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Saving Puget Sound Wild Salmon Fishery

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TABLE OF CONTENTS

I. INTRODUCTION: WHAT RESTORATION PATH WILL WASHINGTON CHOOSE?

The endangered Puget Sound wild salmon fishery is an exceptionally valuable natural and cultural resource for all of Washington State's people.[1] Today salmon are far more than part of the

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1. The National Oceanic and Atmospheric Administration (NOAA) defines the Puget Sound as follows: "Puget Sound is a fjord-like estuary located in northwest Washington state and covers an area of about 2,330 km^2, including 3,700 km of coastline. It is subdivided into five basins or regions:

state's economy and heritage; they are a unique symbol of Washington's treasured ways of life and its commitment to protecting the environment. The fishery is a vital part of the culture of many of the Native American tribes in the state, and contributes the equivalent of millions of dollars to their annual income.[2] In recognition of the fishery's importance, the federal government agreed with the Treaty Tribes in the 1850s Stevens Treaties that in return for the tribes' willingness to relinquish most of their ancestral lands, the federal government would permanently protect the tribes' traditional fishing rights.[3] Under the treaties, future generations of the tribes were to have a lasting share in a fishery at least ten times larger than it is today.[4]

But Puget Sound salmon fisheries have instead declined so dramatically from their historical levels that the federal government now classifies several species as threatened under the Endangered Species Act.[5] Washington's citizens, the many tourists who visit Washington, and consumers around the world will lose from the collapse of this unique natural resource. The death of the Puget Sound salmon fishery will especially harm Washington's Native American tribes, both culturally

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1) North Puget Sound, 2) Main Basin, 3) Whidbey Basin, 4) South Puget Sound, and 5) Hood Canal." Environmental History and Features of Puget Sound *in* R.G. Gustafson et al., U.S. Dep't Commerce, NOAA Technical Memo, NMFS-NWFSC-44, Status Review of Pacific Hake, Pacific Cod, and Walleye Pollock from Puget Sound, Washington (2000), http://www.nwfsc.noaa.gov/publications/techmemos/tm44/environment.htm. NOAA's definition includes most of the Strait of San Juan de Fuca, including the portion into which the Elwha River discharges. *Id.* For a map of these areas, see *id.* at fig.4, *available at* http://www.nwfsc.noaa.gov/publications/techmemos/tm44/fig4.htm.

2. In 2006, it provided approximately $65 million in direct revenues to commercial non-native fishermen alone; the tribal share of the fishery would have a comparable market value. Mason D. Morisett & Carly A. Summers, *Clear Passage: The Culvert Case Decision as a Foundation for Habitat Protection and Preservation*, BELLWETHER: SEATTLE J. ENVTL. L. & POL'Y 29, 39 (2009).

3. The Stevens Treaties, a series of treaties entered into between 1854–55, reserved to the tribes their longstanding tribal fishing rights at all "usual and accustomed grounds" in common with non-tribal fishers. *See, e.g.*, Treaty with the S'Klallam, Jan. 26, 1855, 12 Stat. 933, art. IV. The Treaty Tribes consist of the Hoh Indian Tribe, the Jamestown S'Klallam Tribe, the Lower Elwha Klallam Tribe, the Lummi Nation, the Makah Nation, the Muckleshoot Tribe, the Nisqually Indian Tribe, the Nooksack Tribe, the Port Gamble S'Klallam, the Puyallup Tribe of Indians, the Quileute Indian Tribe, the Quinault Indian Nation, the Sauk-Suiattle Tribe, the Skokomish Tribe, the Squaxin Island Tribe, the Stillaguamish Tribe, the Suquamish Tribe, the Swinomish Tribe, the Tulalip Tribes, and the Upper Skagit Tribe.

4. *See* NAT'L MARINE FISHERIES SERV., BIENNIAL REPORT TO CONGRESS ON THE RECOVERY PROGRAM FOR THREATENED AND ENDANGERED SPECIES: OCTOBER 1, 2006—SEPTEMBER 30, 2008, at 50 (2009); *see also* Ted Gresh et al., *An Estimation of Historic and Current Levels of Salmon Production in the Northeast Pacific Ecosystem: Evidence of a Nutrient Deficit in the Freshwater Systems of the Pacific Northwest*, 25 FISHERIES 15, 17–18 (2000) (discussing the general declines in Pacific Northwest salmon fisheries).

5. *See* 50 C.F.R. §§ 223.102, 224.101. These sections of the Code of Federal Regulations list all endangered species, including those within the Puget Sound area.

and economically.[6] One of the major causes of salmon population decline is that an estimated eighty percent of available Puget Sound salmon habitat has been destroyed over the past century.[7] And habitat loss continues despite federal, state and local government expenditures of tens of millions of dollars on habitat restoration.[8]

This article focuses on the prevention of future habitat losses.[9] Part I explores flaws in how existing law deals with habitat protection and outlines alternative policies to improve it. Part II charts the decline of the Puget Sound salmon fishery and discusses the scientific support for the conclusion that habitat protection and restoration is a central element in restoring it. Part III considers how effective administrative action and related endangered species litigation are likely to be as means of protecting habitat. Since Native American tribes face very severe harm from the fishery's potential destruction, Part III also explores their distinctive legal authority to protect it. The article concludes that Native American treaty fishing rights could be a powerful tool for compelling federal, state, and local governments to preserve habitat for the salmon fishery. Part IV shows that adopting comprehensive federal legislation to resolve these conflicts would nevertheless be the best course of action.

Much of the litigation and legislation regarding the salmon fishery in the past decade in Washington State has sought to restore the fishery

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6. *See* NW. INDIAN FISHERIES COMM'N, TREATY RIGHTS AT RISK: ONGOING HABITAT LOSS, THE DECLINE OF THE SALMON RESOURCE, AND RECOMMENDATIONS FOR CHANGE 6 (2011) (on file with journal) ("As the salmon disappear, our tribal cultures, communities and economies are threatened as never before. Some tribes have lost even their most basic ceremonial and subsistence fisheries—the cornerstone of tribal life.").

7. *See* NAT'L MARINE FISHERIES SERV., SHARED STRATEGY DEV. COMM., PUGET SOUND SALMON RECOVERY PLAN 73–75 (2007) [hereinafter NMFS, 2007 SALMON RECOVERY PLAN], *available at* http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Puget-Sound/PS-Recovery-Plan.cfm (prepared by the Shared Strategy Development Committee and adopted by the National Marine Fisheries Service as its official salmon recovery plan).

8. *See* NW. INDIAN FISHERIES COMM'N, *supra* note 6, at 8 (citing three main reasons for the continuing loss of habitat: (1) the failure to apply similar standards for harvest and habitat management, (2) the failure to fully exercise existing federal regulatory/legislative authority, and (3) the lack of concert in action between varying federal agencies).

9. In addition to habitat losses resulting from land development, other major factors in the decline according to scientists include hatcheries, harvest (including interception of migratory salmon on the high seas), and hydropower. *See* Jonathan M. Hoekstra et al., *Quantitative Threat Analysis for Management of an Imperiled Species: Chinook Salmon*, 17 ECOLOGICAL APPLICATIONS 2061 (2007). In limited parts of the Puget Sound region, poor water quality may also limit salmon populations. *See* Julann A. Spromberg & Nathaniel L. Scholz, *Estimating the Future Decline of Wild Coho Salmon Populations Resulting from Early Spawner Die-Offs in Urbanizing Watersheds of the Pacific Northwest, USA*, 7 INTEGRATED ENVTL. ASSESSMENT & MGMT. 648 (2011). Some observers would also include forest practices and agricultural activities as contributing factors. Factors other than habitat are outside the scope of this article, but it is important to appreciate that collectively they are quite significant, and that sound restoration policy must take varying factors that have contributed to decline into account. This issue is discussed further in Part IV.

by compelling improvements in environmental quality, including river restoration. Such litigation includes the pending federal "Culverts" litigation brought by the Treaty Tribes to compel the State of Washington to repair, replace, or remove culverts that are impeding fish passage, and to protect fish passage in the construction of new culverts.[10] Legislative actions have included the removal of the dams on the Elwha River, a multiyear restoration effort estimated to cost hundreds of millions of dollars.[11] Improvements in water quality, such as those resulting from improved control of stormwater runoff, should also benefit fish populations over time.[12]

However, most of these laudable efforts will do little or nothing to stem the additional loss of habitat that is likely to result from poorly controlled future land development in the Puget Sound region. The region's population is estimated to increase approximately twenty-three percent—to 4.5 million people—by 2030.[13] In light of Washington's past riparian and coastal land development patterns, it is reasonable to expect the region will lose a substantial portion of its remaining salmon habitat, even after gains from current restoration efforts are taken into account. Biologists have warned that preventing additional habitat losses is critical, but that doing so requires modifying and even limiting future land development patterns in riparian areas along the Puget Sound and its major tributary rivers.[14]

Many steps these scientists regard as necessary for salmon restoration will clash with powerful political and economic forces that

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10. United States v. Washington, No. CV 9213RSM, 2007 WL 2437166, at *10 (W.D. Wash.) (Judge Martinez's issuance of a declaratory judgment imposing a duty on the state to refrain from building and operating culverts in a manner that would infringe on tribal treaty fishing entitlements). Other environmental restoration litigation includes Skokomish Indian Tribe v. United States, 410 F.3d 506 (9th Cir. 2005). *See generally* Morisett & Summers, *supra* note 2; Thane D. Somerville, *Tribes and Dams: Using Section 4(e) of the Federal Power Act to Protect Indian Tribes and Restore Reservation Resources*, BELLWETHER: SEATTLE J. ENVTL. L. & POL'Y 122 (2009).

11. *See* Elwha River Ecosystem and Fisheries Restoration Act, Pub. L. No. 102-495, §4, 106 Stat. 3173 (1992); *see also Economics of Dam Removal*, ELWHA WATERSHED INFO. RES., http://www.elwhainfo.org/elwha-river-watershed/dam-removal/decisions-remove-dams/economics-dam-removal (last visited Dec. 30, 2011).

12. *See* Spromberg & Scholz, *supra* note 9; *see also* PUGET SOUND P'SHIP, ACTION AGENDA, 21 (2009) (citing a lack of water quality, especially from stormwater runoff and low oxygen levels, as one of a number of areas that requires remediation).

13. *See Population, Households, and Employment Forecast*, PUGET SOUND REG'L COUNCIL, http://psrc.org/data/forecasts/saf/ (download and open Microsoft Excel document "2006 Forecasts of Population, Households, and Employment"; scroll to tab "FAZ2030"; see column "TOTPOP").

14. *See* NMFS, 2007 SALMON RECOVERY PLAN, *supra* note 7, at 354 ("[P]rotecting existing habitat and the ecological processes that create it is the most important action needed in the short-term to increase the certainty of achieving plan outcomes."). Since other factors have contributed to salmon population decline, it will be necessary to address them as well; but habitat protection is the essential foundation for such efforts.

have spurred coastal development, especially over the past several decades. Therefore, if Washington State and federal policymakers want to save Puget Sound wild salmon they must ultimately transform the politics and economics of Puget Sound fishery habitat management. There are several possible ways to effect such a transformation, but to appreciate them fully one must understand the existing legal and political structure of Washington fisheries management.

A. *Existing Legal and Political Structure*

Today the State of Washington and the Native American tribes share responsibility for conservation management of the salmon fishery.[15] At the same time, however, responsibility for managing salmon habitat is highly fragmented between a series of jurisdictions.[16] At the state level, Washington has several statutes intended to manage growth in sensitive areas, in particular the Growth Management Act (GMA) and the Shoreline Management Act (SMA).[17] However, these statutes assume that local jurisdictions will ultimately manage development of lands, except where the state or tribes actually own the land, subject to a theoretical state authority to prevent or object to local government's actions.[18] The State of Washington possesses nominal legal authority over local growth-related action, especially at the land use planning level, as compared to the individual permit level. The state can refuse to

15. In the aftermath of the *Boldt* decision, United States v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974), *aff'd*, 520 F.2d 676 (9th Cir. 1975), *aff'd sub nom.* Washington v. Wash. State Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658 (1979), the Washington tribes and the State of Washington ultimately entered into a co-management process with respect to the Puget Sound salmon fishery. *See generally Salmon & Steelhead Conservation*, WASH. DEP'T FISH & WILDLIFE, http://wdfw.wa.gov/conservation/salmon/co-management/index.html (last visited Feb. 20, 2012); NW. INDIAN FISHERIES COMM'N, TRIBAL FISHERIES MANAGEMENT, *available at* http://access.nwifc.org/fishmgmt/documents/2004_FishMgmt.pdf. A 2004 harvest management plan refers to the *Puget Sound Salmon Management Plan* (1985) as establishing the co-management obligations regarding Puget Sound fishery management. *See* PUGET SOUND INDIAN TRIBES & WASH. DEP'T FISH & WILDLIFE, COMPREHENSIVE MANAGEMENT PLAN FOR CHINOOK SALMON: HARVEST MANAGEMENT COMPONENT 20 (2004), *available at* http://wdfw.wa.gov/publications/00099/wdfw00099.pdf.

