinus orca*. Scientific evidence indicates that the current orca whale taxonomic  
6 classification is inaccurate and outdated. Some scientists have proposed new taxonomic  
7 classifications for orcas, but no formal taxonomic changes have been made.

8 25. In the Eastern North Pacific ocean, biologists classify orca whales into three  
9 reproductively isolated forms: resident, transient, and offshore orca whales. The three forms  
10 have marked differences in morphology, ecology, behavior, and genetic composition. Although  
11 some of these different population types may utilize overlapping habitats, they do not interbreed.  
12 Interactions between different forms have been reported only on a small number of occasions.

13 A. Resident Orca Whales

14 26. Resident orca whales live in large, stable pods with membership ranging from 10  
15 to 60 whales. Their presence has been noted from California to Alaska. They prey solely on  
16 fish, particularly on salmon. Offspring of both genders live in their matriarchal units throughout  
17 their lives. The dorsal fin of resident orca whales is rounded at the tip, curved, and tapering.

18 27. Several resident orca whale populations live in the North Pacific, including the  
19 Southern Residents at issue, Northern Residents, and two groups of Alaska Residents. Genetic  
20 data show that the various resident orca whale populations are reproductively isolated from one  
21 another, and that the Southern Resident population is the most isolated population. Although the  
22 Southern and Northern Residents have partially overlapping ranges, reproduction, and behavioral  
23 interactions have not been observed. In addition, each has distinct pigmentation, genetic  
24 composition, and acoustic repertoire.

1           B.       Transient Orca Whales

2           28.     Transient orca whales prey almost exclusively on other marine mammals,  
3 including large whales, pinnipeds, and porpoises. Due to their feeding patterns, their home  
4 ranges are larger than those of resident orcas.

5           29.     Their genetic composition is significantly different from both resident and  
6 offshore orca whales, and they do not intermingle with either resident or offshore orca whales.

7           30.     Transient orcas exhibit offspring dispersal in both sexes, with females dispersing  
8 from their pod with their first offspring, and males dispersing at the onset of adulthood. Only the  
9 first-born transient male stays with its pod for life. This structure leads to a relatively small pod  
10 size typically of 1 to 4 individuals.

11          31.     Transient orcas have more erect and pointed dorsal fins and significantly fewer  
12 saddle patch patterns than resident orcas. They exhibit different acoustic patterns, being less  
13 vocal than resident orcas.

14           C.       Offshore Orca Whales

15          32.     Less is known about offshore orca whales. They apparently live in the coastal  
16 and open ocean areas of the Eastern North Pacific. Their dorsal fins and pod sizes resemble  
17 those of resident orca whales. They are reproductively isolated and are not known to mingle  
18 with resident or transient orca whales.

19       III.     THE DECLINE OF SOUTHERN RESIDENT ORCA WHALES

20          33.     The Southern Resident orca whale population consists of three pods known as J-,  
21 K-, and L-pods. The year-round range of J-pod includes the inland waterways of Puget Sound,  
22 the Strait of Juan de Fuca, and Georgia Strait, while the other pods frequent these areas during  
23 the spring and summer salmon feeding seasons. Southern Residents are reproductively isolated  
24 from and have never been observed associating with other resident orca whales in the wild.

1 Recent genetic data indicate a lack of migration between Southern and Northern Resident  
2 populations within recent evolutionary history. Southern Residents have been classified as a  
3 separate stock under the Marine Mammal Protection Act (“MMPA”).

4 34. The Southern Residents are believed to have numbered over 100 individuals in  
5 the mid-1960s. Since that time, three major declines have occurred in the population. The live  
6 capture of orcas for public display precipitated the first decline between 1967 and 1973. The live  
7 captures reduced the Southern Resident population by approximately 30%.

8 35. An annual census of the Southern Resident orca whales, which began in 1974, has  
9 documented subsequent population trends. The second decline occurred between 1980 and  
10 1984, when the population declined by approximately 12%. This decline has been attributed to a  
11 shortage of reproductive females stemming from the live capture period. As orca calves entered  
12 reproductive maturity, the population grew and stabilized.

