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The Role of the Confederated Tribes of the Colville Reservation in Fighting to Protect and Clean-up the Boundary Waters of the United States: A Case Study of the Upper Columbia River and Lake Roosevelt Environment

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The Role of the Confederated Tribes of the Colville Reservation in Fighting to Protect and Clean-up the Boundary Waters of the United States: A Case Study of The Upper Columbia River and Lake Roosevelt Environment

Richard A. Du Bey* and Jennifer Sanscrainte**

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Earlier versions of this paper have been presented at CLE programs and the sponsors of those CLE programs were given a non-exclusive right to reproduce the paper for inclusion in materials distributed to attendees. The events described in the paper have now reached a critical stage in the public agency decision-making process and the authors believe that the time is right to share the Tribes story with a broader audience.

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I. INTRODUCTION

The twentieth century was the golden era of the dam. In the past 100 years, more than 76,000 public and private dams over six feet in height were constructed in the United States, primarily by the federal government.¹ Although about ninety-five percent of those dams are privately owned, federal dams overshadow them in size, importance, and storage capacity.² Together, U.S. dams can store approximately one billion acre-feet of water, a volume sufficient to submerge the entire state of Texas beneath six feet of water.³ These dams have generated plentiful electricity, irrigated millions of acres of arid land, provided water storage and flood control, and created recreational opportunities.

The mighty Columbia River, running 2,000 kilometers from its source in the Selkirk Mountains of southeastern British Columbia, through one Canadian province (British Columbia) and four U.S. states (Washington, Idaho, Montana, and Oregon) on its way to the Pacific Ocean, now contains a series of hydroelectric and multi-purpose dams that are managed as the Federal Columbia River Power System (FCRPS).⁴ The FCRPS became the source of cheap electricity that

1. The total number of dams in the U.S is approximately 77,000. National Inventory of Dams, available at <http://crunch.tec.army.mil/nid/webpages/nid.cfm> (last visited Feb. 2, 2004).

2. James V. DeLong, *Dam Fools*, REASON, Apr. 1998, at 42, available at <http://reason.com/9804/fe.delong.shtml> (last visited Feb. 3, 2004).

3. *Id.*

4. See generally, U.S. ARMY CORPS OF ENGINEERS, BONNEVILLE POWER ADMINISTRATION, AND BUREAU OF RECLAMATION, *Brochure: Federal Columbia River Power System (FCRPS)*, originally printed July 2002, updated and reprinted August 2003, available at <http://www.bpa.gov/power/pg/hydrspl.shtml> (last visited Mar. 1, 2004).

helped the economy of the Pacific Northwest develop during World War II, powering aluminum plants, shipyards, and the development of nuclear weapons at the Hanford Reservation.⁵ The hydroelectricity generated on the Columbia continues to stimulate significant industrial growth in the region today.

The largest dam in the FCRPS is the Grand Coulee Dam. The construction of the Grand Coulee Dam brought jobs and cheap electricity to northeastern Washington, and its irrigation project opened arid lands for farming.⁶ Lake Roosevelt, the reservoir created by Grand Coulee Dam quickly became a haven for boating, fishing, swimming, camping and canoeing.⁷ Thus, the beneficiaries of the FCRPS and the Grand Coulee Dam are numerous: farmers who received subsidized irrigation; recreators and recreation-related commerce; and, individual and industrial BPA ratepayers who enjoy low electric rates. All these benefits, however, do not come without costs.

The Grand Coulee Dam is an enormous concrete barrier that not only ended runs of wild salmon on the Upper Columbia River, but also prevents contamination from mining and industrial operations from traveling downstream.⁸ Dioxins, furans, and heavy metals have accumulated in the sediments behind Grand Coulee Dam, creating a human health risk and harming the environment.⁹ One group in particular has had to bear a disproportionate share of the costs of the Grand Coulee Dam: the Native Americans, specifically, the Confederated Tribes of the Colville Reservation (Confederated Tribes or Tribes).¹⁰

This paper, in Part II, briefly describes how the FCRPS and the Columbia River are managed in accordance with a complex web of treaties, laws and agreements. Part III describes the historical relationship between the Confederated Tribes and the Upper Columbia River Basin, and discusses the nature of the hazardous substances that have been released into the River over the past 100 years. Part III also describes the impact of those contaminants upon Tribal resources, including water quality, air, fish, and upon human health. Part IV

5. WORLD COMMISSION ON DAMS, *Case Study, USA: Grand Coulee Dam & Columbia River Basin* (2000) at 31, available at <http://www.dams.org/docs/kbase/studies/csusmain.pdf> [hereinafter WORLD COMMISSION].

6. *Id.*

7. *Id.*

8. CONFEDERATED TRIBES OF THE COLVILLE RESERVATION, *Comments to Acting Regional Administrator on the National Marine Fisheries Service Draft Biological Opinion and All-H Paper 10* (2000) [hereinafter CONFEDERATED TRIBES].

9. *Id.*

10. The tribes of the Colville Reservation are: the Colville-Scheulpi, the Nespelem, the San Poil, the Lake, the Palus, the Wenatchi (Wenatchee), the Chelan, the Entiat, the Methow, the southern Okanogan, the Moses Columbia, and the Nez Perce of Chief Joseph's Band.

examines the legal framework the Confederated Tribes works within to deal with the impact that the Grand Coulee Dam and the past releases of hazardous substances into the Upper Columbia have had on Tribal resources, the health and welfare of the Tribal population, and the broader community.

II. THE COLUMBIA RIVER SYSTEM

A. *Management of the Federal Columbia River Power System*

In sum, management of the Columbia River system¹¹ means the management of dams. The U.S. Army Corps of Engineers (Corps) and Bureau of Reclamation (Reclamation) collectively manage the bulk of the federal hydropower and multi-purpose dams on the Columbia River.¹² The Bonneville Power Administration (BPA),¹³ an agency of the U.S. Department of Energy, markets and distributes the power generated from these federal dams, and owns and operates about 75% of the Northwest's transmission system.¹⁴ The dams and associated electrical transmission systems are collectively known as the Federal Columbia River Power System (FCRPS).¹⁵ Although management of the Columbia River has historically been driven by power generation, other purposes, including irrigation and flood control, enter into the federal decision-making process.¹⁶ Whether for these purposes or others, such as fish production and recreation, the management of the FCRPS is governed and restricted by the laws of the river.

B. *The Laws of the River*

The Columbia River and the FCRPS are governed by a complex web of laws, treaties, and compacts.¹⁷ In 1961, the United States signed the Columbia River Treaty with Canada, which provided that the four

11. The Columbia River system includes the Columbia and Snake Rivers and their tributaries.

12. U.S. ARMY CORPS OF ENGINEERS ET AL., *supra* note 4.

13. The Bonneville Power Administration was created by Congress in 1937 to dispose of the power and set the rates for the power generated at the newly built Bonneville Dam.

14. *See generally* Introduction, at <http://www.bpa.gov/power/pgf/hydrPNW.shtml> (last visited Feb. 3, 2004).

15. *Id.*

16. U.S. ARMY CORPS OF ENGINEERS ET AL., *supra* note 4.

17. The "law of the river" includes: Boundary Waters Treaty of 1909; Columbia River Treaty of 1961; Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act of 1980); Non-Treaty Storage Agreements (1984, 1990); Non-Treaty Storage Fish and Wildlife Agreement; Mid-Columbia Participants Non-Treaty Storage Agreement (1990).

major storage reservoirs in the U. S. and Canada would be regulated primarily for hydropower generation and flood control.¹⁸ The additional reservoirs doubled the system's storage capacity and increased the need for coordinated dam operations along the river to maximize hydropower production.¹⁹ In 1964, the Corps, Reclamation, BPA and the region's utilities negotiated a long-term agreement called the Pacific Northwest Coordination Agreement (Coordination Agreement)²⁰ which established detailed operating criteria, power exchange principles, and the allocation of downstream benefits.

The Coordination Agreement requires the Corps, the BPA, and Reclamation to prepare annual operating plans. The current System Operational Plan seeks to maximize power production after nonpower purposes, such as flood control, fisheries, irrigation, and recreation, have been met.²¹ These additional purposes are treated as operational "constraints" on power production.²² Thus, although the Coordination Agreement provides for detailed and coordinated operating plans for power production, it does not provide for the type of integrated operations that would meaningfully evaluate or incorporate nonpower uses.²³

C. Environmental Considerations

In the 1970's the adverse effects of the dams of the FCRPS on fish populations became evident. In the face of a potential listing of two Columbia Basin salmon species under the Endangered Species Act,²⁴ Congress enacted the Pacific Northwest Electric Power Planning and Conservation Act of 1980 (NPA).²⁵ The NPA created the Northwest Power Planning Council (Council), an interstate agency comprised of representatives from the states of Idaho, Montana, Oregon, and Washington, to develop a 20-year electric power plan.²⁶ Part of the

18. Columbia River Treaty, Jan. 17, 1961-Sept. 16, 1964, United States-Canada, 15 U.S.T. 1555, T.I.A.S. No. 5538

19. *Id.*

20. BONNEVILLE POWER ADMINISTRATION, Pacific Northwest Coordination Agreement, Agreement for Coordination of Operations Among Power Systems of the Pacific Northwest, Contract No. 14-02-4822 (1964). "By default, the Coordination Agreement is the primary vehicle for planning the coordinated operation of Columbia Basin streamflows." Michael C. Blumm & Andy Simrin, *The Northwest Power Act: Point & Counterpoint: The Unraveling of the Parity Promise: Hydropower, Salmon, and Endangered Species in the Columbia Basin*, 21 ENVTL. L. 657, 704 (1991).

