

**A CRITIQUE OF THE STATE'S HYDRAULIC CODE,
RCW 75.20**

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The analysis, conclusions, and recommendations provided in this report are those of the authors only and are not intended to represent the views or opinions of the NWIFC, its members Tribes, or the Bullitt Foundation.

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**A CRITIQUE OF THE STATE'S HYDRAULIC CODE,
RCW 75.20**

I. EXECUTIVE SUMMARY

The Hydraulic Code, RCW 75.20, is Washington State's primary statutory authority directed at protecting our public fisheries resources and their dependent habitats. This report provides a critical analysis of the Washington State Hydraulic Code as it related to protection of our fisheries resources and their dependent habitats.

After briefly describing the purposes of this project in Chapter II, we then provide a general review of the status of our salmon and steelhead stocks and a summary of the Endangered Species Act (ESA) in Chapter III. We list those stocks that are listed under the ESA and describe those activities that may be a cause for their demise.

Chapter IV provides a review of the statutory and administrative authorities of the Washington Department of Fish and Wildlife in implementation of the Hydraulic Code. This section reviews those activities subject to the jurisdiction of the Hydraulic Code.

In Chapter V, we critique the Hydraulic Code and its implementing regulations. We show the Department places a low priority on in implementing the Hydraulic Project Approval process and its enforcement, and demonstrate both statutory and administrative deficiencies in the Hydraulic Project Approval process that

1 contributes to the demise of our salmon and steelhead resources.

2
3 Chapter VI continues the critique by focusing on one of the more egregious
4 problems that is impacting our fisheries resources and subject to the jurisdiction
5 of the Hydraulic Act---fish passage barriers. In particular, we focus on improperly
6 maintained road culverts as barriers to fish migration. This chapter reviews State
7 policies and laws related to fish barriers. Also included is a summary of the
8 State's strategy to address fish blocking culverts. The final part of this chapter
9 critiques the State strategy.

10
11 In Chapter VII, we provide a review of statutory and possible common law
12 remedies that may address the fish blocking culvert problems throughout the
13 State. We describe the authorities and remedies the State of Washington could
14 pursue to ensure accountability of public and private entities who own impassable
15 culverts. In addition, we suggest mechanisms members of the public may utilize
16 if the State fails protect and restore our fisheries resources.

17
18 Chapter VIII describes the fisheries and economic impacts caused by illegal fish
19 blocking culverts. Rather than trying to provide a comprehensive analysis
20 statewide, this chapter focuses on impacts to coho salmon in one particular
21 watershed. We include a summary of the methods and protocols used in this
22 analysis, estimates of lost habitat and coho salmon production, and an economic
23 evaluation of the value of coho lost as a result of blocked culverts.

24
25 Chapter IX provides various policy, technical, legal, and legislative
26 recommendations.

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II. PURPOSE

There are a variety of state laws which address protection of fish habitat. These laws include:

- Hydraulic Code
- Minimum Water Flows and Levels
- Water Code
- Water Resources Act
- Forest Practices Act (FPA)
- Growth Management Act (GMA)
- Shoreline Management Act (SMA)
- State Environmental Policy Act (SEPA)
- Water Rights Applications
- Water Quality Laws

This report focuses on the State Hydraulic Code. We evaluate the efficacy of the Hydraulic Code as a mechanism that is intended to minimize activities that impact salmon and steelhead habitat. We identify gaps in the current statutory and administrative system and offer recommendations to rectify their short-comings.

More specifically, this report provides:

- an overview of the State of Washington’s Hydraulic Code (RCW 75.20) and an analysis of whether this law is adequate for protecting our salmon resources consistent with the requirements of the ESA;
- an analysis of legislative and common law policies that are intended to ensure free and open passage for fish migration, and to prohibit roads with improperly designed or maintained culverts;
- an analysis of the impacts road culverts have caused to commercial and recreational salmon fisheries; and
- policy, legal, and legislative recommendations.

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III. BACKGROUND

Wild salmon and trout are recognized as indicator species of healthy streams, rivers, watersheds and ultimately, entire ecosystems. Aunbdant populations of salmonids are an important component of aquatic and terrestrial environments in the Pacific Northwest. Salmon migrate between fresh water and saltwater with some species spending several years in fresh water systems as part of their life histories. Salmon occupy a variety of essential habitats during their life history. Resident fish species which do not migrate to the sea also utilize different portions of watersheds at different life stages.

Salmonids are not abstract considerations. They provide significant economic advantages to our society. In addition, fish are an integral part of Native American property rights, traditions, cultures, and are used for tribal ceremonial, commercial, and subsistence purposes.

A. Status of the Stocks

Alarming declines in salmonid populations in Washington and surrounding states have caused extreme concern among state and tribal fish managers, commercial and sports fishing interests, and environmental groups. Recent surveys have identified a number of salmonid stocks at risk due to habitat loss, over fishing, loss of genetic fitness and diversity, and reduced marine productivity. A joint tribal-state survey of the status of Washington salmon and steelhead stocks was

1 done in 1992 (Table 1).¹ Of the stocks where enough information was available to
2 determine status, 42% were identified as either depressed or critical (Table 2). A
3 recent survey of Dolly Varden and bull trout stocks found that only 17% of the
4 stocks were at no immediate risk of extinction. Other studies found that 26
5 salmon or steelhead stocks from Puget Sound and the Washington Coast are at
6 risk of extinction, 8 at moderate risk, and 7 of special concern.²

7
8 This decline has lead to the loss of fishing opportunities. In recent years, the
9 ocean coast of Washington has twice been closed to salmon fishing, and fishing
10 has been severely limited in the Columbia River, Strait of Juan de Fuca, Puget
11 Sound, and a number of inside areas. In addition, many local and tribal
12 communities have lost their livelihoods due to a loss of their fisheries resource.
13 This has resulted in the loss of social, cultural, religious, and ecological benefits

¹ 1992 Washington State Salmon and Steelhead Stock Inventory (SASSI), WDFW and Western Washington Treaty Indian Tribes, March 1993. In addition, the National Marine Fisheries Service (NMFS) has conducted a number of reviews of stock status: NOAA Technical Memorandum NMFS-NWFSC-24, Status Review of *Coho* Salmon from Washington, Idaho, Oregon, and California, September 1995; NOAA Technical Memorandum NMFS-NWFSC-25, Status Review of *Pink* Salmon from Washington, Oregon, and California, February 1996; NOAA Technical Memorandum NMFS-NWFSC-27, Status Review of *Steelhead* Salmon from Washington, Oregon, and California, August 1996; NOAA Technical Memorandum NMFS-NWFSC-32, Status Review of *Chum* Salmon from Washington, Oregon, and California, December 1997; NOAA Technical Memorandum NMFS-NWFSC-33, Status Review of *Sockeye* Salmon from Washington and Oregon, December 1997; NOAA Technical Memorandum NMFS-NWFSC-35, Status Review of *Chinook* Salmon from Washington, Idaho, Oregon, and California, February 1998.

² Nehlson et al. 1991. *Pacific Salmon at the crossroads: Stocks at risk from California, Oregon, Idaho, and Washington*. Fisheries 16(2):4-21.

1 that are important to Washington's quality of life.³

2
3 The influence of man on fish habitat, is substantial. We continue to lose
4 approximately 30,000 acres of fish habitat every year to other uses as our
5 population continues to increase in our State. Factors affecting the salmon
6 resource and its habitat include, but are not limited to:

- 7
8 Agricultural practices
9 Bank stabilization
10 Dam construction/operation
11 Dredging and dredged spoil disposal
12 Estuarine alteration
13 Forest practices
14 Gravel mining
15 Grazing
16 Improperly maintained passage devices (e.g., culverts)
17 Irrigation water withdrawal, storage, and management
18 Mineral mining
19 Point Source Pollution
20 Road building and maintenance
21 Sand and gravel mining
22 Urban or other land use development
23 Wastewater/pollutant discharge
24 Water/Instream Flows
25 Wetland and floodplain alteration
26 Woody debris/structure removal from rivers and estuaries.⁴

³ Personal communication, Terry Williams, Natural Resource Director, Tulalip Tribes.

⁴ See: Spence, B.C., et al., *An Ecosystem Approach to Salmonid Conservation*, hereinafter "Spence, B.C., et al. 1996"); Washington Department of Fish and Wildlife (WDFW), 1997, Final Environmental Impact Statement for the Wild Salmonid Policy approved by the State Fish and Wildlife Commission, Washington Fish and Wildlife Commission (WFWC), 1997; Policy of Washington Department of Fish and Wildlife and western Washington Treaty Tribes Concerning Wild Salmonids, December 5, 1997, hereinafter "WSP";

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Habitat destruction, coupled with concerns about overfishing and other problems, have led to listings of salmonid stocks under the ESA. Virtually every geographic region of Washington State will be affected by ESA listings.

Description and Identification of Essential Fish Habitat, Adverse Impacts and Recommended Conservation Measures, Appendix A, Amendment 14 to the Pacific Coast Salmon Plan, PFMC, October 19, 1998.

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3

| | | CHINOOK | CHUM | COHO | PINK | SOCKEYE | STEELHEAD |
|-------------------------|------------------------|---------|------|------|------|---------|-----------|
| PUGET SOUND | | | | | | | |
| | North Puget Sound | 15 | 12 | 14 | 7 | 1 | 22 |
| | South Puget Sound | 10 | 23 | 11 | 2 | 3 | 13 |
| | Hood Canal | 1 | 12 | 9 | 3 | | 11 |
| | Strait of Juan de Fuca | 3 | 8 | 12 | 3 | | 14 |
| | TOTALS | 29 | 55 | 46 | 15 | 4 | 60 |
| COASTAL | | | | | | | |
| | North Coast | 21 | 6 | 18 | | 3 | 24 |
| | Grays Harbor | 9 | 2 | 7 | | | 10 |
| | Willapa | 2 | 6 | 1 | | | 6 |
| | TOTALS | 32 | 14 | 26 | | 3 | 40 |
| COLUMBIA RIVER | | | | | | | |
| | Lower Columbia | 17 | 3 | 17 | | | 23 |
| | Upper Columbia | 30 | | 1 | | 2 | 18 |
| | TOTALS | 47 | 3 | 18 | | 2 | 41 |
| WASHINGTON STATE | | | | | | | |
| | 435 STOCKS | 108 | 72 | 90 | 15 | 9 | 141 |

Table 1. Regional and statewide salmon and steelhead stocks. 1992 Washington State Salmon and Steelhead Stock Inventory, WDFW and Western Washington Stribe, March 1993.

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| | Percent of Stocks | | | |
|------------------|--------------------------|------------------|-----------------|----------------|
| | HEALTHY | DEPRESSED | CRITICAL | UNKNOWN |
| Chinook | 50.0 | 32.4 | 4.6 | 13.0 |
| Coho | 41.1 | 37.8 | 1.1 | 20.0 |
| Chum | 67.6 | 4.2 | 2.8 | 25.4 |
| Pink | 60.0 | 13.3 | 13.3 | 13.3 |
| Sockeye | 33.3 | 44.4 | 11.1 | 11.1 |
| Steelhead | 25.5 | 31.2 | 0.7 | 42.6 |

Table 2. Status of salmon and steelhead stocks in Washington State, 1992.

| <u>Region</u> | <u>Species of Concern</u> |
|----------------------|--|
| Puget Sound | * Chinook proposed as "threatened" (3/19/98; 63 FR 11482) |
| | * Bull Trout proposed as "threatened" (6/10/98; 63 FR 31693) |
| | * Hood Canal Summer Chum proposed as "threatened" (3/10/98, 63 FR 11774) |
| | * Baker Lake Sockeye proposed as "candidate" (3/10/98; 63 FR 11750) |
| Washington Coastal | * Bull Trout proposed as "threatened" (6/10/98; 63 FR 31693) |
| | * Lake Ozette Sockeye proposed as "threatened" (3/10/98; 63 FR 11750) |
| | * SW WA Coho potential as "threatened;" |
| | * Olympic Peninsula coho potential for re-opening status review. |
| Lower Columbia River | * Steelhead listed as "threatened" (3/19/98; 63 FR 13347) |
| | * Chum proposed as "threatened" (3/10/98; 63 FR 11774) |
| | * Chinook proposed as "threatened" (3/9/98; 63 FR 11482) |
| | * Bull Trout listed as "threatened" (6/10/98; 63 FR 31647) |
| | * Coastal Cutthroat Trout high potential for listing as "threatened" |
| Upper Columbia River | * Steelhead listed as "endangered" (8/18/97; 62 FR 43937) |
| | * Spring run Chinook proposed as "endangered" (3/9/98; 63 FR 11482) |
| | * Bull Trout listed as "threatened" (6/10/98; 63 FR 31647) |
| | * Westslope Cutthroat Trout high potential for listing as "threatened" |
| Mid Columbia River | * Steelhead proposed as "threatened" (3/16/98, 63 FR 11798) |
| | * Bull Trout listed as "threatened" (6/10/98; 63 FR 31647) |
| | * Westslope Cutthroat Trout high potential for listing as "threatened" |
| Northeast Washington | * Bull Trout listed as "threatened" (5/10/98, 63 FR 31647) |
| | * Westslope Cutthroat Trout high potential for listing as "threatened" |

Table 3. Washington Salmonids (salmon, trout, and steelhead) that are listed, proposed for listing, or have a high potential for future listing under the Endangered Species Act

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B. Endangered Species Act

1 In 1973, Congress passed the Endangered Species Act (ESA)⁵ to provide a means
2 whereby;

3 *“... the ecosystems upon which endangered species and threatened species*
4 *depend may be conserved, to provide a program for the conservation of*
5 *such endangered species, and to take such steps as may be appropriate to*
6 *achieve the purposes of the treaties and conventions set forth in the act.”*

7 (16 U.S.C. sec 1531 (b))

8
9 Under Section 9 of the Act, it is unlawful for any person to take any listed species
10 within the United States.⁶ The term “take” means to “harass, harm, pursue, hunt,
11 shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such
12 conduct”.⁷ The Secretary of Interior further defines “harm” to include “significant
13 habitat modification or degradation where it actually kills or injures wildlife.”⁸

14
15 The definition of “harm” is fairly expansive. The NMFS proposed rulemaking
16 notice provides examples of habitat modifications of listed species that may fall
17 within the definition of “harm”:

⁵ 16 U.S.C. 1531 et seq., as amended by P.L. 94-325, June 30, 1976; P.L. 94-359, July 12, 1976; P.L. 95-212, December 19, 1977; P.L. 95-632, November 10, 1978; P.L. 96-159, December 28, 1979; P.L. 97-304, October 13, 1982; P.L. 98-327, June 25, 1984; and P.L. 100-478, October 7, 1988.

⁶ 16 U.S.C. § 1538.

⁷ 16 U.S.C. § 1532 (19).

⁸ 50 CFR §17.3 (c) (Fish and Wildlife Service definition of “harm”); 63 Fed. Reg. 24148 (definition of “harm” proposed by the National Marine Fisheries Service); See also, Babbitt, Secretary of Interior v. Sweet Home Chapter of Communities For A Great Oregon, No. 94-859. June 29, 1995, ___ U.S. ___; 115 S. Ct. 2407 (1995).

- 1 constructing or maintaining barriers that limit or impede access to listed
2 species' essential habitat;
- 3
- 4 removing, poisoning or contaminating plants, fish wildlife, or other biota
5 required by listed species for feeding, sheltering or essential functions;
- 6
- 7 discharging pollutants, oil, toxic chemicals, radioactivity, carcinogens,
8 mutagens, or teratogens into a listed species' habitat;
- 9
- 10 removing rock, soil, gravel, vegetation or other physical structures that are
11 essential to the integrity and function of a listed species' habitat;
- 12
- 13 removing water or otherwise altering streamflow when it is likely to
14 impair spawning, migration or other essential functions;
- 15
- 16 releasing nonindigenous or artificially propagated individuals into a listed
17 species' habitat;
- 18
- 19 constructing or operating inadequate fish screen of fish passage facilities at
20 dams or water diversions in a listed species' habitat;
- 21
- 22 constructing or using inadequate bridges, roads, or trails on stream banks
23 or unstable slopes adjacent to or above a listed species' habitat; and
- 24
- 25 constructing or using inadequate pipes, tanks, or storage devices
26 containing toxic substance where a release is likely to significantly modify
27 or degrade a listed species' habitat.⁹
- 28

29 There are a variety of tools available to the federal agencies to assist private
30 citizens, other federal agencies, and states in implementing the ESA. Under
31 Section 10(a)(1)(B) of the Act, the Secretary may permit the otherwise prohibited
32 taking species if the taking is incidental to an otherwise lawful activity. A permit
33 will be issued if:

34 (1) *the taking will be incidental (to otherwise lawful activities);*

⁹ 63 Fed. Reg. 24148 (May 1, 1998).

- 1 (2) *the applicant will, to the maximum extent practicable,*
2 *minimize and mitigate the impacts of such taking;*
3
4 (3) *the applicant will ensure that adequate funding for the plan*
5 *will be provided;*
6
7 (4) *the taking will not appreciably reduce the likelihood of the*
8 *survival and recovery of the species in the wild; and*
9
10 (5) *the measures, if any, required under subparagraph (A)(iv)*
11 *will be met. The permit shall contain necessary terms and*
12 *conditions, including, but not limited to, such reporting*
13 *requirements necessary for determining whether such terms*
14 *and conditions are being complied with (e.g., monitoring).¹⁰*
15

16 The applicant’s plan for minimizing and mitigating the impacts of the incidental
17 taking is outlined in a “habitat conservation plan” (HCP). The HCP must specify:

- 18
19 (1) *the impact that will likely result from the proposed taking;*
20
21 (2) *the steps the applicant proposes to take to minimize and mitigate*
22 *such impact and the funding that will be available to implement*
23 *such steps;*
24
25 (3) *the alternative actions the applicant considered and the reasons*
26 *why such alternatives were not utilized; and*
27
28 (4) *such other measures as the Secretary may require as necessary or*
29 *appropriate for the purposes of the plan.¹¹*
30

31 Under § 7 of the Act, all federal agencies must consult with the Secretary to
32 ensure that any action authorized, funded or carried out by the agency is not likely
33 to jeopardize a listed species or result in the destruction or modification of critical

¹⁰ 16 U.S.C. § 1539 (a)(2)(B).

¹¹ 16 U.S.C. § 1539 (a)(2)(A).

1 habitat.¹²

2
3 After a species is listed, the Secretary is required to issue regulations under § 4(d)
4 that are necessary to provide for the conservation of the listed species.¹³ For
5 NMFS, the 4(d) rule includes regulations that define the prohibition against “take”
6 of the listed species.

7
8 Under § 6 of the Act, states may enter into cooperative agreements with the
9 Secretary for the administration and management of any areas established for the
10 conservation of threatened and endangered species.

11
12 These and other obligations and liabilities under the ESA are made enforceable
13 under section 11. In addition to giving the federal government enforcement
14 authority to assess civil and criminal penalties and to seek injunctive relief against
15 any person in violation of ESA or its regulations, §11 authorizes citizen suits to
16 enforce the ESA, including the taking prohibition of Section 9.¹⁴

17
18 It is the intent of the State of Washington to utilize the § 4(d) rule process, habitat
19 conservation planning under § 10, and § 6 of the ESA as part of its overall salmon
20 recovery strategy.¹⁵ The state intends to submit to the federal agencies a variety of
21 state laws and programs that could be used to define a federal 4(d) rule to allow
22 for the incidental take of listed species. The state also intends to submit the Forest

12 16 U.S.C. § 1538 (a)(2).

13 16 U.S.C. § 1533 (d).

14 16 U.S.C. § 1540 (e), (g).

15 Personal communication with Curt Smitch and the Governor’s Salmon Team.

1 Practices Act¹⁶ and implementing regulations¹⁷ to the federal agencies as part of a
2 statewide Habitat Conservation Plan under § 10 or to be included in a federal §
3 4(d) rule that would allow the state to continue implementation of their laws and
4 programs for the conservation of listed species.

5
6 The State also plans to request an HCP for the HPA permitting process.¹⁸ The
7 state will argue that the current Hydraulic Code, as implemented by WDFW,
8 provides adequate protection for listed species from activities regulated by HPAs.

9
10 One of the purposes of this paper is to determine whether the Hydraulic Code and
11 its implementing regulations adequately control activities that impact salmon and
12 steelhead habitat. As part of this analysis, we will focus on the problems
13 associated with impassable culverts.
14

¹⁶ RCW 76.09.

¹⁷ WAC 222-22.

¹⁸ RCW 75.20.

1 **IV. GENERAL POLICIES OF THE WASHINGTON DEPARTMENT**
2 **OF FISH AND WILDLIFE**

3
4 The legislature has mandated the Washington State Department of Fish and
5 Wildlife (WDFW) to:

6
7 preserve, protect, perpetuate and manage the food fish and shellfish
8 in state waters and offshore waters

9 . . .

10
11 In a manner consistent with this goal, the department shall seek to
12 maintain the economic well-being and stability of the fishing
13 industry in the state. The department shall promote orderly
14 fisheries and shall enhance and improve recreational and
15 commercial fishing in this state.”¹⁹

16
17 Regarding salmon and steelhead, the Department’s goal as defined by the Fish and
18 Wildlife Commission is:

19
20 [T]o protect, restore, and enhance the productivity, production, and
21 diversity of wild salmonids and their ecosystems to sustain
22 ceremonial, subsistence, commercial, and recreational fisheries,
23 non-consumptive fish benefits, and other related cultural and
24 ecological values.²⁰

25
26 The general goals of the Department are to maintain highest quality habitat to
27 ensure healthy, naturally produced fish and wildlife and to provide a range of
28 wildlife recreation to citizens. The WDFW has an internal policy to achieve a no-
29 net-loss of productive capacity of the habitat of food fish and shellfish resources

¹⁹ RCW 75.08.012. [1983 1st ex.s. c 46 § 5; 1975 1st ex.s. c 183 § 1; 1949 c 112 §
3, part; Rem. Supp. 1949 § 5780-201, part. Formerly RCW 43.25.020.]

²⁰ WSP *supra*.

1 of the state.²¹ However, the Department has also agreed with the Treaty Tribes as
2 co-managers of the resource to achieve an overall net gain of the productive
3 capacity of fish and wildlife habitats.²²

4
5 The Hydraulic Code is the primary authority of the Department has to meet these
6 goals of protecting and restoring habitat. The Hydraulic Code authorizes the
7 Department to issue permits for activities that occur below the ordinary high-
8 water line. This is one of the main mechanisms the state has to minimize human
9 impacts on nearshore and freshwater habitats.

10
11 **A. Habitat Protection- Hydraulic Code**

12
13 The Legislature in 1949, passed the state law now known as the "Hydraulic Code"
14 to regulate any construction activity that will use, divert, obstruct, or change the
15 natural flow or bed of any of the salt or fresh waters of the state "*to ensure the*
16 *proper protection of fish life.*"²³ The law requires that any person, organization, or
17 government agency wishing to conduct any construction activity in or near state
18 waters must do so under the terms of a permit (called a Hydraulic Project
19 Approval-HPA) issued by the WDFW. State waters include all marine waters and
20 fresh waters of the state.²⁴ Although the law has been amended occasionally since
21 it was originally enacted, the basic permit structure has been retained.

22
21 (POL-410, September 10, 1990).

22 Chelan Agreement, 1990.

23 RCW 75.20 et seq.

24 RCW 75.20.100 (1).

1 The enactment of the Hydraulic Code was a recognition by the state Legislature
2 that virtually any construction that may impact the waters of the state has the
3 potential to cause habitat damage. It was also an expression of a state policy to
4 avoid and minimize potential impacts. The law's purpose is to see that
5 construction is done in a manner that prevents damage to the state's fish, shellfish,
6 and their habitat.

7
8 **B. Scope of Activities Subject To The Hydraulic Code**

9
10 A HPA is required for construction and other work that uses, diverts, obstructs, or
11 changes the natural flow or bed of fresh- or saltwaters of the state.²⁵ The major
12 types of activities in freshwater requiring an HPA include, but are not limited to:
13 streambank protection and stabilization;²⁶ construction of bridges,²⁷ piers, and
14 docks;²⁸ pile driving; channel change or realignment;²⁹ conduit (pipeline)
15 crossing;³⁰ culvert installation;³¹ dredging;³² gravel removal;³³ pond construction;

25 WAC 220-110-020(33).

26 RCW 75.20.103, WAC 220-110-030 (11)(b), -050.

27 WAC 220-110-070.

28 WAC 220-110-060.

29 WAC 220-110-080.

30 WAC 220-110-100.

31 WAC 220-110-120.

32 WAC 220-110-130.

33 WAC 220-110-140.

1 placement of outfall structures;³⁴ log, log jam, or debris removal;³⁵ installation or
2 maintenance (with equipment) of water diversions;³⁶ and mineral prospecting.³⁷

3
4 Major saltwater activities requiring a HPA include: construction of bulkheads,³⁸
5 fills, boat launches,³⁹ piers,⁴⁰ dry docks, artificial reefs, dock floats, and marinas;⁴¹
6 placement of utility lines;⁴² pile driving; and dredging.⁴³

7
8 The above are only examples of the types of activities that require an HPA. Any
9 construction activity within the ordinary high water line in fresh or salt water
10 requires an HPA.

11
12 **C. Conditioning Authority of the Department**

13
14 If the project as proposed will adversely affect fish life, it may be approved with
15 certain conditions attached, such as timing and construction methods, to prevent

34 WAC 220-110-170.

35 WAC 220-110-150.

36 WAC 220-110-190.

37 WAC 220-110-200, -210, -220.

38 WAC 220-110-280.

39 WAC 220-110-290.

40 WAC 220-110-300.

41 WAC 220-110-330.

42 WAC 220-110-310.

43 WAC 220-110-320.

1 damage.⁴⁴ If the project cannot be accomplished without significant adverse
2 impacts on fish or shellfish it may be denied.⁴⁵ Of the approximately 6,700
3 applications received per year (Table 4), less than one percent are denied by the
4 Department (Table 5).

5
6 **D. Emergency Provisions**

7
8 The Hydraulic Code provides for emergency situations. When, due to weather,
9 stream flow, or other natural conditions there exists an immediate threat (within
10 60 days) to property or life, the Department shall issue an expedited written
11 permit.⁴⁶ The Department or county legislative authority has the discretion to
12 determine whether an “immediate threat” exists. In cases where the Department
13 makes this determination, “the biologist who processes and signs the HPA is the
14 one who determines if an emergency exists.”⁴⁷

15
16 The Department shall “grant approval immediately upon request for emergency
17 work to repair existing structures, move obstructions, restore banks, or protect
18 property that is subject to immediate danger by weather, flow, or other natural
19 conditions.” Also, the Department shall grant approval “immediately upon
20 request for driving across a stream during an emergency, as defined in WAC
21 220-110-020.”⁴⁸ From 1990-1997, the Department issued over 1500 emergency

44 WAC 220-110-030.

45 WAC 220-110-030 (12).

46 RCW 75.20.100 (3)(a)-(d).

47 Ms. Carol Turcotte, Public Disclosure Officer, WDFW, December 23, 1998.

48 WAC 220-110-030 (7).

1 permits. This represents approximately 3% of all the HPA permits issued over
2 this period of time (Table 6).

3
4 **E. Permitting and Decision-Making**

5
6 Applicants must submit a HPA application to the WDFW.⁴⁹ A habitat biologist
7 evaluates the application. The administrative rules⁵⁰ contain technical provisions
8 that apply to different types of construction or maintenance projects. These
9 provisions are intended to reflect best available science and practices.⁵¹

10 Additional site-specific conditions may be attached to the HPA during individual
11 review of the application or “if the department determines that new biological or
12 physical information indicates the need for such action.”⁵²

13
14 Specific technical provisions address bulkheads and bank protection, boat ramps
15 and launches, piers, pilings, docks, floats, rafts, ramps, boathouses, houseboats,
16 and associated moorings, utility lines, dredging, and marinas.⁵³ There are also
17 technical provisions that address topics such as construction methods, design,
18 vegetation removal, stockpiling of material, placement of material, and location of
19 projects in relation to tidal habitat and high-water line.

20
21 The regulations identify habitats of special concern (surf smelt, pacific sand lance,

⁴⁹ RCW 75.20.100 (1).

⁵⁰ WAC 220-110.

⁵¹ WAC 220-110-010.

⁵² WAC 220-110-010 , -030 (17)

⁵³ WAC 220-110-040 through 220-110-338.

1 rock sole, pacific herring, rockfish, lingcod;⁵⁴ juvenile salmon;⁵⁵ eelgrass, kelp,
2 and intertidal wetland vascular plants⁵⁶). The regulations also include timing
3 restrictions to protect spawning beds of surf smelt and herring, and migration,
4 feeding, and rearing areas for salmon.⁵⁷

5
6 The general sections of the regulations specifically state that mitigation measures
7 must ensure no-net-loss of habitat. For example, applications for for bulkheads
8 and bank protection for non-single family residences must show that they will
9 protect fish and shell fish habitat.⁵⁸ A hydraulic project application will be denied
10 if the project will result in direct or indirect harm to fish life unless adequate
11 mitigation can be assured by the conditions of the permit or by altering the
12 proposal.⁵⁹ “Protection of fish life shall be the only grounds upon which an HPA
13 may be denied or conditioned.”⁶⁰

14
15 The HPA program is linked to the U.S. Army Corps of Engineers (COE) Section
16 404⁶¹ and Section 10⁶² permit processes. Section 10 permits are required for work

⁵⁴ WAC 220-110-250 (1)(a)-(f).

⁵⁵ WAC 220-110-250 (2).

⁵⁶ WAC 220-110-250 (3)(a)-(c).

⁵⁷ WAC 220-110-271.

⁵⁸ WAC 220-110-285.

⁵⁹ WAC 220-10-030(12).

⁶⁰ WAC 220-110-030 (13).

⁶¹ Clean Water Act, 33 U.S.C. §§1251-1376 (1987).

⁶² Rivers and Harbors Act, 33 U.S.C. §§ 401 et seq. (1899)

1 in navigable waters⁶³ and Section 404 permits are required for discharge of
2 dredged or fill material. The Corps public notice is accepted by WDFW as an
3 application for an HPA.⁶⁴ Unlike an HPA, section 10 permit application reviews
4 focus on potential impacts to both fish and wildlife. The Corps is required to
5 consult with state fish and wildlife agencies on projects it approves. WDFW
6 recommendations must be given “great weight” and the Corps will not, by policy,
7 issue a permit for any action that has been denied an HPA.⁶⁵

8
9 A separate HPA application is required for activities not requiring a Corps permit.
10 The Hydraulic Code states that permits must be processed within 45 days.⁶⁶ If
11 denied, reasons for denial will be stated in writing.⁶⁷ Under the rules, WDFW will
12 process permits within 30 days, except in specific instances laid out in the code.⁶⁸

13
14 **F. Monitoring, Compliance, and Enforcement**

15
16 WDFW has a monitoring and compliance program. Issued approvals are
17 monitored for compliance. If found in non-compliance, actions should be taken.
18 Any person failing to comply with any of the requirements or provision of an

63 33 U.S.C. § 403

64 WAC 220-110-030 (3)(c).

65 33 CFR Part 320.

66 WAC 220-110-030 (4).

67 WAC 220-110-030 (12).

68 WAC 220-110-030 (4).

1 HPA is guilty of a gross misdemeanor.⁶⁹ Additionally, WDFW may impose a
2 civil penalty of up to \$100 per day for a violation or continuing violation.⁷⁰
3

⁶⁹ WAC 220-110-360 (1).

⁷⁰ RCW 75.20.106 and WAC 220-110-360 (2).

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| YEAR | Non-Emergency Projects | Emergency Projects | HPA Denials | Renewal or Time Ext. | Modification of HPA | Renewal and Modification | TOTAL HPA'S |
|-------------|-----------------------------------|-------------------------------|------------------------|---------------------------------|--------------------------------|-------------------------------------|------------------------|
| 1990 | 4651 | 273 | 66 | 827 | 63 | 252 | 6132 |
| 1991 | 5365 | 166 | 31 | 978 | 72 | 301 | 6913 |
| 1992 | 4983 | 48 | 38 | 889 | 90 | 364 | 6412 |
| 1993 | 5056 | 38 | 28 | 951 | 86 | 278 | 6437 |
| 1994 | 4839 | 52 | 47 | 703 | 91 | 238 | 5970 |
| 1995 | 4672 | 175 | 46 | 709 | 174 | 471 | 6247 |
| 1996 | 6047 | 438 | 32 | 810 | 226 | 490 | 8043 |
| 1997 | 5315 | 319 | 36 | 852 | 238 | 530 | 7290 |
| Total | 40,928 | 1,509 | 324 | 6,719 | 1,040 | 2,924 | 53,444 |
| Average | 5,116 | 189 | 41 | 840 | 130 | 366 | 6,681 |

Table 4. HPAs issued by WDFW from 1990-1997.

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| YEAR | HPA Denials | TOTAL HPA'S | Denials (Percent) |
|----------------|--------------------|--------------------|--------------------------|
| 1990 | 66 | 6132 | 1.08 |
| 1991 | 31 | 6913 | 0.45 |
| 1992 | 38 | 6412 | 0.59 |
| 1993 | 28 | 6437 | 0.43 |
| 1994 | 47 | 5970 | 0.79 |
| 1995 | 46 | 6247 | 0.74 |
| 1996 | 32 | 8043 | 0.40 |
| 1997 | 36 | 7290 | 0.49 |
| TOTAL | 324 | 53,444 | |
| AVERAGE | 41 | 6,681 | 0.62 |

Table 5. WDFW denials of HPAs from 1990-1997.

| YEAR | TOTAL Emergency Projects | TOTAL HPA'S | Percent Emerg. Proj. |
|----------------|---------------------------------|--------------------|-----------------------------|
| 1990 | 273 | 6132 | 4.45 |
| 1991 | 166 | 6913 | 2.40 |
| 1992 | 48 | 6412 | 0.75 |
| 1993 | 38 | 6437 | 0.59 |
| 1994 | 52 | 5970 | 0.87 |
| 1995 | 175 | 6247 | 2.80 |
| 1996 | 438 | 8043 | 5.45 |
| 1997 | 319 | 7290 | 4.38 |
| Total | 1,509 | 53,444 | |
| Average | 189 | 6,681 | 2.71 |

Table 6. HPA emergency permits issued from 1990-1997.

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V. A CRITIQUE OF THE STATE’S HYDRAULIC CODE, RCW 75.20 AND IMPLEMENTING REGULATIONS

For the federal government to issue an incidental take permit for an HPa Habitat Conservation Plan, the Secretary must find that the Hydraulic Code permitting process meets the section 10 standards described on page 15 of this paper.

Unfortunately, it is our opinion the State Department of Fish and Wildlife will not be able to satisfy these standards. The impacts caused by issuance of hydraulic permits are not mitigated to the maximum extent practicable. The Department lacks the necessary funding to ensure adequate permit review, site evaluation, monitoring, or enforcement. The “takings” caused by instream and other permitted activities are substantial and will appreciably reduce the likelihood of survival and recovery of the species and the Department lacks the necessary monitoring program to evaluate its actions.

In addition the Department of Fish and Wildlife has insufficient legal authority to adequately protect the fish that are under its protection. Its authority is limited to regulating activities under the Hydraulic Code for fresh waters below the ordinary high water line. Unfortunately, most activities affecting in-stream habitat originate from upland activities such as urbanization and agricultural practices. Limitation of the agency’s jurisdiction to the ordinary high water line creates a patchwork of jurisdictional authority. Washington has 39 counties and hundreds of cities and other entities that regulate activities that occur above the ordinary high water line. Many have their own land-use regulations, shoreline management programs, or other resource protection strategies. As a result WDFW is limited to simply reviewing, rather than regulating, activities that can harm the fisheries resource.

The following analysis identifies regulatory gaps, ambiguities, and inconsistencies

1 that are causing problems for the salmon resource.⁷¹ The issues raised in this
2 section are based on interviews with a variety of biologists who have expertise
3 and experience with the Hydraulic Code.

4
5 **A. Priorities and Enforcement**

6
7 **1. The legislature and the department have not adequately**
8 **funded enforcement of the HPA permit program.**

9
10
11 Between 1988 and 1997, the legislature almost doubled the Department's budget
12 from \$67 million to approximately \$132 million (Table 7).⁷² In 1997, the Fish
13 Program received almost \$20 million more than in 1988, an increase of 65%.
14 During this same period, the Habitat/Lands Program, which includes the HPA
15 permitting section, received a \$14 million increase in its budget. This increase
16 represented more than a doubling (148% increase) of its funding. The
17 Enforcement Program received the least increase (46%) over this time period,
18 approximately \$4 million (Table7). Though the enforcement budget increased
19 from 1988-1997, it is the only program in the Department that received a decrease
20 in funding from its peak of \$13.6 million in 1993 to \$12.9 million in 1997 (Figure
21 1). All other programs budgets increased between 1988 and 1997.

22
23 In terms of funding, the Department's priority is clearly its Fish Program. On

⁷¹ For purposes of this report, the 1997 Hydraulic Code Statutes and administrative rules were analyzed. This report did not analyze the Department's authorities to protect fish habitat under the State Environmental Policy Act (SEPA).

⁷² The legislature merged the Departments' of Fisheries and Wildlife in 1993. This merger affected all aspects of the resulting budget for the newly formed Washington Department of Fish and Wildlife.

1 average, 42% of the Department's budget is dedicated to its Fish Program⁷³
2 (Figures 2 and 3). A similar amount of funding (42%) is dedicated to the next
3 three programs; Administrative Services (16%) Habitat/Lands Program (14%),
4 and Enforcement (12%) (Figures 2 and 3).

5
6 Between 1988 and 1997, the Department increased its staff approximately 24%
7 (Table 8). The Fish Program received the greatest increase in staff from 1988-
8 1997, with approximately 158 new employees (Full Time Equivalents, FTEs)
9 (Table 8). The Habitat/Lands Program⁷⁴ received an additional 46 FTEs, an
10 increase of 21% over this same period. The Enforcement Program had a decrease
11 in staff of 7 percent from 1988 to 1997 (Figures 4 and 5).

12
13 Again, clearly the Fish Program represents the priority for WDFW staffing (Figure
14 6). The Fish Program, on average for the past 10 years, has had 46% of the
15 Department's staff. The Habitat/Lands Program and Administration are second
16 with each having 15% of the Department's staff. The next priority is Enforcement

⁷³ The Fish Program includes fisheries and hatchery management activities. This Program manages all game fish, food fish, and unclassified marine aquatic species, and is responsible for all aspects of fish culture activity for the agency. The Fish program also implements a variety of legislatively mandated and court required programs (e.g., Warm Water Fishery Enhancement Program, the Rafeedie Shellfish Decision, and the Boldt Decision).

⁷⁴ The Habitat/Lands Program includes the following functions; engineering services for the agency, environmental review for the hydraulic permit program and technical assistance, management services for over 820,000 acres of Departmental land, landscape/watershed planning, Priority Habitats and Species Program, mitigation and restoration, instream flow evaluation, real estate services, and regional habitat operations, Salmonid Screening, Habitat Enhancement and Restoration (SSHEAR), upland wildlife restoration, and management of Conservation Corps/Recreational Access Areas,

1 at 12% of the total Department staff followed by Wildlife Management (6%) and
2 Capital budget Programs (5%).

3
4 Over the past 10 years the legislature, or the Department, has essentially frozen
5 the budget and staffing levels for the HPA permitting section of the Habitat/Lands
6 Program (Table 9) and Enforcement. In 1990, the Department had 48 biologists
7 (FTEs) to review and process 6,132 Hydraulic Project Applications (HPAs).
8 Each biologist on average processed 128 HPAs per year.⁷⁵ Sevens year later in
9 1997, the Department still has only 48 FTEs to review and approve HPAs even
10 though they are now processing 7,000-8,000 HPAs per year. Each biologist must
11 now review and approve on average 152 HPAs per year (Table 6).

12
13 The average HPA workload would be considerably greater if the Department did
14 not utilize Memorandum of Understandings, Memorandum of Agreements,
15 “blanket,” statewide, and regional permits.⁷⁶ An effectiveness review and audit of
16 these mechanisms for programmatic approval of a large number of HPAs should
17 occur prior to submitting the hydraulic permitting process for a HCP.

18
19 Though the funding level for HPA processing has remained constant, the percent
20 of funding for this program has decreased from 1990-1997. The HPA program
21 represented 24% of the Habitat Division funding in 1990 and only 13% in 1997
22 while at the same time total HPA permits increased from just over 6,000 per year
23 to 7000-8000 in 1996 and 1997.

⁷⁵ Issuing HPAs probably accounts for 75-80 percent of the workload these biologists conduct each year, based on work plan allocations conducted by the Department of Wildlife from 1993-1994.

⁷⁶ Perry Harvester, WDFW, Habitat Biologist, April 29, 1999.

1 Each biologist may have to review and process more than 150-170 applications a
2 year (Table 6). At these levels, each biologist would have to process 1-2 HPA's
3 per day. An adequate level of regulatory oversight should include a review of the
4 application, research, travel time to the project site, site evaluation, review of the
5 cumulative effect of other permits and activities, discussions with the applicant,
6 and monitoring for compliance and mitigation effectiveness. However, staff
7 recognize that this standard cannot be met:

8
9 It is impossible for an Area Habitat Biologist to adequately review
10 this number of applications even if 60 to 70 percent of the
11 applications are minor. An appropriate review of an HPA should
12 include at least one field visit prior to approval, discussions with
13 the applicant, a field visit during the operation, and, ideally, a
14 monitoring visit some time after the project is complete. With the
15 present work load there cannot be adequate review.⁷⁷
16

17 It is estimated that one Area Habitat Biologist could adequately review and
18 process approximately 100 applications per year, not including time and resources
19 for compliance and effectiveness monitoring.⁷⁸ Therefore the Department
20 currently has only two-thirds of the necessary staff to ensure that HPAs are
21 adequately reviewed before approval and monitored for compliance. The
22 Department should consider establishing maximum workload limits to ensure
23 adequate processing of HPAs.
24

⁷⁷ Personal communication with WDFW Area Habitat Biologist.

