# Salmon, Tribes, and Hydropower Dams in the U.S. Puget Sound

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Western Washington State (in the United States of America) is dominated by the Puget Sound, an inland sea which is the center, literally and figuratively, of the area. Linked to the ocean by the Strait of San Juan de Fuca, the Puget Sound basin extends south for over one hundred miles between the Olympic and Cascade Mountains.

Many rivers of differing lengths and water capacity empty into the Sound. There are two rivers which discharge into the southern part of the Sound which provide an interesting contrast. Both the Nisqually River and the Skokomish River have American Indian tribes living at their entrances to Puget Sound. The tribes, the Skokomish Tribe and the Nisqually Tribe, have depended on the resources, particularly salmon, from these rivers for hundreds of years. Both of these rivers also have hydroelectric developments on them which have impacted these tribes in different ways.

Hydroelectric power has been critical to the development of the Pacific Northwest. Utilizing a swiftly flowing river to generate electricity has been an important resource for this area since the 1880's. As part of the general development of hydropower in the Puget Sound region, dams were built on the Skokomish River in the 1930's and on the Nisqually River in the 1940's. Hydroelectric dams, particularly ones that do not have fish ladders or that divert water out of the river channel, have contributed to the decline of salmon in the Pacific Northwest (U.S., Interior, Elwha Report, 1994). Federally recognized Indian tribes in Western Washington State have treaty protected off-reservation fishing rights to take fish at their "usual and accustomed places" (Kappler, 1904). Thus, the development of the hydroelectric power resource has had a major impact on salmon and on Indian treaty rights.

This chapter looks at the relationship between groups of people of differing cultures and their use of natural resources. It examines in particular how different cultures perceive and use natural resources, in this case rivers. For the Indians the river was a source of salmon, the foundation of their economy and culture. For Euro-Americans preeminent value was placed on the river as an energy source. In pursing this purpose, Euro-Americans have altered the rivers in various ways. This in turn has led to a decline of salmon, which is so critical a resource for the indigenous populations located on these rivers. Thus the Indians ability to use the salmon resource has been displaced. They no longer have access to the abundance of salmon that they had. They have also been displaced from their control of this resource. In order to ensure that salmon remain in the streams, they must work closely with state and federal agencies. One of these federal agencies is the Federal Energy Regulatory Commission (FERC).

This chapter looks at the reasons for the different approaches taken by the two tribes as they participate in the relicensing process for hydroelectric power on these two rivers. Though these rivers are both in the southern Puget Sound region and the tribes are linked linguistically and culturally, tribal involvement in the relicensing process is markedly different. While the Skokomish and Nisqually Indian tribes are both concerned about maintaining water in the rivers (instream flows) for fish habitat, the hydroelectric facilities on the two rivers are quite different. Consequently these tribes are, in fact, taking very different positions regarding relicensing of the respective dams. Thus, this chapter is a case study of the participation of two American Indian tribes in the reauthorization (relicensing) process for these dams on their respective rivers.

The study was carried out by reading of relevant documents, correspondence, observation of the dams, attendance at the scoping meetings (see below), and interviews. In addition, the author has studied tribal natural resource decision making in Washington state for the past decade. When this chapter was written the relicensing process was still underway on both rivers. Thus the issues discussed here had not been resolved.

# Puget Sound Indian Tribes

American Indians tribes such as the Suquamish, Tulalip, Skokomish, Nisqually, and many others in the Puget Sound region of what is now Washington State traditionally lived near or at the mouths of rivers. They were and continue to be fishing societies. Fishing for salmon was, and is, central to tribal culture and to their way of life. Tribes depend on salmon as both a food source and as an expression of cultural identity.

When the Indian tribes in the Puget Sound area signed treaties with the federal government in the 1850's they reserved the right to fish as they always had, not only on their reservations, but in their traditional off-reservation fishing locations. The five treaties negotiated by Territorial Governor Isaac Stevens with western Washington tribes contained the following language: "The right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the Territory..." (Kappler, 1904, Treaty With the Nisqualli, Puyallup, Etc., 1854 Article 3).

During the century following the signing of these treaties the tribes were increasingly excluded from their traditional fishing grounds. In the 1960's tribal members began to actively assert their right to fish. In 1970 the federal government filed a lawsuit against the state of Washington to protect treaty fishing rights. In 1974 this treaty right to fish off-reservation was upheld in U.S. v. Washington (called the Boldt decision). Following this, subsequent court decisions have stated that the tribes who signed these treaties also have the right to have treaty fish protected from environmental degradation (U.S. v. Washington 506 F Supp 203-5 [1980]). Because of the widespread distribution of salmon streams this has provided federally recognized Indian tribes in Western Washington with an important voice in state-wide environmental decision making. This includes co-management, with state fisheries, of the salmon resource, participation in the formulation and implementation of new regulations for forest practices on state and commercial timber lands, and state-wide planning for water resources.