21. Coordination Agreement, *supra* note 20.

22. Blumm, *supra* note 20, at 704.

23. *Id.*

24. Endangered Species Act, 16 U.S.C. §§ 1531-1544 (1994).

25. Pub. L. No. 96-501, 94 Stat. 2697 (1980) (codified at 16 U.S.C. §§ 839-839h).

26. *See* Northwest Power and Conservation Council, *at*

Council's mission is to develop and oversee a program "to protect, mitigate, and enhance [Columbia Basin] fish and wildlife" and review its program at least every five years.²⁷ The Council's current conservation program is the Columbia River Basin Fish and Wildlife Program, which was revised in 2000 and amended in 2003 (Conservation Program).²⁸

Under the NPA, the BPA is required to act in a manner *consistent with* the Conservation Program.²⁹ On the other hand, the federal hydropower agencies (Reclamation and the Corps) are only required to take the Conservation Program into account "to the fullest extent practicable" in exercising their hydroelectric responsibilities.³⁰ In addition, several provisions of the NPA itself impose limits on the Council's fish restoration programs,³¹ such as the requirement that restoration measures may not jeopardize an "adequate, efficient, economical, and reliable power supply."³²

The less than effective conservation provisions of the NPA failed to prevent the drastic declines in the Columbia's fish populations, compelling the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) to step in. During the 1990's, 12 species of Columbia Basin salmonids were listed as threatened or endangered under the ESA.³³ In 1995, NMFS and the FWS each issued

www.nwcouncil.org/about/background.htm (last visited Feb. 6, 2004).

27. Pacific Northwest Electric Power Planning and Conservation, 16 U.S.C. § 839b(h) (2000).

28. A copy of the Council's Conservation Program is available at <http://www.nwppc.org/fw/program/Default.htm>.

29. Pacific Northwest Electric Power Planning and Conservation, 16 U.S.C. § 839b(h)(7) (2000).

30. Pacific Northwest Electric Power Planning and Conservation, 16 U.S.C. § 839b(h)(11)(A)(ii) (1988).

31. The Northwest Power Act maintains power as the paramount concern for the FCRPS operators. It directs that the Council "can guide, but not command, federal river management." 16 U.S.C. §§ 839b(h)(10), (i), (j) (2000). The Northwest Power Act does not waive federal sovereign immunity for damages for fish kills caused by the federal government.

32. Pacific Northwest Electric Power Planning and Conservation, 16 U.S.C. § 839b(h)(5) (2000).

33. Three species are listed as endangered: Upper Columbia River spring chinook salmon, listed on Mar. 24, 1999 [64 FR 14308], critical habitat designated on Feb. 16, 2000 [65 FR 7764]; Upper Columbia River steelhead, listed Aug 18, 1997 [62 FR 43937], critical habitat designated on Feb. 16, 2000 [65 FR 7764]; and Snake River sockeye salmon, listed Nov. 20, 1991 [56 FR 58619], critical habitat designated Dec. 28, 1993 [58 FR 68543]. Nine species are listed as threatened: Snake River spring/summer chinook salmon, listed on Apr. 22, 1992 [75 FR 14653], critical habitat designated on Dec. 28, 1992, [58 FR 68543] and revised on Oct. 25 1999 [64 FR 57399]; Snake River fall chinook salmon, listed on Apr. 22, 1992 [57 FR 14653], critical habitat designated on Dec. 28, 1993 [58 FR 68543]; Upper Willamette River chinook salmon, listed Mar. 24, 1999 [64 FR 14308], critical habitat designated on Feb. 16, 2000 [65 FR 7764]; Lower Columbia River chinook salmon, listed on Mar. 24, 1999 [64 FR 14308], critical

Biological Opinions (Bi-Ops) concerning the operations of the FCRPS dams and the effect of such operations on those species of salmon listed as endangered.³⁴ Subsequently in 2000, NMFS and the FWS issued Bi-Ops built on the 1995 documents. The 2000 Bi-Ops require that additional water be released for moving salmon through the river system and that certain changes in dam operations be implemented to increase survival of fish moving through the FCRPS dams.³⁵

From a management standpoint, the operation of the FCRPS is directed not only by the U.S.-Canada treaties and the interagency agreements among BPA, Reclamation and the Corps, but the agencies' administration of the FCRPS, including basic day-to-day decision-making, is further constrained by the requirements of the Bi-Ops. Thus, parties wishing to see changes in the management of the FCRPS cannot expect such change to occur in a vacuum. When dealing with any part of the Columbia River, it is necessary to understand and navigate the law of the river and the environmental constraints under which the agencies

habitat designated on Feb. 16, 2000 [65 FR 7764]; Snake River steelhead, listed on Aug. 18, 1997 [62 FR 43937]; critical habitat designated on Feb. 16, 2000 [65 FR 7764]; Middle Columbia River steelhead, listed on Mar. 25, 1999 [64 FR 14517]; critical habitat designated on Feb. 16, 2000 [65 FR 7764]; Upper Willamette River steelhead, listed on Mar. 25, 1999 [64 FR 14517]; critical habitat designated on Feb. 16, 2000 [65 FR 7764]; Lower Columbia steelhead, listed on Mar. 19, 1999 [63 FR 13347]; critical habitat designated on Feb. 16, 2000 [65 FR 7764]; and Columbia River chum salmon, listed on Mar. 25, 1999 [64 FR 14508]; critical habitat designated on Feb. 16, 2000 [65 FR 7764].

34. NAT'L MARINE FISHERIES SERV., U.S. DEPT. OF COMMERCE, *Endangered Species Act-Section 7 Consultation: Biological Opinion: Reinitiation of Consultation on 1994-1998 Operation of the Federal Columbia River Power System and Juvenile Transportation Program in 1995 and Future Years* (Mar. 2, 1995) [hereinafter Nat'l Marine Fisheries Serv.]; U.S. FISH & WILDLIFE SERV., *Biological Opinion: Effects to Listed Species from Operations of the Federal Columbia River Power System* (Mar. 1, 1995) available at <http://www.nwr.noaa.gov/1hydrop/hydrdo-bo.htm>; [hereinafter U.S. Fish & Wildlife Serv.].

35. NAT'L MARINE FISHERIES SERV., U.S. DEPT. OF COMMERCE, *Endangered Species Act-Section 7 Consultation: Reinitiation of Consultation on Operation of the Federal Columbia River Power System, Including the Juvenile Fish Transportation Program, and 19 Bureau of Reclamation Projects in the Columbia Basin* (Dec. 20, 2000) available at <http://www.nwr.noaa.gov/1hydrop/hydroweb/docs/Final/2000Biop.html>; U.S. FISH & WILDLIFE SERV., *Biological Opinion: Effects to Listed Species from Operations of the Federal Columbia River Power System*, (Dec. 20, 2000) available at http://training.fws.gov/library/Pubs1/BO/species_columbia_river.pdf. A coalition of fishing and conservation groups filed a lawsuit that challenges the 2000 Bi-Op and its emergency provisions. *Northwest Wildlife Federation v. National Marine Fisheries Service*, D. Ore., No. CV01-640-JE, May 3, 2001. In May 2003, a federal district court ordered NMFS to revise the 2000 Bi-Op because it did not properly define the areas affected and did not correctly consider future actions that may affect listed species. The court set a deadline of June 2004 for the agencies to revise the Bi-Op, ordering that the agencies continue to implement the Bi-Op in the interim. *See generally*, NOAA News Release, Dec. 23, 2003 available at <http://www.nwr.noaa.gov/1hydrop/hydroweb/fedrec.htm> (last visited Mar. 6, 2004).

must operate.

Accordingly, when contamination was first discovered in the Upper Columbia and Lake Roosevelt, concerned parties, including the Confederated Tribes, had to analyze the legal and operational framework of the FCRPS to understand the effect of dam operations on the contamination and develop a strategy to identify the source or sources of the contamination and a plan to study how to address the problem.

III. THE COLVILLE RESERVATION AND UPPER COLUMBIA RIVER

A. *The Confederated Tribes of the Colville Reservation*

As repeatedly confirmed by court decisions, and since time immemorial, the Upper Columbia River basin has been of great importance to the Confederated Tribes. Predecessors of the Confederated Tribes and its members have always occupied and utilized the area, from below the confluence of the Columbia and Okanogan rivers, up into what is now Canada.³⁶ The fish, wildlife, plants, lands, and waters of the upper Columbia basin have always been and still are of central importance to the Confederated Tribes' subsistence, culture, and spiritual well-being.³⁷

When the Colville Reservation was initially established by the Executive Order of July 2, 1872, the entire segment of the Columbia River, from the Okanogan confluence to the Canadian Border, roughly 150 river miles, was included within the exterior boundaries of the Colville Reservation. In 1891, the United States government took action to reduce the size of the reservation and ceded the North Half of the reservation to the United States, including a portion of the Columbia River.³⁸ However, the Confederated Tribes expressly reserved hunting, fishing, and gathering rights and entitlements within the ceded portion of the reservation, including the Columbia River.³⁹ In 1975, the U.S. Supreme Court affirmed those rights in *Antoine v. Washington*.⁴⁰ The current reservation is bounded by the Columbia River on the east and the south.

