The Role of Non-Government Organizations in Supporting Washington's Tribal and State Governments' Salmon Recovery Plans

by

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ABSTRACT

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Deanna M. Donovan

Washington Tribal and State government organizations (GOs) have worked together since the 1980s to create, amend and implement the Puget Sound Salmon Recovery Plan (PSSRP). The original plan included a unique strategy which promoted the creation of supporting non-government organizations (NGOs) to help GOs achieve the goals set out in the plan. By conducting textual analysis of key documents and conducting interviews with NGO affiliates, and representatives from Washington (WA) State and Tribal government agencies and organizations this research examined how NGOs facilitate the salmon recovery efforts laid out in the PSSRP. It also investigated the specific niches that NGOs fill that regulating agencies are unable to. The study documented the unique mixing of top-down and bottom-up strategies, as well as the incorporation of indigenous knowledge, used in Washington State to address Natural Resource Management (NRM). This study outlines the roles that environmental NGOs have adopted in support of the PSSRP. This includes the ability to help educate the public and policymakers, provide alternative funding, assist with researching, implementing and monitoring habitat restoration projects and function as bridging organizations. By providing education about habitat preservation and conducting habitat restoration projects NGOs are also helping to support the treaty fishing right of a healthy salmon habitat. These results may provide information to governments in other regions that are experiencing comparable situations and may encourage them to work with NGOs in order to gain additional support in their NRM efforts. Further, they may also be able to advance progress in local environmental education, and encourage more citizen involvement in salmon recovery and habitat restoration efforts.

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Chapter 1: Introduction

The many cases brought to trial since the 1854 signing of the Medicine Creek Treaty (MCT) culminated in the 1974 Boldt Decision. Phase I of this proceeding mandated that Washington (WA) Fishing Treaty Tribes should no longer be discriminated against and were entitled to 50% of salmon fishery intake (U.S. v. WA, 1974). Phase II, in 1980, also ruled that the tribes had the right to a healthy salmon habitat (U.S. v. WA 506 F. Supp 203-205 [1980]). In 1982 a third ruling related to this case also required that tribal and state government agencies pool their resource and work as partners to co-manage salmon fisheries in WA State (U.S. v. WA, 694 F. 2nd 1374,1389 [1982]). These were major steps forward in reestablishing Pacific Northwest (PNW) Tribal Treaty Rights.

Unfortunately discrimination of tribal fishers persisted and salmon populations continued to decline. In order to ameliorate the problem of low salmon runs and deteriorating habitat the tribes and the state published The Puget Sound Salmon Recovery Plan (PSSRP) in 1987. Among other things this document called for the involvement of community in salmon recovery efforts. In order to facilitate this, the tribes, the state, and local citizens created various non-government organizations (NGOs) to provide environmental education programs, assist in research, restoration and monitoring efforts, and act as mediators in order to support Washington's Salmon Recovery Plans and Treaty Fishing Rights.

In 1999 several salmon species were listed as endangered under the Endangered Species Act (ESA) and the federal government became more involved in Puget Sound's

salmon recovery efforts. By the year 2000 salmon recovery had become the focus of many grassroots organizations, as well as local, state, and federal government organizations (GOs). Due to the ongoing dedication of mixing top-down and bottom up NRM, WA State has some of the most pristine watersheds in the nation. That said, the fact remains that salmon habitat is being destroyed faster than it can be restored, salmon runs are still declining and WA Tribes are still fighting for their treaty fishing rights.

By answering the following research question and sub-questions this study summarized how NGOs and GOs work together to educate the public and policymakers about sustainable environmental practices and clarifies the roles and responsibilities of NGOs in supporting Puget Sound's salmon recovery plans and upholding treaty fishing rights. The overarching research question is: How have environmental NGOs facilitated salmon recovery efforts in the Puget Sound Region? Sub-questions include: (1) What role do Western Washington environmental Non-Government Organizations play in supporting salmon recovery efforts of Washington State's Tribal and State governments? (2) What functions do Non-Government Organizations supply that are not provided by Government Organizations? (3) How does the work done by environmental Non-Government Organizations help to uphold treaty fishing rights?

Some of the roles and responsibilities of WA's environmental NGOs that are outlined in this research include: providing educational programs for the public and policymakers, using alternative funding and volunteers to research, monitor and restore the habitats needed to support the treaty fishing right of maintaining healthy salmon habitats and to act as mediators between the public and governments, as well as between tribal, state, and federal governments. It is important to note here that each tribal

government speaks for themselves concerning policy issues and once it has been determined that there is consensus among the tribes the Northwest Indian Fisheries Commission (NWIFC) will speak on behalf of all Treaty Fishing Tribes.

By studying historical accounts and key legal documents concerning PNW salmon fisheries, reviewing state and tribal GOs and NGO websites, mission statements, key documents and recovery plans I identified themes relating to the roles of NGOs in supporting salmon recovery efforts. In conducting interviews with, or providing on-line questionnaires to, stakeholders, NGO affiliates, and representatives from Washington State and Tribal GOs I investigated and analyzed these themes further. I also identified gaps that could be filled to enhance salmon recovery efforts. This analysis takes into consideration the ways NGOs may facilitate the success of the salmon recovery efforts laid out in management plans produced by regulating agencies

When I first embarked on my research I had intended to examine the co-management tactics that Washington's Tribal and State governments use to create and implement PSSRPs and identify methods that propelled or impeded the process. I had also intended to examine the role of Traditional Ecological Knowledge (TEK) in the co-management of salmon fisheries. From the outset, beginning with the signing of the MCT there has been controversy and turmoil surrounding the upholding of TFR, including a war, many protests, and over one hundred years of litigation. I was compelled to tell this story because the reestablishment of the rights of Washington's Treaty Tribes is essential and the Boldt Decision was the biggest step in local history towards that end. Since issues surrounding the regulation and recovery of Washington's salmon fisheries is

controversial and the participation of tribal employees requires the permission of their Tribal Councils I was unable to satisfactorily pursue this topic given the time constraints.

Since treaty rights remain a crucial issue and affect the way Washington's salmon fisheries and salmon recovery efforts are managed today it is important to understand the history of TFR since the signing of the MCT, the intense litigation, and events that led up to the Boldt Decision and the court cases and actions that followed. This history is important to include in the thesis as it illustrates the failure of the state to acknowledge and uphold treaty fishing rights. This culminated in WA State taking a progressive approach to managing their salmon fisheries and enlisting the assistance of NGOs in their salmon recovery efforts. NRM in WA has consequently evolved into a unique combination of top-down and bottom up approach to the implementation of their salmon recovery plans. The NGO facilitated civil society involvement has become an intrinsic part of this approach and their effect on the implementation of recovery plans is worthy of further investigation.

In the following section, I situate my thesis project in the peer reviewed literature on top-down and bottom-up methods of NRM and a description of the benefits and challenges surrounding the citizen involvement that is facilitated by environmental NGOs. The following section also provides a detailed history of the events leading up to WA's current method of NRM. This history is important in order to understand the contemporary context within which the roles NGOs are employed to augment WA's State and Tribal Governments salmon recovery efforts. I then discuss how the current case study contributes to current literature on NGO facilitated community involvement in

NRM issues. Following this I present an overview of my research methods and the sources of my primary data.

The findings and discussion that follows is organized according to key themes that were identified, namely the roles of NGOs in education of the public and policy makers, research and monitoring efforts, funding, resource efficiency and conflict mediation.

Finally, I conclude by arguing the importance of citizen involvement in NRM in light of current events that are being addressed by WA based NGOs and GOs. I make suggestions concerning the ways that this research can supplement the current literature on the mixing of top-down and bottom-up NRM. Lastly, I outline other compelling areas for further study on the subject.

Detailed descriptions of select NGOs and GOs can be found in the appendices.

Chapter 2: Literature Review

2.1 Combining Top-Down and Bottom-Up Strategies in NRM

In order to work towards solving the growing crisis of deteriorating ecosystems it has become increasingly common, worldwide, for traditional top-down regulatory processes in NRM to be combined with bottom-up methods. These include the grassroots efforts employed by diverse groups of local resource users, community members and stakeholders as well as the regulation and enforcement of policies by regulating agencies (Kalikoski & Satterfield, 2004; Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007). These partnerships between NGOs and local, state and federal government agencies promote the participation of civil society and allow their input to be considered by the regulating agencies that ultimately set and enforce policies. (Kalikoski & Satterfield, 2004; Leach, Pelkey, & Sabatier, P. A., 2002).

These multilevel tiers of involvement have the goal of attaining common ground concerning conservation, restoration and policy objectives. In order to obtain these objectives partners conduct activities such as public outreach, education, trust-building, grant writing, and research. To ensure GO and NGO missions and objectives are being met they generally have a board of directors that participate in monthly meetings occurring in perpetuity. This long term dedication to their mission statements allows GOs and NGOs to work together to define a problem, adopt a policy, and then implement and assess restoration projects (Leach, Pelkey, & Sabatier, P. A., 2002).

Cooperation among governments, community members and various stakeholders is perceived as a necessary prerequisite for durable solutions to problems encountered in

environmental management and conservation endeavors (Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007). It has been documented that multi-stakeholder groups have had success in acting as bridging organizations, linking resource users, NGOs and GOs (Trimble & Burkes, 2013). This finding validates the importance bridging institutions such as environmental NGOs. It also illustrates the potential benefits, from the participation of NGOs in NRM including conflict mediation and greater resource efficiency (Sawhney, Kobayashi, Takahashi, King & Mori, 2007).The functional typology of this process includes a number of roles rarely mentioned in NRM literature; including the trust-building and awareness raising that can be enabled by NGO involvement (Brewer & Moon, 2015).

One of the more challenging goals of involving research focused NGOs in NRM is ensuring that they obtain and present data that is scientifically valid, justifiable and significant, but also easily understood by citizens, stakeholders and GO employees. When these goals are accomplished it has been shown to bring about an overall better understanding of the resources of concern (Klinger, P., Dale, V., Sherman, M., McKinney, M., Campbell, J.Y., & Gold, B., 2007).When the public and policymakers have a greater understanding of natural resource issues, and the awareness of these issues is based on valid and scientifically sound knowledge, there is a better chance of coming to sustainable agreements concerning the creation and implementation NRM plans (Sawhney, P., Kobayashi, M., Takahashi, M., King, P.N., Mori, H., 2007).