# Salmon Habitat

Salmon are anadromous fish. They begin their lives in freshwater streams and rivers, migrate as juveniles downstream to the ocean, and return at the end of their life to their natal stream to spawn. Salmon need clean, flowing streams without human built obstructions such as dams, culverts, or dikes for flood control in order to reproduce and migrate to and from the ocean. Timber harvest in the Northwest with the resulting road building, devastation of riparian (stream side) zones, siltation of streams, and other impacts has also had severe consequences on salmon streams. Withdrawing water from streams and rivers for agricultural, industrial, and domestic use reduces the amount of water in the streams for salmon (instream flow). In addition, development for shipping and industry at the mouths of these rivers has also negatively impacted salmon. All these activities have reduced the amount of good salmon habitat. This has caused a severe decline in the number of wild salmon in the Pacific Northwest in general and in the Puget Sound region specifically.

Hydroelectric dams on the streams running into the Puget Sound are generally

regarded as having been one of the factors leading to the decline of salmon in this region. For the most part these dams were built by private companies in order to produce electric power. Dams built by private companies are licensed and relicensed by the federal government. The agency that is responsible for this is the Federal Energy Regulatory Commission (FERC). The next section of this chapter looks briefly at the history of hydropower in the region and at FERC.

#### Hydropower and the Federal Energy Regulatory Commission

In the early part of this century hydropower was considered an important way to harness the nation's rivers for development. Because of the abundance of rainfall and river systems in the Pacific Northwest of the United States, generating electric power from moving or falling water has always been an important source of energy. In fact, "electric power in the Pacific Northwest dates from the early 1880's" (Schwantes, 1989). For example, Washington state's first hydroelectric dam was built in Spokane in 1885 to supply electricity to the town (Schwantes, 1989).

Hydroelectric power remains an important source of energy in this region. Washington state generates nearly half of the nation's supply of hydropower, and state ratepayers pay about half the national average price for electricity. The Pacific Northwest gets 62% of its electricity from hydropower, yet nationwide, hydropower supplies only about 10% of power (Washington's Energy Strategy, 1993)

The use and control of water for the development of the west was an important issue during the progressive era in the United States. Indeed the "movement to construct reservoirs to conserve spring flood waters for use later in the dry season gave rise both to the term `conservation' and to the concept of planned and efficient progress which lay at the heart of the conservation idea" (Hays, 1959). As a result, promotion and regulation of dams and hydropower occurred in several federal agencies during the early years of this century. The Federal Power Act was passed by Congress in 1920 to "reduce administrative confusion by centralizing the planning and regulation of hydroelectric power in a single agency" (Echeverria, 1989). This became the Federal Power Act in 1935. The Electric Consumers Protection Act, passed by Congress in 1986, amended the 1935 act to include the adequate protection, mitigation, and enhancement of fish and wildlife in projects. Thus FERC is now supposed to consider environmental values, i.e., fish and wildlife habitat when issuing licenses and relicenses.

The Federal Energy Regulatory Commission (FERC) administers the Federal Power Act, as amended by the Electric Consumers Protection Act. Thus FERC has jurisdiction over non-federal hydroelectric projects proposed or built in the United States. FERC issues licenses for new dams. Licenses are issued for terms of thirty to fifty years. When the license expires FERC decides if the project will be relicensed. This issue is of special concern at the present time. "Over the next several decades, FERC must issue new licenses for hundreds of old dams... designed and built in the 1930s, `40s and `50s" (Grimm, 1990).

The Commission is a five member regulatory body attached to the U.S. Department of Energy. Members are appointed by the President. Much of the actual work and decision making are carried out by the staff of the Commission (Echeverria, 1989). The staff, in turn, often hires outside consulting firms to carry out studies such as environmental impact statements. Thus the staff will schedule a "scoping," i.e., information gathering meeting on licensing or relicensing a dam, and the consulting firm will prepare documents such as the environmental impact statement (EIS).

Observers note that FERC views itself as a quasi-judicial, or court like, body. "Based both on its legislative mandates and on its institutional history, the

Commission's central mission is to decide specific cases - whether or not to permit the construction of a proposed project, or what new terms to impose on a project at the time of relicensing" (Echeverria, 1989). FERC depends on the applicant, other federal and state agencies, Indian tribes, and the general public to submit information for the decision making process. This information is initially collected at the scoping meeting which begins the licensing/relicensing process and continues through the EIS, pre-decision making, and appeal stage.