36. See generally, Our History, at <http://www.colvilletribes.com/history.htm> (last visited Mar. 6, 2004).

37. See generally, WORLD COMMISSION, § 3.7, *supra* note 5.

38. 27 Stat. 62

39. *Id.*

40. See *Antoine v. Washington*, 420 U.S. 194 (1975).

B. *The Grand Coulee Dam*

One of the events that greatly changed the Colville Reservation land base and affected the members of the Confederated Tribes and the Tribes' resources was construction of the Grand Coulee Dam. Completed in 1940, the Grand Coulee Dam is a federal reclamation project operated by Reclamation currently used for flood control, river regulation, irrigation, fishery management and power production.⁴¹ The Grand Coulee Dam blocks the free flow of the Columbia River at the point where the Columbia forms the southern boundary of the Colville Reservation. Behind the dam is the reservoir, Lake Roosevelt, which contains nine million acre-feet of water and stretches north over 130 miles to the Canadian Border.⁴²

Construction of the Grand Coulee Dam resulted in flooding and further diminishment of the reservation land base when traditional Tribal lands were taken by the United States in aid of the reclamation project.⁴³ In recognition of the Tribes' loss of territory, approximately one fourth of the Lake Roosevelt reservoir area above the dam was set aside for the paramount use of the Confederated Tribes and the Spokane Tribe for hunting, fishing and boating.⁴⁴ Pursuant to a 1946 tri-party agreement among Reclamation, the U.S. Department of the Interior National Park Services and the Office of Indian Affairs, Reclamation has the primary responsibility for overseeing the reservoir area.⁴⁵ However, the agreement designated an "Indian zone" which comprises essentially all of the freeboard,⁴⁶ draw-down and water area inside the original boundaries of the reservation except for the area immediately around the dam. This "Indian zone" extends to a strip in the center of Lake Roosevelt which is preserved as a navigation lane.⁴⁷

41. The Grand Coulee Dam Project was authorized by Congress in 1935. Act of Aug. 30, 1935, ch. 831, 49 Stat. 1028 (1935).

42. Leonard Ortloano & Katherine Kao Cushing, WCD Case Study: *Final Scoping Report* (July 1999), available at http://www.dams.org/kbase/studies/us/us_finalscope_contents.htm (last visited Mar. 6, 2004).

43. Columbia Basin Project, 16 U.S.C. § 835d (2000).

44. Act of June 29, 1940, 54 Stat. 703, *as amended* 58 Stat. 813 (1944).

45. "Memorandum of Agreement Among the Bureau of Reclamation, National Park Service, and Office of Indian Affairs Relating to the Planning, Development, and Administration of the Coulee Dam Recreation Area," Dec. 18, 1946. In 1974, the Secretary of the Interior directed that the agreement be expanded to include the Confederated Tribes and the Spokane Tribe of Indians in the management of Lake Roosevelt. See 69 Fed. Reg. 5799.

46. Freeboard is defined as "The height above the recorded high-water mark of a structure (as a dam) associated with the water." Merriam-Webster's Collegiate Dictionary, 11th Edition (2003).

47. United States Department of Interior, Feb. 2, 1977, Office of the Solicitor,

In addition to diminishment of reservations lands, the construction of the Grand Coulee Dam has resulted in numerous negative impacts to the resources of the Confederated Tribes and as discussed further below, has exposed both Tribal members and the broader community to unanticipated health risks.

C. Impacts of Grand Coulee Dam on Reservation Resources

1. Decline and Contamination of Fisheries

The pre-1850 runs of salmon and steelhead on the Upper Columbia River have been estimated at 500,000 to 1,300,000.⁴⁸ But those once great runs of salmon and steelhead on the Upper Columbia River were already in decline before the construction of Grand Coulee Dam due to the development of commercial fisheries, over harvesting, grazing, timber harvesting, mining, roads, highways, railroads, and the destruction of estuarine and freshwater wetlands.⁴⁹ By 1938, right before the Grand Coulee Dam cut off the Upper Columbia River for migrating anadromous fish, the runs of salmon and steelhead to the Upper Columbia River were estimated to have dropped to 25,000.⁵⁰ The Upper Columbia salmon and steelhead runs were in jeopardy, but the construction of the Grand Coulee Dam, along with the downstream Chief Joseph Dam, sounded the death knell.

Despite the drastic decline of the anadromous fishery, the Confederated Tribes continue to fish the Okanogan River today and they rely heavily on the kokanee (land-locked sockeye salmon) fishery that exists between the Chief Joseph Dam and the reservation boundary five miles downstream.⁵¹ In addition, the Confederated Tribes have come to rely increasingly on the resident (as opposed to anadromous) fishery.⁵² A number of problems, however, hamper improved fishery production. Water quality in and below Lake Roosevelt is poor, particularly for temperature and dissolved oxygen and nitrogen,⁵³ which directly affect

Opinion of the Boundaries of and Status of Title to Certain Lands Within the Colville and Spokane Indian Reservations.

48. WORLD COMMISSION at 49, *supra* at note 5.

49. *Id.*

50. *Id.*

51. CONFEDERATED TRIBES at 7, *supra* note 8.

52. *Id.*

53. The Columbia River is listed on the Washington and Oregon 303(d) lists for total dissolved gas (TDG) and most of the Columbia River is on their 303(d) lists for temperature. The Columbia River also exceeds the water quality standards of the Confederated Tribes for temperature and TDG. See WASHINGTON STATE DEPARTMENT OF ECOLOGY, 303(d) List of Impaired and Threatened Waterbodies, available at

salmon survival. To thrive, salmon need abundant cold water.⁵⁴ Small increases in water temperatures (e.g. 2-3° C) above the optimal range impair juvenile migrants' smoltification (adaptation to salt water), delay adults' migration to spawning areas, and increase stress and mortality in both juveniles and adults.⁵⁵ In addition, high concentrations of total dissolved gas can be fatal to anadromous fish.⁵⁶ The spills at the Grand Coulee Dam that occur as part of the FCRPS operations increase total dissolved gas down river.⁵⁷

As part of the operation of the FCRPS, Reclamation draws down Lake Roosevelt in early summer and fall. The reduced volume and surface area limit food supply and increase water temperatures during periods that are often critical for the resident fish.⁵⁸ Thus, conflicts arise between the anadromous smolts, which need flows for outmigration, and resident fish in Lake Roosevelt, which become threatened by the reduced volumes.⁵⁹ In addition, recent evidence from a soon to be released USGS report shows that the draw downs have also contributed to the release of contaminants from sediment in the water column.

2. Impact on Water Quality

In the early 1980s, concerns about water quality in Lake Roosevelt and the upper Columbia River were first noted in a U.S. Fish and Wildlife study that reported the presence of elevated concentrations of arsenic, cadmium, lead, and zinc in fish from Lake Roosevelt.⁶⁰ Follow up studies indicated that the primary source of this contamination was a virtually unregulated lead-zinc smelter located on the banks of Columbia River in Trail, British Columbia, 16 km upstream from the international boundary.⁶¹ From the 1950s until the mid-1990s, the smelter regularly

http://www.ecy.wa.gov/programs/wq/303d/1998/1998_by_wrias.html (last visited Mar. 17, 2004).

54. United States Environmental Protection Agency (Aug. 2001) *Technical Synthesis: Scientific Issues Relating to Temperature Criteria for Salmon, Trout, and Char Native to the Pacific Northwest*. 910-R-01-007.

55. *Id.* at 4.

56. See NAT'L MARINE FISHERIES SERV., *supra* note 34.

57. IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY, OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, WASHINGTON DEPARTMENT OF ECOLOGY, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10, Columbia/Snake River Mainstem TMDL Fact Sheet No. 5, prepared in coordination with the Columbia Basin Tribes, Fall 2002.

58. WORLD COMMISSION at 62, *supra* note 5.

59. *Id.*

60. Lowe, T.P. et al., *National Contaminant Biomonitoring Program—Concentrations of Seven Elements in Freshwater Fish 1978-1981*, 14 ARCHIVES OF ENVTL. CONTAMINATION & TOXICOLOGY 363 (1985).

61. G.C. Bortleson et al., *Sediment-Quality Assessment of Franklin D. Roosevelt*

discharged several hundred tons of blast furnace slag and effluent per day directly into the Columbia River.⁶²

An additional threat to the Lake Roosevelt environment became evident upon the release of two Canadian studies completed in 1988 and 1990.⁶³ These studies reported that large quantities of organochlorine⁶⁴ compounds were discovered in the Columbia River downstream of a pulp mill in British Columbia located 30 miles upstream from the U.S.-Canadian border.⁶⁵

In 1992, at the request of the U.S. Environmental Protection Agency (EPA) and Lake Roosevelt Water Quality Council (LRWQC), the U.S. Geological Survey (USGS) initiated a large-scale sediment quality study of Lake Roosevelt.⁶⁶ The USGS reported that the riverbed sediments were contaminated by elevated concentrations of metals (arsenic, cadmium, copper, lead, mercury, and zinc). The USGS report also concluded that the presence of these contaminants had altered benthic invertebrate communities.⁶⁷

Owing in part to the studies in Canada and Washington State, and

Lake and the Upstream Reach of the Columbia River, Washington, 1992, U.S. Geological Open-File 94-315 (1994); see also Cominco Metals, *Cominco Trail Operations Environmental Report: Trail, British Columbia* 24 (1991); ECOLOGY AND ENVIRONMENT, INC. AND ROY F. WESTON (E & E/WESTON), *Upper Columbia River Expanded Site Inspection Report Northwest Washington*, TDD: 01-02-0028, EPA Contract Nos.: 68-S0-01-01 and 68-S0-01-02, prepared for the United States Environmental Protection Agency Region 10. (Mar. 2003).

62. Bortleson et al., *supra* note 61.

63. F.T.S. Mah, et al., *Dioxins and Furans in Sediment and Fish from the Vicinity of Ten Inland Pulp Mills in British Columbia: North Vancouver, BC*, WATER QUALITY BRANCH, INLAND WATERS DIRECTORATE, ENV'T CANADA 77 (1989).

