The sacred salmon runs are in decline. It is the moral duty, therefore, of the Indian people of the Columbia to see them restored. We have to take care of them so that they can take care of us. Entwined together inextricably, no less now then ever before, are the fates of both the salmon and the Indian people. The quest for salmon recovery is about restoring what is sacred to its sacred place.
--Ted Strong, Yakama

Conservation efforts to protect the fish population in the Northwest, specifically on the Columbia River, has become the center of attention recently for several factors. Current proposals to save the fish on the Columbia have specifically been centered on the numerous dams that were constructed earlier this century. Major dams such as the Bonneville, the Dalles, John Day, and McNary dams have all contributed to the declining population of Steelhead (trout) and certain subspecies of salmon, especially the Chinook, Sockeye, Coho. Not only have the dams contributed to the decline in fish population but also logging, cattle pollution, road building and other various forms of pollution have decreased harvest quantities every year for almost the last 150 years. The federal government and the governments of the states of Washington and Oregon are all addressing the issue of how to save the salmon. There is another factor, an extremely important one at that, that needs to be added to the current situation. Many Native American tribes, including the Yakima, Warm Springs, Umatilla, and the Nez Perce tribes all have reservations in the area. The fishing resources, rights, and allocation that the tribes originally possessed have all been compromised since the construction of the dams, with the Bonneville being the first major project constructed in 1939. Fishing, however, is not solely an economic issue for the Native Americans, it is a way of life. The destruction of subsequent extinction of the fish in the area may lead to the destruction of the tribes in the area as well. We will attempt to explore, from the Native American standpoint, an economic analysis of this situation.
The Natives of the Columbia River Basin have developed their culture, religious beliefs, and customs around the fish resources of the area. Not only is the economic development of the tribes dependent upon these resources, but basic food subsistence and their way of life as they know it is highly dependent on them as well. The future of the Native Americans is highly dependent on the recovery of the fish in the area. These renewable and manageable resources are among the most valuable Indian assets and are vital to the well being of the tribes. However, year after year harvest rates have been declining as a result of the activity on the river. For example, in the Yakima River basin alone historically 500,000-900,000 salmon of many species returned each year to spawn. Today, that number has been drastically reduced to approximately 1-2 percent of that total. The Yakima basin has been designated as one of the main tributaries for the production of the salmon and steelhead, although many species today are in threat of becoming extinct altogether.

To understand the current situation affecting the four tribes in question, it is important to understand the historical developments of their property rights. After Britain recognized United States sovereignty with the Treaty of Paris in 1783, the U.S. took over direct relations with Native Americans. The United States Constitution established national authority over the conduct of Indian relations via an Indian Department, which later officially became known as the Bureau of Indian Affairs. An obvious goal of the U.S. government was the acquisition of Indian lands, at times by any means necessary, because of the great amount of natural resources that could be found there. Native Americans were forced to recognize American sovereignty as well, and hence dealing with the U.S. meant delegating through treaties, considered nation to nation agreements. War and treaty making would come to dominate U.S. policy with Native Americans for the next two centuries.

The Umatilla, Yakima, Warm Springs, and Nez Perce tribes all were designated reservation lands in and around the Columbia River Basin. The 1855 Treaty that the four tribes signed was one that concerned itself with preserving the fishing rights of those tribes of the
Columbia River basin. Through the signing of the treaty of that year, the tribes were under the impression that they would be able to maintain their exclusive fishing rights in the area. It would take over one hundred years before the four tribes would finally realize their position concerning their fishing rights in the area. A number of court cases over the years should be noted. First, a 1905 decision by the Supreme Court (U.S. vs. Winans) ruled that treaty tribes had the right to fish off reservations at “all usual and accustomed places.” (Boxberger 52) From that same case it was determined that, because of their aboriginal property rights determined by the treaty, the fishery was an Indian property right reserved by treaty as well. In 1942 the Tulee vs. Washington reaffirmed this right but stated also that the State “could regulate the Indian fishery as reasonable and necessary for conservation.” (Boxberger 134) The story does not end there however. In 1969, in what has been considered one of the most important court cases this century, a decision handed down by Judge Belloni would affect the lives of several tribes and commercial fisherman in the area. In the case Sohappy vs. Smith, it was ruled that the state of Oregon must recognize the way treaty Indians fish and therefore shall institute regulations and measures that provide the opportunity for the treaty fishers to harvest their fair share of the resource. The measures were adopted by Washington State and soon implemented. One large and very important question yet remained. What did a “fair and equitable share” of the resource mean? That was determined five years later in 1974 by Judge Boldt. In February of that year the Boldt decision stated “in common with means sharing equally the opportunity to take fish at usual and accustomed grounds and stations; therefore, non-treaty fisherman shall have the opportunity to take up to 50% of the harvestable number of fish that may be taken by all fishermen, and treaty right fishermen shall have the opportunity to take up to the same percentage of harvestable fish.” (Boxberger 155) The decision was not based solely on the four tribes but actually included 13 tribes in all. The decision made by Boldt outraged the non-Indian commercial fishermen to the point that violent altercations would take place over the next several years.
Initially, the fish caught for ceremonial and subsistence purposes was not included in the 50 percent allowable harvest, which entailed the Native Americans to actually catch more than 50 percent of the total harvest. However, that minor detail of the decision would later be reversed in 1979. The non-Indian commercial fishermen were so outraged by the decision that 35 appeals were made between 1974 and 1979. The coast guard had to be called in order to protect tribal fishermen from violent altercations with non-Indian fishermen. The Boldt decision had guaranteed access to the salmon resource, but has not necessarily helped the tribes achieve economic independence. One reason being that the decline in harvest rates over the past number of years has hurt not only the commercial fishing industry, but the tribal one as well. Many of the violent altercations happened because blame was placed on the Native Americans for the declining fish population, but in fact that was not the case.

