Alsea Valley Alliance v. Evans and the Meaning of "Species" Under the Endangered Species Act: A Return to Congressional Intent

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INTRODUCTION

The year 2001 saw the largest salmon runs return to the Columbia River since federal record keeping began in 1938: 417,000 spring Chinook returned to spawn. The old record was 280,400. Similar "monster" salmon runs have been predicted for 2002. Predicting a run of 677,000 fish, the State of Washington set a 2002 fall Chinook fishing season: "The bumper crop of Columbia River Fall Chinook could be one of the largest in the past half-century."

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1. The federal government started counting returning salmon in 1938 at the newly constructed Bonneville Dam, which was the first dam that the federal government constructed on the Columbia River. In 1995, only 10,200 spring Chinook came past that dam. Wild Salmon Still Endangered, SEATTLE POST-INTELLIGENCER, Dec. 30, 2001, available at http://seattlepi.nwsource.com.

2. "A monster run of 333,700 adult spring chinook is forecast to enter the Columbia River in 2002 destined for waters upstream of Bonneville Dam. That would be the second largest on record, runner-up only to last year’s 416,500." Allen Thomas, Columbia Spring Chinook Season May Run 'Til May 15, COLUMBIAN, Feb. 1, 2002, at B3; see also Jonathan Brinkman, Chinook Run Forecasts High for Spring, Fall, OREGONIAN, Feb. 19, 2002, available at http://www.oregonian.com ("Biologists say the Columbia River fall Chinook run will be the biggest in 60 years, outpacing last year’s robust run of 544,000 by nearly 134,000 fish.").

Given these and other recent large salmon runs in the Pacific Northwest, we should ask why so many species of salmon are listed as "threatened" under the Endangered Species Act. One justification often given is that the large salmon runs consist of both hatchery spawned salmon and "naturally spawning" salmon. That justification, in turn, raises the question of whether the distinction is justifiable as a matter of law or genetics.

Almost thirty years after Congress enacted the Endangered Species Act of 1973 (ESA), confusion and controversy still reigns over how the ESA defines a "species." Although Congress allowed federal agencies to list "subspecies" under the ESA, it did not intend administrative agency creativity in defining "sub-subspecies" or distinctions within new administrative agency categories such as "Evolutionary Significant Units" (ESUs).

4. "In March of 1999, the National Marine Fisheries Service (NMFS) made the determination that Puget Sound Chinook salmon were likely to become endangered in the foreseeable future and listed them as threatened. Every 'wild' (i.e., naturally spawning) population of Chinook salmon in the Puget Sound region was listed, beginning at the Elwha River on the Strait of Juan de Fuca, Hood Canal, all of southern Puget Sound and north to the Nooksack River south of the Canadian/US border. With that determination the full authority of the federal Endangered Species Act ascended over Chinook salmon management in Puget Sound, including the habitat designated as critical to maintenance and recovery of the species." Ernest L. Brannon, Listing Puget Sound Chinook as Endangered Under the ESA, (Ctr. for Salmonid & Freshwater Species at Risk, Univ. of Idaho, Moscow, Idaho), at 1.

5. Robert McClure, State Salmon Harvest Gets Bad Review; Fishing Rates in Some Stocks Called 'Unsustainable' Under Current Rules, SEATTLE POST-INTELLIGENCER, Dec. 12, 2001, available at http://seattlepi.nwsource.com. Some wonder if the ESA is the an appropriate tool to protect salmon. NMFS new regional administrator, Robert Lohn, said in an interview that the Endangered Species Act is an awkward fit when it comes to salmon. "The law wasn't written to take into account that one of our motives is to kill 'em and eat 'em." Editorial, Fish Wars, N.Y. TIMES, Feb. 14, 2002, at A30; Sam Howe Verhovek, 'Saving' Wild Salmon's Bucket-Born Cousins, N.Y. TIMES, Feb. 4, 2002, at A1; see also Proposed Redefinition, Threatened Status, and Revision of Critical Habitat for One Chinook Salmon ESU; Proposed Designation of Chinook Salmon Critical Habitat in California, Oregon, Washington, Idaho, 63 Fed. Reg. 11,482, 11,495 (Mar. 9, 1998). NMFS March 9, 1998 proposed listing of Puget Sound Chinook salmon as threatened under the ESA. That report shows that fifty-five to fifty-nine percent of all returning Puget Sound Chinook salmon are intercepted by ocean harvest (with additional harvests killing thousands more in Puget Sound). The ESA was not intended to be a sustained harvest law; a species either is or is not threatened. If it is, no harvest is justifiable.


7. As former Senator Mark Hatfield (R-Or.) said, "The Act is being applied far beyond the scope of what any of us who helped adopt it intended." Species Act, Endangered, WALL ST. J., Jan. 15, 1992, at A12.

In a recent decision with far reaching effects that has attracted national attention, the United States District Court for the District of Oregon clarified the meaning of species under the ESA, but the controversy persists. Federal District Judge Michael Hogan found unlawful a National Marine Fisheries Service (NMFS) coho salmon listing that protected "naturally spawning" Oregon coastal coho salmon as a threatened ESU subspecies, but excluded coastal hatchery coho salmon from the listing even though NMFS determined that the naturally spawning salmon and the hatchery salmon in the ESU were genetically indistinguishable. In other words, NMFS created a new listing category under the ESA: a sub-subspecies.

Because salmon that spawn from a hatchery are genetically indistinguishable from those that are naturally spawning, NMFS included them in the ESU, but did not list them due to alleged behavior differences. Thus, NMFS created a sub category smaller than an ESU, which was already a sub species designation. Because smaller categories result in smaller total numbers, it becomes easier to list a smaller category as threatened under the ESA. The question is whether Congress intended to allow an administrative agency to create such smaller subcategories of species under the ESA.

The court in Alsea Valley Alliance v. Evans was the first to hold that, under the ESA, Congress intended that a listing of a species is permissible only when the federal government counts and, if warranted, lists the entire species in an ESU. The court prohibited NMFS from creating a further distinction—from creating a sub-

9. Verhovek, supra note 5.
10. For the sake of consistency and clarity, this article refers to adult salmon that spawn in natural habitats as "naturally spawning" salmon. Some articles, however, refer to naturally spawning salmon as "wild" salmon. This is confusing. The Washington State Department of Fish and Wildlife defines a "wild" chinook salmon as a fish that is two generations away from a hatchery, meaning that those "wild" fish are just hatchery fish descendants. Naturally spawning fish are just one generation away from hatchery parents according to NMFS. Whether or not there are any truly "wild" salmon left (i.e., not descendants of hatchery fish) is a question of great importance.
11. Verhovek, supra note 5, ("Because hatchery fish augment the wild fish, and in some cases wind up breeding with them—the offspring are called "strays"—it is difficult to make precise biological and physical distinctions between them. For that reason, NMFS said Judge Hogan's ruling raised a valid point in questioning why the two fish categories are treated differently.").
13. Id.
14. Id. at 1162 ("The distinction between members of the same ESU/DPS is arbitrary and capricious because NMFS may consider listing only an entire species, subspecies or distinct population segment (DPS) of any species.") (citing 16 U.S.C. § 1532(16)).
subsidiary—between members of the same ESU.\textsuperscript{15} NMFS had acknowledged that the Oregon coastal coho ESU, "hatchery spawned and natural coho[,] are the same species."\textsuperscript{16} In the key holding, the court said that "the NMFS listing decision creates the unusual circumstance of two genetically identical coho salmon swimming side by side in the same stream, but only one receives ESA protection while the other does not."\textsuperscript{17}

NMFS did not appeal the court's order. Instead, NMFS announced that it would review the hatchery policy that formed the basis for the former listing,\textsuperscript{18} as well as twenty-four of the other twenty-six salmon listings based on the policy.\textsuperscript{19} The hatchery policy review would be initiated in mid-2002 with a final version of the new policy expected in September 2002.\textsuperscript{20}

A coalition of environmental groups then filed a motion for an emergency stay in the Ninth Circuit Court of Appeals, which the court granted on December 14, 2001.\textsuperscript{21} On December 17, 2001, the Alsea Valley Alliance filed a motion to dismiss the appeal in the Ninth Circuit because NMFS had withdrawn its hatchery policy and agreed to undertake a review of its listing policies, making the appeal moot. On March 20, 2002, the court agreed to hear the motion for dismissal when it considers the merits of the appeal.\textsuperscript{22}

\textsuperscript{15} 161 F. Supp. 2d at 1162.
How ironic it is that the endangered pygmy rabbit has been captured and slated for domestic reproduction to bolster the dwindling stocks in the wilds of Eastern Washington. The endangered whooping crane was subject to the same domestic reproduction schedule and made a startling comeback thanks to a 'capture and reproduce' program sponsored by a fine government program. . . . Why is it that rabbits and whooping cranes can be captured and have their numbers reproduced to replenish their wild counterparts but when it comes to salmon, the fish that are replenished via the same methods are not counted? . . . How stupid are we getting here?


\textsuperscript{16} Alsea Valley Alliance, 161 F. Supp. 2d at 1163.

\textsuperscript{17} Id.


\textsuperscript{20} 67 Fed. Reg. 6,215.

\textsuperscript{21} See Defendant-Intervenor-Appellants' Motion for an Emergency Stay, Alsea Valley Alliance, 161 F. Supp. 2d 1154 (No. 01-36071); see also Order, Alsea Valley Alliance, 161 F. Supp. 2d 1154 (No. 01-36071).

\textsuperscript{22} Order, Or. Natural Res. Council v. Alsea Valley Alliance (Mar. 20, 2002) (No. 01-36071).
Although the *Alsea* decision overturned only one salmon listing, the decision calls into question most other salmon and steelhead ESU listings on the West Coast.\(^{23}\) NMFS based most of its other salmon ESU listings on the controversial distinction between naturally spawning and hatchery spawned salmon in the hatchery policy it is now reviewing.\(^{24}\) Under the reasoning of the *Alsea* decision, those listings would be invalid and are now the subject of delisting petitions that are under review and comment.\(^{25}\) On February 1, 2002 NMFS published a Federal Register Notice entitled "Endangered and Threatened Species: Findings on Petitions to Delist Pacific Salmonid ESUs."\(^{26}\) The petitions for delisting were based in large part on the *Alsea* decision.

The *Alsea* decision has the potential to have far reaching consequences. Bill Bakke of the Native Fish Society said, "This could be picking out the pebble that makes the whole edifice fall."\(^{27}\) Providing hatchery salmon the same status under the ESA as naturally spawning salmon would significantly increase the total salmon count in most ESUs, which in turn could remove the factual basis for listing many of the ESU subcategories of salmon in the Northwest as threatened under the ESA.\(^{28}\)

The *Alsea* lawsuit\(^{29}\) began when members of the Alsea Valley Alliance (Alliance) watched a video taken by Ron Yechout, showing Oregon Department of Fish and Wildlife employees clubbing hatchery coho salmon to death with baseball bats and destroying their

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23. NMFS and FWS distinguished between naturally spawning coho salmon and hatchery coho salmon in most West Coast salmon and steelhead listings. The Services agreed to review approximately twenty-four suspect listings. See 16 U.S.C. §§ 1531-1544 (2002).