Thus, the Commission's role is not to actively seek out potential environmental issues or public concerns not already brought to light. As stated above, it relies on the "stakeholders" to supply the information needed for Commission proceedings. Setting the term at fifty years for hydroelectric licenses means that a developer will be able to operate a project for a sufficient number of years to recoup the original investment and to make a reasonable profit. "The fifty year term also means that licenses will automatically terminate and that the Commission is forced periodically to review how a river should be used to serve the public interest" (Echeverria, 1989).

As noted above, the Electric Consumers Protection Act (ECPA) passed in 1986 requires FERC to ensure that older projects are modified to achieve a better balance between power generation and protection of environmental resources. This Act also requires FERC to consider the recommendations of federal and state agencies, as well as Indian tribes, that have jurisdiction over resources that may be affected. Relicensing applicants must include conditions "to adequately and equitably" protect fish and wildlife resources affected by the development, operation, and management of dams. These conditions must be based on the recommendations which are received from state and federal fish and wildlife agencies (Grimm, 1990).

# FERC and Indian Tribes

Section 4(e) of the Federal Power Act as amended states:

That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired. (16 U.S.C. S 797e)

Thus FERC must take tribal concerns into consideration when issuing a license or relicense for a dam **within** an Indian reservation. However, in the cases being examined here the dams themselves are off-reservation, yet have a profound impact on the tribes' treaty protected fishing rights.

There have been several examples of tribes challenging power companies or FERC in Washington State which included the issue of off-reservation fishing rights. The Yakima Nation sued FERC over the Commission's failure to provide for fish passage facilities on the Rock Island Dam on the Columbia River. The Tulalip Tribes sued FERC about the interpretation of what constituted a dam under the Public Utility Regulatory Policies Act of 1978 (PURPA). And the Muckleshoot Tribes sued Puget Sound Power and Light Company, seeking damages for the diversion of water away from its reservation and fisheries.

The principal legacy of the (Tulalip/Yakima cases) will be a curb on FERC's discretion to regulate hydroelectric development, allowing increased participation by other agencies and interest groups... **Yakima** requires the same fishery consideration and environmental procedures in relicensing as in initial licensing (Blumm, 1986)

In fact, the Yakima case and general frustration with FERC's neglect of its environmental obligations led to the 1986 ECPA amendments to the Federal Power Act.

At least two observers, Richard DuBey and Thomas Schlosser see section 4(e) of the Federal Power Act (quoted at the beginning of this section) as a way to improve relations between tribes and hydropower developers and/or FERC. They maintain that we are in a new era with regard to hydropower and the tribes. Hydropower development has had a profound impact on Indian reservations. However, they note that the level of expertise and sophistication of tribal governments is greater than ever before. DuBey and Schlosser recommend a partnership between the project proponent, FERC, and the affected tribe in order to give the tribe a meaningful role in the process. "It is our belief that improved communication between hydropower developers and Indian tribes can provide a timely and effective means of resolving potential conflicts which in the past have posed unforseen and difficult obstacles in the path of hydropower development" (DuBey and Schlosser, 1983).

In the two examples of relicensing being examined in this chapter, the Nisqually Tribe has achieved this partnership, and the Skokomish Tribe has not. The reasons for these two different circumstances are explored below.

# The Nisqually River

The Nisqually River is one of the major western Washington rivers that empties into Puget Sound It originates in the Nisqually Glacier on Mt. Rainier (thus it begins within a National Park) and flows 81 miles west and northwest to Puget Sound.

The land use in the basin has traditionally been agriculture and timber harvesting. The lower part of the valley is being increasingly developed as a bedroom community for Olympia. The Fort Lewis military reservation occupies the east side of the River. The Nisqually River is one of the most pristine and least developed rivers in Washington State. In its journey to the Puget Sound, the river flows through an amazing variety of habitats - from subalpine meadows and old growth Douglas fir forest in Mount Rainier National Park through forested foothills and across lowland prairies to its estuarine reaches and tidal mudflats (Nisqually River Council, 1991).

For thousands of years, Nisqually Indians have lived along the Nisqually River. The Nisqually Indian Reservation was established by the Medicine Creek Treaty in 1854, which was signed near the mouth of the River. The reservation originally consisted of about 5065 acres on both sides of the Nisqually River, about five and a half miles from the mouth of the River. In 1917 the army condemned approximately two thirds of the reservation on the east side of the River. Today the reservation consists of 1595 acres on the west side of the Nisqually River. There are 450 enrolled tribal members.

The City of Tacoma, Public Utilities Department (hereafter Tacoma Public Utilities) has constructed two hydroelectric dams on the Nisqually River (see Figure 4).