The success of long-term research, implementation and monitoring efforts entails a lasting commitment to funding and the contribution of resources from GOs and NGOs. The ability to find alternative funding and participate in conflict mediation gives NGOs

the capacity to improve resource efficiency and help bridge the gap between the public and government agencies. (Sawhney, Kobayashi, Takahashi, King & Mori, 2007).Whether implemented by an NGO or a GO, dedicated management of all recovery projects is necessary to promulgate what is successful and terminate, or adjust, projects that are failing to meet recovery goals (Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007).

The time-lag between implementing recovery plans and observing significant results can lead some to doubt concerning the outcomes of involving NGOs in conservation and restoration efforts. The process of involving civil and civic society has shown to facilitate consensus among diverse stakeholders and policy making agencies. In contrast, the outcomes of recovery efforts can be tenuous in the short-term and tend to vary, so complete agreement is not always possible. As more governments are investing time and money into sustainable NRM more research needs to be done on how to gauge and interpret the outcomes and effectiveness of the involvement of NGOs in the research, implementation and monitoring of recovery plans (Koontz, T.M. & Thomas, C.W., 2006).

One argument opposing the combination of top-down and bottom-up NRM is the potential for begrudging compromises that do not produce better decisions or encourage mutual agreements but could exacerbate existing differences (McCloskey, M., 1996). Clashes have been known to occur between stakeholders with diverse agendas, such as environmental activist groups and extractive or urban development industries. There is concern that grassroots environmental activist groups may be excluded from participation in multi-stakeholder NRM meetings and any remaining sympathetic individuals in

attendance will be powerless to go up against well paid professionals from extractive or development industries (Irvin, R.A. & Stansbury, J., 2004; McCloskey, M., 1996).

While the structure of mixing top-down and bottom-up NRM techniques has seemingly benefited from community involvement there is a possibility for inflated expectations when it comes to civil society's contributions to the decision making process. If citizens are under the impression that their input in the decision making process will be implemented, and those decisions are disregarded or simply taken under consideration there is potential for acrimony (Irvin, R.A. & Stansbury, J., 2004). It is not uncommon for a range of stakeholders to resent regulatory government agencies if their preferences are restricted. In the bottom-up approach to environmental management regulating government agencies have been known to both encourage and obstruct community efforts (Koontz, T.M. & Thomas, C.W., 2006).

Despite the degree to which regional grassroots efforts have proven beneficial for keeping up the momentum of habitat restoration and outreach education, Irvin and Stansbury (2004) pointed out that there are situations in which bottom-up citizen involvement may be considered unproductive and even wasteful. To illustrate their point they created a list of indicating factors that is as follows:

> "**High-Cost Indicators**
> * An acquiescent public is reluctant to get involved in what is considered the job of government employees.
> * The region is geographically large or presents other obstacles (such as heavy traffic) that make regular face-to-face meetings difficult.
> * Many competing factions and socioeconomic groups require a very large participatory group.
> * Low-income residents are key stakeholders for the issue at hand and should be included, yet they cannot because of work and family priorities.

* Complex technical knowledge is required before participants can make decisions.
* The public does not recognize the issue under consideration as a problem, nor are potential competing policy alternatives familiar to the public.

Low-Benefit Indicators
* The public is generally not hostile toward government entities.
* The agency has had prior success in implementing policy without citizen participation (that is, the voting process is sufficient to guide policy-making behavior).
* The population is large, making it difficult for involved stakeholders to influence a significant portion of the population.
* The decisions of the group are likely to be ignored; no matter how much effort goes into their formation (the group does not have authority to make policy decisions).
* The decisions of the group are likely to be the same as the decisions produced by the government entity." (Irvin, R.A. & Stansbury, J., 2004, p. 62)

When too many of these indicators are present conventional top-down methods may be a preferred option; but if indicators are few and well scrutinized there is no reason not to incorporate citizen involvement in decision making processes. In cases where it is proven to be economically beneficial to go with a more stream-lined governmental regulatory process government agencies are able to use the residual resources for project implementation. (Irvin, R.A. & Stansbury, J., 2004).

2.2 Incorporating the Involvement of Civil Society

Once salmon were listed as threatened or endangered by the Environmental Protection Agency (EPA) in 1999 a collaborative policy planning model in Puget Sound was put into action by the National Ocean and Atmospheric Administration (NOAA) Fisheries department. This model permitted those who are most affected by the ecologic, cultural, economic, and political costs of salmon recovery significant say regarding scientific research and restoration project choices in their watersheds (Weber, E.P.,

Leschine, T.M. & Brock, J., 2010). Community input in NRM recovery plans has the ability to make citizens better environmental stewards, give them a sense of ownership of their local ecosystems and a sense of pride in successful outcomes of restoration efforts (Sawhney, P., Kobayashi, M., Takahashi, M., King, P.N., Mori, H., 2007; Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007)

Since the EPA requires the participation and guidance of scientists in the planning process stakeholders are able to formulate their choices based on local ecology. Integrating the best possible science with societal and political ideals can broaden support, durability and efficiency of resulting policies (Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007; Weber, E.P., Leschine, T.M. & Brock, J., 2010). This planning model empowers citizens, improves chances that projects will be more scientifically sound, and helps to ensure that policies will be truly effective. Policy determinations, as well as restoration project selection and implementation rely heavily on supporting scientific data. This illustrates the fact that science directly impacts policy decisions (Klinger, Dale, Sherman, McKinney, Campbell, & Gold, 2007; Weber, E.P., Leschine, T.M. & Brock, J., 2010).

One of the premises behind the ongoing involvement of civil society in Puget Sound's salmon recovery planning process grants that stakeholder participation and the right to exercise their freedom of choice gives the citizens of the region a sense of ownership and makes them better stewards of, their watersheds (Weber, E.P., Leschine, T.M. & Brock, J., 2010). Active community participation in the decision making process enables resulting policies to be directly based on citizen preference and local residents may feel more accountable for the final decisions. (Irvin, R.A. & Stansbury, J., 2004;

Sawhney, Kobayashi, Takahashi, King & Mori, 2007.; Weber, E.P., Leschine, T.M. & Brock, J., 2010).

The participation of community members that is encouraged by NGOs also has the potential to guide stakeholders to more empathetically assess the difficult decisions that are required by regulatory agencies. Their inclusion in the decision making process can also take away the ability for them to blame policy shortcomings on regulatory agencies. The citizen involvement and increased awareness fostered by NGOs have the ability to create more trust between the public and their governments. Although citizen participation in policy decisions can cause public backlash and dissent, it can also permit regulating agencies to make compromises that lead to a less divided and opposing populace to regulate (Irvin, R.A. & Stansbury, J., 2004; Sawhney, Kobayashi, Takahashi, King & Mori, 2007; Weber, E.P., Leschine, T.M. & Brock, J., 2010).

While the proper education of citizen groups can be an effective tool for helping to resolve political deadlock there is fear that the same directive could potentially endorse self-interested decisions introduced by and benefiting the richer, more powerful and influential members of society as opposed to the greater public. Proponents of the involvement of civil society in policy making would proclaim that its main objective is to improve management decisions. Critics claim that stakeholder involvement presents an opportunity to manipulate policy decisions for personal or financial gain (Irvin, R.A. & Stansbury, J., 2004; Leach, W.D., Pelkey, N.W., Sabatier, P.A., 2002)

By working closely with grassroots organizations policymakers are able to be more in-tune with the public's perceptions of problem issues and probable solutions.

NGOs are able to contribute a level of expertise, dedication and the public's perspective on policy issues that official bodies could not attain on their own accord. As the main providers of environmental education NGOs have taken on the role of promoting raised awareness of crucial policy issues and increasing the environmental knowledge of both the public as well as policymakers (Sawhney, Kobayashi, Takahashi, King & Mori, 2007).

2.3 Historical Background

2.3.1 The Medicine Creek Treaty: The Beginning of the Salmon Controversy

On December 24, 1854 Tribal Elders and Leaders from the Nisqually, Puyallup, Steilacoom, and Squaxin Tribes gathered in the Nisqually Valley, at the mouth of Medicine Creek, to meet with the territory of Washington's newly appointed Governor Stevens to discuss and sign the Medicine Creek Treaty (MCT). Although all four tribes primarily spoke Salish, and Governor Stevens had a Salish interpreter at his disposal, he insisted the proceedings be conducted using only the roughly 500 words of Chinook jargon that had been used as a language of trade between early fur-traders and the tribes in the late 18th and early 19th centuries. It remains contested to this day as to how much of the MCT the tribes actually understood at the time of its signing. It was also speculated that the signatory X's of certain tribal leaders had been forged. Due to these issues, as well as differing ideologies about domicile over land, the tribes immediately protested the conditions laid out in the Treaty (Kluger, 2011; Reddick and Collins, 2005; Heffernan, 2012; Wilkinson, 2006).

In a 2005 Oregon Historical Quarterly article, Reddick and Collins postulated that the original Treaty relegated three of the four tribes to Squaxin Island. The tiny island had no access to freshwater fishing nor any prairie or workable farmlands. The tribes vehemently refuted this arrangement, causing Governor Stevens to change the terms of the agreement to the establishment of three, two-square mile reservations at different, yet equally inhospitable, locations along the river. Article III of the Treaty provided a meager solace by including a defining proclamation; this statement encompassed cultural heritage, as well as property and land-use rights. It declared that the signatory tribes would be permitted to "take fish at all usual and accustomed grounds and stations…in common with all citizens of the territory" The exact meaning of this clause has come up in many court cases over the years (Anderson, 1987; Blumm and Swift, 1998; Brown, 1994; Clark, 1985; Gordon and Lembersky, 1995; Hobbs, 1968; Kluger, 2011; Reddick and Collins, 2005; Shreve, 2009; Treaty of Medicine Creek, 1854, Article III; Heffernan, 2012; Wilkinson, 2006).

The Nisqually and the Yakama Tribes, led by Chief Leschi, a respected member of the Nisqually Tribe, stuck to their principles and refused to move out of their lodgings and away from their sacred fishing, foraging, farming and burial grounds. The Puget Sound War followed and made it legal to shoot Indians off their reservations. The tribes fought hard against conditions laid out in the Treaty but were eventually forced from their native lands and moved onto the reservations assigned to them (Kluger, 2011; Reddick and Collins, 2005; Heffernan, 2012; Wilkinson, 2006). This was only the beginning of the long and contentious battle between Washington State officials and Washington State Tribes. This battle was finally mollified by the 1974 Boldt Decision. The ruling in this

case ended discrimination against the tribes, gave them the right to 50% of the salmon harvest and eventually mandated that the tribes and the state work together to make salmon recovery plans and regulate salmon fisheries.