13 36. The third recorded decline began in 1996 and continues. Since 1996, the  
14 Southern Resident orcas have declined by nearly 20% down to 78 whales in July of 2001. The  
15 latest population decline is not due to lower reproduction rates. Instead, it has been linked to the  
16 mortality of juveniles and young adults.

17 37. Several factors have been identified as potential causes of the recent decline.  
18 First, scientists have found higher concentrations of organochlorine pollutants in Southern  
19 Resident orcas than found in other marine mammals. Second, chinook salmon, the Southern  
20 Residents’ main food source, is declining. Third, disturbances caused by vessel traffic and whale  
21 watching have increased dramatically in recent years, potentially disrupting orca behavior.

#### 22 IV. THE PETITION TO LIST SOUTHERN RESIDENT ORCA WHALES

23 38. On May 2, 2001, the Center for Biological Diversity, Ocean Advocates, Orca  
24 Conservancy, Friends of the San Juans, People for Puget Sound, Ralph Munro, and others

1 submitted a petition to NMFS to list the Southern Resident orca whales as endangered under the  
2 ESA. The petition presented the best available science indicating that the Southern Residents are  
3 endangered, detailed the ESA factors warranting listing, provided information on the  
4 population's recent decline, reviewed the threats to the Southern Resident's survival and  
5 recovery, and submitted a population viability analysis showing that Southern Residents are in  
6 danger of becoming extinct. On July 26, 2001, petitioner Center for Biological Diversity  
7 submitted an updated population viability analysis including information gathered in the July  
8 2001 census of Southern Residents entering inland waters.

9 39. On August 13, 2001, NMFS made a 90-day finding that the petition presents  
10 substantial scientific or commercial information indicating that listing Southern Residents may  
11 be warranted. 66 Fed. Reg. 42,499 (Aug. 13, 2001). Accordingly, NMFS convened a biological  
12 review team and initiated a status review of the Southern Residents.

13 40. The biological review team concluded that Southern Residents are a discrete  
14 population based on genetic data and the Southern Residents' distinct summer range. The  
15 biological review team conducted a population viability analysis using: (1) the most recent 8-  
16 year population patterns (in contrast to the 1996-2001 period associated with the recent decline);  
17 and (2) the overall 27-year patterns. Even with the longer period of recent population decline,  
18 which lessens the annual rate of the decline, the population viability analysis found a sufficient  
19 probability that the Southern Residents would become extinct in the foreseeable future to warrant  
20 an endangered listing, although it found an insignificant extinction probability if the long-term  
21 trends prevail.

## 22 V. NMFS' DECISION NOT TO LIST SOUTHERN RESIDENT ORCA WHALES

23 41. On June 25, 2002, NMFS publicly announced that it had determined that listing of  
24 Southern Residents was "not warranted." The 'not warranted' determination was made available

1 to the public when it was published in the Federal Register on July 1, 2002. 67 Fed. Reg. 44,133  
2 (July 1, 2002).

3 42. In its ‘not warranted’ determination, NMFS found that the Southern Residents are  
4 at risk of extinction in light of their recent and precipitous decline. It decided not to list the  
5 Southern Residents, however, because it concluded that they are not a distinct population  
6 segment eligible for listing under the ESA. Id. at 44,136.

7 43. NMFS based this determination on its application of a distinct population segment  
8 policy adopted jointly by NMFS and the Fish and Wildlife Service in 1996. 61 Fed. Reg. 4,722  
9 (Feb. 7, 1996). That policy sets forth two requirements for a population to be considered eligible  
10 for ESA listing.

11 44. First, the population must be “discrete” from other populations of the species. Id.  
12 at 4,725. Under the policy, a population segment is discrete if “[i]t is markedly separated from  
13 other populations of the same taxon as a consequence of physical, physiological, ecological, or  
14 behavioral factors. Quantitative measures of genetic or morphological discontinuity may also  
15 provide evidence of this separation.” Id. at 4,725.