The first dam, located at forty-four river miles is the Alder Dam. It was installed in 1945, has a 285 foot-high dam that created Alder Lake, a 7.1 mile long reservoir. The Alder powerhouse is located at the base of the dam and contains two generating units. Continuing downstream, the Nisqually River reaches the LaGrande diversion dam. A diversion dam was first installed in this location in 1912. The "new" dam, completed in 1944 has a 192 foot-high gravity dam with a small lake behind it. At the LaGrande Dam, the River is diverted downstream, around the natural river bed, for 1.7 miles to the LaGrande powerhouse has a slightly larger generating capacity than does Alder Dam. Neither of these dams has fish ladders.

Tacoma Public Utilities was issued a license for the Alder and LaGrande dams on the Nisqually River in 1941. The relicensing process is now underway. A scoping, i.e., information gathering, meeting was held in November, 1993 and FERC and its consulting company are now completing the data gathering stage.

When the Alder/LaGrande complex was completed in 1944, Tacoma Public Utilities began "peaking operations," i.e., releasing additional water for power generation when demand for electricity was the highest in the early mornings and evenings. Operating the dams on this basis continued until the 1970's, rapidly changing the river's flow on a daily basis and harming salmon spawning grounds and the survival of juvenile fish for the entire river downstream. The Nisqually Tribe was concerned about instream flow levels and other downstream water needs.

In 1974 the Nisqually Tribe went to federal district court to ask for sufficient water to be maintained in the River for salmon habitat (instream flows). The judge in the case was Judge George Boldt. Judge Boldt referred the case back to FERC and an administrative law judge. After hearings the administrative law judge established interim minimum water flows and set up the Nisqually River Coordinating Committee (NRCC) made up of the tribe, the state fish and game agencies, and Tacoma Public Utilities to establish instream flows for fisheries. The role of the NRCC was to study the adequacy of the minimum flows and for communication among the parties. "The NRCC was directed to conduct studies to determine adequate fishery flows in the affected section of river..." (U.S., FERC, City of Tacoma, Docket No. P -1862-001, 1993).

The Nisqually River Coordinating Committee successfully established an instream flow regime that is in effect today.

In 1989, the Nisqually Tribe and Tacoma Public Utilities entered into a settlement agreement which resolved all claims and disputes existing between them in the court case. In the agreement, Tacoma Public Utilities assented to providing the minimum flow regime established by the NRCC, and the Tribe agreed to making this minimum flow regime permanent (U.S., FERC, City of Tacoma, Docket No. P -1862-001, 1993). In turn, the Tribe agreed to actively support Tacoma Public Utilities in the FERC relicensing process.

The key part of the settlement agreement, from the Tribe's point of view, was the fact that Tacoma Public Utilities agreed to provide permanent operation and maintenance monies for a new fish hatchery. With this commitment of the monies needed to actually operate the hatchery, the Tribe was able to obtain the capital, i.e., construction costs (eleven million dollars) from Congress (Walter, 1994). The Clear Creek fish hatchery, located on the Fort Lewis side of the Nisqually River, is in operation today and is an important economic resource for the tribe.

Thus the Nisqually Tribe, after this initial court case and the establishment of the NRCC has developed a good working relationship with Tacoma Public Utilities. The NRCC has facilitated this relationship. The Tribe considers that it works in partnership with Tacoma Public Utilities and that it can negotiate in good faith any issues that it wants addressed. Tacoma Public Utilities, in turn, feels that it has a very good working relationship with the Nisqually Tribe.

Interestingly enough, the main intervenors in the current relicensing process are recreational groups that want Tacoma Public Utilities to release water flows into the river gorge immediately below LaGrande Dam for whitewater boating (see 4). A 1992 article in the **Northwest River News** noted that in an effort to ensure that the "fisheries and recreational resources of the Nisqually River are given equal consideration" in the relicensing of the Nisqually Hydroelectric Project, several conservation and recreation organizations are intervening in the Federal Energy Regulatory Commission's (FERC) evaluation of the project.

The Northwest Rivers Council (NWRC) filed the intervention in conjunction with

several other recreational groups. The Nisqually Tribe has been very concerned about this intervention. A tribal staff member noted that the NWRC maintained that they were being inclusive, "bringing everyone on-board to find solutions. Yet on the Nisqually they totally ignored all the work the Tribe and others put in on fish habitat over the last fourteen plus years" (Walter, 1992). The Tribe noted that this intervention raised questions about its settlement with Tacoma Public Utilities, would negatively impact fisheries habitat on the River, and questioned the Tribe's "authority as a government to plan for and protect its fisheries resources" (Walter, 1992).