2.3.2 Court Cases and Controversy Leading up to the Boldt Decision

As previously mentioned, the MCT, as well as four other similar Treaties negotiated in the 1850s, stated that Western WA Indians had "The right of taking fish, at all usual and accustomed grounds and stations…in common with all citizens…" (Brown, 1994; Clark, 1985; Galligan Jr. and Reynvaan, 1981; Kluger, 2011; Reddick and Collins, 2005; Shreve, 2009; Treaty of Medicine Creek, 1854, Article III; Heffernan, 2012). In 1854 state officials had assumed that the salmon-rich waters of the PNW would remain stable throughout the years, but this proved not to be true. The growing demand for salmon and tensions between Indian and non-Indian fisheries caused treaty fishing rights to be taken to the United States Supreme Court no less than seven times in seventy years. "The origin of those court battles was language in the Treaty of Medicine Creek, brokered on the delta in 1854." (Heffernan, 2012, p. 18).

In 1905 U.S. v. Winans upheld the right of treaty Indians to fish on what had once been one of their traditional fishing grounds but had become private property and in 1942 Tulee v. Washington exempted treaty Indians from state licensing regulations but not conservation regulations (Galligan Jr and Reynvaan, 1981; Shreve, 2009; Wilkinson, 2006; United States v. Winans, vol.198, 1905; Tulee v. Washington, vol.315, 1942). State courts repeatedly challenged these and other federal court decisions that ruled in favor of the tribes and the federal court consistently upheld them, yet this failed to deter the state

from conducting raids and arresting treaty fishermen throughout the 20th century (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Reddick and Collins, 2005; Shreve, 2009)

One of the first arrests came in 1954 when Puyallup-Yakama Indian Robert Satiacum intentionally defied the state game laws by gillnetting out of season and with no license. The case made its way to the WA State Supreme Court and, although it resulted in a stalemate and the charges were dismissed. (Galligan Jr and Reynvaan, 1981; Shreve, 2009). In 1961 the state went even further to push their proclaimed salmon conservation measures by passing a law forbidding the commercial sale of fish by Native peoples and began stepping up their raids (Shreve 2009).

Native fishermen received another setback with the 1963 ruling from the court case of State v. McCoy. Joe McCoy. The defendant, a Swinomish Indian, had been arrested in 1960 for fishing the Skagit River with a 600-foot gillnet and selling his catch commercially. The court ruling gave full regulatory power to the State of Washington's Fish and Game Department and declared their control of off-reservation fishing as reasonable and necessary for conservation. It also dismissed the fact that McCoy, as a member of a tribe that had signed the MCT, had the right to fish in 'usual and accustomed places' (Shreve, 2009; State v. McCoy, vol.387 1963). The tribes responded in force, some driving to Olympia to report their objections directly to the Governor, while others just ignored the ruling and continued to fish (Shreve, 2009).

Tension between the state and the tribes had reached a crux. In a show of solidarity a group of Nisqually Tribal members went down to Frank's Landing, on

January 1, 1964, and proceeded to cast their nets despite the heavy presence of game wardens who possessed an injunction from the Pierce County Superior Court closing the river to fishing. The wardens arrested the fisherman and filed a restraining order against them (Heffernan, 2012; Shreve, 2009). Despite the restraining order members of Western WA Tribes continued to come to Frank's Landing and cast their nets. Wardens continued to make arrests and within a month the situation had reached the point of a full on crisis. In order to address the issues at hand tribal leaders convened in discussions with the National Indian Youth Council (NIYC) and proceeded to put a new era of intertribal activism into motion (Shreve, 2009; Wilkinson, 2006).

Raids and arrests on the Nisqually River reached a highpoint by the mid-sixties with treaty fisherman regularly being tear-gassed, forcibly removed from the fishing grounds, and taken to jail (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Gordon and Lembersky, 1995; Kluger, 2011; Reddick and Collins, 2005; Shreve, 2009; Heffernan, 2012; Wilkinson, 2006). By 1964, NIYC members Bruce Wilkie and Hank Adams devised a plan of action and put word out for WA Tribes to come together to challenge these arrests by conducting fish-ins; a civil disobedience tactic to draw media attention to the failure of the state to uphold federal treaty rights. On March 3rd of 1964, thousands of people from tribes across the nation came together for the largest intertribal demonstration to date (Shreve, 2009; Wilkinson, 2006). Tribal members and concerned citizens coming out to show their support were joined by the likes of actor Marlon Brando, folk singer Buffy Sainte Marie and comedian Dick Gregory whose presence helped garner additional media coverage of the protests (Shreve, 2009; Heffernan, 2012; Wilkinson, 2006).

Game wardens, tribal fisherman, and a slew of reporters, all convened on the banks of the Puyallup River on the morning of March 1, 1964. Brando and Reverend John Yaryan, an Episcopalian priest from San Francisco who had also come up to show support, cast their nets first, only to be immediately arrested (Shreve, 2009; Heffernan, 2012; Wilkinson, 2006). The Pierce County Prosecutor dropped the charges against Brando but it was too late -- news of his arrest at the Northwest Fish-ins had already made all local and some national papers and television news reports (Shreve, 2009; Heffernan, 2012; Wilkinson, 2006).

This high profile news coverage drew thousands of supporters to the area for a mass protest at Olympia's capitol building (Shreve, 2009; Wilkinson, 2006). Working with the NIYC, Hank Adams had produced a list of demands to present to the state at the protest; these included the appointment of a state Indian Advisory Committee, a joint state and federal scientific study of Indian, recreational and commercial fishing in Washington's rivers; and an immediate halt to arrests of Indians fishing at 'usual and accustomed places' (Shreve, 2009; Heffernan, 2012). During the protest representatives of the tribes had a four hour meeting with the Governor. Although the Governor agreed with Adams that an Indian Advisory Committee should be formed and talked about the protection of treaty rights and the importance of Native sovereignty, the tribes agreed that it had been an unsatisfactory meeting (Shreve, 2009; Heffernan, 2012).

Governor Rosellini himself addressed the crowd following the meeting. He began by noting the progress and achievements the tribes had made and, although he said that he stood ready to cooperate with the tribes, he went on to state that he could not condone the threat of Native fisheries that were unregulated or uncontrolled (Shreve, 2009;

Heffernan, 2012). Although the March fish-ins failed to bring about any immediate changes, Adams noted that the events had instilled a renewed spirit and bravery in the intertribal activism. This activism eventually led to the Boldt Decision which created a major shift in the structure of Washington's management of salmon fisheries (Shreve, 2009).

The fish-ins had garnered nationwide attention and in response the WA State legislature petitioned the U.S. Congress to enact official legislation in order to settle the dispute. Despite his apparent support of treaty fishing rights WA State Senator Warren Magnuson proceeded to lobby for Joint Senate Resolutions 170 and 171. These resolutions would piggyback on Public Law 280 that had been passed in 1953. The Law had transferred the jurisdiction of Indian Affairs from the U.S. Department of Interior to certain state governments and gave states the power to pass stringent conservation measures that restricted treaty rights (Shreve, 2009). Resolution 170 confirmed the state's right to heavily regulate off-reservation treaty fishing and Resolution 171 was an attempt to eliminate, by purchase, tribal off reservation fishing rights (Shreve, 2009).

While the Sportsmen's Council lobbied for the Resolutions, the National Congress of American Indians, who felt the PNW Tribes had been falsely accused as solely responsible for declining salmon runs, came out in full opposition of the resolutions. They proposed that the Senate conduct a wide-ranging study of the fishing industry in the PNW before they considered passing Magnuson's bills. The results prevented their passing as they exhibited that between the years 1958 and 1967 Indian fisheries took in 6.5 percent, sport fishers 12.2 percent with commercial fisheries taking the remaining 81.3 percent (Shreve, 2009). Magnuson's bills did not even make it to the

floor of Congress and the Indian fisheries celebrated a key victory (Shreve, 2009). Despite this victory for Native fisheries they continued to be heavily regulated and persecuted with violent raids continuing into the early 1970s (Shreve, 2009 Heffernan, 2012; Wilkinson, 2006).

Hank Adams had obtained a small grant in 1968 from the National Association for the Advancement of Colored People (NAACP) to support the proceedings in a court case wherein Yakima fisherman Richard Sohappy and twelve other Yakima Tribal members went up against an Oregon Fish Commissioner. Sohappy and his nephew had been arrested for fishing with gill-nets on the Columbia River and the Indian fishing rights activists saw this as an opportunity to bring a test case to court (Wilkinson, 2006).

Due to the high numbers of treaty fisherman that had recently been criminally prosecuted by the state certain federal officials were swayed to testify on behalf of the Sohappys. This federal involvement resulted in the consolidation of the United States v. Washington and the Sohappy v. Smith case, which went to trial on July 8, 1969 (Wilkinson, 2006). The tribes saw yet another ray of hope when Judge Robert Belloni ruled that treaty fishing rights entitled the Yakima Indians the right to "a fair and equitable share" of fish from the Columbia River and its tributaries (Shreve, 2009; Heffernan, 2012; Wilkinson, 2006; Sohappy v. Smith, vol.302 1969). The ruling did not define what a fair and equitable share consisted of; however, that definition would become a focal point of the famous 1974 case that came to be known as the Boldt Decision.

Puyallup Tribe v. Department of Game of Washington et al (1968) is another critical court case of that era worth noting. Based on regulation for conservation purposes, the case became part of what is known as the Puyallup Trilogy and originated from the arrest of Billy Frank Jr. and five other fishermen in March of 1964 (Heffernan, 2012; Wilkinson, 2006; Puyallup Tribe v. Department of Game of Wash., vol.391 1968). The 1968 case became known as Puyallup I and Justice William Douglas ruled that the state had the right to regulate off-reservation fishing if it appeared to threaten conservation. The tribes saw this ruling as having nothing to do with true conservation and everything to do with the singling out and persecution of Native fisherman and allowing non-Indians to catch all the fish (Galligan Jr and Reynvaan, 1981; Shreve, 2009; Wilkinson, 2006; Puyallup Tribe v. Department of Game of Wash., vol.391 1968).

The conservation aspect became even more muddied as non-treaty fisheries became more adept at catching much of the salmon in salt water areas before the fish reached the traditional Indian fishing ground on the rivers, leaving only what is considered the required escapement, which is the number of spawning adults to needed to provide a suitable number of salmon for the following year's run (Clark, 1985). Department of Game of Washington v. Puyallup Tribe (1973) known as Puyallup II focused on the conservation of steelhead but also contained a ruling from Justice Douglas stating that tribes had a right to take a 'fair share' of salmon.