64. See generally EPA OFFICE OF SCIENCE COORDINATION AND POLICY, ENDOCRINE DISRUPTOR SCREENING PROGRAM, *What are Endocrine Disruptors?*, available at <http://www.epa.gov/oscpmont/oscpendo/whatis.htm> (last visited Apr. 2, 2003) (stating that Organochlorine refers to chemical compounds that have a chlorinated hydrocarbon structure. The U.S. Environmental Protection Agency (EPA) has classified some organochlorine compounds such as PCBs as "probably human carcinogens." The EPA also notes their potential as endocrine disrupters stating, "[a]lthough their effect may be much weaker than the body's natural hormones (like estrogen, androgens, and thyroid hormones), they are nonetheless suspected of disrupting the endocrine system, resulting in harmful effects like reproductive and developmental defects and certain cancers").

65. Mah, et al., *supra* note 63.

66. United States Geologic Survey (USGS), revised 1994, *Sediment-Quality Assessment of Franklin D. Roosevelt Lake and Upstream Reach of the Columbia River, Washington, 1992*, Open File Report 94-315, prepared in cooperation with the United States Environmental Protection Agency, USGS Report 95-195.

67. USGS, *supra* note 66. Benthic invertebrates in Lake Roosevelt include snails, midges, caddisflies, worms, and scuds. As the EPA noted in the Expanded Site Investigation Report, "[a]ccumulation of contaminants in sediments can cause death, reproduction failure, growth impairment, or other detrimental changes in the organisms exposed to these contaminants. The toxins accumulated in worms can be transferred up the food chain to higher predators such as fish." E&E/Weston at 8-2, *supra* note 61.

the constant pressure of the Confederated Tribes and the LRWQC, the subject smelter has apparently stopped discharging slag and has reduced its effluent discharge.⁶⁸ While this is a significant improvement in the loadings of additional metals to the system, large quantities of previously discharged contaminated sediments remain in and about Lake Roosevelt. Due to the presence of the Grand Coulee Dam, which severely retards the downstream migration of contaminants, a significant volume of hazardous contaminants has accumulated throughout the sediments beneath Lake Roosevelt.⁶⁹

From about January to April each year, the Bureau of Reclamation draws down the level of Lake Roosevelt for primarily flood control purposes. The lake level is lowered by as much as 82 feet, exposing hundreds of miles of Reclamation-owned shoreline area.⁷⁰ Consequently, the contaminated sediment in the shoreline area is exposed to the air. When dry, the sediments are easily distributed by wind as fugitive air emissions. The raising and lowering of the reservoir also prevents the establishment of plants that would normally grow around a lake and stabilize its banks,⁷¹ making the banks of Lake Roosevelt subject to erosion.⁷² Further, as the contaminated sediment materials are scoured and transported downstream, they become dissolved in the water column.⁷³ Other factors, including the hydrodynamics of water flow, keep the contaminants moving in and around Lake Roosevelt.⁷⁴ Therefore, long after being discharged by the upstream pollution source, these contaminants continue to move around and adversely impact the surface and groundwater, sediments, and biological resources of Lake Roosevelt.

3. Impact on Air Quality

As noted above, when the contaminated sediments become dried out, they often become entrained in the lower atmosphere as fine particulate matter (fugitive emissions), further exposing plants, wildlife and those people living and recreating along the banks of Lake Roosevelt

68. E & E/WESTON, *supra* note 61.

69. *Id.* at 2-5 to 2-6.

70. UNITED STATES GEOLOGICAL SURVEY (USGS), *Concentrations and Distribution of Slag-Related Trace Elements and Mercury in Fine-Grained Beach and Bed Sediments of Lake Roosevelt, Washington, April-May 2000*, prepared in cooperation with the Confederated Tribes of the Colville Reservation, Lake Roosevelt Water Quality Council, Bureau of Reclamation, and National Park Service, USGS Report 03-4170.

71. CONFEDERATED TRIBES at 11, *supra* note 8.

72. E & E/WESTON at 2-5 to 2-6, *supra* note 61.

73. *Id.*

74. CONFEDERATED TRIBES, *supra* note 8.

to the contaminated material.⁷⁵ The potential threat to human health and the environment presented by these fugitive emissions is of great concern to the Confederated Tribes. The Confederated Tribes are currently developing Tribal fugitive emission air quality control measures and implementing an air quality monitoring program to determine the nature of the health risks associated with these potentially hazardous fugitive emissions.⁷⁶

4. Impact on Human Health

The presence and operation of the Grand Coulee Dam has had a number of adverse impacts on human health. The construction of the dam and the resulting decline in the anadromous fisheries has caused, salmon, once a major food source for Tribal members, to be replaced with foods that are high in fat, sugar and salt.⁷⁷ As a result, there have been significant increases in the rates of heart disease, diabetes, and other diet-related illnesses on the reservation.⁷⁸ The increase in incidents of disease is exacerbated by limited availability of health care on the reservation.

Other health issues for the Confederated Tribes are raised by the bioaccumulation of the contaminants, including mercury, lead, arsenic, dioxins, furans and PCBs, in the resident and anadromous fish as a direct result of the Grand Coulee Dam.⁷⁹ In 1990, the Washington State Department of Health (DOH) issued a fish consumption advisory for dioxins in Lake Roosevelt fish (Dioxin Advisory).⁸⁰ Then in 1994, a USGS study⁸¹ identified high levels of mercury in sportfish, triggering a Washington DOH fish consumption advisory that, to date, remains in effect (Mercury Advisory).⁸² Another recent study of sportfish from Lake Roosevelt indicated that the concentrations of PCBs did not change

75. *Id.*

76. *See* SEATTLE DAILY JOURNAL OF COMMERCE (Aug. 26, 2003).

77. WORLD COMMISSION at 78, *supra* note 5.

78. Furthermore, some have posited that the Tribes' distress over the loss of the salmon as the centerpiece of tribal society has contributed to the rise in alcoholism on the reservation. *Id.* at 74.

79. *See generally*, CONFEDERATED TRIBES, *supra* note 8.

80. WASHINGTON STATE DEPT. OF HEALTH, *Fish and Shellfish Consumption Advisories in Washington State Due to Chemical Contamination* (Dec. 2002).

81. M.D. Munn, et al., U.S. GEOLOGICAL SURVEY, OPEN-FILE REPORT 95-195, CONCENTRATIONS OF MERCURY AND OTHER TRACE ELEMENTS IN WALLEYE, SMALLMOUTH BASS, & RAINBOW TROUT IN FRANKLIN D. ROOSEVELT LAKE AND THE UPPER COLUMBIA RIVER, WASHINGTON, 1994 (1995).

82. WASHINGTON STATE DEPT. OF HEALTH, *Fish and Shellfish Consumption Advisories in Washington State Due to Chemical Contamination* (Oct. 2, 2003), available at http://www.doh.wa.gov/ehp/oehas/EHA_fish_adv.htm (last visited Feb. 5, 2004).

from 1994 to 1998.⁸³ Although this report was encouraging because it shows that concentrations of furans in rainbow trout decreased, it also indicates that there was no change in concentration levels of dioxins and furans in sportfish and whitefish, and concentrations of PCBs in rainbow trout remained elevated and do not appear to be decreasing.⁸⁴

The presence of contaminants in the resident and anadromous fish in Lake Roosevelt and the Upper Columbia disproportionately affects the Confederated Tribes. The Tribes' members typically consume greater quantities of fish than non-Native Americans⁸⁵; however, the Dioxin Advisory and the Mercury Advisory do not account for this fact.

Fish consumption health advisories direct meal sizes and meal consumption frequency for the target contaminant that bioaccumulates in fish tissues to protect the general population from the harmful effects of the contaminant, i.e., the "risk" of cancer, endocrine disruption, or other human health effects.⁸⁶ To calculate the risk, agency assessors use a quantitative risk assessment that calculates risk as a product of the toxicity of the target contaminant and the duration and frequency of exposure to that contaminant.⁸⁷ Duration and frequency of exposure is determined using a fish consumption rate, i.e. how much fish per day a person eats, which is derived from data from the general population.⁸⁸ The fish consumption rate, therefore, equates to the amount of fish the "average American" eats, and consequently does not account for those that consume more or less than the average.⁸⁹ Thus, by its nature, the quantitative risk assessment under estimates and over estimates the risk to those that fall outside the average.⁹⁰

The DOH did not have fish consumption data for the Lake Roosevelt area in 1990 when it established the Dioxin Advisory.⁹¹ Instead, it used a fish consumption rate to calculate the consumption

83. Munn, *supra* note 81.

84. *Id.*

85. For a description of Quantitative Risk Assessment methodology, see Catherine O'Neill, *Variable Justice: Environmental Standards, Contaminated Fish, & "Acceptable" Risk to Native Peoples*, 19 STAN. ENVTL. L.J. 3 (2000).

86. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *Fact Sheet: 2002 National Listing of Fish & Wildlife Advisories*, EPA 823-F-03-005, available at <http://www.epa.gov/waterscience/fish/advisories/gpfs.pdf> (last visited Mar. 6, 2004).

87. O'NEILL, *supra* note 85.

88. *Id.*

89. *Id.*

90. *Id.*

91. Telephone Interview with Koenraad Mariën, Toxicologist, Washington State Department of Health, Office of Environmental Health Assessments (May 9, 2002). The assumption used for the FCR was 200 grams/month, which is slightly more than the EPA's figure of 6.5 grams/day. Note that EPA currently uses a rate of 17.5 grams/day to set an Ambient Water Quality Criterion under the Clean Water Act.

limits for dioxins on studies that were based on the general population's fish consumption rate of approximately one meal of fish per month.⁹² Thus, the Dioxin Advisory is under-protective of the health of the members of the Confederated Tribes because they consume more fish than the "average American."