⁷⁸ Personal communication with WDFW Area Habitat Biologist.

A CRITIQUE OF THE STATE HYDRAULIC CODE, RCW 75.20

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| | ADMIN SERVICES | FISH PROGRAM | HABITAT/ LANDS | WILDLIFE MGME. | ENFORCEMENT | BELATED CLAIMS | CAPITAL | TOTAL |
|-------------------|---------------------------|-------------------------|---------------------------|---------------------------|--------------------|---------------------------|----------------|----------------|
| 1988 | \$ 9,196,092 | \$ 30,154,664 | \$ 9,260,928 | \$ 3,693,718 | \$ 8,864,774 | \$ 147,697 | \$ 6,055,630 | \$ 67,373,503 |
| 1989 | \$ 11,459,080 | \$ 34,300,951 | \$ 10,613,618 | \$ 4,010,443 | \$ 9,729,976 | \$ 26,070 | \$ 5,768,772 | \$ 75,908,910 |
| 1990 | \$ 12,335,600 | \$ 36,259,144 | \$ 10,944,797 | \$ 4,557,656 | \$ 10,538,652 | \$ 100,853 | \$ 7,424,669 | \$ 82,161,371 |
| 1991 | \$ 14,302,582 | \$ 40,309,273 | \$ 12,050,580 | \$ 5,660,158 | \$ 11,052,690 | \$ 17,967 | \$ 12,771,448 | \$ 96,164,698 |
| 1992 | \$ 15,412,996 | \$ 42,986,890 | \$ 13,063,252 | \$ 5,124,943 | \$ 13,161,237 | \$ 29,411 | \$ 14,361,298 | \$ 104,140,027 |
| 1993 | \$ 17,076,875 | \$ 48,319,538 | \$ 14,610,392 | \$ 6,851,943 | \$ 13,651,871 | \$ 190,515 | \$ 9,508,103 | \$ 110,209,237 |
| 1994 | \$ 16,601,545 | \$ 46,185,334 | \$ 15,136,877 | \$ 6,429,243 | \$ 12,727,804 | | \$ 16,944,652 | \$ 114,025,455 |
| 1995 | \$ 21,160,645 | \$ 45,504,514 | \$ 16,597,408 | \$ 7,415,897 | \$ 11,947,377 | | \$ 17,220,412 | \$ 119,846,253 |
| 1996 | \$ 21,138,502 | \$ 49,398,927 | \$ 17,691,961 | \$ 7,589,369 | \$ 12,900,924 | | \$ 13,196,017 | \$ 121,915,700 |
| 1997 | \$ 21,773,967 | \$ 49,868,573 | \$ 23,006,239 | \$ 7,879,655 | \$ 12,963,756 | | \$ 16,304,115 | \$ 131,796,305 |
| Average | \$ 16,045,788 | \$ 42,328,781 | \$ 14,297,605 | \$ 5,921,303 | \$ 11,753,906 | \$ 85,419 | \$ 11,955,512 | \$ 102,354,146 |
| Increase (88-97) | \$ 12,577,875 | \$ 19,713,909 | \$ 13,745,311 | \$ 4,185,937 | \$ 4,098,982 | | \$ 10,248,485 | \$ 64,422,802 |
| Pct. Incr.(88-97) | 137% | 65% | 148% | 113% | 46% | | 169% | 96% |

Table 7. WDFW budget by program from 1988-1997.

3
4

A CRITIQUE OF THE STATE HYDRAULIC CODE, RCW 75.20

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| | ADMIN SERVICES | FISH PROGRAM | HABITAT/ LANDS | WILDLIFE MGMT. | ENFORCEMENT | CAPITAL | TOTAL |
|------------|---------------------------|-------------------------|---------------------------|---------------------------|--------------------|----------------|--------------|
| 1988 | 213.6 | 615.0 | 218.0 | 77.8 | 196.9 | 45.4 | 1366.7 |
| 1989 | 236.1 | 658.1 | 228.4 | 80.8 | 203.8 | 42.7 | 1449.9 |
| 1990 | 226.2 | 688.3 | 236.5 | 77.4 | 209.9 | 65.4 | 1503.7 |
| 1991 | 232.8 | 724.1 | 233.8 | 78.4 | 201.1 | 79.1 | 1549.3 |
| 1992 | 249.3 | 751.9 | 240.1 | 86.6 | 202.9 | 82.2 | 1613.0 |
| 1993 | 266.1 | 793.2 | 222.5 | 105.5 | 203.9 | 71.9 | 1663.1 |
| 1994 | 226.9 | 754.9 | 264.9 | 117.7 | 194.1 | 91.0 | 1649.5 |
| 1995 | 231.4 | 760.0 | 277.1 | 134.7 | 188.0 | 120.0 | 1711.2 |
| 1996 | 216.0 | 762.5 | 261.7 | 118.4 | 182.8 | 109.8 | 1651.2 |
| 1997 | 235.9 | 772.8 | 264.4 | 120.2 | 182.4 | 119.2 | 1694.9 |
| Average | 233.4 | 728.1 | 244.7 | 99.8 | 196.6 | 82.7 | 1,585.3 |
| Increase | 22.3 | 157.8 | 46.4 | 42.4 | (14.5) | 73.8 | 328.2 |
| Per. Incr. | 10% | 26% | 21% | 54% | -7% | 163% | 24% |

Table 8. WDFW staffing levels (FTEs) by program, 1988-1997.

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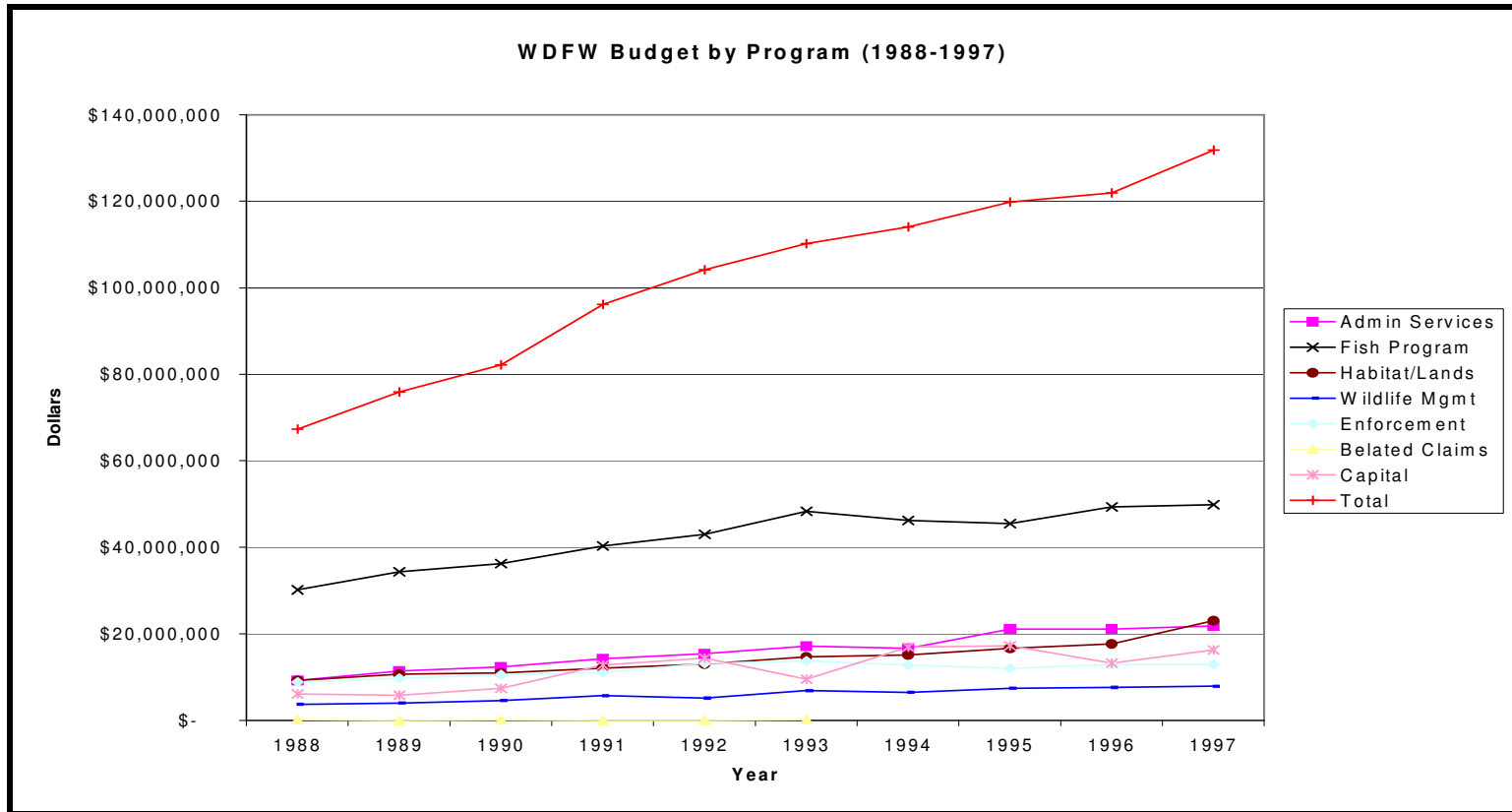


Figure 1. WDFW Budget by Program, 1988-1997

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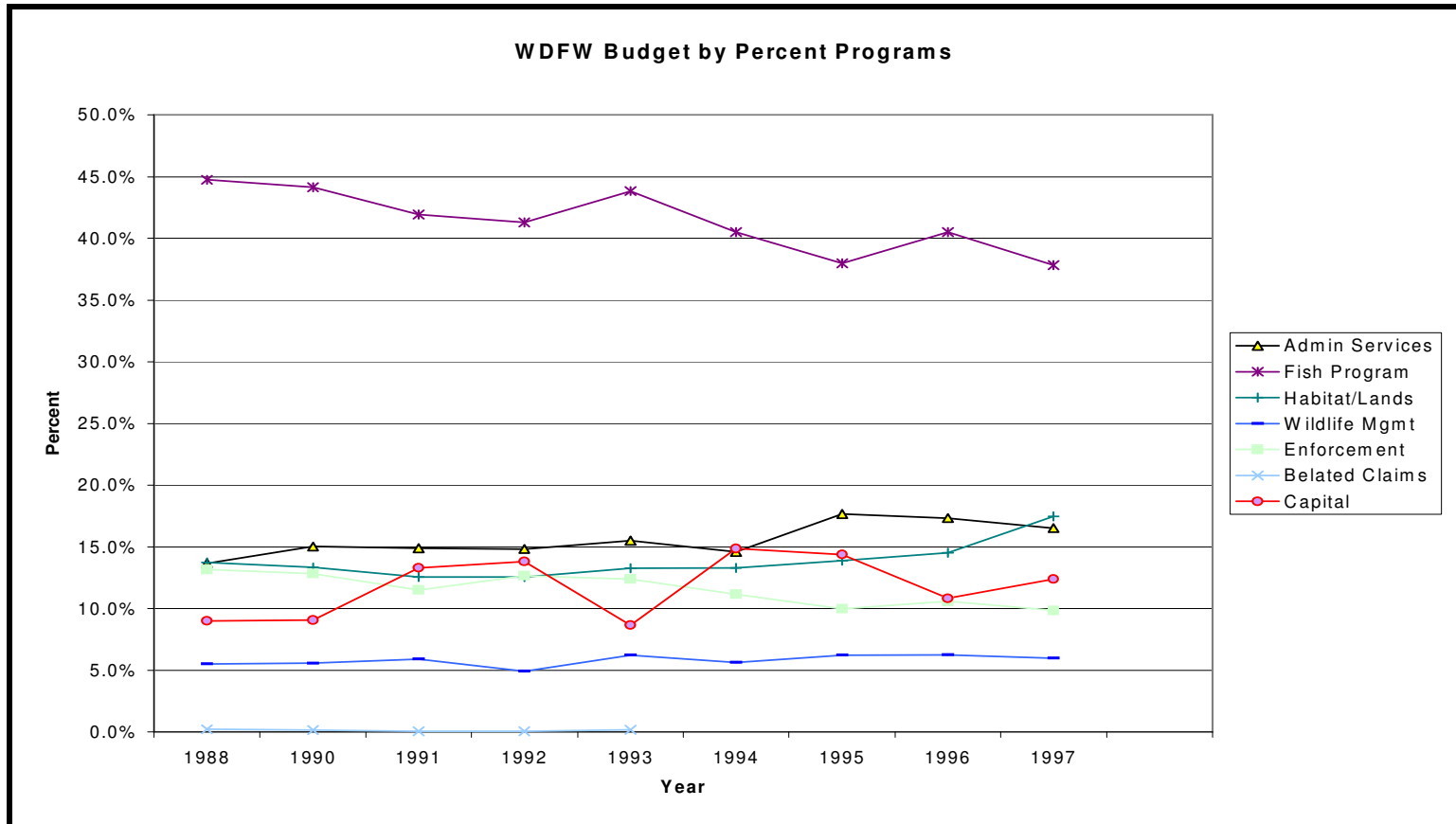


Figure 2. WDFW Budget by percent programs, 1988-1997.

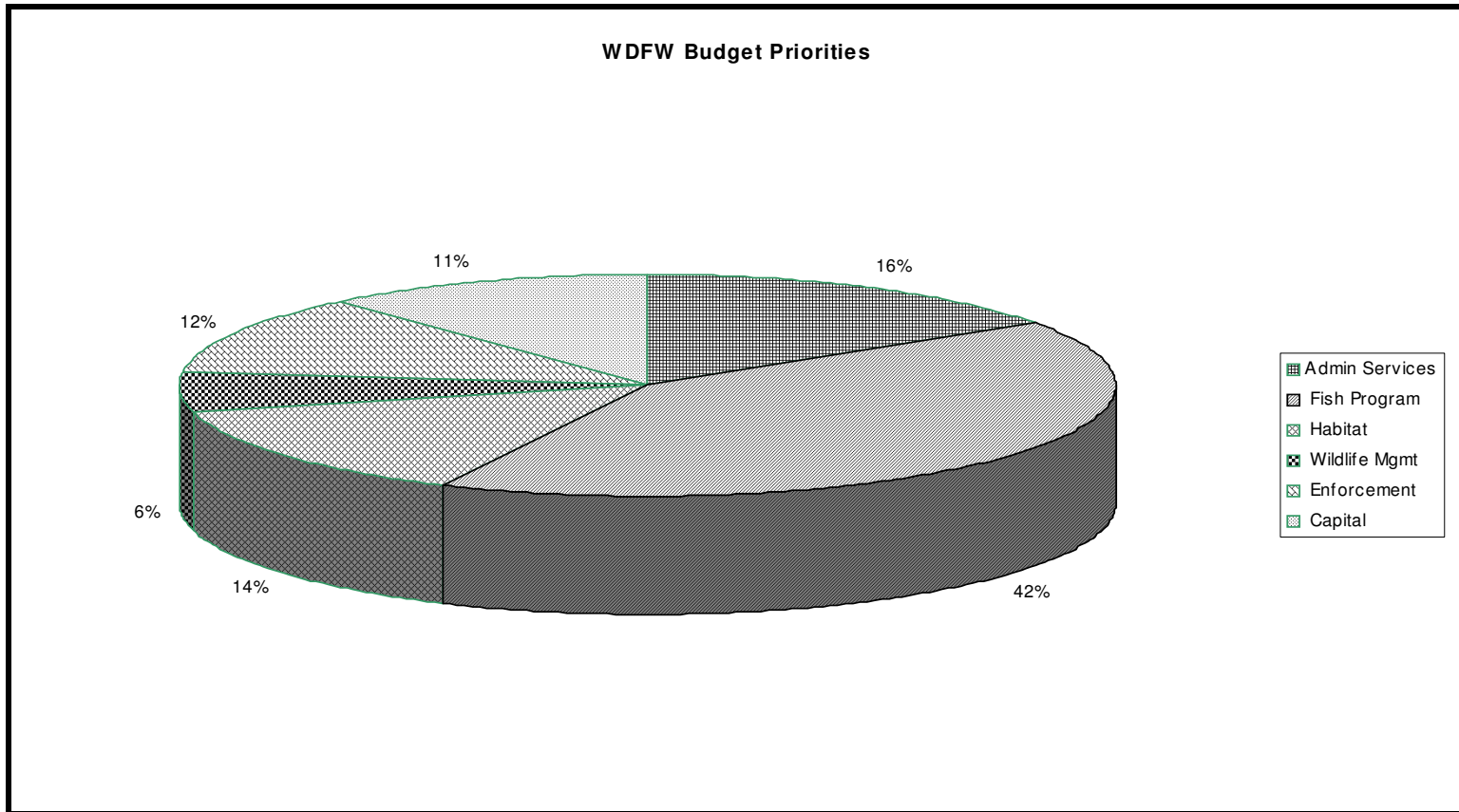


Figure 3. WDFW Budget Priorities averaged from 1988-1997.

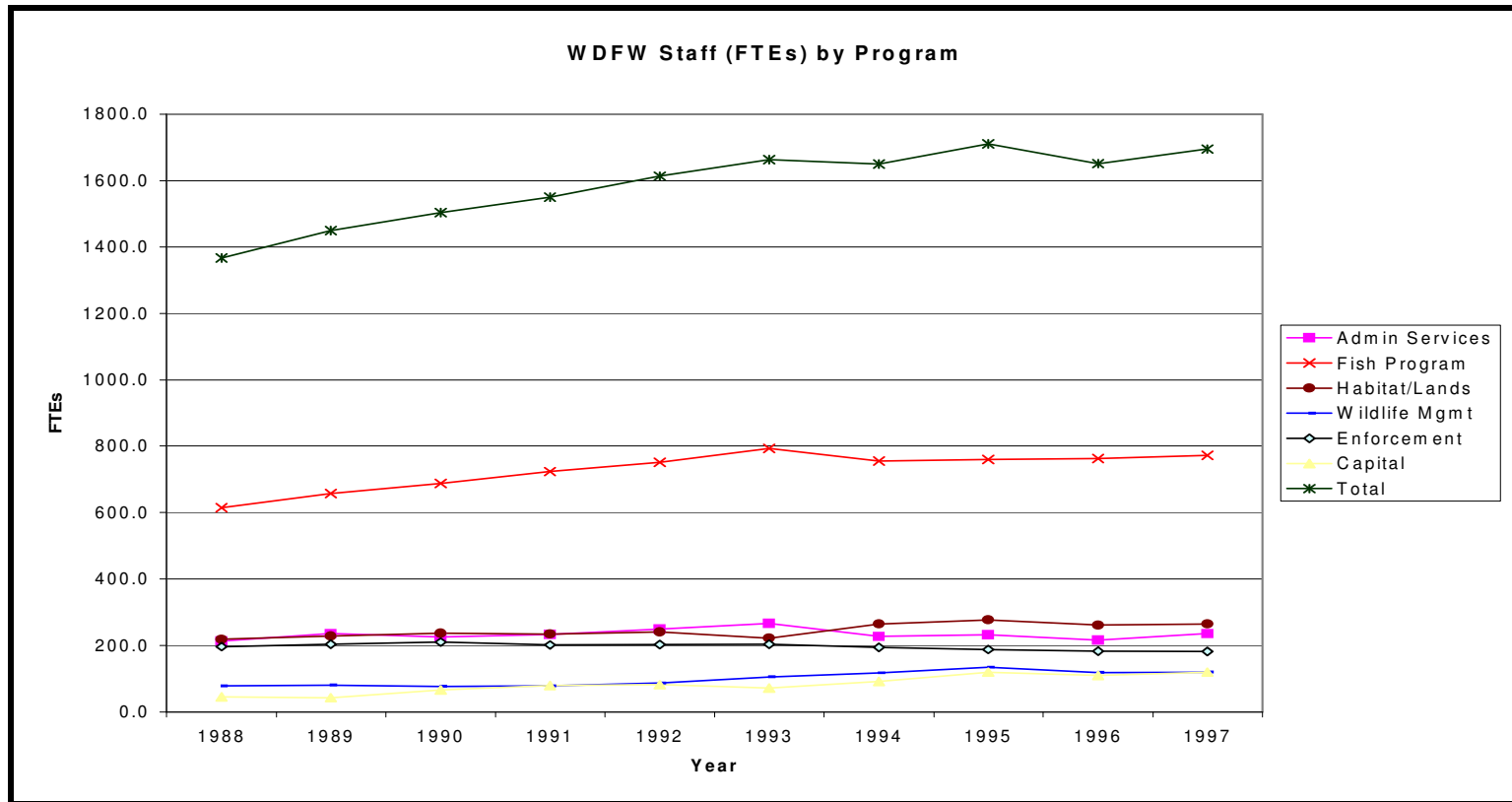


Figure 4. WDFW staffing levels (FTEs) by program, 1988-1997.

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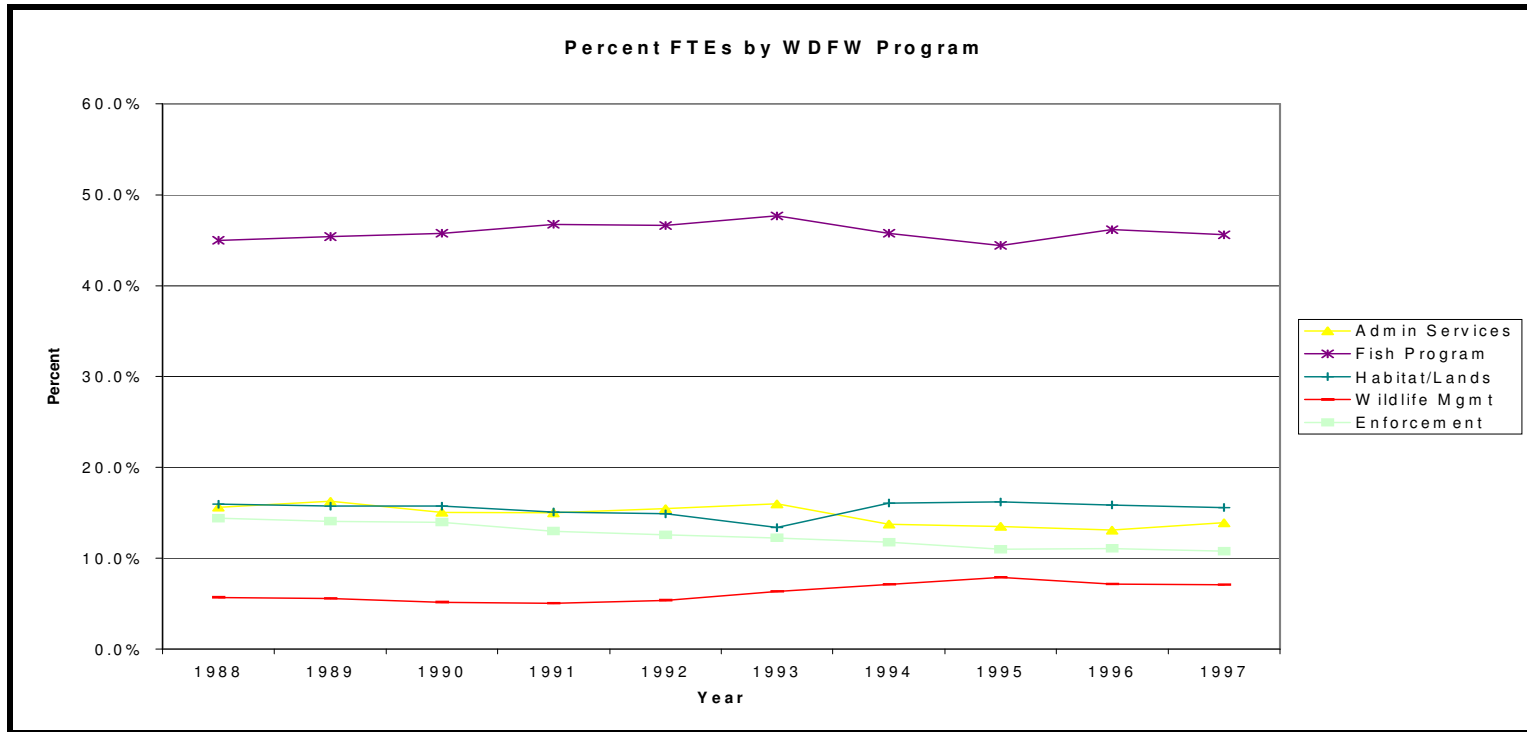


Figure 5. Percent WDFW staff (FTEs) by program.

A CRITIQUE OF THE STATE HYDRAULIC CODE, RCW 75.20

| | <u>HABITAT</u> | <u>LANDS</u> | <u>HPA/HERMITING</u> | <u>HPA</u> | <u>PERCENT</u> | <u>HPA</u> | <u>PERCENT</u> | <u>TOTAL</u> | <u>HPAs/BIOLOGISTS</u> |
|----------|----------------|--------------|----------------------|--------------|----------------|--------------|----------------|--------------|------------------------|
| | <u>FUNDING</u> | <u>FILES</u> | <u>FUNDING</u> | <u>FILES</u> | <u>FUNDING</u> | <u>FILES</u> | <u>FUNDING</u> | <u>HPAs</u> | <u>HPAs/BIOLOGISTS</u> |
| 1990 | \$ 10,944,797 | 236.5 | \$ 2,626,043 | 480 | 24% | 20% | 6132 | 127.8 | |
| 1991 | \$ 12,050,580 | 233.8 | \$ 2,682,698 | 480 | 22% | 21% | 6913 | 144.0 | |
| 1992 | \$ 13,063,252 | 240.1 | \$ 2,737,446 | 480 | 21% | 20% | 6412 | 133.6 | |
| 1993 | \$ 14,610,392 | 222.5 | \$ 2,793,312 | 480 | 19% | 22% | 6437 | 134.1 | |
| 1994 | \$ 15,136,877 | 264.9 | \$ 2,850,319 | 480 | 19% | 18% | 5970 | 124.4 | |
| 1995 | \$ 16,597,408 | 277.1 | \$ 2,908,489 | 480 | 18% | 17% | 6247 | 130.1 | |
| 1996 | \$ 17,691,961 | 261.7 | \$ 2,967,845 | 480 | 17% | 18% | 8043 | 167.6 | |
| 1997 | \$ 23,006,239 | 264.4 | \$ 3,028,414 | 480 | 13% | 18% | 7290 | 151.9 | |
| Average | \$ 15,387,688 | 250.1 | \$ 2,824,321 | 4800 | 19% | 19% | 6,681 | 139.2 | |
| Increase | | | | | | | | | |

Table 9. WDFW Habitat Division and HPA program funding, 1990-1997.

1
2
3 **2. There is not enough funding to adequately enforce the**
4 **HPA permit program.**
5

6 Since 1993, when the Department of Fisheries merged with the Department of
7 Wildlife, the Enforcement Program has been reduced by 35 commissioned staff.
8 As of July 1, 1998, Enforcement Program commissioned staff totaled 142 as
9 compared to 177 in 1993. Salmon protection and recovery will require new
10 enforcement resources. The need has been exacerbated by recent major budget
11 shortfalls within the Department.

12
13 Regarding enforcement priorities, the Department clearly places its emphasis on
14 harvest and hunting activities. In 1997 the Department's Enforcement Program
15 dedicated over 65% of its time to fish harvest and hunting activities (Figure 7). In
16 some regions, the Department devotes 70% of enforcement staff time to elk
17 poaching and 30% to inland lake fishing violations and commits no time for
18 enforcement of HPA regulations.⁷⁹ Statewide, only 11.2% of the Department's
19 enforcement activities were committed to habitat protection⁸⁰. Other enforcement
20 categories included 10% for damage to commercial agricultural lands, and 8% for
21 public safety (Figure 7).

22
23 There is a historic emphasis on hunting and fishing regulations,
24 Hydraulic Code violations fall low on the priority list. Some type
25 of direction supported with adequate funding should be legislated

⁷⁹ Personal Communication with WDFW Regional Manager.

⁸⁰ The Governor's Salmon Recovery Plan states, "protecting habitat and at risk/listed species is limited to approximately 16% of Fish and Wildlife officers' time."

1 to provide strict application of the Hydraulic Code.”⁸¹

2
3 Salmon protection and recovery will require new resources in the Department’s
4 Enforcement Program. If the legislature is truly committed to the recovery of the
5 salmon resources, it must provide the necessary funds and policy guidance to the
6 Washington Department of Fish and Wildlife for all elements of the HPA process;
7 permit review, site evaluation, monitoring, and enforcement.

8
9 The legislature, or the Department in the context of the overall budget, have failed
10 to adequately fund programs that regulate habitat destruction or hold individuals
11 accountable for actions which are detrimental to fish habitat. The programs with
12 the strongest authority to protect fish habitat have the least resources and the
13 lowest priorities.

14
15 **3. State environmental law enforcement officers are**
16 **limited in their ability to protect fish habitat.**
17

18 WDFW enforcement officers are statutorily limited to enforcing recreational and
19 commercial harvest, hydraulic permit, and fish screen/diversion regulations.
20 Officers also provide education to communities regarding fish protection. A
21 broader, natural resource oriented enforcement capability would allow officers to
22 assist in identifying and resolving a broader range of natural resource problems
23 through partnership efforts in the communities in which they serve. A variety of
24 statutes would need to be amended to accomplish such a goal.⁸² In addition, a

⁸¹ Personal Communication with WDFW Area Habitat Biologist.

⁸² Chapter 90.03 RCW (Surface Water Code), Chapter 77.12 RCW (Fisheries Code), Chapter 90.44 RCW (Ground Water Code) and Chapter 90.48 RCW (Clean Water Act). E.g., Pursuant to the Interlocal Government Cooperation Act,

1 public-private partnership should be developed similar to that provided in the
2 Endangered Species Act⁸³ or the Washington State Metals Mining and Milling
3 law.⁸⁴
4

WDFW may enter into agreement with other state, federal, local, or tribal governmental agencies where Fish and Wildlife Officers provide law enforcement services, Such service shall focus on fish, wildlife, natural resources, or other environmental law activities”

⁸³ 16 U.S.C. 1531, Section 11 (g) (Citizen Suit Provision) and Section 11 (d) (Rewards).

⁸⁴ RCW 78.56.140.

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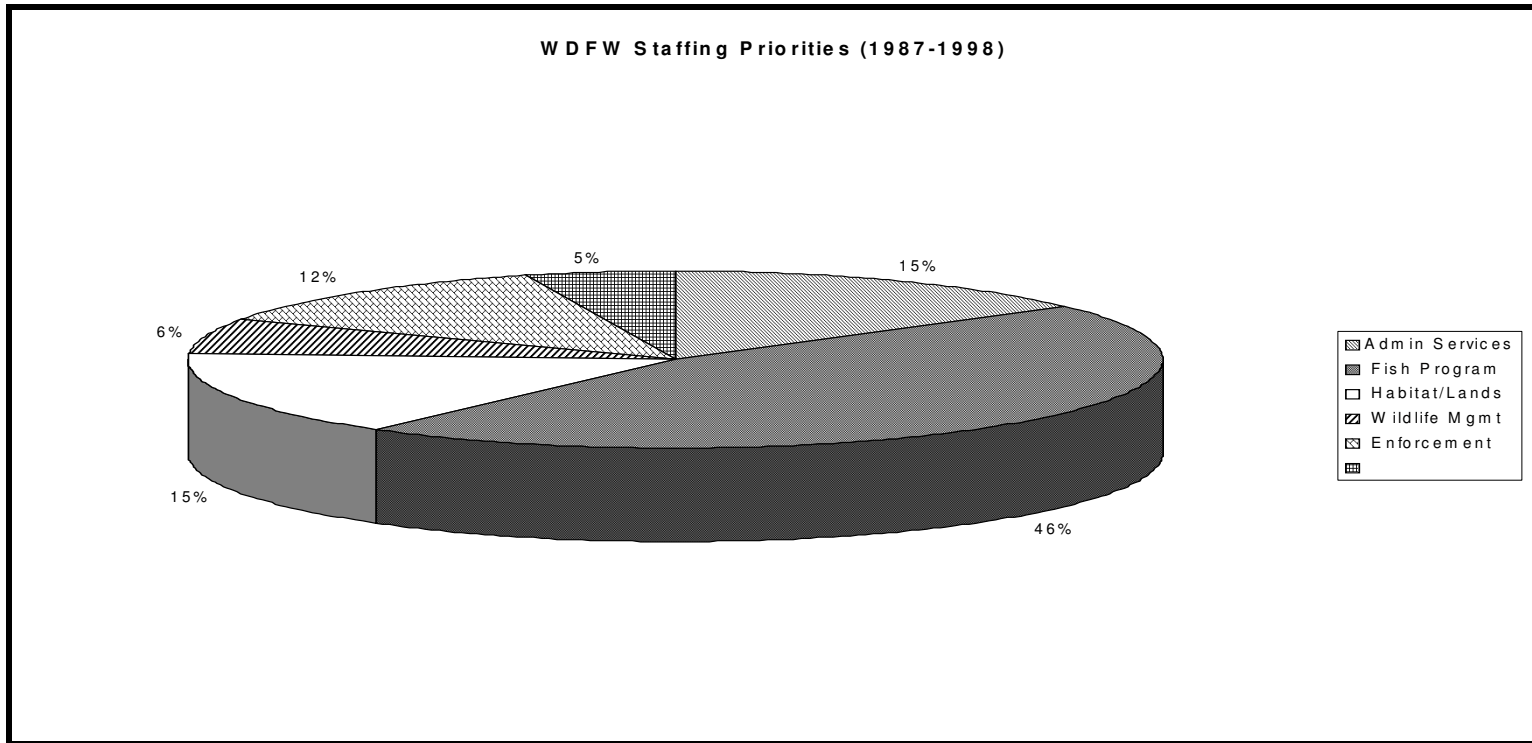


Figure 6. WDFW Staffing Priorities averaged from 1987-1998.

3

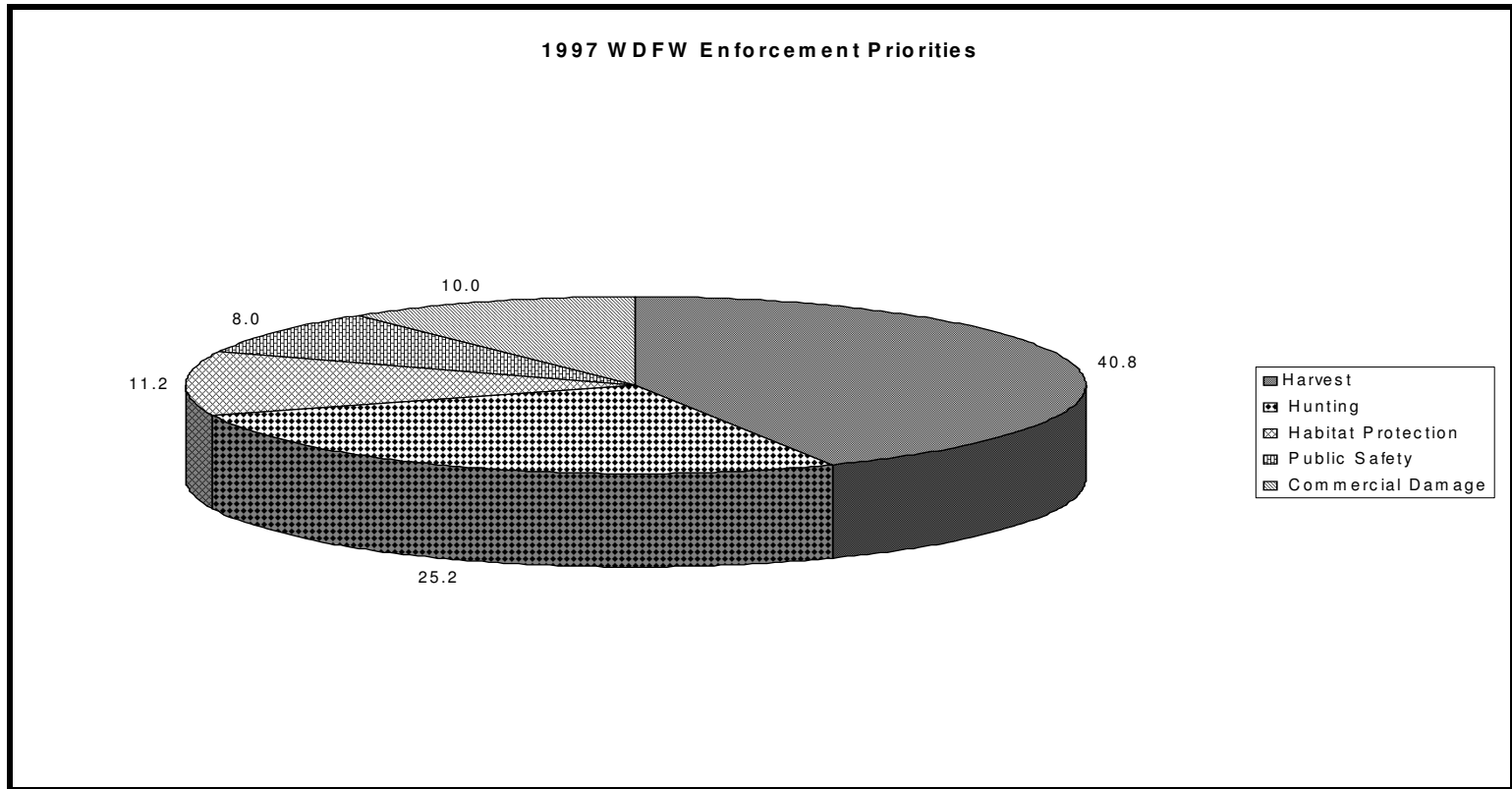


Figure 7. 1997 WDFW Enforcement Priorities.

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1 **B. Legislative**

2
3 **1. The department does not have adequate authority to**
4 **prevent on-going impacts to the salmon resource.**
5

6 The Hydraulic Code provides that:

7
8 If any person or government agency commences construction on
9 any hydraulic works or projects without first having obtained
10 approval of the department as to the adequacy of the means
11 proposed for the protection of fish life, or if any person or
12 government agency fails to follow or carry out any of the
13 requirements or conditions as are made a part of such approval, the
14 person or director of the agency is guilty of a gross misdemeanor.
15 If any such person or government agency is convicted of violating
16 any of the provisions of this section and continues construction on
17 any such works or projects without fully complying with the
18 provisions hereof, such works or projects are hereby declared a
19 public nuisance and shall be subject to abatement as such
20 (emphasis added).⁸⁵
21

22 The Department must rely on local prosecutors to pursue enforcement actions
23 under this statute. Enforcement through criminal prosecution by local
24 jurisdictions is an unweildy and time consuming tool. The Department does not
25 have any administrative powers to prevent harm to the resources. The agency
26 should have “stop work,” “denial of future permit,” or “notice of failure to
27 comply” authority similar to other natural resource agencies.⁸⁶
28

29 In response to a public disclosure request regarding how often the department
30 utilized its HPA enforcement authority in the past 10 years, the Department

⁸⁵ RCW 75.20.100 (5). See also, WAC 220-110-360 (1).

⁸⁶ See e.g., RCW 76.09.080, 140, and 090, respectively.

1 indicated it does not have this type of information.
2

3 The Department does not have an activity tracking system that
4 contains all of this information. There is no information specific
5 to the number of citations, type of citations, disposition, fines
6 levied and collected.⁸⁷
7

8 However, there is some information which indicates that the Department has
9 addressed stream barriers (e.g., culverts) only 10 times since 1990 (Table 10).⁸⁸
10 Even though there are thousands of illegal barriers throughout the state⁸⁹ that are
11 maintained by state and local governments, and private citizens, the Department
12 has only provided notice to 10 potential violators of state law while issuing over
13 53,000 permits over this period of time.
14
15
16

⁸⁷ WDFW Public Disclosure response, December 23, 1998.

⁸⁸ Data provided by WDFW per Public Disclosure requests.

⁸⁹ See Northwest Indian Fisheries Commission's *Analysis of the State's Fish Passage Strategy-Culverts*; Fish Passage Program: *Department of Transportation Inventory, Final Report*, June 1997, WDFW Lands and Restoration Services Program, Salmonid Screening, Habitat Enhancement and Restoration (SSHEAR) Division; Governor's Salmon Recovery Plan, *Extinction is Not An Option*.

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| YEAR | TOTAL HPAs | Culvert:Road HPAs | Percent Culvert HPAs | Notice of Barrier Violation | Disposition |
|-------------|-----------------------|------------------------------|---------------------------------|--|--------------------|
| 1990 | 6132 | 485 | 7.9 | 0 | |
| 1991 | 6913 | 443 | 6.4 | 0 | |
| 1992 | 6412 | 440 | 6.9 | 3 | Unknown |
| 1993 | 6437 | 448 | 7.0 | 0 | |
| 1994 | 5970 | 430 | 7.2 | 4 | Unknown |
| 1995 | 6247 | 435 | 7.0 | 0 | |
| 1996 | 8043 | 407 | 5.1 | 2 | Unknown |
| 1997 | 7290 | 374 | 5.1 | 1 | Unknown |
| Total | 53,444 | 3,462 | | 10 | |
| Average | 6,681 | 433 | 6.6 | 1.3 | |

Table 10. List of total HPAs and culvert related HPAs in relation to number of fish barrier violation notices from 1990-1997.

1
2 **2. Civil penalties under the Hydraulic Code cannot deter**
3 **non-compliance.**
4

5 In addition to the criminal provisions in the Hydraulic Code, WDFW may levy
6 civil penalties of up to one hundred dollars (\$100) per day for violation of any
7 provisions of RCW 75.20.100 or 75.20.103.⁹⁰ The agency rarely uses these
8 authorities because the fine is so minimal and inadequate. As indicted earlier, the
9 Department does not maintain a database on the number of citations, type of
10 citations, disposition, fines levied or collected. These minimal fines cannot act as
11 a deterrent to violators of the Hydraulic Code.⁹¹
12

13 The agency can only levy a fine while operations are ongoing. Unlike other state
14 natural resource agencies, the WDFW cannot levy fines in relation to the impacts
15 caused to the resource by the violators.⁹² Nor may the Department require
16 performance bonds to increase the incentive for permit holders to comply with
17 conditions of permits and ensure environmental protection is implemented on the
18 ground.⁹³
19

20 The legislature should amend the Hydraulic Code to impose financial penalties
21 that are consistent with the damage inflicted by a violation. The legislature should

⁹⁰ RCW 75.20.106 and WAC 220-110-360 (2).