In the case of steelhead, the judge ruled that the Indians did not have treaty fishing rights and banned net fishing in favor of hook and line fishing. (Shreve, 2009; Wilkinson, 2006; Department of Game of Wash. v. Puyallup Tribe, vol.414 1973). In the final case in the trilogy, Puyallup Tribe v. Department of Game of WA (1977), Justice Stevens

upheld the tribe's allocation rights stating that Indian fisheries had the right to take forty-five percent of the steelhead catch (Blumm and Steadman 2009; Galligan Jr and Reynvaan 1981;Puyallup Tribe, Inc. v. Department of Game of Wash., vol.433 1977). The Sohappy victory and Puyallup I both served as crucial precursors to the Boldt Decision, the case that would reestablish the treaty fishing rights of Western Washington Tribes, change the course of the management of Northwest Tribal Fisheries, and begin the era co-management of fisheries between the tribes and the state and the creation of NGOs to support their salmon recovery plans.

2.3.3 A Summary of the Boldt Decision

After the Sohappy victory, it became clear that the federal government supported the Tribal Fisheries of the PNW and on behalf of the tribes, the United States filed The United States v. Washington in 1970. The federal government even provided high profile lawyers to represent the tribes as well as specialists in history, anthropology and biology to research and testify on circumstances pertaining to the 1854 Stevens Treaties (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Shreve, 2009; Heffernan, 2012; Wilkinson, 2006; United States v. State of Washington, vol.384 1974).

According to Trova Heffernan's *Where the Salmon Run: The Life and Legacy of Billy Frank Jr.*, the experts assigned to building the case for WA Tribes would be basing their research around two vital points: 1) The interpretation of the language of the Stevens Treaties as the Indians would have understood them at the time of signing and 2) The establishment of better management of the fisheries overall, as they felt that the state

persistently and continually placed wrongful blame on the tribes for the declining fish runs (pp.132-133).

In *Messages from Frank's Landing: A Story of Salmon, Treaties, and the Indian Way* Wilkinson declared that the tribal lawyers intended to present strong arguments against the state's authority over the regulation of treaty fishing; the tribes felt that they should have the authority to regulate their own fisheries (p. 51). Hank Adams and Tulalip leader Janet McCloud acquired the legal services of David Getches, a lawyer and the executive director of the Native American Rights Fund. After researching dictionaries from 1828 through 1862 Getches came to determine that in 1854 the term 'common', one of the most debated terms in the Stevens Treaties, meant 'equal' so the litigators for the tribes eventually decided to propose a 50/50 split, although they did present it in limited context so as not to press the issue (p. 52). After three years of research and preparation, the trial resulting in the Boldt Decision began in the fall of 1973 (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Shreve, 2009; Heffernan, 2012; Wilkinson, 2006; United States v. State of Washington, vol.384 1974).

On February 12, 1974 Judge Boldt handed down the 203 page ruling. The ruling upheld treaty fishing rights, abolished discrimination against Indian fisherman, and reaffirmed the right to an equal share of the fish, agreeing to the 50/50 split proposed by the tribes (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Shreve, 2009; Heffernan, 2012; Wilkinson, 2006; United States v. State of Washington, vol.384 1974). Although this was a monumental legislative outcome after years of court proceedings concerning treaty fishing rights, the verdict proved more difficult to enforce than almost any judgment in history. It didn't help that the state emphatically rejected the ruling,

refusing to enforce the judge's orders, and filing multiple appeals trying to overturn the decision (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Shreve, 2009; Heffernan, 2012; Wilkinson, 2006). Commercial and sport fishermen began to hold fish-ins of their own, and hung Judge Boldt in effigy on the courthouse lawn on more than one occasion (Wilkinson, 2006).

Convinced that Judge Boldt's decision would be overturned; representatives for the state were disappointed when the Supreme Court upheld U.S. v. Washington in 1979. To clarify the matter Judge Boldt divided the case into two parts, Phase I and Phase II (Belsky 1996; Blumm and Steadman 2009; Brown 1994). Phase I upheld the right to off-reservation fishing and Phase II, heard by Judge Orrick in 1980, ruled the inclusion of hatchery fish and habitat protection for treaty fish as treaty fishing rights. In 1982 the Ninth Circuit Court of Appeals upheld the absolute right to habitat protection and ruled that the state and the tribes pool their resources, take action to appropriate resources, and use their means to co-manage salmon fisheries; co-management began in earnest in 1984 (Belsky, 1996; Blumm and Steadman, 2009; Brown, 1994). Although that was not the end of court proceedings concerning treaty fishing rights these decisions marked the beginning of a new era of co-management between the tribal and state governments and further promoted the creation of NGOs to support and augment the Puget Sound Salmon Recovery Plan (Brown, 1994; Clark, 1985; Galligan Jr and Reynvaan, 1981; Heffernan, 2012; Wilkinson, 2006).

2.3.4 The Introduction of Supporting NGOs

In 1987 the tribes and the state created the Puget Sound Salmon Recovery Plan (PSSRP) (Brown, 1994; Clark, 1985). Among other things, the plan laid out rules concerning how to determine harvestable numbers of fish as well as establishing the required number of escapements required for an efficient number of spawning adults needed for the following year's salmon run. It also contained a sub-section dictating that community members be involved in salmon recovery efforts. Nisqually Tribal Leader and Chairman of the NWIFC, Billy Frank Jr., took note of this sub-section and was a proponent for the creation of NGOs to help facilitate the involvement of civil society in salmon recovery efforts.

The numerous disagreements that continued to go to trial led the courts to establish a Fisheries Advisory Board (FAB) (Brown, 1994; Clark, 1985). The FAB contained one voting member from the tribe, one from the state and a court appointed Scientific Technical Advisor to intercept technical arguments and then report to the court. Since the courts most frequently sided with the Technical Advisor, their decisions on matters prevented unnecessary court litigations (Brown 1994; Clark 1985). Out of the 75 disputes brought to the FAB in 1982 the state only triumphed over the tribes three times. (Brown, 1994).

Eventually it became inevitable to both parties that the disputes got them nowhere and, due to the steady decline of salmon runs, both parties realized the need to join forces with NGOs to support salmon recovery plans that included salmon habitat restoration projects and environmental education programs. While this was a huge step for

cooperative salmon recovery the tribes remained skeptical and harbored the feeling that the state only saw them as co-managers of the salmon harvest and believed that they should be engaging more in salmon recovery measures. This lead to the creation of NGOs, supported by local Tribal Councils, in order to assist in providing additional educational programs, enforce conservation measures and to act as mediators (Brown, 1994).

Primarily due to the efforts of Billy Frank Jr. and Hank Adams the Nisqually Watershed has now become a model for cooperative efforts in NRM (Brown, 1994; Clark, 1985; Heffernan, 2012; Wilkinson, 2006). Since the Boldt Decision many grassroots NGOs have been formed by local citizens, the tribes, and the state. Each NGO has their own separate niche and, although there is some overlap. These organizations work in collaboration with one another, the tribes and the state. Among other things, the majority of NGOs work to educate the public, restore salmon habitat and acquire land for the purpose of conservation easements; all of which are ultimately aimed at recovering declining salmon runs and upholding treaty fishing rights (Wilkinson, 2006).

2.3.5 The 2007 Martinez Decision

The 2007 the court case known as the Martinez Decision, a follow-up case to the Boldt Decision, upheld that treaty fishing rights forbid any habitat-damaging activities that inhibit WA Tribes from earning a moderate living by engaging in the salmon harvest in their rivers. (Blumm and Steadman, 2009). The Martinez Decision reviewed the 20th and 21st century court proceedings and its ruling created a means for the Puget Sound Tribes with fishing rights under the Stevens' Treaties to establish more significant and stringent salmon restoration efforts. This entailed working with not only the state and

federal governments but also enlisted NGOs to work with citizens and private land owners. These measures benefited both Indian and non-Indian fisheries (Blumm and Steadman, 2009).

Since the Boldt Decision, the tribes have worked hard to negotiate and co-manage fisheries rather than taking disputes to court. The tribes have consistently been willing to accept budget restrictions concerning their treaty fishing rights to habitat protection but unfortunately, despite an abundance of restoration efforts by both GOs and NGOs, they have witnessed the relatively pristine habitat that existed at the time the Stevens Treaties were signed steadily decline (Blumm and Steadman, 2009). In considering Judge Martinez's ruling, recently deceased Billy Frank, Jr., Nisqually Tribal leader and elder, activist and longstanding chairman of the NWIFC, said:

> "In order for us all to live together, we are not turning the lights off. But we have to do a better job at what we are doing. We have to have the leadership and the guts to make it happen, and we haven't had the political will for salmon in this state....We need the political will to bring the salmon back and have a home when they get here. (Blumm and Steadman, 2009, p. 53)."

2.3.6 Treaty Rights at Risk and the Puget Sound Recovery Caucus

After the 2007 Martinez ruling joint salmon recovery, habitat restoration and environmental education efforts stepped up a notch. The increase in environmental education focusing on habitat protection and working with land owners on habitat restoration projects was not having the desired effect and salmon populations continued to decline. Despite Martinez's mandate, the willingness of various stakeholders, community members, NGOs and the tribal and state governments due to industry and

urban development habitat was still being destroyed faster than it could be restored (Blumm and Steadman, 2009).

This lack of progress prompted the WA Treaty Tribes to publish a paper in 2011 entitled “Treaty Rights at Risk”. This paper was essentially a call-out to federal agencies, such as NMFS and NOAA, to take more of a leadership role in the salmon recovery efforts in the PNW, discontinue the issuing of permits for habitat destroying structures such as bulkheads and docks, enforcing habitat destruction policies, ensure that salmon recovery and habitat restoration plans were followed through to completion and that restoration projects would include base-line studies and long term monitoring to assess their outcomes (Treaty Indian Tribes in Western Washington, 2011).

In a partial response to TRAR Congressmen Denny Heck and Derek Kilmer established the Congressional Puget Sound Recovery Caucus (PSRC) in June of 2013. The PSRC is designed to promote clean-up efforts in the Puget Sound and strengthen the coordination of federal and executive agencies with state, tribal and local agency partnerships. Action items include but are not limited to: Formalizing recognition of Puget Sound under the Clean Water Act, increasing coordination with the Council on Environmental Quality, strengthening accountability, ensuring early and ongoing government-to-government engagement with Puget Sound Tribes and learning from successful collaborations.