16. Jurisdiction is split amongst local governments and their respective land use regulations, the State of Washington, tribal governments and their harvest and hatchery management, and the federal government through the National Marine Fisheries Service (discussed further below).

17. WASH. REV. CODE §§ 36.70A, 90.58 (2011). The State of Washington also has environmental planning and compliance responsibilities under other state and federal laws, including the state and federal Clean Water Acts, *e.g.*, 33 U.S.C. §§ 1311 (2010), and the federal Coastal Zone Management Act, 16 U.S.C. § 1451 (2010).

18. *See* WASH. REV. CODE. § 36.70A.060 (2011) (giving county and city governments authority for enacting local development regulations within environmentally critical areas); *see also id.* § 36.70A.320 (stating that local development regulations enacted as part of the GMA are presumed valid until petitioned to the applicable Growth Management Hearing Board); WASH. ADMIN. CODE §§ 365-196-830, -190-080 (2011).

approve Shoreline Master Programs and can appeal GMA plans to the Growth Management Hearings Board. In practice, the state has only infrequently refused to approve programs or appealed plans, and there is no evidence that the state has ever done either for the purpose of protecting salmon. Thus, experience shows that in reality these statutes constitute largely aspirational legislative directions to local jurisdictions as to how they should carry out land management in sensitive areas, with local jurisdictions ultimately retaining considerable discretion for permitting development.[19]

Local jurisdictions have strong economic incentives to permit further development because they depend on property tax revenues to fund most of their government programs, from schools to public safety, and development can broaden their tax bases.[20] Ironically, these development incentives are often strongest in precisely the areas that are most environmentally sensitive because those places also are beautiful or provide unusually good recreation. And these sensitive areas are often located near existing riparian or shoreline development as a result of historical land use patterns in the region, adding to their economic value.

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19. *See* 24 TIM BUTLER & MATTHEW KING, WASHINGTON PRACTICE, ENVIRONMENTAL LAW AND PRACTICE § 18.3 n.1 (2d ed. 2011) ("The GMA is founded on the premise that local governments rather than the state government have the primary duty and authority for growth management policy-making and further, that the choices made by those local governments may be different in different parts of the state. City of Snoqualmie v. King County, CPSGMHB Case No. 92-3-0004 (March 1, 1993). This approach to growth management, i.e., delegating broad authority and discretion to local governments, is characterized as unique among states in Aagaard, et al., v. City of Bothell, CPSGMHB Case No. 94-3-0011, (February 21, 1995)."). Some observers believe that this last quoted statement requires additional context. They note that most states do not even have growth management laws, and there are essentially no state limitations on local jurisdiction. In Washington, as noted in the text, there are state limitations on local discretion, especially under the Shoreline Management Act, but also under the Growth Management Act and other regulatory laws. For the contention that existing Washington state and local regulations are sufficient to protect ESA-listed species and their habitat, see Memorandum for Prop. Owners for Sensible Floodplain Regulations as Amicus Curiae at 41, Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, No. 2:11-cv-02044-RSM (W.D. Wash. Dec. 8, 2011) [hereinafter POSFR Mem.]. However, the dispositive question is whether such state supervisory powers have been used—and, as a practical political matter, can actually be used—to protect salmon habitat. For further discussions pertaining to the GMA's "bottom up" approach of giving local jurisdictions discretion over the GMA's implementation, see Henry W. McGee, Jr., *Washington's Way: Dispersed Enforcement of Growth Management Controls and the Crucial Role of NGOs*, 31 SEATTLE U. L. REV. 1 (2007); Tadas Kisielius, *Revisiting "Bottom Up" Planning and Local Discretion: Voters Weigh in on Growth*, NW. LAND MATTERS (Sept. 30, 2010), http://www.northwestlandmatters.com/growth-management-act/revisiting-bottom-up-planning-and-local-discretion-voters-weigh-in-on-growth/.

20. Of course, many local jurisdictions have other sources of revenue, including sales tax revenue, but property tax revenue is one source of revenue that they can readily increase simply by permitting private property development, so it plays an important part in shaping local development policy.

At the federal level, several major programs strongly affect land development patterns in ways that damage habitat by subsidizing development in areas containing sensitive habitat. With taxpayer subsidies, development takes place that would otherwise not occur because it would be too expensive or risky to undertake without them. This occurs quite often in particularly environmentally sensitive areas such as lands immediately adjacent to rivers.[21] Two federal programs are most significant in this respect. First, the National Flood Insurance Program (NFIP)[22] subsidizes development by providing insurance for flood-prone areas at below-market costs.[23] Second, the flood control program managed by the U. S. Army Corps of Engineers (Army Corps) uses federal taxpayer funds to channelize rivers and construct flood control levees that make intensive riparian development possible in areas where it would otherwise be impossible or prohibitively expensive.[24] Over the past several decades the federal government has spent billions of dollars subsidizing local development through these two programs. The NFIP alone is nearly $20 billion in debt at this writing due to its subsidization of flood insurance across the country.[25] Likewise, the Army Corps spends tens, if not hundreds, of millions of dollars per project on providing flood control infrastructure, and the Army Corps typically provides the infrastructure at little or no additional direct cost to those taxpayers who benefit most directly from it.[26]

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21. *See* NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES ACT—SECTION 7 CONSULTATION FINAL BIOLOGICAL OPINION 4 (2008) [hereinafter NMFS, BIOP] ("[M]ost of the literature related to the NFIP's [National Flood Insurance Program's] environmental and developmental impacts suggests that the program encourages, in some manner, the development and environmental transformation of wetlands and coastal areas, or that it does little to impede these impacts."); *see also* WALTER ROSENBAUM, THE DEVELOPMENT AND ENVIRONMENTAL IMPACTS OF THE NATIONAL FLOOD INSURANCE PROGRAM: A SUMMARY REPORT 3 (2006).

22. In 1968 Congress passed the National Flood Insurance Act, 42 U.S.C. §§ 4001–4129 (2011). The purpose of the act was to make flood insurance "available on a nationwide basis through the cooperative efforts of the Federal Government and the private insurance industry . . . [based upon] workable methods of pooling risks, minimizing costs, and distributing burdens equitably among those who will be protected by flood insurance and the general public." *Id.* § 4001(d). The act's further purpose was to encourage "sound land use by minimizing exposure of property to flood losses." *Id.* § 4001(c)(1). The act created the NFIP, now administered by FEMA, and issued to individuals whose communities meet FEMA's minimum participation requirements/criteria. *Id.* § 4102(c).

23. *National Flood Insurance Program Continued Actions Needed to Address Financial and Operational Issues: Testimony Before the S. Comm. on Banking, Hous., and Urban Affairs*, 111th Cong. 1 (2010) (statement of Orice Williams Brown, Director of Fin. Markets and Cmty. Inv.), *available at* http://www.gao.gov/assets/130/125283.pdf.

24. 33 U.S.C. § 701 (2011).

25. Statement of Orice Williams Brown, *supra* note 23.

26. *See* 33 U.S.C. § 701t (only obligation on local governments for flood control improvements is to provide easements/access and future maintenance up to Army Corps standards).

The net result of this often-conflicting and fragmented array of federal, state, and local programs is that in the Puget Sound region, economic incentives for coastal development historically have been stronger than the political will to use existing environmental and growth management laws to restrain such development. And so the Puget Sound salmon fishery has been destroyed over time in significant part because salmon habitat essential to the fishery's continued existence has been destroyed (though as noted earlier, other factors have played important roles as well).[27]

1. Effects of the Endangered Species Act

Federal development subsidy programs coexist uneasily with laws requiring the federal government to protect threatened or endangered species and to refrain from actions that will jeopardize their continued existence, particularly the Endangered Species Act.[28] Over the past several years, courts have increasingly concluded that federal agency duties under the Endangered Species Act must take precedence over the federal government's continued provision of development subsidies.[29] In Washington State, the National Wildlife Federation brought litigation in 2004 alleging a conflict between the federal flood insurance program and the protection of endangered fish species.[30] New litigation between the same parties concerning much the same set of issues began in late 2011 and is discussed in detail in Part III.[31]

Unless Congress amends the ESA, similar lawsuits can be expected to continue and to succeed if federal, state, and local governments do not

27. NMFS, 2007 SALMON RECOVERY PLAN, *supra* note 7, at 354 ("[T]here have already been substantial reductions in the types, quality and amounts of salmon habitat, and this is one of the main factors affecting fish populations.").

28. The Endangered Species Act, 16 U.S.C. §§ 1531–1599 (2011). 16 U.S.C. § 1536(a)(2) (2011) requires federal agencies to ensure that their actions are "not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species . . . ." In theory, both the National Environmental Policy Act and the Clean Water Act might assist in limiting habitat damage, but so far at least they have played little practical role in that process in the Puget Sound region.

29. *See, e.g.*, Fla. Key Deer v. Paulison, 522 F.3d 1133, 1136 (11th Cir. 2008) (affirming lower court's ruling that continued issuance of national flood insurance would cause jeopardy to listed species of Key Deer). For earlier challenges, see Tenn. Valley Auth. v. Hill, 437 U.S. 153, 172 (1978) (discovery of threat to endangered snail darter forced court to stop completion of the Tellico Dam, which Congress had already spent over $100 million funding); Sierra Club v. Marsh, 816 F.2d 1376, 1389 (9th Cir. 1987) (holding that the Army Corps of Engineers must halt construction of a highway and flood control project and reinitiate consultation with U.S. Fish and Wildlife Service over continued harm to listed species).

30. Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, 345 F. Supp.2d 1151, 1154 (W.D. Wash. 2004).

31. *See* Complaint for Declaratory and Injunctive Relief, Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, No. 2:11-cv-02044 (W.D. Wash. Dec. 8, 2011).

take action to protect listed species. To date, the National Wildlife Federation litigation has had a limited practical effect on Puget Sound development patterns, but this could change dramatically over the next few years for reasons explained below. It is especially important to appreciate that as a result of this new litigation, the substantial economic costs of protecting the fishery could fall unevenly on different parts of the state and on individual property owners and communities, despite the fact that the resulting benefits would be enjoyed by Washington citizens and tribes as a whole.[32]

B. Proposed Policy Approaches

From this brief sketch of the existing legal regime for Puget Sound wild salmon fishery management, it follows that theoretically there are three different policy approaches that (separately or in some combination) could be taken to restoring the fishery's habitat degradation and loss. They are:

First, eliminate the economic incentives that encourage local development and habitat destruction by, for example, using tax funding to acquire additional habitat or to replace local property tax revenues that local governments would lose by maintaining salmon habitat. Funding could theoretically come either from general revenues, from user fees, or from some combination of both;

Second, strengthen existing laws that are intended to protect habitat by removing or restricting local discretion to permit habitat destruction and by eliminating all direct and indirect federal subsidies for development, particularly those provided by flood insurance and taxpayer-funded levee construction. This could be done through legislation or, at least in some cases, through administrative action under existing law; or

Third, impose strict legal duties on government authorities at all levels to protect and restore salmon habitat, enforceable by substantial fines and penalties for noncompliance. This could be done either through legislation or, to the extent permitted by existing law, through litigation.

In order to make wise choices about these alternative policies, one must carefully examine and balance the costs and benefits of each approach. To provide the necessary background information for that

32. For example, if a court were to prohibit further issuance of flood insurance or forced serious changes to FEMA's insurance community eligibility requirements as a result of the new NWF litigation, the state's citizens as a whole would benefit because the fishery would be better protected, but at the same time, property owners in some communities might be denied development rights, or development financing, as a result, and local governments would then lose potential tax revenues. This problem is discussed further in Parts III and IV.

analysis, the next part of this article focuses in detail on the problem of salmon habitat restoration. Later parts of the article examine the costs and benefits of administrative action and litigation, the restoration paths chosen so far, and how those approaches compare to restoration achieved through comprehensive legislation.