24. Part of the criticism of NMFS's listing is that NMFS chooses to list certain species based on its policies, rather than on the criteria set forth in the ESA.

25. Endangered and Threatened Species: Findings on Petitions to Delist Pacific Salmonid ESUs, 67 Fed. Reg. 6,215 (Feb. 11, 2002). In addition, new lawsuits have been filed as a result of the *Alsea* decision. On February 5, 2002, the Pacific Legal Foundation, on behalf of the Alsea Valley Alliance, the Oregon State Grange, the California State Grange, and several individual grange members filed a complaint challenging the Southern Oregon/Northern California ESU listing of coho salmon. Cal. State Grange v. Evans (D. Or. 2002) (No. 02-6044-HO). The Foundation related the case to Judge Hogan, who issued the *Alsea* decision.


28. James Vesely, *Too Many Salmon? Well, That's One Possibility*, SEATTLE TIMES, Oct. 29, 2001, available at http://seattletimes.nwsource.com ("If you add the two fish stocks together, there are too many fish and none could be listed as endangered.").

29. The Pacific Legal Foundation brought suit against NMFS. Founded in 1973, the Pacific Legal Foundation is a nonprofit public interest law foundation litigating on behalf of limited government, private property rights, individual freedoms, and free enterprise. Headquartered in Sacramento, California, the Foundation's Pacific Northwest office in Bellevue, Washington litigated the *Alsea* case.
Hatchery workers were told to exterminate hatchery coho salmon in the Alsea River on the theory that their behavioral and genetic differences harmed the naturally spawning coho salmon. Alliancemembers who faced strict and costly land use restrictions as a result of the Oregon coastal coho salmon ESU listing questioned why state workers would kill thousands of coho salmon that federal and state agencies claimed were on the verge of extinction.

The ESA listings of various salmon ESUs in the Northwest have already cost billions of dollars. The United States Bonneville Power Administration has incurred over $3.5 billion in salmon related costs in the Northwest in recent times. The third runway at the Seattle-Tacoma airport will cost an extra $200 million to protect 200 nearby salmon. During Governor Locke's administration, the State of Washington has spent over $100 million for salmon protection alone.

30. SEATTLE TIMES, Sept. 17, 2001, available at http://seattletimes.nwsource.com. Hal Bernton, Ore. Ruling Challenges Restoring of Salmon Judge: Hatchery Coho Part of the Threatened Runs, COLUMBIAN, Oct. 4, 2001, at A1; see also Russell C. Brooks, Feds Claim to Know Salmon Better than Local Citizens, SEATTLE TIMES, July 10, 2000, at B7 ("Several thousand healthy hatchery-spawned salmon were, one by one, trapped and beaten in the head with aluminum baseball bats. Their millions of eggs, which could have been used to propagate and advance the Oregon coastal salmon population, instead were sold by ODFW batsmen as fish bait.").

31. Bernton, supra note 30 ("Such practices are used by state employed fish managers to ensure that populations of hatchery-bred salmon don't overwhelm the 'last vestiges of wild runs.'"). By 1999, when the nearly 3,000 remaining hatchery-spawned salmon were due to return to their spawning grounds, ODFW had refined its method [of killing the fish] by implementing a more-efficient killing machine: It utilized an electrically charged tank to shock to death the salmon in batches. Unfortunately, along with the thousands of hatchery-spawned salmon, some of the naturally spawning coho salmon—the same 108 fish listed as a threatened species only the year before—were also electrocuted, reducing their population to a truly endangered number: 80.

Brooks, supra note 30.

32. Bernton, supra note 30; see also James Buchal, Presentation at Seminar Group CLE, Doing Business in Salmon Land (Apr. 25, 2002). In his address, Mr. Buchal said that there is "no such thing as 'endangered' salmon in the common sense of the word." Salmon prices are the lowest they have been in recent years, indicating more supply than demand. Mr. Buchal also said that "extinction no longer means 'extinction' in the common sense of the word. The government has redefined the term. Extinction now means if the majority of the salmon stocks are low, then extinction has occurred."

33. Bill Rudolph, Salmon's Two-Way Street: Cheap Protein, Expensive Icon, ENERGY NEWS DATA CORP., CLEARING UP PUBL., Mar. 4, 2002, at 9 ("Federal Agencies and BPA ratepayers will continue to spend over $500 million dollars this upcoming fiscal year on recovering weak runs in three states, where commercial salmon landings totaled $10 million in last year.").


If the salmon ESU listings stand, increasingly severe restrictions would limit existing and future land uses. \(^{36}\) Local, state, and federal interstate highway projects, hydroelectric power facilities, and many residential land uses would be further limited, and some projects would potentially be prohibited altogether.

The ESA imposes formidable criminal and civil penalties on anyone who "harms or harasses" a listed species or its habitat. \(^{37}\) The ESA requires assurance that any federal agency action such as interstate highway construction projects, federal hydroelectric operations, and federal forest timber sales will not jeopardize listed species or their habitats. \(^{38}\) The ESA "takes precedence over all other laws . . . . Even in the event of war, the act could prevent Polaris submarines from leaving their berths' if certain endangered marine species were migrating nearby." \(^{39}\) Because the ESA is so powerful \(^{40}\) and its penalties are so costly, it should be reserved as a last resort. The definition of a species becomes a matter of great significance. \(^{41}\)

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36. "The public does not appreciate what time component will be involved in recovery. By the all-comprising ESU and without considering hatchery fish as part of the wild counterpart of a river system, one has to think of recovery in the timeframe for evolutionary processes to take place. Recovery of the listed populations without including the hatchery fish in the production formula, means that NMFS will be in the fisheries management business of the state for at least the next century. And it will mean that federal involvement in local fisheries matters will demand funding and growth of the agency, justified not by the statute, but by the policy memorandums of the same agency." Ernest L. Brannon, An Assessment of the ESA Listing of Puget Sound Chinook and the NMFS Status Review (Ctr. for Salmonid and Freshwater Species at Risk, Hagerman Fish Culture Experiment Station, Univ. of Idaho, Hagerman, Idaho), June 1999, at 39.

37. U.S.C. § 1536(a)(2) (2002). "Harm in the definition of 'take' in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." 50 C.F.R. § 17.3 (1994).


40. Steve Marshall, How Many Are Enough?, SEATTLE POST-INTELLIGENCER, July 30, 2000, available at http://seattlepi.nwsource.com ("The ESA, which is used to criminally prosecute, fine and potentially jail violators, was intended as a harsh last resort to prevent a species from dwindling to such small numbers that it would become extinct. Preventing extinction is its sole purpose.").

41. "The effect is as great or greater than any regulation in the past three decades, surpassing the environmental-impact statements of the 1970s or the state Growth Management Act of 1990 . . . . Woodinville public-works Director Mick Monken tells how one relatively small job—adding turn lanes along 124th Avenue Northeast—has been delayed a year and the expected $800,000 cost upped by 30 percent because of the act’s effects." Peyton Whitley, From Docks to Freeways, the Endangered Species Act Is Dramatically Changing the Way Things Are—or Aren’t Being Built, SEATTLE TIMES, Mar. 13, 2000, available at http://seattletimes.nwsource.com.
This article examines whether the Alsea decision's definition of species is consistent with the ESA by examining the language of the ESA and Congressional intent. This article then examines some of the implications of the Alsea decision in the Northwest. Counting hatchery salmon would likely result in the removal of most salmon ESUs from the endangered or threatened list, ending many of the costly restrictions imposed by the ESA.

The Seattle Times has editorially asked whether counting too many fish is a threat to other agendas. It is also appropriate to ask whether opponents of including hatchery salmon in an ESU are more motivated by a desire to maintain federally imposed land use controls than by credible scientific evidence. Is there evidence that genet-
cally indistinguishable hatchery salmon threaten naturally spawning salmon.  

Finally, this article will examine what the next steps are likely to be. The Alsea decision has prompted NMFS to commence a comprehensive review of its salmon policies. What should the structure and outcome of that review be? Should NMFS revise its hatchery policy to ensure that salmon spawned in hatcheries are as diverse and genetically indistinguishable as naturally spawning salmon? Should NMFS consciously promote hatchery stock as genetic insurance against a potentially threatened weak salmon run in order to avoid the costly effect of a formal listing? Should NMFS suspend harvest of any listed ESU until the entire ESU is removed from the ESA listing?

This article is divided into five parts. Part I discusses the ESA provisions and congressional intent regarding the definition of species that is pertinent to understanding Alsea. Part II describes some of the effects of salmon listings in the Northwest. Part III describes the Alsea case, including the history of the Oregon coastal coho ESU listing and the procedural history of the case. Part IV analyzes the court's legal reasoning in Alsea. Finally, Part V considers the implications of the case and the potential structure and outcome of the current NMFS's policy review.

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47. Sugg, supra note 39, at 53 (quoting Leslie Ann Duncan, Northern Spotted Owl: Chronology of Events and Status of Major Lawsuits, ENVTL. & ENERGY STUDY INST. SPECIAL REP. 3 (Mar. 19, 1992)).

48. Shortly after the Alsea decision, NMFS received six petitions during September and October 2001 to delist fifteen evolutionary significant units of Pacific salmon and steelhead in California, Oregon, Washington, and Idaho that are currently listed as threatened or endangered under the Endangered Species Act (ESA). See Endangered and Threatened Species: Findings on Petitions to Delist Pacific Salmonid ESUs, 67 Fed. Reg. 6,215 (Feb. 11, 2002).

I. THE ENDANGEROSED SPECIES ACT AND THE ALSEA DECISION

A. The Meaning of "Species" Under the Endangered Species Act

In 1973, Congress enacted a comprehensive scheme to protect, preserve, and recover species in danger of extinction.50 The ESA provides "a program for ... conservation of ... endangered and threatened species."51 The ESA requires all federal agencies to conserve endangered and threatened species and to utilize their power to further these purposes.52 To fulfill these obligations, section 4 of the ESA specifies that the Secretaries of Commerce and Interior may list species as endangered or threatened.53

Congress expressly said as follows that propagation, such as hatchery propagation, was an appropriate method to be used to avoid listing or to delist a species: "[T]he use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include . . . propagation."54

Although the ESA is the most powerful environmental law ever enacted in the United States, it contains important restrictions and limitations on how it can and should be used.55 One fundamental limitation is the scope of the government's listing authority.56 In designating "what" may be listed, the ESA states: "The term 'species' includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."57 The ESA, however, does not define the

52. 16 U.S.C. § 1531(c)(1) (2002). The federal government "must do far more than merely avoid the elimination of protected species. [It] must bring these species back from the brink so that they may be removed from the protected class, and [it] must use all methods necessary to do so." Carson-Truckee Water Conservancy Dist. v. Watt, 549 F. Supp. 704, 710 (D. Nev. 1982), aff'd, 741 F.2d 257 (9th Cir. 1984) (citations omitted).
56. Geoffroy & Doyle, supra note 55. Listing is a rulemaking process initiated in one of two ways. One or both of the Services may determine that a species is at risk and initiate a rulemaking proceeding (emergency or otherwise) to evaluate the status of the species and make a final listing decision. The more common process, however, is where any interested person may petition the services to list a species. 16 U.S.C. § 1533 (2002).
term "distinct population segment," and this term has created confusion regarding exactly what federal agencies may list.\(^{58}\)