16 45. In its “not warranted” finding, NMFS concluded that the Southern Residents are  
17 reproductively isolated from other orca populations based on genetic data. 67 Fed. Reg. at  
18 44,136. Because NMFS concluded that the Southern Residents are a discrete population based  
19 on their marked separation from other orca populations, it did not address the policy’s alternative  
20 basis for discreteness, which assesses whether differences in management of habitat or  
21 regulatory mechanisms across an international border affect the population’s status. 61 Fed.  
22 Reg. at 4,725.

23 46. The joint distinct population segment policy adds a “significance” requirement to  
24

1 the concept of a “distinct population segment.” Even though the word “significant” does not  
2 appear in the statutory definition of species or its legislative history, the policy gives the Services  
3 the power to deny a listing when they believe that loss of the population segment would not be  
4 significant to the species to which it belongs.

5 47. NMFS assessed three criteria spelled out in the policy. First, it asked whether loss  
6 of the Southern Residents would affect the species’ “persistence in an ecological setting that is  
7 unusual or unique for the taxon.” 67 Fed. Reg. at 44,136. Because it found that Northern  
8 Residents inhabit similar coastal fjord habitat with freshwater input and seasonal availability of  
9 salmon, NMFS concluded that the extinction of Southern Residents would not diminish resident  
10 orca whales’ persistence in such habitat.

11 48. Second, NMFS addressed whether loss of the Southern Residents would  
12 “represent a significant gap in the range of the taxon.” 67 Fed. Reg. at 44,137. NMFS admitted  
13 that the loss of Southern Residents orcas “could result in few, if any, killer whales in parts of  
14 Puget Sound for an extended period . . . .” *Id.* However, it held out the hope that offshore orca  
15 whales or other residents might recolonize Puget Sound, even though the biological review team  
16 found no data to suggest that this recolonization would occur or a timeline in which it might  
17 prove successful. NMFS also relied on the possible presence of some transient orca whales in  
18 portions of the Southern Residents’ range and the continued presence of orcas in other parts of  
19 the Pacific Ocean to question whether the extirpation of Southern Residents would leave a  
20 significant gap in the species’ range.

21 49. Third, NMFS assessed whether Southern Residents differ markedly from other  
22 orca whale populations in their genetic characteristics. In determining that Southern Resident  
23 orcas are a discrete population, NMFS relied almost exclusively on genetic data. Relying on  
24

1 genetic differences, NMFS concluded that Southern Residents are “markedly separated from  
2 other populations” of whales. 67 Fed. Reg. at 44,136, quoting 61 Fed. Reg. 4,722, 4,725. In  
3 addressing the significance of extirpation of Southern Residents, NMFS looked at the same  
4 genetic data and concluded that “the Southern Resident killer whale stock does not have  
5 markedly different genetic characteristics.” Id. at 44,137.

6 50. Acknowledging that the “precise circumstances are likely to vary considerably  
7 from case to case,” the distinct population segment policy authorizes the Services to consider  
8 other information “that might bear on the biological and ecological importance of a discrete  
9 population segment.” 61 Fed. Reg. at 4,725. In addressing the significance of losing Southern  
10 Residents, however, NMFS refused to consider the Southern Resident orcas’ importance to the  
11 ecosystem it occupies or to the human populations and cultures that developed based on their  
12 presence in that ecosystem. 67 Fed. Reg. at 44,138.

13 51. The petition also presented evidence that Southern Resident orcas have their own  
14 acoustic repertoire, as well as pod and family histories. NMFS ignored these aspects of whale  
15 communication and internal whale culture. The biological review team dismissed the Southern  
16 Residents’ unique acoustic repertoire because it could not determine whether the language was  
17 learned or inherited. The biological review team also failed to consider the fact that the  
18 extinction of the Southern Residents would lead to the extirpation of resident orca whales in the  
19 contiguous United States.