II. THE ENDANGERED PUGET SOUND SALMON FISHERY

A. Salmon Population

Puget Sound salmon fisheries today are only a small fraction of their historical size—about ten percent or less of historical levels.[33] In a June 2009 report to Congress,[34] the National Oceanic and Atmospheric Administration (NOAA) estimated that historical Puget Sound Chinook salmon levels (circa 1900) were between 600,000 and 800,000 fish per season.[35] Recent Chinook salmon runs, however, suggest that there has been as much as a tenfold decrease in Puget Sound Chinook salmon populations.[36] That decline is in turn merely a facet of a broad century-long decline in wild salmon and other fish populations throughout the Pacific Northwest.[37] In a 2008 Biological Opinion (BiOp) the National Marine Fisheries Service (NMFS) stated that there was an average of 1500 natural (non-hatchery) spawners for each of the twenty-two populations of Puget Sound Chinook salmon.[38] This was a dramatic decrease from past numbers. NMFS noted that "currently observed abundances of natural spawners . . . are several orders of magnitude lower than estimated historical spawner capacity, and well below peak historical abundance (approximately 690,000 spawners in the early 1900s)."[39]

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33. *See* Gresh et al., *supra* note 4. I wish to thank Dr. George Pess of NOAA for his perceptive and helpful comments on the scientific issues in this section of the article, and for providing various scientific references. He bears no responsibility for any of the conclusions reached in this article, or for any remaining errors, however.

34. NAT'L MARINE FISHERIES SERV., BIENNIAL REPORT, *supra* note 4.

35. *Id.* at 50.

36. *Id.* (estimating that there were only an average of 58,000 natural Chinook spawners in Puget Sound per year between 1999 and 2005).

37 *See* Gresh et al., *supra* note 4.

38. NMFS, BIOP, *supra* note 21, at 26.

39. *Id.* The declines in wild salmon populations are of special concern because it is doubtful that they can be replaced successfully by hatchery-bred fish. There is scientific evidence that hatchery fish are inadequate replacements for wild salmon populations. There are two main reasons for this. First, hatchery born fish are less resistant to disease, including certain parasites and bacterial strains:

> Chinook salmon are exposed to numerous bacterial, viral, and parasitic organisms during their life cycle. Native chinook salmon have evolved with certain of these organisms, but the widespread use of artificial propagation has introduced some exotic organisms not

The decline of the Puget Sound fisheries has now reached the critical point where the federal government has declared that various species of Puget Sound salmon and steelhead are threatened under ESA criteria.[40] After receiving petitions to list a number of Northwest salmon and steelhead species under the ESA,[41] NMFS, which has jurisdiction over most marine and anadromous fish for ESA purposes, listed a number of Northwest salmon species as threatened—that is, in danger of future extinction. NMFS first listed Puget Sound Chinook salmon as a threatened species under the ESA in March 1999.[42] The protected populations include all naturally spawned Chinook salmon residing below impassable natural barriers in the Puget Sound region from the North Fork Nooksack River to the Elwha River.[43] NMFS also listed the Hood Canal summer-run chum salmon as threatened in 1999[44] and listed southern resident killer whales (*Orcinus orca*) as an endangered species; the whales depend in part on salmon for food.[45] A 2008 Recovery Plan for the killer whales therefore focuses on rebuilding Chinook salmon

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historically present in some watersheds. Some scientific studies may indicate that chinook salmon are more susceptible to disease organisms than other salmonids.

PROTECTED RES. DIV., NAT'L MARINE FISHERIES SERV., FACTORS CONTRIBUTING TO THE DECLINE OF CHINOOK SALMON: AN ADDENDUM TO THE 1996 WEST COAST STEELHEAD FACTORS OF DECLINE 7 (1998). Second and more important, evidence suggests that hatchery born fish (and even their natural born offspring) have substantially decreased reproduction rates compared to wild salmon populations. *See generally* Hitoshi Araki et al., *Carry-over effect of captive breeding reduces reproductive fitness of wild-born descendants in the wild*, 5 BIOLOGY LETTERS 629 (2009), *available at* http://www.dfw.state.or.us/fish/OHRC/docs/2009/ArakiEtAl2009BiolLetters.pdf; Hitoshi Araki, et al., *Genetic Effects of Captive Breeding Cause a Rapid, Cumulative Fitness Decline in the Wild*, 318 SCIENCE 100 (2007); *see also The Fish Hatchery Solution Leads to More Problems than Solutions*, MARINE SCIENCE TODAY (June 21, 2009), http://marinesciencetoday.com/2009/06/24/the-fish-hatchery-solution-leads-to-more-problems-than-solutions/.

40. Under this act, the Secretary of the Interior must determine whether a species is endangered or threatened due to any of the following five factors: (1) the present or threatened destruction, modification or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence. 16 U.S.C. § 1533(a)(1)(A)-(E).

41. Listing Endangered and Threatened Species and Designating Critical Habitat, 59 Fed. Reg. 46,808-01 (proposed Sept. 12, 1992) (to be codified at 50 C.F.R. pt. 227).

42. Endangered and Threatened Species; Threatened Status for Three Chinook Salmon Evolutionarily Significant Units, 64 Fed. Reg. 14,308 (Mar. 24, 1999) (to be codified at 50 C.F.R. pt. 223, 224).

43. *Id.* at 14,313.

44. Endangered and Threatened Species: Threatened Status for Two ESUs of Chum Salmon, 64 Fed. Reg. 14,508, 14,512 (Mar. 25, 1999) (to be codified at 50 C.F.R. pt 223).

45. Endangered and Threatened Wildlife and Plants: Endangered Status for Southern Resident Killer Whales, 70 Fed. Reg. 69,903 (Nov. 18, 2005) (to be codified at 50 C.F.R. pt. 224).

numbers to populations that can sustain killer whale populations in Puget Sound.[46]

In 2005, NMFS concluded that the Chinook salmon and Hood Canal summer-run chum remain threatened under the ESA,[47] and subsequently the agency designated hundreds of river and stream miles in Puget Sound as critical habitat for the Chinook salmon and the chum.[48] In 2007, the agency listed Puget Sound steelhead as a threatened species.[49] NMFS concluded that the primary threat to the steelhead was habitat loss. It stated:

> We concluded that the principal factor for decline for Puget Sound steelhead is the present or threatened destruction, modification, or curtailment of its habitat or range. . . . We concluded that existing regulatory mechanisms inadequately protect steelhead habitats as evidenced by the historical and continued threat posed by the loss and degradation of nearshore, estuarine, and lowland habitats due to agricultural activities and urbanization.[50]

B. Habitat Loss

The 2007 Salmon Recovery plan adopted by NOAA was consistent with NMFS's conclusion that habitat is not adequately protected by existing legal mechanisms. The administration recognized that "protecting existing habitat and the ecological processes that create it is the most important action needed in the short term to increase the certainty of achieving [restoration] plan outcomes."[51] The critical importance of adequate riparian habitat to salmon population development is apparent from recent scientific experiments by Carson A. Jeffres et al., some of whose key results are shown in Figure 1.[52]

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46. Endangered and Threatened Species; Recovery Plans; Final Recovery Plan for Southern Resident Killer Whales, 73 Fed. Reg. 4,176 (Jan. 24, 2008).

47. Endangered and Threatened Species: Final Listing Determations for 16 ESUs of West Coast Salmon, and Final 4(d) Protective Regulations for Threatened Salmonid ESUs, 70 Fed. Reg. 37,160 (June 28, 2005) (to be codified at 50 C.F.R. pt. 223, 224).

48. Endangered and Threatened Species: Designation of Critical Habitat for 12 Evolutionarily Significant Units of West Coast Salmon and Steelhead, 70 Fed. Reg. 52,630 (Sept. 2, 2005) (to be codified at 50 C.F.R. pt. 226).

49. Endangered and Threatened Species: Final Listing Determination for Puget Sound Steelhead, 72 Fed. Reg. 26,722 (May 11, 2007) (to be codified at 50 C.F.R. pt. 223). "Steelhead is the name commonly applied to the anadromous form of the biological species *O. mykiss*. . . . The Puget Sound steelhead DPS (distinct population segment) includes more than 50 stocks of summer- and winter-run fish, the latter being the most widespread and numerous of the two run types." *Id.*

50. *Id.* at 26,732.

51. NMFS, BIOP, *supra* note 21, at 354.

52. *See, e.g.*, Carson A. Jeffres et al., Ephemeral Floodplain Habitats Provide Best Growth Conditions for Juvenile Chinook Salmon in a California River, 83 ENVTL. BIOLOGY FISHES 449 (2008).

Figure 1. Comparison of a single enclosure of fish reared in intertidal river habitat below floodplain (left) and a single enclosure of fish reared in the floodplain vegetation (right) after fifty-four days in respective habitats.[53]

In their experiment Jeffres et al. compared fish of the same age, some of which had developed within an ephemeral floodplain zone (those on the right) and some of which had developed in a river mainstem (those on the left). The pictorial data show in striking fashion that fish with the ability to find floodplain refugia and diverse habitats are very likely to be bigger, healthier fish. Such refugia are eliminated by "channelized" rivers that destroy fish habitat (see Figure 2(a)). Figure 2(a) is an aerial photograph of a channelized river. As a result of channelization and associated increases in adjacent land development, a considerable part of the natural habitat that would previously have been available to salmon, especially juvenile fish, has been completely eliminated.

53. Photograph and caption reproduced from Jeffres et al., *supra* note 52, at 455 fig.7. Used by permission.

Figure 2. (a) Channelized river (Washington),[54] (b) unchannelized river (Alaska). [55]

Figure 2(b) shows an unchannelized river that has been allowed to take its natural course and develop through and across an area that is referred to as its channel migration zone (CMZ).[56] The natural CMZ is typically a geographic area wider than the area normally defined as a "floodplain" under Federal Emergency Management Agency (FEMA) regulations.[57] An unchannelized river's ability to flow across its full CMZ results in creation of far greater habitat that is then available for juvenile fish spawning, in turn resulting in significantly higher survival rates and populations. The principal goal of riparian habitat restoration is

54. Photograph by David R. Montgomery, University of Washington. Used by permission. For further information, see David R. Montgomery et al., *Puget Sound Rivers and Salmon*, *in* RESTORATION OF PUGET SOUND RIVERS 1–13 (David R. Montgomery et al. eds., Ctr. Water & Watershed Studies, Univ. Wash. Press 2003).

55. Photograph by Lauren Rogers, Post-doctoral Research Fellow, Ctr. Ecological & Evolutionary Synthesis, Univ. Oslo, Norway. Used by permission.

56. Washington law defines the term "channel migration zone" as follows: "[T]he area along a river within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river and its surroundings." WASH. ADMIN. CODE § 173-26-020(6) (2011).

57. FEMA defines "floodplain" as "any land area susceptible to being inundated by flood waters from any source." *Definitions*, FED. EMERGENCY MGMT. AGENCY, http://www.fema.gov/business/nfip/19def2.shtm (last visited Jan. 2, 2011).

to restore the full channel migration zone for each river as viable habitat for fish populations.[58]

Scientists estimate that approximately eighty percent of the habitat historically available to fish and wildlife on the edge of Puget Sound was destroyed between 1870 and 1970. This process is described in the 2007 NOAA Puget Sound Salmon Recovery Plan, which states:

> An 1885 survey estimated that there were 267 square kilometers of tidal marsh and swamps bordering Puget Sound. Tidelands extended 20 km inland from the shoreline in the Skagit and Stillaguamish watersheds. Approximately 100 years later, only 54.6 [square kilometers] of intertidal marine or vegetated habitat is estimated to occur in the Puget Sound basin. This represents a decline of 80 percent across the region due to agricultural and urban modification of the lowland landscape (NMFS/Chum BRT, 1997). In heavily industrialized watersheds, such as the Duwamish, intertidal habitat has been eliminated by 98 percent . . . . In addition to the high-intensity industrial and urban development at major river mouths in Puget Sound, intertidal and nearshore habitats throughout the Sound have been modified by shoreline armoring (e.g. construction of rock, concrete, and timber bulkheads or retaining walls). These modifications have a cumulative environmental impact that results in loss of riparian vegetation, obstruction of sediment movement along the shoreline, interference with wave action, and burial of upper beach areas.[59]

As shown in Table 1, the habitat changes in certain parts of the Puget Sound have been even more drastic than the overall declines.