The ESA's substantive and procedural protections are not triggered until the federal government lists a species.\(^{59}\) However, once listed, the ESA provides immediate civil and criminal penalties and restrictions on activities on both public and private property where the species is located. Therefore, what qualifies as a "species" is fundamental to the government's listing authority and the scope of its broad civil and criminal regulatory power.\(^{60}\)

\[B. \ The \ Legislative \ History \ of \ "Species" \ under \ the \ Endangered \ Species \ Act\]

The current definition of "species" under the ESA is different than the original ESA definition. In 1973, Congress originally defined "species" in the ESA to include "any subspecies of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when mature."\(^ {61}\) In 1978, Congress seemingly expanded the definition of "species" by adding the term "distinct population segment of a species" (DPS) by amendment to the ESA.\(^ {62}\) In doing so, Congress did not specifically define "distinct population segment."\(^ {63}\) In reality, however, Congress actually restricted the definition of "species" in 1978 by amending the definition of "species" to "exclude taxonomic categories below subspecies from the definition as well as distinct populations of invertebrates."\(^ {64}\) Congress explicitly said that, although the government may list a "subspecies," the "distinct population segment" language also added in the amendments applies \textit{only} to "species"—not to "smaller taxa."\(^ {65}\)

A year later, Senate Report No. 96-151 (1979) attempted to harmonize the term "distinct population segment" with the ESA's plain language.\(^ {66}\) The Senate Report discussed the General Accounting Of-

\[\text{58. \ "Because Congress has failed in oversight of their own legislation, NMFS has taken it upon itself to interpret what should constitute the species. It is difficult to alter such emphasis because NMFS has no accountability to the public, and therefore it is important to establish the boundaries in which NMFS must function. When it comes management of the state's resources, their present policy encroaches excessively on the state's authority." Brannon, supra note 36, at 40; see also 16 U.S.C. § 1533(b)(1)(A) (2002).}\
\[\text{59. \ See Geoffrey & Doyle, supra note 55.}\
\[\text{60. \ Geoffrey & Doyle, supra note 55.}\
\[\text{64. \ H.R. CONF. REP. NO. 95-1804, at 17.}\
\[\text{66. \ S. REP. NO. 96-151 (1979).}]}\]
fice's (GAO) concern that Congress should revise the 1978 definition of "species," which included the term "distinct population segment," because the "DPS" language "could result [theoretically] in the listing of squirrels in a specific city park even though there is an abundance of squirrels in other parks in the same city, or elsewhere in the country."\(^67\) The United States Fish and Wildlife Service (FWS) responded that the species definition required the "distinct population segment" language because, "under the GAO proposal, FWS would be required to provide the same amount of protection for the bald eagle population in Alaska, which is healthy, as for the bald eagle population in the coterminous states, which is [different]."\(^68\)

In other words, the "distinct population segment" language enables federal agencies to extend ESA protection to *geographically isolated* species populations in danger of extinction without requiring the agencies to expend resources protecting separate, thriving populations of the same species.\(^69\) The Senate Report also warned agencies that Congress was "aware of the great potential for abuse of this authority and expects the [wildlife agencies] to list populations sparingly."\(^70\)

Despite the warnings of potential abuse and the congressional mandate that the government use the "distinct population segment" concept sparingly, federal agencies have nonetheless used the DPS concept to substantially increase ESU listings.\(^71\) From 1978 through

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67. "The Senate Committee with authority over ESA made clear in a 1979 report published in connection with the reauthorization of the ESA how the 'species' definition should be applied. In testimony before the Resource Protection Subcommittee of the Senate Committee on Environment and Public Works in 1979, the General Accounting Office recommended eliminating the Services' authority to list populations because it could result in absurdities." *Id.* at 7; *see also* Geoffroy & Doyle, *supra* note 55, at 83.


69. *See* H.R. *Rep. No. 412* (1973) (emphasis added). Congress also placed importance upon geographical distinctions within the ESA in the original version of the ESA: An animal might be "endangered" in most States but overpopulated in some. In a State in which a species is overpopulated, the Secretary would have the discretion to list that animal as merely threatened or to remove it from the endangered species listing entirely while still providing protection in areas where it was threatened with extinction. Even the chairman of the Environmental Defense Fund's wildlife program understands Congress' intent: "Because the Act defines a 'species' so as to include distinct geographic populations, it is possible to have a particular species subject to stringent protection as an endangered species in one area, less stringent protection as a threatened species in another, and no federal protection at all elsewhere." *Michael J. Bean, The Evolution of National Wildlife Law 371, 390* (1977).


71. Brannon, *supra* note 36, at 38 ("Identifying the ESU as a group of populations for listing over a wide geographic area embraces the very abuse that Congress was concerned about when instructing the administrating unit to 'use their ability to list sparingly and only when the biological evidence warranted such action.'"). "Listing all natural populations in the Puget Sound system can only be viewed as ignoring the instruction of Congress." *S. Rep. No. 96-151* (emphasis added).
1985, the government listed only seven DPSs, six from 1986 to 1990, and only eight from 1991 to 1995. Recently, federal agencies have apparently ignored Congress’s command to use the listings "sparingly." Since 1995, the government has, with far greater frequency, applied the ESA distinct population segment concept, such as the Oregon coastal coho ESU, despite the Congressional admonition.

C. ESA Criminal and Civil Sanctions and Consequences

The most powerful legal requirements under the ESA are the section 9 "take" prohibition and the section 7 consultation requirements. The ESA broadly defines "take" to include almost any conceivable activity that may adversely affect the species, either directly or indirectly. "Take" specifically includes any act that harms or harasses any member of a listed species, and also includes habitat modification or degradation that impairs essential behavior patterns (e.g., breeding, spawning, rearing, migrating, feeding, or sheltering). Once the government lists a species, any act that harms or harasses a member of that the species is considered a prohibited "take" and can lead to civil or criminal prosecution. In addition, listing triggers the section 7 requirements for all federal agencies to consult with NMFS or FWS to ensure that any federal project or permit does not interfere with the ESA’s purpose to conserve listed species. Section 7 requires that all federal agencies consult with NMFS or FWS prior to authorizing, funding, or carrying out any action to ensure that such actions will not jeopardize the continued existence of the listed species or result in destruction or adverse modification of any critical habitat that has been designated through rulemaking.

72. Geoffroy & Doyle, supra note 55, at 84 ("Since 1978, FWS and NMFS have identified or listed approximately 60 DPSs.").
73. Geoffroy & Doyle, supra note 55. After 1995 the pace of DPS listings climbed precipitously. From 1996 through 2000, the Service listed thirty-nine DPSs, more than quadrupling the number of listings in the previous five years and amounting to an average of more than seven DPS listings each year. In addition, there are more than twenty DPSs that are currently at some pre-final stage in the rulemaking process, and petitions to list DPSs continue to be filed.

Id.

74. Geoffroy & Doyle, supra note 55. The ESA is "intended to protect species, not populations."
77. 50 C.F.R. § 17.3 (1994).
79. 16 U.S.C. § 1536(a) (2002). Section 7 applies to issuance of federal permits such as wetland disturbance permits.
Because the criminal and civil "take" prohibitions and the consultation requirements exist only after the government lists a species, the scope of the government's listing authority is vitally important.

II. **The Economic Impacts in the Northwest of Increased Species Listings Under Salmon ESUs+**

As noted above, once a species is listed, the ESA's powerful protections are triggered, and a violation of the ESA may result in criminal and civil sanctions.\(^1\) Beyond those criminal and civil sanctions, the ESA has a tremendous practical impact on many fronts—from fiscal impacts in state capitals to a farmer's livelihood.\(^2\) As the following indicates, such impacts have been felt to date primarily by Western states:

According to a 1999 report from the House Resources Committee, while 543 species were listed in the Five Far West states, only thirty-nine were listed in the Northeast. Critical habitats

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\(^1\) Brannon, supra note 36, at 38.

The Act sets criminal and civil penalties for anyone who harms a listed species, or its habitat, and requires that federal agencies ensure that any of their actions, such as forest timber sales, do not threaten listed species. The ESA impacts on Okanogan County alone include:

—May 1999. NMFS shuts down Methow Valley irrigation ditches in Okanogan County

—1999–2001. Okanogan County attempts to negotiate memorandum of agreement with NMFS on process for developing salmon conservation plan in Methow Basin, but NMFS insists that local water users agree to diminish their water rights as a precondition for any cooperation.


—February 2001. Okanogan County suspends negotiations on memorandum of agreement with NMFS.

—April 2001. Okanogan County makes FOIA request to NMFS and NOAA asking for the results of the NMFS audit.

—June 11, 2001. NMFS and NOAA tell Okanogan County they have no information on the audit.


—The audit finds that NMFS is "inconsistent," "unresponsive," and "unnecessarily and unproductively arrogant and confrontational."

—The audit finds that NMFS' lack of collaboration has led to significant wasted resources, poor decision making, and uncoordinated recovery efforts.

—The audit finds that NMFS has not completed required studies, plans, and biological opinions in a timely manner and uses the Methow Valley as an example.

Id.

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\(^2\) Whitely, supra note 41.
were designated for ninety-six species in the West, for just nine in the East. Fish & Wildlife spends more than half of its ESA budget in just five Western states alone.83

Critics have pointed to this disparity and have charged that "capricious and uneven enforcement" of the ESA has "underscore[d] the utter bankruptcy of the law."84 While the impacts from the tentative application of the ESA are now beginning to emerge on the East Coast, the Pacific Northwest has been subject to a disparately high number of ESU listings that have caused and will increasingly cause significant economic impacts.85 Some examples of those impacts are reviewed in the following sections.

A. The "65-10" Impervious Surface Rule

Local and state governments have halted transportation and other development plans, and have engaged in costly redesign efforts as a result of salmon listings. Because of the ESU salmon listings under the ESA, state and local governments in the Pacific Northwest often plan for restoration of healthy, naturally functioning watersheds. In an effort to control storm water runoff and maintain rural open

84. Id.
85. Id.

Consider the lawsuit of the new Woodrow Wilson Bridge, a multibillion-dollar project meant to ease gnarled traffic around Washington D.C. fabled Beltway. It turns out that even though construction could imperil several endangered species, including the bald eagle, bureaucrats at federal agencies—from Fish and Wildlife to the National Marine Fisheries Service (organizations that usually delight in environmental laws)—had quickly waved through the project. The hypocrisy is so blatant that the National Wilderness Institute, a group usually critical of the Endangered Species Act, has felt compelled to sue to halt the project. The government of all people is fighting back. It seems that Washington politicians and commuters are shocked—shocked—that an ESA lawsuit is being so blatantly to halt human activity. Shortly after the National Wilderness Institute sued, then-Virginia Attorney General Mark Earley said that the suit was "disturbing to anyone who has ever had to sit in a traffic jam on the old bridge." Good point. Come to think of it, we are pretty sure Western and rural landowners would agree.

[U]rban hypocrisy rolls on. The Wilderness Institute is also suing over the Washington Aqueduct—the D.C.-area water treatment facility. For years, the U.S. Army Corps of Engineers has dumped sludge from the facility into the Potomac River at levels hundreds of times that allowed in nearby states. The practice potentially violates both the ESA and the Clean Water Act, but the EPA continues to grant the Corps special dispensation. 'Regardless of your political disposition, midnight dumping into an endangered species habitat is unacceptable. What's going on here is arbitrary, capricious, politically motivated and not scientifically justifiable,' says Rob Gordon, director of the Wilderness Institute.