The PSRC also identified the following initiatives that they believe could have a positive impact on the health of the Puget Sound region: formalizing Puget Sound recovery efforts, highlighting innovative stormwater solutions, advancing ocean

acidification research and monitoring, restoring habitats throughout the Puget Sound, promoting economic development and environmental protection and removing derelict vessels and creosote pilings (Congressional Puget Sound Recovery Caucus Working White Paper, 2014). These actions and initiatives are another step forward in upholding treaty fishing rights and enhancing the amalgamation of the top-down and bottom-up style of NRM that WA State has cultivated. The federal effort to work towards salmon recovery combined with the civil society involvement fostered by environmental NGOs has become known as 'The Washington Way' (Weber, E.P., Leschine T.M., & Brock, J., (2010).

2.3.7 The Unique Nisqually Watershed

The multitude of natural resourcess available in the Nisqually Watershed had provided sustenance to the Nisqually Indian Tribe (originally the Squally-absch) for thousands of years (Gordon and Lembersky, 1995; Wilkinson, 2006). The Squally-absch, which translates to 'people of the grass country', resided along the abundantly productive Nisqually Watershed, harvesting vegetables from the prairies and salmon and shellfish from the river and delta (Gordon and Lembersky, 1995; Wilkinson, 2006). For more than a millennium they had been able to utilize the resources the watershed provided in a sustainable way but when white settlers began to arrive in the early-19th century the landscape began to change in ways that were detrimental to the fragile ecosystems in and around the river (Wilkinson, 2006).

The Nisqually Watershed is especially unique due to the fact that the headwaters of the Nisqually River originate near the top of Mt. Rainier in a national park, and then

proceeds to flow 78 miles down through acres of coniferous forests and prairie lands into the Nisqually Delta which is primarily made up of a National wildlife refuge (Gordon and Lembersky, 1995). No other river in the United States has its headwaters originating in a National Park and its mouth spilling out onto a delta protected by a National Wildlife Refuge (Gordon and Lembersky, 1995). Due to the level of protection this offers and the hard work of Nisqually Tribal leaders, members and organizations, Washington State organizations and Nisqually Watershed based NGOs; the Nisqually Watershed is one of the healthiest watersheds in the Pacific Northwest (Gordon and Lembersky, 1995).

2.3.8 The Detrimental Effects of Agriculture, Industry and Hydropower and Early Salmon Recovery Efforts

Starting in the late nineteenth century the advancement of the canning, agriculture, logging industries and hydropower projects along the river began to have detrimental effects on the runs of the five native species of salmon inhabiting Western WA's watersheds (Gordon and Lembersky, 1995; Stober and Bell, 1986; Heffernan, 2012; Wilkinson, 2006). As early as 1870 the canning industry had begun to diminish the PNW fish runs. Just after the turn of the 19th century Seattle Attorney Aslon Brown purchased 1,500 acres on the Nisqually Delta and built four miles of low earthen dikes along the eastern, western and northern borders in order to wall off the sea and use the land for grazing and farming (Gordon and Lembersky, 1995). Upriver logging damaged salmon habitat even further but the dams built to power the growing urban areas caused the most dramatic changes to the natural flow of the river.

The first dam project began in 1910 with the Tacoma Light Department's forty-five foot high La Grande Dam and was followed by the Centralia hydroelectric water diversion project in 1930 (Gordon and Lembersky, 1995; Stober and Bell, 1986; Wilkinson, 2006). By the mid-1940s, two additional dams had been built downriver. The dam operations alternated between peak-hour floods that pushed the fish runs out to the mouth of the river and diversions that practically dried it up during the hot summer months when salmon were coming back to the river to spawn. None of the original dam constructions included fish-ladders or screens to allow for salmon migration (Gordon and Lembersky, 1995;Wilkinson, 2006).

The growth in the housing industry following World War II caused a steady increase in logging activity in the Northwest and further destroyed salmon habitat. Fertilizers and pesticides used by farmers and foresters drained into streams and rivers, poisoning the fish. Increased levels of silt, due to logging away riparian zones, made the water murky and obliterated spawning habitat. By the 1960s the commercial Chinook salmon take was half of what it had been in the 1940s. Non-Indian commercial and recreational anglers and the state blamed the tribes but it was discovered shortly before the 1974 ruling of the Boldt Decision that it had not been the Indian fishermen that had been solely responsible for the declining runs. As mentioned previously, it was discovered that Native fishermen had been taking only 6.5% of the harvestable catch and recreational and commercial fisheries had been taking the rest. (Heffernan, 2012; Wilkinson, 2006).

Efforts to make up for the loss in native fish runs had begun by the late 1940s with the WA Department of Fisheries releasing juvenile Chinook and Coho Salmon and

the WA Department of Game introducing a non-native species of steelhead (Gordon and Lembersky, 1995). In 1975 The Nisqually Tribe sued the city of Centralia, who managed the water Alder River diversion dam. This resulted in the requirement that the facility change in the amount of water that could be diverted by the project during peak salmon runs. Later that year the Tribe also filed a similar petition against the city of Tacoma who, as a result, also altered the operations of their dams to better accommodate and benefit salmon runs. The results of these legal actions were beneficial to the salmon runs but did not happen overnight. Although the petitions had been filed in 1975, the proceedings were not finalized until 1993 (Gordon and Lembersky, 1995; Wilkinson, 2006).

In a joint effort to further restore the depleted salmon runs, the cities managing the dams, along with the Tribe and the Fort Lewis Military Base built hatcheries at several locations along the Nisqually Watershed. In a prime example of intergovernmental cooperation, the Clear Creek Hatchery was built on land leased to the Tribe by Fort Lewis, with construction and start–up paid for by Congressional funds from Department of Fish and Wildlife and operation and maintenance covered by the City of Tacoma; the hatchery was put into full operation in 1991. Although there are mixed opinions concerning the affect that the introduction of hatchery fish have on the Native salmon runs the design and management of this hatchery has come to exemplify the unique collaborative restoration efforts in WA State (Gordon and Lembersky, 1995; Wilkinson, 2006).

2.4 Collaborative Natural Resource Management in Washington State

In the years since the Boldt Decision WA State has become exemplary in their unique technique of mixing a top-down and bottom-up method when approaching salmon

recovery efforts. These collaborative NRM tactics are not entirely new nor are they unique to the PNW. Yet, due to the hard work and dedication of several key leaders, proactive community involvement, and regulating agencies working in tandem with NGOs the grassroots techniques used by Washington State for collaboration between stakeholders have come to be known as 'The Washington Way' (Weber, E.P., Leschine T.M., & Brock, J., (2010).

Since the Boldt Decision mandated that WA State and the Tribal governments pool their resources and work together to co-manage salmon urban development, industry, and hydropower projects have continued to consistently destroy salmon habitat This resulted in salmon runs declining to such a degree that in 1999 NOAA's fisheries division listed the Puget Sound Chinook as threatened under the Endangered Species Act (ESA). The jeopardized Chinook runs affected 14 watersheds in the WA State and the massive scale of restoration efforts combined with distrust in the federal government's ability to properly fund and support such a large project inspired several prominent leaders to band together to come up with a workable solution (Weber, E.P., Leschine, T.M. & Brock, J., 2010).

Several key leaders took action and devised an effective solution to address salmon recovery issues. From 1999 to 2001 meetings were held that eventually involved over 200 leaders, educators, stakeholders and scientists from federal, state, tribal, and local governments, universities and environmental groups, as well as representatives from both the agricultural and fisheries industries (Weber, E.P., Leschine, T.M. & Brock, J., 2010). By 2002 they had compiled the results of these meetings and working as a team they designed an approach to recovery that relied heavily on the support of NGOs and the

community involvement they inspire. Their plan was deemed the *Shared Strategy for Recovery of Salmon in the Puget Sound.*

According to their website the Shared Strategy is based on the following five convictions:

- people in Puget Sound have the creativity, knowledge, and motivation to find lasting solutions to complex ecological, economic, and cultural challenges;
- watershed groups that represent diverse communities are essential to the success of salmon recovery;
- effective stewardship occurs only when all levels of government coordinate their efforts;
- the health and vitality of Puget Sound depends on timely planning for ecosystem health and strong local and regional economies; and
- the health of salmon are an indicator of the health of our region salmon recovery will benefit both human and natural communities. (Shared Strategy, 2007)

Prior to the 1999 EPA listing the decline of salmon runs had had drawn the attention of the U.S. Federal Government. Several NGOs, such as the South Sound Salmon Enhancement Group, founded in 1991, had already been established in order to address some of the issues causing the decline; most notably the destruction of habitat. The EPA listing of Chinook took matters to an entirely new level of action. The expectation was that the collaborative process laid out in the Shared Strategy would educate stakeholders in the 14 affected watersheds while also incorporating more science in the planning of recovery efforts (Weber, E.P., Leschine, T.M. & Brock, J., 2010). One of intentions laid out in the Shared Strategy was to ensure success by short term planning and long term implementation (Weber, E.P., Leschine, T.M. & Brock, J., 2010).

Stakeholder partnerships working to collaborate on policy planning are made up of members of private interest groups, ecologists, and local, state and, federal government

representatives; in general they can be described as parties who research, utilize, and regulate fisheries. All partnership affiliates assemble on a regular basis in order to confer and negotiate a wide array of complex policy issues. Although there is evidence that collaborative policy making efforts have garnered the public's support and they openly acknowledge its benefits, research is necessary to further explore the types of policy questions that need to be addressed, as well as to evaluate partnership accomplishments. The success of NRM partnerships is, in part, evaluated by improvement in habitat conditions.. Unfortunately, whether due to lack of funding, poor design, or time constraints, many restoration projects did not include sufficient base-line studies or the long-term monitoring efforts that would provide analytical proof of ecosystem improvement (Leach, W.D., Pelkey, N.W., Sabatier, P.A., 2002).

The main goal of collaborative partnerships between the public and policymakers is for community members to have a say in regulatory decisions and to help in choosing the most effective and feasible restoration projects (Leach, W.D., Pelkey, N.W., Sabatier, P.A., 2002). Extensive inclusiveness of a diverse pool of participants permits civil society involvement and regulating agencies to speak to all stages of policy making. This includes defining the problem, adopting the appropriate policy, implementing the resulting projects and assessing the results through continuous monitoring efforts. In order to accomplish this with the utmost effectiveness collaborative efforts must take steps to include NGOs and local, state, tribal and federal organizations that could have pertinent and scientifically sound information needed in order to to accomplish the goals outlined in WA's Salmon Recovery Plans (Leach, W.D., Pelkey, N.W., Sabatier, P.A., 2002).