58. *See* NMFS, BIOP, *supra* note 21, at 151.

59. NMFS, 2007 SALMON RECOVERY PLAN, *supra* note 7, at 73–75. An area of 267 square kilometers is about 103 square miles.

Table 1. Changes in Areas of Selected Puget Sound Estuaries from the 1800s to the 1970s.[60]

Estuary	Pre-development, 1800s, Area (ha)	Post-development, 1970s, Area (ha)	Change (%)
Nooksack	445	460	+3
Lummi	580	30	-95
Samish	190	40	-79
Skagit[61]	1600	1200	-25
Stillaguamish	300	360	+20
Snohomish	3900	1000	-74
Duwamish	260	4	-98
Puyallup	1000	50	-95
Nisqually	570	410	-28
Skokomish	210	140	-33
Dungeness	50	50	0

As noted above, scientists agree that a series of manmade factors are implicated in wild salmon population decline, including hatcheries, harvest (including open seas interceptions), hydropower, and habitat degradation.[62] Notwithstanding the clear evidence that maintaining, protecting, and expanding available habitat is critical to the survival and growth of wild salmon populations, the reality is that available habitat continues to decline in many parts of Puget Sound, despite habitat restoration efforts over the past decade. NMFS recently completed an ESA listing status review of several Puget Sound salmon and steelhead species.[63] The agency concluded that habitat had continued to decline, and that regulatory programs to protect habitat had not significantly

60. *Id*. at 73. A hectare (ha) is about 2.47 acres.

61. Later studies of habitat changes in the Skagit Delta indicate a loss of pristine estuarine delta habitat of approximately eighty percent. ERIC BEAMER ET AL., SKAGIT SYS. COOP. RESEARCH DEP'T, THE IMPORTANCE OF NON-NATAL POCKET ESTUARIES IN SKAGIT BAY TO WILD CHINOOK SALMON: AN EMERGING PRIORITY FOR RESTORATION 1 (2003), *available at* http://www.skagitcoop.org/documents/EB1579_Beamer_et_al_2003.pdf.

62. *See* discussion *supra* note 9; *see also* Hoekstra et al., *supra* note 9; Philip Roni, George Pess, Tim Beechie, & Sarah Morley, *Estimating Changes in Coho Salmon and Steelhead Abundance from Watershed Restoration: How Much Restoration is Needed to Measurably Increase Smolt Production?*, 30 N. AM. J. FISHERIES MGMT. 1469 (2010).

63. Endangered and Threatened Species, 5-Year Reviews for 17 Evolutionarily Significant Units and Distinct Population Segments of Pacific Salmon and Steelhead, 76 Fed. Reg. 50448 (proposed Aug. 15, 2011) (to be codified at 50 C.F.R. pt. 223, 224).

changed since the flawed 1990s efforts that contributed to the Chinook salmon's listing.[64] The report stated:

> Key indicators addressed by the [Puget Sound Partnership's] 2009 State of the Sound Report tell us that important habitat for Chinook salmon is still declining, despite the ESA listing over 10 years ago.[65] As such, the region needs to increase its scrutiny of the sources of habitat decline, and the tools we use to protect habitat sites and ecosystem processes.[66]

A 2011 white paper on fishery protection prepared by the Treaty Tribes in Western Washington argued that "stopping habitat degradation is the cornerstone of salmon recovery, but habitat is still declining."[67] The tribes noted that since the ESA listing of Puget Sound Chinook salmon in the fall of 1999, loss of sound shoreline habitat and function through shoreline armoring has continued at a rate of 1.5 miles per year.[68] Between 2004 and 2008 alone, the Washington Department of Fish and Wildlife granted 456 permits for new bulkheads in Puget Sound.[69] Meanwhile, the Washington Department of Fish and Wildlife recently disclosed that thirty percent of randomly sampled culverts, despite receiving a state permit in the last ten years, still resulted in blocked fish passage.[70] The Treaty Tribes concluded that as a result, "Today our [tribal] fishing rights have been rendered almost meaningless because the federal and state governments are allowing salmon habitat to be damaged and destroyed faster than it can be restored. Salmon populations have declined sharply because of the loss of spawning and rearing habitat."[71]

C. Salmon Restoration Funding

While salmon habitat losses continue, funding for salmon restoration projects over the past five years in Puget Sound has been only about one-half the estimated level necessary for large-scale salmon restoration. According to the Puget Sound Partnership's 2007 Salmon

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64. NAT'L MARINE FISHERIES SERV., IMPLEMENTATION STATUS ASSESSMENT FINAL REPORT: A QUALITATIVE ASSESSMENT OF IMPLEMENTATION OF THE PUGET SOUND CHINOOK SALMON RECOVERY PLAN 6 (2011), *available at* http://www.nwr.noaa.gov/Salmon-Recovery-Planning/Recovery-Domains/Puget-Sound/upload/implement-rpt.pdf.

65. *Id*.

66. *Id*.

67. NW. INDIAN FISHERIES COMM'N, *supra* note 6, at 2. The tribes also expressed significant concern that harvest levels were being limited. *See id*. at 7.

68. *Id*. at 10 n.7.

69. *Id*. at 24 n.57.

70. *Id*. at n.55.

71. *Id*. at 6.

Recovery Plan, adequate salmon recovery and protection would cost $120 million per year over the next decade.[72] However, existing funding levels are currently less than half that amount.[73] Scientists recently estimated that about three times the current level of *total* annual salmon restoration funding, or approximately $140 million (in 2011 dollars), would be needed to protect Coho salmon and steelhead through full restoration of a single model watershed, which represented only one of the eighteen separate watersheds in the Puget Sound basin.[74] In that study, Philip Roni et al. concluded that approximately eighty percent of the habitat in such a model watershed would need to be restored before scientists could be confident that salmon and steelhead production in the watershed would double.[75]

Roni et al. used a probabilistic Monte Carlo analysis to test an alternative to such an intensive watershed-by-watershed restoration approach.[76] The team looked at what the results would be if instead of full restoration of a single watershed, limited available restoration funding were to be distributed among various watersheds so that only a relatively small amount of restoration occurred in each watershed.[77] The average amount of restoration under this alternative scenario was roughly eight percent, or the same amount on average that the authors

72. PUGET SOUND P'SHIP, *supra* note 12, at 132.

73. Although recovery efforts need an estimated $120 million annually, the Puget Sound Partnership estimates that the total currently being spent on Puget Sound salmon restoration is approximately $43 to $48 million, an amount which generally fluctuates every year based upon budgets and politics. Memorandum from Michael Withy to author (Jan. 3, 2012) (on file with journal). For information regarding general grant awards and/or funding for these programs, see PUGET SOUND NEARSHORE, 2010 ESTUARY AND SALMON RESTORATION PROGRAM: ANNUAL REPORT 6 (2011), *available at* http://www.pugetsoundnearshore.org/esrp/2010_esrp_final.pdf; PUGET SOUND P'SHIP, PUGET SOUND ACQUISITION AND RESTORATION 2011–2013 BUDGET REQUEST: $55 MILLION (2010), *available at* http://www.psp.wa.gov/downloads/PSAR/PSAR_2011-2013_full.pdf (showing both funding levels for 2009–2011 budget, the decrease from previous levels, and the increase in funds requested for the 2011–2013 budget); WASH. STATE RECREATION & CONSERVATION FUNDING BD., AQUATIC LANDS ENHANCEMENT ACCOUNT: GRANTS AWARDED FISCAL YEAR 2012 (2011), *available at* http://www.rco.wa.gov/documents/rcfb/alea/ALEA2010GrantsFunded.pdf; *2011 Grant Awards for the Watershed Protection and Restoration Grant*, WASH. DEP'T ECOLOGY, http://www.ecy.wa.gov/puget_sound/index.html (showing EPA grants for Puget Sound ecological restoration). When viewing these data, it must be remembered that the amounts awarded/appropriated, unless specifically earmarked for salmon recovery, are going towards general ecosystem restoration. What is important for our discussion, however, is the fact that current funding levels are well below those anticipated as necessary under the 2007 Salmon Recovery Plan.

74. *See* Roni, *supra* note 62, at 1473, 1478.

75. *Id.* at 1478.

76. *Id.* at 1473. "Monte Carlo Analysis is a computer-based method of analysis developed in the 1940's that uses statistical sampling techniques in obtaining a probabilistic approximation to the solution of a mathematical equation or model." RISK ASSESSMENT FORUM, U.S. ENVTL. PROT. AGENCY, EPA/630/R-97/001, GUIDING PRINCIPLES FOR MONTE CARLO ANALYSIS 7 (1997).

77. Roni, *supra* note 62, at 1473–75.

concluded had occurred as a result of funding under the Pacific Coastal Salmon Recovery Fund from 2000 to 2009.[78] Through the Monte Carlo analysis the team found that it was possible that such limited restoration would yield only a small net increase in salmon or steelhead population, and that the resulting increase would probably be too small to measure using available techniques even if it did occur.[79] The authors concluded that their study suggested the need for greater prioritization in salmon and steelhead restoration project funding, both within individual watersheds and between watersheds.[80]

The failure of well-intentioned restoration efforts to protect riparian habitat against further decline, and the strong likelihood of increasing future population growth and land development in the Puget Sound region, both suggest that it is not realistic to expect local governments to protect salmon habitat unless they are required to do so by laws that are rigorously enforced, or unless their incentives are fundamentally changed.[81] Strong pro-development economic incentives combined with limited political will to enforce laws designed to protect salmon habitat against development are leading to a collapse of the Puget Sound fishery.

III. THE DIFFERING CONTOURS OF ENVIRONMENTAL LAW AND TREATY RIGHTS AS MEANS TO COMPEL ENDANGERED SPECIES PROTECTION

A. Administrative Paralysis

In many cases, Federal and state administrative officials already have the necessary legal authority to lessen the conflict between endangered species habitat preservation and restoration on the one hand, and Puget Sound development pressures on the other. This authority is found in the powerful and flexible provisions of the Clean Water Act, the

78. *Id.* at 1473.

79. *Id.* at 1478.

80. *Id.* ("In the absence of a plan to concentrate and complete restoration efforts in a few key basins or dramatically increase the total amount of restoration, it is unlikely that even the most rigorous basin-scale monitoring program will be able to detect a change in coho salmon or steelhead abundance at a watershed or population scale. This also suggests that if the desire is to recover whole watersheds or fish populations, basins and populations should be prioritized for restoration potential and restoration efforts concentrated in those areas rather than spread across the region.").

81. For example, by having local governments reimbursed or compensated for potential losses in tax revenue as a result of future declines in or limits on floodplain development. Some observers suggest that one possible means of achieving this would be to impose a tax on all salmon catches, the proceeds of which would be devoted to restoration; others might support providing general taxpayer funding for restoration. The choice between funding mechanisms is a good example of the kind of choice best made through the legislative process rather than through litigation. *See* discussion *infra* Part IV.

ESA, and the NFIP. But as extensive litigation between environmental groups and federal agencies in various parts of the United States has shown, over the past several decades federal officials have been very reluctant—indeed, largely unwilling—to use their full measure of authority to resolve this conflict, no matter which president held office.[82] Remarkably, federal agency officials have contended that they had no legal authority to act to protect endangered species, until they were forced by courts to acknowledge that they did possess such authority and were required by law to exercise it.[83] The continuing reluctance of administrative agency officials to enforce the ESA and related laws means that administrative action appears to be an unpromising approach to habitat protection nationally. The situation is no different in Washington, as shown by FEMA's response to efforts designed to force it to protect habitat under the ESA in the Puget Sound region, discussed below.

B. The National Wildlife Federation Litigation History—2004 to 2011

One possible approach to improved salmon habitat protection is to impose binding legal duties through court action against federal, state, and local governments to protect habitat. Many public interest environmental advocacy groups have chosen this path. The most important question facing the litigation approach is whether it will be successful not just in the short-term, but in the long-term. In other words, assuming for the moment that environmental plaintiffs will ultimately prevail on the merits of their claims, is effective long-term enforcement possible using the court judgments they obtain? In order to understand this problem, one must review the litigation in this area in detail.