Id.
space, planners have developed the "65-10" rule. This rule says that new developments should disturb no more than sixty-five percent of natural vegetation and cover no more than ten percent of the land with pavement, houses or other "impervious surfaces." This rule, however, has been applied disproportionately to rural areas, creating a conflict between promoting urban density and protecting urban areas and streams.

While originally applied in rural areas, NMFS has applied the 65-10 rule to urban areas such as Clark County, Washington. However, application of the 65-10 has encouraged sprawl, contrary to growth management goals and existing land use laws. For example, a NMFS biologist ordered two subdivisions redesigned to reduce paved surfaces and increase tree cover. However, the redesigns not only changed the appearance of the subdivision, but also included narrow streets with fewer sidewalks, causing safety concerns.

The northwest salmon ESA listings have just started to affect urban areas: "[U]rban landowners are getting a taste of what rural landowners have been facing for years." Salmon protection plans have

86. Kathie Durbin, Saving Salmon Might Change Subdivisions, Hurt Efforts to Limit Sprawl, COLUMBIAN, Nov. 2, 2001, at C1. "Clark, King, Pierce and Snohomish counties have submitted the 65-10 rule to the fisheries service as part of their strategy for protecting threatened chinook salmon in the Puget Sound basin."

87. Id.
The rule is based on research conducted by Derek Booth of the University of Washington that studied the deterioration of streams and stream banks in King County. Booth and his colleagues found that the stream conditions deteriorated sharply once the amount of forested cover in the surrounding watersheds dropped below 65 percent and the percentage of impermeable surfaces exceed 10 percent.

Id.

88. Id. ("Jackie Kirn, manager of King County's endangered species program, said her county is to apply 65-10, but only in rural areas zoned for five-acre lots, not inside the urban growth boundaries.")

89. Id. ("Derek Booth, stating: 'If we opt for low density, we can degrade huge tracts of land. Conversely, if we elect to densify, which is the strategy of the Growth Management Act, it is almost an inescapable outcome that the conditions of watersheds and streams in those areas of higher density will be degraded.").

90. In a letter dated July 2001, Commissioner Morris wrote to Steve Landino, chief of the NMFS Washington Habitat Branch, challenging his agency's application of the 65-10 rule in urban Clark County: One of the provisions of the (Growth Management Act) is that planning jurisdictions must prevent sprawl by drawing urban growth boundaries. Inside urban growth boundaries we are expected to meet minimum densities for dwelling per acre. Overlaying that minimum with a 10 percent maximum total impervious surface area and a 65 percent vegetation cover requirement is simply impossible.

91. Those subdivisions are proposed by Vancouver developer Bill Huyette.

92. Durbin, supra note 86.

spilled into the Portland city limits, "causing an uproar among affected landowners." The new zoning rules are intended to restore water quality and to assist salmon runs, but opponents of the new rules argue: "This is not being driven by science; this is being driven by micromanaging and controlling our property."  

B. Timber Industry Impacts

Several hundred northwest timber sales in thousands of acres of forests, including some old-growth, remain indefinitely on hold as federal agencies sort through a court ruling that asserts NMFS illegally approved logging in threatened salmon habitat. The United States Ninth Circuit Court of Appeals affirmed a lower court's decision that the government had not considered the short-term or cumulative impacts that timber harvests would have on threatened coho salmon runs. The decision halted the proposed harvest of millions of board feet of timber on federal land in Northern California, Washington, and Oregon.

The case initially involved only a few dozen timber sales around Roseburg, Oregon. However, United States District Court Judge Barbara Rothstein ordered the timber sales halted until the government could demonstrate the sales complied with the ESA and the 1994 Northwest Forest Plan and would not harm threatened coho salmon. Judge Rothstein later ordered logging halted on 170 parcels throughout the region on the same grounds.

Environmentalists contend that the ruling validates the Northwest Forest Plan, but industry groups contend the ruling proves the forest plan essentially prohibits timber harvests. Federal-land timber sales have fallen from 258 million board feet in the fiscal year 1998 to less than 70 million in 2000–2001.

94. Id.
95. Id. Bennet Langlotz, a Southwest Portland resident and attorney, is leading the opposition of the waterway protection plan.
98. The Alsea decision removed the barrier to these timber sales along the Oregon Coast by invalidating the listing of Oregon Coast coho and several of the sales took place, allowing logging to proceed. However, an emergency stay which keeps the unlawful Oregon Coast ESU listing in place during appeal temporarily reinstates the barrier to the timber sales.
100. Id.
101. Welch, supra note 96.
C. Federally Funded and Local Government Transportation Projects

Another example of salmon listings affecting the Pacific Northwest is the 41st Street project in Everett, Washington. The ESA requires state and local actors to consult with NMFS on federally funded projects that could damage threatened species or the land and water they depend on for survival.102 The 41st Street project is a highway project that would reroute 41st Street from Interstate 5 and over the Burlington Northern-Santa Fe Railroad tracks.103

Plaintiffs, including the Pilchuck Audubon Society, filed suit against NMFS in the United States District Court for the Western District of Washington104 to block NMFS’s approval of the City of Everett’s sixteen million dollar highway overpass project near the Snohomish River.105 The plaintiffs alleged NMFS improperly studied the overpass project in isolation,106 claiming the study was inadequate because it did not consider harm to the surrounding area as a whole.107 This lawsuit is seen as a test case in which environmental groups intend to stop most interstate highway projects in the Northwest using federal funds. An earlier attempt to stop construction on the more visible Interstate 405 projects resulted in controversy and public pressure to proceed.108

D. The Klamath Basin Farming Impacts

In a controversial endangered species decision, the Bureau of Reclamation, acting on the recommendations from the U.S. Fish and Wildlife Service and NMFS, shut off irrigation water to ninety percent of 200,000 acres in southern Oregon and Northern California in order to save endangered suckerfish and local salmon.109 The decision re-

104. Id.
105. Id.
106. NMFS concluded the project would cause little biological harm by itself.
107. Fisher, supra note 103.
108. Id.
The real problem is that eight years of Clinton environmentalism have left the agencies staffed with activists who care more about stopping development than about science. Fish and Wildlife’s own record tells the story. According to a 1997 report by the National Wilderness Institute, while nearly 1,000 species had been listed under the Endangered Species Act, just 27 animals and plants had been removed from the list. Of those, nine were removed because the agency was forced to admit it should never have put them on in the first place; another seven became extinct. This left exactly 11 “recovered” species for 25 years of work.
sulted in the loss of 2,000 jobs, widespread crop failure, business closures, and farm bankruptcies.110 "A joint study by the Oregon State University and the University of California at Berkeley estimates that the regional economy lost $134 million to date."111

After a preliminary study, the National Academy of Sciences issued an opinion that the decision to cutoff irrigation water was "rooted in inadequate science."112 The report indicates that low water levels caused by the combination of drought and irrigation from Upper Klamath Lake never threatened the suckerfish or coho salmon, and the salmon may actually have been hurt by the government's efforts.113 The decision to cutoff the irrigation water has been called a "biological bombshell,"114 causing many to question ESA standards and credibility of federal agencies.115 Chairman of the National Academy of Sciences, James V. Hansen, commented on the situation:

A handful of U.S. Fish and Wildlife Service bureaucrats withheld desperately-needed water from farmers in the Klamath Basin last summer. Now we find out that decision was based on sloppy science and guesswork. I am appalled. These federal employees made decisions that devastated the economy of an entire region, literally backing up their authority with armed federal agents. Farmers lost their farms; business closed; irreplaceable topsoil blew away because the crops that anchored it withered and thousands of birds and animals at a nearby wildlife

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110. Id.; see also, Press Release, House Committee on Resources, Committee to Hold March 7 Oversight Hearing on 'Fed' Decision to Use Ore.-Calif. Ag Water For Endangered Fish (Feb. 8, 2002) ("NAS preliminary study says water shut-off to Klamath Basin Farmers unwarranted."); Rushed Decision Endangers Species and People, Too, USA TODAY, Feb. 11, 2002, available at http://www.usatoday.com ("Farms turned to dust, livelihoods were threatened, and violence was barely avoided.").

111. Press Release, supra note 110; see also Press Release, Pacific Legal Foundation, Pacific Legal Foundation Announces New Fish Fight: Files Lawsuit to Delist Klamath Salmon (Feb. 5, 2002):

The lawsuit, California State Grange v. Evans (D. Or. 2002) (No. 02-6044-HO), marks the second time the Foundation has challenged NMFS’s listing of salmon under the ESA. The Pacific Legal Foundation announced a lawsuit challenging the federal listing of the Southern Oregon/Northern California coho salmon ESU (Klamath Basin salmon) as threatened under the ESA.

Id.

112. The study is entitled Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin; see also USA TODAY, supra note 110.

113. USA TODAY, supra note 110.


115. Id.
refuge suffered and died for the lack of water. All of this now appears to have been unnecessary.116

E. Seattle-Tacoma (Sea-Tac) Airport Third Runway Costs

The third runway project at Sea-Tac Airport has been affected by salmon ESU listings under the ESA. In an effort to prevent rainwater from flooding into three small streams, the Port of Seattle will spend an estimated $200 million dollars to build cisterns to store enough rainwater to cover one acre, 390 feet deep.117 When asked how many salmon lived in the three streams, Mic Dinsmore, executive director of the Port of Seattle was not sure, guessing "maybe 200."118 A reporter from the Seattle Times broke down the cost to illustrate the high cost of ESA listings imposed on the runway project:

Roughly it is:
-the [dock value] of the 173 million salmon caught this year in Alaska;
-twice the entire budget of the Seattle Fire Department;
-Fourteen times what Maria Cantwell spent to beat Slade Gorton for a seat in the United States Senate.
-12 times the amount raised by the environmental groups to save the Loomis Forest (which includes 25,000 acres in Eastern Washington that included rare lynx habitat).119

The Seattle Times reporter concluded that if only 200 salmon live in the streams, the public is paying one million dollars per fish.120

F. Federal Hydroelectric Power Impacts.121

Since 1980, the Bonneville Power Administration (BPA) has spent about $3.5 billion on required fish mitigation.122 About $1.4 bil-

117. Ramsey, supra note 34.
118. Id.
119. Id.
120. Id.
121. Stephen Beaven, PGE Settles in Willamette Falls Fish Kill, OREGONIAN, Feb. 27, 2002, at , available at http://www.oregonian.com ("Portland General Electric has agreed to pay $225,000 for its role in a fish kill last year that left at least two dozen salmon dead in the Willamette River." The two dozen salmon that were killed were "wild spring Chinook, which are protected by the federal Endangered Species Act. Civil penalties of as much as $25,000 a violation can be levied when such fish are killed.").
122. Ashton, supra note 35; see also James L. Buchal, The Great Salmon Hoax—An Eyewitness Account of the Collapse of Science and Law and the Triumph of Politics in Salmon Recovery (Iconoclast Publishing Co., Aurora, Or.), 1998, at 11 ("Without a single vote of Congress, the fishery managers have created by administrative fiat, the single most ambitious and expensive
The meaning of "Species" 751

lion of that "is the equivalent of lost electricity from spilling water for fish that would otherwise have been used for power generation." The effect of targeting dams comes at a price. Washington gets eighty percent of its electricity from hydropower, and although federally owned facilities and BPA are exempt from licensing requirements, the dams that are covered contribute to a significant portion of the state's power needs.124

III. ALSEA VALLEY ALLIANCE V. EVANS: BACKGROUND

The Alsea decision has received national attention and has prompted the Bush Administration:

[T]o announce a thorough review of the listing for two dozen groups of Pacific salmon and steelhead [another kind of fish, capable of returning to sea after spawning] in other Western rivers and to consider new rules that would factor in the strength of hatchery stock in designating species as endangered.125

The next section will review the Alsea Valley Alliance case and Judge Hogan's decision.