The cause of frustration for all fishermen during the 1970s was certainly justified; however, blame for the decline in harvest rates placed on the Native Americans by other commercial fisherman was not. The Natives were the public’s scapegoat throughout the 1970s and 1980s and felt that the Bellonie and Boldt decisions played a major role in the decrease in harvest rates. The fact of the matter is that Natives actually had little to do with the decline in harvest rates during this time. Harvest rates declined because of over fishing and increased technology that allowed for a more efficient harvest. Between 1951 and 1974, gill net licenses increased nearly 300 percent. Also introduced during this time was the Purse Seine method of catching fish, and although licenses for this method only increased 35 percent over this time period, the efficiency created by this method allowed for an enormous amount of fish to be caught (Boxberger 136).

There are four multipurpose dams that have been constructed on the lower Columbia River in Oregon and Washington that provide approximately 6,040 Megawatts of hydroelectric power and navigation facilities that carry 6.4 million tons of cargo annually. These four dams are in addition to 10 other dams in Oregon, Washington and Idaho on tributary waterways as well as
4 dams on the lower Snake River (Columbia River Fisheries Management 89). The effect of these dams has been severely felt by the several Native American tribes, but the four multipurpose dams, including the Bonneville, John Day, McNary, and Dalles have had the most effect on the tribes in question. Although the construction of the dams has been detrimental to the Natives, they have been a great benefit to others. The dams have created huge reservoirs of water where people come to use for sailing, jet-skiing, water skiing, and other basic recreational purposes. In fact, in 1986 alone there were nearly 4.5 million recreation user days on the reservoirs of the four dams (Columbia River Fisheries Management 89).

The dams, however, have not benefited the tribes to any extent. The Bonneville dam, which was constructed in 1939, was responsible for flooding 37 usual and accustomed sites used by tribal fisherman. The tribes demanded compensation and in response the Government delegated 400 acres on the river to serve as in-lieu fishing sites for the tribes. As of 1989, 50 years later, the tribes had only received 40 acres on five sites (Columbia River Fisheries Management 58). The dams were responsible for the loss of many of the “usual and accustomed fishing sites” that were reserved for the tribes by the treaty of 1855. When the dam at the Dalles was constructed in the 1950s, it flooded Celilo Falls, which not only was an important fishing site, but a site that was used for cultural and religious ceremonies as well. The loss of fish runs certainly is an economic issue that the tribes need to deal with, but the loss of a religious site is on the verge of human rights violations.

The fish of the Columbia River do not fit a perfectly defined common property resource simply because of the property rights granted to the tribes, but many times they are treated as a common property. Not only are the fish suffering declining numbers in population because of the dams and pollution, but also because many times they are thought of as a common property resource. Common property resources often suffer market failures because there is no way to control access to the resource. Although the tribes are granted a fair and equitable share of the resource, many times there is little enforcement in assuring that this is the case. The fish suffer
the most because of this, with overfishing and illegal fishing being very common in the area. There have been conflicts because of the common property problem tied into the dams’ effects on the fish as well. Between April of 1981 and June of 1982, more than 53,000 tons of salmon and Steelhead were illegally taken near the John Day Dam. In 1983, 75 Indian men, women, and children were arrested for violating conservation laws used to protect the fish. Of those, five Natives made national headlines because they were tried in tribal court and found innocent on the basis that the fish were used for religious purposes. They still served upwards of five years in prison after being prosecuted in a Federal Court. However, later studies taken by the National Marine Fisheries Service demonstrated that in fact the missing fish were not due to Native poaching but in fact from flouride emissions from the John Day Dam (Columbia River Fisheries Management 180). This is just one example of how the dams have been involved directly in decreasing the population and indirectly in causing market failure due to common property resources.