1. The National Wildlife Federation's First Action and Its Aftermath

In an effort to prevent further habitat destruction, protect fisheries, and prevent unnecessary damage from flooding, environmental organizations have increasingly sought to force federal agencies to refrain from subsidizing development through means like flood

82. *See, e.g.*, Fla. Key Deer v. Brown, 364 F. Supp. 2d 1345, 1356 (S.D. Fla. 2005), *aff'd,* 522 F.3d 1133 (11th Cir. 2008) (showing FEMA's obligation to consult with U.S. Fish and Wildlife Services and that FEMA is required to ensure issuance of flood insurance causes no jeopardy to ESA-listed species); Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, 345 F. Supp.2d 1151, 1172–73 (W.D. Wash. 2004) (forcing FEMA into Section 7 consultation due to the flood insurance program's likelihood of harm to ESA-listed species).

83. *See, e.g.*, Fla. Key Deer v. Paulison, 522 F.3d 1133, 1141–42 (11th Cir. 2008) (FEMA argued that it did not have discretion under its enabling legislation to not issue flood insurance); Coal. for a Sustainable Delta v. Fed. Emergency Mgmt. Agency, No. 1:09-cv-02024 OWW GSA, 2011 WL 3665108 (E.D. Cal. 2011).

insurance provided through the NFIP. The National Wildlife Federation brought a successful action in a Washington federal court against FEMA in 2004, forcing FEMA to consult with NMFS about whether the NFIP, which is administered by FEMA, violated the ESA by jeopardizing protected Puget Sound fish species.[84] The court concluded that further implementation of the NFIP might adversely affect a listed species or its critical habitat, thus violating the ESA.[85] Pursuant to the court's order, this consultation had to be a formal consultation under Section 7 of the ESA.[86]

As the result of the required Section 7 consultation, on September 22, 2008, NMFS issued a formal BiOp to FEMA.[87] In the BiOp, NMFS analyzed known information about the biology, particularly the life history, of the relevant fish species, and then analyzed the likelihood that the fish would survive under current management conditions. NMFS concluded that continued implementation of the NFIP would likely have adverse effects upon floodplain habitats of ESA listed Puget Sound area species of Chinook salmon, Hood Canal summer chum salmon, steelhead, and southern resident killer whales. The agency stated that "[w]hen the anticipated effects of NFIP implementation, including indirect effects, are added to the baseline condition, the trends for habitat will be accelerated degradation, negatively impacting conservation values of habitat in most watersheds, and negatively impacting trends in all VSP parameters for most salmonid populations."[88] The agency concluded that this is of particular concern because "[o]f the four ESA listed salmonid ESUs and DPSs in the action area, Chinook salmon, and steelhead both have life history strategies that rely on floodplains during juvenile life stages."[89] Nevertheless, FEMA has issued 7,600 flood insurance policies to Puget Sound development projects in areas subject to its minimum eligibility criteria between 2000 and 2008, and has issued 800 such policies between issuance of the BiOp in 2008 and December 2010.[90] Since 2000, FEMA has issued flood insurance to more than 42,000 new structures in the Puget Sound area.

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84. *Nat'l Wildlife Fed.*, 345 F. Supp.2d 1151.

85. *Id.* at 1164 ("FEMA's promulgation of minimum eligibility criteria and its sale of flood insurance both enable development in the floodplain that negatively impacts salmon").

86. *See* 16 U.S.C. § 1536(a)(2) (2011).

87. NMFS, BIOP, *supra* note 21.

88. *See id.* at 145.

89. *Id.* at 22.

90. Complaint for Injunctive and Declaratory Relief, *supra* note 31, at 10. In that litigation, amicus curiae POSFR asserts that only 220 of the 800 policies issued after 2008 were for new development. POSFR Mem., *supra* note 19, at 41. Whether that claim is correct, and its significance if correct, are uncertain at this writing.

Three specific elements of the NFIP that adversely affect anadromous fish habitats were listed in the BiOp: (1) floodplain mapping, particularly the ability under existing regulations to place fill within a designated floodplain in order to raise the land and remove the property or development from the NFIP's floodplain map and insurance requirements;[91] (2) minimum floodplain criteria; and (3) FEMA's Community Rating System (CRS). According to the BiOp, both the NFIP's floodplain mapping and minimum floodplain criteria elements incentivize floodplain development using fill and levee construction.[92] After concluding that existing FEMA regulations under the NFIP jeopardize various threatened salmon species, NMFS set forth a multi-element "reasonable and prudent alternative" (RPA), as required by federal regulations, that FEMA could adopt to avoid jeopardizing listed fish and the resulting civil and criminal liabilities.[93]

These RPA requirements meant in effect that FEMA would be required to deny flood insurance to local communities that did not

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91. NMFS, BIOP, *supra* note 21, at 85 ("Placing fill to elevate properties and building levees to trigger floodplain map revisions are detrimental to floodplain and channel function. Lands that are periodically flooded provide safe off-channel refugia, with abundant food items, for rearing juvenile salmonids during periods of high flow when mainstem channels cannot be occupied, functions essential to decrease mortality in juvenile salmonids. Filling in floodplains to remove them from the mapped floodplain decreases the extent of off channel habitat and impairs the natural processes that create and maintain these habitats, removing these functions. Fill in floodplains also reduces flood water storage. This causes higher water levels downstream, greater water velocity during high flow events, and increased erosion, which have adverse effects on salmon. Channels that are unconfined by floodplain fill have more diverse habitat complexity that supports salmon survival. Both natural floodplains and unaltered stream channels support listed species by providing increased juvenile to adult survival, which is essential for recovery of listed species."). The BiOp further concludes that

> Placing fill in the floodplain diminishes the functional condition of floodplain processes that create and maintain salmonid habitat. Fill eliminates wetlands, wetland and riparian vegetation, and limits channel dynamics. Fill constrains floodwater flow into smaller spaces, increasing flood flow velocity and concomitant erosive damage and scour. The FEMA itself acknowledges that filling in the floodplain is highly likely to have adverse effects on habitat of listed and endangered species.

Id. at 92.

92. In order to earn eligibility for the NFIP, communities must have their levees certified by engineers as meeting the Army Corps' requirements. 33 C.F.R. § 203.48 (2011); *see also* NMFS, BIOP, *supra* note 21, at 12–13. The Army Corps' strict riparian vegetation requirements cause habitat and channel-migration degradation. NMFS, BIOP, *supra* note 21, at 86–87. According to the BiOp, the Army Corps' "vegetation standards" for levee certification, funding, and emergency relief effectively require the removal of riparian vegetation – vegetation that supports fish growth and survival. *See id.* ("[L]evees cause additional adverse effects to salmon due to bank stabilization methods and channel confinement. Riprap displaces vegetation and decreases survival and growth as soil is not available for root establishment. In addition, riprap is generally uniform and lacks bank irregularities needed to provide velocity refuge for fish and their prey . . . Levees also confine rivers, limiting the potential for creating or re-establishing complex and diverse habitats that are important for juvenile salmon rearing and refuge, such as side channels, oxbows, and floodplain wetlands").

93. 50 C.F.R § 402.14(g)(5) (2012) (requiring the consulting agency to issue a reasonable and prudent alternative so as to allow the action agency to avoid future violations of the ESA).

implement major new restrictions on riparian development in the Puget Sound region. Under the BiOp, NMFS emphasized that it sought stringent protection for core habitat areas referred to as Riparian Buffer Zones (RBZs):[94] "The RBZ is a no-disturbance zone, other than for activities that will not adversely affect habitat function."[95] This effectively means that pursuant to the BiOp's RPA communities with land use regulations that permit development within RBZs should be denied flood insurance. Thus, compliance with the RPA's numerous elements would sharply restrict FEMA's issuance of new flood insurance coverage in the Puget Sound region and consequently reduce environmentally harmful development. It is also very likely that such RPA-imposed development restrictions would significantly reduce property values for undeveloped or partially developed properties either because development would be prohibited entirely, or because previously permitted development would be far more expensive to undertake.

The RPA contained several key steps that NMFS concluded were necessary for FEMA to take in order to avoid jeopardizing Puget Sound wild salmon and steelhead fisheries through the flood insurance program. The key steps included, *inter alia*, revisions to FEMA's mapping program to limit habitat damage, revisions to floodplain management criteria to limit habitat damage, changes in the Community Rating System (CRS), and addressing the effects of levee vegetation. A brief description of these major steps, referred to as "Elements" in the BiOp's terminology, follows.

Element 2: Revisions to FEMA's Mapping Program to Limit Habitat Damage

The RPA provided that FEMA shall approve Letters of Map Change (LOMC) resulting from development alterations only when the applicant:

> has factored in the effects of the alterations on channel and floodplain habitat function for listed salmon, and has demonstrated that the alteration avoids habitat functional changes, or the proponent has mitigated for the habitat functional changes . . . with

94. The Riparian Buffer Zone is the greater of the following: (1) 150 feet measured perpendicularly from ordinary high water for Type S (Shorelines of the State) and F (fish-bearing) streams; 100 feet for N (nonsalmonid-bearing) streams, lakes and marine shorelines, and 50 feet for U (untyped) streams; (2) the Channel Migration Zone plus 50 feet; and (3) the mapped Floodway. NMFS, BIOP, *supra* note 21, at 222. As explained in the BiOP, "[t]he Riparian Buffer Zone is an overlay zone that encompasses lands as defined above on either side of all streams, and for all other watercourses including off channel areas." *Id.*

95. *Id.*

appropriate habitat measures that benefit the affected salmonid populations.[96]

Element 3: Revise Floodplain Management Criteria to Limit Habitat Damage

The RPA provided for revision of floodplain management criteria in two key respects summarized below:

(1) FEMA shall allow no development in the floodway, CMZ plus fifty feet, and RBZ, or local jurisdictions must demonstrate to FEMA that any development in the floodway, CMZ plus fifty feet, and RBZ does not "adversely affect water quality, water quantity, flood volumes, flood velocities, spawning substrate, and/or floodplain refugia" for listed salmonids.[97]

(2) FEMA shall prohibit development in the 100-year floodplain, or if development within the 100-year floodplain (but outside RBZ) is permitted, local jurisdictions and FEMA must demonstrate that any loss of floodplain storage will be "avoided, rectified, or compensated for."[98] Additionally, indirect adverse effects on stormwater, riparian vegetation, bank stability, and channel migration, must also be mitigated so as to provide salmon habitat protection.[99]

Element 4: Changes in the Community Rating System (CRS)

The BiOp requires that FEMA change the CRS so that FEMA's points/credit system rewards actions that benefit salmonid habitat, not just actions that improve flood and repeat-claimant controls.[100]

Element 5: Address the Effects of Levee Vegetation

The RPA provided that FEMA shall no longer recognize Army Corps certified levees unless they cause no adverse effects to habitat.[101] It required FEMA to revise its procedures so that levee owners who opt for increased levee vegetation will not be disqualified from emergency

96. *Id.* at 152.

97. *Id.* at 154.

98. *Id.*

99. *Id.* at 157. POSFR attacks the validity of RPA Element 3 in its submission in the NWF lawsuit against FEMA. It contends that RPA 3 is "dysfunctional in the Puget Sound" because, for example, it is "unreasonable to apply a 250-foot 'no adverse effect' buffer to the Green River as it runs through the Kent Valley . . . one of the largest industrial districts in the country." POSFR Mem., *supra* note 19, 30–32.

100. NMFS, BIOP, *supra* note 21, at 158–59. Under the National Flood Insurance Act, FEMA is required to provide the CRS, which grants lower-priced insurance policy prices to participating jurisdictions that decide to voluntarily adopt floodplain management regulations that exceed FEMA's minimum eligibility criteria. *See id.* at 20.

101. *Id.* at 160.

funding, and to recognize new levees only when they meet new habitat-friendly criteria.

2. The Federal Emergency Management Agency's Three-Door Approach to RPA Compliance

In theory, FEMA had the legal authority to impose all of the development restrictions contained in the RPA, either by denying flood insurance to any community that did not agree to observe the requirements of the RPA, or by demanding the right to review all development applications in sensitive habitat areas to determine whether they were consistent with the RPA as a condition of providing flood insurance to communities. Reviewing development applications would have required FEMA either to bear the substantial costs of administering the RPA with respect to hundreds, if not thousands, of Puget Sound region development permit applications, or to have created a user-fee system of some sort to recover its costs.[102] And perhaps equally importantly, acting directly would have made FEMA the legal and political "culprit" when development rights were denied.