A. The Alsea Valley Alliance126

NMFS's distinction between hatchery and naturally spawning coho salmon in its ESU listing decision confused and concerned Alliance members. In order to maintain the historical abundance of coho

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123. Ashton, supra note 35.
125. Verhovek, supra note 5.
126. The Alliance is an organization dedicated to conserving and protecting coho salmon in the Alsea River Basin as well as throughout the State of Oregon. The Alliance focuses specifically on environmental and economic issues involving coho salmon. The Alliance's members live in Oregon where they enjoy the aesthetic, recreational, and commercial attributes of the state, including the coho salmon population. Alliance members regularly hunt, fish, camp, canoe, photograph, and otherwise enjoy recreation in the State of Oregon. In addition, the Alliance's members do not observe coho salmon for merely aesthetic and recreational reasons. For example, some Alliance members have worked or are working as fishermen and fishing guides in the State of Oregon. In doing so, those members sustain their livelihoods on the existence of coho salmon within the Alsea Basin.

Id.
in the Alsea Basin and maintain the Basin's wildlife and recreational values for the benefit of its members, the Alliance sought to compel NMFS to follow the ESA's mandates. The Alliance contended that, by failing to count hatchery coho in its determination of the status of Oregon coastal coho ESU, NMFS imposed upon the Alliance's members an illegal listing, including unnecessary restrictions and prohibitions that accompany the unlawful listing.

B. NMFS's Administrative Policies

The legal background in Alsea began with three administrative policies that NMFS applied when considering Pacific salmon under the ESA. First, NMFS administratively created the "Evolutionary Significant Unit" (ESU) concept in 1991, in the NMFS' Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon. Congress did not use the term "Evolutionary Significant Unit" in the ESA. Under the NMFS ESU policy:

A salmon stock will be considered a distinct population, and hence a "species" under the ESA, if it represents an evolutionarily significant unit (ESU) of the biological species. The stock must satisfy two criteria to be considered an ESU: (1) It must be substantially reproductively isolated from other nonspecific population units; and (2) it must represent an important component in the evolutionary legacy of the species.

After it created the ESU concept in 1991, the NMFS began to draw distinctions between members of the same species even where geography did not isolate species members or where species members interbreed.

Two years later, in 1993, NMFS published an "Interim Policy on Artificial Propagation of Pacific Salmon Under the Endangered Species Act." Among other things, this "interim hatchery policy" states that evaluation of a species' status for listing or delisting under the ESA depends on "natural populations," which for Pacific salmon NMFS defines as "naturally reproducing fish." Thus, NMFS's

128. Id. at 3.
130. Id. at 58,618.
132. Id. The term "Pacific salmon" to refer to species of the genus Oncorhynchus, which includes West Coast coho salmon, Oncorhynchus kisutch.
evaluation under its interim hatchery policy focuses only upon "naturally spawning fish" to determine whether a Pacific salmon population represents an ESU of the biological species. 133

Finally, NMFS published a policy entitled "Policy Regarding the Recognition of Distinct Vertebrate Population Segments Under the Endangered Species Act." 134 This policy explains how NMFS interprets the phrase "distinct population segment" for listing, delisting, and reclassifying species under the ESA. 135 "The only direct effect of the policy is to accept or reject population segments for these purposes." 136

C. The Oregon Coastal Coho Salmon ESU Listing

On July 25, 1995, after completing a status review of West Coast coho salmon, NMFS issued a proposed rule to list six coho salmon ESUs under the ESA. 137 One of the ESUs created by NMFS in its proposed rule and identified as a listing candidate was the "Oregon Coast ESU." 138 NMFS defined threatened Oregon coastal ESU coho as "all naturally spawned" coho in streams south of the Columbia River and north of Cape Blanco, Oregon. 139

However, after reviewing additional information, including biological data on the species’ status, NMFS concluded that the Oregon coastal ESU did not warrant listing. 140 Thus, in 1997, NMFS withdrew its proposed rule to list naturally spawning Oregon coastal ESU as a threatened species. 141 NMFS concluded that the Oregon Coastal Salmon Restoration Initiative (later revised and renamed the "Oregon Plan for Salmon and Watersheds"), a state conservation plan, offered sufficient protection to Oregon coastal ESU coho salmon. 142 Weeks before, on April 23, 1997, NMFS had signed a Memorandum of

133. Id.
135. Id.
136. Id. at 4,725.
139. Id. at 42,589.
141. Id.
Agreement with the State of Oregon, which outlined Oregon’s commitment to salmon restoration and NMFS’s recommendations regarding Oregon’s salmon management practices. NMFS withdrew the proposed rule on the basis of the Memorandum of Agreement and the Oregon Coastal Salmon Restoration Initiative.

In response to NMFS’s withdrawal of the proposed listing, the Oregon Natural Resources Council challenged the Secretary of Commerce’s decision in the Oregon federal district court. The court found NMFS’ reliance on the Oregon Coastal Salmon Restoration Initiative misplaced because the plan “did not provide a high level of assurance” regarding the effectiveness of the salmon restoration measures. In holding NMFS’s decision to not list the Oregon coastal ESU was arbitrary and capricious, the court stated: “[A]ccording to the plain language of the ESA, the Secretary may not rely on plans for future actions to reduce threats and protect a species as a basis for deciding that listing is not currently warranted.” Under court order, NMFS listed the Oregon coastal ESU on the basis of the same record as it existed in 1997 although NMFS recognized it had received a substantial amount of new information regarding the status of the ESU.

NMFS published its final rule on August 10, 1998, listing Oregon Coast ESU coho salmon as a threatened species based on the three “policies” described above. In addition, pursuant to section 4(d) of the ESA, NMFS published protective regulations concerning the Oregon Coast ESU coho salmon. In the listing, NMFS distinguished within the Oregon coastal ESU “naturally spawned,” and “hatchery-bred” coho salmon. NMFS concluded the following:

In the Oregon Coast ESU, only naturally spawned populations of coho salmon are listed. NMFS has examined the relationship between hatchery and natural populations of coho salmon in this ESU and determined that none of the hatchery populations are currently essential for recovery and, therefore, the hatchery populations are not listed.

143. Id.
144. Id.
146. Id. at 1158.
147. Id. at 1154.
149. Id. at 42,587.
Despite NMFS's decision not to list hatchery coho salmon ESU, NMFS acknowledged both that hatchery spawned coho salmon is the same species as naturally spawning coho salmon and that hatchery coho salmon may be useful, indeed "essential," for the species's recovery.\textsuperscript{152} Moreover, NMFS further conceded that some hatchery coho are not merely the same species as the listed coho, but even included those hatchery coho as part of the Oregon coastal ESU.\textsuperscript{153} Nonetheless, NMFS maintained that it could legally distinguish those hatchery coho salmon from naturally spawning coho salmon under the ESA and, therefore, did not protect hatchery coho salmon by listing them: "NMFS, therefore, concludes that it is not inconsistent with NMFS' [sic] interim policy, nor with the policy and purposes of the ESA, to consider these progeny part of the ESU but not listed."\textsuperscript{154}

\textbf{IV. \textit{Alsea Valley Alliance v. Evans}}

The issue in the \textit{Alsea} case was whether the ESA allows NMFS to list as threatened only certain members in an ESU.\textsuperscript{155} On this basis, the district court addressed the substantive validity of the former listing. On September 10, 2001, the district court held that NMFS may not distinguish between hatchery spawned coho and naturally spawning coho salmon in the same ESU population.\textsuperscript{156} Accordingly, the court set aside the Oregon coastal coho salmon listing, finding the NMFS's attempt to distinguish between hatchery and naturally spawning coho salmon as a basis for listing a "species" contrary to the Endangered Species Act's (ESA) plain language and congressional intent.\textsuperscript{157} The court remanded the matter to NMFS and directed it to consider the most recent and best available scientific information in any further listing decision.\textsuperscript{158} In response to the court's order, NMFS announced on November 9, 2001 that, rather than appeal, the administration will focus its energies and resources on rebuilding salmon runs.\textsuperscript{159} NMFS withdrew its hatchery policy and will reevaluate the policy and all affected listings.\textsuperscript{160}

\begin{footnotesize}
\begin{itemize}
\item\textsuperscript{152} \textit{Id.} at 42,589.
\item\textsuperscript{153} \textit{Id.}
\item\textsuperscript{154} \textit{Id.}
\item\textsuperscript{155} \textit{Alsea Valley Alliance v. Evans}, 161 F. Supp. 2d 1154, 1161 (D. Or. 2001).
\item\textsuperscript{156} \textit{Id.} at 1162.
\item\textsuperscript{157} \textit{Id.} at 1163.
\item\textsuperscript{158} \textit{Id.}
\item\textsuperscript{159} \textit{Press Release, supra note 19}, at 2; \textit{see also} Endangered and Threatened Species: Findings on Petitions to Delist Pacific Salmonid ESUs, 67 Fed. Reg. 6,215 (Feb. 11, 2002).
\item\textsuperscript{160} \textit{Press Release, supra note 19}.
\end{itemize}
\end{footnotesize}
A. The Alliance's Position

The Alliance argued that the distinction between naturally spawning coho and hatchery spawned coho salmon was untenable under the ESA because the ESA does not allow listing distinctions below that of species, subspecies, or a distinct population segment of a species.\(^\text{161}\) Essentially, the Alliance claimed NMFS must list or not list under the ESA all members, as opposed to only some members, of a distinct population segment.\(^\text{162}\) To accomplish its listing, NMFS refused to recognize or count those coho salmon born in hatcheries before being released into the wild.\(^\text{163}\) However, the distinction is meaningless under the ESA as well as in practical terms. Young hatchery coho salmon are released into streams where they join young, naturally spawning coho salmon born in the same streams. They both migrate to the Pacific Ocean, spend their lives together at sea, and return to the same original stream to spawn and die. Yet NMFS treated hatchery spawned coho salmon as different "species" for ESA listing purposes because of where they were born.

The Alliance argued that the ESA does not permit NMFS to pick which members of a species in an ESU that it prefers to protect, and that NMFS must consider for listing purposes the entire coho salmon population included in an ESU.\(^\text{164}\) Essentially, NMFS must list or not list the entire ESU. NMFS may well continue to list coho salmon even after counting all the coho (i.e., the hatchery and naturally spawning coho salmon). But to attempt to distinguish between hatchery and naturally spawning coho salmon as a basis for listing a "species" under the ESA contradicts congressional intent and is impermissible.