20 52. In its listing determination, NMFS recognized that the global orca whale taxon is  
21 outdated and needs to be replaced with multiple taxa covering smaller units of orcas. The  
22 biological review team unanimously concluded that the global orca taxon no longer reflects  
23 current knowledge and should be subdivided into two or more taxa. The biological review team  
24

1 could not reach a consensus as to what new species classifications will replace the single *Orcinus*  
2 *orca* delineation. The biological review team concluded that extinction of the Southern Resident  
3 orca whales could be “significant” numerically in relation to the smallest species delineation that  
4 might emerge as the new taxonomy, Northern Pacific Resident orca whales.

5 53. Nonetheless, NMFS “considers the published standard of a single, global species  
6 as the best available scientific information.” 67 Fed. Reg. at 44,138. Because it concluded that  
7 loss of Southern Residents would not be significant to that global orca species, it found listing  
8 unwarranted at this time. NMFS indicated that it would reconsider its determination if the global  
9 orca taxon is subdivided in a manner that allows Southern Residents to be identified as a distinct  
10 population segment of a newly delineated smaller orca species.

11 54. On the same day that it announced its “not warranted” finding, NMFS sought  
12 information to be used to propose designation of Southern Resident orca whales as a depleted  
13 stock under the MMPA. 67 Fed. Reg. 44,132 (July 1, 2002).

#### 14 CAUSES OF ACTION

##### 15 COUNT I:

16 ONCE NMFS DETERMINED THE SOUTHERN RESIDENT ORCA  
17 WHALES ARE A DISCRETE POPULATION WITH A HIGH  
18 PROBABILITY OF BECOMING EXTINCT IN THE FORESEEABLE  
19 FUTURE, IT HAD A NONDISCRETIONARY DUTY TO LIST  
20 SOUTHERN RESIDENT ORCA WHALES AS ENDANGERED

21 55. In its “not warranted” finding, NMFS concluded that Southern Resident orca  
22 whales are a discrete population of orca whales based on their genetic characteristics and their  
23 reproductive isolation, as shown by genetic data. The biological review team unanimously  
24 concluded that Southern Residents are a discrete population.

25 56. In its “not warranted” finding, NMFS found that Southern Residents have a high  
26 probability of extinction in the foreseeable future if the population trends from 1992-2001

1 continue. The biological review team concluded that the probability of extinction of Southern  
2 Residents over the next 100 years exceeds the threshold used by NMFS for endangered species  
3 listings. If the population decline evident from 1996-2001 continues, Southern Resident orca  
4 whales have an even higher probability of extinction over the next 100 years.

5 57. Under the ESA, NMFS must list distinct population segments as endangered  
6 when they are in danger of extinction throughout all or a significant portion of their range and  
7 must list them as threatened when they are likely to become endangered in the foreseeable future.  
8 NMFS must base its listing determinations on the best available scientific data and on the five  
9 factors enumerated in 16 U.S.C. § 1533(a)(1).

10 58. Once NMFS determined that Southern Resident orca whales are a discrete  
11 population that faces a high probability of becoming extinct in the foreseeable future, it had a  
12 nondiscretionary duty under the ESA to list the Southern Resident orca whales as endangered.

13 59. NMFS acted arbitrarily, capriciously, contrary to the best available scientific  
14 information, and contrary to the ESA's listing criteria and factors in making a determination that  
15 listing Southern Resident orca whales under the ESA is not warranted.

16 **COUNT II:**

17 **BY RELYING ON AN OUTDATED AND SCIENTIFICALLY DISCREDITED**  
18 **GLOBAL ORCA SPECIES TAXONOMY IN DENYING SOUTHERN**  
19 **RESIDENT ORCA WHALES ESA LISTING STATUS, NMFS**  
20 **VIOLATED THE ESA'S MANDATE THAT IT BASE LISTING DECISIONS**  
21 **ON THE BEST AVAILABLE SCIENTIFIC DATA**

22 60. The ESA directs NMFS to base listing determinations on the best available  
23 scientific data. 16 U.S.C. § 1533(b)(1)(A). The ESA embodies the precautionary principle,  
24 requiring the Services to give the benefit of the doubt to the species. The delineation of species  
25 eligible for listing is flexible in order to allow the Services to give species the protection they  
26 need according to their biological status and threats posed to their survival.