Instead of undertaking direct administration, in October 2010 FEMA offered Puget Sound area local governments a so-called three-door approach to RPA compliance. The agency said they would need to choose one of the doors to achieve compliance in order to maintain eligibility for flood insurance.[103] FEMA viewed this approach as an alternate and legally sufficient means to comply with the RPA's land use elements. Under FEMA's proposal, local governments could select from one of the following doors:

(1) Adopt FEMA's *Floodplain Management and the Endangered Species Act: A Model Ordinance*[104] (imposing development restrictions and requiring their enforcement);

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102. This is not intended to assert that FEMA has authority to create a user-fee system under existing law (though it may); but it could have sought such authority from Congress, and it has not done so.

103. *See* FED. EMERGENCY MGMT. AGENCY, REGION 10 ANNUAL REPORT TO NATIONAL MARINE FISHERIES SERVICE 2–3 (2010) (stating that, as of October 2010, FEMA gave the 122 communities affected by the BiOp the two programmatic options for compliance, adoption of FEMA's model ordinance or the existing regulations checklist approach, or in the alternative the permit-by-permit approach of showing compliance). For a presentation available to local communities explaining the three-door approach, see Fed. Emergency Mgmt Agency, Overview of Compliance Options: Implementing a Salmon Friendly Program 14 (2011), http://www.fema.gov/pdf/about/regions/regionx/Compliance_Options.pdf.

104. FED. EMERGENCY MGMT. AGENCY, FLOODPLAIN MANAGEMENT AND THE ENDANGERED SPECIES ACT: A MODEL ORDINANCE (Jan. 2012), *available at* http://www.fema.gov/pdf/about/regions/regionx/nfip_esa_faq/nfip_esa_model_ordinance_final.pdf.

(2) Adopt a community-by-community approach, under which communities could make a submittal to FEMA showing that existing state and local ordinances are in compliance with the BiOp's ESA compliance recommendations; or

(3) Adopt a permit-by-permit approach, under which individual developers seeking permits would be required to make habitat assessment submittals to local communities (or local communities could conduct such assessments), after which ESA consultation would have to occur if there was a possibility of adverse effects on protected species or habitat.

FEMA's three-door proposal shifted part of the cost and all of the political responsibility for ESA compliance—and the resulting likely imposition of potentially severe development restrictions—to approximately 120 Puget Sound local governments. Now, the ultimate responsibility for bearing the substantial economic costs of obtaining the extensive scientific, environmental, and engineering evidence necessary to show that a particular development complied with the ESA, which could amount to thousands, if not tens of thousands, of dollars per permit, would vary with which door was chosen by the local community. In some cases, the burden of obtaining part of the evidence might be with a local government; in others, most or all of the burden would be with local developers. But FEMA's approach essentially shifted most of these environmental permitting costs to either local governments or the private sector, rather than imposing the costs on federal taxpayers. The approach also effectively shifted the responsibility for permit denial and development restrictions to local governments or other federal agencies such as NMFS. In other words, FEMA passed the political hot potato. At the same time, FEMA's approach amounted to a grudging acceptance of the reality that Puget Sound salmon habitat needs further protections of the kind proposed by NMFS in the BiOp's RPA. By adopting the three-door approach FEMA did not challenge NMFS's scientific conclusion that protecting salmon habitat was essential to preserving threatened species, or its conclusion that the RPA elements were necessary to that protection. Instead, FEMA tried to shift to others the responsibility and costs associated with providing habitat protection.

For several years after the issuance of the BiOp, FEMA and NMFS engaged in some dialogue with local governments and other interested parties about how to implement the RPA elements, but mainly the federal agencies waited for local governments to decide how they were going to comply with the RPA requirements. By the compliance deadline, which had eventually been extended to September 22, 2011, an overwhelming majority of local governments had chosen door three, the

permit-by-permit approach administered by local governments. By the deadline, four Puget Sound local governments had adopted the FEMA Model Ordinance, at least in some form, and FEMA had certified six local governments' existing regulations as compliant. Approximately eighty local governments that responded to FEMA chose the door three, permit-by-permit approach.[105]

3. The National Wildlife Federation's Second Action: The Three-Door Litigation

When the RPA compliance deadline expired, the National Wildlife Federation (NWF) delivered notice of its intention to sue FEMA and several other federal agencies for what it asserted was their failure to implement the requirements of the 2008 BiOp.[106] The federation filed its suit on December 8, 2011, not long after the statutorily required notice period of sixty days expired.[107] In the lawsuit, assigned to Judge Martinez of the Western Washington Federal District Court, NWF seeks both declaratory and injunctive relief. In particular, NWF seeks to enjoin "FEMA's issuance and/or authorization of insurance policies for new development through the NFIP within the geographic boundaries of the species identified in the BiOp until FEMA complies with the ESA."[108] In late December, 2011, NWF moved for a preliminary injunction barring FEMA from providing flood insurance in parts of the Puget Sound region containing particularly sensitive habitat until the merits of its claims are determined.[109] The federation's motion for preliminary injunction was opposed by defendant FEMA and by amicus curiae Property Owners for Sensible Floodplain Regulations (POSFR). Sixteen

105. Fed. Emergency Mgmt. Agency, Status of Communities (2011), http://www.fema.gov/pdf/about/regions/regionx/status_of_communities_web.pdf. As these statistics show, of the eighty-one Puget Sound area communities that submitted plans under the permit-by-permit approach, all of them have had their plans approved by FEMA. Of the thirty-six communities that submitted plans showing their existing regulations are sufficient, only six have had their plans approved. NMFS informed FEMA that the existing regulations approach should be the preferred approach due to the difficulties and costs of implementing and assessing a permit-by-permit plan. *See* Letter from William W. Stelle, Jr., Reg'l Adm'r, Nat'l Marine Fisheries Serv., to Kenneth Murphy, Reg'l Adm'r, Fed. Emergency Mgmt. Agency 3 (Sept. 26, 2011) (on file with journal).

106. Letter from EarthJustice, on behalf of the Nat'l Wildlife Fed'n, to Janet Napolitano, Sec'y, U.S. Dep't of Homeland Sec. et al., 60-Day Notice (Sept. 22, 2011), *available at* http://www.fema.gov/pdf/about/regions/regionx/nfip_esa_guidance_docs/nfip_ps_biop_sixty_day_notice_9_22_11.pdf.

107. Complaint for Declaratory and Injunctive Relief, *supra* note 31.

108. *Id.* at 16.

109. Plaintiff's Motion for a Preliminary Injunction, Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, No. 2:11-cv-02044-RSM (W.D. Wash. Dec. 21 2011).

cities have moved to intervene in the NWF litigation, claiming that they will be adversely affected by the relief sought by NWF.[110]

In its complaint, NWF argues that even the jurisdictions that have adopted the first two approaches described above—the FEMA Model Ordinance or a showing of equivalent state and local laws—still have not complied with the ESA.[111] With respect to the Model Ordinance, NWF argues that there is no evidence to show that the ordinance complies with the BiOp or the ESA, and that the ordinance "authorizes virtually any development in floodplain[s] as long as it is supported by vague and undefined habitat analysis and mitigation."[112] The federation also rejects the second door existing-regulations approach, arguing that FEMA is effectively still allowing development standards that permit "significant new development that may result in additional cumulative habitat degradation and don't meet RPA standards."[113] Further, NWF contends that the third door permit-by-permit review, chosen by a large majority of Puget Sound jurisdictions, is legally flawed because it "is not an adequate substitute for landscape-level consideration of impacts," because "NFIP communities lack the expertise, funding, or incentives to carry out adequate habitat assessments on individual projects," and also because FEMA has not effectively guided local jurisdictions in their administration of the permitting process.[114] Finally, NWF argues that "a uniform flaw in all three approaches to BiOp compliance is FEMA's failure to address the interaction between state vesting law and ESA requirements."[115]

The federation's overall legal critique of FEMA's three-door approach to ESA compliance is that "FEMA has declined entirely to adopt major components of the RPA, and has implemented others only partially or inadequately in a manner that simply shifts the burden to other parties without standards or oversight, and involves voluntary actions and weaker standards."[116] NWF argues that just such an approach by FEMA has previously been held unlawful in other, similar contexts.[117]

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110. Cities' Motion to Intervene, Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, No. 2:11-cv-02044-RSM (W.D. Wash. Jan. 26, 2012). No other parties or amici had filed with the court as of February 6, 2011.

111. *See* Complaint for Declaratory and Injunctive Relief, *supra* note 31, at 11.

112. *Id.*

113. *Id.*

114. *Id.* at 12.

115. *Id.*

116. *Id.* at 10.

117. *See* Fla. Key Deer v. Brown, 364 F. Supp. 2d 1345, 1356–58 (S.D. Fla. 2005), *aff'd.* 522 F.3d 1133 (11th Cir. 2008); *see also* Plaintiff's Motion for a Preliminary Injunction, *supra* note 109, at 30–31.

The litigation is largely an attack on a series of discretionary decisions made by FEMA about how and by whom the BiOp's land management regulatory requirements should be enforced. As a consequence, the court is likely to analyze much of NWF's challenge to FEMA's NFIP decision making under the standards of the Administrative Procedure Act (APA). The APA requires courts to set aside agency action that is "arbitrary, capricious, or otherwise not in accordance with law."[118] This may be particularly true of FEMA's willingness to delegate to local jurisdictions in Puget Sound the authority to review large numbers of permit applications on a case-by-case basis and to determine whether the permits comply with ESA requirements. By challenging FEMA's delegation, the litigation raises questions about whether courts should impose legal duties on local communities to conduct cumulative impact analysis before granting permits, and whether courts should review the competence of local communities to conduct ESA reviews on the basis of their existing expertise and resources.[119] Another contention NWF may make, of course, is that as a matter of law, FEMA cannot delegate its duty to enforce the requirements of the ESA in administering its programs to the state of Washington or to its local governments.[120]

Wholly apart from the merits of NWF's claims, a further issue must be considered in assessing the potential long-term impact of this litigation. If NWF prevails, the court will have to shape an appropriate permanent remedy. This remedy could take the form of an injunction similar to NWF's request to preliminarily enjoin FEMA from issuing flood control insurance to local communities—at least prospectively.[121] NWF also challenges the vesting of development permits under state law in its complaint, raising the important question whether ESA requirements can be imposed on development permits that might be deemed to have vested previously under state law.[122]

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118. *See, e.g., Fla. Key Deer*, 364 F. Supp. 2d at 1349.

119. At the time this is written, the record is unclear about the extent to which the federal government has actually examined the capability of local governments to make such determinations.

120. NWF appears to make this kind of argument about the door three approach. *See* Complaint for Declaratory and Injunctive Relief, *supra* note 31, at 12.

121. Plaintiff's Motion for a Preliminary Injunction, *supra* note 109, at 1. NWF argues in its motion for preliminary injunction that the court has no discretion—that it must grant injunctive relief if it finds a violation of the ESA. *See id.* at 39.

122. Under Washington State law, development permits vest earlier than they do in some other jurisdictions. *See, e.g.*, W. Main Assocs. v. City of Bellevue, 720 P.2d 782 (Wash. 1986); Erickson & Assocs., Inc. v. McLerran, 872 P.2d 1090 (Wash. 1994); *see* WASH. REV. CODE §§ 19.27.095, 58.17.033, 36.70B.180 (2011). One of the critical issues underlying the litigation will be the extent to which federal law can trump such state law vesting. Historically, FEMA has deferred to state law vesting in situations where its maps have been challenged (whether this was legally required is a

FEMA opposes the preliminary injunctive relief requested by NWF on several grounds.[123] FEMA argues that a preliminary injunction is not warranted because NWF will not prevail on the merits and that NWF has failed to make a legally required showing of irreparable harm to listed species from the alleged violations.[124] Additionally, FEMA argues that the court should deny injunctive relief that would cut off the sale of flood insurance, and instead grant narrower relief for any perceived noncompliance with the RPA.[125] The amicus curiae property owners, POSFR, argue that existing state and local laws provide sufficient protection for ESA-listed species habitat. The property owners assert that NWF has provided no evidence of irreparable harm from FEMA's current implementation of the NFIP and that state and local regulations will "ensure no irreparable harm" occurs before the court's decision on the merits.[126] The property owners ask the court to wait for more concrete evidence of ESA violations, such as specific failures of local governments to make or require appropriate ESA-related permit reviews, before enjoining FEMA from issuing flood control insurance.[127]

In response, NWF can be expected to argue that the court should not be willing to tolerate further noncompliance with the ESA after years of delay. It is uncertain what the court will decide about the critical remedy issue. But if a court were to grant the injunctive relief requested by NWF, it is reasonable to foresee substantial public opposition to its decision based on the concern that it could have severe detrimental effects on local property values, both for existing homes and for

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different matter), but it is unclear that the same deference is warranted under the ESA. NWF argues that permits cannot successfully vest against ESA compliance obligations. *See* Plaintiff's Motion for a Preliminary Injunction, *supra* note 109, at 29 ("NMFS developed the RPA standards to meet the requirements of the ESA, not land use law, based on the biological needs of the species and the federal duty to ensure against jeopardy.").