⁹¹ Personal communication with WDFW Area Habitat Biologist.

⁹² See e.g., RCW 18.104.155 or RCW 76.09.

⁹³ One WDFW Habitat Biologist indicated the Department has required bonds as a
 condition for an HPA. Perry Harvester, WDFW, Habitat Biologist, April 29,
 1999. However, this author has not been able to identify legislative or
 administrative regulations that clarifies this authority.

1 also authorize the Department to require bonding of permittees.

2
3 **3. The department cannot adequately protect salmon**
4 **habitat if it is limited to regulation of activities below**
5 **the ordinary high water line in fresh water.**
6

7 The Hydraulic Code limits the department’s jurisdiction “to construction or work
8 within the mean higher high water line in salt water or within the ordinary high
9 water line in fresh water.”⁹⁴ However, the Department’s policy goal is “to
10 protect, restore, and enhance the productivity, production, and diversity of wild
11 salmonids and their ecosystems to sustain ceremonial, subsistence, commercial,
12 and recreational fisheries, non-consumptive fish benefits, and other related
13 cultural and ecological values.”⁹⁵ To achieve its policy goals the Department must
14 be able to address the entire salmonid ecosystem. Many activities that affect fish
15 life and the fish and wildlife ecosystems occur beyond the ordinary high water
16 line.

17
18 In some cases, the Department has interpreted the Hydraulic Code to allow it to
19 regulate activities outside the ordinary high water line. Forest practice activities
20 that involve “construction or performance of other work in or across the ordinary
21 high water line of Type 1-5 waters are defined as hydraulic projects.”⁹⁶ This
22 includes the “removal of timber adjacent to the stream which is likely to result in
23 entry of felled trees into flowing channels.”⁹⁷

⁹⁴ RCW 75.20.100 (2) (b).

⁹⁵ Supra, “WSP.”

⁹⁶ WAC 220-110-020 (34).

⁹⁷ WAC 220-110-020 (34)(c)(I).

1 The Department also regulates mineral prospecting and placer mining projects
2 where the activities may occur outside the ordinary high water line. Under WAC
3 220-110-201 through 209, the Department regulates mining, excavation,
4 collection of aggregate and all other mining operations within 200 feet landward
5 of the ordinary high water line.

6
7 While the Department in these instances has asserted that it has the authority to
8 regulate activities outside the ordinary high water line, in other instances it
9 continues to assert it does not have jurisdiction or that its jurisdiction is extremely
10 limited.⁹⁸ As a practical matter, it is not possible for the Department to adequately
11 protect the salmon resource and productivity of their habitats while being limited
12 to the regulation of only activities below the ordinary high water line in fresh
13 water. “As any competent biologist knows, in-stream effects originate from the
14 surrounding upland activities and land management practices.”⁹⁹

15
16 There are many activities that are detrimental to the salmon resource that are
17 outside the scope of the Hydraulic Code. Building and construction, roads,
18 forestry, and agricultural practices, all occur above the ordinary high water line
19 but within the riparian ecosystem and wetlands. All of the activities are
20 commonly recognized as detrimental to the fisheries resource but are not within
21 the authority of the Department to achieve their legislative mandates.¹⁰⁰

22
23 There are numerous examples where local governments issue permits for

⁹⁸ Personal Communication with WDFW Area Habitat Biologist.

⁹⁹ Personal Communication with WDFW Area Habitat Biologist.

¹⁰⁰ See Spence, B.C. et al. 1996 and WSP.

1 shoreline bluff development, vegetation removal, and construction of rockeries
2 and retaining walls, which are outside the scope of the Hydraulic Code. However,
3 WDFW has no clear authority to prevent the impacts or ensure a no-net loss of the
4 productive capacity of the fish habitat from these activities.¹⁰¹

5
6 Another problem associated with this issue is that a number of habitats can extend
7 above the ordinary high water line. In general, the Department does not have the
8 authority to prevent harm to these habitats or the associated resources.¹⁰²

9
10 **4. The “patch-work” of jurisdictional authorities that**
11 **have control over fish habitat outside the ordinary high**
12 **water line defeats the need for a single comprehensive**
13 **authority to manage fish and wildlife resources.**
14

15 The statutory mandate of the Department is to “preserve, protect, perpetuate and
16 manage the food fish and shellfish in state waters and offshore waters.”¹⁰³ The
17 1995 initiative establishing the Fish and Wildlife Commission, stated that:

18
19 . . . all fish, shellfish, and wildlife species should be managed
20 under a single comprehensive set of goals, policies, and objectives,
21 and that the decision-making authority should rest with the fish and
22 wildlife commission. The commission acts in an open and
23 deliberative process that encourages public involvement and
24 increases public confidence in department decision making.”¹⁰⁴
25 (emphasis added).
26

¹⁰¹ Personal Communication with Chris Stevenson, Biologist, Suquamish Tribe.

¹⁰² Personal Communication with Chris Stevenson, Biologist, Suquamish Tribe.

¹⁰³ RCW 75.08.012.

¹⁰⁴ RCW 75.08.013. [1995 1st sp.s. c 2 § 1 (Referendum Bill No. 45, approved November 7, 1995).

1 However, restricting the jurisdiction of the Department to the ordinary high water
2 line creates a “patch-work” or “cob-web” of differing and in many cases
3 conflicting goals, policies, objectives, regulations, and strategies intended to
4 protect the fisheries resource and their habitats. There are more governmental
5 entities in Washington than any other state in the United States. Washington State
6 has 39 counties and hundreds of cities and other entities that have jurisdictional
7 authorities above the ordinary high water line, each with their own shoreline
8 management programs, critical area ordinances, local land use regulations, forest
9 practices regulations, or other resource protection strategies. Each of these
10 jurisdictional entities have limited the Department’s role to “commenting” rather
11 than “regulating” activities that detrimentally affect the fisheries resource.

12
13 As a “commenter,” the Department has no standing greater than the general public
14 over those activities outside their jurisdiction but which clearly affect the fisheries
15 resource. This type of “patch-work” jurisdictional system is inefficient and has
16 been woefully ineffective in providing the necessary protection and recovery of
17 the fisheries resources. This type of system is inconsistent with the legislative
18 mandate to create a governmental body that would manage all fish, shellfish, and
19 wildlife species under a single comprehensive set of goals, policies, and
20 objectives, and that the decision-making authority should rest with the Fish and
21 Wildlife Commission.
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5. The legislative limitation of only regulating for the “proper protection of fish life” prevents the department from fulfilling their mandate and is inconsistent with ESA requirements.

Another problem with the Hydraulic Code is its limitation to provide for only the “proper protection of fish life.”¹⁰⁵ This limitation creates a barrier for the agency to comprehensively protect “fish habitat” both within and outside the ordinary high water line of the streams, i.e., riparian and wetland ecosystem protection. The Hydraulic Code creates a legal fiction that fish life can be protected without protecting the capacity and productivity of fish habitat. The legislature fails to recognize that the most fundamental prerequisite to preserving, protecting, perpetuating and managing the food fish and shellfish in state waters and to maintain the economic well-being and stability of the recreational and commercial fishing industry in the state is the existence of fish to be taken.¹⁰⁶ For fish to exist, they must have functional habitat. The legislative mandate to protect “fish life” and the “fisheries” is rendered impossible without the ability to fully protect fish habitat.

Arguably, the Department has limited authority to protect fish habitat; however, to be consistent with the Endangered Species Act, the Hydraulic Code must be amended or at least interpreted to allow the Department to protect and recover fish habitat in its broadest terms. The ESA recognizes that the “take” and “harm”

¹⁰⁵ RCW 75.20.100 (2) (b). See also, RCW 75.20.103. Where “protection of fish life shall be the only grounds upon which approval [of a HPA] may be denied or conditioned.”

¹⁰⁶ See e.g., United States v. Washington, (Phase II), 506 F.Supp. 187, 203 (WD WA 1980), vac'd 759 F.2d 1353 (9th Cir. 1985).

1 includes “significant habitat modification or degradation where it actually kills or
2 injures wildlife.” Significant habitat modification or degradation can include
3 wetland and riparian ecosystem management, and hydrological modifications that
4 detrimentally affect fish and wildlife. Currently, the Department does not take a
5 broad definition of “fish life” similar to the ESA approach. The Hydraulic Code
6 does not include modification or degradation of fish “habitat” which affects fish
7 life or the ability to manage activities to ensure “recovery” of the resource.
8 Effective implementation of the ESA could not occur without the ability of the
9 federal agencies to address out-of-stream habitat related activities. Nor can the
10 Department of Fish and Wildlife accomplish their legislative mandate without
11 similar authority.

12
13 **6. The failure of HPA applicants to provide “specific”**
14 **overall project plans limits the ability of the department**
15 **to protect fish.**
16

17 Under RCW 75.20.100 (2)(b), the applicant must submit complete plans and
18 specifications of proposed construction or work within the mean higher high
19 water line in salt water or within the ordinary high water line in fresh water while
20 only providing a general plan for the overall project. The failure of the Code to
21 require “complete” plans for the overall project significantly limits the ability of
22 the Department to define appropriate conditions for the project that will
23 adequately protect the fisheries resource.

24
25 In addition, the legislature has created conflicts or at best ambiguity between
26 provisions in the Hydraulic Code. The Code requires applicants to submit general
27 plans for the portion of the project that is located outside the ordinary high water
28 line and specific plans for those activities that occur within the ordinary high

1 water line in freshwater. Since the applicant must submit general plans for
2 activities outside the ordinary high water line, a question arises whether the
3 authority of the Department includes the ability to regulate the “general plans”
4 activities that occur outside of the ordinary high water line. This ambiguity or
5 vagueness has created confusion within the Department which should be clarified
6 by the legislature.

7
8 **7. Consolidated permitting for habitat restoration projects**
9 **has created a “loop-hole” that is being abused by**
10 **private entities.**
11

12 The legislature recently recognized that there is a need to “preserve and restore the
13 natural resources of the state and, in particular, fish and wildlife and their
14 habitat.”¹⁰⁷ The legislature expressed a desire to utilize volunteer organizations
15 who have demonstrated their commitment to these goals.¹⁰⁸ To achieve this goal
16 and to minimize the expense and delays in obtaining permits for projects that
17 preserve or restore native fish and wildlife habitat, the legislature amended the
18 Hydraulic Code to expedite permits for watershed restoration projects.¹⁰⁹ Under
19 subsection 170, hydraulic permits required by the Department for watershed
20 restoration projects, as defined in RCW 89.08.460, are to be processed in
21 compliance with RCW 89.08.450 through 89.08.510.

22
23 Under RCW 89.08.460, a "watershed restoration plan" must be:

24 . . . developed or sponsored by the department of fish and wildlife,
25

¹⁰⁷ RCW 89.08.450.

¹⁰⁸ Id.

¹⁰⁹ RCW 75.20.170.

1 the department of ecology, the department of natural resources, the
2 department of transportation, a federally recognized Indian tribe
3 acting within and pursuant to its authority, a city, a county, or a
4 conservation district, that provides a general program and
5 implementation measures or actions for the preservation,
6 restoration, re-creation, or enhancement of the natural resources,
7 character, and ecology of a stream, stream segment, drainage area,
8 or watershed, and for which agency and public review has been
9 conducted pursuant to chapter 43.21C RCW, the state
10 environmental policy act.¹¹⁰

11
12 A “watershed restoration project” includes public or private projects authorized by
13 the sponsor of a watershed restoration plan that implements the plan or a part of
14 the plan . . .”¹¹¹ To expedite these projects, the legislature created a
15 “consolidated” permit application process.¹¹² Under the consolidated process,
16 watershed restoration projects will be subject to a single permit application form
17 for use by all responsible state and local agencies. The permit application will
18 consolidate, at a minimum, applications for: (1) approvals related to water quality
19 standards under chapter 90.48 RCW; (2) hydraulic project approvals under
20 chapter 75.20 RCW; and (3) section 401 water quality certifications under 33
21 U.S.C. Sec. 1341 and chapter 90.48 RCW.¹¹³

22
23 Under the consolidated permitting process, applicants are submitting watershed
24 restoration projects in the context of an overall “general” development plan.
25 Though it may appear the applicant is providing benefits to the resources by
26 restoring habitat, a “net loss” may be occurring because the overall land use plan

¹¹⁰ RCW 89.08.460 (1).

¹¹¹ RCW 89.08.460 (2).

¹¹² RCW 89.08.470.

¹¹³ Id.

1 may be detrimental to fish and wildlife resources. The Department has limited
2 authority to condition these activities.

3
4 **8. The use of “expedited” permits in cases of “imminent**
5 **danger” have caused significant impacts to the fisheries**
6 **resources.**
7

8 Under RCW 75.20.100 (3)(a), the Department may issue an expedited written
9 permit in those instances where normal permit processing would result in
10 significant hardship for the applicant or unacceptable damage to the environment.
11 “The biologist who processes and signs the HPA is the one who determines if an
12 emergency exists.”¹¹⁴

13
14 In cases of ‘imminent danger,’ the Department “shall issue an expedited written
15 permit, upon request, for work to repair existing structures, move obstructions,
16 restore banks, protect property, or protect fish resources.” “Imminent danger”
17 means “a threat by weather, water flow, or other natural conditions that is likely to
18 occur within sixty days of a request for a permit application.”¹¹⁵ The Department
19 or the county legislative authority may determine if an imminent danger exists.¹¹⁶
20 As stated earlier, an emergency determination is made at the field biologist level
21 in the Department.

22
23 From 1990-1997, the Department issued 53,444 HPA permits of which 1,509
24 (2.7%) were for “emergency” purposes. The permittee that received the most

¹¹⁴ WDFW response to Public Disclosure Request, December 23, 1998.

¹¹⁵ Id. at (3)(b).

¹¹⁶ Id. at (3)(d).

1 emergency permits issued over this period of time was the Washington State
2 Department of Transportation (WDOT). Of the 1,509 emergency permits, 47
3 (3.8%) were issued to the WDOT (Table 7). Activities of the WDOT will be
4 used to illustrate problems associated with the issuance of emergency permits.

5
6 The Washington State Department of Transportation has the responsibility for the
7 emergency repair of roads classified as State Highways.¹¹⁷ “Emergency” is
8 defined as:

- 9
10 (1) A condition which, “as a consequence of accident, natural
11 disaster, or other emergency, an existing state highway is in
12 jeopardy or is rendered impassable in one or both directions
13 and the department further finds that prompt reconstruction,
14 repair, or other work is needed to preserve or restore the
15 highway, and
16
17 (2) the Department [of Transportation] finds it necessary to
18 protect a highway facility from imminent damage or to
19 perform emergency work to reopen a highway facility . .
20 ..¹¹⁸

21
22 Though WDOT has exempted itself from SEPA compliance for emergency
23 work,¹¹⁹ they have not been exempted from HPA compliance. To facilitate
24 compliance with the Hydraulic Code, the WDOT has implemented a
25 Memorandum of Understanding (MOU) with WDFW. The MOU provides
26 that,¹²⁰ if an emergency exists and there is insufficient time to secure an HPA

¹¹⁷ RCW 47.28

¹¹⁸ RCW 47.28.170.

¹¹⁹ WAC 468-12-880.

¹²⁰ Memorandum of Understanding between the Washington State Departments of Fisheries, Wildlife, and Transportation Concerning Compliance with the

1 through normal channels, WDFW may verbally approve an HPA. The
2 Department of Fish and Wildlife is then provided 30 days to issue a written
3 follow-up HPA.
4

5 There are a number of examples that highlight problems with the WDOT
6 emergency permitting process. Examples include:
7

- 8 * In August 1998, WDOT was assessed a fine of \$72,000 for damaging two
9 streams which comprise salmonid habitat. WDOT caused the damage as
10 part of a project repairing SR 520 in east King County. WDOT was fined
11 \$12,000 for earlier salmonid habitat damage as part of the same repair
12 project.
13
- 14 * WDOT allowed muddy water to flow into an adjacent wetland and two
15 creeks--most recently in June and in 1997. Mud makes it harder for
16 salmon to spawn and feed.
17
- 18 * In December 1997, WDOT declared an emergency for road construction
19 work on SR 542, the Mt. Baker Highway. The emergency work involved
20 the bank of the North Fork of the Nooksack River which was adjacent to
21 an area where six spring chinook¹²¹ and several pink salmon spawning
22 redds (nests) had been observed by WDFW field biologists.¹²²
23
- 24 * WDOT obtained an emergency HPA for the work on SR 542, which,
25 among other requirements, prohibited the dewatering of a stretch of the
26 river and required replacement of large woody debris (LWD) in
27 approximately the same location as a debris dam which existed prior to the

Hydraulic Code (RCW 75.20.100 and Chapter 220-100 WAC), FY 91-14, August 29, 1990.

¹²¹ The Lummi Nation and Nooksack Tribes have not fished for Nooksack spring chinook salmon since 1978. The NMFS has listed Puget Sound Chinook salmon as “threatened” under the ESA (See Table 3).

¹²² Personal communication with John Thompson, Resource Protection Division Manager, Lummi Indian Nation.

1 work. However, WDOT's contractor:

- 2
- 3 ○ dewatered the portion of streambed within the permit area,
- 4
- 5 ○ dewatered the spring chinook redds,
- 6
- 7 ○ covered the spring chinook redds with gravel fill,
- 8
- 9 ○ operated heavy equipment over, across, and upon the spring
- 10 chinook redds, destroyed the redds,
- 11
- 12 ○ failed to comply with the LWD mitigation,
- 13
- 14 ○ failed to consult with the affected tribes regarding placement of the
- 15 LWD and the overall project in general, and
- 16
- 17 ○ destroyed an unknown number of pink salmon redds.
- 18

19 * In the Department's Southeast Region, in April 1998, WDOT reported to
20 WDFW a potential HPA violation by its contractor¹²³ regarding
21 unauthorized placement of fill and working within the stream bed of the
22 Yakima River.¹²⁴

23

24 * After a flood event in 1996, the Department of Transportation constructed
25 a dike, along SR 410, referred to as the "Harold Knapp" dike, without any
26 verbal or written permits. There were actually two dikes constructed
27 between the road and the Naches River. Some mitigation was eventually
28 required on the dike "after the fact."¹²⁵ However, the Department states
29 that if a permit was sought prior to constructing the dikes, other
30 alternatives would have been available to avoid impacts to the salmon
31 resource.¹²⁶

32

123 At the time of this incident, WDFW and WDOT were unaware the contractor had twice violated the HPA covering this project.

124 WDFW response to Public Disclosure Request.

125 WDFW response to Public Disclosure Request.

126 Id.

- 1 * Around this same time frame, WDOT reconstructed about 250 feet of SR
2 12 soon after the February flood event. No permits were obtained and no
3 mitigation was ever completed at this site. No citation was apparently
4 issued by the Department.
5
- 6 * In February of 1996, the WDOT placed heavy rock armor along the entire
7 road shoulder near the mouth of Rattlesnake Creek, a tributary of the
8 Naches River. WDOT did not receive a verbal or written permit or
9 coordination from WDFW. This area remains devoid of vegetation and no
10 mitigation occurred at this site. No citation was apparently issued by the
11 Department.
12
- 13 * Again in February 1996, WDOT reconstructed several hundred feet of
14 road shoulder along SR 410 without permits. WDOT reconstructed about
15 150-200 feet of road prism. No vegetation was incorporated into this
16 project and not permits were obtained. No citation was apparently issued
17 by the Department.
18
- 19 * At this same time on the Yakima River, the WDOT reconstructed about
20 300 feet of I-82. No permits were obtained and no coordination was
21 provided by WDFW. “This was a particularly egregious violation as
22 thousands of yards of very dirty, under sized material was dumped into the
23 Yakima River.”¹²⁷ Work continued despite WDFW efforts to coordinate
24 with WDOT. No citation was apparently issued by the Department.
25
- 26 * After a flood event in 1995, on another section of SR 410, the Department
27 of Transportation reconstructed the road twice within a few months
28 without permits or coordination with WDFW. No mitigation was
29 completed at this site and the shoreline remains unvegetated. The first
30 project failed due to placement of undersized material and constriction of
31 the floodplain. The second application of rock armor did not incorporate
32 any habitat features or vegetation and material was end-dumped into the
33 river to reconstruct the road prism.¹²⁸ No citation was apparently issued by
34 the Department.
35

¹²⁷ Id.

¹²⁸ WDFW response to Public Disclosure Request.

1 These are a number of examples where the WDOT violated not only the MOU
2 they entered into with WDFW to ensure orderly application of the HPA process,
3 but also state law. These projects are generally conducted under the assumption
4 of “imminent” danger and emergency conditions while unfortunately causing
5 significant impacts to the salmon resource. There is no public review of these
6 projects, no consultation with tribal fisheries managers, no compliance with SEPA
7 or the Hydraulic Code, nor any criteria that define the overly broad and vague
8 definition of “imminent danger”.

9
10 There appears to be a reoccurring pattern. The WDOT fails to obtain either an
11 oral or written HPA prior to commencing construction work. It then causes
12 impacts to the salmon resource and their dependent habitats, fails to provide
13 meaningful mitigation and monitoring, and fails to ensure continuing obligations
14 are fulfilled. It appears the WDOT would rather pay fines or mitigation costs after
15 the fact rather than comply with state law and ensure there are no current or future
16 impacts to the salmon resource. There is no better example of this pattern and
17 practice than those hundreds of impassable barriers (i.e., culverts) that are owned
18 by WDOT but are not maintained to ensure free and unobstructed passage for the
19 salmon resource.¹²⁹

¹²⁹ See *Fish Passage Program: Department of Transportation Inventory, Final Report*, June 1997, Washington Department of Fish and Wildlife, Lands and Restoration Services Program, Salmonid Screening, Habitat Enhancement and Restoration (SSHEAR) Division, p.1.

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9. The Hydraulic Code exempts agricultural irrigation and stock watering activities that degrade fisheries resources.

Under subsection (8) of RCW 75.20.100, the general HPA permitting requirements do not apply to the construction of any form of a valid hydraulic project or other work which diverts water for agricultural irrigation or stock watering purposes when it is associated with streambank stabilization to protect farm and agricultural land. Irrigation or stock watering diversion and streambank stabilization projects are governed under RCW 75.20.103.

Under RCW 75.20.103, a farmer or government agency proposing the activity shall, before commencing construction or work, secure a written approval from the Department as to the adequacy of the means proposed for the protection of fish life.”¹³⁰ The Department then has 45 calendar days to approve or deny the completed application. The approved HPA “shall remain in effect without need for periodic renewal for projects that divert water for agricultural irrigation or stock watering purposes and that involve seasonal construction or other work” (emphasis added). Approval for streambank stabilization projects shall remain in effect without need for periodic renewal if the problem causing the need for the streambank stabilization occurs on an annual or more frequent basis. The permittee must notify the appropriate agency before commencing the construction or other work within the area covered by the approval.¹³¹

¹³⁰ RCW 75.20.103.

¹³¹ Id.

1 This provision makes it difficult for the Department to determine whether
2 seasonal work may be causing continuing impacts to the salmon resource or
3 whether new standards need to be imposed as conditions to the permit. The
4 Department does not have adequate resources to ensure compliance and
5 enforcement monitoring. Since the applicant need not secure a new permit that
6 may require site review, the Department has little information regarding the
7 effectiveness of existing conditions on the permit.

8
9 In case of an emergency arising from weather, stream flow, or other natural
10 conditions, the Department:

11
12 . . . shall issue immediately upon request oral approval for
13 removing any obstructions, repairing existing structures, restoring
14 stream banks, or to protect property threatened by the stream or a
15 change in the stream flow without the necessity of obtaining a
16 written approval prior to commencing work. Conditions of an oral
17 approval shall be reduced to writing within thirty days and
18 complied with as provided for in this section (emphasis added).¹³²
19

20 Therefore, once the Department determines that an emergency exists, the
21 Department has no discretion to deny a HPA permit for activities removing any
22 obstructions, repairing existing structures, or armoring stream banks.

23
24 **10. Nearshore habitat is not adequately protected during**
25 **maintenance and replacement of existing bulkheads.**
26

27 Though the Department can prevent harm from construction of new bulkheads or
28 rockwalls, they have less latitude in addressing continuing or future impacts
29 resulting from the repair or replacement of existing structures. The Department

¹³² Id.

1 has no authority to “mitigate” or ensure there is a no-net-loss from the impacts
2 caused by repairs or replacements of existing bulkheads or rockwalls. Nor does
3 the Department have the authority to require replacement of the structures outside
4 the ordinary high water line, as might be for new construction.

5
6 The Hydraulics Code directes the Department to facilitate issuance of hydraulic
7 permits for bulkheads or rockwalls to protect the property of marine waterfront
8 shoreline owners.¹³³ Regarding new construction of bulkheads, the Department
9 “shall issue a hydraulic permit only as far waterward as is necessary to excavate
10 for footings or to place base rock for the structure and under no conditions shall
11 be located more than six feet waterward of the ordinary high water line”¹³⁴
12 (emphasis added). Whereas, to replace or repair existing structures, bulkheads or
13 rockwalls shall be placed along the same alignment as the bulkhead or “may be
14 placed waterward of and directly abutting the existing structure only in cases
15 where removal of the existing bulkhead or rockwall would result in environmental
16 degradation or removal problems related to geological, engineering, or safety
17 considerations”¹³⁵ (emphasis added).

18
19 The Department has not been able to prevent the harm caused by bulkheading.
20 Bulkheading, whether prior or subsequent to the Hydraulic Code, can result in a
21 multitude of impacts. Bulkheads cause loss of spawning habitat, shoreline
22 vegetative cover, wetlands vegetation, large organic debris, and migratory habitat.
23 Bulkheads decrease and degrade shellfish habitat, contribute to the loss of surf

¹³³ RCW 75.20.160 (1) and WAC 220-110-285.

¹³⁴ RCW 75.20.160 2(a).

¹³⁵ RCW 75.20.160 2(b).

1 smelt and sand lance spawn habitat, and increase predation on juvenile salmon.
2 Bulkheads can cause physical impacts to the shorelines. These impacts include
3 covering tidelands, increase beach scour and erosion, steepen banks, increase net
4 shore drift-rate, and decrease beach stability.¹³⁶ Bulkheads also cause changes in
5 food resources.¹³⁷ These impacts occur on an individual and cumulative basis
6 from all bulkheads and the Department has failed to prevent their harm or fully
7 mitigate their impacts to the salmon resource.

8
9 **11. The Act fails to require proven mitigation and deadlines**
10 **for determining effectiveness of mitigation.**
11

12 The Department has defined “mitigation” to mean those:

13
14 Actions which shall be required as provisions of the HPA to avoid
15 or compensate for impacts to fish life resulting from the proposed
16 project activity. The type(s) of mitigation required shall be
17 considered and implemented, where feasible, in the following
18 sequential order of preference:

- 19
20 (a) Avoiding the impact altogether by not taking a certain action or
21 parts of an action;
22
23 (b) Minimizing impacts by limiting the degree or magnitude of the
24 action and its implementation;
25
26 (c) Rectifying the impact by repairing, rehabilitating, or restoring the
27 affected environment;
28

¹³⁶ Personal communication, Jeremy Freimund, Lummi Indian Nation.

¹³⁷ Canning, DJ. And H. Shipman. 1994. *Coastal Erosion Management Studies in Puget Sound, Washington: Executive Summary. Coastal Erosion Management Studies, Volume 1.* Water and Shorelands Resources Program, Washington Department of Ecology, Olympia.

- 1 (d) Reducing or eliminating the impact over time by preservation and
2 maintenance operations during the life of the action;
3
4 (e) Compensating for the impact by replacing or providing substitute
5 resources or environments; or
6
7 (f) Monitoring the impact and taking appropriate corrective measures
8 to achieve the identified goal.
9

10 For projects with potentially significant impacts, a mitigation
11 agreement may be required prior to approval. Replacement
12 mitigation may be required to be established and functional prior to
13 project construction (emphasis added).¹³⁸
14

15 The mitigation policy calls for mitigation strategies that achieve a “no-net-loss of
16 productive capacity of fish and shellfish habitat.” “No-net-loss” means:

- 17 (a) Avoidance or mitigation of adverse impacts to fish
18 life; or
19
20 (b) Avoidance or mitigation of net loss of habitat
21 functions necessary to sustain fish life; or
22
23 (c) Avoidance or mitigation of loss of area by habitat
24 type.
25
26

27 Mitigation to achieve no-net-loss should benefit those organisms
28 being impacted.¹³⁹
29

30 An HPA application is supposed to be denied where a project will result in direct
31 or indirect harm to fish life unless adequate mitigation can be assured by
32 conditioning the HPA or modifying the proposal.¹⁴⁰

138 WAC 220-110-020 (41).

139 WAC 220-110-020 (43).

140 WAC 220-110-030 (12).

1 The Fish and Wildlife Commission has provided additional policy guidance to the
2 Department in the Wild Salmonid Policy. When addressing “mitigation”:

- 3
- 4 ➤ Avoidance is the most preferred and should be the most commonly
5 used form of protection.
 - 6
 - 7 ➤ Mitigation will be used only when “no practicable or feasible
8 alternative” exists.
 - 9
 - 10 ➤ Prior to issuance of final approval for projects, the department
11 should ensure successful establishment of functioning
12 compensatory mitigation projects. Adverse activities that require
13 mitigation should be prohibited unless “adverse impacts are fully
14 mitigated using proven methods.”
 - 15
 - 16 ➤ Successful establishment of functioning compensatory mitigation
17 projects should be demonstrated prior to final authorization for
18 projects that adversely affect marine, estuarine, and intertidal
19 habitats.¹⁴¹
 - 20

21 Problems arise when the Department approve HPAs which include speculative,
22 scientifically indefensible mitigation strategies, or which provide inadequate
23 monitoring or evaluation procedures. In addition, the Department fails to fully
24 utilize “avoidance” as the preferred mitigation technique and does not require a
25 mitigation strategy that has been demonstrated to be successful.

26

27 As an example, the Department approved a mitigation plan for a dredging project
28 on the Cedar River that was eventually determined to be inadequate.¹⁴² After a
29 tribal government appealed the permit, the Department determined that agency
30 staff :

¹⁴¹ See WSP.

¹⁴² HPA No. 00-D4609--01.

- 1 ○ failed to adequately assess the loss of sockeye spawning habitat necessary
2 to fully mitigate the impacts of the project;
- 3
- 4 ○ approved the plan inconsistent with policy direction from the Fish and
5 Wildlife Commission;¹⁴³
- 6
- 7 ○ failed to adequately assess the overall impact of the project and use of best
8 available science.
- 9
- 10 ○ failed to mitigate for all salmonid species impacted by the project;
- 11
- 12 ○ failed to provide adequate mitigation measures to compensate for the
13 impacts to all salmon species;
- 14
- 15 ○ failed to condition for adequate monitoring procedures and standards to
16 determine whether mitigation requirements were implemented and
17 effective;
- 18
- 19 ○ provided speculative mitigation that could not be demonstrated to
20 compensate for the impacts to quantity and quality of salmon habitat;
- 21
- 22 ○ failed to develop a detailed monitoring plan that quantitatively assesses the
23 added habitat value of the mitigation; and
- 24
- 25 ○ failed to assess cumulative impacts to the River.
- 26

27 The Department then amended the HPA to include many of the concerns and
28 issues raised by the Muckleshoot Tribe.¹⁴⁴ Unfortunately, an appeal was required
29 to ensure the Department adequately addressed mitigation requirements for this
30 permit.

¹⁴³ The WSP states that “adverse impacts by utilizing proven methods that demonstrate success of repairing, rehabilitation, or restoring the affected habitat to its full productive capacity.”

¹⁴⁴ Letter from Peter Birch, WDFW, to Elyse Kane re: Muckleshoot Indian Tribe Informal Appeal of HPA No. D4609-01 (Cedar River), August 14, 1998.

1 The Cedar River project is just one of many examples where the Department
2 failed to use “avoidance” as the preferred alternative and to require prior proven
3 mitigation as directed by the Fish and Wildlife Commission. WDFW has
4 permitted numerous activities that historically have been detrimental to the fish
5 resource and its habitat without adequate mitigation. Gravel removal, stream
6 clearance of logs, channel alignment, flood control, rip-rapping, diking, jetty
7 construction, shoreline modifications, dams, bulkheading, dock and pier
8 construction, boat launches, and hydroelectric projects are a number of hydraulic
9 activities the Department permits that have been detrimental to the fish resource.
10 From 1990-1997, the Department has issued 23,372 permits for these activities.
11 This represents 43.7% of all the permits the Department issued over this period of
12 time. Permitting these activities without prior proven mitigation has and will
13 continue to be detrimental to our salmon resources.

14
15 **12. The Department does not involve, consult, or coordinate**
16 **issuance or conditioning of HPAs with Tribal**
17 **Governments as “co-managers” of the fish resource.**
18

19 Coordination and involvement of tribal governments with the Hydraulic Code
20 process are addressed only once in the statute and implementing regulations. As
21 defined in statute, whenever the placement of woody debris is required as a
22 condition of a hydraulic permit approval, the Department, upon request, shall
23 invite comment regarding the placement of the woody debris from affected
24 tribes.¹⁴⁵ The Department is not required to notify affected tribal governments of
25 the proposed action unless the tribes first request the opportunity to provide
26 comment. It is not clear how the tribes will provide comments of the placement
27 of woody debris if the Department is not required to even provide notice or a copy

¹⁴⁵ RCW 75.20.104.

1 of the HPA permit to the affected tribes prior to the applicant taking action.

2
3 Under the administrative code, the Department is also to coordinate with tribal
4 governments to minimize regulatory duplication in the issuance of hydraulic
5 permits.¹⁴⁶ This provision would only have relevance to on-reservation activities
6 where an affected tribal government has similar permitting authority regulating
7 hydraulic projects activities.

8
9 In some cases, WDFW provides affected tribes with copies of the HPAs upon
10 request. Department and tribal coordination of the HPA process is variable at
11 best.¹⁴⁷

12
13 The Hydraulic Code and implementing regulations fail to recognize the tribes as
14 “co-managers” of the fish and wildlife resources. The Code and its implementing
15 regulations do not even require the Department to notify or submit copies of the
16 hydraulic permits to affected tribes.¹⁴⁸ Unlike other state natural resource
17 regulatory agencies, the Department does not provide affected tribes with
18 meaningful opportunity to review or comment on conditions or mitigation
19 required for approval of permits. The Department continues this policy even

¹⁴⁶ WAC 220-110-010.

¹⁴⁷ Cf. the HPA notification procedures with the Forest Practices Application (FPA) and Water Rights Permitting processes. Both the Department of Natural Resources and Department of Ecology provide all Tribes with notice and opportunity to review and comment prior to approval of their permitting processes.

¹⁴⁸ Cf. WAC 222-16-010 (“Affected Indian tribe”) and 222-20-120 where the Department of Natural Resources “shall notify affected Indian tribes of all applications of concern to such tribes . . .”

1 though the Fish and Wildlife Commission has clearly stated:

2
3 Through co-management, the Department and the Tribal Parties
4 will improve the HPA process. The improved process will
5 enhance data sharing and provide timely notice to the affected
6 Tribal Parties and a meaningful opportunity for review and
7 comment on applications prior to their approval (emphasis
8 added).¹⁴⁹
9

10 **13. Certain Hydraulic Project Approvals are exempt from**
11 **the State Environmental Policy Act.**
12

13 Under the Hydraulic Code, the department may not require that the provisions of
14 the state environmental policy act (SEPA) be met as a condition of issuing
15 expedited permits.¹⁵⁰ In these circumstances, neither the agency nor the public has
16 the ability to ensure environmental review of expedited hydraulic permits and
17 public disclosure that are necessary and required pursuant to SEPA.¹⁵¹
18

19 **C. Administrative**
20

21 In general, the administrative regulations for the HPA are fairly strong and clear.
22 However, there are still a number of issues and concerns that should be addressed
23 by the Department and the Fish and Wildlife Commission:
24

¹⁴⁹ See WSP.

¹⁵⁰ RCW 75.20.100 (3)(c).

¹⁵¹ RCW 43.21C; See WAC 197-11-835 (3) and 197-11-800 (13)(a) and (d) for
categorical exemptions.

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1. The Fish and Wildlife Commission must reconcile differing policy goals of the department.

The WDFW has a policy of no-net-loss of productive capacity of the habitat of food fish and shellfish resources of the state.¹⁵² However, the Department has also agreed with the Treaty Tribes as co-managers of the resource to achieve an overall net gain of the productive capacity of fish and wildlife habitats. In addition the Fish and Wildlife Commission has adopted the Wild Salmon Policy (WSP), which also endorses a net-gain policy. The Department’s regulations should be updated to ensure that implementation of the Hydraulic Code provides a “net-gain” of the productive capacity of fish and wildlife habitats.

2. The Department is unwilling to fully exercise its authority under the Hydraulic Code because of fear the legislature will eliminate its responsibilities under the Code.

One of the most common themes heard throughout the Department is “if we use it---we will loose it.” The legislature will remove or eliminate the department’s authority to protect fish life from adverse hydraulic permits if the agency fully implements the law. This failure to fully implement the letter and intent of the law is one of the more significant reasons the State is having problems ensuring protection of the fish resource.

One example of the Department’s lack of willingness to fully implement the Hydraulic Code occurs with dredging activities. Under current regulations,

¹⁵² POL-410, September 10, 1990. Note: POL-410 has been superseded by a new mitigation policy that was not available for this review (Perry Harvester, WDFW).

1 dredging projects are required to incorporate mitigation measures that will achieve
2 no-net-loss of the productive capacity of fish and shellfish habitat.¹⁵³ But, for
3 years, the Department has allowed dredging activities for a variety of purposes
4 that cause an overall net impact to the fish resource. For instance, in relation to
5 dredging in Skagit County:

6
7 [w]e have all made some progress, but not enough. The County
8 has constructed, and maintained, a gravel retention basin upstream
9 of the problem section. The gravel removal seems to be reflected
10 in a deepening of the stream downstream, and a diminished need
11 for dredging below SR 20 The less frequent the dredging, the
12 fewer fish are killed and the more the channel bank vegetation can
13 recover. We have been successful at minimizing the frequency of
14 this dredging. But it still happens, at considerable cost to the Zone,
15 and to fish production.

16
17 . . .

18
19 Our goal should be to provide for a reasonable flood control
20 benefit for your rate-payers and the adjacent property owners, and
21 to better protect the public's fish resource.

22
23 . . .

24
25 Within six months, it is likely that chinook salmon will become a
26 listed species under the Endangered Species Act. Exactly how that
27 listing may effect future dredging or other channel work in Hansen
28 Creek is hard to say. What is clear is that there will be other
29 Federal agencies reviewing our decisions, possibly with veto
30 power. Agency flexibility on habitat issues will likely decrease
31 (emphasis_added).¹⁵⁴
32

¹⁵³ WAC 220-110-130.

¹⁵⁴ Letter from Kurt Buchanan, Area Habitat Biologist, WDFW, to Skagit County Public Works, September 17, 1998, HPA 00-C5997-02.

1 To provide “flexibility” to the County, this particular HPA was issued by the
2 Department even though the Department recognized that fish would be “killed” as
3 a result of the project. Although the Department required mitigation as part of the
4 permit, they acknowledged it was inadequate to actually ensure a “no-net-loss” of
5 productive capacity of fish and shellfish habitat. The Department “minimized”
6 the frequency of this dredging but still at a “considerable cost to fish production.”
7 The Department appears to be “balancing” the interests of rate payers with some
8 “better” protection of the fish resource. However, “balancing” and “better”
9 protection is not the legislative mandate. It appears the Department is waiting for
10 the federal government to weigh-in on ESA and provide the necessary “back-
11 bone” for the agency to ensure they fulfill their legislative mandate.

12
13 This HPA is only one example of improperly permitted dredging activities on the
14 Skagit River. The 15 year history of dredging activities on Hansen Creek in the
15 Skagit Basin exemplifies these problems.¹⁵⁵ The Department either did not
16 require adequate and necessary mitigation to ensure a no-net-loss of fish
17 production or they consciously permitted the destruction of the salmon resource.
18 “Salmon and steelhead habitat are destroyed on each dredging occasion.”¹⁵⁶
19 Dredging of Hansen Creek “has greatly damaged the stream itself and the fish
20 population which uses it.”¹⁵⁷ “Dredging, especially in salmon spawning areas, is
21 very harmful.”¹⁵⁸

¹⁵⁵ Letter from Travis Martinez to Skagit County Public Works Department,
December 1, 1998.

¹⁵⁶ HPA, September 6, 1989.

¹⁵⁷ HPA, October 1, 1993.

¹⁵⁸ HPA 00-55903-05, 1996; Letter to Public Works from WDFW, October 13, 1997.

1 concern with the Department's culvert and road-crossing standards.

2
3 One biologist with over 24 years of working experience in forestry, forest
4 engineering, and fisheries, believes that roads and crossings have the biggest
5 negative impact on aquatic habitat:

6
7 There is a kind of "culture" or history of inadequate culvert sizing
8 and maintenance in the forest environment which is not adequately
9 questioned, challenged, or countermanded by the regulations and
10 WDFW.

11
12 Stream crossings need to be designed to accommodate natural
13 events, such as big storms. This is not rocket science. Scheduled,
14 budgeted, mandated, ongoing maintenance of drainage and
15 crossing works is needed to keep them functioning.