1           61.     NMFS based its “not warranted” finding on the current global taxon that lumps all  
2 orca whales into one species. This global taxon is outdated. Current knowledge supports  
3 subdividing orca whales into multiple taxa covering smaller units of orca whales. The biological  
4 review team unanimously concluded that the global orca taxon no longer reflects current  
5 knowledge and needs to be subdivided into two or more taxa in the future. NMFS acknowledged  
6 that the global orca taxa is outdated.

7           62.     The biological review team assessed various options for smaller orca taxa and  
8 asked whether Southern Residents would warrant listing as a distinct population segment of a  
9 smaller species unit. The team expressed the strongest support for deeming Southern Residents  
10 to be a distinct population segment of a species or subspecies delineation including all Northern  
11 Pacific Resident orca whales.

12           63.     NMFS summarized some of the biological review team’s assessment, but based  
13 its listing on the current discredited global taxa. In its “not warranted” determination, NMFS  
14 stated “NMFS considers the published standard of a single, global species as the best available  
15 scientific information.” 67 Fed. Reg. at 44,138. Because NMFS concluded that the Southern  
16 Residents are not a distinct population segment of this single, global orca species, it concluded  
17 that they are ineligible for an ESA listing. NMFS indicated that it would reconsider this  
18 determination within four years if the global species has been subdivided in a manner that would  
19 allow Southern Residents to be considered a distinct population segment. Id.

20           64.     The single, global species delineation runs counter to the best available scientific  
21 information. The discreteness of the Southern Resident population would remain the same even  
22 if the global taxon changes.

23           65.     The ESA directs the Services to list distinct population segments. The term  
24

1 “distinct population segment” has no accepted scientific meaning. It does not depend on a rigid  
2 delineation of species. By finding the Southern Residents ineligible for listing status based on an  
3 outdated, discredited species delineation for orca whales, NMFS adhered to a rigid taxonomic  
4 species delineation that runs counter to the ESA’s use of the term “distinct population segment.”

5 66. NMFS acted arbitrarily, capriciously, contrary to the best scientific data, and  
6 contrary to the ESA in basing its “not warranted” finding on the global taxa and denying  
7 Southern Residents the protection they deserve based on their discreteness and their population  
8 status and trends.

9 COUNT III:

10 NMFS ILLEGALLY DENIED SOUTHERN RESIDENT ORCA WHALES  
11 ESA LISTING STATUS BASED ON ITS VIEW THAT EXTIRPATION  
12 OF SOUTHERN RESIDENTS WOULD NOT BE SIGNIFICANT

13 67. The ESA defines species to include subspecies and “any distinct population  
14 segment of any species of vertebrate fish or wildlife which interbreeds when mature.” 16 U.S.C.  
15 § 1532(16). The Act does not define “distinct population segment.” The term “distinct  
16 population segment” does not have an accepted scientific meaning.

17 68. In light of the purposes and listing provisions in the ESA, the term “distinct  
18 population segment” must be applied to afford species the protection they need. “Distinct  
19 population segment” is a flexible concept that must be interpreted and applied to further the  
20 Act’s conservation mandates.

21 69. A Senate Report that explains why Congress rejected a proposal to eliminate  
22 distinct population segments from the definition of species under the Act. The Senate Report  
23 explains:

24 The committee agrees that there may be instances in which FWS should provide  
25 for different levels of protection for populations of the same species. For  
26 instance, the U.S. population of an animal should not necessarily be permitted to

1 become extinct simply because the animal is more abundant elsewhere in the  
2 world. Similarly, listing populations may be necessary when the preponderance  
3 of the evidence indicates that a species faces a widespread threat, but conclusive  
4 data is available with regard to only certain populations.