The Nisqually Tribe and the Northwest Rivers Council have subsequently talked about their different positions on the relicensing process. These talks should have occurred before the NWRC intervention, however. The NWRC feels that it was just a lack of communication on its part because it is a volunteer organization (Deschner, 1993). The primary goal of the recreational groups is to increase opportunities for whitewater boating, though they state that they do not want to negatively impact fish habitat with the extra releases of water needed for boating.

Releasing extra amounts of water from the dams on summer weekends in order to accommodate white water rafting and kayaking would decrease the amount of water in the reservoirs that is needed to maintain instream flows in the early fall when the salmon migrate. Essentially the dam fills up with water from the spring and early summer snow melt. There is a finite amount of water available for release during the fall salmon migration period. Additional water in the form of abundant rainfall comes during the fall and winter seasons after the fall salmon migration. Thus, utilizing some of this water for recreational purposes during the summer could mean less water available for fish in the early fall. The Nisqually Tribe remains actively concerned about the recreational groups' intervention in the relicensing process. Though there has been an exchange of views between the recreational interests and the Tribe, the latter continues to feel that the NWRC is not recognizing the Tribe's treaty fishing rights on the River (Walter, 1994).

Tacoma Public Utilities is asking FERC to deny the request to release additional water for whitewater boating. The agency is mainly concerned about their own liability because the specific area that has whitewater rapids is in a steep and inaccessible canyon. In support of their opposition, Tacoma Public Utilities notes that only 200 boaters in the northwestern United States would be qualified to navigate this class V run. This request the agency maintains, should "be balanced against the needs and concerns of the existing natural resources and recreational opportunities" (Nisqually Hydroelectric Project, Aug. 3, 1994).

Thus, the Nisqually Tribe, as part of the settlement discussed above, is actively supporting Tacoma Public Utilities' application for relicensing with FERC. The Tribe feels that it works in partnership with Tacoma Public Utilities and with FERC. This is exactly the kind of partnership that DuBey and Schlosser advocate (see previous section). George Walter, Environmental Program Supervisor of the Nisqually Tribe notes that when FERC staff have any questions about the Nisqually River basin, be it fish runs or bald eagles, they contact Nisqually Tribal staff. "And, most important, the tribe expects to get everything it needs for Nisqually River treaty fisheries resources from the ... settlement (described above) and FERC relicense process" (Walter, 1994). Thus the Tribe is aligned with Tacoma Public Utilities and FERC and has serious concerns about the role of the recreational group in the relicensing process.

#### The Skokomish River

The Skokomish River is the largest tributary, in terms of volume, in the Hood Canal Basin of Puget Sound in western Washington state. The River begins in the high rugged Olympic Mountains. The North Fork flows from the Olympic National Park and the South Fork from the Olympic National Forest. The uppermost watershed is temperate rain forest. Mid elevation forests on the South Fork, in federal, state, and private ownership have been heavily logged over many years. The lower river valley is broad, fertile, and extensively farmed. The North Fork of the Skokomish River is thirty-four miles in length, and the South Fork is twenty-eight. The two forks converge some nine miles before the River empties into Hood Canal.

One of the important issues on the Skokomish River is frequent flooding. There is a consensus among all parties that sediment aggradation is occurring in the mainstream of the River. As result of this floods have increasingly impacted property owners and the Skokomish Indian Reservation which is at the mouth of the River. Two factors have caused this stream bed build up: the extensive logging on the South Fork of the River and the diversion of water out of the North Fork (see below).

The People of the River (**squ? squ? bsch**) resided in semi-permanent locations scattered through parts of the Skokomish Basin (James, 1980). What is now the Skokomish Tribe signed the

Treaty of Point-No-Point with Territorial Governor Isaac Stevens in 1855. This treaty created the Skokomish Reservation located at the mouth of the Skokomish River where it flows into Hood Canal. The Reservation, originally 5,000 acres, now occupies 3,000 acres.

It includes tidelands and extensive wetlands. There are 704 enrolled tribal members. The Skokomish River estuary is one of the Tribe's most important cultural and economic resources, and is the Hood Canal's last remaining, relatively unspoiled wetland ecosystem (Skokomish Indian Tribe, 1993).

In 1925-30 the city of Tacoma, i.e., what is now their Department of Public Utilities, developed the Cushman Project on the North Fork of the Skokomish River. The project includes two dams, a power plant on the North Fork, and a power plant on Hood Canal.