1. The Alliance Argued NMFS's Listing Contradicted Express Terms of the ESA

Contrary to the terms and provisions of the ESA, the Alliance said that NMFS attempted to justify listing only some of the coho salmon in the Oregon coastal coho salmon ESU despite admitting that "naturally spawned" and hatchery spawned coho salmon are the same species and share the same streams.\(^\text{165}\) Nevertheless, NMFS sought to treat them differently under the ESA by listing only the "naturally

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161. Alsea Valley Alliance, 161 F. Supp. 2d at 1161.
162. Id.
spawned" coho salmon.\textsuperscript{166} However, given that "naturally spawned" Oregon coastal coho and hatchery-bred Oregon coastal coho are genetically the same species and, therefore, make up a single population, the ESA does not sanction NMFS's distinction.

The Alliance said that NMFS contradicted the ESA's language, which provides that "distinct population segments" consist of whole species or subspecies, not merely some species or subspecies based upon genetic variations. Congress enacted the ESA expressly providing "a program for . . . conservation of . . . endangered species and threatened species."\textsuperscript{167} Section 4 of the ESA specifies that the Secretary may list species as endangered or threatened.\textsuperscript{168} The ESA is clear that the term "species" "[only] includes any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature."\textsuperscript{169}

The ESA does not allow NMFS to go into a river and separate individual coho salmon one-by-one, listing some coho salmon but not other coho salmon even though they are the same species.\textsuperscript{170} Rather than protect only the preferred members of a species, the ESA mandates that NMFS preserve each member of a listed species.\textsuperscript{171} NMFS refused to list all the coho salmon in a particular river within the boundaries of the Oregon coastal ESU, not because two species, two subspecies, or even two distinct population segments of coho exist in the ESU, but because not all the coho were "naturally spawned." NMFS's decision to list only the naturally spawning coho was based upon an erroneous construction of the ESA's "species" definition, a construction directly contradicting express statutory language.

The NMFS's decision regarding the Oregon coastal ESU also contradicted its own definitions. Referring to "distinct population segments," the ESU includes only those segments consisting of species

\textsuperscript{166} 63 Fed. Reg. 42,587.
\textsuperscript{167} 16 U.S.C. § 1531(b) (2002).
\textsuperscript{170} Alsea Valley Alliance v. Evans, 161 F. Supp. 2d 1154, 1163 (D. Or. 2001). In doing so, "the NMFS listing decision create[d] the unusual circumstance of two genetically identical coho salmon swimming side-by-side in the same stream, but only one receives ESA protection while the other does not."
\textsuperscript{171} The ESA allows for the protection via listing of otherwise unlisted species based upon "similarity of appearance." See 16 U.S.C. § 1533(e)(A)–(C) (2002). Under that section, listing may result if "enforcement personnel would have substantial difficulty in attempting to differentiate between the listed and unlisted species," if the difficulty in distinguishing between the listed and unlisted species poses "an additional threat to an endangered or threatened species," and if listing the similar species "will substantially facilitate the enforcement and further the policy" of the ESA. Id.
whose members "interbreed when mature." NMFS itself said: "[A] subspecies or a distinct vertebrate population segment which interbreeds when mature [an ESU] qualifies to be placed on the endangered or threatened species list and is to be treated as if it were a species in and of itself." Yet, hatchery spawned coho, which NMFS refused to consider, readily interbreed with listed coho in the same geographic area. NMFS did not dispute that hatchery coho have long interbred and still interbreed with the listed coho. NMFS acknowledged that the hatchery spawned coho it refused to list may be the parents of ninety percent of the naturally spawning coho salmon in the Oregon coastal ESU. To complete the genetic circle, most of the hatchery coho salmon NMFS refused to list derived from listed, or "naturally spawning," coho in the same river basins. In other words, hatchery spawned and naturally spawned coho are inextricably interrelated.

The Alliance also pointed out that NMFS included nine hatchery coho stocks as part of the Oregon coastal ESU. NMFS included these hatchery coho because the coho contained "genetic resources important to the species' evolutionary legacy." Yet, NMFS has refused to list any of these hatchery stocks. NMFS explained its decision not to list all coho in a given river within the ESU on the ground that not all coho are "essential to recovery" of the ESU, although they are "available for use in recovery if needed." NMFS acknowledged "hatchery coho may play an important role in recovery efforts."

175. Id.
176. Id. "Most historic transfers of coho salmon into Oregon coastal hatcheries used other Oregon coastal stocks." Endangered and Threatened Species; Threatened Status for Southern Oregon/Northern California Coast Evolutionarily Significant Unit (ESU) of Coho Salmon, 62 Fed. Reg. 24,588, 24,601 (May 6, 1997) (published notice that the Oregon Coast coho ESU did not warrant listing). NMFS argued that some hatchery stocks came from other basins, such as the Columbia River. However, the administrative record stated that these transfers "were relatively infrequent and minor." Administrative Record, Exhibits 1, 12, Alsea Valley Alliance v. Evans, 161 F. Supp. 2d 1154 (D. Or. 2001) (No. 99-6265-HO). "Similarly, most outplants of coho salmon into Oregon coastal rivers have used Oregon coastal stocks, with outplants of stocks from other areas being relatively small and infrequent."
180. Id.
Congress did not include such "essential to recovery" listing criteria in the ESA. To the contrary, Congress enacted the ESA expressly providing "a program for ... conservation of ... endangered species and threatened species."181 Under the ESA, Congress requires NMFS to further the effort to conserve endangered and threatened species.182 Moreover, NMFS "must do far more than merely avoid the elimination of protected species. [It] must bring these species back from the brink so that they may be removed from the protected class, and [it] must use all methods necessary to do so."183 The ESA defines a "threatened species" as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."184 The Alliance pointed out that nowhere in that definition did Congress include language that allows NMFS to exclude some members of that same species from the definition based on whether they are essential to recovery.

Because NMFS admitted (1) the unlisted and listed coho salmon in any given river are genetically indistinguishable and are the same species; (2) included most of the unlisted hatchery coho salmon as part of the same ESU; and (3) considered most of the unlisted coho salmon as available for the ESU's recovery, the Alliance argued that common sense, logic, and the ESA require that NMFS base its listing decision by counting the entire coho ESU distinct population segment, not just selected members within it. Only by doing so can NMFS fulfill its ESA obligation to list truly threatened or endangered species and, if deserving of listing, further the effort to conserve the species185 and "bring them back from the brink so that they may be removed from the protected class."186

The Alliance claimed both that NMFS failed to comply with these obligations and that its Oregon coastal coho ESU listing decision contradicted express statutory language, ignored express statutory mandates, and was inherently inconsistent.187 The Alliance concluded that NMFS ignored its ESA mandate by illogically and inexplicably refusing to consider listing all coho in the Oregon coastal ESU even though it admitted that they are the same species and included a majority of the unlisted fish in the ESU.

186. Carson-Truckee, 549 F. Supp. at 710.
2. The Alliance Argued NMFS’s Listing Contradicted ESA Congressional Intent

Congress added the term “distinct population segment of a species” by amendment to the ESA in 1978. In doing so, Congress did not expressly define the term in the ESA. The Alliance argued NMFS attempted to take advantage of this fact and, in doing so, clearly violated the structure and intent of the ESA. NMFS created the inherently inconsistent Oregon coastal coho ESU listing upon a theory that Congress intended the ESA to focus its listing efforts on preserving a high level of genetic diversity within a species. NMFS asserted that “a review of legislative history indicates that [one] major motivating factor behind the Act was the desire to preserve genetic variability, both between and within species.” However, a review of the ESA’s legislative history, as well as its structure, demonstrates that Congress’ use of the term “distinct population segment” did not focus upon genetic variability within a species, but instead upon geography for management and flexibility reasons.

Congress originally defined “species” in the 1973 version of the ESA to include “any subspecies of fish or wildlife of the same species or smaller taxa in common spatial arrangement that interbreed when

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191. G. EASTERBROOK, A MOMENT ON THE EARTH, at 571, quoted by Buchal, supra note 122, at 146.

Environmental orthodoxy reject hybridization of species as a horrifying offense against nature, though in nature hybridization has been ongoing since the beginning of life, being essential to the system by which species radiate into new forms. Here is the Stop-in-Place Fallacy at work—a conceit that somehow on the day when the Endangered Species Act was signed a Correct global alignment of habitat and species was in effect, and any change after that must be seen as ghastly. . . .

It’s disquieting to hear some environmentalists go on without a hint of irony about how ‘locally distinct populations’ must have their ‘unique genetic ecotypes’ preserved against ‘non-native populations’ encroaching at the border. How can racial barriers be awful for humankind and vital for animals? To nature this entire line of thought must seem detached from reality. Genes constantly mingle in nature. That’s part of the point of the enterprise.

Id.

mature." 193 Congress amended the ESA in 1978 by changing the definition of "species" so that it "would exclude taxonomic [biological] categories below subspecies [smaller taxa] from the definition as well as distinct populations of invertebrates." 194 In doing so, Congress made explicitly clear that, though "subspecies" may be listed, the "distinct population segments" language also added in the amendments applies only to "species," not to "smaller taxa." 195 Thus, despite sparse language regarding genetic resources in the original 1973 version of the ESA, Congress actually eliminated the ability of the wildlife agencies to make listings by dividing species based on minute taxonomic distinctions five years later.

Moreover, the Alliance supported its contentions by pointing out that the ESA amendments showed that Congress saw a strong connection between "distinct population segments" and geography. 196 Congress expressly considered the issue during the amendment process. Senate Report No. 96-151 discusses the General Accounting Office's (GAO) concern that Congress should revise the 1978 definition of "species," which included "distinct population segments" because the "distinct population segment" language "could [theoretically] result in the listing of squirrels in a specific city park, even though there is an abundance of squirrels in other parks in the same city, or elsewhere in the country." 197 But the FWS responded that the species definition required the "distinct population segment" language because "under the GAO proposal, FWS [Fish and Wildlife Service] would be required to provide the same amount of protection for the bald eagle population in Alaska, which is healthy, as for the bald eagle population in the coterminous states, which is [different]." 198

The above discussions indicate Congress retained the "distinct population segment" language to enable wildlife agencies to extend ESA protection to a geographically isolated population of a species in danger of extinction without requiring the agencies to expend resources protecting other separate, thriving population of the same species. 199 Thus, by adding the "distinct population segment" language,

199. Id.
Congress intended to provide NMFS with flexibility to manage different geographic populations of a species differently according to the threats faced by those populations. However, there is no evidence that Congress intended minor genetic variations among the same species in a single geographical area to be a basis for a distinct population segment.

Although Congress intended to afford NMFS with flexibility to list populations by taking into account different threats to a species, the Senate Reports clarify that Congress was "aware of the great potential for abuse of this authority and expects the [wildlife agencies] to list populations sparingly." Congress would not condone NMFS's listing in this case because it exemplifies an even more spurious application of a "distinct population segment" than GAO feared in its park squirrel hypothetical. On the other hand, Congress clearly approved of listings based on geographical boundaries when the geographically defined population exhibits threats of extinction.