16
17 Every time there's an above-average storm, roads and crossings
18 blow out, and many of them chronically hemorrhage under all
19 conditions. It can be stated thusly: there are existing roads and
20 crossings for which we could find total agreement from all parties
21 on their damage to valuable aquatic habitat, but there's no
22 functioning mechanism to stop the damage.¹⁶³

23
24 The Department should conduct a comprehensive review of its current HPA
25 standards and practices with tribal co-managers and other relevant state and
26 federal resource agencies.

27
28 **4. The HPA program should rely on scientifically based**
29 **resource standards.**
30

31 The strategy of the agency is to define best management practices either through
32 administrative rules or site specific conditioning of HPAs. When conditioning

¹⁶³ Personal communication with Scott Hall, Biologist, Spokane Tribe.

1 HPAs, the Department defines what size of a pipe is necessary, construction
2 standards and timing, bank stabilization practices, dredging standards, or how best
3 not to disturb spawning areas or behavior of the salmon. However, what the
4 Department fails to do is define biological, physical, or chemical recovery
5 standards that are measurable and objective to evaluate these best management
6 practices. How are we to determine whether the BMPs are effective if we do not
7 define measurable resource objectives? The Department should define
8 measurable standards to be used for evaluation of BMPs and to guide monitoring,
9 adaptive management, conditioning and re-conditioning of HPAs, restoration, and
10 guide policy decision-making.

11
12 **5. The Department fails to include standards for riparian**
13 **ecosystem protection and recovery.**
14

15 Stream riparian zones and adjacent wetlands are vitally important to salmon and
16 are sensitive to natural and human activities. These areas have been drastically
17 reduced by vegetation removal and filling. The fully functional riparian zone in
18 forested areas provides shade to buffer diurnal temperature fluctuations, large
19 woody debris to assist pool formation and maintenance, terrestrial insects for
20 food, and stabilization of sediments. The riparian zones and adjacent wetlands
21 attenuate flows during flood events and can retard the input of pollutants into the
22 stream.¹⁶⁴

23
24 Under the Hydraulic Code, the Department has the authority to regulate forest
25 practice activities that involve construction or performance of other work in or

¹⁶⁴ See WSP *supra*

1 across the ordinary high water line of Type 1-5 waters.¹⁶⁵ This includes (but is not
2 limited to) the removal of timber adjacent to the stream which is likely to result in
3 entry of felled trees into flowing channels.¹⁶⁶

4
5 Under WAC 220-110-160, the Department has defined technical provisions that
6 apply to any felling and yarding of timber for which an HPA is required. These
7 administrative rules state that . . . “[t]imber felling and yarding projects requiring
8 an HPA shall incorporate mitigation measures as necessary to achieve no-net-loss
9 of productive capacity of fish and shellfish habitat” (emphasis added). However,
10 after this point, the Department focuses on “physical” disturbances of logging on
11 watercourses rather than addressing productivity and production requirements of
12 fish that are associated with the riparian ecosystem.

13
14 The Department states that trees shall not be felled across streams,¹⁶⁷ logs in the
15 streams shall not be removed unless authorized,¹⁶⁸ logs shall be suspended across
16 streams,¹⁶⁹ limbs and other debris shall be removed from streams,¹⁷⁰ sediment
17 control devices shall be used to avoid the release of sediment downstream,¹⁷¹ and

165 RCW 75.20.100 (34).

166 RCW 75.20.100 (34)(I).

167 WAC 220-110-160 (1).

168 WAC 220-110-160 (2).

169 WAC 220-110-160 (3).

170 WAC 220-110-160 (5).

171 WAC 220-110-160 (6).

1 there shall be no skidding or yarding within flowing waters.¹⁷² However, the
2 Department fails to address the other functional values of the riparian ecosystems
3 and how they affect salmon production.

4
5 The felling of trees into streams from the riparian ecosystem are not the only
6 impacts to the productivity and production of salmon. The riparian ecosystem
7 provides many other functional values to the salmon resource as described above.
8 Failing to protect the biological, physical, and chemical process that affect the
9 salmon resource ignores the key contributions these processes provide to healthy
10 ecosystems for the salmon resource. Salmon depend on healthy living
11 ecosystems, not just whether a tree falls on them.

12
13 As mentioned before, it appears the Department has limited authority to regulate
14 activities outside the ordinary high water line, at least in the case of forest
15 practices. The Department should be able to regulate forest practices in the entire
16 riparian ecosystem where the felling of trees into flowing channels is likely to
17 result.

18
19 The Department recognizes the importance of the hyporeic zone,
20 flood plain, and the riparian ecosystem to salmonid recovery;
21 however, no authority is provided by the legislature to protect these
22 areas for the fisheries resources. Ecosystem protection is currently
23 out of the scope of the Hydraulic Code. No enforcement authority
24 is currently provided to WDFW. For WDFW to fully address
25 forest practices, stormwater, and cumulative impacts, we need
26 legislative clarification and possible authority. Current WDFW
27 authority has been questioned.¹⁷³

¹⁷² WAC 220-110-160 (7).

¹⁷³ Perry Harvester, WDFW Biologist, April 29, 1999.

1
2 Though the Department has defined riparian ecosystem management
3 recommendations as part of their Priority Habitat and Species (PHS) Program,
4 they have never taken the opportunity to develop regulatory standards to provide
5 for all functional values of the riparian ecosystem necessary to protect flowing
6 channels and salmon habitat.

7
8 **6. The Department fails to include standards for surface**
9 **water management.**

10
11 Urban lands make up about 2% of the land base in Washington. However, land
12 activities in these areas exert a disproportionate influence on salmon populations
13 because they encompass prime spawning, rearing, and migratory habitats. The
14 effects of urbanization on streams is well documented.¹⁷⁴ They include extensive
15 changes in basin hydrologic regime, channel morphology, and physicochemical
16 water quality. The cumulative effects of urbanization have produced instream
17 habitat that cannot sustain salmon and associated fauna. Urbanization poses
18 threats not only to fish but also to public safety. Urban land use and channel
19 modifications cause significant erosion, sedimentation, and flooding problems.

20
21 At the watershed scale, the major physical processes that affect habitat are
22 hydrology, sediment transport, energy transfer, nutrient cycling, and delivery of
23 large woody debris. Hydrology is the primary “forcing” process at this scale and
24 determines the quantity and timing of streamflow which in turn influences

¹⁷⁴ Leopold, 1968; Hammer, 1972; Hollis, 1975; Klein, 1979; Arnold et al., 1982; Booth, 1991.

1 sediment transport, channel configuration, and habitat availability.¹⁷⁵

2
3 The primary aspect of urban development that affects hydrology is the increase in
4 impervious surface area and the corresponding loss of natural vegetation.¹⁷⁶ Land
5 clearing, soil compaction, encroachment on riparian corridors, and modifications
6 to the surface water drainage network all accompany urbanization. Although
7 impervious surfaces themselves do not generate pollution, they are the major
8 contributor to the change in basin hydrologic regime that drives many of the
9 physical changes affecting urban streams.¹⁷⁷

10
11
12 Current strategies to control drainage, for example the construction of stormwater
13 retention ponds, are largely inadequate, and costly erosion and flooding problems
14 continue to exist. However, our attempts to maintain or mimic natural processes
15 using BMPs have failed. “Other more ecologically-sound approaches must be
16 found to restore and protect the functional, structural, and compositional integrity
17 of the urban land-water system.”¹⁷⁸ To ameliorate stormwater impacts, “ riparian
18 forest dominated by coniferous trees should be the long-term management
19 goal.”¹⁷⁹

¹⁷⁵ Fuerstenberg, R.R., *Needs of Salmon in the City: Habitat in the Urban Landscape*,
Salmon in the City Conference, May 20-21, 1998.

¹⁷⁶ Horner, R. R., and C. May, *Watershed Urbanization and the Decline of Salmon in
Puget Sound Streams*, Salmon in the City Conference, May 20-21, 1998.

¹⁷⁷ Id. at 20.

¹⁷⁸ Id.

¹⁷⁹ Id. at 19.

1 The downstream effects to fish and fish habitat from stormwater runoff were
2 simply too obvious for the Department to ignore. In 1994, WDFW attempted to
3 exercise jurisdiction over stormwater detention facilities and upland management
4 practices.¹⁸⁰ However, eventually, the Department agreed allow the Department
5 of Ecology (WDOE) to take the lead in developing stormwater regulations.
6 WDOE then developed the Stormwater Management Manual which WDFW
7 implements through their HPA process.¹⁸¹

8
9 For the past 20 years, local jurisdictions in the Puget Sound region have required
10 stormwater detention facilities (ponds, tanks, and vaults) to be constructed to
11 mitigate the impacts of development on our streams. These requirements have
12 failed to fulfill their stated purposes. “Replacing complex interactions of the
13 hydrologic cycle with a pond cannot be done.”¹⁸² In addition, minimum standards
14 for stormwater detention defined in the Department of Ecology Stormwater
15 Management Manual are woefully inadequate and have failed to provide the
16 necessary protection to our streams and salmon habitat.

17
18 The Department of Fish and Wildlife should establish stormwater runoff
19 standards and prescriptions necessary to protect and restore watershed processes,
20 salmon habitat, and the fish resource.

¹⁸⁰ Personal Communication with WDFW Area Habitat Biologist.

¹⁸¹ WDFW AHB recommended codifying the authority of the Department to enforce
 the Stormwater Management Manual.

¹⁸² Beyerlein, D, and J. Brascher, *Traditional Alternatives: Will More Detention
 Work?*, Salmon in the City Conference, May 20-21, 1998.

1 Washington, the regional offices reported no relevant records of violations.¹⁸⁶
2 However, in the North Puget Sound Region, only one month prior to the request,
3 the Seattle Times Reported \$72,000 of fines levied against the Department of
4 Transportation for Hydraulic Code and Clean Water Act violations in eastern
5 King County.¹⁸⁷ Nor did the Department report the violations of WDOT on the
6 North Fork of the Nooksack River described above in section B (8).

7
8 The Department should develop a comprehensive tracking system for all activities
9 related to implementation of the Hydraulic Code.

10
11 **9. The department fails to comprehensively monitor**
12 **compliance and effectiveness of HPA and mitigation**
13 **requirements.**
14

15 Requirements for “monitoring” are mentioned only in the context of the definition
16 of “mitigation.”¹⁸⁸ Where mitigation is required for a HPA, the Department **may**
17 **require as an alternative**, monitoring the impact and taking appropriate corrective
18 measures to achieve the identified goal.¹⁸⁹ The reality is the Department does not
19 consistently require monitoring, and when they do, there is virtually no
20 compliance. In addition, there is no procedural mechanism to evaluate monitoring
21 results if they do occur.
22

¹⁸⁶ Public Disclosure response to Mr. Daniel Raas, October 23, 1998.

¹⁸⁷ See, Transportation fined for polluting salmon habitat, The Olympian, C4 Northwest, August 25, 1998; State fines itself for habitat harm, The Associated Press, August 25, 1998.

¹⁸⁸ RCW 75.20.020 (41).

¹⁸⁹ RCW 75.20.020 (41) (f).

1 Obviously, with the tight budget, and heavy work load, monitoring
2 the implementation of hydraulic projects and required mitigation is
3 not going to occur. There needs to be direction and time allotted to
4 monitor hydraulic projects with the authority to require corrective
5 action.¹⁹⁰
6

7 It does not appear the Department has conducted audits of mitigation requirements
8 or report monitoring results. In general, adequate monitoring and independent
9 audits would probably demonstrate failure of Departmental mitigation
10 requirements as evidenced in King County.¹⁹¹
11

12 Recently, King County conducted a performance audit on 29 study group sites.
13 Almost 80% (23) of the sites failed to meet defined performance standards.¹⁹²
14 Only one site (3%) replaced functions to impacted wetlands; the remaining 28
15 (97%) did not. This report concluded the mitigations are not being installed.
16 Those that are installed have high rates of failure.¹⁹³
17

18 Programmatic and site-specific compliance and effectiveness monitoring must be
19 a requirement of HPA permits. The Department cannot evaluate its protection
20 and recovery strategies if it does not monitor the effectiveness of HPA conditions.
21

¹⁹⁰ Personal Communication with WDFW Area Habitat Biologist.

¹⁹¹ Mockler, Anna, L. Casey, M. Bowles, N. Gillen, and J. Hansen, *Results of King
County Wetland and Stream Mitigations*, King County Department of
Development and Environmental Services. See Audubon Wetland Campaign:
www.audubon.org/campaign/wetlands.

¹⁹² Id.. Performance standards included: 80 percent emergent cover; 45 to 75 percent
shrub and tree cover; and 80 percent survival rates by year three.

¹⁹³ Sheldon and Dole (1991) also found similar results.

**10. The department arbitrarily allows the detrimental use
chemicals in saltwater.**

The primary concern with the use of treated wood products is the actual and potential release of toxic and persistent chemicals into the aquatic environment. These chemicals may cause and/or contribute to adverse biological effects, human health impacts, and the degradation of surrounding habitat. Under the technical provisions of the Department’s administrative rules, creosote and pentachlorophenol are prohibited for construction docks, piers, floats, and bulkheads in freshwater.¹⁹⁴ However, under the saltwater technical provisions, these chemicals are not prohibited.

In 1995, the Department of Fish and Wildlife entered into a Memorandum of Agreement (MOA) with the Department of Ecology regarding the use of treated wood in aquatic areas.¹⁹⁵ The purpose of the MOA was to ensure effective coordination and consistency because both agencies have jurisdiction over the use of these chemicals for treated wood. The agencies developed best management practices (BMPs) for treated wood products with the Western Wood Preservers Institute (WWPI). The BMPs were intended to “produce products with reduced potential chemical release and impact to the aquatic environment.” WDOE and WDFW agreed to implement actions “to preserve, protect, and enhance Washington’s environment whenever possible” (emphasis added).¹⁹⁶

¹⁹⁴ WAC 220-10-050 through 220-10-225.

¹⁹⁵ *An Agreement Concerning the Use of Treated Wood in Aquatic Areas*, August, 1995, Memorandum of Agreement Between the State of Washington Department of Ecology and Department of Fish and Wildlife.

¹⁹⁶ *Id.* at 2.

1 The BMPs are intended to reduce the potential for impacts. However the higher
2 legal standard WDOE should satisfy is to protect, restore, and enhance water
3 quality and habitat for waters of the state. WDFW’s duty also is to provide for the
4 protection of aquatic life and habitat in Washington waters. The legal obligations
5 on the agencies to “protect” water quality and fish habitat are more stringent than
6 the BMP objectives to “reduce the potential for impacts.” To meet their legal
7 responsibilities the agencies should be “preventing” potential impacts to ensure
8 “protection” of the water and fish resources.

9
10 In fact, the agencies agree that “even with treated wood products that meet
11 industry BMPs, there will still be a reduced but continued release of contaminants
12 into the aquatic environment” (emphasis added).¹⁹⁷ A policy that just reduces
13 contaminants “whenever possible” appears to be inconsistent with the legal
14 mandates of the agencies.

15
16 As part of the WDFW/WDOE MOA, the agencies agreed to approve “the use of
17 treated wood in marine areas and rivers on a case-by-case basis.”¹⁹⁸ The MOA
18 stated a preference for the use of materials such as untreated wood, precast
19 concrete, steel, or plastic that have a lower potential to release toxic chemicals.
20 However the MOA also provides that, whenever treated wood products are to be
21 permitted for use in state waters, materials will be restricted to those that meet or
22 exceed industry BMP Manual standards, notwithstanding their inadequacy to fully
23 protect water quality and fish habitat.¹⁹⁹ The agencies agreed not to allow wood

¹⁹⁷ Id. at 2.

¹⁹⁸ Id. at 3.

¹⁹⁹ *Best Management Practices for the Use of Treated Wood in Aquatic
Environments: USA Version, Revised January, 1995. Western Wood Preservers*

1 products treated with creosote or pentachlorophenol in lakes. However, in rivers,
2 estuaries, and marine waters of the state, the approval of chemically-treated wood
3 would be based upon appropriate “mitigation.”²⁰⁰

4
5 Mitigation for toxic chemicals is questionable at best. The simple solution is to
6 ban the use of wood products treated with creosote or pentachlorophenol in all
7 waters of the state, rather than rely on inadequate BMPs or mitigation.

8
9 **11. There is lack of commitment to fully implement the**
10 **Hydraulic Code.**
11

12 The perception of staff within WDFW is that the Department is moving away
13 from using its regulatory authority under the Hydraulic Code. “They do not have
14 control so do not blame them.”²⁰¹ The Commission, the Governor’s Office, and
15 the Department have recognized the necessity of protecting fish habitat.
16 However, the rhetoric of habitat protection has not been reflected in budget
17 priorities or policy support as described earlier.

18
19 There are numerous examples that reflect the Agency’s attitude toward enforcing
20 the Hydraulic Code. One example that highlights the lack of political will of the
21 Department is its unwillingness to utilize existing legal authority to restore salmon
22 habitat that has been destroyed or impacted. The Department has not fully
23 utilized their current authority to ensure safe and free passage for fish. Thousands
24 of miles of salmon habitat are lost due to barriers created by improperly

Institute, Vancouver, Washington.

²⁰⁰ Ibid. at 6.

²⁰¹ Citation omitted.

1 maintained culverts.

2

1
2 **VI. FISH PASSAGE BARRIERS---CULVERTS**
3

4 A variety of factors have contributed to the decline of salmonids. Over-fishing,
5 hydropower development, and habitat degradation from forestry, agriculture and
6 urban land uses are most often referred to as causes.²⁰² However, in this section,
7 we will focus on one particular habitat related cause for the weakening of salmon
8 production --- barriers to fish migration. Fish passage at human made barriers
9 such as road culverts is one of the most pervasive but correctable obstacles to
10 healthy salmon stocks in Washington.²⁰³ Removing these barriers and then
11 maintaining unobstructed fish passage corridors is crucial to the long range
12 recovery of these species.
13

14 WDFW estimates that state and local government road crossings block fish access
15 to about 3000 miles of spawning and rearing areas in Washington. Road culvert
16 blockages pose a significant problem to the overall status of the salmon resources
17

18 The Wild Salmonid Policy states that “correction of existing barriers is one of the

²⁰² See: Spence, B.C., et al., *An Ecosystem Approach to Salmonid Conservation*, hereinafter “Spence, B.C., et al. 1996”); Washington Department of Fish and Wildlife (WDFW), 1997, Final Environmental Impact Statement for the Wild Salmonid Policy approved by the State Fish and Wildlife Commission, Washington Fish and Wildlife Commission (WFWC), 1997; Policy of Washington Department of Fish and Wildlife and western Washington Treaty Tribes Concerning Wild Salmonids, December 5, 1997, hereinafter “WSP.”

²⁰³ Fish Passage Program: Department of Transportation Inventory, Final Report, June 1997, Washington Department of Fish and Wildlife, Lands and Restoration Services Program, Salmonid Screening, Habitat Enhancement and Restoration (SSHEAR) Division, p.1.

1 most cost effective ways” to restore salmon habitat, leading to the recovery of
2 endangered fish stocks. For a number of years the State Departments of Fish and
3 Wildlife, Transportation, Natural Resources, Tribal governments, and various
4 environmental groups have been identifying road culverts that are impassable to
5 historical salmonid habitat. Several state agencies and local governments have
6 initiated limited programs to correct these problems. The Department of Fish and
7 Wildlife estimates a rate of return of 4:1 on all passage restoration dollars to date,
8 as measured by the adult salmon which have completed their life cycle and
9 calculated at a market rate for salmon.

10
11 However, the vast majority of jurisdictions are still ignoring the problem and are
12 failing to develop strategies to correct impassable barriers. The implications of
13 obstructed passages associated with roads owned and controlled by state and local
14 governments are significant, especially since many of these roads receive federal
15 financial support. The Endangered Species Act (ESA) prohibits anyone from
16 taking “actions” that will “harm, harass, hunt, shoot, pursue, kill, wound, collect,
17 trap, or capture” threatened or endangered species. As such, the maintenance of
18 impassable road culverts may trigger the application of the ESA to state and local
19 agencies.

20
21 **A. The position of the Governor.**

22
23 The Governor’s policy on this issue is simple, “eliminate fish passage barriers to
24 spawning and rearing habitat.”

25
26 Over 100 years of road building and development have resulted in
27 an estimated minimum 2,400 barriers at road crossings. These
28 structures block fish access to an estimated 3,000 miles of

1 freshwater spawning and rearing habitat. Removal of these
2 barriers is crucial to the long-range recovery of salmonids.²⁰⁴
3

4 To regain useable habitat, the Governor has stated that the following actions need
5 to occur:
6

- 7 ○ Conduct additional barrier inventories. Inventories must include barriers
8 on city, state, federal, tribal, and private lands and the remaining county
9 roads.
- 10 ○ Support standardization of fish barrier criteria. Develop and
11 maintain a GIS-based, Internet accessible database of fish
12 blockages statewide. In addition, compile hydrologic data and fish
13 species distribution information.
- 14 ○ Support coordination of data collection and centralized data access.
- 15 ○ Coordinate work among road managers within the watershed to
16 ensure that all potential blockages are assessed.
- 17 ○ Integrate fish passage into watershed and landscape management.
18 Connect fish passage with watershed planning in order to integrate
19 barrier correction with salmonid recovery, transportation,
20 landscape, flood reduction, and other watershed planning efforts.
- 21 ○ Continue and expand current funding to survey, inventory and
22 prioritize barriers. Additional funding is needed for correcting
23 known barriers.
24
25
26
27
28
29

30 As part of this strategy, the Governor proposes to establish and fund a Passage
31 Task Force to:
32

- 33 ○ Schedule and fund maintenance and replacement of structures to avoid the
34 creation of new fish passage barriers.

²⁰⁴ *Extinction is Not an Option.*

- 1 ○ Support networks of local partnerships and well-informed, active
2 constituency operating on a watershed approach.
- 3
- 4 ○ Promote barrier corrections through the direct involvement of citizens that
5 live and work within watersheds.
- 6
- 7 ○ Enlist volunteers and coordinate the efforts of Regional Enhancement
8 Groups in programs that involve hands-on salmonid restoration efforts
9 combining stream restoration with barrier removal.
- 10
- 11 ○ Support the development of firm guidelines on barrier assessment methods
12 and annual training courses in both protocol and design options.
- 13
- 14 ○ Continue on-going intra- and interagency training and education programs
15 to make professionals aware of current fish passage statutes and to
16 consider fish passage when developing roadway projects.
- 17
- 18 ○ Train agency and consultant hydraulic engineers in fish passage barrier
19 correction.
- 20
- 21 ○ Develop a mechanism to ensure that the highest priority barriers receive
22 the first funding for corrections. Barrier trade-off between agencies within
23 watersheds could expedite habitat access.
- 24
- 25 ○ Amend shorelines master programs to exempt fish passage barrier
26 correction. Streamline construction permits for fish passage barrier
27 correction.
- 28
- 29 ○ Conduct applied research regarding the needs and extent of upstream
30 movement and timing/seasonal movements of juvenile salmonids. This
31 knowledge is essential to the design of a comprehensive recovery strategy
32 and determination of design flows for passage.
- 33
- 34 ○ Enforce fish passage laws to ensure compliance. (Emphasis added).
- 35

36 **B. The position of the Fish and Wildlife Commission.**

37

38 The Commission recognizes that “free and unobstructed passage among habitat
39 types is essential for most wild salmonids at all life stages.” The Commission also

1 recognizes that “culverts create significant fish passage and stranding problems,
2 and loss of productivity and production.” Consistent with the Governor’s goal,
3 the Fish and Wildlife Commission’s fish access and passage policy is “provide
4 and maintain safe and timely pathways to all useable wild salmonid habitat in
5 fresh and marine waters, for salmonids at all life stages.”

6
7 The Commission has directed the department to “rigorously enforce current
8 regulations to protect salmonid habitat where voluntary efforts are not underway
9 or are unsuccessful” and to increase accountability of governments to comply with
10 state and local habitat protection laws. (emphasis added).

11
12 **C. The Department’s statutory authority to maintain fish passage.**

13
14 Since 1881, the State has recognized the need to preserve fish access to habitat
15 and has passed laws to prohibit the construction of human-made barriers. Over
16 the years, fish passage laws have been amended a number of times to broaden the
17 scope and provide additional protection for fish life. Under subsection RCW
18 75.20 060, any dam or other obstruction (e.g., culvert) across or in a stream:

19
20 shall be provided with a durable and efficient fishway approved by
21 the director. . . . The fishway shall be maintained in an effective
22 condition and continuously supplied with sufficient water to freely
23 pass fish. It is unlawful for the owner, manager, agent, or person in
24 charge of the dam or obstruction to fail to comply with this section
25

26
27 If a person fails to construct and maintain a fishway or to remove
28 the dam or obstruction in a manner satisfactory to the director, then
29 within thirty days after written notice to comply has been served
30 upon the owner, his agent, or the person in charge, the director may
31 construct a fishway or remove the dam or obstruction.

1 Expenses incurred by the department constitute the value of a lien
2 upon the dam and upon the personal property of the person owning
3 the dam. Notice of the lien shall be filed and recorded in the office
4 of the county auditor of the county in which the dam or obstruction
5 is situated. The lien may be foreclosed in an action brought in the
6 name of the state.

7
8 If, within thirty days after notice to construct a fishway or remove a
9 dam or obstruction, the owner, his agent, or the person in charge
10 fails to do so, the dam or obstruction is a public nuisance and the
11 director may take possession of the dam or obstruction and destroy
12 it. No liability shall attach for the destruction. (emphasis added).²⁰⁵
13

14 If the director determines that a fishway in existence on September 1, 1963, is
15 inadequate, the director may remove, relocate, reconstruct, or modify the device,
16 without cost to the owner. After the Department has completed the
17 improvements, the fishways shall be operated and maintained at the expense of
18 the owner in accordance with RCW 75.20.060.²⁰⁶
19

20 There are additional statutes that require fishways to be provided and maintained
21 for the passage of fish. Under the Wildlife Code, Chapter 77, all “persons or
22 government agencies managing, controlling, or owning a dam or other obstruction
23 across a river or stream shall construct, maintain, and repair durable fishways and
24 fish protective devices that allow the free passage of game fish around the
25 obstruction. The fishways and fish protective devices shall be provided with

²⁰⁵ RCW 75.20.060.[1983 1st ex.s. c 46 § 72; 1955 c 12 § 75.20.060. Prior: 1949 c 112 § 47; Rem. Supp. 1949 § 5780-321.]

²⁰⁶ RCW 75.20.061. [1983 1st ex.s. c46 73; 1963 c 153 1.] NOTES: Director of fish and wildlife may modify, etc., inadequate fishways and protective devices: RCW 77.12.425.

1 sufficient water to insure the free passage of fish.”²⁰⁷

2
3 RCW 75.20.061 also provides that the director may remove or modify inadequate
4 fishways and protective devices:

5
6 The director may authorize removal, relocation, reconstruction, or
7 other modification of an inadequate fishway or fish protective
8 device required by RCW 77.16.210 and 77.16.220 which device
9 was in existence on September 1, 1963, without cost to the owner
10 for materials and labor. The modification may not materially alter
11 the amount of water flowing through the fishway or fish protective
12 device. Following modification, the fishway or fish protective
13 device shall be maintained at the expense of the person or
14 governmental agency owning the obstruction or water diversion
15 device.²⁰⁸

16
17 It does not appear the department has proposed any regulations to implement
18 RCW 75.20.060 and 75.20.061. However, the Fish and Wildlife Commission has
19 directed the department to take “[r]egulatory action when authority to implement
20 standards and requirements exists and voluntary actions are either not being taken
21 or are insufficient to achieve compliance consistent with the Wild Salmon
22 Policy.”²⁰⁹

²⁰⁷ RCW 77.16.210. [1980 c 78 § 88; 1955 c 36 § 77.16.210. Prior: 1947 c 275 § 60; Rem. Supp. 1947 § 5992-69.] See notes following RCW 77.04.010.

²⁰⁸ RCW 77.12.425 [1980 c 78 § 90; 1963 c 152 § 1. Formerly RCW 77.16.221.] See notes following RCW 77.04.010. Director of fish and wildlife may modify inadequate fishways and fish guards: RCW 75.20.061.

²⁰⁹ Policy of Washington Department of Fish and Wildlife and western Washington Treaty Tribes Concerning Wild Salmonids, December 5, 1997, hereinafter “WSP”

D. The Department's policy is to ensure free and unobstructed passage.

Based on the various statutory authorities relating to fish passage and screening, the Department of Fish and Wildlife adopted, on January 13, 1997, a policy for fish protection at water diversions/flow control structures and on fish passage.²¹⁰

The Department's fish passage policy states in part:

This policy applies to water diversions and man-made fish passage barriers in all state waters. It compiles and defines Department application of state laws and applies to all state and private facilities and activities. Its purpose is to restore and maintain healthy fish populations by achieving compliance with state requirements to provide effective fish passage into and out of fish habitat and to prevent fish loss and injury to fish while diverting or controlling water from lakes, rivers or streams. This policy is important to restore fish populations that are at low levels and to maintain healthy fish populations.

1. Existing laws address fish passage; fish protection at water diversions and flow controls structures; actions that are necessary to construct, operate, or maintain devices that provide fish passage and protect fish; actions that adversely affect those devices; and fishing in those devices.

...

- D. A Hydraulic Project Approval (HPA) is required for construction, operation, or maintenance of a fishway, fish screen, bypass, or other fish guard. The Department will ensure coordination among the appropriate programs and divisions

²¹⁰ POL-M5001.

1 to facilitate a consistent, timely
2 approach to fish passage and
3 protection. Compliance with and
4 onsite possession of the current
5 edition of the Irrigation and Fish
6 pamphlet constitute an HPA for non-
7 equipment maintenance and
8 operation of existing irrigation and
9 stock-watering diversions.

10
11 2. Remedies to illegal obstruction to fish passage can
12 include collaborative plans.

13
14 A. Persons managing, controlling, or
15 owning a dam or other obstruction
16 across or in a river or stream shall
17 remove the dam or obstruction or
18 construct, operate, maintain and
19 repair durable and efficient fishways
20 approved by the Department for the
21 purpose of allowing the free passage
22 of fish around or through the
23 obstruction. The Department must
24 approve plans and specifications for
25 the fishway prior to construction.

26
27 B. Fishways shall be operated,
28 maintained, and continuously
29 supplied with sufficient water to
30 ensure the free passage of fish into
31 and through the device.

32 . . .

33
34 D. If the Director determines that
35 upgrades to a previously approved
36 fishway are necessary to meet a
37 higher state of efficiency for the
38 protection of fish life, the
39 Department may remove, relocate,
40 reconstruct, or modify the device,
41 without cost to the owner. After the

1 Department has completed the
2 upgrades, the fishway shall be
3 operated and maintained at the
4 expense of the owner.
5

6 3. Remedies to illegal water diversions and flow
7 control structures can include collaborative plans.
8

9 A. It is unlawful to divert water to
10 control flow from a lake, river, or
11 stream unless the water diversion or
12 flow control structure is equipped
13 with a fish guard to prevent the entry
14 of fish into the diversion or flow
15 control outlet and, if necessary, with
16 a means of effectively returning fish
17 from immediately in front of the
18 guard to the waters of origin. The
19 Department must approve the plans
20 for the guard prior to construction.
21

22 B. The owner shall operate and
23 maintain the fish guard in effective
24 condition to prevent fish loss and
25 injury as long as water is being
26 diverted.
27

28 . . .
29

30 4. Failure to comply with Sections 2 and 3 above can
31 result in criminal proceedings.
32

33 5. Illegal diversions and obstructions to fish passage
34 are subject to judicial actions to enjoin a public
35 nuisance.
36

37 6. There are exceptions to fish passage and protection
38 laws that will be minimized wherever possible to
39 ensure fish stock recovery and maintenance.
40

41 7. There are guidance documents (attached) to

1 facilitate protection of fish at diversions and flow
2 control structures and fish passage.
3

4 The “Screening Requirements for Water Diversion” dated 6/29/95,
5 the “Decision Guidelines for Fish Passage Barriers at Road
6 Crossings” dated 7/23/96, the “Fishway Design Guidelines for
7 Salmonids” dated 5/22/96, and the “Water Crossing Structures”
8 dated 11/10/94, define the conditions required for acceptable fish
9 protection and fish passage decisions and design. The HPA
10 constitutes design approval. In addition, there is a protocol titled
11 *New Fish Protection Technology Development* that prescribes the
12 process for developing experimental juvenile fish protection
13 concepts.
14

15 In addition to the fish passage statutes, construction or
16 modification of any dam or controlling works for the storage of
17 ten-acre feet or more of water and the storage of water in any
18 reservoir are governed by chapter 90.03 RCW - Water Code,
19 chapter 43.21A RCW- Department of Ecology - Water resources,
20 and chapter 86.16.035 RCW - Control of dams and obstruction.²¹¹
21

22 **E. The State has not ensured that private and public entities**
23 **comply with current state law.**
24

25 Notwithstanding the explicit legal requirements and policy guidance described
26 above, the Department has not been able to provide the necessary free and
27 unobstructed fish passage our salmon resource requires. Though the objectives
28 are laudable, the agency strategy has not been implemented. There are thousands
29 of stream blockages which represent millions of salmon lost each year to our
30 fisheries because of the simple failure of state agencies, local governments, and
31 private citizens to comply with current law. The WDFW is under funded to meet
32 these obligations, they have inadequate incentive-based programs, and they lack

²¹¹ These laws are administered by the Department of Ecology, Water Resources Program.

1 the necessary political will to enforce current law. It is no wonder that we have
2 lost a number of our salmon stocks and we will continue to see listings of salmon
3 under the Endangered Species Act. Summarized below are several issues related
4 to fish passage problems in the State.

5
6 **1. The State underestimates the impact of illegal culverts.**
7

8 The Salmon Recovery Plan states; “Most road-related barriers are the result of
9 improperly placed or maintained culverts.”²¹² The Plan estimates that “10% of the
10 barriers are on state roadways, 40% on county and municipal roads, and the
11 remainder of the barriers are on non-public and forest roads.”²¹³ The Salmon Plan
12 estimates there are a minimum of 2,400 barriers blocking 3,000 miles of
13 freshwater spawning and rearing habitat. In a recent report, the WDFW estimates
14 there is a minimum of 2,400-4,000 human-made barriers blocking 3,000- 4,500
15 miles of freshwater spawning and rearing habitat for salmon.²¹⁴ Regardless of
16 these recent attempts to estimate blockages, the State still appears to
17 underestimate the number of culverts, miles of habitat, and magnitude of impacts
18 caused by road-related culverts throughout the state.

19
20 The WDFW and WDOT conducted an inventory and assessment of WDOT
21 culvert related barriers throughout the state which determined that of the 1,587
22 fish- bearing culvert crossings inspected, 509 were determined to be barriers to

²¹² *Extinction is Not an Option* at 188.

²¹³ Id.

²¹⁴ SSBH 2879 *Fish Passage Barrier Removal Grant Program Report*, WDOT and WDFW, January 1999.

1 fish migration.²¹⁵ This included 192 that were determined to be partial barriers
2 and 317 were total barriers.²¹⁶ However, of the 509 barriers, 268 needed to be
3 corrected. The other 241 barrier culverts were determined to have no fish access,
4 provide no habitat gain, or had insufficient data to require correction, therefore,
5 were not required to be fixed under the fish passage criteria used during the time
6 of the assessment.

7
8 In addition, sub-sampling resurveys to document omissions and errors, WDFW
9 estimated another 95 barriers would require correction if the most current
10 methodology were applied to the entire state complex. Therefore, 363 total
11 barriers on State Department of Transportation highways and roads would need
12 correction (Table 11).

13
14 Of the 363 barriers, the Department conducted habitat survey assessments on 193
15 streams (53%). Sixteen of the streams surveyed did not provide a significant
16 amount of habitat gain to justify barrier resolution.²¹⁷ Of the remaining 177 (49%)
17 surveyed streams totaling approximately 250 miles in length, the Department
18 estimated 407,464 m² of spawning habitat and 1,619,839 m² of potential rearing
19 habitat is currently blocked by WDOT culverts that require resolution.²¹⁸ The lost
20 spawning and potential rearing habitat is enough wetted stream area to produce
21 200,000 adult salmonid annually.²¹⁹

²¹⁵ Id.

²¹⁶ Id. at 23.

²¹⁷ Id. at 2.

²¹⁸ Id. at 2 and 22.

²¹⁹ Id. at 2.

1 “These estimates would all increase when considering the additional 186 barriers
2 (51%) that did not have full habitat assessments.”²²⁰ If these figures are expanded
3 to account for the unsurveyed streams on WDOT highways and roads, the
4 estimated loss of spawning habitat would be 831,559 m² and potential rearing area
5 of 3,305,794 m². This loss of habitat would represent approximately 408,163
6 adult salmon annually for just WDOT road related culvert barriers (Table 11).
7 This estimate does not include benefits to numerous other salmonids affected by
8 these barriers.²²¹

9
10 These estimates relate only to the WDOT road system which represents only
11 7,040 of the over 170,000 miles of public and private roads in the State (Table
12 11). The WDOT, Transportation Data Office, indicates that there are at least
13 80,000 miles of public streets, roads, and highways in Washington (Table 11).
14 This estimate does not include roads under private ownership. The Department of
15 Natural Resources has estimated the total roads (including forest roads and other
16 unpaved roads) in the state through aerial photo interpretation, and determined the
17 figure to be approximately 170,000 miles of public and private roads.²²² Thus, the
18 estimate for private roads in Washington is approximately 89,774 miles (Table
19 11).

20
21 The allocation of impacts by jurisdiction and ownership estimated by the state is
22 similar and in proportion to the number of road miles for each of these entities.
23 The Salmon Recovery Plan estimates that 10% of the culvert-related impacts are

²²⁰ Id.

²²¹ Id.

²²² Draft Statewide Salmon Recovery Strategy Barriers Core Element, November 20, 1998, p. 3 of 16.

1 on state roadways which represent 11% of the total road miles (Table 11). County
2 and municipal roadways were allocated 40% of the impacts which represent 32%
3 of the road miles. The Salmon Plan estimates 50% of the culvert barriers are on
4 non-public and forest roads which represent approximately 57% of the road miles
5 in the state (4% federal and 53% on private forest and agricultural lands, Table
6 11).

7
8 Extrapolating the survey information provided for WDOT roads demonstrates a
9 significantly greater impact to the salmon resource than described by the Salmon
10 Recovery Plan. Extrapolating inventory and assessment survey information²²³ by
11 the number of total road miles for each jurisdiction, we estimate there are
12 approximately 8,800 culvert-related barriers across the state blocking over 6,000
13 miles of habitat which represents almost 10 million adult salmon lost on an annual
14 basis (Table 11).²²⁴ We estimate there are almost 8,800 blockages in the State, not
15 2,400. We estimate over 6,000 miles of streams blocked by culverts on state,
16 local, federal, and private roads, not 3,000. Using data provided by the State, we
17 estimate almost 10 million adult salmon, not 200,000, are lost annually due to
18 impacts caused by road culvert blockages on public and private roads (Table 11).

19
20 We recognize the potential errors that may result from simply extrapolating from
21 data collected for the state highway system. However, this is the only
22 comprehensive data available for analysis. We also recognize the scope of the

²²³ Johnson, G. et al. *“Fish Passage Program Department of Transportation Inventory Final Report”* WDFW Lands and Restoration Program, Salmon Screening, Habitat Enhancement and Restoration (SSHEAR) Division, June 1997.

²²⁴ These estimates are not static but variable. Better estimates will be available as further survey and inventory studies are completed for county, private, and other roads.

1 impacts caused by culvert related barriers is significant. Restoration of these
2 streams will contribute significantly in the overall salmon recovery effort.

3
4 For example, in 1995, the overall statewide harvest of salmon in Washington was
5 5,077,000.²²⁵ In addition, there were 145,304 steelhead caught in recreational
6 (98,038) and tribal commercial (47,266) fisheries in Washington.²²⁶ If we assume
7 a 50% harvest rate for all stocks, statewide restoration of streams blocked by
8 illegal culverts could contribute another **5 million salmon and steelhead to**
9 **Washington's sport and commercial fisheries, almost a 100% increase over**
10 **current harvest levels.**

²²⁵ *1995 Fisheries Statistical Report*, Department of Fish and Wildlife, State of Washington.

²²⁶ Personal communication with Keith Lutz, NWIFC biologist.

A CRITIQUE OF THE STATE HYDRAULIC CODE, RCW 75.20

| | Miles | Subtotal | Percent of Total Road Miles | Blockages | Miles Blocked | Lost Spawning Area (sq. m) | Lost Potential Rearing Area (sq. m) | Adult Salmon |
|---------------------------------|--|----------|-----------------------------------|-----------|------------------|----------------------------------|---|-----------------|
| Local | | 54,129 | 32% | 2,791 | 1,922 | 6,425,043 | 25,542,209 | 3,153,669 |
| County Roads | 41,094 | | | | | | | |
| City Streets | 12,910 | | | | | | | |
| Port Districts | 2 | | | | | | | |
| College and Universities | 123 | | | | | | | |
| State | | 19,318 | 11% | 996 | 686 | 2,292,850 | 9,115,027 | 1,125,422 |
| Transportation | 7,040 | | | (363) | (250) | (835,647) | (3,322,043) | (410,169) |
| Fish and Wildlife | 1,929 | | | | | | | |
| Parks and Recreation Commission | 655 | | | | | | | |
| Social and Health Services | 35 | | | | | | | |
| Natural Resources | 9,500 | | | | | | | |
| Corrections | 159 | | | | | | | |
| Federal | | 6,779 | 4% | 350 | 241 | 805,720 | 3,203,072 | 395,480 |
| USDA Forest Service | 5,453 | | | | | | | |
| USDI National Park Service | 270 | | | | | | | |
| Department of Energy | 154 | | | | | | | |
| Bureau of Indian Affairs | 902 | | | | | | | |
| Private | Forest, Agriculture, other non-public | 89,774 | 53% | 4,629 | 3,188 | 10,656,226 | 42,362,912 | 5,230,502 |
| TOTAL | | 170,000 | 100% | 8,766 | 6,037 | 20,179,839 | 80,223,220 | 9,905,073 |

Table 11. Inventory of roads within Washington State, categorized by jurisdiction/ownership and total mileage with estimates of lost salmon habitat and production.