123. A group of sixteen Washington cities has sought permission to intervene in the NWF litigation. Among the issues that seems most salient to them is the relation between vested development rights and NWF's claims. Cities' Motion to Intervene, *supra* note 110, at 1–2.

124. Defandant's Opposition to Plaintiff's Motion for a Preliminary Injunction at 1–2, 10–29, 30, Nat'l Wildlife Fed. v. Fed. Emergency Mgmt. Agency, No. 2:11-cv-02044-RSM (W.D. Wash. Dec. 8, 2011).

125. *Id.* at 31–33.

126. POSFR Mem., *supra* note 19, at 8, 35–38, 43–46.

127. *Id.* at 34–36. It is also particularly noteworthy that amicus POSFR also argues that a central part of the RPA (Element 3) is itself legally defective. *Id.* at 37–39. Critics of FEMA's regulations and the NWF had previously argued that NWF could not provide substantial evidence of actual ESA violations in the permitting process in Puget Sound. *See* Donna Gordon Blankinship, *Environmental Group Sues US over Flood Management*, SEATTLE P.I., Dec. 21, 2011, http://www.seattlepi.com/news/article/Environmental-groups-sue-US-over-flood-management-2417940.php (quoting attorney Molly Lawrence of Seattle law firm Gordon Derr as saying, "From my perspective, the real story is that, to date, NWF has not challenged one local jurisdiction's development regulations as violating the Endangered Species Act.").

undeveloped land, at least in certain areas of the Puget Sound region. If the court rules in favor of NWF, we can expect to see an immediate appeal accompanied by a political firestorm.[128]

C. Tribal Treaty Fishing Rights Litigation

Instead, let us suppose purely as a hypothetical matter that one or more of the Washington Native American tribes decided to challenge FEMA's actions in response to the BiOp as a violation of their treaty fishing rights. How would such a challenge differ legally from the nature of the NWF challenge under the Endangered Species Act? To understand this, it is necessary to appreciate some of the distinctive features of tribal treaty fishing rights.

In 1905, the U.S. Supreme Court held in *United States v. Winans* that Native American fishing rights established by treaties were a form of permanent property rights.[129] The Court stated that the treaties

> reserved rights, however, to every individual Indian, as though named therein. They imposed a servitude upon every piece of land as though described therein. There was an exclusive right of fishing reserved within certain boundaries. There was a right outside of those boundaries reserved "in common with citizens of the territory." As a mere right, it was not exclusive in the Indians. Citizens might share it, but the Indians were secured in its enjoyment by a special provision of means for its exercise. They were given "the right of taking fish at all usual and accustomed places," and the right "of erecting temporary buildings for curing them." The contingency of the future ownership of the lands, therefore, was foreseen and provided for; in other words, the Indians were given a right in the land, —the right of crossing it to the river,—the right to occupy it to the extent and for the purpose mentioned. No other conclusion would give effect to the treaty. And the right was intended to be continuing against the United States and its grantees as well as against the state and its grantees.[130]

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128. A somewhat analogous situation occurred in the case of the ESA delisting of the Rocky Mountain gray wolf. The environmental community successfully opposed that proposed delisting in court, but public reaction by wolf opponents was so strong that Congress chose to overturn the court action. Congress delisted this wolf population by a legislative rider. For background on this controversy and links to court rulings on the issue, see Steve Davies, *Congressional Delisting of Wolf Upheld by Federal Judge*, ENDANGERED SPECIES & WETLANDS REPORT, Aug. 4, 2011, http://www.eswr.com/2011/08/congressional-delisting-of-wolf-upheld-by-federal-judge/.

129. United States v. Winans 198 U.S. 371, 381 (1905). In *Winans*, the tribal fishing rights were held to defeat exclusive possession of the fishery by white fishermen using fishing wheels, and the case was remanded to the circuit court for a determination of how the Native American rights were to be protected.

130. *Id.* at 381.

The Court's determination in *Winans* that treaty fishing rights were property rights was not the end of the controversy. Litigation over the exercise of treaty rights has continued and courts have since clarified many aspects of these rights.[131] One particularly contentious issue for the past several decades has been the extent to which tribes can use treaty fishing rights to compel governments to undertake environmental improvements to protect the fishery. The most recent significant litigation in this respect is the pending federal Culverts litigation, in which the Treaty Tribes seek to compel the State of Washington to repair or remove culverts in order to permit added fish passage. [132]

In the Culverts litigation, the tribes assert that such culvert modifications would significantly increase salmon populations. Although a 1997 state report seemed to accept the tribes' position, the state chose to attack it in its post-trial brief, contending that the link between culverts and harm to salmon population levels remained unproven. Nevertheless, the tribes persuaded the federal district court that their claims had legal merit and won a summary judgment motion against the state.[133] But as of this writing, nearly two years after the conclusion of the remedy trial—whose beginning was itself substantially delayed by the parties' efforts to negotiate a remedy—the court has still not issued a remedy decision.[134]

In some ways, a challenge by the tribes regarding ESA issues and FEMA's flood insurance program would be legally similar to their claims in the Culverts litigation, since both claims seek an environmental protection remedy to protect tribal rights. The ESA action would be based on a specific, enforceable legal duty created by federal statute, not a general "environmental servitude" to protect tribal rights of the kind

131. *See, e.g.*, United States v. Washington, 384 F. Supp. 312, 343 (W.D. Wash. 1974) (holding that treaty tribes have right to fifty percent harvestable share of Puget Sound fisheries, and regulation of off-reservation fishing only allowed if reasonably necessary for conservation); United States v. Washington, 759 F.2d 1353, 1357 (9th Cir. 1985) (holding that courts' powers to enjoin state actions that violate tribal treaty rights by causing alleged environmental harm must be supported by a showing of concrete facts of particular violations and injuries).

132. *See* United States v. Washington, No. CV 9213RSM, 2007 WL 2437166, at *1 (W.D. Wash. 2007).

133. *Id.* The major issue that divided the parties was the cost of implementing the remedy sought by the tribes, which could involve tens of millions of dollars per year of funding for culvert repair and replacement. *See* State of Washington's Post-Trial Brief at 19, United States v. Washington, No. C70-9213, 2010 WL 2193058 (W.D. Wash. Feb. 5, 2010) (arguing that repair/replacement of state-owned culverts throughout Washington could cost upward of $2 billion, or approximately $90 million per year). The pace of culvert repair also significantly divided the parties.

134. For previous articles discussing the Culverts litigation, see Morisett & Summers, *supra* note 2; William Fisher, *The Culverts Opinion and the Need for a Broader Property-Based Construct*, 23 J. ENVTL. L. & LITIG. 491 (2009).

previously rejected by the Ninth Circuit.[135] However, the two actions would also fundamentally differ in ways that could strengthen the tribes' legal position in habitat protection litigation.

The first difference between a tribal challenge and NWF's claims is that rather than being forced to argue about whether FEMA's actions were arbitrary, whether FEMA or local governments bear the responsibility for conducting ESA reviews, and whether FEMA's three-door delegation of authority was legally permissible, the tribes could assert that federal, state, and Puget Sound local governments should each be held independently liable for ESA compliance to the full extent necessary to protect their property rights created by treaty.[136] Analysis of the Ninth Circuit decision in *Skokomish Indian Tribe v. United States* helps to illuminate the basis for such a tribal contention. In *Skokomish*, the Skokomish Indian Tribe claimed that operation of a federally licensed power plant had depleted flows from the Skokomish River, harming local fish populations and damaging tribal property, thereby breaching a Stevens Treaty. The tribe sought monetary damages and injunctive relief from various government defendants and a municipal utility.

The Ninth Circuit held on appeal in *Skokomish* that money damages, as opposed to injunctive relief, for alleged breach of a Stevens Treaty were not available against entities other than the United States. Nevertheless, one important implication of the decision is that each level of government still has an independent affirmative duty under the Stevens Treaties to protect tribal rights. This is so because the treaties are federal law, and rights under them are therefore entitled to protection by state and local governments just as any other federal right would be under the Supremacy Clause of the U.S. Constitution.[137] If the tribes brought an action for injunctive relief only, they could properly bring their action against all relevant state, local, and federal governments, notwithstanding the Ninth Circuit's holding regarding money damages.[138]

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135. For the Ninth Circuit per curiam decision reversing the district's court's declaratory judgment that the Stevens Treaties created a general environmental servitude or right of environmental protection for the treaty fishery against various harms caused by the State of Washington, see United States v. Washington, 759 F.2d 1353, 1354 (9th Cir. 1985).

136. Alternatively, the tribes might choose to contend that the United States' treaty obligations to the tribes meant that the United States has a non-delegable duty to protect them against ESA violations, thus rendering FEMA's three-door approach to compliance legally invalid.

137. *See* Skokomish Indian Tribe v. United States, 410 F.3d 506, 512–13 (9th Cir. 2005); *accord* United States v. Washington, 759 F.2d 1353, 1357 (9th Cir. 1986) (discussing the State of Washington's obligations).

138. *See Skokomish*, 410 F.3d at 512–13. Bringing an action for injunctive relief only would also avoid a challenge under the prohibition of some simultaneous actions established by United States v. Tohono O'Odham Nation, 131 S.Ct. 1723, 1731 (2011) (holding that tribes cannot bring

Because the tribes could contend that each defendant government has an independent legal duty to observe and enforce tribal fishing rights, each government would, arguably, also have the responsibility to take steps to compensate for either inaction or inadequate action under the ESA by any other government engaged in ESA permit review, or related actions such as the provision of flood insurance, in order to ensure that treaty rights are adequately protected. The tribes accordingly could seek to have injunctive relief imposed separately on each of these governments requiring it to ensure that ESA compliance occurred with respect to any future permit to be granted that would affect any area designated as an area of concern for habitat maintenance and restoration under the BiOp and the RPAs, including all river CMZs, RBZs, critical habitat, and similar areas.[139] Unlike the partly retrospective and restorative remedy being sought by the tribes in the Culverts litigation, in an action against FEMA and state and local governments the tribes might choose to seek injunctive relief limited to maintaining the status quo by preventing any further habitat degradation or loss. With that limitation on the scope of relief, it would be far more difficult for any defendant government to argue successfully that it had no enforceable legal duty to the tribes to protect the status quo in conducting future permit reviews for ESA compliance.

The tribes' action would not seek to vindicate a common public interest in the proper enforcement of federal laws such as the ESA.[140] Instead, the tribes would seek to enforce a specific legal duty to protect their private property rights, just as they are in the pending Culverts litigation.[141] This would make it more difficult for defendants to challenge the tribes' standing. More importantly, it should permit the tribes to argue for the strictest possible standard of judicial review of government actions that infringe on property rights, including raising potential takings claims.[142]

The distinctive legal nature of the tribal property rights in fishing also has important consequences for the critical issue of when and if local development permits vest. Tribal treaty property rights have existed

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simultaneous actions for injunctive relief in the district court and monetary relief in the Court of Federal Claims in certain cases based on the same operative facts).

139. NMFS, BIOP, *supra* note 21, at 153–54.

140. 16 U.S.C. § 1540(g) (2011).

141. United States v. Washington, No. CV 9213RSM, 2007 WL 2437166 (W.D. Wash. 2007). The tribes' claim as to the federal government might also be that it had breached a fiduciary duty it owed to them. *See, e.g.,* United States v. Mitchell, 463 U.S. 206, 225 (1983) ("[A] fiduciary relationship necessarily arises when the Government assumes such elaborate control over . . . property belonging to Indians.").

142. For a general discussion of the law related to such claims, see discussion *infra* note 151.

and been recognized by the United States since the Stevens Treaties were ratified in the 1850s, and thus pre-date the permits that would be involved in any future ESA-related permit challenge. As a result, the tribes might choose to argue that state and local authorities could not allow such permits to vest against their tribal fishing rights under state law if an inadequate ESA review had been conducted with respect to the permit, jeopardizing existing salmon habitat. Such a contention would differ markedly from NWF's challenge to vesting.