2.5 The Role of WA State Tribes in Collaborating with the State and Non-Government Organizations

When non-native settlers began colonizing the PNW en mass, and with the signing of the MCT local Indigenous communities were banished from their native lands and their access to the regional natural resources that were at the heart of their cultural sustenance, spirituality and economic wellbeing was restricted. As a result of the court mandated co-management of salmon fisheries and the incorporation of NGOs created by Tribal Councils many WA State Tribes have been successful in regaining some power over the resources that characterize their culture and have the ability to provide them with some semblance of economic security. In addition, effectual implementation of their treaty fishing rights has contributed to PNW Tribes regaining their sovereignty and contributed to their ability to take their rightful position as a regulating government agency (Cronin, A. & Ostergren, D.M., 2007).

There is unanimous agreement among vested parties that there is a fundamental importance to uphold tribal sovereignty and that tribal participation in collaborative NRM should occur on a government to government basis. Due to their sovereign status it is imperative that WA State Treaty Tribes not be categorized as mere "stakeholders" such as landowners, private businesses and citizen groups. The role of PNW Tribes as a sovereign government agency has made them an authoritative institutional influence in regulation and restoration planning efforts and with the help of supporting NGOs they have gone above and beyond in proving their status as a well informed and competent government agency. Since both water and fishing rights are directly connected to tribal sovereignty their regulatory perspective on those issues have equal potential to either

facilitate or hamper collaborative planning efforts concerning water-for salmon issues (Safford, T.G. & Norman, K.C., 2011)

Each tribe is unique, but one cohesive factor is the inherent traditional and cultural connection they have to their historical fishing grounds that continues to saturate their current lifestyle. Challenges in PNW Tribe's ability to reclaim control of their customary lands and the difficulty tribes face in reestablishing their cultural assets emphasizes the fact that developing tribal resources for management purposes is essential for creating a truly productive collaboration with NGOs and the state and federal governments. Given that it has been cultivated and employed by Native American populations over generations, indigenous local knowledge can be a particularly useful tool in collaborative NRM. If consciously applied, it has the capability to help to minimize environmental damage and slow habitat degradation (Cronin, A. & Ostergren, D.M., 2007).

Traditional ecological knowledge (TEK) is defined as "a collective storehouse of knowledge about the natural world, acquired over hundreds of years through direct contact with the environment" (Cronin, A. & Ostergren, D.M., 2007, p. 89). Some regional progress in salmon recovery has been attributed to the PNW Tribes' ability to exhibit proficiency in managing resources by drawing upon their strong ties to salmon culture and applying indigenous knowledge as well as western science derived from working together with local partners. Based on their success in managing resources by the utilization of TEK in their decision making process has caused TEK to become more widely accepted as a legitimate and essential factor in collaborative NRM planning efforts. Although there are still critics of TEK, National Park Service Representative

Dennis Martinez had this to say in regard to the importance of incorporating indigenous knowledge into restoration planning endeavors:

> "All this is occurring at the very time when the earth and its inhabitants are most in need of healing. Native cultures, although badly fragmented by the impacts of industrial societies, still hold onto significant ecological wisdom based on long ecological experience in particular places. To ignore the millennial long local experience and knowledge is to risk doing poor science." Dennis Martinez of the National Park Service (Cronin, A. & Ostergren, D.M., 2007, p. 89).

In working closely with WA Tribes NGOs and regional GOs have been positively influenced by the cultural aspects of tribal decision making and have embraced the ceremonial value of watershed restoration. Each of WA's Tribal Councils consist of a board of directors and a large staff consisting of biologists, ecologists and fisheries professionals whose goals are to restore habitat, manage harvest and fulfill treaty fishing rights. All members in the collaborative partnership have come to depend on and value the technical and scientific capacity of tribal staff. Intentional application of cultural values instead of strictly limiting action to scientific treatments has been lauded as the reason for certain regional successes. Explicit dialogue about cultural mores is not common, but there is an understanding between the tribes, NRM staff members, GOs and NGOs that the decisions and actions made by the tribes are inherently connected to cultural traditions (Cronin, A. & Ostergren, D.M., 2007).

Tribal collaborators are reliant on scientists but simultaneously apply tribal values to structure how science is understood and applied. It has been exhibited that there are community and political aspects that conspire to sustain and encourage the growth of tribal NRM proficiency. Their burgeoning politic clout, favorable litigation outcomes,

strong links between culture and natural resources, as well as some financial backing, have all been critical in the advancement of the scientific expertise and the NRM capabilities of PNW Tribes. All of these components are just a mere pitance of the factors that have worked towards facilitating and motivating collaboration between GOs and NGOs in the habitat restoration and implementation efforts of the PNW Tribal and WA State governments salmon recovery plans (Cronin, A. & Ostergren, D.M., 2007).

The Boldt Decision served to clarify WA State's relationship with PNW Treaty Tribes, but also incited considerable negative public criticism of the tribe's newly established rights to 50% of salmon fishery intake. This public backlash did not deter WA Tribes from embracing their new role as a co-manager of salmon fisheries and, due to the tenacity and determination of several key leaders, they made swift work in creating and maintaining partnerships with other GOs as well as NGOs. Since that time PNW Tribes have been endorsed as a prime example of the ability of tribes to recover the right to manage culturally significant natural resources. The level of expertise that PNW Tribes have demonstrated in the co-management of their shared resources with the WA State has made them a model for successful collaborative efforts in salmon recovery. (Cronin, A. & Ostergren, D.M., 2007).

The Boldt Decision elevated the legal standing of WA State Treaty Tribes and increased funding to support salmon conservation and watershed restoration projects. By mandating that WA State Tribal governments and the WA State government engage in the co-management of salmon fisheries, the Boldt Decision began a new era of collaborative management. Tribes throughout the state were quick to form Treaty Councils made up of a board of directors and employing a large team of scientists and

fisheries professionals. The mission of the councils was to achieve goals necessary for managing a sustainable harvest, restoring salmon habitat as well as to fulfill treaty fishing rights (Cronin, A. & Ostergren, D.M., 2007).

The Natural Resource Department (NRD) was tasked with the duty of managing a staff whose main objective was to ensure the treaty fishing rights of WA Tribes and to permit them access to environmental resources that had provided them sustenance for generations. They were also tasked with the responsibility to make certain that current and future tribal members would continue to maintain their treaty fishing rights. The guarantee of a sustainable harvest is essential for preserving tribal traditions and culture. The empowerment of their role as co-managers of WA's fisheries endowed the tribes with a greater ability to contribute to the cultural and social goals of salmon recovery (Cronin, A. & Ostergren, D.M., 2007).

The promise of protecting and restoring ecological and cultural resources of WA watersheds was the mission of both GO and NGO watershed councils, but this mission was not merely about increasing the flows in stream beds and preserving the ecosystem services on which all local communities depend on, it also serves to work towards building greater respect and trust between tribal and non-tribal communities. The restoration of watersheds depended on the role of NGOs in helping to form strong partnerships on local, regional and national levels. The WA State and Tribal governments credit successes in salmon recovery and habitat restoration to the cooperative efforts of multiple partners including NGOs, private landowners, local governments, WDFW, WDNR, WDOE, and US EPA. Given that watersheds span multiple jurisdictions achieving management goals relies on the successful collaboration facilitated by NGOs to

create compromises between landowners and regulating agencies (Cronin, A. & Ostergren, D.M., 2007).Anton Minthorn, the Chairman of the Confederated Tribes of the Umatilla Reservation, had this to say about the success of collaboration:

> "Our tribal philosophy has been to negotiate rather than litigate. If we have to, we will litigate to protect our treaty-reserved rights, but, we have seen that we can create solutions which meet everyone's needs by sitting down with our neighbors, listening to each other, and developing our own solutions. We want to apply what we've learned locally to help revive threatened salmon populations in the region. We believe the cooperative process between neighbors can be used as a model for success in the region and beyond." (Cronin, A. & Ostergren, D.M., 2007, p.105)

2.6 Conclusion

As the literature reveals, combining the top-down and bottom-up strategies is becoming a more popular method in dealing with NRM issues. Incorporating NGOs to assist in education, restoration, and conflict mediation has been shown to be an effective tool in facilitating community involvement in NRM. By augmenting educational programs NGOs are able to make both laypersons and government employees more aware of environmental problems and what they can do to ameliorate them. By collecting and presenting rigorous scientific analyses, and working in tandem with GOs, NGOs are able to help define problem issues, adopt policies and implement and monitor restoration projects.

The published literature on citizen involvement in NRM indicated that there are certain situations in which bottom-up citizen involvement could be unproductive or wasteful. Instances that may compromise the effectiveness of community participation include but are not limited to the following situations: the general populace cannot be

reached due to the fact that the environmental issues at stake cover too large of a geographic area; certain factions of the public are unable to participate do to financial restrictions; The public's position on environmental policy issues can also be negatively affected if the public dedicates time and resources into developing of policy and their efforts and opinions on said policy are ignored.

The history leading up to the current method of NRM employed by WA State illustrates the long struggle WA Tribes have endured in an effort to have their treaty rights clarified and upheld. The current methods of using NGOs to foster citizen involvement, as well as the incorporation of TEK in salmon recovery efforts are somewhat unique to the PNW. The dedication of WA's State and Tribal Governments and NGOs to employ the top-down/bottom up strategy has even been recognized in published literature as "The Washington Way".

My thesis makes a contribution to this body of literature by presenting a qualitative analysis of the role civil society has played in the planning and implementation of NRM policies and recovery efforts in the Pacific Northwest, pertaining particularly to salmon. In doing so the study also outlines the struggles surrounding NRM that are unique to the state of Washington. Further, this research illustrates Washington's NRM strategy has evolved from a strict focus on state and federal regulations to the incorporation of NGOs to help facilitate citizen involvement in comprehending and implementing policies and plans concerning the state of salmon in Washington State.

Chapter 3: Research Methods

3.1 Research Design

This study uses qualitative oral and textual methods to answer the following research question: How have environmental NGOs facilitated salmon recovery efforts in the Puget Sound Region? Other sub-questions that are addressed include: (1) What role do Western Washington environmental Non-Government Organizations play in supporting salmon recovery efforts of Washington State's Tribal and State governments? (2) What functions do Non-Government Organizations supply that are not provided by Government Organizations? (3) How does the work done by environmental Non-Government Organizations help to uphold treaty fishing rights? These questions provide the foundation and structure for a case-specific, place-based analysis of civil society involvement in Natural Resource Management.