2. Fish barrier repairs will not be implemented in a timely manner.

Not only does the State underestimate the impacts caused to the salmon resource by passage barriers, it also fails to accurately estimate the rate of recovery and restoration of salmon habitat. In the “Fish Passage Program Report” mentioned above, the Department stated that it resolved 17 barrier culverts since 1991 using WDOT/WDFW dedicated funding, and resolved another 23 through mobility projects.²²⁷ Therefore, the rate of barrier resolution from 1991-1997 was 5.71 barriers/year. The report indicates that “barrier resolution is expected to take a minimum of twenty years to complete with planning, design, construction, and project monitoring crossing biennium lines.”²²⁸ However, a minimum of twenty years is an extremely conservative estimate. If repairs continue at the current rate (5.71 culverts/year), WDOT/WDFW will resolve all currently known barriers (363) on state WDOT roads in approximately **64 years**.

The Governor has estimated there are more than 2,400 to 4,000 culvert related barriers on public roads. Assuming there are 2,400 culvert related problems, if the state continues to repair culverts the current rate of 5.71 barriers/year, it will take approximately **420 years to correct all known illegal barriers**. If there are 4,000

²²⁷ “Fish Passage Report” supra at 49. WDOT plans to address all fish barriers on state-owned highways located in the inventory with their 20-Year Plan. The 20-Year Plan is a three-pronged approach. It first designates highest priority fish passage barriers and systematically removes these barriers. Second, as projects requiring HPA are constructed, additional barriers are removed. Third, some fish barriers are removed as part of WDOT’s routine maintenance activities. However, 20 years appears unrealistic if not impossible in light of funding levels provided and the number of projects that must be addressed.

²²⁸ Id.

1 culverts, it will take approximately **700 years**. However, by our estimates, there
2 could be almost 8,800 barriers in the state which includes all state, county, federal
3 and private roads. **At the current rate of 5.71 barrier corrections per year, it**
4 **will take over 1,535 years to address all existing culvert related problems in**
5 **the state!** These estimates do not include barrier restoration efforts on other state,
6 private²²⁹, federal, or county²³⁰ roads which may increase the rate of barrier
7 repairs.

8
9 These estimates also do not include the time necessary to inventory barriers.
10 Besides the WDOT inventory, the WDFW has completed one inventory for
11 Thurston County and has partially completed inventories for Kitsap and Jefferson
12 counties. “With 39 counties in the state, it will take approximately **75 years to**
13 complete inventory work utilizing WDFW staff alone” (emphasis added).²³¹

14
15 Since this analysis was first drafted, the State released a second status report
16 entitled “SSHB 2879 *Fish Passage Barrier Removal Grant Program Report*”,
17 WDOT and WDFW, January 1999. According to this report, in 1998, the Barrier

²²⁹ Private forest landowners have recently committed to implementing road maintenance and abandonment plans in the next 15 years. These plans will address fish passage, culvert replacement on all private forest lands. *Forest and Fish Report*, February 22, 1999 draft, pp. 40.

²³⁰ Kitsap, Skagit, Snohomish, King, Pierce and Thurston counties and the cities of Olympia and Tumwater have been active in barrier correction efforts. WDNR has cumulatively replaced over 200 large culverts in 1997 and 1998. However, no formal DNR program currently exists for fish barrier assessments or repairs. In addition, there are other funding mechanisms that are used to address culvert barriers. However, there appears to be no systematic or programmatic results of these grant mechanisms that can be evaluated for their benefits.

²³¹ SSHB 2879 *Fish Passage Barrier Removal Grant Program Report*, supra, at 2.

1 Removal Program provided grants for 15 construction projects that opened up
2 290,000 linear meters (180 miles) of habitat. The departments believe that 11
3 projects will be completed in 1999.²³² In addition, the departments funded another
4 9 design and construction projects for 1999. It is expected there will be 35 new
5 barriers removed from 1998-1999. Based on this report, the current rate of barrier
6 removals from 1991-1999 has increased to 8.3 per year. For the past two years the
7 rate of removal is 17.5 per year and may reach a peak of 20 barrier removals per
8 year in 1999. At these rates, ranging from 8.3 to 20 barrier removals per year,
9 WDOT culvert barriers could be addressed in 14 to 34 years if all the projects
10 focused on barriers on state highways and roads. However, a number of these
11 projects are for roads other than state highways. If we use these rates (8.3-20
12 culvert barriers removed per year) for all roads statewide, we can expect all
13 estimated barriers (8,766) to be corrected in **438 to 1,056 years**. Even if we use
14 the state's estimate of 4,000 barriers statewide, we still expect it will take from
15 200 to 481 years to address all culvert barriers. Regardless of the current rates of
16 passage restoration or the estimated number of barriers, the question still exists
17 whether a voluntary incentive based program can adequately address culvert
18 blockage problems throughout the State.

19
20 **3. The state's repair strategy is woefully inadequate to**
21 **recover the salmon resource in a timely manner.**
22

23 The State's Salmon Recovery strategy states that their commitment to fish
24 passage:

25
26 will be demonstrated by having reasonable but discrete timelines,
27 funding mechanisms, accountability for implementation,

²³² Id. at 6.

1 compliance and enforcement measures; a comprehensive
2 monitoring program; and explicit default measures whose
3 implementation is certain should reasonable time frames or
4 expectations not be met.²³³
5

6 A period of hundreds if not thousands of years to address salmon migration
7 barriers caused by illegal culverts is not reasonable or discrete. State and local
8 governments are not providing the necessary funding to adequately restore and
9 maintain culvert passage.
10

11 The salmon resource cannot afford to wait hundreds of years. Some salmon
12 stocks may have only years or decades before they are driven to extinction. Based
13 on their current population status and trend, the Lower Skagit Fall Chinook may
14 have only 8-16 years of sustainability. The Lower Sauk Spring Chinook may have
15 only 8-15 years (Table 12 and Figures 8-9).
16

17 These estimates are based on simple trend and run reconstruction analysis. We
18 did not conduct extensive population dynamics or risk analysis on this data.
19 However, it is clear we do not have hundreds or thousands of years to restore
20 these stocks. The current State strategy will be ineffective in addressing the
21 impacts caused by illegal barriers in a timely manner.
22

23 The current joint effort between the WDFW and WDOT is valuable and
24 important. However, the question is whether a voluntary incentive based program
25 funded at current levels by the legislature is adequate?
26

²³³ Draft Statewide Strategy to Recovery Salmon - Volume 2, *Fish Passage Barriers: Providing Access to Habitat*, III. B. 7. 191.

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4. The Department has failed to adequately enforce fish passage laws.

RCW 75.20 060 states that any obstruction (e.g., culvert) across or in a stream shall be maintained in an effective condition. In addition, RCW 77.16.210, any requires that person or government agencies managing, controlling, or owning a dam or other obstruction across a river or stream shall construct, maintain, and repair fishways and fish protective devices that allow free passage of game fish around the obstruction. If a person fails to remove the obstruction in a manner satisfactory to the director, then within thirty days after written notice to comply, the director may remove the obstruction (RCW 75.20.060). Under RCW 77.12.425, the director may also authorize the removal, relocation, reconstruction, or other modification on an inadequate fishway or fish protective devices without cost to the owner for materials and labor.

The Department has records of thousands of illegal culverts and other barriers that are not properly maintained to ensure fish passage. However, the Department has taken action only 11 times since 1985 to enforce these laws. In 1985, the Department filed a civil action requiring Kitsap County to properly maintain a county owned culvert. This is the only civil action the Department has pursued to enforce state laws against a party failing to maintain fish passage through culverts. Since 1990, the Department has issued on average 433 culvert related HPAs per year. It has provided notice only 10 times to public or private parties for of failure to maintain fish passage (Table 13). Final disposition of these notices is unknown.

The Fish and Wildlife Commission has directed the Department to take

1 “[r]egulatory action when authority to implement standards and requirements
2 exists and voluntary actions are either not being taken or are insufficient to
3 achieve compliance consistent with the Wild Salmon Policy.”
4

5 Per the direction of the Fish and Wildlife Commission, the WDFW should be
6 taking aggressive regulatory and enforcement action to ensure free and
7 unobstructed fish passage. The Governor’s policy on this issue is also simple,
8 “eliminate fish passage barriers to spawning and rearing habitat.” However, the
9 Department’s enforcement effort appears essentially non-existent as a means to
10 achieve the Governor’s policy in a timely and meaningful manner.
11

12 The State’s proposed default action is to enforce current state law if funding is
13 inadequate to solve the problem. Replacement of culvert blockages will be very
14 costly. For example, the State estimates an average culvert replacement will cost
15 approximately \$100,000. The cost of resolving the 2,400 barriers reported by the
16 State is \$240 million (assuming 1998 dollars). If there are 4,000 barriers it will
17 cost \$400 million and if there are the estimated 8,700 culvert barriers on all public
18 and private roads throughout the State, the cost will be closer to \$870 million.
19 Currently, the WDFW Fish Passage Program budget is \$4 million per biennium
20 (\$2 million per year).²³⁴ Clearly, the State is not committing sufficient funding to
21 resolve the culvert problem. Therefore, what are the default actions the State will
22 implement?
23

24 In addition finally enforcing current law, the Department should prevent
25 permitting of future barriers until existing blockages are adequately addressed. In
26 other words, the Department should deny all culvert and road related hydraulic

²³⁴ *SSHB 2879 Fish Passage Barrier Removal Grant Program Report, supra, at 2.*

1 permits in areas where substantial blockages already exist. Culvert and road
2 related HPAs represent approximately 6.6% of the total permits issued (Table 13).
3 In addition, the State should withhold any state or federal road construction
4 funding until the appropriate entities have addressed all stream blockages within
5 their jurisdiction or ownership.

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| STOCK | Short-Term Trend (Percent) | Long-Term Trend (Percent) | Years |
|-----------------------------|---|--|--------------|
| Lower Skagit Fall Chinook | -11.7 | -5.9 | 8.5-16.9 |
| Upper Skagit Summer Chinook | -1.3 | -1.4 | 71.4-76.9 |
| Lower Sauk Spring Chinook | -11.5 | -6.9 | 8.7-14.5 |
| Suiattle Spring Chinook | -7.4 | 1.8 | 13.5-? |
| 7/7A Chinook | | | 17 |

Table 12. Estimates of survival time for various chinook stocks based on trend analysis.

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| YEAR | TOTAL HPAs | Culvert:Road HPAs | Percent Culvert HPAs | Notice of Barrier Violation | Disposition |
|-------------|-----------------------|------------------------------|---------------------------------|--|--------------------|
| 1990 | 6132 | 485 | 7.9 | 0 | |
| 1991 | 6913 | 443 | 6.4 | 0 | |
| 1992 | 6412 | 440 | 6.9 | 3 | Unknown |
| 1993 | 6437 | 448 | 7.0 | 0 | |
| 1994 | 5970 | 430 | 7.2 | 4 | Unknown |
| 1995 | 6247 | 435 | 7.0 | 0 | |
| 1996 | 8043 | 407 | 5.1 | 2 | Unknown |
| 1997 | 7290 | 374 | 5.1 | 1 | Unknown |
| Total | 53,444 | 3,462 | | 10 | |
| Average | 6,681 | 433 | 6.6 | 1.3 | |

Table 13. List of total HPAs and culvert related HPAs in relation to number of fish barrier violation notices from 1990-1997.

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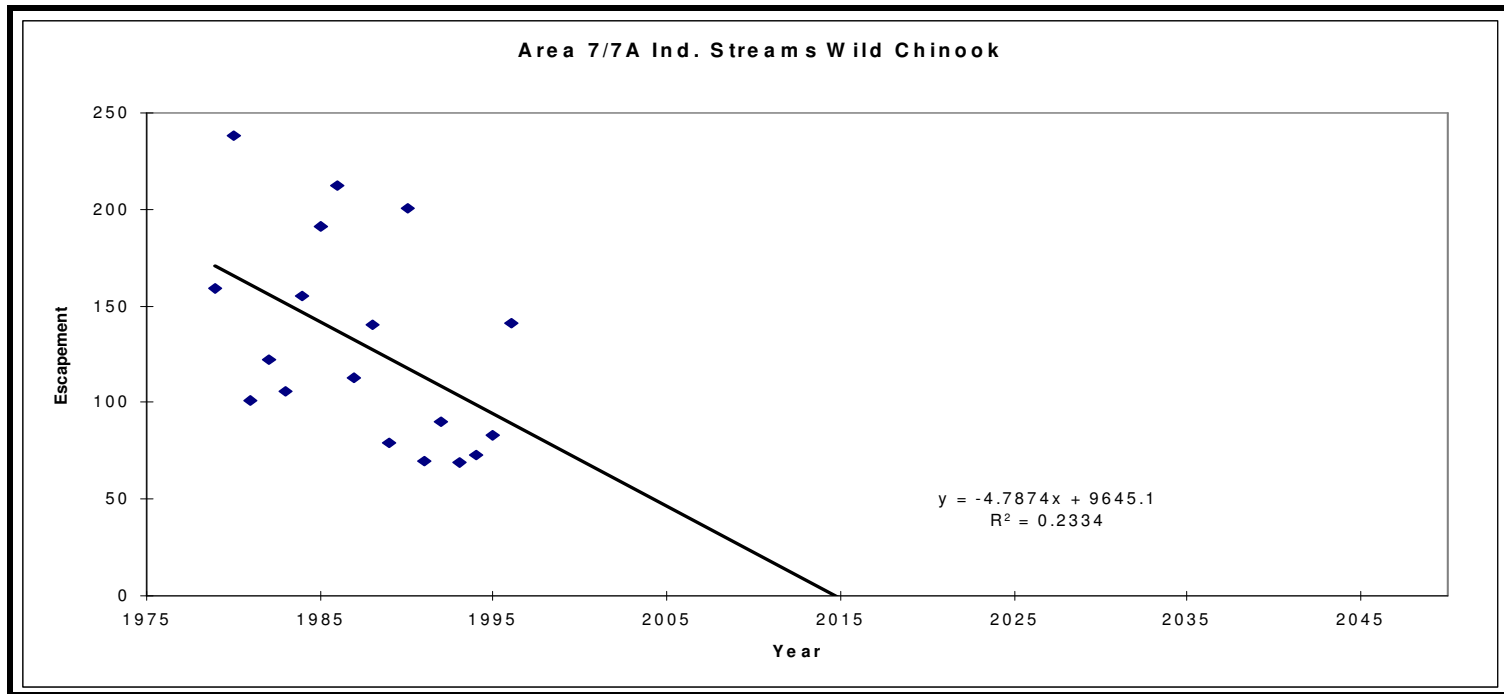


Figure 8. Area 7/7A Wild chinook escapement trends.

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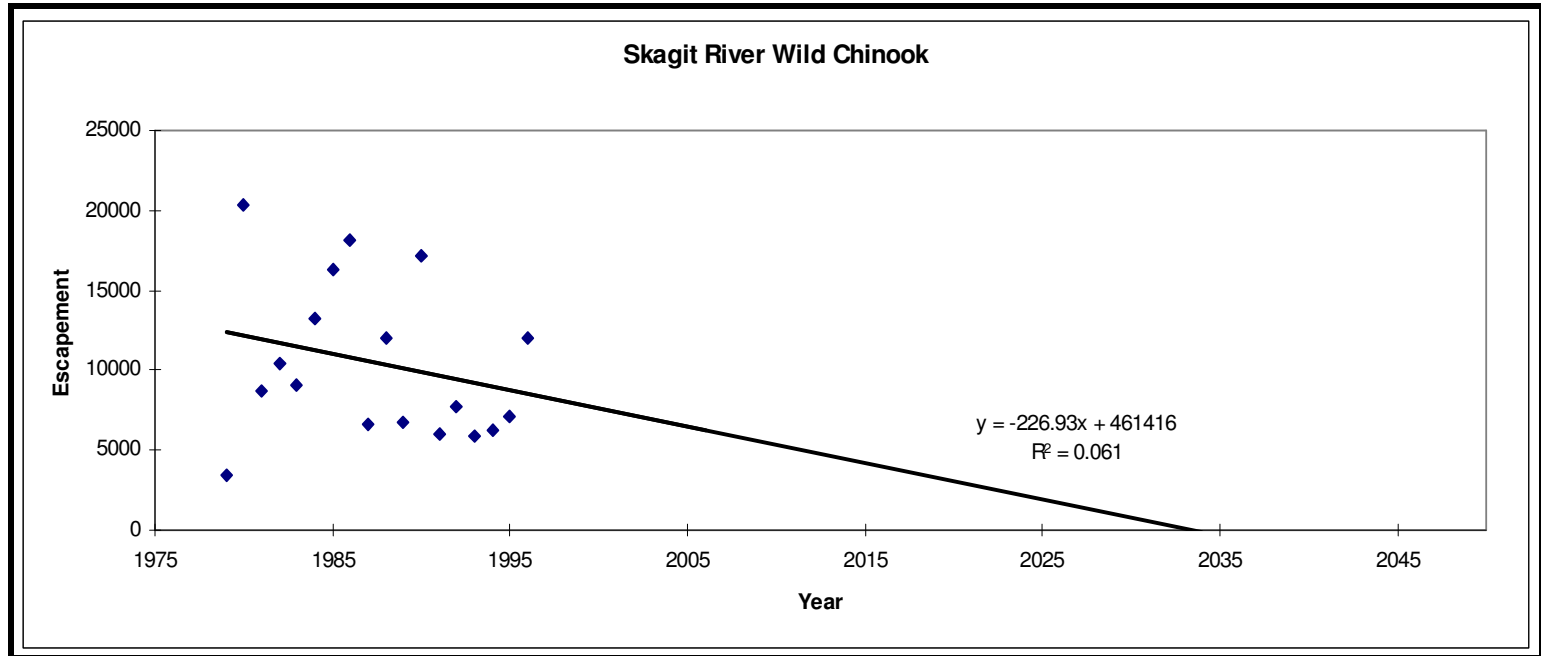


Figure 9. Skagit River wild chinook escapement trends.

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5

VII. LEGAL ISSUES ASSOCIATED WITH FISH PASSAGE.

A. Summary of the Department’s statutory authority to maintain fish passage.

Since 1881, the State has recognized the need to preserve fish access to habitat. The legislature has passed numerous laws to prohibit the construction of human-made barriers. Over the years, fish passage laws have been amended a number of times to broaden the scope and provide additional protection for fish life. RCW 75.20.060 states that any dam or other obstruction (e.g. culvert) across or in a stream:

shall be provided with a durable and efficient fishway approved by the director. . . . The fishway shall be maintained in an effective condition and continuously supplied with sufficient water to freely pass fish. It is unlawful for the owner, manager, agent, or person in charge of the dam or obstruction to fail to comply with this section

. . . .

If a person fails to construct and maintain a fishway or to remove the dam or obstruction in a manner satisfactory to the director, then within thirty days after written notice to comply has been served upon the owner, his agent, or the person in charge, the director may construct a fishway or remove the dam or obstruction.

Expenses incurred by the department constitute the value of a lien upon the dam and upon the personal property of the person owning the dam. Notice of the lien shall be filed and recorded in the office of the county auditor of the county in which the dam or obstruction is situated. The lien may be foreclosed in an action brought in the name of the state.

If, within thirty days after notice to construct a fishway or remove a dam or obstruction, the owner, his agent, or the person in charge fails to do so, the dam or obstruction is a public nuisance and the

1 The director may authorize removal, relocation, reconstruction, or
2 other modification of an inadequate fishway or fish protective
3 device required by RCW 77.16.210 and 77.16.220 which device
4 was in existence on September 1, 1963, without cost to the owner
5 for materials and labor. The modification may not materially alter
6 the amount of water flowing through the fishway or fish protective
7 device. Following modification, the fishway or fish protective
8 device shall be maintained at the expense of the person or
9 governmental agency owning the obstruction or water diversion
10 device.²³⁸
11

12 However, it does not appear the department has proposed any regulations to
13 implement these statutes even though the Fish and Wildlife Commission has
14 directed the Department to take “[r]egulatory action when authority to implement
15 standards and requirements exists and voluntary actions are either not being taken
16 or are insufficient to achieve compliance consistent with the Wild Salmon
17 Policy.”²³⁹
18

19 The director may have standing to bring a civil action to enjoin a public nuisance
20 and ask a court to order a diversion device to be closed until the owner equips it
21 with an approved fish guard.²⁴⁰ The director may also have a civil cause of action
22 for injuries and damages to natural resources caused by an owner's failure to
23 comply with statutes requiring fish guards.²⁴¹

²³⁸ RCW 77.12.425 [1980 c 78 § 90; 1963 c 152 § 1. Formerly RCW 77.16.221.]
 See notes following RCW 77.04.010. Director of fish and wildlife may modify
 inadequate fishways and fish guards: RCW 75.20.061.

²³⁹ Policy of Washington Department of Fish and Wildlife and western Washington
 Treaty Tribes Concerning Wild Salmonids, December 5, 1997, hereinafter “WSP”

²⁴⁰ See Kitsap County v. Kev, Inc., 106 Wn.2d 135, 720 P.2d 818 (1986); State v.
 Gedarro, 19 Wn. App. 826, 579 P.2d 949 (1978).

²⁴¹ See Department of Fisheries v. Gillette, 27 Wn. App. 815, 621 P.2d 764 (1980).

1 Criminal enforcement action may also be brought by the Department against the
2 owner of a diversion device who fails to comply with the fish guard requirements
3 of RCW 75.20.060.²⁴²
4

5 Summarized below are a series of legal questions and analysis on issues related to
6 the Department's authority to ensure unobstructed fish passage.
7

8 **1. Must state, local governments, and private entities**
9 **maintain their culverts to ensure fish migration?**
10

11 Yes. Under RCW 75.20.060, any dam or other obstruction (e.g. culvert) across
12 or in a stream:

13
14 shall be provided with a durable and efficient fishway approved by
15 the director. . . . The fishway shall be maintained in an effective
16 condition and continuously supplied with sufficient water to freely
17 pass fish. It is unlawful for the owner, manager, agent, or person in
18 charge of the dam or obstruction to fail to comply with this section
19 (emphasis added).
20

21 Under the Wildlife Code, Chapter 77, all “persons or government agencies
22 managing, controlling, or owning a dam or other obstruction across a river or
23 stream shall construct, maintain, and repair durable fishways and fish protective
24 devices that allow the free passage of game fish around the obstruction. The
25 fishways and fish protective devices shall be provided with sufficient water to
26 insure the free passage of fish.”²⁴³
27

²⁴² See RCW 75.10.200(1)(b).

²⁴³ RCW 77.16.210.

1 **2. Does RCW 75.20.060 authorize the director to take**
2 **possession of an impassable culvert (e.g. obstruction) if**
3 **the owner of the culvert fails to repair the obstruction**
4 **within 30 days after the director gives notice to do so?**
5

6 Yes. RCW 75.20.060 specifically states:

7
8 If, within thirty days after notice to construct a fishway or remove a
9 dam or obstruction, the owner, his agent, or the person in charge
10 fails to do so, the dam or obstruction is a public nuisance and the
11 director may take possession of the dam or obstruction and destroy
12 it. No liability shall attach for the destruction (emphasis added).
13

14 In addition, under RCW 75.20.061, the director may remove or modify the
15 impassable barrier without cost to the owner. RCW 75.20.061 specifically states:

16
17 If the director determines that a fishway in existence on September
18 1, 1963, is inadequate, the director may remove, relocate,
19 reconstruct, or modify the device, without cost to the owner. After
20 the Department has completed the improvements, the fishways
21 shall be operated and maintained at the expense of the owner in
22 accordance with RCW 75.20.060.
23

24 However, to the best of our knowledge, WDFW has negligibly exercised its
25 authority under these statutes. It appears the Department has notified only 11
26 entities in the past 15 years that they are not in compliance with fish passage laws
27 and it has only sought removal of one illegal culvert. Only recently the
28 Department has developed a programmatic approach to fixing blocking culverts
29 on state highways with the Department of Transportation. State highways
30 represent only 4% of all the public and private roads in Washington State. There
31 do not appear to be similar comprehensive efforts addressing fish blockages on
32 other 94% of the state, federal, or private roads.

3. Are culverts put in place prior to the effective date of RCW 75.20.060 subject to its requirements?

For the reasons explained below, we believe that the answer to this question is yes. Culverts existing as of 1949, the effective date of RCW 75.20.060, must be maintained for fish migration.

Absent legislative intent to the contrary, a law is presumed to apply prospectively only.²⁴⁴ However, a statute is not deemed to have a retrospective effect merely because it draws upon preexisting facts or conditions for its operation, without changing their legal effect.²⁴⁵ An example may be helpful in understanding this principle. In Zahradnik v. Department of Licensing, a licensed wrecking yard operator argued that to require him to place "yard identification numbers" on parts of vehicles that he acquired before the effective date of the act requiring their identification would amount to retrospective application of the law. The court of appeals rejected this argument explaining:

To apply RCW 46.80.080's record-keeping requirements to parts in Zahradnik's possession on September 21, 1977 would merely draw upon facts antedating the effective date of the statute; there would be no retrospective application of the statute.²⁴⁶

The same is probably true in the case where the state requires the owner of a culvert constructed prior to 1949 to maintain it as passable for fish migration.

²⁴⁴ Baker v. Baker, 80 Wn.2d 736, 498 P.2d 315 (1972).

²⁴⁵ State v. Malone, 9 Wn. App. 122, 131, 511 P.2d 67 (1973).

²⁴⁶ Zahradnik v. Department of Licensing, 31 Wn. App. 771, 775-76, 644 P.2d 742 (1982).

1 Applying RCW 75.20.060 to a culvert existing as of 1949 would merely draw on
2 facts antedating the statute, without changing their legal effect. It would not
3 amount to a retroactive application of the law. Moreover, nothing in RCW
4 75.20.060 expresses an intention on the part of the Legislature to exempt existing
5 culverts from the fish statute's passage requirements. Where the Legislature has
6 intended such an exemption, it has made it express.²⁴⁷

7
8 In addition, RCW 75.20.061, states that, "[i]f the director determines that a
9 fishway in existence on September 1, 1963, is inadequate, the director may
10 remove, relocate, reconstruct, or modify the device, without cost to the owner.
11 After the Department has completed the improvements, the fishways shall be
12 operated and maintained at the expense of the owner in accordance with RCW
13 75.20.060."²⁴⁸

14
15 **4. May the director revise standards that must be met**
16 **before a culvert or a culvert upgrade receives approval**
17 **under RCW 75.20.060?**
18

19 Yes. Implicit in the requirement of RCW 75.20.060 that a culvert be approved by
20 the director is application of standards appropriate to ensure that the culvert will
21 function over time to ensure the fish passage.²⁴⁹ Under WAC 220-110-010 the

²⁴⁷ See RCW 77.16.220 (relating to fish guards and screens for the protection of "game fish" and exempting from its application persons lawfully diverting water from a lake, river, or stream at the time of its enactment).

²⁴⁸ RCW 75.20.061. [1983 1st ex.s. c46 73; 1963 c 153 1.] NOTES: Director of fish and wildlife may modify, etc., inadequate fishways and protective devices: RCW 77.12.425.

²⁴⁹ RCW 75.20.060.

1 Department has stated that it will use:

2
3 the best available science and practices related to protection of fish
4 life. The department will incorporate new information as it
5 becomes available, and to allow for alternative practices that
6 provide equal or greater protection for fish life (emphasis added).
7

8 There should be no reason to conclude that the department is locked into
9 outmoded or inadequate. The Department must be able to revise standards as
10 necessary to ensure fish passage.
11

12 **5. May the director require owners of functioning culverts**
13 **to meet revised standards?**
14

15 Probably not. Under current statutes, the owner of a culvert or diversion device
16 must maintain it in its original state of efficiency, but probably would not be
17 required to upgrade it to meet revised standards. Under RCW 75.20.060, the
18 statute requires that a fishway be "provided." Once fish guards are provided or
19 upgraded, RCW 75.20.061 states they are to be maintained by their owners. The
20 legislature has not provided the Department with authority to require upgrading of
21 existing but functioning culverts. The state Supreme Court addressed this issue in
22 Department of Fisheries v. Chelan County PUD 1.²⁵⁰
23

24 In Chelan County PUD 1, the Department sought to require the PUD to upgrade a
25 fishway at a dam that the PUD owned.²⁵¹ Although the PUD's fishway initially

²⁵⁰ Department of Fisheries v. Chelan County PUD 1, 91 Wn.2d 378, 588 P.2d 1146 (1979).

²⁵¹ A fishway is a device that allows fish to pass freely where a dam or other obstruction blocks a stream. RCW 75.20.060. Although fishways thus differ from fish guards, statutes requiring and governing them overlap in some respects

1 was adequate to efficiently allow for the passage of fish at the dam, gradual
2 increases in fish runs rendered it inefficient and ineffective. In seeking to require
3 the PUD to upgrade the fishway, the Department relied on RCW 75.20.060. This
4 statute requires dams and other obstructions to be "provided with a durable and
5 efficient fishway approved by the director" and requires the fishway to "be
6 maintained in an effective condition . . . to freely pass fish."

7
8 In construing RCW 75.20.060, the supreme court considered a related statute,
9 RCW 75.20.061. Under this latter statute, in addition to authority granted
10 elsewhere in chapter 75.20 RCW, the director is authorized to reconstruct or
11 modify a fish guard or fishway in existence as of September 1, 1963 (the effective
12 date of RCW 75.20.061), at no cost to the owner. From these statutes, the
13 supreme court concluded that the PUD could not be required to upgrade the
14 fishway. The court held that the PUD's sole responsibility was to maintain the
15 fishway. The court defined the maintenance duty only as preserving the fishway in
16 its original state of efficiency.²⁵²

17
18 Construction of a culvert is analogous to a fishway. The Department can only
19 require the owner of a culvert to maintain it according to the standards under
20 which it was originally constructed. If the Department believes a culvert needs to
21 meet new standards, the director is authorized to reconstruct or modify that

and otherwise share similar characteristics. See RCW 75.20.040-.061.

²⁵² Chelan County PUD 1, 91 Wn.2d at 384. Although the fishway at issue in Chelan County PUD 1 originally had been built prior to September 1, 1963, the effective date of RCW 75.20.061, the court did not base its decision on this fact. Instead, the court used RCW 75.20.061 to support its broader conclusion that RCW 75.20.060 only imposes a duty to maintain a fishway in its original state of efficiency.

1 fishway, at no cost to the owner (RCW 75.20.061). In contrast, if a culvert has
2 exceeded its “useful-life” and needs replacement, the Director should be able to
3 require that the reconstruction meet current standards.

4
5 The factual issues in Chelan County PUD 1 are quite different than those
6 associated with culvert problems throughout the state. In Chelan County PUD 1,
7 the fishway was initially adequate for fish passage at the dam. Gradual increases
8 in fish runs rendered it inefficient and ineffective. Lack of maintenance did not
9 create the fish passage problem. An increase in the resource created the problem.
10 In contrast, the primary problem associated with culverts acting as fish blockages
11 is maintenance, not increases in fish populations.

12
13 **6. The Washington Department of Fish and Wildlife has a**
14 **common law cause of action for damage to fisheries**
15 **resources.**
16

17 In Department of Fisheries v. Gillette,²⁵³ the court held that the Washington
18 Department of Fisheries had a right of action for damages based upon violation by
19 landowners of a statute²⁵⁴ designed to protect the state’s fishery.

20
21 In Gillette, the Department of Fisheries brought an action in negligence for
22 damages for the loss to the salmon fishery²⁵⁵ against a landowner who
23 reconstructed the bank of a stream bordering their property. Seasonal flooding of

²⁵³ Department of Fisheries v. Gillette, 621 P.2d 764, 767 (WA Ct.App. 1980).

²⁵⁴ RCW 75.20.

²⁵⁵ The Department of Fisheries dropped a connected claim for destruction of salmon spawning habitat because the creek rehabilitated itself.

1 the stream left unwanted deposits of soil and gravel in the defendant's pasture.²⁵⁶

2 To minimize flooding, the defendant used a caterpillar tractor to create a dike as
3 much as 20 feet above the stream. The stream was used for salmon spawning.²⁵⁷

4
5 The court determined the Department of Fisheries had standing to bring this suit.

6 This was based on the following findings. First, the legislature specifically
7 charged the Department with the duty:

8
9 to preserve, protect, perpetuate and manage the food fish and
10 shellfish in the waters of the state . . . [T]he department shall seek
11 to maintain the economic well-being and stability of the
12 commercial fishing industry in the state of Washington.²⁵⁸

13
14 Second, the state's "proprietary interest in animals *ferae naturae* dates at least
15 from the common law of England.²⁵⁹ Food fish of the state are the sole property
16 of the people and the state,²⁶⁰ acting for the people, is dealing with its own
17 property, over which its control is as absolute as that of any other owner over his
18 property.²⁶¹ The state "holds its title as trustee for the common good." The state
19 has a fiduciary obligation of any trustee to seek damages for injury to the object of

²⁵⁶ Id. at 765.

²⁵⁷ Id.

²⁵⁸ Id. at 766 citing RCW 75.08.012.

²⁵⁹ Id. citing 2 W. Blackstone, Commentaries 403(1803)

²⁶⁰ Notwithstanding the treaty-reserved property interest of the Tribes to the fish and wildlife resources.

²⁶¹ Id. at 767 citing State ex rel. Bacich v. Huse, 187 Wash. 75, 79, 59 P.2d 1101 (1936).

1 its trust.”²⁶² “Violation of a statute is negligence per se and an individual in the
2 class protected by the statute has a cause of action for damages proximately
3 caused by the violation.”²⁶³

4
5 **B. What can the Public do?**

6
7 If the WDFW is not adequately exercising its authority under current law to hold
8 individuals and government agencies accountable for maintaining passable
9 culverts, what can the public do? The following discussion will explore several
10 legal alternatives members of the public may utilize to ensure impassable culverts
11 are repaired and hold those who fail to maintain their culverts accountable.

12
13 **1. Mandamus Action**

14
15 A writ of mandamus is a common law action that asks the court to compel an
16 officer of the State to perform their duty. Under federal law²⁶⁴, “the district courts
17 shall have original jurisdiction of any action in the nature of mandamus to compel
18 an officer or employee of the United States or any agency thereof to perform a
19 duty owed to the plaintiff.” (emphasis added). Under Washington State law,
20 Washington Administrative law provides a *mandamus* procedure.

21 **a. Must the Director of the Department of Fish and**
22 **Wildlife take “civil” enforcement action when**
23 **the Director is aware a culvert is blocking fish**
24 **migration?**

²⁶² Id.

²⁶³ Id. citing Currie v. Union Oil Co., 49 Wash.2d 898, 901, 307 P.2d 1056 (1957);
Engleker v. Seattle Elec. Co., 50 Wash. 196, 96 P. 1039 (1908). Notation added.

²⁶⁴ 28 U.S.C. § 1361.

1
2 Probably not. Though there still is a possibility the courts may require the
3 Department to exercise its civil authority, there is a greater likelihood the courts
4 may require the Department to utilize its criminal enforcement authority.

5
6 The Department of Fish and Wildlife is choosing NOT to exercise either its civil
7 or its criminal authority to ensure fish can migrate to their spawning or rearing
8 grounds. When spawning and rearing habitat are limiting to the recovery of
9 salmon, and migratory access is impaired or prohibited, the Department's failure
10 to take appropriate action appears to be arbitrary, capricious, an abuse of
11 discretion, and an error of law.²⁶⁵

12
13 Failing to take appropriate action authorized to the Department may subject the
14 State to a *mandamus* action. The Washington Administrative Procedure Act,
15 RCW Chapter 34.05, which since 1989 "establishes the exclusive means of
16 review of agency action,"²⁶⁶ provides for what is elsewhere called a "mandamus"
17 ("we order") action, a lawsuit to compel an agency to do its job. "A person whose
18 rights are violated by an agency's failure to perform a duty that is required by law
19 to be performed may file a petition for review pursuant to RCW 34.05.514,
20 seeking an order pursuant to this subsection requiring performance. . . ."²⁶⁷ A
21 reviewing court "may . . . order an agency to take action required by law, [or]
22 order an agency to exercise discretion required by law."²⁶⁸

²⁶⁵ See the discussion of the permitting process and its critique, *infra*.

²⁶⁶ RCW 34.05.510.

²⁶⁷ RCW 34.05.570 (4) (b).

²⁶⁸ RCW 34.05.574 (b).

1 Under the former mandamus statute, a “writ of mandate . . . may be issued by any
2 court, except a district or municipal court, to any inferior tribunal . . . board or
3 person, to compel the performance of an act which the law especially enjoins as a
4 duty resulting from an office, trust or station. . . .”²⁶⁹ The writ is aimed at non-
5 discretionary actions, but the courts will order an agency to exercise its discretion
6 in the face of an arbitrary and capricious failure to do so.

7
8 The conditions for a writ may be present here. First, at a minimum, commercial
9 fishers rights are injured by the agency’s failure to protect the spawning and
10 rearing habitat of the salmon; there seems to be sufficient evidence to show that
11 fish production will be reduced by the State’s failure to enforce the law against
12 landowners who fail to maintain passable culverts. This interferes with the rights
13 of fishermen, tribal and non-tribal, to maintain their cultural or commercial rights
14 to fish.

15
16 Second, protecting the fish resource, its habitat, and access to that habitat is “a
17 duty that is required by law.” This can be inferred from analysis of RCW
18 75.08.012, which imposes a duty on the Department to protect the resource and its
19 corresponding uses. Under this provision WDFW has a duty to:

20
21 preserve, protect, perpetuate and manage the food fish and shellfish
22 in state waters and offshore waters

23 . . .

24
25 In a manner consistent with this goal, the department shall seek to
26 maintain the economic well-being and stability of the fishing
27 industry in the state. The department shall promote orderly
28 fisheries and shall enhance and improve recreational and

²⁶⁹

RCW 7.16.160.

1 commercial fishing in this state.”²⁷⁰

2
3 In addition, under RCW 75.20, the Department is mandated to protect “fish life.”
4 To protect fish life, the Department must protect the habitat depended upon by the
5 resource. Fish habitat includes those areas used for spawning and rearing that are
6 blocked by impassable culverts.

7
8 There is also a statutory and common law duty that is imposed on all entities who
9 construct culverts to maintain their passage for fish. Under RCW 75.20.060 “any
10 . . . obstruction (e.g. culvert) across or in a stream shall be provided with a durable
11 and efficient fishway approved by the director and it shall be maintained in an
12 effective condition and continuously supplied with sufficient water to freely pass
13 fish . . .”

14
15 The courts may determine the Department has “a duty” to ensure HPA permit
16 holders are responsible for properly maintaining their culverts.

17
18 **b. A departmental decision must meet certain**
19 **standards of review.**
20

21 As a working hypothesis, assume that the Department does not intend to carry out
22 its duty to ensure free and unobstructed culvert passage. One recourse is to
23 appeal this decision through the Hydraulic Project Appeal Hearings Board to the
24 courts of the state, under the Administrative Procedure Act, RCW Chapter 34.05
25 (amended extensively in 1988). Section 34.05.574 allows state courts to:

26
27 (a) affirm the agency action or

²⁷⁰ RCW 75.08.012; See Department of Fisheries v. Gillette, supra at 767.

1 (b) order an agency to take action required by law, order an agency
2 to exercise discretion required by law, set aside agency action,
3 enjoin or stay the agency action, remand the matter for further
4 proceedings, or enter a declaratory judgment order (Emphasis
5 added).
6

7 What would a fisheries proponent have to show in order to meet its “burden of
8 demonstrating the invalidity of agency action”²⁷¹ and persuade a court to order the
9 department to carry out its obligations? The Washington Supreme Court has often
10 applied the standard of review that an agency’s discretionary authority will not be
11 reversed “absent a clear showing of abuse.”²⁷² A party seeking a reversal of an
12 agency’s action or inaction under this standard must show that “the discretion was
13 exercised in a manner which was manifestly unreasonable or exercised on
14 untenable grounds or for untenable reasons.”²⁷³ On issues of law, an appellate
15 court may substitute its judgment for that of the agency, but the agency’s
16 interpretation of the law is given substantial weight due to the agency’s special
17 expertise.²⁷⁴
18

19 The question to the courts is how can the Department protect the resource and fish
20 habitat if it does not adequately enforce the Code provisions that require free and
21 unobstructed passage for the fish to reach their spawning and rearing habitats? Is
22 it not an abuse of discretion when the Department sits idly by while thousands of

²⁷¹ RCW 34.05.570 (1).

²⁷² See e.g. Department of Ecology v. Bureau of Reclamation, 118 Wn. 2d 761, 767
(1992). See also Jensen v. Department of Ecology, 102 Wn. 2d 109, 113 (1984);
Schuh v. Department of Ecology, 100 Wn. 2d 180, 186 (1983); Peterson v.
Department of Ecology, 92 Wn. 2d 306, 314 (1979).

²⁷³ Schuh at 186.

²⁷⁴ Schuh at 183-84.

1 HPA permit holders fail to properly maintain their culverts? Especially, when the
2 Department has used its enforcement authority to hold a person accountable for
3 ensuring free and unobstructed culvert passage only once in the past 10-13 years.
4

5 The mandamus procedure can be triggered by a state agency's inaction.²⁷⁵ First,
6 failure to maintain fish passage through culverts will result in decreased fisheries
7 production. Second, the rights of tribal and non-tribal commercial fishers affected
8 are being injured. This is especially pertinent to the treaty right to take fish. The
9 Department of Fish and Wildlife can be enjoined from allowing fish to be
10 "harvested" in a way which interferes with the treaty allocation.²⁷⁶ If its failure to
11 ensure fish passage will result in those same fish being "harassed, injured or
12 killed" by habitat damage, the failure ought to be subject to mandamus to prevent
13 this more egregious "take."²⁷⁷ Third, providing fish passage through culverts is a
14 duty required by law. The Washington Fisheries Code gives the Department of
15 Fish and Wildlife an unequivocal directive: "*Mandate of the Department*. The
16 department shall preserve, protect, perpetuate and manage the food fish and
17 shellfish in state and offshore waters."²⁷⁸ When the Department of Fish and
18 Wildlife fails to ensure culverts are properly maintained, it appears to violate this
19 mandate.
20

21 However, the State may argue that the director has discretion to enforce
22 compliance with requirements relating to fish passage under RCW 75.20.060.