If their action for injunctive relief were to be successful, the tribes, like NWF, could request that the federal court create an enforcement mechanism to carry out its decree, such as the appointment of a special master or an expert committee responsible for resolving most disputes, subject to an appeal to the court.[143] A master or an expert committee could be empowered by the district court to test independently the ongoing compliance of the covered governments with the court's decree, and to hear alleged violations of the decree and then make findings and recommendations to the court regarding them. The court could also establish stiff penalties for noncompliance with its injunctive decree. It would be within the court's discretion to award attorney's fees against parties found in contempt of court as a result of a violation of the injunction.[144] It is possible, of course, that the tribes' efforts to obtain injunctive relief would be met with arguments similar to those that may be made in opposition to NWF's efforts to obtain such relief. But as the history of court-supervised enforcement under the *Boldt* decision suggests, it is quite possible that a court would be more sympathetic to awarding such supervisory relief to protect tribal treaty-based property rights.[145]

By bringing an action for prospective injunctive relief only, the tribes would not waive or limit their claims in the pending culverts litigation.[146] Nor would they waive the possibility of ultimately seeking money damages from the United States for breach of trust responsibility, or further equitable relief from various parties for past habitat damage, if

143. *See* FED. R. CIV. P. 53.

144. Jakes, Ltd., Inc. v. City of Coates, 356 F.3d 896, 900 (8th Cir. 2004) (district court has discretion to award attorney's fees as punishment for contempt through violation of injunction); N.Y. State Nat'l Org. of Women v. Terry, 159 F.3d 86, 96 (2nd Cir. 1998); MacDermid, Inc. v. Selle, 577 F. Supp. 2d 599, 602 (D. Conn. 2008).

145. Opponents of continuing relief would doubtless argue that it was unnecessary, burdensome, and intrusive, but granting such relief would be a matter for the court's sound discretion on these facts.

146. There is no significant overlap between the facts and relief sought in the culverts action and the facts and relief in the hypothetical action to protect habitat discussed here, so there would be no preclusive effect on the culverts action stemming from the habitat action.

they chose to seek such relief at a later time.[147] On balance, the legally distinctive nature of tribal treaty-based claims for habitat protection suggests that, if brought, such claims would have the strength to contribute substantially to a speedy and effective resolution of legitimate challenges to FEMA's approach to ESA compliance. At the same time, if successful, such tribal litigation would face some of the same political resistance outlined above that would result from litigation by others such as NWF, and it would also have some of the same side effects discussed below in Part IV.

IV. FEDERAL LEGISLATION AS A BETTER APPROACH TO RESTORATION

A comprehensive federal legislative solution to the problem of Puget Sound salmon fishery restoration has much to recommend it as an equitable and socially cost-efficient approach to habitat protection, whatever may be the ultimate legal merit of claims by NWF, and of potential claims by the tribes, seeking restoration. As discussed in Part I, the basic goal of legislation should be either to eliminate the existing pro-development political and economic incentives that lead to habitat destruction, or to create a set of stronger legal rights to habitat protection that can be effectively enforced even in the face of such incentives. In either case, there are multiple jurisdictions that claim lawmaking authority over the affected habitat, and they have conflicting constituencies and interests. Only Congress has the power through legislation fundamentally to change incentives, restructure federal law enforcement, and to cut decisively through the claims of conflicting federal, state, and local jurisdictions.

Federal legislation can be comprehensive in its effects in ways that state laws and local ordinances can never be because it can bind all potential parties and finally resolve all potential claims concerning habitat protection, precluding subsequent litigation. A good example of the way in which federal legislation can achieve this kind of binding effect is the settlement of Indian water rights claims implemented through legislation.[148] Such legislation covers all potential water resources claims within a defined area, and binds all potential parties to the results. Where appropriate in settlement legislation, Congress has

147. *See* United States v. Tohono O'Odham, 131 S.Ct. 1723, 1731–32 (2011). Proper attention would, of course, need to be given to state and federal statutes of limitation governing such claims; no opinion is expressed here about whether such money damages would be available. *See id.*; *see also* Skokomish Indian Tribe v. United States, 410 F.3d 506, 516–18 (9th Cir. 2005).

148. For background on Indian water rights settlements including extended discussion of a fairly recent settlement in the Pacific Northwest, see Robert T. Anderson, *Indian Water Rights: Litigation and Settlements*, 42 TULSA L. REV. 23 (2006). According to the article, Congress had passed legislation regarding approximately twenty such disputes by 2006.

also resolved conflicting claims to water resources by providing compensation to affected parties. In addition, federal legislation to protect habitat has clear advantages over both administrative action and litigation.

Unlike litigation, thoughtful legislation can achieve two key goals that are essential to a successful restoration program. First, Congress can decide based on expert information after hearings which of the several causes of salmon population decline are most significant and which, therefore, should be the focus of new public regulation and restoration investments, even in a world of scarce resources. Second, Congress can establish scientifically well-grounded priorities for habitat management and protection projects throughout the Puget Sound region. As discussed above, recent scientific studies strongly suggest that at existing funding levels, such prioritization could achieve far better results in terms of salmon population growth than those provided by current geographically widely dispersed restoration funding programs provide.[149] And there are several other important benefits that can be provided by legislation that cannot be achieved by litigation or administrative action.

First, legislation can provide clear authority and responsibility for salmon habitat protection, cutting decisively and permanently through various conflicting layers of government and bureaucracy. There is little question that well-crafted legislation would be superior to continued reliance on FEMA or other federal agencies' actions to achieve restoration. It is essential that the federal government abandon its divided approach to protection of the endangered Puget Sound fishery, with one agency committed to protect the fishery while another pursues policies destructive of the fishery and disclaims responsibility for the outcome. A divided policy cannot command respect and will encourage continued obstruction. Since it is apparent from the history of administrative action, particularly in the Puget Sound region, that the executive branch of the federal government is content to continue its divided approach to the problem of salmon habitat protection, it is up to Congress to create a uniform policy and real accountability. Legislation would ultimately lead to increases in wild salmon populations more quickly and less expensively than current policies relying on administrative action because it could avoid the extensive delay and political vacillation inherent in contested administrative action, and could truncate or eliminate the expensive and time-consuming litigation which quite often accompanies such administrative action.

149. *See* Roni, *supra* note 62, at 1469–70.

Second, legislation can eliminate existing incentives that encourage local governments to favor habitat destruction over salmon population growth. This can be done by providing tax funding for habitat acquisition, and by replacing tax revenues lost by such acquisition or other limitations on development where appropriate. Whether habitat acquisition and revenue replacement (a "carrot") is a more effective policy approach than creating more powerful tools for stricter and swifter citizen enforcement of existing law (a "stick") is a matter Congress is best placed to decide after hearings. Congress is also best able to decide after hearings whether such tax funding should consist of "user fees"—such as taxes imposed on salmon catches, on pollution or other habitat damage sources, or on other contributors to salmon population decline—of general revenues, or of some combination of funds from different sources.[150]

Third, federal legislation can provide certainty for property owners and property developers, and thus cut development costs. Congress can approve maps as part of the legislation that will conclusively determine the boundaries of appropriately protected habitat, eliminating the need for years of dispute over the propriety of particular boundaries at the state and local level followed by the kind of dilatory and expensive litigation over such boundaries that often occurs under the existing NFIP program. Congress could also approve certain types of structures or designs for use in or adjacent to environmentally protected areas, to avoid disputes over such issues in the permitting process. Congress can resolve ongoing disputes over whether levee designs—where levees are permitted—must meet Army Corps standards or alternative environmental engineering requirements, again providing needed certainty. All of these legislative decisions could reduce development costs and speed up the development process in areas where development is permitted.

Finally, legislation can provide for effective enforcement by citizens and Treaty Tribes of the law's provisions, by including substantial penalties for noncompliance and by awarding attorney's fees and a share of those penalties to prevailing parties in enforcement litigation. Congress undoubtedly has the authority to strengthen ESA enforcement by providing far more powerful citizen enforcement tools than exist under present law if it chooses to do so. Congress is in the best position to decide how much to strengthen enforcement powers as part of comprehensive legislation.

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150. Proper choices on the funding issue are important both for reasons of environmental policy, such as promoting economic efficiency, and for reasons of fairness.

At the same time, it is important for Congress to address possible concerns about the fairness and disproportionate impact of ESA-related development limitations. Development restrictions under the ESA have the potential to diminish sharply at least some individual property values. In some cases, the ESA may impose a disproportionate part of the cost of protecting habitat either on individual landowners who may have purchased (or inherited) property when its value was unaffected by the need to provide habitat protection. The cost also could be disproportionately placed on local communities with substantial amounts of undeveloped property. Such instances could occur even when the landowners or communities are not wholly (or in some cases even primarily) responsible for creating the environmental conditions at issue. If such development restrictions are substantial enough, it is reasonable to expect that those adversely affected by them will seek to prevent them in court or the legislature. Failing that, they will seek compensation for their losses, perhaps by claiming that an unconstitutional taking without just compensation has occurred.[151] The important point here is that whether or not existing law would require compensation, such fairness questions are best addressed by legislation, since legislation, unlike litigation, can provide that the economic costs of regulatory action that benefits society generally will be borne by society as a whole. Legislation on such issues can also avoid large unnecessary transaction costs such as attorneys' fees and years of delay, as well as providing a degree of certainty not often found in the administrative decision-making or litigation processes.

V. CONCLUSION

Despite the possibility that litigation by environmental groups, or tribal plaintiffs if they choose to sue, will ultimately succeed in obtaining court-mandated imposition of RPA-driven ESA development restrictions to protect existing Puget Sound salmon habitat, any such judgment

151. Since the restrictions at issue here would not be likely to involve physical intrusions on landowners' property, but would instead restrict its use, they would probably be analyzed under the line of Supreme Court regulatory takings cases dating back to Penn Central Transportation Co. v. New York City, 438 U.S. 104 (1978), Lucas v. South Carolina Coastal Council, 505 U.S. 1003 (1992), and the subsequent development of the law in Lingle v. Chevron U.S.A., Inc., 544 U.S. 528 (2005). The key point to grasp for our purposes is not whether such ESA-related takings claims will ultimately be upheld by the courts, but rather that property owners whose property values are damaged by ESA restrictions will have an enormous incentive to engage in political and legal resistance to ESA-dictated changes wholly apart from bringing takings claims. This is evident from the amount of recent litigation surrounding the politically analogous problem of water rights restrictions due to the ESA. *See, e.g.*, Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001); Klamath Irrigation Dist. v. United States, 67 Fed. Cl. 504 (2005); Casitas Mun. Water Dist. v. United States, 543 F.3d 1276 (Fed. Cir. 2008).

would require long-term enforcement in a divided and potentially fairly hostile climate of public opinion. In such circumstances, a realistic appraisal of the limited long-range political and economic capacity of litigation to effectuate meaningful change in the management of Puget Sound wild salmon strongly suggests the wisdom and desirability of adopting comprehensive federal legislation to protect salmon for future generations while also meeting community concerns for efficiency and fairness.

State and local officials, local citizens and pro-development interests are likely to resist legislative changes of the kind suggested for consideration above. Additional habitat acquisition and restoration funding to minimize or eliminate pro-development incentives may be difficult to provide in an increasingly tough federal and state budget climate. Strengthening existing laws may also be difficult due to resistance to some loss of local control over land use management. Further, ending federal subsidies for development such as flood control projects has historically proven difficult because of their popularity, despite their unquestionably adverse side effects, such as habitat destruction, flood damage and predictable loss of life, and demonstrable economic inefficiency. Some observers will dislike the precedents that might be set by such comprehensive legislation. These difficulties are all foreseeable, but they are not valid reasons to avoid undertaking legislation to provide needed habitat protection for Puget Sound's endangered fishery. Legislation has important benefits that cannot be provided by litigation or administrative action, both of which also have significant costs that legislation does not impose.

The history of administrative action and litigation to enforce laws protecting salmon in Washington shows unequivocally that today Washington's citizens face an important choice. A thriving wild salmon population can be part of Washington's future even as the state grows, but this will happen only if Washington's people choose the right means of protecting salmon habitat. Despite its unavoidably contentious nature, legislation is nevertheless the alternative that would best serve the shared interests of all of Washington State's people and the common good.