I began my research by reviewing case law accounts and literature about the history of salmon fisheries in Western WA. The extent of controversy surrounding the treaty fishing rights pertaining to salmon fisheries and my knowledge of current issues concerning salmon conservation and habitat restoration as an active member of the scientific community in the Nisqually watershed led me to the original objective of my research: to outline the triumphs and struggles involved with the court mandated co-management of salmon fisheries between Washington State's Tribal and State governments. Due to the sensitive nature of the topic, time constraints, the fact that tribal employees were required to have approval from their tribal councils before granting an interview, and realizing that the research questions were somewhat broad, I revised my

topic to focus on the roles of NGOs in supporting the salmon recovery plans produced by regulating agencies.

Two methods of data collection were used to complete this study; archival research and qualitative interviews. I reviewed primary and secondary sources on the history of Washington's salmon fisheries and NGO roles in NRM, key documents describing Washington's Salmon Recovery Plans, legal documents and the websites of the state, tribal and federal organizations as well as NGOs involved in the implementation of Salmon Recovery Plans. The primary and secondary resources that I reviewed included historical accounts, reports of legal proceedings, agency brochures and websites and peer reviewed articles relating to the events leading up to and following the Boldt Decison. I also conducted semi-structured interviews and focus groups. Some of the information detailed in my Findings section was derived from my sixteen year affiliation as a caretaker and board member of The Nisqually Reach Nature Center (NRNC). Data from these methods were then combined in order to answer my research question and sub-questions.

3.2 Archival Research and Interview Participants

The data supplied in interviews came from independent NGOs, tribal and state government supported NGOs and WA Tribal and State GOs. The sheer number of Puget Sound based organizations dedicated, wholly or in part, to salmon recovery is astounding and somewhat unique to Washington State. While representatives from a variety of GOs and NGOs were involved in the interview process none of them were involved in lobbying or litigating for causes relating to salmon recovery. Full descriptions of the

organizations represented in the interviews can be found in a later section and the appendices.

Historical accounts were reviewed in order to provide an historical framework of legal proceedings and events that led to Washington State's current method of the NRM of fisheries and to investigate the roles that certain environmental NGOs were created to promulgate citizen involvement in this process and how they support salmon recovery. Key documents included legal documents, legislative acts, and NRM plans produced by regulating agencies. The websites of GOs and NGOs were reviewed and descriptions of pertinent organizations were included in this document in order to provide background information as to the duties and missions of those organizations as they relate to my study.

In order to obtain interviewees I used the snowball sampling method. I emailed my research proposal to contacts I have garnered in my sixteen year involvement with the Nisqually Reach Nature Center. These included but were not limited to NGO, tribal and state agencies; salmon biologists, educators, researchers, stakeholders, law professionals, and restoration specialists. I asked for their participation and interviewee referrals. I also used the connections available to me as a Master of Environmental Studies (MES) candidate and made the same participation and referral requests for potential study participants from Evergreen professors, employees and the MES cohorts I was affiliated with.

Prior to the interview process I submitted an application for Human Subjects Review to Evergreen's Institutional Review Board (IRB). Review by the IRB was deemed unnecessary for my research purposes. All interviewees signed an informed

consent document prior to being interviewed. I interviewed participants that are or have been involved in environmental education, scientific research, salmon conservation, habitat restoration, and salmon allocation determination policy and enforcement in Washington State. I emailed or called the potential participants and relayed a summary of my thesis proposal as well as a short personal biography and a request for their participation. I continued consulting peers and mentors and scheduling interviews until ten interviewees had been recruited and there was representation from tribal and state organizations, board members, coordinators and executive directors of environmental NGOs and an employee from a private consulting firm involved with salmon habitat restoration.

Due to the breadth and extensive historical nature of my original topic many of my original contacts responded claiming that they didn't have enough knowledge concerning the background of my thesis topic and referred me to their superiors, few of whom responded. While researching my original topic I held three meetings to discuss my research strategy; one with a Nisqually Tribal Council (NTC) member, another with the science director for the Governors Salmon Recovery Office (GSRO) and with several employees of the Nisqually River Council. I also conducted three interviews using my original line of questioning; one with the Tribal and Environmental Affairs Advisor for WA department of Ecology (WDOE), another with the Executive Director of the habitat restoration focused South Puget Sound Salmon Enhancement Group (SPSSEG) and the Director of Administration for the Northwest Indian Fisheries Commission (NWIFC).

Due to the accidental destruction of a recording device the interview with the WDOE employee was lost. The above circumstances, meetings and interviews led me to

the decision to revise my research topic. Much of the information garnered in the meetings and interviews remained relevant to my revised topic and were used in the final analysis of this research.

Interviews and one focus group for my revised topic were held with: the Executive Director of the habitat restoration focused South Puget Sound Salmon Enhancement Group (SPSSEG), the Director of Administration for the Northwest Indian Fisheries Commission (NWIFC), three employees of the Nisqually River Foundation (NRF) (focus group), the former President of the Nisqually Reach Nature Center (NRNC) and employee of the Puget Sound Partnership (PSP), the Managing Director of the Regional Fisheries Enhancement Group Coalition (RFEG), the Program Manager for Lead Entities at the Governors Salmon Recovery Office (GSRO), the Science Coordinator for the Governors Salmon Recovery Office (GSRO), the Associate Director of the Nisqually Land Trust (NLT), and an employee of Skillings Connolly Inc., Engineering and Environmental Services (SCEES).

All research strategy meetings with project mentors were open ended unstructured interviews and, although they were not digitally recorded, extensive notes were taken. All interviews and one focus group were recorded, open-ended, and semi-structured. Interviews for my original topic occurred between April 1st and April 12th of 2015 and were for the purpose of gaining a deeper perspective on the co-management issues that regulating agencies, NGOs and stakeholders felt fostered or inhibited the policy making and enforcing processes. Eight interviewees were conducted in person, one via phone conversation, two through on-line questionnaires and one focus group was held, consisting of myself and three participants. These interviews occurred between October

10th of 2015 and January 20th of 2016. The interviews, on-line questionnaires and the focus group were conducted for the purpose of exploring the roles and niches of NGOs in facilitating and supporting the tribes and the state with salmon recovery plans and upholding treaty fishing rights.

In following cross-cultural research ethics and in an effort to share power with interview subjects I worked with several key mentors and interviewees in an ongoing effort to draft a more detailed set of questions. At the beginning of each interview participants were made aware of my research goals and objectives and were asked to give an overview of their organization and how it relates to salmon recovery efforts. In person and telephone interviews contained some conversation concerning topics and questions that were not included in the official research questionnaire but proved relevant to this study. Responses to emailed questionnaires consisted of more direct replies to the interview questions. The in person and telephone interviews ranged from forty-five minutes to one hour and fifteen minutes.

3.3 Data Analysis

All recorded interviews were transcribed verbatim into Word documents. Recordings and transcriptions were saved on my personal computer and on Google Drive. Upon completion of this study the audio and transcription files were deleted from my device and Google Drive. Transcriptions and responses to email questionnaires were reviewed in order to decipher common themes that arose in participants answers to my research questions. Once the initial analysis was completed and themes had been identified the data was coded by performing a qualitative content analysis of the Word

documents. Quotes containing pertinent thematic information were coded and then cut and pasted into a Word document for each theme. Each thematic document was then analyzed to discern commonalities amongst themes. It was found that many themes had close connections and overlaps. Common and overlapping themes were then combined into a third set of Word documents. My findings and discussion were written using the third set of coded Word documents. Some of the information in my findings was derived from my sixteen year association with the Nisqually Reach Nature Center (NRNC).

3.4 Author's Positionality Statement

In order to ensure the validity of this qualitative study it is appropriate that I, the researcher, disclose my personal and professional interest in this topic. Through my sixteen year involvement with the Nisqually Reach Nature Center I have become a proponent of NGOs promotion of community involvement in research and monitoring efforts. In those years I also became passionate about using environmental education as a tool in creating better stewards of the environment in order to benefit the maintenance and restoration of healthy salmon habitats. The goal of my research was to identify the roles of NGOs in supporting salmon recovery efforts put in place by Washington's Tribal and State governments. I also identified the niches they fulfill and the treaty fishing rights they uphold that the state and the tribes seem to be unable to accomplish. In doing so I have taken measures to avoid researcher's bias and let published materials and the opinions of interview participants speak for themselves. Although I do believe that NGOs have had a positive influence on the salmon recovery efforts and other NRM goals of GOs in this regard I have made efforts to avoid making suppositions concerning the involvement of NGOs to support and enhance sustainable NRM in WA State.

Chapter 4: Findings and Discussion

4.1 Introduction

Salmon are iconic in Washington State and have been for many years. As one interviewee pointed out, salmon have now moved beyond just being a mascot species and are beginning to be considered co-habitants in our watersheds. Salmon have a different value for all groups who are working towards restoring healthy salmon runs. There are recreational fishers who want to continue to experience the sheer enjoyment that catching salmon gives them, there are commercial fishers who want to maintain their source of income, and then there are Washington State Tribes for whom salmon are essential to their culture, sustenance and spiritual ceremonies.

When asked to describe the goals of their organizations representatives from both GOs and NGOs made statements confirming that one of their main objectives is to work in collaborative partnerships to educate citizens, stakeholders and policymakers in an effort to push forward the agenda surrounding the maintenance and restoration included in Salmon Recovery Plans. According to participants from both GOs and NGOs these collaborative efforts appear to be effectively restoring salmon habitat and bolstering the enthusiasm of environmentally conscious citizen stewards. It was also widely agreed by the NGO affiliates interviewed that NGOs assist in the creation of more well informed policymakers. It was agreed that by NGOs helping to raise policymakers' awareness concerning the state of salmon and salmon habitat in Washington's Watersheds and by outlining successes and failures of Puget Sound's habitat restoration efforts, and

supplying them with data to support these explanations, they are able to make more enlightened policy decisions based scientific facts as opposed to conjecture.

When asked what stood out as the most prevalent factor behind the poor state of salmon runs in Washington's Watersheds representatives from both tribal and state GOs and NGOs claimed that once they realized that salmon runs were declining, and several salmon species had made the ESA listing, research was conducted and the conclusion was made that the dominant factor causing the declining salmon runs had little to do with harvest and hatchery issues but was the result of the ongoing destruction of habitat.

All participants agreed that monitoring efforts have proven that although many species of salmon have begun to meet their escapement goals there remains no noticeable improvement in WA's salmon runs. To address this problem GO and NGO based scientists have turned their focus to the restoration of freshwater and estuarine habitats. Unfortunately it has yet to be proven that this is having a significant effect on improving regional salmon runs. Most interviewees asserted that this could be due to: the complexity of salmon life cycles and the habitats they require, a lack of funding for research and monitoring, continued destruction of habitat due to industrial and urban development or just the fact that not enough time has passed to see significant evidence of the outcomes of the habitat conservation and restoration efforts facilitated by environmental NGOs..