5 S. Rep. No. 151, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 6 (1979). That Report went on to state that the committee  
6 “expects the FWS to use this authority to list populations sparingly and only when the biological  
7 evidence indicates such action is warranted.” Id.

8 70. In 1996, NMFS and FWS adopted a joint distinct population segment policy that  
9 establishes a two-part test for determining whether a population is a distinct population segment  
10 eligible for ESA listing.

11 71. The joint policy appropriately makes discreteness a factor. This requirement is  
12 consistent with the definition of “species” under the ESA, because the definition of ‘discrete’ is  
13 synonymous with “distinct.”

14 72. The policy superimposes a second “significance” factor on “distinct population  
15 segment.” This second factor asks the Services to determine whether loss of the population will  
16 be “significant” to the species as a whole. This factor injects policy judgments into the  
17 delineation of population units eligible for ESA protection.

18 73. In the ESA, Congress made the policy determination that the loss of species and  
19 genetic diversity is incalculable. It established the listing process and ESA protections to prevent  
20 loss of genetic diversity and discrete populations. The Act requires that listings be made when  
21 warranted by the best available scientific data, removing political and subjective judgments from  
22 the listing process.

23 74. The joint distinct population segment policy illegally and arbitrarily allows the  
24 Services to determine whether a discrete population is eligible for an ESA listing based on the  
25 Service’s assessment of the significance of the loss of that population. This policy places the

1 Services in the position of second-guessing the congressional policy judgments embodied in the  
2 ESA that endangered and threatened species must be listed according to their biological status  
3 and the threats posed to their survival. The joint policy improperly adds “significance” as a  
4 listing factor to the exclusive list of permissible factors in 16 U.S.C. § 1533(a)(1).

5 75. In the distinct population segment policy, NMFS and FWS justified adding the  
6 “significance” factor, in part, by relying on the language in the 1979 Senate Report suggesting  
7 that the Services list distinct population segments “sparingly and only when the biological  
8 evidence indicates such action is warranted.” This Report accompanied a proposal, which was  
9 rejected, to replace “distinct population segment” with a different species definition. Since that  
10 proposal was rejected, NMFS cannot rely on this congressional commitment statement to justify  
11 its addition of the “significance” factor to the listing criteria contained in the ESA.

12 76. NMFS acted arbitrarily, capriciously, contrary to the best available scientific data,  
13 and contrary to the ESA in deciding not to list Southern Resident orca whales based entirely on  
14 its assessment of the significance of the extirpation of this discrete population.

15 **COUNT IV:**

16 **NMFS ACTED ARBITRARILY, CAPRICIOUSLY, CONTRARY TO THE BEST**  
17 **AVAILABLE SCIENCE, AND IN VIOLATION OF THE ESA IN**  
18 **DETERMINING THAT SOUTHERN RESIDENT ORCA WHALES ARE A STOCK**  
19 **FOR PURPOSES OF THE MARINE MAMMAL PROTECTION ACT**  
20 **BUT NOT A DISTINCT POPULATION SEGMENT UNDER THE ESA.**

21 77. MMPA defines stock as “a group of marine mammals of the same species or  
22 smaller taxa in a common spatial arrangement that interbreed when mature.” 16 U.S.C. §  
23 1362(11). The ESA defines species to include “any subspecies of fish or wildlife or plants, and  
24 any distinct population segment of vertebrate fish or wildlife which interbreeds when mature.”  
25 16 U.S.C. § 1532(16). Both the definition of stock under the MMPA and the definition of  
26 species under the ESA define the unit as a group of animals that interbreed when mature.



1 information in making a finding of insignificance.