The Ninth Circuit Court of Appeals recognized that Congress preserved the ability to list species according to geographical range. In *Defenders of Wildlife v. Norton*, the court stated the following:

The historical application of the Act is consistent with this interpretation of the statute . . . . Grizzly bears, for example, are listed as threatened species within the contiguous 48 states, but not in Alaska. Similarly, only the California, Oregon and Washington populations of the marbled murrelet, whose range in North America extends from the Aleutian Archipelago in Alaska to Central California, are listed as threatened.

The court cited Senator Tunney for an explanation of why Congress placed such importance upon geographical distinctions within the ESA:

An animal might be "endangered" in most States but overpopulated in some. In a State in which a species is overpopulated, the Secretary would have the discretion to list that animal as merely threatened or to remove it from the endangered species listing entirely while still providing protection in areas where it was threatened with extinction.

Finally, if one were to accept that Congress actually was singularly concerned about protecting genetic diversity below the taxa of subspecies, NMFS's listing would still be invalid for failing to pre-

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200. *Id.*
201. *See* *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1144–45 (9th Cir. 2001).
202. *Id.* at 1145.
203. *Id.* at 1144 (quoting H.R. REP. NO. 412 (1973)).
serve the genetic lineage of hatchery coho salmon that were included, and those that were not included, within the Oregon coastal ESU. Language from the legislative history of the original (but later amended) 1973 ESA states: “From the most narrow possible point of view, it is in the best interests of mankind to minimize the losses of genetic variations.”

If this were still the stated objective of the ESA, NMFS’s Oregon coastal coho salmon ESU listing would still fall short. First, the listing recognized nine hatchery coho salmon stocks as part of the ESU. Nevertheless, NMFS refused to list them as part of the protected ESU. NMFS included these hatchery coho salmon because they contained “genetic resources important to the species’ [sic] evolutionary legacy.” However, because these hatchery coho salmon were not listed, they were not protected under the ESA. Thus, NMFS violated even the skewed congressional intent upon which it based its listing because it failed to protect and conserve the entire ESU.

NMFS also failed to include other coho salmon in the ESU because NMFS determined that they are of a “different genetic lineage than the listed natural populations.” But according to NMFS’s argument, possessing a different genetic lineage should support listing all these coho salmon rather than risking their extinction by refusing to do so. Indeed, the Supreme Court has noted that one of Congress’s concerns in enacting the ESA was “the unknown uses that . . . species might have and about the unforeseeable place such creatures may have in the chain of life on this planet.” Yet, by refusing to list all coho salmon included in the ESU, NMFS not only failed to minimize the loss of genetic variations, it actually encouraged it.

B. The Alsea Decision

After reviewing the administrative record and the relevant statutes and legislative history, the court found the Oregon coastal coho ESU listing arbitrary and capricious and, therefore, invalid because it relied on factors upon which Congress did not intend. The court

204. AMEND ET AL., supra note 46, at 2 ("It is now entirely possible that there is greater genetic diversity in hatchery salmon populations than in some wild populations.").
208. See id. at 17,575.
noted that NMFS defined the ESU and DPS, but then went beyond its authority, and beyond its own ESU definition, to eliminate hatchery coho salmon from its listing decision. The court reviewed NMFS' ESU and DPS concepts and determined that they were permissible agency constructions of the ESA. Specifically, the court noted that "the NMFS creation of an ESU and the factors used to define it, geography and genetics, are within permissible limits under the ESA." The court clarified its statement in a footnote, stating: "Congress did not prohibit genetics from being considered during the listing process and specifically included language in the ESA that allows agencies to differentiate its listings among the same species based, in part, on the degree of threat that species face in different geographical regions."

Despite this finding, the court determined that NMFS's listing violated the ESA and was unlawful. The court found that "[t]he central problem with the NMFS listing decision of August 10, 1998, is that it makes improper distinctions, below that of a DPS, by excluding hatchery coho populations from listing protection even though they are determined to be part of the same DPS as natural coho populations."

Elaborating, the court explained the basis of its finding:

The ESA "specifically states in the definition of 'species' that a 'species' may include any subspecies . . . . and any distinct population segment (DPS) of any species . . . which interbreeds when mature." Listing distinctions below that of subspecies or a DPS of a species are not allowed under the ESA. Yet, this is precisely what the NMFS did in its final listing decision of August 10, 1998. NMFS concluded that nine hatchery stocks were part of the same Oregon Coast ESU/DPS as the natural populations but none of the hatchery stocks were included in the listing decision because NMFS did not consider them essential for recovery.

The court concluded as follows: "Once NMFS determined that hatchery spawned coho and naturally spawned coho were part of the

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211. Id.
212. Id.
213. Id. at 1162.
214. Id. at 1162 n.5.
215. Id.
216. Id. at 1162.
217. Id. (citations omitted) (alteration in original).
same DPS/ESU, the listing decision should have been made without further distinctions between members of the same DPS/ESU." 218

The court also noted that, arguably, the listing could be proper under the ESA had NMFS defined hatchery coho salmon as a separate ESU. 219 Although this might be true theoretically, the court found that such a hypothetical outcome was impossible in the Alsea case. 220 Based on NMFS's administrative record, the court concluded that the hatchery coho salmon were not "reproductively isolated" and, therefore, did not meet the agency's own definition of an ESU. 221 Undisputed evidence showed that hatchery spawned coho salmon and naturally spawning coho salmon within the Oregon coastal ESU share the same rivers, habitat, and seasonal runs. 222 NMFS's own data indicated that hatchery coho salmon might account for as much as eighty-seven percent of the naturally spawning coho in the Oregon coastal ESU. 223

The court also recognized the ironies inherent in the challenged NMFS listing. First, the court noted that if two of the unlisted hatchery coho salmon spawned in the wild, their progeny—the next generation—would be listed despite the fact it would be progeny of the "undesirable" hatchery coho salmon. 224 Second, given that NMFS admitted hatchery spawned coho and naturally spawning coho salmon are the same species, "the NMFS listing decision creates the unusual circumstance of two genetically identical coho salmon swimming side-by-side in the same stream, but only one receives ESA protection while the other does not." 225

Finally, the court refuted NMFS's argument that Congress intended the ESA to apply to "natural populations" and the genetic diversity within those populations. 226 The court rejected how NMFS applied the theory in the Oregon coastal ESU, stating that "genetics cannot, by itself, justify a listing decision." 227 In doing so, the court relied upon the legislative history provided by the Alliance, which demonstrated that Congress expressly restricted federal agencies' abil-

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218. Id.
219. Id.
220. Id.
221. Id. Hatchery spawned coho would have to be, in part, "substantially reproductively isolated from other conspecific population units." Policy on Applying the Definition of Species Under the Endangered Species Act to Pacific Salmon, 56 Fed. Reg. 58,612, 58,618 (Nov. 20, 1991).
222. Id. at 1162–63.
223. Id. at 1163 (citing Administrative Record, Exhibit 12, Alsea Valley Alliance v. Evans, 161 F. Supp. 2d 1154 (D. Or. 2001) (No. 99-6265-HO)).
224. Id.
225. Id.
226. Id.
227. Id.
ity to make listing distinctions among species below that of subspecies or a distinct population segment of a species.  

V. IMPLICATIONS OF THE ALSEA DECISION

A. Implications for Future Salmon and Steelhead Listings Under the ESA

NMFS scheduled rulemaking for the new hatchery policy to begin in mid 2002 with a proposed hatchery policy, followed by a sixty-day public comment and public hearing period. NMFS committed itself to publishing a final hatchery policy by September 2002. NMFS’s new hatchery policy will form the basis for new listing determinations for twenty-four affected salmon and steelhead listings within forty-five days of finalizing its new hatchery policy, producing listing decisions in December 2002.

The most likely result of NMFS’s administrative review, if it conducts the review consistent with the court’s opinion, is that it will count both hatchery spawning and naturally spawning coho salmon equally in the same ESU. However, the question of whether many ESUs will continue to require listing as threatened or endangered will remain unanswered.

B. Implications for Continuing Salmon and Steelhead Habitat Protection Under Other State and Federal Laws

If NMFS decides certain salmon ESUs no longer require listing under the ESA because of the larger numbers, salmon habitat will remain under significant state and local protection. Citizens across the Northwest are committed to the proper stewardship of the Northwest’s resources even in the absence of mandatory ESA prohibitions. If Oregonians wish to preserve Oregon coastal coho salmon habitat, they will continue Oregon’s comprehensive coho salmon preservation and restoration efforts. The district court’s ruling does not diminish separate state conservation and recovery efforts. The federal government said that it would maintain the status quo during appeal: “NOAA fisheries will seek agreements with other federal agencies, states, tribes and private landowners to maintain existing protections for Oregon coastal coho salmon during the agency’s reconsideration of

228. Id.
230. Id.
231. Id.
232. Thomas, supra note 2.
the Oregon coastal coho and other ESUs' listing status."\(^{233}\) In addition to the ESA, the federal government also has in place other fishery protections including the Northwest Forest Plan, the Aquatic Conservation Strategy, and the Magnuson-Stevens Fishery Conservation and Management Act.\(^{234}\)

1. Implications for Habitat Protection Under State Law: Oregon's Example

Oregon's laws and regulations prove Oregon's commitment to protecting and restoring coho salmon habitat. Many laws, including the Oregon Plan for Salmon and Watersheds, the Oregon Forest Practices Act, the Oregon Department of Forestry's Northwest Oregon Forest Management Plan are still in effect notwithstanding the district court's order. For example, the Oregon Plan is a comprehensive conservation plan directed specifically at coho.\(^{235}\) NMFS found the Oregon Plan so effective that "[c]onservation benefits accruing from the Oregon Plan . . . formed a major basis for NMFS' [sic] original determination to withdraw the listing proposal for the Oregon coastal coho salmon ESU."\(^{236}\)

2. Implications for Habitat Protection Under Federal Laws

On federal lands within Oregon, the district court decision's impact on salmon and steelhead habitat is negligible. The Aquatic Conservation Strategy (ACS) of the Northwest Forest Plan (NFP) remains in place to assess activities by the United States Forest Service and Bureau of Land Management. The ACS is a comprehensive plan designed to maintain and restore the ecological health of the waterways in federal forests.\(^{237}\) The ACS has four components: (1) key watersheds, (2) riparian reserves (buffer zones along streams, lakes, wetlands, and mudslide risks), (3) watershed analysis, and (4) watershed restoration (a long-term program to restore aquatic ecosystems and watershed health).\(^{238}\) The ACS also has binding standards and guidelines that restrict certain activities within areas designated as riparian reserves or key watersheds, and has nine objectives designed to main-

\(^{233}\) Press Release, supra note 19, at 3.
\(^{236}\) Id. at 42,588.
\(^{237}\) Pac. Coast Fed'n of Fishermen's Ass'ns, Inc. v. NMFS, 265 F.3d 1028, 1031 (9th Cir. 2001).
\(^{238}\) Id. at 1032.
tain or restore properly functioning aquatic habitats. Proposed timber sales and other projects are subject to a planning process involving biologists and resource management specialists to incorporate the NFP and ACS requirements.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson Act) also remains in effect. The Magnuson Act governs federal management of fisheries via eight Regional Fishery Management Councils. The Pacific Fishery Management Council (Pacific Council) is responsible for creating management plans for fisheries in its geographic area, including the Oregon coast. The Pacific Council submits each plan to the Secretary of Commerce, who reviews it for consistency with the provisions of the Magnuson Act and other applicable law. Given these and other federal laws still in place, salmon and steelhead habitat are well protected:

NOAA fisheries will support and encourage local initiatives to restore salmon runs and will become a full partner in those efforts. NOAA fisheries will focus on working with successful local salmon recovery efforts and public/private partnerships such as the Hatchery Scientific Review Group, Puget Sound Shared Strategy, Lower Columbia River Estuary Program and a multitude of local watershed recovery efforts throughout the Northwest.