²⁷⁵ RCW 34.05.570 (4).

²⁷⁶ Fishing Vessel, 458 U.S. at 695.

²⁷⁷ See RCW 75.08.011 (6).

²⁷⁸ RCW 75.08.014 (emphasis added).

1 Because of this discretion, the director is not compelled to take civil enforcement
2 action in each and every instance of noncompliance.

3
4 RCW 75.20.060, provides that any obstruction “shall be maintained in an
5 effective condition.” However, if a person fails to construct and maintain the
6 obstruction in a manner satisfactory to the director, then within thirty days after
7 written notice to comply, the director may construct a fishway or remove the dam
8 or obstruction. In addition, after the thirty day notice, the obstruction is deemed a
9 “public nuisance” and the director may take possession of the obstruction and
10 destroy it.²⁷⁹

11
12 Permissive statutory language may be given a mandatory construction where the
13 act reflects such an intent on the part of the Legislature.²⁸⁰ The State may argue
14 that nothing in RCW 75.20.040 indicates that, in using the ordinarily permissive
15 word "may", the Legislature intended to impose on the director a mandatory
16 obligation to take civil enforcement action in each and every instance where a
17 culvert is not properly maintained as required by RCW 75.20.060.

18
19 The state also could note that the courts have said:

20
21 Where a provision contains both the words "shall" and "may," it is
22 presumed that the lawmaker intended to distinguish between them,
23 "shall" being construed as mandatory and "may" as permissive.²⁸¹
24

²⁷⁹ RCW 75.20.060.[1983 1st ex.s. c 46 § 72; 1955 c 12 § 75.20.060. Prior: 1949 c 112 § 47; Rem. Supp. 1949 § 5780-321.] (emphasis added).

²⁸⁰ State ex rel. Blume v. Yelle, 52 Wn.2d 158, 162, 324 P.2d 247 (1958).

²⁸¹ Scannel v. Seattle, 97 Wn.2d 701, 704, 648 P.2d 435 (1982).

1 The State would argue that this presumption should apply to RCW 75.20.060.
2 The statute uses the word "shall" in several instances in referring to the
3 obligations of the owner of a culvert. In contrast, the director's authority to take
4 action to enforce such a requirement, is conditioned by the term "may."

5
6 The State would argue that the director's civil enforcement authority under these
7 statutes is discretionary rather than mandatory, and that this interpretation is
8 consistent with cases finding discretionary authority under statutes using similarly
9 permissive language.²⁸² If the courts accept this interpretation, the courts will
10 conclude that they may not issue a writ of mandamus ordering the Department to
11 bring civil actions against those who are failing to maintain fish passage through
12 their culverts.

13
14 **c. Must the Director or WDFW law enforcement**
15 **officers take “criminal” enforcement action**
16 **when the Director is aware a culvert is blocking**
17 **fish migration?**

18
19 Though the director may not be compelled to use his discretion in using the civil
20 enforcement authorities under the Hydraulic code, the Department's law
21 enforcement agents may not have the same choice. The Department's law
22 enforcement officers must exercise their mandatory duty to enforce the criminal
23 provisions of the Hydraulic Code. Although the previous question was concerned
24 with the directors "civil" enforcement authority, violation of RCW 75.20.060 is
25 also a "criminal" gross misdemeanor.²⁸³ Department patrol officers are charged

²⁸² See, for example, State ex rel. Rosbach v. Pratt, 68 Wash. 157, 122 P. 987 (1912).

²⁸³ RCW 75.20.200(1)(b).

1 with enforcement of this and other provisions of the fisheries code.²⁸⁴ As such,²⁸⁵
2 Washington case law recognizes that law enforcement officers may not simply
3 refuse to perform their statutory duties altogether. Such refusal has been held to
4 constitute wilful neglect of duty.²⁸⁶

5
6 In State v. Twitchell, a county enforcement officer was charged with the crime of
7 wilful neglect of his duty²⁸⁷ in that he knowingly, without making a complaint and
8 without making an arrest, permitted the keeping of a house of prostitution and the
9 practice of prostitution within the county.²⁸⁸ As in a violation of the Hydraulic
10 Code, prostitution is a gross misdemeanor under the laws of this State.²⁸⁹

11
12 The court held that “it shall be the duty of all sheriffs to make complaint of all
13 violations of the criminal law, which shall come to their knowledge, within their
14 respective jurisdictions.”²⁹⁰ Law enforcement officers are obligated to “devote
15 unceasing effort toward performing and discharging those duties of the office

284 RCW 75.10.010(1).

285 As noted in AGO 1990 No. 4

286 State v. Twitchell, 61 Wn.2d 403, 378 P.2d 444 (1963).

287 Wilful neglect of duty is “whenever any duty is enjoined by law upon any public officer or other person holding any public trust or employment, their wilful neglect to perform such duty, except where otherwise specially provided for, shall be a misdemeanor.” RCW 42.20.100

288 Id. at 405.

289 Id. at 409.

290 RCW 36.28.011.

1 which are imposed by law”²⁹¹ Law enforcement officers have a “mandatory
2 duty to make complaint of any violation of the criminal law which comes to his
3 knowledge and to arrest and commit any person who breaks the peace.”²⁹² In
4 addition, other courts similarly have concluded that law enforcement officers must
5 "exercise [a] reasonable degree of activity and diligence" to carry out their
6 duties.²⁹³

7
8 Though the Director may have the discretion of not taking civil action against
9 violators of fish passage laws, the Department’s law enforcement officers do not
10 have the same choice. Any person failing to comply with any of the requirements
11 or provision of an HPA is guilty of a gross misdemeanor,²⁹⁴ not unlike that of
12 prostitution. The Department’s law enforcement officers have a mandatory duty
13 to use their criminal authorities against those who are violating the Hydraulic
14 Code.

15
16 If the Department fails to act or the courts cannot require the agency to fully
17 implement and enforce the Hydraulic Code, the only other remedy that may be
18 available to the public is “self-help.” Individuals or certain classes of the public
19 may be able to bring their own actions in court to hold agencies of state
20 government, local governments, or private citizens accountable for the lack of
21 maintaining fish passage through their culverts. The following sections review

²⁹¹ Id.

²⁹² Id.

²⁹³ See State ex rel. Windham v. LaFever, 486 S.W.2d 740, 744 (Tenn. 1972); State ex rel. Danforth v. Orton, 465 S.W.2d 618, 626 (Mo. 1971).

²⁹⁴ WAC 220-110-360 (1).

1 several causes of action that may be used by members of the public.

2
3 **2. Common Law Nuisance**

4
5 Common law is the body of court made law as opposed to statutory law enacted
6 by legislatures.²⁹⁵ The common law of nuisance began to develop shortly after the
7 Norman Conquest. Nuisance actions to abate interferences with an owner's
8 interest in land have existed for over eight hundred years.²⁹⁶ Unlike an action for
9 waste in which the parties each possess an interest in the same piece of property, a
10 nuisance action involves a suit by a neighboring landowner or by a public
11 prosecutor seeking to control or limit the use of land owned by the defendant. A
12 property owner who suffers an unreasonable interference with the use and
13 enjoyment of his property is entitled to relief against the person who has caused
14 the discomfort. The basis of a nuisance lawsuit is the maxim, *sic utere tuo ut*
15 *alienum non laedas*, which means that no one may use his property in such a way
16 as to injure his neighbor (or neighbors in the area generally).²⁹⁷ The historical
17 standard was absolute and admitted no exonerating justification for harmful
18 behavior. However, this absolute standard has evolved into more of a balancing
19 of interests. The courts now focus either "on the reasonableness of the harm to
20 the plaintiff or the reasonableness of the conduct of the defendant."²⁹⁸

21
²⁹⁵ Black, 1983, 144.

²⁹⁶ See Jeff L. Lewin, *Boomer and the American Law of Nuisance: Past, Present, and Future*, 54 ALB. L. Rev. 189, 192-96 (1990).

²⁹⁷ Black's Law Dictionary 1380 (6th ed. 1990).

²⁹⁸ Lewin, *supra* at 205.

1 The Restatement of Torts divides nuisances into two categories.²⁹⁹ The first
2 category includes unintentional invasions of property, to which courts apply
3 standard rules of negligence.³⁰⁰ The second category comprises invasions that are
4 “intentional and unreasonable.”³⁰¹

5
6 To establish a nuisance claim, a plaintiff needs to satisfy three additional
7 conditions. First, the plaintiff must have a property right, the use or enjoyment of
8 which was being interfered with.³⁰² Second, the invasion must be substantial.³⁰³
9 Third, the actor’s conduct must be the legal cause of the nuisance.³⁰⁴

10
11 A claim of a nuisance involves the assertion of something in the nature of a
12 negative interest, --- the interest of a nearby property owner to NOT be adversely
13 affected by the misuse of the land in question. It is somewhat comparable to a
14 judicially created restrictive covenant in which each land owner is burdened by
15 the limitation.

16
17 A private nuisance is an unreasonable interference with the use or enjoyment of
18 land without an actual trespass or physical invasion. A public nuisance has wider-
19 ranging implications. It involves the existence of a condition of sufficient

²⁹⁹ Restatement of Torts § 822 (1939).

³⁰⁰ Id. § 822(d)(ii).

³⁰¹ Id. § 822(d)(I).

³⁰² Id. § 822(a).

³⁰³ Id. § 822(b).

³⁰⁴ Id. § 822(c).

1 magnitude to affect adversely the health, morals, safety, welfare, comfort or
2 convenience of the public in general. Water pollution, air pollution, and the
3 obstruction of public ways, are examples. Statutes will in some instances define
4 what constitutes a public nuisance per se.

6 3. Statutory Nuisance

7
8 Statutory nuisances are classified as public or private and defined by legislative
9 bodies. A statutory public nuisance is one which affects equally the rights of an
10 entire community or neighborhood, although the extent of the damage may be
11 unequal.³⁰⁵ Public nuisances are enumerated in statute.³⁰⁶ For example, it is a
12 public nuisance “to obstruct or impede, without legal authority, the passage of any
13 river”³⁰⁷

14
15 A private person may bring an action for a public nuisance, if it is specially
16 injurious to himself or herself.³⁰⁸ “Any person may abate a public nuisance which
17 is specially injurious to him by removing, or if necessary, destroying the thing
18 which constitutes the same, without committing a breach of the peace, or doing
19 unnecessary injury.”³⁰⁹ A private nuisance is defined as every nuisance not

³⁰⁵ RCW 7.48.130.

³⁰⁶ RCW 7.48.140.

³⁰⁷ RCW 7.48.140(3).

³⁰⁸ RCW 7.48.210; Miotke, supra, 101 Wn.2d at 332.

³⁰⁹ RCW 7.48.230.

1 included in the statutory definition of public nuisances.³¹⁰

2
3 RCW 7.48.010 defines actionable nuisances as follows:

4 The obstruction of any highway or the closing of the channel of
5 any stream used for boating or rafting logs, lumber or timber, or
6 whatever is injurious to health or indecent or offensive to the
7 senses, or an obstruction to the free use of property, so as to
8 essentially interfere with the comfortable enjoyment of the life and
9 property, is a nuisance and the subject of an action for damages and
10 other and further relief.
11

12
13 The elements of a nuisance action are more specifically defined in RCW 7.48.120:

14
15 Nuisance consists in unlawfully doing an act, or omitting to
16 perform a duty, which act or omission either annoys, injures or
17 endangers the comfort, repose, health or safety of others, offends
18 decency, or unlawfully interferes with, obstructs or tends to
19 obstruct, or render dangerous for passage, any lake or navigable
20 river, bay, stream, canal or basin, or any public park, square, street,
21 or highway; or in any way renders other persons insecure in life, or
22 in the use of property.
23

24 An act may be wrongful for purposes of this statute if it violates a law or
25 permit,³¹¹ or if it is intentional, negligent, reckless, wanton or ultrahazardous
26 conduct.³¹² A nuisance action may be brought by “any person whose property is
27 injuriously affected or whose personal enjoyment is lessened by the nuisance.”³¹³

³¹⁰ RCW 7.48.150.

³¹¹ Miotke v. City of Spokane, 101 Wn.2d 307, 331, 678 P.2d 803 (1984).

³¹² See Peterson v. King County, 45 Wn.2d 860, 863, 278 P.2d 774 (1954).

³¹³ RCW 7.48.020.

1 An act that is performed under the express authority of a statute cannot be deemed
2 a nuisance.³¹⁴ For example, some agricultural activities in Washington are
3 protected by statute from nuisance lawsuits. Agricultural activity conducted on
4 farmland, if consistent with good agricultural practices and established prior to
5 surrounding nonagricultural activities, is presumed to be reasonable and does not
6 constitute a nuisance unless the activity has “a substantial adverse effect on public
7 health and safety.”³¹⁵ An activity is presumed to meet this standard if it is
8 undertaken in conformity with federal, state, and local laws and regulations.³¹⁶
9 However, if the act is a violation of a law or permit it is not insulated from an
10 action for nuisance.³¹⁷ In a recent case, the court held that the agricultural
11 exemption did not apply to discharges of excess irrigation water from orchard
12 property onto the property of others, concluding that the exemption was not
13 intended to protect agricultural activity that resulted in flooding of adjoining
14 property.³¹⁸ Nor should the agricultural exemption apply where there are impacts
15 to the salmon resource or its habitat.

16
17 A nuisance action is an appropriate cause of action where a governmental agency
18 or private party fails to maintain fish passage through their culverts. Under RCW
19 7.48.120 a nuisance “consists in omitting to perform a duty” (i.e., failing to
20 maintain fish passage through their culverts) “which injures others” (i.e., fisheries
21 or environmental interests) “or obstructs a stream” (i.e., fish blocking culverts are

³¹⁴ RCW 7.48.160.

³¹⁵ RCW 7.48.305.

³¹⁶ Id.

³¹⁷ Miotke, supra, 101 Wn.2d at 331.

³¹⁸ City of Benton v. Adrian, 50 Wn.App. 330, 334, 748 P.2d 679 (1988).

1 a nuisance per se without requiring the need to demonstrate an injury).

2
3 **a. Does RCW 75.20 preempt a common law public**
4 **nuisance claim?**
5

6 Probably not. When a jurisdiction has enacted a pollution control act, or in this
7 case a fisheries protection act, a question arises concerning whether the act
8 provides the exclusive remedy as to the activities it is designed to regulate. If the
9 legislature provides an exclusive remedy, plaintiffs may not bring common law
10 actions for nuisance. The better rule is that such legislation be constructed as
11 providing remedies in addition to the common law action for nuisance unless the
12 act specifically states that its remedies are to be exclusive.

13
14 State legislatures have virtually unlimited “police powers” to enact regulatory
15 schemes which are rarely challenged.³¹⁹ Whether the legislature intends that a
16 such statutory scheme should displace common-law rights is less easily
17 determined. Most state courts presume a statute does not replace the common law
18 mechanisms for protecting property rights. To overcome this presumption, the
19 legislature must present a “clear and manifest” intent to preempt common-law
20 remedies.³²⁰ Most courts resolve uncertainty and potential inconsistencies

³¹⁹ See Nebbia v. New York, 291 U.S. 502 (1934); Silver v. Silver, 280 U.S. 117, 122 (1929).

³²⁰ Ohio River Sand Co. v Kentucky, 467 S.W.2d 347, 349 (Ky 1971); Carrow Co. v Lusby, 804 P.2d 747, 750 (Ariz. 1990); White v. Arkansas, 717 S.W.2d 784, 787 (Ark. 1986); Kapadia v. Preferred Risk Mut. Ins. Co., 418 N.W.2d 848, 851 (Iowa 1988); *In re S.B.L.*, 553 A.2d 1089 (Vt. 1988)

1 between the statute and the common law so as to preserve common law.³²¹
2 Furthermore, when a statute essentially codifies a pre-existing common-law right,
3 the courts usually read the statute to create a supplementary enforcement
4 mechanism rather than an exclusive remedy.³²² Therefore, courts are reluctant to
5 eliminate common-law remedie. Consequently such remedies typically survive the
6 enactment of statutes covering similar areas of law.³²³ In one Oregon case , the
7 court held that one’s common-law right to an action for an infringement of fishing
8 rights is not taken away by a statute prescribing a penalty for a violation of such
9 rights, unless the statute provides that it shall be the only remedy.³²⁴

10
11 Courts may infer preemption from the pervasiveness of the legislative scheme
12 when a statute is silent about the preservation of common law.³²⁵ In these cases
13 Courts attempt to measure the extent to which retention of common law remedies
14 would interfere with the efficacy of the statute.

15
16 In the case of RCW 75.20, the legislature clearly recognized that, under common

³²¹ Thornber, 568 So.2d at 918; Holtz v. Board of Commissioners of Elkhart County,
560 N.E.2d 645, 647 (Ind. 1990); Mason v. Schumacher, 439 N.W.2d 61, 67
(Neb. 1989).

³²² See Rojo v. Kliger, 801 P.2d 373, 381 (Cal. 1990); But see National CSS, Inc. v
City of Stamford, 489 A.2d 1034, 1041 (Conn. 1985), (“Where, however, a
statutory scheme exists for the recovery of a benefit that is also recoverable at
common law, the common-law right may be resorted to only where the statutory
provisions are inadequate).

³²³ See 1 William H. Rodgers, Jr., Environmental Law, § 2.11 at 97.

³²⁴ Columbia River Fishermen’s Protective Union v. City of St. Helens, 87 P.2d 195,
199, 160 Or. 654.

³²⁵ Rojo, supra, 801 P.2d at 381.

1 law, it is unlawful to block or restrict the passage of fish. However, the legislative
2 history of this statute lacks any clear and manifest intent to preempt common-law
3 remedies to ensure free and unobstructed fish passage.

4
5 A public nuisance claim against an owner of a fish blocking culvert would not
6 lead to uncertainties and potential inconsistencies between the statute and the
7 common law.³²⁶ An owner of the culvert would be required to maintain fish
8 passage under either a common-law public nuisance claim or RCW 75.20. The
9 pre-existing common-law right to ensure fish passage would only create a
10 supplementary enforcement mechanism rather than an exclusive remedy under the
11 statute.

12
13 RCW 75.20.060 and other related statutes do not provide a pervasive legislative
14 scheme to ensure fish passage is maintained. The legislative scheme is not
15 comprehensive nor has the Department provided any additional regulatory
16 guidance to ensure accountability for fish passage. A common-law remedy to hold
17 individuals accountable for properly maintaining fish passage through their
18 culverts would not interfere with the efficacy of the statute. In fact, it may be the
19 only effective strategy to ensure accountability based on the Department's lack of
20 enforcement of statutory provisions.

21
22 **b. Examples of environmental nuisance cases in**
23 **Washington**
24

25 Several environmental nuisance cases illustrate how nuisance principles are

³²⁶ *Thorner*, 568 So.2d at 918; *Holtz v. Board of Commissioners of Elkhart County*, 560 N.E.2d 645, 647 (Ind. 1990); *Mason v. Schumacher*, 439 N.W.2d 61, 67 (Neb. 1989).

1 applied in Washington. In one case, the court held that a city's discharge of raw
2 sewage in violation of a waste disposal permit denied the owners of lake front
3 properties full use and enjoyment of their properties, and that act constituted a
4 public nuisance for which damages were recoverable.³²⁷ In another case, the court
5 upheld an award of damages to owners of property near a landfill where extremely
6 hazardous waste had been disposed of, contaminating the property owners'
7 drinking water.³²⁸ Both the county operating the landfill and the manufacturer
8 who disposed of the waste were held liable for damages involving diminished
9 property value, annoyance and inconvenience, and mental anguish. Another
10 recent case held that the lawful construction of a building that merely obstructs the
11 view from neighboring property is not an actionable nuisance. (Need cite)
12

**4. Summary of nuisance cases for a wrongful injury of
invasion of a right of fishery.**

13
14
15
16 At common law, fish were classified as *ferae naturae*, and not subject to a
17 property claim by the owner of property where the fish might be momentarily
18 located. As a result the owner of land traversed by a nonnavigable stream could
19 not recover the value of fish taken from the stream by a trespasser.³²⁹ However,
20 where a person's fishery rights are wrongfully interrupted or interfered with by
21 another, he could maintain an action of trespass or action for damages for the
22 injury caused to the usufructuary right to fish,³³⁰ unless a special remedy for such

³²⁷ Miotke, supra.

³²⁸ Wilson, supra.

³²⁹ Beach v. Morgan, 41 A.2d 349, 67 N.H. 529, 68 Am.S.R. 692.

³³⁰ Bales v. City of Tacoma, 20 P.2d 860, 172 Wash. 494 (1933).

1 interference is provided by statute.³³¹ Thus an action will lie where one's fishery
2 right is injured by an unlawful weir, dam, or other obstruction on the stream above
3 or below him;³³² or by the pollution of the stream by another, such as with toxic
4 chemicals which arrest the migration of fish or diverts them to other waters.³³³

5
6 Regarding damage claims, "fishermen" are one of the "classic exceptions" to the
7 rule that compensation for pure economic loss may not be sought in admiralty
8 cases.³³⁴ Moreover, the admiralty limitation does not apply where physical injury
9 to that in which the plaintiff has a proprietary interest is involved.³³⁵

- 10
11 **a. Property Owners have a common law duty to**
12 **provide fish passage, avoid pollution, and use**
13 **other fish protection measures. Harm to fishers**
14 **resulting from the failure to take these measures**
15 **is considered reasonably foreseeable and a**
16 **sufficient basis for liability in trespass,**
17 **negligence, or nuisance.**
18

19 The case of Stoughton v. Baker,³³⁶ dealt with the following facts. The
20 Massachusetts legislature appointed a committee to repair several dams and to
21 order alterations to be made in the fishways for the passage of shad and alewives.
22 The expenses incurred by making such alterations were to borne one forth part by

331 Bristol v. Ousatonic Water Co., 42 Conn. 403.

332 Id.; Barden v. Crocker, 10 Pick. 383.

333 Hampton v. North Carolina Pulp Co., 27 S.E.2d 538, 223 N.C. 535 (1943).

334 See Robins Dry Dock and Repair Co. v. Flint 275 U.S. 303 , 308 (1927).

335 Ballard Shipping Co. v. Beach Shellfish, 32 F.Supp. 623, 625 (CA1 1994).

336 Stoughton et al. v. Baker et al., 4 Mass (4 Tying) 521 (1808)

1 the affected towns and three fourths by the respective owners of the dams.³³⁷

2
3 The defendants refused to make alterations to their dam for fish passage. In
4 response, a sub-committee of the appointed committee made alterations to the
5 dam. The committee charged the dam owners \$123.82 for work and materials and
6 \$150.71 for committee costs.³³⁸

7
8 Baker and Vose refused to pay the costs assessed by the committee. They claimed
9 they had an “ancient” dam which afforded them property rights which could not
10 be interfered with by the government without just compensation. Their original
11 title granted rights to the fishery and did not require them to provide fish
12 passage.³³⁹

13
14 The communities of Stoughton, Sharon, and Canton then brought a successful
15 action against Edmund Baker and Daniel Vose to recover the alteration costs. On
16 appeal, the court stated,

- 17
18 • “...that every owner of a mill-dam holds it under the limitation that a
19 sufficient and reasonable passage-way shall be allowed for the fish; and
20 this limitation is not extinguished by an neglect of the government, in
21 compelling the owner to comply with it...”³⁴⁰

22
23 But the right to build a dam for the use of a mill was under several
24 implied limitations. One was to protect private rights, by

³³⁷ Id. at 522.

³³⁸ Id. at 522

³³⁹ Id. at 523.

³⁴⁰ Id. at 527-528.

1 compelling him to make compensation to the owners of land
2 above, for, and damages occasioned by, overflowing their lands:
3 another was to protect the rights of the public to the fishery; so that
4 the dam must be so constructed that the fish should not be
5 interrupted in their passage up the river to cast their spawn.
6 Therefore every owner of a water-mill or dam holds it on the
7 condition, or perhaps under the limitation, that a sufficient and
8 reasonable passage-way shall be allowed for the fish. This
9 limitation, being for the benefit of the public, is not extinguished
10 by any inattention or neglect, in compelling the owner to comply
11 with it. For no laches can be imputed to the government, and
12 against it not time runs so as to bar its rights.³⁴¹

13
14 However, the court in Baker set aside the judgment against the defendants. The
15 court determined the legislatively created committee had no authority to authorize
16 a subcommittee or any other persons to make dam alterations. “The authority
17 given to the committee was personal, and could not be delegated.”³⁴²

18
19 In Commonwealth v. Chapin, the defendant built a dam that impeded passage of
20 boats, rafts, and others, up and down the river. In addition, the dam impeded the
21 passage of salmon and other fish, “which from time immemorial had passed up
22 the river to cast their spawn.”³⁴³

23
24 The court in Chapin, held that the right of landowners to the banks and beds of
25 non-navigable rivers includes the taking of fish, but does not carry with it the right
26 to hinder the passing of them above to the lakes and ponds for the multiplication

³⁴¹ Id. at 528.

³⁴² Id. at 530.

³⁴³ Commonwealth v. Chapin, 21 MA (5 Pick.) 199 (1827).

1 of the species.”³⁴⁴

2
3 The right of the public to the fishery rests on the same foundation
4 as the right of passage on the river, and the same remedy lies when
5 either right is obstructed. To obstruct the passage of the fish,
6 therefore, is a nuisance at common law.³⁴⁵

7
8 However, the court stated that a common law claim for a nuisance would not lie
9 for obstructing the passage of fish by a dam. Instead recourse must be to the
10 remedy provided by statute. The common law of this subject “has been
11 essentially altered by successive legislative acts . . . and the rights of the citizens
12 as well as the penalties are to be determined by the effect and form of legislation,
13 rather than by the ancient common law.”³⁴⁶

14
15 The court found that the most frequently occurring subject in the Massachusetts
16 legislature was fisheries.³⁴⁷ The legislature not only passed laws regulating the
17 fisheries, but also the regulation of land use. For example, the legislature passed a
18 law prohibiting all persons from “placing in or across rivers or streams, any fixed
19 implement or machine by which the free passage of fish may be obstructed.”³⁴⁸
20 The legislature also passed a law that required those that built dams across
21 streams or rivers, “to keep open, during a certain period, sluice-ways or passages

³⁴⁴ Id. at 202-203.

³⁴⁵ Id. at 200.

³⁴⁶ Id. at 202.

³⁴⁷ Id. at 202-203.

³⁴⁸ Id. at 203 citing *Prov. St. 8 Ann. C. 3.*

1 for the fish to pass through.”³⁴⁹

2
3 Though the erection of certain obstructions was declared to be a nuisance that
4 must be abated, the law provided an exemption for the construction of dams.
5 However, the statute required dams to provide for the “secure passage for fish
6 during the season when they are accustomed to ascend the streams.”³⁵⁰

7
8 The legislative provision, though altering, is not contrary to the
9 common law The statute only ascertains the mode in which
10 this restriction shall be enforced, and provides the penalty for
11 neglecting or violating it.

12 . . .

13
14 The statute gives power to certain municipal officers to supervise
15 the public interests, and see to the execution of the law.³⁵¹

16
17 The court found an indictment for a nuisance claim could not be sustained but that
18 if a person did not provide proper passage at a dam, they would be subject to the
19 penalties as defined in statute.³⁵²

20
21 In Washington State, the supreme court has held that a “person engaged in
22 business of fishing in a navigable stream is specially damaged by the placing of an
23 obstruction in a stream which interferes with the carrying on of his business, and
24 may sue on behalf of himself and others similarly situated to enjoin such

³⁴⁹ Id. at 204 citing *Prov. St. 15 Geo. 2, c. 6.*

³⁵⁰ Id. at 203-204.

³⁵¹ Id. at 204.

³⁵² Id. at 204.

1 obstruction.”³⁵³

2
3 In Morris v. Graham, plaintiffs sought an injunction declaring a public nuisance
4 against defendants for substantially blocking the migration of salmon in a
5 navigable stream of the Skagit Basin. The plaintiff fisherman claimed he and
6 other fishers would be deprived of the common right of fishing in the waters of
7 the vicinity. Defendants argued that abatement of a public nuisance could not be
8 requested by a private person but must be asserted by the attorney general. The
9 court disagreed with defendant’s argument.³⁵⁴

10
11 The Court noted that plaintiff brought the action on behalf of himself and others
12 whose rights are similarly effected.

13
14 “It is brought in behalf of a class, and the injury complained of is
15 not common to the general public, but peculiarly affects the
16 respondent, and those in the class to which he belongs.”³⁵⁵

17
18 The court reasoned that;

19
20 ...the acts complained of constitute a damage and special injury to
21 him, in which the general public do not share. The fact that others
22 would suffer in the same way, if they were similarly engaged,
23 constitutes no bar to the maintenance of the present action.³⁵⁶

353 Morris v. Graham, 16 Wash. 343, 47 P. 752, 58 Am.St.Rep. 33 (1897).

354 Id. at 752.

355 Id.

356 Id.

1 Citing Lansing v. Smith,³⁵⁷ the court stated,

2
3 Every individual who receives actual damages from a nuisance
4 may maintain a private suit for his own injury, although there may
5 be many others in the same situation.³⁵⁸
6

7
8 **b. Nuisance claims for interference with fishing are**
9 **not limited to navigable waters of the state.**
10

11 By the common law in England, fisheries in nonnavigable streams, belong to the
12 riparian owner and are private property. However, courts in the United States
13 have recognized third party fisheries interests in nonnavigable waters that fish
14 utilize for migration, to cast their spawn, or for rearing.³⁵⁹
15

16 In Cottrill v. Myrick, the legislature authorized the establishment of a committee
17 “to go on, over, or through any land,” . . . “or through any mill, or wheresoever it
18 should be necessary for the purposes of the Act, without being considered as
19 trespassers.” Plaintiff owned a mill and a dam that blocked fish passage on a
20 nonnavigable stream. The committee removed a sufficient portion of plaintiff’s
21 dam to enable fish to ascend the waterway. The plaintiff argued that the dam
22 removal constitute a “constitutional takings.” He based this claim on a provision
23 that stated that whenever “the public exigencies require that the private property
24 of any individual should be appropriated to public uses, he shall receive a

³⁵⁷ 4 Wend. 9.

³⁵⁸ See also, Skinner v. Hettrick, 73 N.C. 53.

³⁵⁹ Cottrill et al. v. Myrick, 12 ME 222, 229-36 (1835).

1 reasonable compensation therefor.”³⁶⁰

2
3 The Cottrill court reasoned that a nonnavigable stream may acquire a character
4 akin than that of a navigable stream, or a public highway, by serving as a way of
5 passage for fish. The accustomed passage and repassage of fish up and down such
6 stream, forms a basis for constitutional legislative enactments regulating fisheries
7 in streams which traverse private property.³⁶¹ If fish historically utilized a stream
8 but were denied access by the construction of an obstruction, the stream could be
9 the subject of regulation by the legislature.³⁶² The public has an interest in the
10 regulation and protection of the fish regardless of the navigability of the
11 waterways. The legislature has a right to regulate those waters where they “invite
12 the ascent of fish, and into and through which from their nature and habits, they
13 were accustomed to pass.”³⁶³

14
15 In State v. Roberts,³⁶⁴ Mr. Roberts was indicted for catching and killing four
16 trout. Mr. Roberts took the fish from a pond that was connected to a river. The
17 pond, however, was completely surrounded by his estate, from which he felt he
18 had a right to take fish whenever he chose.³⁶⁵

³⁶⁰ Id. at 226.

³⁶¹ Id. at 227.

³⁶² Id. at 231.

³⁶³ Id. at 230.

³⁶⁴ State v. Roberts, 59 NH 256 (1879).

³⁶⁵ Id. at 256.

1 In dicta, the Roberts court recognized that:

2
3 It is well established that every person shall so use and enjoy his
4 own property, however absolute and unqualified his title, that his
5 use of it shall not be injurious to the equal enjoyment of others
6 having an equal right to the enjoyment of their property, not
7 injurious to the rights of the public. At common law, the right of
8 fishery in navigable waters was public and common to all.³⁶⁶
9

10 The court went on to say that no person “by means of dams or other artificial
11 obstruction, may prevent the passage of fish up or down the stream, nor can a
12 prescriptive right to maintain such obstruction be acquired in any of the waters of
13 this state.”³⁶⁷
14

15 In Hampton v. North Carolina Pulp Co., plaintiff brought an action against the
16 North Carolina Pulp Co to recover damages for an injury to his fishery and
17 business.³⁶⁸ Mr. Hampton was a riparian landowner who maintained a
18 commercial fishing business on the Roanoke River.
19

20 The court recognized that “the public has a common right to fish in all the waters”
21 of the state.³⁶⁹ However, a person who suffers no special or peculiar damage³⁷⁰

³⁶⁶ Id. at 257.

³⁶⁷ Id.

³⁶⁸ Hampton v. North Carolina Pulp Co., 27 SE2d. 538, 545-46 (NC 1943).

³⁶⁹ Id. at 542.

³⁷⁰ An injury to private property, or to the health and comfort of an individual, is in its nature special and peculiar. Id. at 544.

1 from a public nuisance cannot maintain an action to recover damages.³⁷¹ In
2 determining whether the plaintiff in Hampton sustained any injury different in
3 kind or degree from that suffered by members of the general public, the court
4 recognized the importance of commercial fishing in North Carolina.

5
6 . . . [F]isheries which still persist have a very important place in the
7 food economy of the State and, in that respect, may be said to
8 constitute an essential industry --- a business as distinct and
9 universally recognized as merchandising, husbandry, or any other -
10 -- and sometimes through large adjacent areas more important.

11 . . .

12
13 . . . the business itself and those engaged in it should have the same
14 protection of the law that is afforded other businesses, as far as its
15 nature and incidents will permit.³⁷²

16
17
18 In addition, the court recognized the long history of fisheries regulation. Where
19 fishing is important to the state's economies, legislatures have passed laws:

20
21 against pollution of the streams with matter deleterious to fish life,
22 require channels to be kept open, or means to be provided by which
23 migratory fish may ascend the streams. We do not think this is
24 merely to prevent the common shame of the extinction of an
25 interesting type of river fauna in our time, or for the sole benefit of
26 the owners of exclusive fisheries. In fact, perhaps the largest
27 beneficiaries of these laws are those engaged in the business of
28 fishing in common fisheries. The great fisheries on the Columbia
29 River and of Alaska are so conducted and so extensive that their
30 products are found at one time or another on every table in the
31 country. Millions of salmon in the open seas near the mouths of

³⁷¹ Id. at 543 citing McManus v. Southern R. Co., 150 N.C. 655, 656, 64 S.E. 766.
The application of this rule must be decided for each case on its own merits.

³⁷² Id. at 542.

1 these rivers, seeking through nostalgic instinct the sweeter waters
2 in which they were hatched, have given rise to international
3 difficulties and international treaties.
4

5 The necessities of a person whose business is taking fish from a
6 common fishery and one who, by reason of his riparian ownership
7 and ownership of the bed of the river, has a several and exclusive
8 fishery are precisely the same, and the same principle of law must
9 apply.³⁷³
10

11 The law will not permit a substantial injury of the person or property of a plaintiff
12 by a nuisance to go without redress, whether the right of action be referred to the
13 existence of a special damage, or to an invasion of a more particular and more
14 important personal right. The personal right involved in this case is the security of
15 an established business. In Hampton, the plaintiff established a fishing business
16 in connection on his riparian lands that was detrimentally impacted by the
17 defendant's actions.³⁷⁴ Hampton did not claim he had a right to the fish in their
18 wild state. However, he did claim the right to have the migration continued
19 uninterruptedly to his nets, without the wrongful interference with the flow of
20 water by an upper riparian owner.³⁷⁵ The Hampton court agreed and sustained a
21 public nuisance cause of action for the plaintiff.
22

23 In Carson v. Hercules Power Co.,³⁷⁶ the court held that commercial fishermen who

³⁷³ Id. at 546.

³⁷⁴ Id. at 542.

³⁷⁵ Id. at 546. The court recognized that plaintiff could have gone to more distant
points where the nuisance had not yet affected the fish, but "if a man's time and
money are worth anything," he has received a substantial damage in being driven
to this necessity.

³⁷⁶ Carson v. Hercules Power Co., 402 SW2d. 640, 642 (ARE 1966).

1 had fished on a nonnavigable stream for many years with the permission of the
2 riparian owners were entitled to recover damages for loss of profits during years
3 in which a company, by discharging industrial waste into the stream, destroyed
4 fish and prevented operation of their fishing businesses.

5
6 **c. Persons who block the migratory passages of fish**
7 **are liable for both upstream and downstream**
8 **impacts to the fisheries.**
9

10 In Holyoke v. Lyman,³⁷⁷ the owners of a dam paid damages to upstream
11 landowners for loss of fishing rights when the dam was constructed. The dam had
12 no fishways.

13
14 Prior to construction of the dam, shad were accustomed to pass up the river
15 beyond the dam and were of value to the private owners of riparian fishing rights.
16 The dam prevented the passage of fish up the river and destroyed the fishing right.
17 Compensation was made to the owners of fisheries rights above the dam.

18
19 After the dam was constructed, the number of shad below the dam also decreased
20 in a small but appreciable degree. The dam prevented the shad from passing to
21 their former spawning grounds and caused them not to return to the river after
22 their annual passage to the sea.³⁷⁸ No owners of fishing rights below the dam had
23 ever claimed damages.

24
25 Subsequent owners of the dam were ordered by the state to construct a fishway in

³⁷⁷ Holyoke Water-Power Co. v. Lyman, 82 U.S. (15 Wall.) 500, 512-13 (1872).

³⁷⁸ Id. at 501,502.

1 the dam. The dam owners refused to construct the fishway, arguing that the
2 owners of fish rights above the dam have already received compensation and they
3 had a right to maintain the dam in its current condition.

4
5 The court reasoned the public has a right to require a person who owns or builds a
6 dam to construct a fishway as will enable fish to pass from the lower to the higher
7 level of the water. The court reiterated the rules defined in Stoughton, Chapin,
8 and Pickering; the owners of dams must “manage them as not to interfere with the
9 right of persons above or below, either to have the water flow, or to have fish
10 pass.”³⁷⁹

11
12 The court reiterated the common law of that state which holds that:

13
14 persons who build a dam . . . on a stream frequented by migratory
15 fish, do it under an implied obligation to keep open sufficient
16 sluices and fishways for the passage of the fish in their accustomed
17 seasons, and that every grant to erect such a dam is to be construed
18 as under the same implied condition, unless such impaction is
19 excluded by an express provision to that effect.³⁸⁰

20
21 Failure provide passage creates a cause of action for both upstream fisheries and
22 downstream fisheries.

23
24 Fish rights below a dam, constructed without passageways for the
25 fish, are liable to be injured by such a structure as well as those
26 owned above the dam, as the migratory fish, if they cannot ascend
27 to the head waters of the stream at their accustomed seasons will
28 soon cease to frequent the stream at all, or in greatly diminished

³⁷⁹ Id. at 504.

³⁸⁰ Id. at 518.

1 numbers.³⁸¹

2
3 In People v. Truckee Lumber Co.,³⁸² the defendant lumber company was polluting
4 a river. The pollution rendered the river unfit for human use and introduced
5 substances that were killing fish. The Truckee court held that an obstruction to
6 the free use of the river is a public nuisance. In addition, the common right to take
7 fish is not limited to navigable waters but exists as to all waters within the state,
8 public or private.³⁸³ Also, even though the public nuisance is punishable as a
9 misdemeanor, the existence of a criminal cause of action is not a bar to a civil suit
10 to enjoin such a nuisance. An Attorney General can maintain a bill to enjoin a
11 public nuisance, without the intervention of a private party.³⁸⁴

12
13 The court recognized that fish constitute “the most important constituent of that
14 species of property commonly designated as wild game, the general right and
15 ownership of which is in the people of the state.”³⁸⁵

16
17 To the extent that waters are the common passageway of fish,
18 although flowing over lands entirely subject to private ownership,
19 they are deemed for such purposes public waters, and subject to all
20 laws of the state regulating the right of fishery.³⁸⁶

381 Id. at 519.

382 People v. Truckee Lumber Co., 48 P. 374 374-75 (CA 1897).

383 Id. at 375.

384 Id.

385 Id. at 374.

386 Id. at 375 citing Cottrill v. Myrick, 12 Me. 222; State v. Franklin Falls Co., 49
N.H. 240; State v. Roberts, 59 N.H. 256, 484.

d. The United States is accountable for injury to commercial fishers.

The United States is liable to commercial fishers if the owners of a privately owned vessel have a corresponding liability for the performance of a tortious act.³⁸⁷ The government is entitled to no immunity under the Public Vessels Act.³⁸⁸

In Mansfield & Sons Co. v. United States,³⁸⁹ the court of claims held the United States negligent and liable for damages done to a commercial shellfishing operation. The court said:

A suction dredge, because of its very method of operation, necessarily would cause great agitation on the bottom of the channel and, in this manner and through the overflow from the bins, would place quantities of solid matter in suspension in the water, endangering the adjacent property. Under these circumstances the use of a suction dredge in the channel of New Haven Harbor constituted negligence on the part of defendant.³⁹⁰

In Beason Oyster Co. v. United States,³⁹¹ the United States was ordered to pay damages by reason of injury to oyster beds. The damage was the result of dredging operations carried out in behalf of the government for the construction of a naval air base. The dredging operations stirred up quantities of mud and silt, which

³⁸⁷ Carr v. United States, 136 F.Supp. 527, 535 (ED VA 1955).