Cushman project no. 1 was constructed in 1925-26 and consists of a 260 foot-high dam that created Lake Cushman, which is a ten mile long lake. There is a powerhouse located at this dam which generates some electricity. Cushman project no. 2 is located approximately two miles downstream from this dam. It is at river mile seventeen from the mouth of the Skokomish River. This part of the project was built in 1929-30 and consists of a 230 foot-high dam which created Lake Kokanee which is a very small reservoir/recreational lake. This dam diverts water entirely out of the North Fork of the Skokomish River and into three large pipes (penstocks). These pipe the water directly downhill to Cushman powerhouse no. 2 which is located on the shoreline of Hood Canal (see Figure 7-7). These two dams provide enough power to supply 15% of the city of Tacoma's power needs. Both of these dams were built without fish passage facilities as required by state law. Powerhouse no. 2 and its transmission lines are located within the Skokomish Indian Reservation.

One can see the engineering logic in 1930 of diverting water out of a stream, to drop it 1,350 feet to the generator. The quantity of water and the hydraulic "head," i.e., the height of the water vis a vis the generator, determine the total amount of energy of any given hydropower site (Dowling, 1991). Because the North Fork of the Skokomish River was the most important salmon and steelhead-producing stream on the Hood Canal the Tribe, the Bureau of Indian Affairs and state fisheries agencies opposed the project (Skokomish Indian Tribe, Cushman Project, 1993a). Steve Klein of Tacoma Public Utilities has stated that the only consideration in 1930, however, was power production. There was a disdain for fish, he noted (interview, 1991). Indeed, a Skokomish Tribe spokesperson has noted that Tacoma Public Utilities knew from the beginning that its various proposals for hydroelectric

development of the Skokomish River would affect the Skokomish Tribe by damming and diverting the river out-of-basin and occupying reservation lands. This is clear, he states, from early correspondence with the Department of Interior. "Tacoma was able to develop the Cushman project by continually denying and obscuring project impacts on the Skokomish Tribe and reservation" (Martino, 1994).

In fact, Tribal members opposed the project from its beginnings and attempted to sue the City of Tacoma. Through a series of legal maneuvers these suits were turned aside. Tribal "efforts were frustrated by the City's intransigence and economic and political power, and by the Federal Government's failure to fulfill its trust responsibility" (Skokomish Indian Tribe, Cushman Project, 1993a)

The original FERC license for the Cushman Project was issued in 1924. Thus, this original license expired twenty years ago but the renewal process is still underway. The following chronology of events explains why the proceedings have been so long delayed. Tacoma Public Utilities began the initial relicensing application process in 1975. FERC staff completed the environmental, engineering, and economic analyses of the project by 1978. The Department of Interior intervened in the relicensing proceedings in 1979 on behalf of the Bureau of Indian Affairs, the Fish and Wildlife Agency, and the National Park Service (these agencies are now called the Joint Resource Parties. In 1981 the Skokomish Tribe filed a motion for a hearing. The motion was opposed by Tacoma Public Utilities and was never responded to by FERC. Therefore, FERC did not appoint an administrative law judge nor hold a hearing for issues on the Skokomish River as it did on the Nisqually.

FERC could not issue a license in this period, however, because the project had not received water quality certification under Section 401 of the Clean Water Act from the Washington state Department of Ecology (Ecology). Ecology granted this certification in 1985. Passage of the Electric Consumers Protection Act of 1986 required FERC to ask Tacoma Public Utilities to file additional information. FERC did not notify the Tribe nor the federal and state resource agencies about this request. In 1988 Tacoma Public Utilities asked for additional time to respond. In 1990 the federal and state agencies, including the Tribe, the Point No Point Treaty Council (composed of the Puget Sound tribes who signed the Point No Point Treaty in 1855), and the Bureau of Indian Affairs filed a petition requesting that FERC prepare an environmental impact statement (EIS) on the process. In December, 1992, FERC held a scoping meeting to "assist the staff in identifying environmental issues to be analyzed in the EIS" (U.S., FERC, Scoping Document 2, Cushman Hydroelectric Project, 1993).

As noted above, the North Fork of the Skokomish was an extremely productive salmon and steelhead stream. This part of the River has had water diverted completely out of the stream bed since 1930. Therefore the Skokomish Tribe maintains that the dams inundated fish habitat, blocked migratory fish from headwaters, and dewatered the North Fork of the River. This resulted in the virtual elimination of several important anadromous fish runs.

The petition filed by the United States Departments of Interior and Commerce in the Cushman relicensing states:

The Project has severely depleted most of the treaty fisheries of the Tribe,... completely blocked fish access to upstream habitat... severely reduced fish production in the River below the dam due to inadequate flow regimes; flooded or dewatered Indian treaty usual and accustomed fishing places; degraded the biological productivity of the estuary; ...occupied some of the most habitable land on the ... Reservation and extended transmission lines across the ... Reservation's shorefront.... (U.S., FERC, ... Depts of Interior and Commerce, 1994).