2 I. MARKEDLY DIFFERENT GENETIC CHARACTERISTICS

3 82. The distinct population segment policy defines a population as “discrete” if “it is  
4 markedly separated from other populations of the same taxon as a consequence of physical,  
5 physiological, ecological, and behavioral factors.” In its “not warranted” finding, NMFS found  
6 that Southern Resident orca whales meet this criterion based principally on genetic differences  
7 between Southern Residents and other orca whales.

8 83. Under the distinct population segment policy, a population is “significant” if it  
9 differs “markedly” from other populations in genetic characteristics. In the “not warranted”  
10 finding, NMFS states that the genetic differences between Southern Resident and other orca  
11 whales may not be “marked.” This statement is vague and unquantified. Given that NMFS  
12 found the Southern Residents to be “markedly separated from other populations” based  
13 principally on genetic data, it was arbitrary and capricious and contrary to the best available  
14 scientific information for NMFS to conclude that the genetic distinctiveness of Southern  
15 Residents is not “marked” when it made its “significance” determination.

16 II. SIGNIFICANT GAP IN THE SPECIES’ RANGE

17 84. The distinct population segment policy allows significance to be found if the loss  
18 of a population will leave a significant gap in the species’ range. In concluding that extirpation  
19 of Southern Residents would not be a significant loss, NMFS concluded that their extirpation  
20 would not result in a significant gap in the range of orca whales. NMFS acted arbitrarily,  
21 capriciously, and contrary to the best scientific information in concluding that the loss of  
22 Southern Residents might not result in a significant gap in the range of orca whales.

23 85. First, NMFS relied on the fact that some transient orca whales are known to  
24 occupy parts of the same range as Southern Residents. The biological review team unanimously

1 concluded that transient and resident orca whales will be divided into separate species or taxa  
2 under future delineations of orca whale taxonomy. The best available scientific information  
3 supports separate taxa for transient and resident orca whales based on their distinct genetic,  
4 morphological, feeding, behavioral, pod structures, and culture. It is, therefore, arbitrary,  
5 capricious, contrary to the best available scientific data, and the ESA for NMFS to rely on the  
6 presence of transient orca whales in portions of Puget Sound, Georgia Straits, and the Strait of  
7 Juan de Fuca to conclude that the extirpation of Southern Residents would not result in a  
8 significant gap in the range of the species.

9         86. Second, NMFS relied on the possibility that offshore or other resident orcas might  
10 re-colonize Puget Sound after extirpation of the Southern Residents. NMFS had no evidence  
11 that this theoretical possibility would occur. NMFS' reliance on this theoretical possibility is  
12 speculative and lacking in support in the best available scientific information. The biological  
13 review team stated that "there are no data to evaluate whether other Resident or Offshore animals  
14 might re-colonize the current range of Southern Residents should that population be extirpated."  
15 The Canadian Department of Fisheries and Oceans provided NMFS with data showing that the  
16 Northern Residents have experienced an 8-7% decline from 1997-2001. Given the recent decline  
17 in the population of Northern Residents, leading to their listing as threatened in Canada, NMFS  
18 had no basis for assuming that the Northern Resident population would be sufficiently resilient to  
19 re-colonize the range of the Southern Residents. Too little is known about offshore orca whales  
20 to provide a basis for assuming that they would re-colonize the range of Southern Residents.  
21 NMFS lacked any factual evidence to support its hope that other resident or offshore orca whales  
22 would re-colonize the Southern Resident's range and it had evidence to the contrary.

23         87. Third, NMFS stated that offshore orca whales may occupy some of the range of  
24

1 the Southern Residents. The biological review team did not make any finding to support this  
2 statement. A statement that offshore orca whales may occupy portions of the Southern  
3 Resident's range during some times of the year is too speculative to support a finding that there  
4 would be no significant gap if Southern Residents are extirpated.

5 88. Fourth, NMFS relied on the presence of transient, resident, and offshore orca  
6 whales in other portions of the Pacific Ocean to conclude that the extirpation of the Southern  
7 Residents would not result in a significant gap in the range of orca whales. The biological  
8 review team made no finding to support this statement. The general existence of orca whales  
9 elsewhere in the Pacific Ocean is too vague and geographically broad to support a conclusion  
10 that extirpation of Southern Residents would not leave a significant gap in the species' range.