³⁸⁸ 46 U.S.C.A. §§ 781-790.

³⁸⁹ Mansfield & Sons Co. v. United States, 94 Ct.Cl. 397, 421 (1941).

³⁹⁰ Id. at 416.

³⁹¹ Beason Oyster Co. v. United States, 63 F.Supp. 761, 764 (Ct.Cl. 1946).

1 Some nuisance actions in this state are specifically provided by statute.³⁹⁸ RCW
2 7.48.010 defines actionable nuisance for which damages and other relief are
3 available. Failure to provide fish passage, when required by state law,³⁹⁹ can
4 constitute negligence per se.⁴⁰⁰

5. Standing

7
8 Traditionally, to have standing to bring a lawsuit a plaintiff must demonstrate (1)
9 an “injury in fact”; and (2) an interest “arguably within the zone of interests to be
10 protected or regulated” by a law.⁴⁰¹ However, since 1970, the second part of the
11 standing test has atrophied to such an extent that only injury-in-fact remains as a a
12 standard.⁴⁰²

13
14 For lawsuits that request compliance with environmental statutes, the courts have
15 held that plaintiffs must allege they used the affected resources and were injured

³⁹⁸ Id. at 51.

³⁹⁹ See RCW § 75.20.060 (1994).

⁴⁰⁰ See also Conway v. Monidah Trust Co., 132 P. 26 (MT 1913) (discussing
negligence per se generally); Engelker v. Seattle Electric Co., 50 Wash.196
(1908); Columbia River Fisherman’s Protective Union v. City of St. Helens, 87
P.2d 195, 199 (OR 1917) (holding state, as sovereign, can assert property interest
in wildlife for its people in common); Currie v. Union Oil Company of California,
49 Wn.2d 898, 901 (1957) (Violation of an ordinance is negligence per se if it is
the proximate cause of the injury).

⁴⁰¹ Association of Data Processing Service Organizations v. Camp, 397 U.S. 150, 90
S.Ct. 827, 25 L.Ed.2d 185 (1970).

⁴⁰² See 3 K.C. Davis, Administrative Law Treaties, §§ 22.00-.03 (1970 Supp.).

1 in fact by defendant's conduct.⁴⁰³ However, this requirement has subsequently
2 been relaxed by the Supreme Court. First, the Court made it clear that standing
3 "is not to be denied simply because many people suffer the same injury." Second,
4 the Court held that the test for standing was qualitative, but not quantitative.⁴⁰⁴
5 Thus, the magnitude of the injury in fact makes no difference so long as some
6 injury in fact exists. Quoting Professor Davis, "the basic idea that comes out in
7 numerous cases is that an identifiable trifle" is enough to establish standing. The
8 plaintiff must allege the existence of a "chain of causation between the allegedly
9 illegal government action and an injury to some portion of the environment used
10 by the plaintiff." It is not necessary to allege any physical injury to the plaintiff or
11 any economic damage; esthetic injury is enough.

12
13
14
15 In summary, to satisfy the "standing" test, plaintiffs must meet the following three
16 requirements:

17
18 First, the plaintiff must have suffered an "injury in fact"---an
19 invasion of a legally-protected interest which is:

- 20
21 (a) concrete and particularized and
22 (b) "actual or imminent," not "conjectural" or hypothetical."
23

24 Second, there must be a causal connection between the injury and
25 the conduct complained of---the injury has to be "fairly traceable to
26 the challenged action of the defendant and not the result of the
27 independent action of some third party not before the court.

⁴⁰³ Sierra Club v. Morton, 405 U.S. 727, 735, 92 S.Ct. 1361, 1366, 31 L.Ed.2d 636, 643 (1972).

⁴⁰⁴ United States v. SCRAP(I), 412 U.S. 669, 93 S.Ct. 2405, 37 L.Ed.2d 254 (1973).

1 Third, it must be “likely,” as opposed to merely “speculative,” that
2 the injury will be “redressed by a favorable decision.”⁴⁰⁵
3

4 In Lujan, the Supreme court elaborated on the injury in fact criterion by stating
5 that “a plaintiff raising only a generally available grievance” who claims harm “to
6 his and every citizen’s interest” and who seeks relief that “no more directly and
7 tangibly benefits him than it does the public at large” has not satisfied the injury in
8 fact requirement.⁴⁰⁶ Thus, a plaintiff “must show that the challenged conduct has
9 caused or will imminently cause demonstrable particularized injury to him such
10 that he will benefit personally in a tangible way for the court action.”⁴⁰⁷ “In order
11 to show an injury in fact, a plaintiff need not make any showing as to the
12 magnitude of the injury suffered, and may satisfy the requirement by merely
13 establishing that an “identifiable tribes” of an injury has been or will imminently
14 be incurred as a result of the challenged conduct.”⁴⁰⁸ Therefore, the “critical
15 distinction is between a person with a direct stake in the litigation and a person
16 with a mere interest in a problem.”⁴⁰⁹
17

18 In the context of public nuisance lawsuits, standing has slightly different
19 requirements. The common law distinguished “public” and “private” nuisances.

⁴⁰⁵ Lujan v. Defenders of Wildlife, 504 U.S. 555, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992).

⁴⁰⁶ Id. at 372.

⁴⁰⁷ Sierra Club v. U.S. Army Corps of Engineers, 935 F.Supp. 1556, 1569 (S.D. Alabama, 1996).

⁴⁰⁸ Id.; See United States v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669, 689 n. 14, 93 S.Ct. 2405, 2417 n. 14, 37 L.Ed.2d 254 (1973).

⁴⁰⁹ See Id.

1 A public nuisance was one which damaged a large number of persons. Only the
2 attorney general or local prosecutor was permitted to sue to abate a public
3 nuisance, unless a private individual could show “special” damage, distinct from
4 and more severe than that of the public generally. The Restatement, Second,
5 Torts § 821C(1) retains the requirement by affirming:

6
7 “In order to recover damages in an individual action for a public
8 nuisance, one must have suffered harm of a kind different from that
9 suffered by other members of the public exercising the right
10 common to the general public which was the subject of
11 interference” (emphasis added).
12

13 However, subsection 821C(2) adds a substantial qualifier by declaring,

14
15 “In order to enjoin or abate the public nuisance, one must . . . have
16 standing to sue as a representative of the general public, as a
17 member of a class in a class action, or as a citizen in a citizen’s
18 action” (emphasis added).⁴¹⁰
19

20 For action in equity, the Restatement banishes the old “harm of a kind different
21 from that suffer by other members of the public” injury test, requiring nothing
22 more than that the normal standing criteria be met.

23
24 Recreational, commercial, and tribal fishers should be able to satisfy the injury in
25 fact requirement for “standing.” In addition, environmental interests who allege
26 they enjoy the affected watersheds should also be able to meet the Constitutional
27 standing test. Members of each of these classes will be able to claim they utilize

⁴¹⁰ Restatement, Second, Torts, note 21, 821C(2)(c).

1 the fisheries resources impacted by the impassable culverts.⁴¹¹ The case law is
2 clear “that a minimal showing of detriment is all that is required to establish an
3 injury in fact.”⁴¹²

4
5 **a. Do individuals or recreational fishers have**
6 **standing to bring a public nuisance lawsuit?**
7

8 An individual without a particularized injury probably does not have standing to
9 bring a common law public nuisance claim against the owner of a fish blocking
10 culvert. However, recreational fishers may have the ability to enjoin or seek
11 abatement from an owner of a fish blocking culvert.

12
13 The general rule is that, in order to recover damages in an individual action for a
14 public nuisance, one must have suffered harm of a kind different from that of
15 other members of the public. A member of the public could not claim an injury
16 that is different kind from caused to any other citizen by fish blocking culverts.
17 However, recreational fishers could be uniquely impacted as a class and may have
18 standing to bring a lawsuit for injunctive relief or abatement of the public
19 nuisance.

20
21 Under RCW 7.48.230, “any person may abate a public nuisance which is specially
22 injurious to him by removing, or if necessary, destroying the thing which

⁴¹¹ See e.g. Japan Whaling Association v. American Cetacean Society, 478 U.S. 221, 231 n. 4, 106 S.Ct. 2860, 2866 n. 4, 92 L.Ed.2d 166 (holding that plaintiff whale watchers alleged sufficient injury in fact by asserting that their ability to engage in whale watching activities would be adversely affected by continued whale harvesting activities of the defendant).

⁴¹² Sierra Club, supra at 1571.

1 constitutes the same, without committing a breach of the peace, or doing
2 unnecessary injury.” Restatement, Second, Torts subsection 821C(2) adds that:

3
4 “In order to enjoin or abate the public nuisance, one must . . . have
5 standing to sue as a representative of the general public, as a
6 member of a class in a class action, or as a citizen in a citizen’s
7 action” (emphasis added).⁴¹³
8

9 Clearly, recreational fishers are a “class”. In addition, recreational fishers are
10 specially injured in relation to the general public. The opportunity for recreational
11 fishing depends entirely on whether there is a resource to fish. The elimination of
12 fish habitat reduces the overall production potential of a watershed which in turn
13 impacts the opportunity for fishing.

14
15 For an action in equity, recreational fishers should not be held to the “different”
16 injury test, but only to the normal standing criteria for environmental litigation.
17 The courts have been very liberal in finding standing when members of the public
18 allege the existence of a “chain of causation between the allegedly illegal action
19 and an injury to some portion of the environment used by the plaintiff.”

20
21 Some scholars have argued that any person injured in fact should not only be able
22 to sue for equitable relief, but also for money damages.⁴¹⁴ When a person sues for
23 money damages the public nuisance would then be called a private nuisance to

⁴¹³ Restatement, Second, Torts, note 21, 821C(2)(c).

⁴¹⁴ Rodgers, Wm. H. Jr., *Hand Book on Environmental Law*, Hornbook Series, West Publishing Co. 1977, pp. 106.

1 themselves.⁴¹⁵ “There is no longer room in the law for the proposition that a
2 person injured by the conduct of another can be denied money damages because
3 others similarly situated also are hurt while public authorities sit idly by.”⁴¹⁶
4 Many would argue the Washington Department of Fish and Wildlife has sat “idly
5 by” allowing for the destruction of thousands of miles of fish habitat and the
6 resource. If members of the general public or recreational fishing community
7 cannot assert the public’s interest in removing illegal fish blocking culverts, then
8 who can?
9

10 **b. Do non-Indian or Indian commercial fishers**
11 **have a common law cause of action for damages**
12 **for intentional or negligent interference with**
13 **their fisheries?**
14

15 Yes. The requirement that harm be proven is both a strong point and a weak point
16 in the common law approach. This requirement protects defendants from
17 frivolous lawsuits that can be very costly. In contrast, the proof requirement can
18 also be an obstacle to recovery in legitimate cases. From early English common
19 law,⁴¹⁷ fishers have had a cause of action for damages resulting from wrongful
20 harm to the fish resource. Wrongful interference with a person’s fishing rights
21 gives rise to an action for damages for the injury caused thereby, whether by

⁴¹⁵ See Columbia River Fishermen’s Protective Union v. St. Helens, 160 Or. 654, 87 P.2d 195 (1939); Morris v. Graham, *supra*.

⁴¹⁶ Rodgers, *supra*.

⁴¹⁷ See, e.g., Child v. Greenhill, 79 Eng. Rep. 1077 (Eng. 1639); Fitzgerald v. Firbank, 2 Ch. 96 (Eng. 1896).

1 trespass or other action.⁴¹⁸

2
3 Commercial fishers, treaty or non-treaty, can claim damages:

4
5 It has been said that “in a civilized community which recognizes
6 the right of private property among its institutions, the notion is
7 intolerable that a man should be protected by law in the enjoyment
8 of property once it is acquired, but left unprotected by the law in
9 his effort to acquire it.” . . .⁴¹⁹

10
11 Although it was an admiralty case, Justice Holmes’ opinion in Robins Dry Dock
12 and Repair Co. v. Flint⁴²⁰ is cited generally for the rule that remote economic
13 losses, without physical injury to anything in which the plaintiff has a proprietary
14 interest, are not compensable. The Robins Dry Dock principle “is essentially a
15 principle of disallowance of damages because of remoteness. . . .”⁴²¹ However, a
16 limited exception to this rule has existed for commercial fishermen, who may
17 recover damages without physical harm.⁴²²

⁴¹⁸ See 36A C.J.S. *Fish* § 20 (1961). “Where a person’s fishery rights are wrongfully interrupted or interfered with by another, he may maintain an action of trespass or action for damages for the injury caused thereby”

⁴¹⁹ Brennan v. United Hatters of North America, 73 N.J.L. 729, 65 A. 165 (N.J. 1906); PROSSER AND KEETON at 1005.

⁴²⁰ 275 U.S. 303 (1927).

⁴²¹ Holt Hauling and Warehousing Systems, Inc. v. M/V Ming Joy, 614 F.Supp. 890, 895 n.13 (E.D. Pa. 1985) (*citations omitted*).

⁴²² Ballard Shipping Co. v. Beach Shellfish, 32 F.3d 623, 625 (First Cir. 1994); Emerson G.M. Diesel Fuel Co. v. Alaskan Enterprise, 732 F.2d 1468 (9th Cir.1984); Union Oil v. Open, 501 F.2d 558, 567-68 (9th Cir.1974); Carbone v. Ursich, 209 F.2d 178, 181-82 (9th Cir. 1953); Golnoy Barge Co. v. M/T Shinoussa, 841 F.Supp. 783, 785 (S.D. Texas 1993); State of Louisiana ex rel.

1 In Union Oil v. Oppen the Ninth Circuit “examine[d] a fairly large body of
2 authorities, drawn from numerous jurisdictions and secondary sources” and, held
3 that, either under admiralty or California law, commercial fishermen who had no
4 property interest in uncaught fish nevertheless had a legally cognizable damage
5 claim “consisting of profits lost as a result of the reduction in the commercial
6 fishing potential of the Santa Barbara channel.” The court held that those persons
7 who “lawfully and directly make use of a resource of the sea. . . .,”⁴²³ might
8 recover from one who causes damage that “flows directly from the action of
9 escaping oil on the life in the sea.”⁴²⁴ The case states a clear exception to the
10 Robins rule, and also allows damages for habitat degradation, in addition to the
11 fish killed outright.⁴²⁵

12
13 Citing Prosser, Judge Sneed stated:

14
15 As we see it, the issue is whether the defendants owed a duty to the
16 plaintiffs, commercial fishermen, to refrain from negligent conduct
17 in their drilling operations, which conduct reasonably and
18 foreseeably could have been anticipated to cause a diminution of
19 the aquatic life ... and thus cause injury to the plaintiffs’
20 business.”⁴²⁶

21
22 Both tribal and non-tribal fisheries fit within the Union Oil exception. All
23 commercial fishermen “lawfully and directly” make use of water and habitat.

Guste v. M/V Testbank, 524 F.Supp. 1170 (E.D. La. 1981).

⁴²³ 501 F.2d at 570.

⁴²⁴ Id. at 569.

⁴²⁵ Id. at 560-562.

⁴²⁶ 501 F.2d at 568.

1 However, the tribal reliance is probably more critical than that of other
2 commercial fishermen.⁴²⁷

3
4 In Slaven v. BP America, the court held that the fishermen exception to the
5 Robins rule applies to both strict liability and negligence claims.⁴²⁸ However, the
6 Slaven court held that “fishbrokers” do not fall within the fishermen exception.
7 The fishermen exception is intended to be a narrow exception carved out for “the
8 favorites” of admiralty.”⁴²⁹

9
10 To demonstrate injury under this line of cases it must be shown that the oil spill
11 did in fact diminish aquatic life, and that this diminution reduced the profits the
12 plaintiffs would have realized from their commercial fishing in the absence of the
13 spill.

14
15 In admiralty it is well settled that fishing vessel owners and commercial fishermen
16 may recover lost fishing profits under the general maritime law of negligence.⁴³⁰

17 There is a two-part test to determine whether there is admiralty jurisdiction under

⁴²⁷ Indian treaty ceremonial, subsistence and commercial fisheries are entitled to more common law protection than non-Indian commercial fisheries. Treaty fisheries may be limited only by nondiscriminatory state or federal regulations which meet strict conservation standards. All measures must be taken to restrict non-Indian activities *before* Indian treaty fishing activities may be regulated. See *e.g. United States v. Washington*, 520 F.2d 676, 686 (9th Cir. 1975), *cert denied* 423 U.S. 1086 (1976); Lac Courte Oreilles Band of Indians v. Wisconsin, 668 F.Supp. 1233, 1235-1236 (W.D. Wis. 1987).

⁴²⁸ Slaven v. BP America, Inc., 786 F.Supp. 853, 861 (C.D. Cal. 1992).

⁴²⁹ Slaven at 861.

⁴³⁰ Union Oil Co. v. Oppen, 501 F.2d 558; United States v. Laflin 24 F.2d 683 (CA9 1928); Carbone v. Ursich, 209 F.2d 178, 181-182 (CA9 1953).

1 28 U.S.C. § 1333. The locus of the tort must be on the high seas, on coastal areas,
2 or otherwise navigable waters⁴³¹ where the injuries occurred.⁴³² Further, the
3 wrong bore a significant relationship to a traditional maritime activity of the
4 injured party viz. commercial fishing.⁴³³

5
6 In these instances the question is whether lost profits can be recovered in
7 admiralty, because admiralty rights take precedence.⁴³⁴

8
9 In Bales v. City of Tacoma,⁴³⁵ the City of Tacoma owned and operated a solid
10 waste facility that polluted a stream which resulted in a fish kill at plaintiffs
11 hatchery. The court held that plaintiff was entitled to an injunction against the
12 city under a public nuisance claim and was entitled to damages.

431 Throughout the nation's history, tidal water have been held to be within the
definition of "navigable waters." Until 1851, admiralty jurisdiction was limited to
waters "within the ebb and flow of the tide." However, in The Propeller Genesee
Chief v. Fitzhugh, 53 U.S. (12 How.) 443, 13 L.Ed. 1058 (1851), the Court held
that admiralty jurisdiction extended beyond tidal waters to all "navigable waters."
To be "navigable," the waterway must be used or susceptible of being used as an
artery of commerce. Adams v. Montana Power Co., 528 F.2d 437, 439 (CA9
1975).

432 Oppen v. Aetna Ins. Co., 485 F.2d 252, 256 (CA9 1973).

433 See Foremost Insurance Co. v. Richardson, 457 U.S. 668, 672-75, 102 S.Ct. 2654,
2656-58, 73 L.Ed.2d 300 (1982); Executive Jet Aviation, Inc. v. City of
Cleveland, 409 U.S. 249, 268, 93 S.Ct. 493, 504, 34 L.Ed.2d 454 (1972); Union
Oil Co. v. Oppen, 501 F.2d 558, 561 (1974).

434 Kermerac v. Compagnie Generale Transatlantique, 358 U.S. 625, 628, 79 S.Ct.
406, 3 L.Ed.2d 550; King v. Alaska Steamship Co., 431 F.2d 994 (CA9 1970).

435 Bales v. City of Tacoma, 20 P.2d 860, 863 (Wash. 1933).

1 Under Rem. Rev. Stat. § 9913, it was a public nuisance:

2
3 To throw or deposit any offal or other offensive matter, or the
4 carcass of any dead animal, in any watercourse, stream, lake, pond,
5 spring, well, or common sewer, street or public highway, or in any
6 manner to corrupt or render unwholesome or impure the water of
7 any such spring, stream, pond, lake or well, to the injury or
8 prejudice of others.⁴³⁶
9

10 Under section 9921 of the revised statutes,⁴³⁷ “a private person may maintain a
11 civil action for a public nuisance if it is specially injurious to himself.”⁴³⁸ In
12 addition, the court held that “a municipal corporation is not immune from an
13 action for damages nor from one to abate a nuisance.”⁴³⁹
14

15 The court found that the injuries sustained by the plaintiff were special to himself,
16 differing from those affecting the general public. Therefore, he was entitled to
17 maintain the action. The court determined that plaintiffs damages were not vague
18 and uncertain⁴⁴⁰ but were supported by “evidence of reasonable certainty.”⁴⁴¹
19

⁴³⁶ Id. at 864.

⁴³⁷ Rem. Rev. § 9921.

⁴³⁸ Id. at 864. See also, Olsen v. Bremerton, 110 Wash. 572, 188 P. 772; Hulet v. Wishkah Boom Co., 54 Wash. 510, 10 P. 814, 132 Am. St. Rep. 1127; Dawson v. McMillan, 34 Wash. 269, 75 P. 807.

⁴³⁹ Id. at 864 citing Mitchell Realty Co. v. West Allis, 184 Wis. 352, 199 N.W. 390, 35 A.L.R. 396; Hoffman v. Bristol, 113 Conn. 386, 155 A. 499, 75 A.L.R. 1191; McQuillin, Municipal Corporations (2d Ed.) vol. 6, §§ 2666 and 2812.

⁴⁴⁰ See Larson v. Union Investment, Co., 169 Wash. 5, 10 P2d. 557.

⁴⁴¹ Bales v. City of Tacoma, supra at 863.

1 In Fort Worth & Rio Grande Railway Company v. Hancock,⁴⁴² the court held that
2 the plaintiff, who operated a swimming pool in the channel of a river, was entitled
3 to recover lost profits caused by the defendants' negligent pollution of the river.
4 Similarly, downstream riparian owners, engaged in operating a business
5 dependent upon fishing, have been permitted to recover for injury to their business
6 caused by pollution of the stream.⁴⁴³ Both cases assumed the existence of a
7 nuisance created by the defendants' negligent conduct.⁴⁴⁴

8
9 Prosser has noted that, for such a tort claim:

10
11 [The action] is brought in behalf of a class, and the injury
12 complained of is not common to the general public, but peculiarly
13 affects the respondent, and those in the class to which he belongs.
14 The acts complained of constitute a damage and special injury to
15 him, in which the general public do not share. The fact that others
16 would suffer in the same way, if they were similarly engaged,
17 constitutes no bar to the maintenance of the present action.⁴⁴⁵

18
19 **c. Other participants in fishing operations may also**
20 **have causes of action for nuisance.**
21

22 The crew of a fishing vessel also has a right of action for damages.⁴⁴⁶ In Carbone,

⁴⁴² Fort Worth & Rio Grande Railway Company v. Hancock, 286 S.W. 335
(Tex.Civ.App. 1926).

⁴⁴³ See Masonite Corporation v. Steede, 198 Miss. 530, 547, 23 So.2d 756 (1945);
Hampton v. North Carolina Pulp Co., *supra*, 223 N.C. 535, 27 S.E.2d 538 (1943).

⁴⁴⁴ See *Prosser* at 575.

⁴⁴⁵ Id.

⁴⁴⁶ Carbone v. Ursich, 209 F.2d 178, 182 (CA9 1953).

1 the court overturned Borcich v. Ancich,⁴⁴⁷ and held that crew members who were
2 entitled to proceeds from the sale of fish they caught could maintain an action for
3 damages. Here the cre members claimed other vessels had negligently damaged
4 their nets. The court held that the crew members were entitled to recover their
5 share of lost fish and their share of lost prospective catches of fish during the time
6 the net was being repaired, though none of them owned any interest in the fishing
7 vessel or in the net.⁴⁴⁸

8
9 In Skansi v. Humble Oil,⁴⁴⁹ the plaintiff was the operator of the shellfish business
10 but not the owner. The court granted the plaintiff damages for estimated lost
11 profits and mitigation expenses incurred due to pollution.
12

⁴⁴⁷ 191 F.2d 392.

⁴⁴⁸ See also, The Columbia, D.C.N.Y. 1877, 6 Fed.Cas.No. 3,035, p. 173 and The Mary Steele, D.C. Mass. 1874, 16 Fed.Cas.No. 9,226, p. 1003.

⁴⁴⁹ Skansi v. Humble Oil & Ref. Co., 176 So.2d 236, 238 (LA 1965)

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6. Relief and Recovery

a. Damages

If a plaintiff prevails in a nuisance action, he or she may recover damages, and seek abatement of the nuisance.⁴⁵⁰ The measure of damages caused by a nuisance depends on whether the injury is temporary or permanent. Where the injury to land is temporary, the measure of damages is the diminished rental value if the property is rented, or the diminished value of its use if the property is used by the owner.⁴⁵¹ Where the injury to land is permanent and irreparable, the measure of damages is the difference in the market value of the property before and after the injury.⁴⁵² Another measure of damages includes costs avoided by the defendant through noncompliance.⁴⁵³

Except where punitive or statutory damages are permitted or prescribed by statute, the amount of damages to be recovered is commensurate with the injury done, having regard to all the circumstances of each particular case.⁴⁵⁴

The fact that damages are difficult to ascertain does not constitute a bar to

⁴⁵⁰ RCW 7.48.020.

⁴⁵¹ Miotke, *supra*, 101 Wn.2d at 332.

⁴⁵² Id.

⁴⁵³ See e.g., Clean Air Act and Clean Water Act.

⁴⁵⁴ Smith v. P.J. McGowan & Sons, 284 P. 189, 131 Or. 522.

1 recovery.⁴⁵⁵ All that is required is the allowance of such damages as, in the
2 judgment of the court, directly and naturally resulted from the injuries
3 sustained.⁴⁵⁶

4
5 In Department of Fisheries v. Gillette, the state based its damage claim on the
6 estimated value of fish lost to the public. The state estimated the number of eggs
7 per nest and survival rates to predict the number of fish which would have
8 survived to be caught. The market value of the fish, was the net economic value
9 of the salmon to the public fishery. Net economic value is essentially the amount
10 of value or profits society made from the catch of the fish.⁴⁵⁷

11
12 For the damages to the sports fishery, the state relied on a 1976 study to estimate
13 damages.⁴⁵⁸ It adjusted the estimate for inflation and included the amount spent
14 for the opportunity to catch fish. For the commercial fishery, the state multiplied
15 the ex-vessel price paid by a commercial processor by a factor of 2.1 to “reflect
16 additional value to society for wages and income generated by further processing
17 of fish.”⁴⁵⁹

18
19 Though damage estimates may be somewhat speculative, courts are reluctant to

⁴⁵⁵ Beacon Oyster Co. v. United States, 105 Ct.Cl. 227; Mansfield and Sons Co. v. United States, 94 Ct.Cl. 397 (1941).

⁴⁵⁶ Mansfield and Sons Co. v. United States, 94 Ct.Cl. 397.

⁴⁵⁷ Department of Fisheries v. Gillette, *supra* at 768.

⁴⁵⁸ *Id.* citing S. Mathews and G. Brown, *Economic Evaluation of the 1967 Sport Salmon Fisheries of Washington*, Washington Department of Fisheries Technical Report No. 2, April 1970.

⁴⁵⁹ *Id.* at 768.

1 “immunize a defendant once damage has been shown merely because the extent or
2 amount thereof cannot be ascertained with mathematical precision, provided the
3 evidence is sufficient to afford a reasonable basis for estimating loss.”⁴⁶⁰

4
5 In Maddox v. International Paper Co.,⁴⁶¹ plaintiffs operated a commercial fishing
6 camp. The fishing business included renting boats, catching and selling
7 commercial fish, renting camp houses, and serving fish dinners. Defendant,
8 International Paper Co., released waste products from their operation that polluted
9 the streams and killed fish in the streams where plaintiff operated his fish camp.
10 The court held that International Paper was liable for lost profits based on its
11 ruling that:

12
13 “...a recovery may be had for loss of profits as an element of damages
14 provided their loss is the proximate result of defendant’s wrong and they
15 can be shown with reasonable certainty.”⁴⁶²

16
17 In this case, “Profits” was found to include the advance in the price of goods sold
18 beyond cost of purchase. In contrast with “wages of labor” damage based on
19 “profits” included the net return to capital after deducting expenses including
20 wages of the employees and the time plaintiff dedicated to the business.⁴⁶³ Under
21 Louisiana Law, future lost profits are allowable damages and may be determined
22 from past profits. However, the defendant’s good faith efforts to prevent damage

⁴⁶⁰ Id. at 769 citing Jacqueline’s Washington, Inc. v. Mercantile Stores Co., 80 Wash.2d 784, 786, 498 P.2d 870 (1972); accord, Lundgren v. Whitney’s Inc., 94 Wash.2d 91, 614 P.2d 1272 (1980).

⁴⁶¹ Maddox v. International Paper Co., 47 F.Supp. 829, 830 (WD LA 1942).

⁴⁶² Id. at 830.

⁴⁶³ Id. at 830 citing Des Allemands Lumber Co. v. Morgan City Timber

1 precluded imposition of penalties beyond an award of damages.

2
3 In Hampton v. North Carolina Pulp Co., defendants argued that the damages
4 sought were speculative and unprovable. They pointed out the fishing business is
5 subject to “severe vicissitudes and that it would be impossible for the plaintiff to
6 prove that his damage was proximately caused by defendant’s misconduct, since
7 there are notoriously a multitude of other causes to which it might be
8 attributed.”⁴⁶⁴ The court found that the plaintiff could prove damages “without
9 resort to evidence which is wholly speculative in character.”⁴⁶⁵

10
11 While these are classed as animals wild by nature, their habitat in
12 the river is more restricted than that of any other creature man
13 pursues as food. They are confined to the channels of the river; it
14 is not a question of lure which instinct might avoid, but of the
15 length of the net which is stretched in their way and the size of its
16 meshes, against which instinct cannot avail. They are so
17 defenseless against the devices of man that they would long ago
18 have become extinct, except for their amazing fecundity and their
19 cities of refuge in the great deep---and the laws which, in some
20 degree, protect their migrations. The habit of migration is inherent
21 in their nature and its seasonal recurrence may be expected.⁴⁶⁶

22
23 Since the annual migrations of the fish are not speculative, injury to that migration
24 would be expected to have detrimental impacts on the fisheries dependent those
25 migrations.

464 Hampton v. North Carolina Pulp Co., supra at 547.

465 Id.

466 Id.

1 In Snug Harbor Packing Co. v. Schmidt,⁴⁶⁷ a fisherman was awarded
2 compensatory damages for the confiscation of his fishing gear and loss of fishing
3 rights. Fishermen whose gear was confiscated could recover punitive damages on
4 account of defendant's placing his trap within prohibited distance.

5
6 In Jurisich v. Louisiana Southern Oil & Gas Co.,⁴⁶⁸ the court held that a dredging
7 contractor was negligent and liable for damages to a oyster lessees. The Jurisich
8 court was faced with the difficult task in defining the actual damages. The court
9 recognized that damages to oyster beds are difficult to ascertain and cannot be
10 calculated with mathematical accuracy. However, the court held that inability to
11 calculate damages with mathematical accuracy does not constitute a bar to
12 recovery.

b. Equity

13
14
15
16 Damages are the appropriate remedy for a nuisance which has ceased to exist. If
17 an injunction against a nuisance is sought, the courts generally balance the harm
18 which the granting of the injunction would cause to the defendant against the
19 benefit which the plaintiff would receive.

20
21 Where an action at law will not give adequate relief and irreparable injury will
22 result, the owner of a right of fishing may obtain an injunction to restrain an

⁴⁶⁷ Snug Harbor Packing Co. v. Schmidt, 394 P.2d 397, 399 (Alaska 1964).

⁴⁶⁸ Jurisich v. Louisiana Southern Oil & Gas Co., 284 So.2d 173, 182 (LA App. 1973).

1 unlawful interference.⁴⁶⁹ Injunctions have been given to restrain an unlawful weir
2 or dam.⁴⁷⁰ Where there is an adequate remedy at law, an injunction will not be
3 granted. An injunction will not issue to restrain interference with the public right
4 of fishery, unless plaintiff shows special injuries to himself.⁴⁷¹

5
6 At common law, and by statute in some states, an unauthorized obstruction to the
7 passage of fish that is placed in navigable waters is a public nuisance and may be
8 abated.⁴⁷² However, an injunction will not be granted to restrain the building of a
9 dam across a stream on the theory that it will interfere with rights of fishery, where
10 the statute which authorizes the construction of the dam requires that sufficient
11 fishways be provided.⁴⁷³

12
13 **c. Class Action**

14
15 One or more members of a class of persons similarly situated may sue on behalf
16 of all members of that class. Such lawsuits are permitted where considerations of
17 necessity or convenience justify an action on behalf of the group, rather than
18 multiple actions by the class members individually. Class action suits can be
19 brought wherever there were questions of common or general interest of many

⁴⁶⁹ Bowles v. Kinney, D.C. Wash. 292 F. 419 (DATE); Vitalich v. Pacific American Fisheries, 284 P. 805, 155 Wash. 411.

⁴⁷⁰ Stannard v. Hubbard, 34 Conn. 370; Perry v. Carleton, 40 A. 134, 91 Me. 349; Howell v. Robb, 7 N.J.Eq. 17.

⁴⁷¹ Ne-Bo-Shone Ass'n v. Hogarth, D.C. Mich., 7 F.Supp. 885, aff'd, C.C.A. 81 F.2d 70 (DATE).

⁴⁷² Clinton v. Bacon, 16 A. 548, 56 Conn. 508.

⁴⁷³ Havre de Grace v. Harlow, 98 A. 852, 129 Md. 265.

1 persons, or when the parties were very numerous and it would be impractical to
2 bring them all before the court.⁴⁷⁴

3
4 Under Fed. R. Civ. P. 23(a), four conditions must be established in any type of
5 class suit:

6
7 **Numerous parties**- The class must be so numerous that joinder of all
8 members individually is impractical;⁴⁷⁵

9
10 **Common question** - The action must involve questions of law or fact
11 common to the class;⁴⁷⁶

12
13 **Representatives claims typical** - The claims of the persons maintaining
14 the action on behalf of the class must be typical of those of the class
15 generally;⁴⁷⁷ and

16
17 **Adequacy of representation** -The persons representing the class must be
18 able fairly and adequately to protect the interests of all members of the
19 class.⁴⁷⁸

20
21 A class action suit to abate a fish blocking nuisance or to obtain damages could
22 meet these requirements. There are several thousand commercial fishers in the
23 State of Washington. These numbers are manageable for purposes of class action
24 notice requirements. Also, joinder of all individual commercial fishers would be
25 impractical. Even though the cumulative damages would be significant, the size

⁴⁷⁴ 28 U.S.C. § 23 (a).

⁴⁷⁵ 28 U.S.C. § 23 (a) (1).

⁴⁷⁶ 28 U.S.C. § 23 (a) (2).

⁴⁷⁷ 28 U.S.C. § 23 (a) (3).

⁴⁷⁸ 28 U.S.C. § 23 (a) (4).

1 of each claimant's damages individually would generally be fairly small.

2
3 There is a common nucleus of law or fact upon which the issue of liability to the
4 class depends. Also, a class represented by individual commercial fishers, who
5 have specific individual injuries, would be typical of the class generally. The
6 public importance of such a lawsuit would be significant.

7
8 Once the foregoing criteria are satisfied, the class suit may be based on any one of
9 the following grounds:⁴⁷⁹

10
11 **Prejudice from separate actions**⁴⁸⁰-A class suit is permitted if the
12 prosecution of separate actions would create either "incompatible
13 standards of conduct for the party opposing the class through inconsistent
14 adjudications,⁴⁸¹ or "substantially impairing the interests of other members
15 of the class."⁴⁸²

16
17 **Equitable relief sought as to rights held in common** - A class action is
18 also warranted where the basis on which the opposing party has acted is
19 generally applicable to the class and declaratory or injunctive relief would
20 benefit the class as a whole.⁴⁸³

21
22 **Common "predominant" question** - The third, and most common, basis
23 for a class suit is the situation in which questions of law or fact common to
24 the class predominate over questions affecting only individual members,
25 and, on balance, a class action is superior to other available methods for

⁴⁷⁹ 28 U.S.C. § 23 (b).

⁴⁸⁰ 28 U.S.C. § 23 (b)(1).

⁴⁸¹ 28 U.S.C. § 23 (b)(1)(A).

⁴⁸² 28 U.S.C. § 23 (b)(1)(B).

⁴⁸³ 28 U.S.C. § 23 (b)(2).

1 adjudicating the controversy.⁴⁸⁴
2

3 All these grounds are applicable to a class action lawsuit brought by commercial
4 fishermen against owners of impassable culverts. Prosecution of separate lawsuits
5 could create incompatible legal standards or impair the interests on non-
6 participating plaintiffs. A claim based on failure to maintain culverts would be
7 the cause of action for each member of the class. Declaratory or injunctive relief
8 would benefit the class as a whole. The facts and questions of law for each
9 defendant would be the same for each member of the class. Therefore, a class
10 action would be superior to other available methods for adjudicating the
11 controversy.⁴⁸⁵
12

13 **7. Endangered Species Act - Citizen Suits**

14
15 Another opportunity for citizens lawsuits exists under the Endangered Species Act
16 (ESA). Section 11 (g) of the ESA authorizes any individual to bring a civil suit to
17 enjoin “any person,” from violating the ESA or any regulation promulgated
18 thereunder.⁴⁸⁶ “Person” is defined to include private persons or entities as well as
19 local, state, and federal governments, The Act allows such suits to be filed in
20 federal court without having to comply with federal jurisdictional prerequisites of
21 amount in controversy or diversity. It also authorizes federal courts to award
22 attorneys’ fees and other costs of litigation where appropriate.⁴⁸⁷

⁴⁸⁴ 28 U.S.C. § 23 (b)(3).

⁴⁸⁵ 28 U.S.C. § 23 (b)(3).

⁴⁸⁶ 16 U.S.C. § 1533 (12), 1540 (g)(1).

⁴⁸⁷ 16 U.S.C. § 1540 (g)(1).

1 Citizen suits cannot be based on agency failure to properly administer the ESA,
2 except for nondiscretionary duties relating to the listing of species under Section
3 4. However these claims may still be cognizable under the Administrative
4 Procedures Act (APA) in a challenge to final agency action.⁴⁸⁸ The citizen suit
5 provision of the ESA, permits a private citizen to sue in federal court to enjoin
6 private or governmental activities solely on the ground that such activity or
7 development violates the ESA.⁴⁸⁹

8
9 Citizen suits cannot be filed until a 60 day written notice of intent to sue has been
10 given to the alleged violator and to the Secretary of Commerce (for anadromous
11 fish).⁴⁹⁰ Failure to provide such notice can result in dismissal of the lawsuit and
12 imposition of sanctions.⁴⁹¹ The purpose of the notice requirement and waiting
13 period is to give the federal government an opportunity to resolve the controversy,
14 thereby eliminating the need for a citizen suit.⁴⁹² The ESA does not allow citizen
15 suits if the federal government is pursuing a civil or criminal enforcement
16 proceedings against the alleged violator.⁴⁹³

⁴⁸⁸ See Bennett v. Spear, 117 S.Ct. 1154, 1167 (1997); Also see, “standing”
discussion supra.

⁴⁸⁹ The threat of grave harm to a species or its cortical habitat can justify an
injunction against the activity. See e.g. Marbled Murrelet v. Pacific Lumber Co.,
83 F.2d 1060 (CA9 1996).

⁴⁹⁰ 16 U.S.C. § 1540 (g)(2).

⁴⁹¹ See, e.g., Save the Yaak Committee v. Block, 840 F.2d 714 (CA9 1988); Maine
Audubon Society v. Purslow, 907 F.2d 265 (CA1 1990).

⁴⁹² See Halstrom v. Tilamook County, 493 U.S. 20, 29 (1989).

⁴⁹³ 16 U.S.C. § 1540 (g)(2)(A).

1 Citizen suits satisfy federal “standing” requirements. For suits brought under
2 ESA, a plaintiff need only meet the minimum standing requirements imposed by
3 Article III of the Constitution. This requires a showing of “injury in fact” to the
4 plaintiff from the challenged action.⁴⁹⁴ For citizen suits brought under the APA, a
5 plaintiff must also satisfy the “zone of interest” standing test.⁴⁹⁵ Under this
6 “prudential” standing requirement, a plaintiff must additionally show that the
7 interest sought to be protected is arguably within the zone of interest to be
8 protected or regulated by the ESA.⁴⁹⁶

9
10 Under Section 9 of the ESA, it is unlawful for any person to take any endangered
11 species within the United States.⁴⁹⁷ The term “take” means to harass, harm,
12 pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage
13 in any such conduct.⁴⁹⁸ The term “harm” includes “significant habitat
14 modification or degradation where it actually kills or injures wildlife.”⁴⁹⁹ These
15 take prohibitions are also extended by rule to threatened species.
16

⁴⁹⁴ Bennett v. Spear, Supra at 116.

⁴⁹⁵ E.g., Association of Data Preprocessing Service Organization, Inc. v. Camp, 397 U.S. 150 (1970).

⁴⁹⁶ Id. at 1168.

⁴⁹⁷ 16 U.S.C. § 1538.

⁴⁹⁸ 16 U.S.C. § 1532 (19).

⁴⁹⁹ 50 CFR §17.3 (c) (Fish and Wildlife Service definition of “harm”); 63 Fed. Reg. 24148 (definition of “harm” proposed by the National Marine Fisheries Service); See also, Babbitt, Secretary of Interior v. Sweet Home Chapter of Communities For A Great Oregon, No. 94-859. June 29, 1995, ___ U.S. ___; 115 S. Ct. 2407 (1995).

1 Significant habitat modification or degradation relevant to the culvert issue
2 include:

- 3
- 4 constructing or maintaining barriers that limit or impede access to listed
5 species' essential habitat and
 - 6
 - 7 removing water or otherwise altering streamflow when it is likely to
8 impair spawning, migration or other essential functions.⁵⁰⁰
 - 9

10 It should be easy to demonstrate the impacts of blocking culverts. Improperly
11 functioning culverts limit or impede access of listed species to essential spawning
12 and rearing habitat. Improperly maintained culverts also alter streamflows. Low
13 streamflows impair migration of salmon. To prevail on an ESA claim, the
14 plaintiff does not have to demonstrate when the culverts were constructed.