The Tribe is asking FERC to address these issues when (and if) a new license is issued to Tacoma Public Utilities. The Tribe states that the projects' more than sixty-five years of severe social and economic impacts on the Skokomish people have not been addressed or mitigated. The Tribe's petition states: "For nearly 70 years the Cushman Project has severely disrupted Skokomish River watershed/ecosystem functions with concomitant adverse environmental, social, economic and cultural effects on the Skokomish people and general public" (FERC, Skokomish Indian Tribe, Cushman Project).

The Tribe and Tacoma Public Utilities remain at odds over the issues involved in the relicensing and have sat down at the table to talk, but have not resolved the issues. The Tribe has stated: "The Tribe and City of Tacoma are major stakeholders in the Skokomish River Basin. To date our relationship has been adversarial and costly to both parties, particularly to the Skokomish Tribe" (Skokomish Indian Tribe, Cushman Project, 1993a)

The Tribe and Tacoma Public Utilities began negotiating about these issues in spring, 1994. The short term objective is to achieve better mutual understanding of the issues, to develop joint studies based upon a watershed planning perspective, and to discuss alternative ways of achieving the FERC-mandated balancing of project benefits. The Tribe believes there are two alternative futures. "The first, and preferable to the Tribe, would be to achieve a fair and equitable settlement of all Cushman related issues, and move forward together as partners to restore and enhance the long-term environmental, social, and economic productivity of the Skokomish watershed and estuary". By default the second alternative would be years, perhaps decades, of costly, divisive conflict (Skokomish Indian Tribe, Cushman Project, 1993a).

It is unfortunate that this negotiation has begun after the relicensing process started. This current relicensing process was formally initiated in 1992. At that time, i.e., 1992, FERC declared that: "Baseline conditions will consist of a description of today's environment including the physical, biological and social processes that exist under current project operations" (FERC, Project 460). This meant that baseline, i.e., the starting point for discussing improving salmon habitat, would be the North Fork of the River without any water in it. However, in 1994 the Chair of FERC, Elizabeth Moler notified the Departments of Interior and Commerce that the environmental impact statement (EIS) will "examine environmental conditions in the Skokomish River Basin prior to construction of the project" (Moler, 1994). This action implies that FERC is willing to consider baseline conditions prior to the dam's construction, i.e., when the North Fork had water and fish in it. She went on to say that the EIS will examine decommissioning the dam and permanently lowering the level of Lake Cushman.

#### How these two cases are different

These cases are different for a number of reasons. They are distinct because of the kinds of dams installed on the rivers and because of the physical impact the projects have had on the two reservations. The different sitings have created two very distinct sets of options facing the parties in reconciling their conflicting uses of the rivers. This has led to Tacoma Public Utilities' relationship with the two tribes being very different from one another. The rivers and the dams built on them are significantly dissimilar. The Nisqually River is almost twice as long as the Skokomish River. The dam on the Nisqually utilizes the river flow to produce electric power, but it does not divert the river out of its stream bed. Thus, fish habitat areas remain available below the dams on the Nisqually. The dams, powerhouses, and transmission lines are located far from the Nisqually Reservation. More importantly, Tacoma Public Utilities can release water for instream flows without impacting the total amount of power produced. Though they can no longer "peak" their water releases, water released still flows through the generators and produces electricity. If this power cannot be used by Tacoma Public Utilities, it is transferred to the Bonneville Power Administration grid and used elsewhere.

The North Fork of the Skokomish is entirely different. Water has been diverted out of the natural stream bed for sixty years. Water is dropped down to the power generating plant via penstocks. If Tacoma Public Utilities is required to put some of this water back into the North Fork, they lose significant generating capacity. In addition the power generating plant (powerhouse no. 2) on the Hood Canal was built on tribal land (which was condemned) and power transmission lines cross the Skokomish Reservation.

The Nisqually Tribe went to court twenty years before relicensing to get redress for their instream flows for fish. The Skokomish Tribe, on the other hand, has been frustrated in its attempts to obtain redress. The Skokomish Tribe and Tacoma Public Utilities have had an adversarial relationship that has precluded talking about the issues, although the Tribe states that its strategy for the past five years has been to negotiate the damage done. This inability for the two parties to get together may well be based on the fact that the Cushman Dam on the North Fork of the Skokomish River completely diverts water away from the river. Tacoma Public Utilities has not been willing to discuss giving up any of its power generating capacity to restore fish runs. (It also maintains that this dam is constructed in a way that precludes the release of more water into the North Fork).