C. NMFS’s Review for ESU, Hatchery Policies, and NMFS’s Role in Ocean Harvesting

Significant reforms are needed to ensure that NMFS manages fish stocks in the Northwest in a manner that complies with the requirements and limitations of the ESA. To date, NMFS’s approach to ESA implementation controversy and litigation form a wide spectrum: environmental groups, regulated interests, state and local government, and federal agencies. Reform is needed to restore the legitimacy of NMFS and its approach to implementation of the ESA for Pacific salmon and steelhead.

Although Alsea may not result in complete reexamination of the ESA, it will result in a reexamination by NMFS of the congressional

239. Id.
240. Id.
intent in defining species too narrowly.\textsuperscript{244} The ESA, as currently written, exists to protect species at virtually any cost, regardless of the effects on people and their livelihood, and it is backed by powerful criminal and civil penalties.\textsuperscript{245} As former Senator Mark Hatfield said:

I have supported—and I continue to support—the Endangered Species Act. I helped to write it. I want it to survive. . . . But unlike many of my colleagues from urban areas, I also have to deal with the human side of the act, and thus have special reason to know that it has come to be an environmental law that favors preservation over conservation. . . . The fact is that Congress always considered the human element as central to the success of the ESA. . . . The situation has gotten out of control.\textsuperscript{246}

\textit{The Wall Street Journal} proposed peer review of all ESA reports as a short-term solution.\textsuperscript{247} However, until the ESA is revised, it is critical to define “species” in accordance with Congressional intent and not to extend the definition, allowing the listing of numerous subcategories of species.

In response to \textit{Alsea}, other suits have been filed along with delisting petitions.\textsuperscript{248} As a result, NMFS has announced a plan of action for review of its Hatchery Policy, followed by a review of twenty-four listings that relied on the Hatchery Policy.\textsuperscript{249} While this is a significant step, NMFS should review its ESU policy before re-evaluating listings.

NMFS’s listing of salmon and steelhead ESUs continue to affect the entire Pacific Northwest, covering large portions of California, Idaho, Oregon, and Washington. Because these listings are founded on ESU and hatchery policies that misinterpret and misapply the ESA, NMFS faces a crisis of legitimacy if the listings continue to be enforced against use of land and water in affected regions. To avert this

\begin{itemize}
\item\textsuperscript{244} Endangered and Threatened Species: Findings on Petitions to Delist Pacific Salmonid ESUs, 67 Fed. Reg. 6215 (Feb. 11, 2002).
\item\textsuperscript{246} The Act has a woeful history both in terms of its effect on people—it can often render property worthless to the owner—and in terms of fauna. Of the 27 species removed from the ESA list, 14 never should have been listed in the first place, seven have become extinct, two were save by the DDT ban, and three were . . . Kangaroos in Australia.
\item\textsuperscript{248} \textit{Fish Tales}, \textit{WALL ST. J.}, Feb. 27, 2002, at A20.
\end{itemize}
crisis, NMFS must withdraw the flawed listings and begin anew with the implementation of the ESA for Pacific salmonids.

In addition to re-evaluating the ESU policy, NMFS must ensure public accountability in the process for re-evaluating listing policies and species listings. NMFS has announced that it will reevaluate its hatchery policy through a process of public notice and comment, followed by a re-evaluation of the status of listed salmonid species. However, more public access is needed. Information relating to their policies, decisions, finances, and funding should be easily available to the public.

NMFS should also re-evaluate its policy on ESUs as collections of independent populations that do not interbreed when mature. This ESU review, with notice and comment, should be completed and implemented before NMFS proposes any new listings of salmon or steelhead. However, NMFS should avoid the mistakes of the past and should list only species or distinct population segments that are threatened or endangered in accordance with the plain language of the ESA.<sup>250</sup>

While NMFS is reviewing their hatchery policies and ESU listings, the agency should reevaluate their other role in allowing the commercial harvest of listed species.<sup>251</sup> NMFS is arguably in violation of the Magnuson-Stevens Act. Under the Sustainable Fisheries Act amendments to the Magnuson-Stevens Act, NMFS and the Councils must take immediate action to prevent overfishing of salmon stocks. Congress declared that a purpose of the Sustainable Fisheries Act Amendment was "to take immediate action."<sup>252</sup>

According to NMFS, ocean harvest kills fifty-six to fifty-nine percent of all returning Puget Sound Chinook salmon.<sup>253</sup> Neverthe-

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250. To date, the agencies have redefined terms according to their own policies and objectives.

"When I use a word," Humpty Dumpty said in rather a scornful tone, "it means just what I choose it to mean—neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master—that's all."


251. In 1997 (the most recent year with complete data from the PFMC), commercial (treaty and non-treaty) and recreational fishermen caught approximately 130,000 Chinook in Puget Sound marine waters before they reached their natal streams where they could have spawned (PFMC 1999).


253. Endangered and Threatened Species: Proposed Endangered Status for Two Chinook Salmon ESUs and Proposed Threatened Status for Five Chinook Salmon ESUs; Proposed Redefinition, Threatened Status, and Revision of Critical Habitat for One Chinook Salmon ESU; Proposed Designation of Chinook Salmon Critical Habitat in California, Oregon, Washington,
less, NMFS still authorizes direct and indirect take of Puget Sound Chinook despite the listing and proposed listing of many groups of Pacific Salmon as threatened or endangered under the ESA.\textsuperscript{254} By continuing to directly, indirectly, and cumulatively authorize and fail to properly curtail or control fisheries taking these fish under the Magnuson Act, the ESA, and other applicable laws, NMFS is actively contributing to the decline in salmon numbers.

NMFS's failures to prevent overfishing are in effect promoting short-term exploitation of salmon and are in direct conflict with its responsibility to protect threatened and endangered species.\textsuperscript{255} Such actions and omissions are arbitrary, capricious, an abuse of discretion, otherwise not in accordance with the law, and in excess of statutory jurisdiction.\textsuperscript{256}

As a result of NMFS conflict of interest, listed salmon have been and will be harassed, harmed, pursued, hunted, wounded, killed, trapped, captured, and collected contrary to the ESA. In addition, citizens in the Pacific Northwest will be harmed and injured by loss of enjoyment of listed fish and substantial increases in costs of and delays in the approval of land, water and natural resource, and development activities.

In order to recover salmon ESUs, NMFS must prevent overfishing. No amount of habitat restoration can recover stocks that are not allowed to recover from effects of over harvesting in the ocean. Salmon recovery will be retarded and may well never occur unless people stop catching endangered and threatened salmon, and overfishing ends.

Once NMFS ceases its authorization of ocean harvest and has reformed its ESU and hatchery policies, it can begin to reform some of its other requirements such as the consultation requirement of section

\textsuperscript{254} Authorized salmon harvest and bycatch of salmon listed for protection under the Magnuson-Stevens Act and the ESA without an adequate environmental impact statement is in violation of NEPA. However, NMFS continues to approve exploitation rates on listed salmon.

\textsuperscript{255} Pacific Coast Management Plan, (Draft Appendix A of Amendment 14), at 2-4 states that "ocean fisheries targeting Chinook salmon use hook and line gear... Chinook salmon fisheries have some bycatch associated with them, most often other salmonids and undersized Chinook salmon. While the majority of these fish survive the hooking encounter, substantial (>25%) mortality may occur. . . ."

\textsuperscript{256} Authorization of salmon harvest and bycatch of salmon listed for protection under the ESA without a valid incidental take statement is an irretrievable commitment of resources in violation of 16 U.S.C. § 1536(d).
7 of the ESA, its critical habitat tests, and its concepts for compliance with the take prohibitions of Section 9 of the ESA.

CONCLUSION

The Alsea court correctly concluded that both naturally spawning and hatchery spawned salmon require the same protection under the ESA. As discussed above, there is no legal basis for a distinction within an ESU under a careful reading of the language of the ESA or of congressional intent in allowing limited use of distinct population segments. NMFS has even acknowledged that hatchery spawned Oregon coastal coho are genetically indistinguishable from naturally spawning coho.

In addition to the lack of a legal basis for a distinction between hatchery spawned and naturally spawning coho ESUs, there is no compelling genetic reason for such a distinction. They both interbreed and occupy the same geographical area. Hatchery spawned coho are the progeny of naturally spawning coho, and naturally spawning coho are the progeny of hatchery spawned coho. Both hatchery spawned and naturally spawning coho must return from years in ocean conditions, where only the fittest return to Northwest rivers.

When evaluating whether an ESU is in fact threatened with extinction, the long-term insurance protection that hatchery spawned salmon provide should be taken into account. Hatchery spawned salmon can also be viewed as a real-time genetic bank with as much diversity as policy makers wish to incorporate. It is not just numbers of additional salmon that hatchery spawned salmon provide; it is the backstop insurance against extinction threats that should be taken into account. If the additional numbers and the long-term protections are considered, it may be possible to remove a number of the ESUs from the threatened or endangered list. That, in turn, would make it possible to remove the costly restrictions imposed by the ESA.

By removing ESUs from the list of threatened or endangered species under the ESA, the Northwest will have valuable flexibility to adopt state and local measures for local management of Northwest salmon stocks. For example, while the Oregon Plan did not meet the standards of the ESA because it was voluntary, it was a good example of a workable local program that had wide support.

The greatest pressure on the listed salmon ESUs appears to be from commercial harvest and bycatches, which NMFS is required to control through its harvest policies. When NMFS reviews its hatchery policy, it should undertake a parallel review of its harvest policies in order to reduce the long-term pressure on Northwest salmon ESUs. It is a paradox to have salmon listed as threatened or endangered continue to be captured and killed in sport and commercial seasons set by the government.

At a time when returning salmon runs in the Northwest are setting modern day records, NMFS can take a measured review of the situation without the pressure of an impending catastrophe. The Alsea decision has provided the necessary legal rationale for such a measured review. While hatchery spawned salmon cannot be expected to produce all of a distinct population segment, they can provide assurance that no ESU is likely to disappear.258

258. After this article was in the final stages of publication, NMFS prepared and circulated to comangers, including Northwest Native American tribes, a draft hatchery listing policy and posted it on the NOAA website. NOAA Fisheries Asks States and Tribes for Comments on Preliminary Draft of New Hatchery Listing Policy for Pacific Salmon and Steelhead, available at http://www.nwr.noaa.gov/HatcheryListingPolicy (last visited Sept. 13, 2002). Early reviews of the draft policy were not favorable: "Less than 24 hours after NMFS released a draft plan for dealing with the problems of hatchery salmon and ESA issues, the embattled fish agency was criticized for violating the spirit of the federal court decision that forced it to re-examine its listing policy in the first place." CLEARING UP, No. 1042, July 29, 2002, at 2, 11-12.