When the Washington DOH established safe consumption levels of fish for its Mercury Advisory, it attempted to use a methodology countered for the deficiencies of traditional quantitative risk assessment. The DOH based consumption limits for mercury on a Tolerable Daily Intake (TDI).⁹³ The TDI was based on scientific studies investigating sensitive endpoints in children of mothers who consumed fish over a prolonged period (TDI Study).⁹⁴ The Washington DOH also conducted an analysis of subsistence and recreational fishing populations that consume mercury-tainted fish (Exposure Analysis).⁹⁵ The Exposure Analysis concluded that many within the Native American population exceed the TDI; however, because fish is an important source of protein, the DOH cautioned that lowering the TDI could have a deleterious effect.⁹⁶ Therefore, the Mercury Advisory is generally not protective of the health of Native Americans living in Washington, and it is specifically not protective of the members of the Confederated Tribes that consume fish from a water body known to be contaminated with mercury.

In sum, the presence of the Grand Coulee Dam and the operation of the FCRPS have had and continue to have significant effects on the environment of Lake Roosevelt. The widespread contamination in Lake Roosevelt and Upper Columbia River sediments degrade the water and air quality, jeopardize the resident and anadromous fisheries, and create significant potential health threats to the Native and non-Native residents of the area and to the broader community that recreates in the Lake Roosevelt area.

92. *Id.*

93. OFFICE OF ENVIRONMENTAL HEALTH ASSESSMENT SERVICES, WASHINGTON STATE DEPARTMENT OF HEALTH, *Evaluation of Evidence Relating to Development of a Tolerable Daily Intake for Methylmercury* (May 1999).

94. *Id.*

95. OFFICE OF ENVIRONMENTAL HEALTH ASSESSMENT SERVICES, WASHINGTON STATE DEPARTMENT OF HEALTH, *Exposure Analysis of Five Fish Consuming Populations for Overexposure to Methylmercury*, (Jan. 2001). The five populations studied are: recreational anglers consuming fish from Lake Roosevelt, recreational shore and boat anglers consuming fish from Puget Sound, the Tulalip Tribe, and Squaxin Island Tribe and the Suquamish Tribe.

96. *Id.* at 9.

IV. LEGAL ANALYSIS

Realistically, Grand Coulee Dam will not be removed, and as a consequence of the Dam, large runs of salmon will not be seen in the Upper Columbia. It is equally certain, that the Tribes will remain vigilant in protecting their interests in the Upper Columbia Basin/Lake Roosevelt environment. The body of law supporting the Tribes' authority and interests include various federal statutes, the 1872 Executive Order,⁹⁷ the 1975 *Antoine v. Washington*⁹⁸ decision, and the federal trust responsibility,⁹⁹ all of which acknowledge the role and authority of the Tribes to protect the health of Tribal members and the quality of the Lake Roosevelt environment.¹⁰⁰ The Confederated Tribes look to the body of federal environmental law, such as the Comprehensive Environmental Response, Compensation, and Liability Act,¹⁰¹ the Clean Water Act,¹⁰² the National Environmental Policy Act,¹⁰³ and the Endangered Species Act¹⁰⁴ as one set of tools to protect their interests.

This Section of the paper will discuss the legal steps taken to date by the Confederated Tribes to address their concerns. Because these legal issues involve interactions between Indian Tribes and the federal government, we begin this section with a discussion of the federal trust responsibility.

A. *Trust Obligation of the United States*

Reclamation's operation of the Grand Coulee Dam on behalf of the federal government is subject to and governed by the United States' fiduciary relationship to the Confederated Tribes. There is a legally enforceable trust obligation owed by the United States Government to Indian Tribes that finds its origin in the historic dealings between the Government and the Tribes and is reflected in the treaties, agreements

97. Executive Order of July 2, 1872; Agreement of May 9, 1891 ratified by Act of June 21, 1906, 34 Stat. 325.

98. 420 U.S. 194, 197 (1975). *See also* Confederated Tribes of the Colville Reservation v. Walton, 647 F.2d 42, 44 (9th Cir. 1981); U.S. v. Winans, 198 U.S. 371, 380 (1905).

99. *See, e.g.*, United States v. Mitchell, 463 U.S. 206, 225, 103 S. Ct. 2961, 2972, 77 L.Ed.2d 580 (1983); Cherokee Nation v. Georgia, 5 Pet. 1, 17, 8 L.Ed. 25 (1831). *See generally* F. Cohen, Handbook of Federal Indian Law 220-228 (1982).

100. *Id.*

101. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (1994).

102. Clean Water Act, 33 U.S.C. §§ 1251-1387 (1994).

103. National Environmental Policy Act of 1969, 42 U.S.C. § 4321-4370 (1994).

104. Endangered Species Act, 16 U.S.C. §§ 1531-1599 (1994).

and statutes pertaining to Indians.¹⁰⁵ Known as the Trust Responsibility Doctrine, this obligation *imposes fiduciary standards* on the conduct of the executive, including the duties to: act with care and loyalty; make trust property income productive; enforce reasonable claims on behalf of Indians; and *take affirmative action to preserve trust property*.¹⁰⁶

Federal governmental actions are subject to the United States' fiduciary responsibilities toward Indian Tribes.¹⁰⁷ The federal government has charged itself with moral obligations of the highest responsibility and trust such that, in dealing with Indian Tribes, it is judged by the most exacting fiduciary standards.¹⁰⁸ President Clinton recognized the unique legal relationship of the United States with Indian Tribal governments and ordered executive agencies, such as the Department of Interior (Interior) and its bureaus, to be guided by principles of respect for Tribal treaty and other rights and responsibilities that arise from this unique legal relationship.¹⁰⁹

By Secretarial Order No. 3215 (April 28, 2000) regarding Principles for the Discharge of the Secretary's Trust Responsibility, the Secretary of the DOI articulated those activities which constitute the proper discharge of the trust responsibilities of the United States owed to Indian Tribes.¹¹⁰ These activities include: the appropriate management of the natural resources located within the boundaries of Indian reservations and trust lands; the exercise of a high degree of care, skill and loyalty to protect and preserve Indian trust assets from loss, damage, unlawful alienation, waste and depletion; and, the protection of treaty-based fishing, hunting, gathering, and similar rights of access and resource use on traditional tribal lands.¹¹¹

By its terms, the 2000 Interior Order is to be implemented by the employees of all bureaus and offices within the Interior as they review, modify or promulgate new regulations, policy statements, instructions or manuals; develop legislative and budgetary proposals; and manage, administer, or take other actions directly relating to or potentially affecting assets held in trust by the United States for Indian Tribes and

105. See *supra* note 99.

106. See, e.g., RESTATEMENT (SECOND) OF TRUSTS §§ 164-226 (1959) (summarizing duties, powers, and potential liabilities of trustees).

107. *Nance v. Env'tl. Prot. Agency*, 645 F.2d 701, 711 (9th Cir. 1981), *cert. denied*, 454 U.S. 1081 (1981).

108. *Seminole Nation v. United States*, 316 U.S. 286, 297 (1942).

109. See Exec. Order No. 13,084, 63 Fed. Reg. 27655 (1998).

110. U.S. DEPARTMENT OF INTERIOR, OFFICE OF THE SECRETARY, Order No. 3215 (April 28, 2000), available at http://elips.doi.gov/elips/sec_orders/html_orders/3215.htm.

111. *Id.*; See also American Indian Trust Fund Management Reform Act of 1994, Pub. L. 103-412, Oct. 25, 1994, 108 Stat. 4239.

individual Indians.¹¹²

The trust obligations recognized and owed to Indian Tribes by the federal government (particularly the Interior as set out in Executive Order No. 13084 and Secretarial Order No. 3215), are in addition to those obligations owed to the Tribes by such federal agencies that arise under treaties, agreements and statutes pertaining to Indians.¹¹³ In effect, the affirmative trust obligation owed to Tribes imposes a limit on the discretion of executive agencies with regard to the manner in which executive agencies administer statutes affecting Indian property and affairs.¹¹⁴

With regard to the Grand Coulee Dam and Lake Roosevelt, Reclamation's conduct in managing the Lake Roosevelt reservoir must comply with these duties and trust obligations. Reclamation must act in a manner consistent with its trust obligation to the Confederated Tribes with regard to its operational activities at Grand Coulee, such as pool raises and draw-downs, and may not ignore associated consequences of these discretionary actions, including the release and re-release of hazardous substances into the environment.

Therefore, Reclamation has the affirmative duty to: properly administer Indian property; manage natural resources located within the boundaries of Indian reservations and trust lands; protect and preserve Indian trust assets from loss, damage, waste and depletion; and protect treaty-based fishing, hunting, gathering, and similar rights of resource use on traditional Tribal lands. With regard to the operation of the Grand Coulee Dam and Lake Roosevelt, it is the position of the Confederated Tribes that Reclamation has not met its obligation to protect the interests of the Confederated Tribes and its members.

B. The National Environmental Policy Act and the Endangered Species Act

1. Major Federal Action

The National Environmental Policy Act of 1969 (NEPA)¹¹⁵ requires that an environmental impact statement (EIS) be prepared for governmental proposals which are "major" federal actions that significantly affect the quality of the human environment.¹¹⁶ Because the

112. U.S. DEPARTMENT OF INTERIOR, *supra* note 110.

113. *Id.*

114. *See* United States v. Creek Nation, 295 U.S. 103 (1935); *see also* Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. 252 (D.D.C. 1972).

115. National Environmental Policy Act of 1969, 42 U.S.C. § 4321 *et seq.* (1994).

116. National Environmental Policy Act of 1969, 42 U.S.C. § 4332(c) (1994).

Grand Coulee Dam was constructed thirty years before NEPA's adoption, the requirements of NEPA do not apply retroactively to the project.¹¹⁷ However, if an ongoing project is modified and the changes themselves amount to "major Federal actions," NEPA and its EIS requirements would apply.¹¹⁸

The listing of several Columbia Basin salmonids pursuant to the Endangered Species Act in the early 1990's¹¹⁹ required that the Federal dam operators adjust the spill water over the lower Columbia and Snake River dams to increase fish survival. These modifications to the operations of the Federal System were significant enough to constitute a major Federal action; therefore, the Corps, Reclamation, and BPA (collectively "the Operating Agencies") were required to comply with NEPA and complete the EIS process.¹²⁰ The Operating Agencies issued a final EIS in 1995 (FEIS) commonly referred to as the System Operation Review which identified a preferred alternative.¹²¹ The Operating Agencies did not, however, consider the results of the USGS sediment studies of Lake Roosevelt.