15

16 **8. Tribal Governments - Treaty Rights**

17

18 A full and complete analysis of tribal rights to habitat protection is beyond the
19 scope of this paper.⁵⁰¹ The treaty Tribes of western Washington have reserved the
20 right to take fish at all usual and accustomed fishing grounds. The treaty fishng
21 language is typified by the Treaty of Medicine Creek, which provides:

22

23 The right of taking fish, at all usual and accustomed grounds and
24 stations, is further secured to said Indians, in common with all
25 citizens of the Territory, and of erecting temporary houses for the
26 purpose of curing, together with the privilege of hunting, gathering

⁵⁰⁰ 63 Fed. Reg. 24148 (May 1, 1998).

⁵⁰¹ See Allen H. Sanders, *Damaging Indian Treaty Fisheries: A Violation of Tribal Property Rights?* Public Land & Resources Law Review, Vol. 17, 153-175 (1996).

1 roots and berries, and pasturing their horses on open and unclaimed
2 lands: Provided, however, That they shall not take shell fish from
3 any beds staked or cultivated by citizens . . .⁵⁰²
4

5 As a matter of common law, tribes should have a cause of action for damages or
6 equitable relief under trespass or nuisance when their rights in treaty fisheries are
7 harmed. The tribes should also be able to bring an action under federal or state
8 law to require the state to enforce its laws to ensure adequate passage for fish.
9

10 The Stevens treaties secured not merely the opportunity to try to catch fish, but a
11 right to take a share of the fish supply that would be available absent human
12 interference.⁵⁰³ The right of taking fish is analogous to other property rights. It is
13 a recognized property interest that is compensable if harmed.⁵⁰⁴
14

15 The treaty fishing right satisfies common law concepts of property. In defining
16 property, courts have looked to whether there is a legally protected expectation of
17 benefit from some object:
18

⁵⁰² Treaty of Medicine Creek, Dec. 26, 1854, 10 Stat. 1132.

⁵⁰³ Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n,
443 U.S. 658, 678 (1979).

⁵⁰⁴ See Puget Sound Gillnetters Ass'n v. United States Dist. Court, 573 F.2d 1123,
1128 (CA9 1978); United States v. Washington, 520 F.2d 676, 685 (CA9 1975)
cert. denied, 423 U.S. 1086 (1976); Whitefoot v. United States, 293 F.2d 658,
659-60 (Ct.Cl. 1961); cert. denied, 369 U.S. 818 (1962); Northern Paiute Tribe v.
United States, 30 Ind. Cl. Comm'n 210, 218 (1973); Menominee Tribe v. United
States, 391 U.S. 404, 412-13 (1968); United States v. Truckee-Carson Irrigation
Dist., 649 F.2d 1286, 1298, 1305 (CA9 1981); Colville Conf. Tribes v. Walton,
647 F.2d 42, 48 (CA9 1981), cert. denied, 454 U.S. 1092 (1981); Muckleshoot
Indian Tribe v. Hall, 698 F. Supp. 1504, 1511-12 (WD WA 1988).

1 For the lawyer, “property” is not a “thing” at all although “things”
2 are the subject of property. Rather as Jeremy Bentham asserted,
3 *property is a legally protected “expectation * * * of being able to*
4 *draw such or such an advantage from the thing” in question,*
5 “according to the nature of the case.”⁵⁰⁵
6

7 The Stevens treaties and subsequent case law clearly recognized the expectancy
8 the Tribes have in the perpetual opportunity to rely on fishing for subsistence,
9 commercial, religious, and cultural purposes.

10
11 Although fish are not “owned” before they are harvested,⁵⁰⁶ states and tribes have
12 a legally protected interest in fish and wildlife, which they may permit to be
13 harvested by their citizens and which are subject to their regulatory authority.⁵⁰⁷

14 As co-managers of the fish and wildlife resources and primary regulators of their
15 treaty fishers, Tribal governments should have no less of a right to protect the fish
16 resource on which its treaty fisheries rely.⁵⁰⁸ Whatever the precise nature of the
17 property right in fish, governments have the right to sue for damages to resources
18 on behalf of their citizens.⁵⁰⁹ The treaty right to fish is a “communal property

⁵⁰⁵ Roger A. Cunningham et al., *The Law of Property* §1.1 at (2d ed. 1993) (emphasis added) (footnote omitted).

⁵⁰⁶ See, e.g., Hughes v. Oklahoma, 441 U.S. 322, 334-35 (1979); Douglas v. Seacoast Products, Inc., 431 U.S. 265, 284 (1977).

⁵⁰⁷ Ass’n v. United States District Court, 573 F.2d 1123, 1132, n. 14 (CA9 1978); Tlingit and Haida Indians v. United States, 389 F.2d 778, 785-87 (Ct. Cl. 1968); Department of Fisheries v. Gillette, 621 P.2d 764, 766-67 (WA Ct. App. 1980).

⁵⁰⁸ See, Gillette 621 P.2d at 766-67, cited in Sanders, “*Indian Treaty Fisheries*” at 164 n. 68.

⁵⁰⁹ See, Gillette, 621 P.2d at 765.

1 right” of the tribe.⁵¹⁰ In addition, the state has a duty to protect the treaty-
2 protected property rights of the western Washington Tribes.

3
4 **C. Summary**

5
6 The director of the Department of Fish and Wildlife may initiate a civil
7 enforcement action when the director is aware that a culvert is not properly
8 maintained, but the director is probably not required to take such action in every
9 case. The director may use both statutory and common law remedies to protect
10 the fisheries resources. The director is authorized to fix blocking culverts within
11 30 days after the director gives the owner notice to do so. Culverts in place prior
12 to the effective date of RCW 75.20.060 are subject to its requirements. The
13 director periodically may revise fish passage and culvert requirements, but the
14 revised requirements would apply only to culverts installed or upgraded after the
15 revisions are published.

16
17 There are thousands of culverts that obstruct fish migration and the Department
18 has done little to address this problem. The Department has sat “idly by” while
19 the resource continues to decline as a result of impassable culverts. The only
20 viable enforcement alternative rests with the citizens of this State. In contrast to
21 its discretion to pursue civil remedies, the Department may be required to use its
22 criminal authority to enforce fish passage requirements. A mandamus action may
23 be appropriate to compel the Department to enforce the criminal statutes.

24
25 Certain members of the public may be able to file common law and statutory

⁵¹⁰ United States v. Washington, 520 F.2d 677, 687-691 (CA9 1975), cert. denied,
423 U.S. 1086 (1976).

1 nuisance claims, or private citizen suit actions under the Endangered Species Act
2 against state and local governments, or private parties who fail to maintain fish
3 passage. Damages and injunctive relief could be obtained. Tribal governments
4 with treaty-reserved fishing rights should also have the ability to bring common
5 law, statutory, or treaty-based claims to ensure fish passage through road culverts
6 and other fish passage devices.

7

8

1
2 **VIII. SUMMARY OF ECONOMIC AND FISHERIES IMPACTS**
3 **CAUSED BY IMPASSABLE CULVERTS.**
4

5 A claim of special injury or economic impact may be necessary to sustain standing
6 or a damage claim a nuisance lawsuit. The following section assesses the impacts
7 of culverts in the Skagit River Basin on the salmon resource and dependent
8 fisheries. This section describes the protocols and methods used in the analysis.
9

10 **A. Protocols for Culvert Evaluation**
11

12 WDFW recently published an assessment manual for fish passage barriers.⁵¹¹ This
13 manual identifies methods to evaluate whether culverts are blocking the upstream
14 and downstream migration of salmonids. It also includes a methodology for
15 determining the quantity of habitat that will be gained as a result of passage
16 restoration.
17

18 Culvert passage evaluations begin with two questions. The first asks if the stream
19 is fish bearing. Fish bearing streams include the following:
20

- 21 water courses with ordinary high water widths in excess of two feet in
22 Western Washington, and three feet wide in Eastern Washington, with
23 gradients less than 20%,
24
- 25 Type 1,2,3,4 water courses as defined by the Department of Natural
26 Resources Water Type Maps,
27
- 28 water courses listed as fish bearing in “*A Catalog of Washington Streams*”

⁵¹¹ Fish Passage Barrier Assessment and Prioritization Manual, WDFW, Habitat and
Lands Services Program, October, 1998.

1 *and Salmon Utilization,”*⁵¹²

- 2
- 3 water courses listed as fish bearing on StreamNet,⁵¹³
- 4
- 5 stream reaches less than 20% that are found to be flowing during the
- 6 summer months regardless of size,
- 7
- 8 roadside ditches/streams that are accessible to fish and have flow
- 9 characteristics that provide usable fish habitat, and
- 10
- 11 watercourses with documented fish use.
- 12

13 The second question asks about the physical features of the culvert. This is to

14 determine if fish can successfully navigate through it. WDFW has developed two

15 levels of analysis to make this determination (Level A and Level B). A partial list

16 of culvert features includes the following:

17

- 18 Culvert span
- 19 Culvert rise
- 20 Culvert Length
- 21 Streambed material in culvert
- 22 Outfall drop
- 23 Culvert slope
- 24 Average Streambed width
- 25 Culvert Span to Streambed Width Ratio
- 26 Water Depth and Velocity within Culvert
- 27 Plunge Pool Depth and Length
- 28

29 A Level A analysis then asks the following questions:

⁵¹² Williams, et al. 1975. *A catalog of Washington streams and salmon utilization. Vol. 1 Puget Sound Washington*, Dept. Of Fish. Olympia, WA; and Phinney and Bucknell 1975. *A catalog of Washington streams and salmon utilization. Vol. 2 Coastal Reion*, Dept. Of Fish. Olympia, WA

⁵¹³ <http://www.streamnet.org>.

1 (a) if there is natural streambed material throughout the culvert, and
2 the culvert width is at least 75% of the average streambed toe
3 width at the second riffle downstream of the culvert, and;

4
5 (b) If the outfall drop is less than .8 feet,

6
7 If the answers to these two questions are yes, then the culvert is not considered a
8 barrier. If the answer to either of these questions is negative, than a more
9 extensive Level B analysis is required.
10

11 The manual also provides a habitat assessment protocol. This methodology
12 estimates the potential increase in fish production that can result from restoration
13 efforts. This assessment considers the quantity of spawning and /or rearing habitat
14 that would be accessible as a result of culvert improvements. Spawning habitat
15 includes the sum of the stream area that can be used for spawning, based on
16 substrate composition, and stream width at ordinary high water. Rearing habitat is
17 determined by the pool and riffle areas made available due to improved passage.
18 The extent of rearing habitat is measured during a projected 60 day low flow
19 period. Spawning and rearing areas are then used to estimate the number of
20 smolts that can be produced within these newly accessible habitats. Estimated
21 smolt production then is used to estimate the number of fish that would survive
22 to adulthood.
23

24 **B. Methods for determining blockages**

25
26 Blockage determinations were based on professional judgement of field
27 biologists. In general, drop heights (from the culvert outlet bottom to the surface
28 of the plunge pool) of more than 0.8 feet were considered blockages. Culvert with
29 slopes more than 0.5% to 1.0% were also generally considered blockages. Percent

1 blocking estimates were based on professional judgement of the field biologists.⁵¹⁴

2
3
4 **C. Methods for estimating habitat losses**

5
6 **1. Summer rearing habitat**

7
8 Several different estimates of summer rearing habitat losses in these WRIAs have
9 been made. These estimates were based on different methods. The methods used in
10 each estimate are as follows:

11
12 *WDF memo:* For this estimate habitat areas above blocking culverts owned by
13 Skagit County were field surveyed by WDFW (then Washington Department of
14 Fisheries). Accessible habitat length, percent pool, and pool and riffle area were
15 recorded. Average wetted width was back-calculated from total rearing area and
16 accessible length.

17
18 *WDF file:* Accessible stream length above blocking culverts was recorded.
19 Average wetted widths above the culverts were estimated as 2/3 of the average
20 wetted width of the reaches downstream of the culvert. The downstream reach data
21 was recorded in Johnson (1985).⁵¹⁵ The percent pool estimate was based on the
22 average percentage of pools in old-growth streams as calculated in Beechie et al.

⁵¹⁴ A culvert listed as 70% blocking implies that passage efficiency is 30%.

⁵¹⁵ Johnson, R. 1986. *Assessment of the Skagit river system's rearing potential*. Washington Department of Fisheries Technical Report 95.

1 (1994).⁵¹⁶ Average percent pool by slope class is shown in Table 14. Total rearing
2 habitat area was calculated as (accessible length) × (average wetted width). Pool
3 area was calculated as (total summer rearing area) × (percent pool), and riffle area
4 was calculated as (total summer rearing area) × (1 – (percent pool)).

5
6 *WDF file/SSC survey:* This estimate relied on the WDF records of accessible
7 stream length above blocking culverts. Average wetted widths were measured
8 during SSC field surveys. Percent pool was estimated based on the average
9 percentage of pools in old-growth streams as calculated in Beechie et al. (1994).⁵¹⁷
10 Average percent pool by slope class is shown in Table 14. Total rearing habitat
11 area was calculated as (accessible length) × (average wetted width). Pool area was
12 calculated as (total summer rearing area) × (percent pool), and riffle area was
13 calculated as (total summer rearing area) × (1 – (percent pool)).

14
15 *SSC Survey:* Accessible stream length above these culverts and average wetted
16 widths were recorded in SSC surveys. Percent pool was estimated based on the
17 average percent pools in old-growth streams as calculated in Beechie et al.
18 (1994).⁵¹⁸ Average percent pool by slope class is shown in Table 14. Total
19 summer rearing habitat area was calculated as (accessible length) × (average
20 wetted width). Summer pool area was calculated as (total summer rearing area) ×
21 (percent pool), and summer riffle area was calculated as (total summer rearing

⁵¹⁶ Beechie, T., E. Bearmer, and L. Wasserman. 1994. *Estimating coho salmon rearing habitat and smolt production losses in a large river basin, and implications for habitat restoration*, in North American Journal of Fisheries Management 14: 797-811.

⁵¹⁷ Id.

⁵¹⁸ Id.

area) × (1 – (percent pool)). These methods under “Data Source” in the culvert data base.

| Slope class | Channel slope | Percent Pool |
|----------------|---------------|--------------|
| Low Slope | <2% | 35% |
| Moderate slope | 2% - 4% | 45% |
| High slope | > 4% | 65% |

Table 14. Slope classes and average percent pool in old growth streams as calculated in Beechie et al. (1994).

2. Winter Rearing Habitat

Winter rearing areas were calculated only for coho salmon because steelhead production models only estimate densities of age 1+ parr during summer. Winter stream temperatures in the Skagit basin are less than 7°C, so juvenile coho salmon use predominantly backwater pools as rearing areas, and other habitat types are not utilized. Therefore, winter rearing habitat estimates only include the area of backwater pools at winter flows.

Pool areas in winter were calculated using seasonal data from 8 similar streams in the North Cascades (Beechie et al. 1994).⁵¹⁹ Winter backwater pool areas ranged from 0% to 28% of the total summer pool area and averaged 14% (Beechie and

⁵¹⁹ Id.

1 Sibley 1990).⁵²⁰ Winter backwater pool areas were estimated by multiplying the
2 summer pool area by 0.14.

3
4
5 **D. Methods for estimating fish production losses.**

6
7 Different methods were used to estimate coho and steelhead smolt production.

8
9 *Coho Salmon:* Coho smolt production estimates were based on Beechie et al.
10 (1994).⁵²¹ Smolt production numbers for each of the pool and riffle areas were
11 estimated using the summer usable habitat equivalent, rearing density, and
12 mortality rates to smolt age from Reeves et al. (1989).⁵²² In summer, the rearing
13 density for pools and riffles is 1.7 coho juveniles per unit of habitat area and the
14 survival rate to smolt is 0.25; the summer usable habitat equivalents are 1.0 for
15 pools and 0.4 for riffles (Table 15). The estimated numbers of smolts produced
16 from pools and riffles in summer are 0.43 smolts/m² and 0.17 smolts/m²,
17 respectively. In winter, the rearing density for pools (backwater pools only) is 5.0
18 coho juveniles per unit of habitat area and the survival rate is 0.31; the winter
19 usable habitat area equivalents are 0.7 for pools and 0.0 for riffles (Reeves et al.

⁵²⁰ Beechie, T. and T. Sibley. 1990. *Evaluation of the TFW stream classification system: stratification of physical area and distribution.* Washington Department of Natural Resources, TFW-16B-90-011, Olympia.

⁵²¹ Beechie, 1994 supra.

⁵²² Reeves, G., F. Everest, and T. Nickelson. 1989. *Identification of physical habitats limiting the production of coho salmon in wester Oregon and Washington.* USDA Forest Service Gen. Tech. Rep. PNW-GTR-245, pp. 18.

1 1989, Table 15).⁵²³ The estimated numbers of smolts produced from backwater
 2 pools and riffles in winter are 1.09 smolts/m² and 0.00 smolts/m², respectively.

3
 4 *Steelhead Trout*: Steelhead smolt production was estimated by two different

| Habitat Type | Useable Area Equivalent (units/m ²) | Density at a Stage (parr/unit) | Survival to smolt | Potential smolt production (smolts/m ²) |
|-----------------|--|-----------------------------------|-------------------|--|
| Tributary | | | | |
| Pool (Summer) | 1 | 1.7 | 0.25 | 0.425 |
| Pool (Winter) | 0.7 | 5 | 0.31 | 1.085 |
| Riffle (Summer) | 0.4 | 1.7 | 0.25 | 0.17 |
| Riffle (Winter) | 0 | | | 0 |
| Pond | | | | |
| Summer | 1 | 1.5 | 0.25 | 0.375 |
| Winter | 0.75 | 5 | 0.31 | 1.163 |

Table 15. Habitat unit equivalents (units of habitat / m²), density at a stage (parr / unit of habitat), density independent survival to smoltification, and resultant smolt production estimates for each habitat type (smolts/m²) for coho salmon. All values are from Beechie et al. (1994).

5 methods. The first was based on Marshall et al. (1980)⁵²⁴, and the second was
 6 based on Murphy et al. (1986).⁵²⁵ These methods of estimating fish production
 7 have not been validated for small streams in the Skagit River basin

523 Id.

524 Marshall, D., H. Mundie, P. Slaney, G. Taylor. 1980. *Preliminary review of the predicatability of smolt yield for wild stocks of chinook salmon, steelhead trout, and coho salmon*. SEP Management Committee. Report based on a workshop held in Vancouver, B.C., June 17, 1980.

525 Murphy, M.L., J. Heifetz, S.W. Johnson, K.V. Koski, and J.F. Thedinga. 1986. *Effects of clear-cut logging with and without buffer strips on juvenile salmonids in Alaskan streams*. Can.J.Fish.Aquat.Sci. 43: 1521-1533.

1 Collins et al. (1994)⁵²⁶ describe summer parr densities for steelhead trout based on
 2 Marshall et al. (1980)⁵²⁷ field data by channel unit type. Densities are 0.06 parr/m²
 3 for pools and 0.04 parr/m² for riffles (Table 16). Riffle value is based on the
 4 Marshall et al. (1980)⁵²⁸ equation for steelhead parr density in riffles with 10%
 5 boulder substrate. Steelhead occupation of ponds is here considered zero. Survival
 6 to smolt is 0.3 (Marshall et al. 1980)⁵²⁹, and smolt production values are 0.018
 7 smolts/m² from pools and 0.012 smolts/m² from riffles.

| Habitat Type | Density at a Stage (parr/unit) | Survival to Smolt | Potential smolt production (smolts/m ²) |
|-----------------|--------------------------------|-------------------|---|
| Method 1 | | | |
| Pool (Summer) | 0.06 | 0.3 | 0.018 |
| Riffle (Summer) | 0.04 | 0.3 | 0.012 |
| Method 2 | | | |
| Regression | 22.1-2.1(wetted width) | 0.3 | variable |

Table 16. Density at a stage (parr / unit area of habitat), density independent survival to smoltification, and resultant smolt production estimates for each habitat type (smolts/m²) for steelhead trout. All results in this report were based on Method 2. Method 2 is based on small stream data, whereas Method 1 is based on data from larger streams.

8

9

⁵²⁶ Collins, T., T. Beechie, L. Benda, P. Kennard, C. Veldhuisen, V. Anderson, and D. Berg. 1994. *Watershed assessment and salmonid habitat restoration strategy for Deer Creek, North Cascades of Washington*, Report to Stillaguamish Tribe of Indians and Washington Department of Ecology, Olympia, WA.

⁵²⁷ Marshall 1980, supra.

⁵²⁸ Id.

⁵²⁹ Id.

E. Estimates of habitat and smolt production losses, and costs of replacement.

A list of known blocking culverts in Skagit County is shown in Appendix A. Habitat losses, estimated smolt production losses (both steelhead trout and coho salmon), and replacement costs for repaired culverts are also listed in the same table. The following summary is based on those estimates.

Habitat losses: There were 65 identified blocking culverts on the list. As of about 1990 all culverts were blocking, with the possible exception of two culverts for which replacement dates are not known with certainty (streams 03.0260 and 03.0261). Of the 65 culverts a total of 21 were repaired or removed between 1990 and 1999.

We have sufficient habitat information to estimate steelhead and coho smolt production on 48 of the 65 culverts (18 of the 22 repaired culverts and 30 of the 43 blocking culverts). Habitat and smolt production losses for the 48 culverts with known habitat characteristics are shown in Table 17. On average, 0.8 miles of stream (3,192 m² of habitat) were blocked by each culvert.

For culverts with insufficient habitat information to estimate habitat and smolt production losses, the average values from Table 17 applied to the block stream reaches to generate total estimates of lost habitat and smolt production for all 65 culverts. Table 18 shows the summary data for all 22 repaired and all 43 blocking culverts. The 43 blocking culverts currently isolate an estimated 29 miles of salmonid habitat, or approximately 183,000 m².

Smolt production losses: Annual losses of coho salmon smolts under summer

1 limited conditions total about 60,300, and annual losses of coho salmon under
2 winter limited conditions total about 20,800. For corrugated metal pipe culverts,
3 which have a typical life span of about 35 years, the total loss of steelhead and
4 coho smolts over the life of the culvert is about 2,401,000 smolts if coho habitat
5 conditions are summer limited, or 1,018,500 smolts if coho habitat conditions are
6 winter limited.

7
8 For the purposes of this evaluation, we averaged the summer and winter values to
9 estimate losses from impassible culverts at 40,550 smolts per year. Based on a
10 total return rate of 17% to US waters, this amounts to an annual loss of production
11 of 6,894 adult coho.

12
13 *Costs of replacement:* The average replacement cost per culvert for 18 culverts
14 replaced during the 1990s in WRIAs 03 and 04 is about \$100,000. Based on these
15 costs, we estimated that the average cost per smolt recovered over the 35-year life
16 span of a culvert is about \$2.22, where coho habitat conditions are summer
17 limited, and \$7.36, where coho habitat conditions are winter limited.

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Table 17. Habitat losses and smolt production estimates for all culverts that were (1) blocking prior to 1990, and (2) have sufficient habitat information for estimating smolt production losses. There were a total of 48 culverts meeting these criteria. (Note: many of these culverts have since been repaired.)

| | Stream length (miles) | Stream area (m ²) | Annual coho smolt production (summer limited) | Annual coho smolt production (winter limited) | Annual steelhead smolt production |
|---------|-----------------------|-------------------------------|---|---|-----------------------------------|
| Total | 27.7 | 191,665 | 62,200 | 30,956 | 8,300 |
| Average | 0.8 | 3,192 | 1,296 | 645 | 177 |

Table 18. Total estimated losses of habitat, smolt production, and returning adults for repaired and blocking culverts. Estimates of returning adults are based on a survival rate of 7% to escapement.

| | Total | Total |
|--|-----------------------|------------------------|
| Length of blocked stream | 12.7 miles | 28.6 miles |
| Area of blocked stream | 74,827 m ² | 183,342 m ² |
| Annual loss of coho smolts | 23,995 | 60,278 |
| Annual loss of coho smolts | 21,082 | 20,839 |
| Annual loss of steelhead smolts | 2,935 | 8,347 |
| Annual loss of coho adults (average of | 1,577 | 2,839 |
| Annual loss of returning adults (steelhead + | 1,882 | 4,805 |
| Annual loss of returning adults (steelhead + | 1,681 | 2,045 |
| Average cost of culvert repair | \$99,500 | |
| Average cost/smolt at repaired culverts | \$2.22 | |
| Average cost/smolt at repaired culverts | \$7.36 | |

F. Economic Valuation of the Value of the Lost Coho.

1
2
3 Employing a management model that reflects 1989 fishing circumstances and
4 regulations, Northwest Indian Fisheries Commission experts estimated that the
5 blocking culverts reduced total harvest by 4,055 coho, if summer and winter
6 losses are averaged. Using 1990-93 allocation averages for the general Puget
7 Sound area from PFMC, we estimated that 68.7 percent of these fish would have
8 been caught by tribal and non-tribal commercial fishers, and 31.3 percent by sport
9 fishermen.

10
11 Using the data and assumptions discussed here, and the default values for market
12 and non-market catch discussed earlier in this report, the economic value to the
13 fishery from restoration of Skagit River system coho habitat are displayed in
14 Table 19. Contingent value estimates are displayed as either WTP (willingness to
15 pay) estimates or WTA (willingness to accept compensation). Willingness to pay
16 estimates, travel-cost based estimates and hedonic estimates should theoretically
17 produce similar results. Values developed via any of these three procedures are
18 reported under the generic heading "willingness to pay".
19

Table 19. Estimated Annual Enhanced Economic Value from Adequate Fish Paggage in the Skagit River System

| Harvest Sector Value | Number of Coho | Value/Coho | Gross Economic Value | Net Economic |
|-----------------------------|-----------------------|-------------------|---------------------------------|---------------------|
| | | \$ | --thousands of dollars-- | |
| Commercial | 2786 | | | |
| :Fishing | | 3.75* | 10.5 | 10.27 |
| :Processing | | 7.50 | 20.9 | 5.4 |
| :Retailing | | 15.53 | 43.3 | 9.1 |
| Recreational | 1,269 | | | |
| :Business | | 139.00 ** | 17.6 | 7.9 |
| :Non-Market WTP | | 139.00** | 17.6 | 17.6 |
| :Non-Market WTA | | 564.00** | 715.7 | 715.7 |

* Based on average price, 1990-1995 of \$.67 per pound, and average weight of 5.6 pounds from the 1989 Treaty commercial catch of the Upper Skagit Tribe.

** Based on catch per recreation day in Puget Sound of 0.33.

G. Market Expenditure Associated with Recreational Fisheries

Table 20 provides recreational expenditure per day figures from a range of studies in Washington State, Oregon, and British Columbia. Equipment costs are not included in these estimates. All results are updated by appropriate price indexes to provide estimates in 1995 dollars. Canadian results are converted to U.S. dollars by multiplying reported results by 0.74.

Table 20. Estimated Expenditures per Recreator Day for Recreational Fishing

| <u>Author</u> | <u>Valuation Reference</u> | <u>Data Year</u> | <u>Reported Value</u> | <u>1995 US Value</u> -in dollars per day- |
|---------------------------|--|------------------|-----------------------|--|
| ICF Technology (1988) | WA shore fishing | 1985 | 35.00 | 49.00 |
| | WA boat fishing | | 45.00 | 63.00 |
| | WA charter fishing | | 120.00 | 168.00 |
| Southwick (1992) | Puget Sound & Olympic Peninsula recreation fishing | 1988 | 37.83 | 48.04 |
| The Research Group (1991) | OR recreation fishing | 1988 | 43.13 | 54.78 |
| R. Reid (1986) | B.C. Freshwater: resident fishing | 1981 | 20.33 | 26.63 |
| | :non-res. fishing | | 31.20 | 40.86 |
| M. Stone (1988) | B.C. Freshwater: resident fishing | 1985 | 26.30 | 27.05 |
| | :non-res. CDN fishing | | 51.78 | 53.26 |
| | :foreign in B.C. | | 82.30 | 84.66 |
| Fillion,etal. (1993) | B.C. residents | 1991 | 54.00 | 42.36 |

These data indicate that U.S. anglers generally spend more per day than their Canadian counterparts. For the present analysis, we utilized the updated ICF

1 Technology expenditure estimate of \$63 per recreator day.⁵³⁰ This excludes
2 expenditures by anglers who charter.

3
4 To obtain an estimate of net economic value it is necessary to reduce gross
5 expenditures (Table 20) by subtracting associated servicing costs. Frederickson,
6 Kamine and Associates (1980) estimated the net economic value of sport fishing
7 businesses due to marginal changes in catch at 30 percent of gross revenue, for the
8 Klamath River system in northern California.⁵³¹ Lansche (1985) estimated that, at
9 the margin, changes in sales of guides and outfitters in Idaho would see
10 accompanying changes in net revenues of between 40 and 60 percent.⁵³² We used
11 the mid-point of these estimates, and assessed the net economic benefits from
12 revenue changes to businesses servicing recreational fisheries at 45 percent of
13 gross revenue.

14 15 **H. Economic Linkage with Harvest of Other Salmon Species**

16
17 Skagit River coho are frequently a constraining stock in some mixed stock
18 fisheries. Consequently, coho recovery in this system will not only enable larger

⁵³⁰ ICF Technology, 1988. *Economic Impacts and Net Economic Values Associated with Non-Indian Salmon and Sturgeon Fisheries*. Redmond, WA.: A Report to the Washington Department of Community Development.

⁵³¹ Frederickson, Kamine Associates, 1980. *Proposed Trinity River Basin Fish and Wildlife Management Program*. Appendix A, Socio-Economic Analysis. A Report to the U.S. Bureau of Reclamation, Sacramento.

⁵³² Lansche, J.M., 1985. *The Contribution of Outfitting and Guiding to the Idaho Economy*. A Report to the Idaho Outfitters and Guides Association and the Idaho Travel Council.

1 coho harvests, but will also result in additional harvests for some other salmon
 2 species. Fisheries staff at the Skagit System Cooperative have developed an
 3 estimate of the number of salmon lost to harvest across all species in order to
 4 protect two hundred coho in each of these fisheries. This estimate is based on
 5 1989 fishery management plans.⁵³³ The estimate is displayed in Table 21.

Table 21. Reduction in Harvest Required to Save 200 Wild Skagit Coho in Each Fishery

| <u>Fishery</u> | <u>1989 Coho Harvest Lost to Save 200 Skagit Coho</u> | | | | | |
|--|---|-------------|----------------|-------------|-------------|------------------|
| | <u>Harvest</u> | <u>Coho</u> | <u>Chinook</u> | <u>Chum</u> | <u>Pink</u> | <u>Steelhead</u> |
| | -----thousands of fish----- | | | | | |
| Treaty and Non-Treaty Commercial Catch: | | | | | | |
| WA Ocean Troll | 75.0 | 20.5 | 2.2 | -- | 39.6 | -- |
| Treaty Troll | 77.0 | 14.5 | 4.8 | -- | 2.0 | -- |
| JFD Net | 47.8 | 5.1 | -- | -- | -- | -- |
| 7/7A Net | 141.0 | 7.6 | -- | 120.0 | -- | -- |
| NT Area 8 | 1.6 | 0.4 | -- | -- | 57.3 | -- |
| Skagit Treaty | 10.2 | 0.4 | -- | 4.5 | 27.3 | -- |
| Recreational Fisheries Catch: | | | | | | |
| Buoy 10 | 200.0 | 187.5 | 28.1 | -- | -- | -- |
| WA Ocean Sport | 245.0 | 37.4 | 6.5 | -- | 0.5 | -- |
| Puget Sd. Sport | 209.7 | 6.6 | 2.5 | -- | 1.8 | -- |
| Skagit R. Sport | 0.2 | 0.4 | 0.5 | 0.2 | 20.0 | 0.4 |

33 We can then apply the economic methodology developed previously to estimate
 34 the economic values at stake in other fisheries when key stocks such as Skagit
 35 wild coho are threatened, or alternatively, when such stocks can be restored.

⁵³³ Robert Hayman, 1995. Skagit System Cooperative staff communication. La Conner, WA.

1 These calculations are displayed in Table 22. Washington Department of Fisheries
 2 troll price estimates for 1989 are used for Ocean and Treaty Troll harvests. Net
 3 prices from the same source are used for JDF and 7/7A Net harvests. Washington
 4 Department of Fisheries 1989 prices for catches by the Upper Skagit Tribe are
 5 used for NT Area 8 and Skagit Treaty catches. Recreational values are those
 6 developed previously in this document.

7
 8
 9
 10
 11 **Table 22. The Net Annual Economic Value in Each Fishery Associated with**
 12 **Saving 200 Wild Skagit Coho**

| <u>Fishery</u> | <u>Net Harvesting and Processing Value</u> | | | | <u>Net Sport Benefit</u> |
|--|--|----------------|-------------|-------------|--------------------------|
| | <u>Coho</u> | <u>Chinook</u> | <u>Chum</u> | <u>Pink</u> | |
| | -----in thousands of dollars----- | | | | |
| WA Ocean Troll | 160.5 | 56.3 | -- | 148.1 | |
| Treaty Troll | 113.5 | 122.9 | -- | 7.5 | |
| JDF Net | 47.9 | -- | -- | -- | |
| 7/7A Net | 71.4 | -- | 1,459.2 | -- | |
| NT Area 8 | 2.5 | -- | -- | 147.3 | |
| Skagit Treaty | 2.5 | -- | 46.2 | 70.2 | |
| Buoy 10 Sport: Net Business Benefits | | | | | 13,485.8 |
| : Consumers' Surplus (WTP) | | | | | 29,968.4 |
| : Consumers' Surplus (WTA) | | | | | 121,598.4 |
| WA Ocean Sport: Net Business Benefits | | | | | 2,777.2 |
| : Consumers' Surplus (WTP) | | | | | 6,171.6 |
| : Consumers' Surplus (WTA) | | | | | 25,041.6 |
| Puget Sd. Sport: Net Business Benefits | | | | | 681.8 |
| : Consumers' Surplus (WTP) | | | | | 1,515.1 |

| | | |
|---|--------------------------------------|----------|
| 1 | :Consumers' Surplus (WTA) | 6,147.6 |
| 2 | | |
| 3 | Skagit R.Sport:Net Business Benefits | 1,341.7 |
| 4 | :Consumers' Surplus (WTP) | 2,981.6 |
| 5 | :Consumers' Surplus (WTA) | 12,097.8 |
| 6 | | |
| 7 | | |
| 8 | | |

9 Actual economic benefits of restoration would differ fishery management plans
10 and economic circumstances in place at the time of harvest. However, Table 22
11 indicates that the economic importance of a stock such as Skagit wild coho greatly
12 exceeds the economic impact of the 200 coho themselves. The exact magnitude of
13 mixed stock economic impact would depend on the mixed stock harvest strategy.

14
15 **I. Summary of economic and fishery impacts caused by impassable**
16 **culverts in the Skagit Basin.**
17

18 The estimate of the economic impact of blocking culverts is based on clearly
19 defined criteria, and standardization of the production potential of isolated
20 habitats. For the Skagit River basin, loss of coho production (smolts/m²) ranged
21 from 1.163 in pools, to 0.0 in riffles during winter months. On average, 0.8 miles
22 of stream was made inaccessible by each of 43 known blocking culverts, with a
23 cumulative loss of 29 stream miles. This equates, for the Skagit basin alone, to a
24 loss of 40,550 smolts. Based on a return rate of 17%, the production of Skagit
25 River coho has been diminished by 6,894 annually. This has resulted in a
26 predicted loss of harvest opportunity of 4,055 fish.

27
28 Average cost for culvert replacement in the Skagit Basin was approximately
29 \$100,000 per culvert. This equates to a cost per smolt recovered of \$2.22-\$7.36
30 based on a 35 year longevity for each culvert. The cumulative cost of repairing 43

1 known blocking culverts would therefore be \$4.3 million.

2
3
4 Our estimate predicts lost revenue to commercial fishers of \$10,500 annually,
5 retail losses of \$43,300 annually, and \$715,000 based on estimates of sportfishers
6 willingness to accept compensation. In those years where Skagit River coho
7 management required the curtailment of other fisheries to insure adequate
8 escapement, an additional 200 fish would equate to an additional economic
9 benefit to Washington Ocean Troll fishers of \$160,000, and to chum fisheries near
10 the San Juan Islands of \$1.5 million. An assessment of the loss to recreational
11 fishers, based on their willingness to accept compensation, equated to a loss of
12 \$121 million.

13
14 Clearly, impassable barriers cause a significant economic effect both on
15 commercial fishers and on recreational fisheries. From a cost/benefit standpoint,
16 the economic benefits to commercial fishers alone during years when Skagit
17 stocks limit other fisheries outweighs the initial expenditure of \$4.3 million to
18 correct all know passage barriers. Correction of fish barriers is one of the most
19 cost effective mechanisms to restore fish production within the Skagit Basin.

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IX. CONCLUSIONS AND RECOMMENDATIONS

Based on our analysis, WDFW should not submit the current Hydraulic Project Approval (HPA) process to the federal agencies for approval as a Habitat Conservation Plan (HCP) until it has developed comprehensive statutory and regulatory reform measures to improve the HPA process. Currently, the Hydraulic Code, its implementing regulations and policies, funding, and agency priorities inadequately protect salmon and steelhead resources.

These deficiencies are highlighted in our analysis of state regulation of impassable fish blocking culverts. There are thousands of impassable culverts in Washington State. These impassable culverts affect hundreds of miles of fish habitat. The production of tens of thousands of salmon and steelhead is lost. The barriers affect the lives and livelihoods of thousands of commercial and recreational fishers throughout the State.

Unfortunately, the legislature does not fully fund nor does the Department place a high priority in its funding and enforcement authorities to the HPA process. The Department has developed a cooperative and voluntary program with the Washington Department of Transportation (WDOT) to address fish blocking culverts on state highways. However, this effort does not address other public or private roads and it may take decades if not hundreds of years to accomplish the program objectives.

Other funding mechanisms are being directed at the culvert problems. However, there appears to be no systematic or programmatic monitoring of the results of

1 these grants that can be used to evaluate their effectiveness. These efforts will
2 also take hundreds of years to address all fish blocking culverts throughout the
3 State. The Department of Fish and Wildlife predicts it will take over 75 years just
4 to inventory all fish blocking culverts statewide.

5
6 Though the Department would rather utilize cooperative, voluntary, and
7 educational programs to address this problem, they also should hold other
8 agencies and individuals legally responsible for maintaining fish passage through
9 their culverts. The Department's strategy to address fish passage problems should
10 include an aggressive enforcement and compliance program. In addition, the
11 Department should not issue new HPAs for road culverts in areas that have listed
12 fish species, at least to those entities that have not repaired their impassable
13 culverts.

14
15 Just in the Skagit Basin, the cost of repairing 43 known blocking culverts is
16 approximately \$4.3 million. The economic consequences of these blockages
17 include lost revenue to commercial fishers of \$10,500 annually, retail losses of
18 \$43,300 annually, and losses of \$715,000 based on estimates of sportfishers
19 willingness to accept compensation. In years when Skagit River coho
20 management required the curtailment of other fisheries to insure adequate
21 escapement, an additional 200 fish would equate to an additional economic
22 benefit to Washington Ocean Troll fishers of \$160,000, and to chum fisheries near
23 the San Juan Islands of \$1.5 million. An assessment of the loss to recreational
24 fishers, based on their willingness to accept compensation, equated to loss of \$121
25 million. Impassable road barriers have a significant economic impact both on
26 commercial fishers and on recreational fisheries. From a cost/benefit standpoint,
27 the economic benefits to commercial fishers alone during years when Skagit

1 stocks limit other fisheries outweighs the initial expenditure of \$4.3 million to
2 correct all know passage barriers. Hundreds of thousands, or even millions of
3 dollars are lost to the Washington State economy just from the culvert impacts in
4 the Skagit Basin.

5
6 It is unlikely the Department will alter its approach of “idly sitting by” without
7 public pressure to do so. The only feasible recourse may lie with litigation by
8 interest groups or members of the general public to seeks to hold the agency or
9 those that own impassable culverts accountable.

10
11 The first approach should be to ask for a court order mandating the Department to
12 exercise its civil enforcement authorities to maintain fish passage. If
13 unsuccessful, any member of the public should be able to seek a mandamus action
14 requiring the Department to exercise its duty to enforce the criminal laws of the
15 state. Failure to fully and adequately enforce the laws of the state is willful
16 neglect on the part of the Department.

17
18 Another alternative is for parties with “standing” to bring both statutory and
19 common law nuisance claims against state agencies, local governments, or
20 individuals who own fish blocking culverts. Environmental groups with local and
21 site specific interests should be able to seek an injunction or an abatement of a
22 fish blocking “nuisance.” Commerial fishers, river fishing guides, or others with
23 an economic interest in the fisheries should be able to bring not only an action in
24 equity but also seek monetary damages. An appropriate strategy may include
25 bringing a class action suit on a river or watershed basis against all owners of
26 known fish blocking culverts.

1 Tribal governments also may have unique standing and causes of action. Tribes
2 as governments and as “co-managers” of the fisheries resources have a proprietary
3 interest in fish which dates at least from time immemorial. The right to fish for
4 salmon and steelhead is a property right of the tribes that is held in common with
5 the state.. The tribes hold this right as trustees for the common good for tribal
6 memebrs. The tribes have a fiduciary duty to seek damages for injury to the
7 object of its trust. Tribes, in their governmental capacity, may be able to bring a
8 nuisance action or a treaty-based claim.

9
10 Violation of a statute is negligence per se and an individual in the class protected
11 by the statute [i.e. tribal fishers] has a cause of action for damages proximately
12 caused by the violation. Tribal members could also bring a nuisance action in
13 equity or seek damages on their own behalf as commercial fishers.

14
15 The citizen suit provision under the Endangered Species Act is another
16 opportunity for members of the general public, environmental group, commercial
17 or recreational fishers, and tribal members or tribal governments to seek judicial
18 relief against those illegally “taking” listed species.

19
20 Ideally, the State will develop a responsible and timely strategy to address culvert
21 blocking problems statewide. Unfortunately, the lack of response by state and
22 local governments may place more of the responsibility on individual citizens.
23 The use of the courts may be a necessary component in the overall strategy to
24 recover our fisheries resources.