11 89. Congress defined species to include distinct population segments, at least in part,  
12 to ensure that species in the United States would be afforded ESA protection. By deciding that  
13 the loss of Southern Resident orca whales would be insignificant, NMFS acted arbitrarily,  
14 capriciously, and contrary to Congress' intent to afford U.S. populations ESA protection when  
15 they are at risk of extinction.

### 16 III. OTHER CASE-SPECIFIC FACTORS

17 90. The distinct population segment policy allows the Services to consider other case  
18 specific factors to find that loss of a population will be significant. In its "not warranted"  
19 finding, NMFS acknowledged that the distinct population segment policy's list of criteria for  
20 determining "significance" is not exhaustive and that other criteria may be used as appropriate.

21 91. The record presents several such factors. Some co-managers, the Marine  
22 Mammal Commission and its Scientific Advisors on Marine Mammals, and others asked NMFS  
23 to consider the ecological role of Southern Residents as top predators and indicator species in the  
24 marine ecosystems of Puget Sound, Georgia Straits, and the Strait of Juan de Fuca. NMFS

1 concluded that general biodiversity concerns and the importance of a species to the ecosystem it  
2 occupies constitute an impermissible basis on which to conclude that its loss would be  
3 significant. 67 Fed. Reg. at 44,138.

4 92. The record contains evidence that the Southern Residents have a unique acoustic  
5 repertoire, language, and whale culture and that they play and have played a key role in human  
6 cultures that co-evolved with them. NMFS never considered whether the extirpation of Southern  
7 Residents would be a significant loss in light of these factors. The biological review team  
8 discounted the loss of the Southern Resident's acoustic repertoire and culture because it could  
9 not determine whether the acoustic repertoire and culture have an inherited or learned basis. The  
10 biological review team declined to consider the fact that the Southern Residents are the only  
11 resident orca whale population in the contiguous United States, stating "the presence of a  
12 jurisdictional boundary does not provide support, by itself, for identification of a distinct  
13 population segment."

14 93. Because the distinct population segment policy requires NMFS to consider all  
15 relevant factors in assessing the significance of a population, NMFS' failure to consider the  
16 population's importance to the ecosystem and Northwest cultures, unique language and internal  
17 whale culture, and international boundaries in assessing the significance of the Southern  
18 Residents is arbitrary, capricious, and contrary to the best available scientific information and its  
19 own distinct population segment policy. NMFS acted arbitrarily, capriciously, and contrary to  
20 the best available scientific information in determining that extirpation of Southern Resident orca  
21 whales would not be a significant loss to the species. As a result, its conclusion that the Southern  
22 Resident orca whales are not a distinct population segment eligible for listing under the ESA is  
23 erroneous and unlawful.

1 PRAYER FOR RELIEF

2 WHEREFORE, the plaintiffs request that this Court:

3 1. Declare that NMFS' determination not to list Southern Resident orca whales as an  
4 endangered species under the ESA is arbitrary, capricious, contrary to the best available science,  
5 and in violation of the ESA.

6 2. Declare that NMFS may not legally deny listing status to a discrete population  
7 that is in danger of extinction or threatened within the meaning of the ESA based on NMFS'  
8 assessment of whether a loss of the population would be significant.

9 3. Order NMFS to issue a new 12-month finding and publish a proposed regulation  
10 to list Southern Resident orca whales within 60 days of the Court's disposition of this case.

11 4. Award the plaintiffs their costs, expenses, and attorney fees pursuant to the  
12 citizen-suit provision of the Endangered Species Act, 16 U.S.C. § 1540(g)(4), or the Equal  
13 Access to Justice Act, 28 U.S.C. § 2412(d).

14 5. Grant such further relief as the Court deems proper.

15 Respectfully submitted this 18<sup>th</sup> day of December, 2002.

16  
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