In December 2000, the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) issued the 2000 Bi-Ops for the endangered salmon and trout of the Columbia River.¹²² The 2000 Bi-Ops called for the Corps and Reclamation to undertake various proposed actions at their 14 main FCRPS dams by assisting in the recovery of Columbia River fish species listed under the ESA.¹²³ The actions include an alternative flood control strategy, called variable discharge (variable Q, or VARQ), that will result in operational changes at Grand Coulee Dam, and a summer flow augmentation from Grand Coulee Dam (Proposed Actions).¹²⁴ The Proposed Actions will affect the reservoir levels at Lake Roosevelt.

The Confederated Tribes provided comments on the drafts of the 2000 Bi-Ops emphasizing the urgency and magnitude of the contaminated sediment problem.¹²⁵ They highlighted the actual and

117. See *Westside Prop. Owners v. Schlesinger*, 597 F. 2d 1214, 1223 (9th Cir. 1979).

118. See *Andrus v. Sierra Club*, 442 U.S. 347, 363 n. 21 (1979).

119. See *supra* note 33.

120. U.S. ARMY CORPS OF ENGINEERS, NORTH PACIFIC DIVISION ET.AL., *Columbia River System Operation Review: Final Environmental Impact Statement* (Nov. 1995).

121. *Id.*

122. See NAT'L MARINE FISHERIES SERV., *supra* note 34; see U.S. FISH & WILDLIFE SERV., *supra* note 34.

123. See NAT'L MARINE FISHERIES SERV., *supra* note 34; see U.S. FISH & WILDLIFE SERV., *supra* note 34.

124. See NAT'L MARINE FISHERIES SERV., *supra* note 34; see U.S. FISH & WILDLIFE SERV., *supra* note 34.

125. CONFEDERATED TRIBES, *supra* note 8.

potential impacts the contaminated sediments have on the Lake Roosevelt environment and on the health of those living around the lake.¹²⁶ Specifically, they stated that increased draw-downs of the Lake Roosevelt reservoir will likely redistribute existing contamination and expose additional contaminated sediment, which when dried out, becomes airborne dust that poses a significant health threat to the Lake Roosevelt community.¹²⁷ The Tribes' comments also indicated the need for additional studies on the contamination, including human health and ecological risk assessments.¹²⁸

NMFS and FWS did not, however, recognize the Tribes' air quality concerns. In their response to comments on the draft 2000 Bi-Ops, the agencies limited the scope of issues regarding reservoir management, only to the potential exposure of cultural sites at Lake Roosevelt.¹²⁹ No discussion of the contaminated sediments or the effect of associated dust storms was included in the comments or in the final 2000 Bi-Ops.

In response to the 2000 Bi-Ops, Reclamation and Corps issued a Notice of Intent to prepare a draft environmental impact statement (EIS) on operational alternatives for the conservation of threatened and endangered species of fish listed for protection under the ESA.¹³⁰ The schedule to complete the EIS process has been extended to 2005 and the draft EIS is due to be completed in the latter half of 2004.¹³¹ The extent to which the draft EIS will address the contaminated sediments is unknown at this time.

2. NEPA Regulations

The Council on Environmental Quality's regulations implementing NEPA (CEQ Guidelines)¹³² mandate the preparation of a supplement to a final EIS if there are "significant new circumstances or information relevant to environmental concerns" surrounding the Federal action.¹³³

126. CONFEDERATED TRIBES, *supra* note 8.

127. CONFEDERATED TRIBES, at 11, *supra* note 8.

128. CONFEDERATED TRIBES, at 37-40, *supra* note 8.

129. NATIONAL MARINE FISHERIES SCIENCE, *Response to Comments* (December 21, 2000), available at <http://www.nwr.noaa.gov/1hydro/hydroweb/docs/Final/respcomm.pdf> (last visited Feb. 11, 2004).

130. Intent to Prepare a Draft Environmental Impact Statement (DEIS) for Upper Columbia Basin Alternative Flood Control and Fish Operations at Libby Dam, Montana; Hungry Horse Dam, Montana; and Grand Coulee Dam, Washington, 66 Fed. Reg. 49,943-44 (Oct. 1, 2001).

131. See U. S. ARMY CORPS OF ENGINEERS AND BUREAU OF RECLAMATION, Upper Columbia Update, Issue No. 4, Nov. 2003, available at <http://www.usbr.gov/pn/programs/VARQ/pdf/nov03.pdf>.

132. 40 C.F.R. pt. 1500 (2004).

133. 40 C.F.R. § 1502.9(c)(1)(ii) (2004).

Furthermore, courts have required an EIS whenever a project "may cause a significant degradation of some human environmental factor."¹³⁴ The additional studies on the contamination in Lake Roosevelt, discussed *infra* at Part III.C., constitute significant new information on the direct, indirect and cumulative release and re-release of hazardous substances into the environment, and the resultant threat to human health and the environment.¹³⁵ Therefore, the Operating Agencies should supplement the 1995 FEIS and NMFS and the FWS should prepare supplements to the 2000 Bi-Ops, to include consideration of the contaminated sediment in Lake Roosevelt as it presents an issue of significant environmental concern.

The primary purpose of NEPA is to ensure that the proponent of a major federal action makes fully informed and well considered decisions.¹³⁶ The Operating Agencies have a statutory duty to evaluate and consider the growing body of studies that demonstrate sediment contamination of Lake Roosevelt. Moreover, the Operating Agencies have a trust obligation to the Confederated Tribes to fully comply with those laws that are protective of Tribal interests.¹³⁷ In the case of the 1995 FEIS, the Operating Agencies must not breach this duty or otherwise violate NEPA.¹³⁸ Therefore, the Operating Agencies must make a good faith effort to compile and evaluate all the significant environmental information as a part of their NEPA decision-making process.

The Confederated Tribes were not invited to participate in the NEPA process performed by the Operating Agencies. Comments prepared by the Confederated Tribes' on drafted NEPA documents and other relevant information the Tribes' provide to the Operating Agencies that they should be fully and fairly considered by those agencies. And, the Confederated Tribes should be provided with the opportunity to participate in federal dam operational decisions designed to properly protect the reservation population and the reservation environment. The Operating Agencies' trust obligation demands nothing less.

134. *City of Davis v. Coleman*, 521 F.2d 661, 673-674 (9th Cir. 1975); *see also* *Upper Snake River Chapter of Trout Unlimited v. Hodel*, 921 F.2d 232, 234 (9th Cir. 1990).

135. "If there remains major Federal action to occur, and the new information is sufficient to show that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered, a supplemental EIS must be prepared." *Friends of the Clearwater v. Dombek*, 222 F.3d 552, 557-558 (C.A.9,2000) *citing* *Marsh v. Oregon Natural Resource Defense Council*, 490 U.S. at 374, 109 S.Ct. 1851 (citations and quotations omitted).

136. 42 U.S.C. 4321.

137. *See* Part IV.A., *supra*.

138. *Id.*

C. *The Clean Water Act*

The Clean Water Act¹³⁹ can be used to affect the operations of federal dams, as demonstrated in *National Wildlife Federation v. Army Corps of Engineers*.¹⁴⁰ The purpose of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nations’ waters” by reducing, and eventually eliminating, the discharge of pollutants¹⁴¹ into those waters.¹⁴² The Clean Water Act sets up a system of water quality standards, discharge limitations, and a permit process.¹⁴³ Water quality standards for individual waterways are generally promulgated either by the states, or authorized Tribes and are subject to review and approval by EPA.¹⁴⁴

Water quality standards for a particular waterway are based on its “use” classification and on its water quality criteria, setting specific limits on particular pollutants or on the condition of a water body.¹⁴⁵ Compliance with properly selected criteria is expected to achieve a degree of water quality sufficient to protect the designated uses.¹⁴⁶

The Washington Department of Ecology promulgated water quality standards for the Columbia River based on characteristic uses including: water supply (domestic, industrial, agricultural); stock watering; salmonid and other fish migration, rearing, spawning, and harvesting; wildlife habitat; and recreation.¹⁴⁷ However, since the early 1990’s, applicable water quality standards for temperature and dissolved gas along the lower Snake River have not been met.¹⁴⁸

As a result of this noncompliance, a coalition of environmental groups filed a complaint against the Corps in 1999, alleging that the Corps’ operation of the four dams on the lower Snake River caused and/or contributed to the violations of the water quality standard for temperature and dissolved gas.¹⁴⁹ In 2001, the United States District

139. Clean Water Act, 33 U.S.C. §§ 1251-1387 (1994).

140. See *National Wildlife Federation v. U.S. Army Corp of Engineers*, 132 F. Supp. 2d 876 (D. OR. 2001).

141. Clean Water Act, 33 U.S.C. § 1362(6) reads: “The term ‘pollutant’ means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.” 33 U.S.C. § 1362(6) (2003).

142. Clean Water Act 33 U.S.C. § 1251(a) (1994).

143. See Clean Water Act, 33 U.S.C. §§ 1313, 1342 (1994).

144. See Clean Water Act, 33 U.S.C. § 1313 (1994).

145. 40 C.F.R. § 131.12(a) (2004).

146. *Id.*

147. See WASH. ADMIN. CODE § 173-201A-030 (repealed 2003); WASH. ADMIN. CODE § 173-201A-130 (repealed 2003).

148. *Nat’l Wildlife Fed’n*, 132 F. Supp. 2d at 879-889.