U.S. v. Washington, 1974 (the Boldt decision) is now over twenty years old. For the past eleven years, the federally recognized tribes in the state of Washington, and the State have agreed to work cooperatively on issues such as protecting salmon habitat through revised forest practices and water planning. While the tribes thus have an important voice in state policies about the environment and natural resources, the federal agency that regulates hydropower does not yet recognize this off-reservation "environmental right."

#### Role of FERC

Thus the Federal Energy Regulatory Authority (FERC) is another entity entirely. Statutory language requires that they consult Indian tribes when dams impact reservation lands and that they consider environmental values in the licensing and relicensing of hydroelectric projects. FERC interprets this language very narrowly. Congressional hearings held in 1989 on hydroelectric regulation sought to clarify the meaning of this environmental language, but much confusion remains (U.S. Senate, Committee on Energy and Natural Resources, 1989). These hearings did not resolve this issue. The Chairman of FERC testified however that FERC was preparing for a major influx of relicensing applications in the next few years. So the question about FERC's responsibility to fish, wildlife, natural, and cultural resources remains open.

The relicensing process on the Nisqually River will probably proceed in a fairly routine manner. The remaining conflict in the process is between use of instream flows for fish habitat or for periodic recreational use of the River. The Nisqually Indian Tribe and Tacoma Public Utilities are in agreement about relicensing the two dams and are presenting a united front to FERC. This means that there are no major opposing issues on the Nisqually River that FERC must decide. It is entirely different on the Skokomish River. In this case FERC must deal with the opposing positions of the Skokomish Indian Tribe and Tacoma Public Utilities. This case will test both FERC's obligation to consult Indian tribes when the dam impacts reservation lands and FERC's responsibility for fish, wildlife, and cultural resources.

#### Conclusion

Hydroelectric power is an important economic resource in the Puget Sound

area, as it is in the Pacific Northwest. The dams that have been built to generate electric power have contributed to the decline of the salmon in this region. Indian tribes in the Puget Sound area have traditionally lived at or near the mouth of rivers and depend on salmon for food and cultural values. Moreover, federally recognized Indian tribes in Western Washington State reserved the right to fish in their "usual and accustomed places" when they signed treaties with the federal government in the 1850's. Indian tribes have been particularly impacted by dams on the rivers on which they live because of the overall reduction in the number of salmon.

One would expect, therefore, that the tribes would be unilaterally opposed to these dams being relicensed. This case study of the Nisqually and Skokomish Tribes demonstrates that this is not necessarily true. The Nisqually Tribe has been able to work with Tacoma Public Utilities because Tacoma did not lose a great deal by agreeing to the release of water for instream flows. The Skokomish Tribe, on the other hand, has not been able to work with Tacoma because putting water back into the stream means the loss of generating capacity for the utility. Thus one cannot make generalizations about how tribes will act or proceed in a given case, even from one small Puget Sound tribe to another. In order to understand the tribe's positions it is necessary to examine the issues carefully to provide the context and to learn about how the projects impact the tribes.

### Notes

1. Indian Tribes in what is now Washington State signed the following treaties: Treaty of Medicine Creek with the Puyallup, Nisqually, and Squaxin Island tribes (1854), the Treaty of Point Elliot with the Lummi, Muckleshoot, Tulalip, Swinomish, Suquamish, Suak-Suiattle, Stillaguamish, Upper Skagit, and Nooksack tribes (1855), Treaty of Point No Point with the Port Gamble S'Klallam, Jamestown S'Klallam and Skokomish tribes (1855), Treaty of Makah with the Makah Tribe (1855), and the Treaty of Quinault with the Hoh, Quinault, and Quileute tribes (1856). In these treaties the tribes reserved the right to fish in their historical, off-reservation, fishing locations.

2. Some dams block anadromous fish runs entirely, preventing salmon from returning to their native spawning grounds. Dams built with fish ladders allow salmon to reach their spawning streams, but often inhibit downstream migration of young salmon. Other dams, such as the one on the Skokomish River discussed in this paper, divert water entriely out of the streambed. For a report recommending the removal of a dam on a river which runs into upper Puget Sound see U.S. Department of the Interior (1994). An important river impacted by dam construction and operaiton in the Pacific Northwest is the Columbia River. An excellent discussion of issues on the Columbia River can be found in Cone (1995).

3. The Joint Resource Parties now include: the National Marine Fishers Service, U.S. department of the Interior (Fish and Wildlife Service, National Park Service, Bureau of Indian Affairs), Washington Department of Fish and Wildlife, Department of Ecology, the Skokomish Indian Tribe and the Point No Point Treaty Council (composed of the Puget Sound tribes who signed the Point No Point Treaty in 1855.

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