Illegal fishing, not only by tribes but by non-Indian commercial fishermen, has and still does exist. Due to the declining fish populations, the buying and selling on the black market has become extremely common. The main reason for this is money. The demand for the fish is so high that prices have soared. It is not uncommon to find adult Chinook Salmon selling for nearly $100 per fish on the black market (Columbia River Fisheries Management 125). This situation becomes a classic private benefit and public cost problem. The private benefit that a fisherman receives is nearly $100, and if he were to catch 50 fish illegally, that would amount to a $5,000 gross gain. Enforcement on the Columbia has been quite lenient in most cases, so the incentive is definitely there for a fisherman to catch fish illegally. The treaties designate the tribes as sovereign nations, and because of that the tribes are responsible for enforcing such laws, but have failed to do so on many occasions.

There are presently a total of 58 hydropower dams and 78 multipurpose dams, for a total of 136 dams in all, on the Columbia River and its tributaries. The four large dams on the lower
part of the Columbia produce the majority of the electricity used. These dams have had to largest impact on the salmon runs, as far as decreased numbers are concerned. However, other dams play a substantial role as well. In all, it has been estimated that 5-11 million fish have been eliminated from fish runs every year due to these dams. For the tribes, whose culture and economic development depend on these runs, it has been devastating. There are inadequate fish ladders and damaging transport systems that have been major factors in the decreased fish populations. Some estimates claim these migration systems have created mortality rates of up to 75 percent of the fish that run through them (Columbia River Fisheries Management 177).

So the question remains, coming from a Native American perspective, what is the best way to solve this problem? The first solution to the problem should be to identify the major sources (dams) of inefficiency, in the sense that they cost the tribes and commercial fishermen more than they benefit the general public. An allocation of resources is considered inefficient if reallocating the resources can be done in such a way that it makes some (or all) members better off without making any members worse off. A perfect example of this is evident on the White Salmon River in the state of Washington concerning the Condit Dam. Early in 1997 a study released by the Confederated Tribes of the Yakama Nation, Pacificorp, and the Columbia River Inter-tribal Fish Commission (CRITFC) placed the cost of removing the Condit Dam between $14 and $37 million. The removal of the dam is necessary, say the tribes, for restoring the salmon runs up the White Salmon River. The dam was constructed in 1913 and was responsible for ruining runs at Husum Falls, which was a major cultural spot for tribal fisherman. After the dam was built, most cultural and religious acts ceased at the spot. Tribal members of the Yakama nation have always hoped to recover the site, and not until it was realized that the complete removal of the dam would only cost $37 million, it was thought to never have been feasible. The removal of the dam would be the greatest factor in achieving historic self-sustaining fish runs up the river. The dam itself only produces an estimated 9 megawatts of power per year, quite an unsubstantial amount considering the four large dams on the lower Columbia produce 6,040 MW
of power every year. The removal of the dam would certainly cost money, but the benefits seem
to outweigh the costs in this specific situation (CRITFC webpage).

It is obvious that the Native Americans have been negatively affected by the construction
of the dams along the Columbia River. Efforts to restore runs have significantly increased over
the past few years, with new methods of transporting the fish between dams and better ways at
identifying the actual problems that are causing the decline in fish populations. The dams have
had an extremely large impact on the tribes simply because they have not only decreased fish
populations but have removed Natives from land that has religious and cultural meaning. The
tribes are certainly dependent on the fish for economic reasons as well, making their reliance on
the fish a more important issue than for non-Indian fishermen. The majority of tribal members
feel that the construction of the dams was completely unequitable. The tribes were to be
considered sovereign nations by the U.S. Government but in fact did not get such consideration
throughout most of the 20th century. Property rights concerning the fish have become a major
issue and as a result, illegal fishing and overfishing are commonplace. The tribes ceded over 12
million acres of land to the U.S. Government and today their land base consists of approximately
1.2 million acres (Columbia River Pastoral Letter Project—Carol Craig). Today the Natives face
an uphill battle in two respects, claiming back some of their original property rights that have
succumbed with the construction of the dams, and in protecting the fish from the dams. The two
problems go hand in hand with each other, and the successful resolution of them will lead to a
more prosperous future. The tribes obviously discount the future at a higher rate than many in the
Columbia River Basin area, meaning the salmon play a more essential role in their lives. The
extinction of the fish will virtually cause the subsequent extinction of the Native cultures in the
area. Ultimately it will be up to the ability of the tribes and Government and people to cooperate
on this issue in order to protect the future. It is obvious that not all the dams can be removed, but
there certainly can be steps taken to by both the Government and tribes to ensure a more equitable
and efficient allocation of the resources.
“The causes of environmental degradation and loss of biodiversity are rooted in society’s values and the ethical foundation from which values are pursued (Orr 1992). Solutions are likely to emerge only from a deep-seated will, not from better technology. Adopting biological integrity as a primary management goal provides a workable framework for sustainable resource use, but fostering integrity requires societal commitment well beyond governmental regulations and piecemeal protection. Such a commitment includes self-imposed limits on human population size and resource consumption, rethinking prevailing views of land stewardship and energy use, and viewing biological conservation as essential rather than a luxury or a nuisance.”
Angermeier and Karr 1994 (CRITFC Technical Reports)

Works Cited – didn’t print.