149. *Id.* at 878.

Court for Oregon held that the Corps were required to address compliance with its legal obligations under the Clean Water Act in its 1995 and 1998 records of decisions (RODs)¹⁵⁰ for dam operations on the Snake River.¹⁵¹

The Court rejected the Corps' argument that the exceedences were the result of the existence of the dams, not the Corps' operations of those dams.¹⁵² The Corps' operational plans were set forth in RODs promulgated in 1995 and 1998.¹⁵³ The Court found that the exceedences are affected by the decisions the Corps made in the RODs, although the express purpose of both the 1995 ROD and the 1998 ROD was to comply with the Endangered Species Act.¹⁵⁴ Stating that the Endangered Species Act should be read together with the Clean Water Act, the Court ordered the Corps to issue a new ROD that addressed its compliance with the Clean Water Act.¹⁵⁵

In short, *National Wildlife* sets a precedent that may well be applicable to the Upper Columbia system. The message of this case is that federal dam management agencies, such as Reclamation must insure that its operational activities do not violate applicable state or Tribal water quality standard.¹⁵⁶

D. Superfund

1. NPL Listing

In addition to the direct release of hazardous substances into the Columbia River by industrial sources, the redistribution of contaminated sediment and dust storms caused by the draw-downs of the Lake Roosevelt may constitute the release of hazardous substance under the

150. See 40 C.F.R. § 1505.2 (2004). A ROD must contain: (1) the decision itself; (2) all alternatives considered, specifying those which were environmentally preferable; (3) the factors balanced by the agency in its decision making; and, (4) "whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not." *Id.* at § 1505.2(a)-(c).

151. *Nat'l Wildlife Fed'n*, 132 F. Supp. 2d at 896.

152. *Id.* at 892.

153. *Id.* at 880-882.

154. *Id.* at 891.

155. *Id.* at 891, 896.

156. The 1987 amendments to the Clean Water Act authorized the EPA to treat Indian Tribes as states for the purposes of water quality standard. 33 U.S.C. § 1377(e); 40 C.F.R.131.8. Water quality standards have been enacted into Tribal law by the Colville Business Council of the Confederated Tribes of the Colville Reservation, as the Colville Water Quality Standards Act, CTC Title 33 (Resolution No. 1984-526 (Aug. 6, 1984) as amended by Resolution No. 1985-20 (Jan. 18, 1985) and subsequently promulgated by the EPA at 54 FR 28625 (July 6, 1989). 40 C.F.R. 131.35.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund."¹⁵⁷

CERCLA is a strict liability statute which provides that those that own the land on which a release occurs, or operate in a manner to cause or contribute to such a release, are responsible for the release of hazardous substances (regardless of the quantity) and are jointly and severally liable for the total costs of the "removal or remedial action . . . [and] damages for injury to, destruction of, or loss of natural resources."¹⁵⁸ CERCLA also establishes a National Priority List (NPL) to identify and remedy the country's worst sites, for which the federal Superfund may be accessed to pay clean up costs.¹⁵⁹ Finally, any person that is or could be affected by a release of hazardous substances may petition the EPA to conduct a preliminary assessment of a site or sites that are affected by a release or threatened release of hazardous substances.¹⁶⁰

As a direct result of its concern for Tribal members, as well as other people living and recreating within the Lake Roosevelt environment, on August 2, 1999, the Confederated Tribes petitioned Region 10 of the EPA to conduct a preliminary assessment to investigate the human health and environmental risks associated with the presence of hazardous substances in the Upper Columbia River Basin from the Canadian border, southward through Lake Roosevelt, to the Grand Coulee Dam, (encompassing the water, river- and lake-beds, and banks).¹⁶¹

In early 2000, EPA granted the Confederated Tribes' petition and commenced multiple preliminary assessments within the area of concern in and around Lake Roosevelt (the Lake Roosevelt Site).¹⁶² The EPA's investigation indicated that additional information was needed.¹⁶³ In

157. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601 (1994).

158. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9605, 9607 (1994).

159. 42 U.S.C. 9605(a)(8)(B), as amended, directs the President to use statutory criteria to prepare a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. This list, which is Appendix B of the National Contingency Plan, is the NPL.

160. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9605(d) (1994).

161. The Confederated Tribes are the first Tribal government to file a petition for preliminary assessment under CERCLA.

162. See UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 10, *Fact Sheet: Upper Columbia River Sampling*, May 2001 available at <http://yosemite.epa.gov/R10/CLEANUP.NSF/5d00d8cd091c61f088256863008126d2/8e6ff06773266088256c020066df7d?OpenDocument>.

163. ECOLOGY AND ENVIRONMENT, INC. (E & E), October 2000, *Upper Columbia River/Lake Roosevelt River Mile 597 to 745, Preliminary Assessment Report, Washington*, prepared for the United States Environmental Protection Agency Region 10.

2001, EPA began its Expanded Site Inspection and based on this data, issued its draft report in October 2002.¹⁶⁴ Based on data obtained by the assessment process, EPA determined that the Lake Roosevelt Site does qualify for placement on the National Priority List (NPL). EPA had the option of proceeding with the NPL listing process or entering into an administrative order with the potentially responsible parties (PRPs) at the Lake Roosevelt Site in accordance with EPA's Alternative NPL Site Guidance, OSWER 92-08.0-17 (June 24, 2002).

In about April 2003, EPA initiated informal settlement discussions with Teck Cominco Metals, Ltd. (Teck Cominco), owner and operator of the smelter in Trail, British Columbia, Canada.¹⁶⁵ The intent of EPA was to enter into an Agreed Administrative Order on Consent (AOC) with Teck Cominco whereby Teck Cominco American of Spokane, Washington, one of Teck Cominco's United States subsidiaries, would conduct an investigation of the Lake Roosevelt Site (RI/FS).¹⁶⁶ However, on October 10, 2003, the EPA sent a Special Notice letter to Teck Cominco, triggering an automatic 60-day period of formal negotiations with EPA.¹⁶⁷ The negotiations between EPA and Teck Cominco broke down on November 26, 2003, due to the "company's unwillingness to address U.S. environmental and health standards in its proposed study and to meet the same conditions as U.S. companies must meet."¹⁶⁸

As a result, on December 11, 2003, EPA issued a Unilateral Administrative Enforcement Order (UAO) to Teck Cominco directing that Teck Cominco perform the studies necessary for the RI/FS investigation under CERCLA.¹⁶⁹ On January 12, 2004, *Teck Cominco* sent a letter to EPA advising the agency that it *did not believe that EPA had jurisdiction over Teck Cominco under U.S. law* and that *Teck Cominco would not comply with the UAO*. To date, EPA has not taken action to enforce the UAO. Teck Cominco, however, has sought relief from the Canadian government and as a result, Canada has filed a diplomatic note with the U.S. Department of State advising the

164. See ECOLOGY AND ENVIRONMENT, INC. (E & E), October 2002, *Preliminary Assessments and Site Inspections Report Upper Columbia River Mine and Mills, Stevens County, Washington*, TDD: 01-02-0028, EPA Contract: 68-S0-01-01, prepared for the United States Environmental Protection Agency Region 10.

165. Updates of the status of the case are available at United States Environmental Protection Agency Region 10 Superfund: Upper Columbia River website available at <http://yosemite.epa.gov/R10/CLEANUP.NSF/sites/UpperC#Teck%20Cominco%20documents> (last visited Mar. 17, 2004).

166. Matthew Preusch, *Pollution Dispute in the Northwest Straddles the Border*, N.Y. TIMES, Mar. 20, 2004 at A8.

167. See note 165, *supra*.

168. See note 165, *supra*.

169. See note 165, *supra*.

Department that Canada does not believe that the EPA has jurisdiction over Teck Cominco under CERCLA. We understand that these discussions are continuing.

In the interim, however, the Confederated Tribes provided Teck Cominco with notice in February 2004 of the Tribes' intent to sue Teck Cominco under the citizen suit provision of CERCLA. Any person may bring a civil action "against any person who is alleged to be in violation of any standard, regulation, condition, requirement or order."¹⁷⁰ In short, the Tribes' letter indicates that the Tribe intends to enforce the UAO against Teck Cominco. The sixty (60) day notice period is currently running and, to date, no suit has been filed.

2. Natural Resource Damages

The liability of persons responsible for the release of hazardous substances under CERCLA includes both clean up remedial responsibility and liability for the costs of restoring or replacing damaged natural resources.¹⁷¹ The purpose of the natural resource damage (NRD) provision of CERCLA is to make the public whole and restore the damaged or injured resource to pre-release condition.¹⁷² Acting on behalf of the public, the United States, States, and Indian Tribes serve as natural resource trustees (Trustees) for the assertion of NRD claims for those natural resources under their respective trusteeship.¹⁷³ In the case of Tribal Trustees, the Superfund provides that a Tribe may recover damages for harm to natural resources both on- and off-reservation that belong to, are managed by, appertain to, or are held in trust for the benefit of the Tribe.¹⁷⁴

Trustees are responsible for assessment of the injury to natural resources, and the prosecution of claims to provide for the restoration of natural resources injured or services lost due to a release or discharge of a hazardous substance.¹⁷⁵ The Trustees may sue in court to obtain compensation from the potentially responsible parties (PRPs) responsible for the NRD, and reimbursement for the Trustees' costs of conducting the

170. 42 U.S.C. § 9659(a).

171. The statute defines "natural resources" broadly to include "land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources. . . ." Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601(16) (1994).

172. 43 C.F.R. § 11.80(b) (1994).

173. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607(f)(1) (1994).

174. *Id.*

175. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9607(f)(2) (1994).

NRD assessment and associated restoration planning.¹⁷⁶ Alternatively, the Trustees may negotiate with PRPs to obtain PRP-financed or PRP-conducted assessments and restorations of injured or impaired resources. Both processes are more effective if the various federal, State and Tribal Trustees coordinate their efforts and speak with one voice.

In November, 1998, the Confederated Tribes attempted to put a Memorandum of the Agreement in place which included the other Lake Roosevelt NRD Trustees (Spokane Tribe of Indians, the State of Washington, and the federal agencies). The Trustees' Memorandum of Agreement negotiations have stalled but the Confederated Tribes hope to continue these negotiations and move forward as additional data, including the EPA-generated investigative data relevant to resource injury and the quantification of such injury, becomes available to the Trustees.

E. International Law

International agreements may also offer relief for Tribes whose lands or interests either span the U.S./Canadian international boundary or whose interests are adversely impacted by an upgradient Canadian source of contamination. The following illustrates how such remedies would be relevant to Canadian sources of contamination impacting the Lake Roosevelt environment and the interests of the Confederated Tribes.

1. Boundary Waters Treaty and the Columbia River Treaty

The Confederated Tribes may pursue remedies against upstream Canadian companies that allegedly have in the past, or are currently, releasing contaminants into the Columbia River. The Confederated Tribes may utilize provisions of the Boundary Waters Treaty¹⁷⁷ and the Columbia River Treaty¹⁷⁸ to call upon the International Joint Commission (IJC) for investigation and monitoring of the alleged contamination.

The Tribes' may not submit their request directly to the IJC, but rather must rely on the U.S. government to do so.¹⁷⁹ If the U.S. government were to submit the Tribes' allegations of transboundary contamination to the IJC for review, the IJC would examine the facts and

176. Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9613 (1994).

177. Boundary Waters Treaty, Jan. 11, 1909, U.S.-U.K., 36 Stat. 2448.

178. Columbia River Treaty, Jan. 17, 1961, U.S.-Can., 15 U.S.T. 1555 (although the U.S. ratified the treaty in 1961, Canada did not do so until 1964).

179. Boundary Waters Treaty, art. IX.

circumstances and produce its conclusions and recommendations to the two nation-states (U.S. and Canada) to help them meet their commitment not to pollute the waters to the injury of health or property on the other side of the boundary.¹⁸⁰ However, the IJC only presents conclusions; it does not have the ability to enforce its recommendations against the polluters or the nation-states.¹⁸¹

2. North American Agreement on Environmental Cooperation

The Confederated Tribes may also find some relief through the North American Agreement on Environmental Cooperation¹⁸² (NAAEC) between the U.S., Canada, and Mexico. Under the NAAEC, the Secretary of the Commission for Environmental Cooperation (CEC) accepts written assertions that a government participating in the NAAEC is failing to enforce an environmental law effectively.¹⁸³ The petition may be submitted by a private person or a nongovernmental organization.¹⁸⁴

If the petition is accepted, the Commission develops a factual record on the matter.¹⁸⁵ Once the factual record is complete, a body consisting of the environmental ministers (or their equivalent) of the U.S., Canada, and Mexico known as the Council may, by a two-thirds vote, make the final factual record publicly available.¹⁸⁶ However, the NAAEC has no enforcement mechanism and is dependent upon public scrutiny as the primary means to encourage the non-complying government to enforce its own environmental law upon the non-complying pollution source.¹⁸⁷

3. North American Free Trade Agreement

Like the Boundary Waters Treaty and the NAAEC, the North American Free Trade Agreement between the U.S., Canada, and Mexico¹⁸⁸ (NAFTA) also lacks direct enforcement authority.

180. *Id.*

181. *Id.*

182. North American Agreement on Environmental Cooperation, Sept. 14, 1993, 32 I.L.M. 1480 (1993).

183. *Id.* at art. 14.

184. The term "non-governmental organization" means any scientific, professional, business, non-profit, or public interest organization or association which is neither affiliated with, nor under the direction of, a government." *Id.* at art. 45(1).

185. *Id.* at art. 15.

186. *Id.*

187. *Id.* at art. 10. The function of the Council includes encouraging "(a) effective enforcement by each Party of its environmental laws and regulations; [and] (b) compliance with those laws and regulations."

188. The North American Free Trade Agreement between the Government of the United States, the Government of Canada, and the Government of the United Mexican

Nevertheless, NAFTA establishes a comprehensive dispute resolution mechanism.¹⁸⁹ If a settlement is not reached early in the process, an independent panel of arbitrators hears the dispute.¹⁹⁰ The panel makes findings of fact based on expert reports and submissions of the interested parties as to whether the country causing the harm violated the NAFTA, and then issues its non-binding recommendations.¹⁹¹ The government bringing the action may impose trade sanctions against the other government if the harm is not abated. Here again only the nation-states, who are parties to the agreement, may initiate the dispute resolution process under the NAFTA.¹⁹²

4. Canadian Law

Finally, Canadian law is another potential source of relief for the Confederated Tribes. Injunctive relief and damage may be pursued in the Canadian courts if the alleged upstream polluters are in violation of applicable Canadian environmental laws.¹⁹³ For example, the Canadian Fisheries Act provides that "no person shall deposit . . . a deleterious substance . . . in water frequented by fish"¹⁹⁴ unless it is an authorized deposit. Violations of the Fisheries Act can result in civil penalties of up to one million Canadian dollars and one year in prison.

As with the other international remedies, enforcement remains an issue. There is no trust relationship between the Canadian government and the Confederated Tribes; therefore, enforcement is at the discretion of the Canada's Department of the Environment who regulates transboundary environmental issues. In light of Canada's apparent support for Teck Cominco, Ltd., it is unlikely that a Canadian court would look favorably on an action filed under Canadian law against the pollution source.

F. Summary

Pursuing claims against foreign-owned companies or their home country for transboundary pollution is often difficult and time-consuming. Even if a foreign jurisdiction or international body were to support the Tribes' position, there may well be no mechanism in place to ensure that the decision is enforced or that the pollution is cleaned up.

States, Dec. 17, 1992, 32 I.L.M. 296 (1993).

189. *Id.* at ch. 20.

190. *Id.* at arts. 2008 and 2009.

191. *Id.* at arts. 2016 and 2017.

192. *Id.* at art. 2004.

193. *See e.g.*, Fisheries Act, R.S. 1985, c. F-14

194. Fisheries Act at § 36(3), *supra* at note 192.

Nonetheless, a case brought in a foreign or international forum may still, in the long run, be useful, if it serves to highlight issues that need to be addressed by the Canadian and U.S. governments, or if it focuses negative public opinion upon issues that the upstream polluters would have preferred to ignore and not address. Therefore, whether the Tribes decide to pursue an international remedy, and the forum the Tribes may choose to use, depends on the practical utility and the public relations value as well as the probable outcome.

V. CONCLUSION

The Upper Columbia Basin is a precious national resource, yet due to its remote location away from populated centers, the Confederated Tribes has, for the most part, been fighting alone with little outside help from the state or federal government. The Confederated Tribes of the Colville Reservation are committed to maintaining a viable and healthy ecosystem on their Reservation and within the Upper Columbia basin. However, the task is enormous and it will require the collective efforts of the Tribes, the United States and the State of Washington to work together and to commit the level of technical, legal and financial resources necessary to effectively deal with the problem they face at this site.

Federal laws like NEPA and the CWA can provide entry points for Indian Tribes to participate in the operation of federal dams through participation in the environmental impact statement process and development and enforcement of water quality standards. Such efforts can address the manner in which the federal dams are managed.¹⁹⁵ However, the matter quickly becomes complicated where the water body behind a federal dam has been impacted by the release of hazardous substances from upland sources. In such instances, CERCLA can serve as a useful tool for developing data to support both clean up and claims for damage to natural resources.

The Trust Responsibility Doctrine serves as an umbrella to ensure that the federal government meets its obligations to work with Tribes under the various environmental laws to protect public health and the environment. When federal dam operations raise transboundary issues, where environmental damage to a river basin is contained and exacerbated by the operations of a major federal dam, Indian Tribes should also consider international forums to seek relief and bring their concerns to light.

In their development of a comprehensive strategy, the Confederated

195. Private dams are another matter and beyond the scope of this paper.

Tribes have taken steps to seek out federal and state agency partners, with common resource protection missions, so they may collectively assert their sovereign governmental powers, and seek to enforce applicable federal, state, tribal, and international environmental laws to protect the health of the impacted community and to restore the quality of the natural environment.

The issues surrounding the Upper Columbia Basin/Lake Roosevelt environment are not unique. As the Confederated Tribes work to protect public health and to clean up the Upper Columbia Basin/Lake Roosevelt environment, the lessons learned may help guide other interested communities in their efforts to: (1) hold the industrial sources (PRPs) that released hazardous substances into the environment responsible; and (2) influence the operators of federal dams to embrace and comply with their regulatory and trust obligations to protect the environmental quality of our nation's precious boundary water resources.

The instant matter is one of first impression under CERCLA and it is likely that the jurisdictional scope of CERCLA will need to be defined. One optional ending to this saga is that Teck Cominco's releases of hazardous substances into the United States will be held to trigger CERCLA and the law will provide relief to the Confederated Tribes against Teck Cominco. Alternatively, it may be found that CERCLA, in its current form, does not apply and a legislative fix may be necessary. In the later case, NPL designation would be appropriate to allow the Superfund to pay for the necessary studies and remedial action.

A third, perhaps best alternative, would be for Teck Cominco to step up to the plate and do the work under CERCLA on a voluntary basis. Although this does not appear to be in the cards, it would probably result in the most timely and positive result for all parties. One thing is certain, you will be sure to hear more about the "quiet war" to protect our national treasure, "the mighty Columbia."