The following sections go into more detailed descriptions about the methods and collaborative efforts that Puget Sound based State and Tribal GOs and NGOs use to support local Salmon Recovery Plans. Review of primary key documents and interviews

with state, tribal and NGO representatives, established that many NGOs concentrate on putting the habitat restoration plans laid-out by Washington's Tribal and State governments into motion, while many other's missions focus on educating both public and policymakers. There are also NGOs whose main objectives are lobbying and litigating to advance or deter from agendas related to Salmon Recovery Plans and treaty fishing rights. While NGOs do enhance salmon recovery efforts they do not directly participate in regulatory decisions or actions.

4.2 Education and Engagement of the Public

The majority of interviewees agreed that the education, outreach events, and the opportunities for public participation in restoration and monitoring efforts made available by NGOs encourages citizens to be better stewards of the environment. All interviewees supported the claim that increased awareness of the state of salmon and the state of their watersheds has the ability to change how people interact with the environment and encourages them to do things that will benefit salmon, and inspire them to do less harm to their local ecosystems.

An education director from one NGO felt that students who have hands on educational experiences take the messages they learn back to their parents and as they grow up they take a more positive attitude towards salmon recovery projects. They also noted that a student's positive response to their educational experience will affect how they live their lives, how they vote, and will give them a better sense of what stewardship means. She concluded by stating that part of the reason that salmon are iconic in Washington State is that students are learning about the importance of maintaining

healthy salmon habitats at a young age and this lesson sticks with them for the rest of their lives, making them better ecological advocates and stewards of the environment..

All parties interviewed felt that the educational programming provided by environmental GO's and NGO's primarily focus on habitat protection. A tribal organization interviewee felt that this is an area where you get the most citizen participation, explaining that "people want to protect something they can easily recognize and comprehend, such as the fact that the building of big docks and bulkheads on the shorelines are not good for fish". Over half of all participants, most of whom were NGO affiliates, agreed that the goals of habitat protection are driven by these environmental education programs and that they create a better understanding of what it takes to maintain healthy salmon habitats in local watersheds.

The state and tribal government employees interviewed held the opinion that the percentage of citizens actually reached by the environmental education programs provided by GOs and NGOs focusing on salmon recovery issues is low. They suggested that these programs tend to be ineffective as they have not yet been seen to significantly contribute to the outcomes needed to support salmon recovery. A state agency employee even made the point that the concepts surrounding salmon recovery issues was difficult to explain to people with no scientific background. NGO employees were more optimistic and felt that their educational programming, especially outreach events such as festivals, were effective at reaching a significant portion of the community. Most of the educators interviewed believed that by adjusting their programs to targeted audiences they are able to relate concepts concerning salmon conservation in such a way as they can be easily

understood by laypersons. All participants agreed that the effect that environmental education and outreach efforts have on improving salmon runs may not be seen for many years.

All interviewees agreed that the education of local youth is a key factor in fostering the next generation of environmental stewards and creating more effective and well informed future policymakers. Published literature and more than half of those interviewed supported the fact that, primarily due to the dedication and efforts of Billy Frank Jr. and his key associates, the Nisqually region was exemplary in the ability to bring people together and has been the most effective at taking a disparate populace and finding common goals about how to protect and restore salmon habitat. They also pointed out that state supported organizations, such as the Puget Sound Partnership, provide resources that enable state and federal agencies to come together and work with local community based groups to come up with common goals. It was also made very clear by a tribal agency representative that the only organizations involved in the actual co-management processes are Washington's Tribal and State governments; when a salmon species is listed under the ESA the federal government becomes involved in regulatory activities as well.

There are 14 fisheries enhancement NGOs in the Puget Sound region whose focus is mainly habitat restoration. Although they are not GOs they were created by the Washington State legislature and are supported by government funding. Participants from state and tribal agencies, as well as GOs and NGOs noted that restoration projects are voluntary for landowners and agreed that observing successful projects has the ability to

incite neighboring landowners to engage in habitat restoration projects on their land. A representative from a restoration focused NGO made the point that you can "look at stewardship through the lens of these restoration projects and by involving citizens in habitat restoration projects you are actually educating them about the effects of their behavior on that habitat". It was generally agreed by the majority of participants that citizen involvement in restoration projects gives the contributors a sense of ownership and pride in their work for many years. The two restoration focused NGO representatives interviewed also indicated that it was not only the direct efforts of restoration but their educational outreach programs that teach people how to look for answers as well as how to work with their local and state elected officials.

NGOs must drive focused agendas based on their mission statements. These agendas allow citizen science groups to be formed and information to be disseminated to targeted groups. The spokesperson from the tribal government organization made the point that "Salmon recovery is a social exercise". All participants agreed that the most successful projects involved cooperation between the state, tribes and NGOs. The engagement of citizen volunteers in the stewardship of conservation exposes them to information about plans formed by policy-making agencies as well as providing opportunities for government agency staff to interact with the volunteers. This, as well as programs mentioned in the next section, can help to fill the gap in what one participant called "a lack of legislative wisdom".

4.3 Education and Engagement of Policy-Makers

A representative from a state GO said that the processes involved in Salmon Recovery Plans was not a streamlined process but instead, was "confusing and messy to explain to policy-makers, especially new policymakers". The tribal and state agencies and several NGOs identified sectors of their organizations as directly addressing the education of policymakers. One of the NGOs created by the state legislature not only has an annual outreach education day at the Washington State legislature, makes occasional trips to Washington D.C. to talk about their projects and accomplishments, and encourages site visits by policymakers. The NGOs that are 501-3C non-profits are not able to lobby for a particular cause but they do educate local and federal policymakers which impacts legislative awareness and affects how they vote on policies related to salmon recovery.

One participating NGO, which is closely tied to the Nisqually Tribe, made the point that their organization, as well as other local and national organizations, bring people together from the state, the county, the tribal and the federal governments and provide them with information that raises their awareness of salmon recovery issues. When representatives from all of these government agencies are gathered together and see their peers aligning with issues in a sustainable way, or taking a stand on a certain issue, it creates positive momentum and can embolden them to take these ideas back to their particular regulating agencies. The ways in which NGOs raise legislative awareness about environmental issues and solutions will depend on their goals and mission statement but is often done through targeted discussions with policymakers. Other NGOs

are fortunate enough to count regional and state policymakers as board members who regularly attend board meetings as well as outreach and fundraising events.

As it was earlier pointed out there are many policymakers in the system that don't have the scientific background required to effectively tackle policies regarding the processes necessary to successfully protect and restore salmon habitat. A representative that had been involved with both a state supported organization and a community based NGO pointed out that NGOs have the advantage of "bringing along constituencies of elected representatives but that there are difficulties in applying this power stem due to the fact that electoral districts do not in any way reflect watershed boundaries." He went on to say that due to educational programming, volunteer opportunities, and celebrations provided and organized by local NGOs many people living in the Puget Sound region now identify with their watershed. They also pointed out that the watershed identity concept it is not always an effective method for educating elected officials. Smart but small NGOs have done their homework and target their membership to voters in the districts of the elected officials. The larger sound-wide and statewide NGOs have more experience working in these political realms than watershed-based salmon recovery NGOs and usually have paid lobbyists that they rely on to provide education to policymakers.

4.4 Filling the Gaps in Public and Legislative Knowledge

Participants agreed that, despite their efforts, the public and policymakers still lack significant knowledge concerning how bad the fish runs actually are and there is a need for more media coverage and general exposure about poor runs, habitat

deterioration and pollution. The education, volunteer opportunities, outreach and festivals provided by NGOs help to fill gaps in public knowledge. Collaborative efforts between NGOs, and state and tribal GOs that engage the public and policymakers have the ability to raise awareness about these issues to both parties and can help to achieve a balance of needs.

It was pointed out by one participant that many early salmon enhancement NGOs were constructed to do hatchery work. These groups reared and planted fish on order to get more fish into the rivers and streams. When this proved to be ineffective at improving salmon runs they evolved to where these groups are now doing more in the realm of habitat restoration projects. This evolution can provide the means for productive partnerships between the tribes, the state, and NGOs to identify key projects. By having the ability to be creative with the use of volunteer citizen scientists and in kind donations as well as utilizing both government and non-government resources NGOs have been seen to take the pressure off of GOs in project implementation get them completed more expediently and with a lower overhead..

An interviewee from a state GO made the point that if a proposed project "has good outreach, communication and buy in it will receive the best input concerning what projects can be done [to benefit salmon and their habitats]". Even if these projects don't go forward the fact that there is input from a variety of private and municipal entities allows for a better chance of changing the perspectives of both community members and policymakers. A majority of those interviewed discussed the fact that there are a variety of outreach methods used by NGOs to raise awareness, including newsletters, work

parties, first salmon ceremonies, and watershed festivals. They asserted that sharing information and emphasizing the fact that these issues begin in our own backyards encourages people to make the connection that everyone in downstream of something else and helps people understand these links in a logical framework. By raising awareness and answering questions about the condition of local watersheds people learn about what they are doing that impacts local ecosystems and what they can do to change their behavior for the benefit of their local ecosystems. The wide-spread communication about what these projects are trying to achieve benefits people, salmon, the community and the ecosystem as a whole.

All agreed that NGOs have specific missions and niches. Some NGOs provide a wide variety of opportunities for local residents to experience the habitats and wildlife in their watersheds by organizing activities such as nature walks and float trips. Other NGOs provide expertise in coordinating and managing in-the-field environmental education, citizen science data collection and citizen stewardship opportunities. Yet others are involved in major habitat restoration construction projects. Thus, collaborations between NGOs with both individual and overlapping missions have the propensity to cover all areas where there is a lack of knowledge and awareness.

When the public gets involved and recognizes what is necessary for habitat protection and what they can do to support salmon recovery plans they become more concerned about the state of their watersheds which inspires them to go to their legislators in an effort to make changes that restrict the ability to do damage to the natural environment. Washington's Regional Fish Enhancement Group has a program called

Citizen Action Training that is specifically designed to educate the public on not just how to work with and what to say to their local, state and federal elected officials but also how to look for answers on their own. The salmon enhancement NGOs were created by the legislature in order to have a level of accountability as to how Washington State approaches Salmon Recovery Plans. Several interviewees discussed the methods in play in this approach of the unique mix of top-down and bottom-up management and noted that it has come to be recognized as 'The Washington Way'.

4.5 Research, Monitoring, and Outcomes

There are several ways in which NGOs supplement the research and monitoring efforts that are required by state, tribal and federal organizations to determine habitat restoration outcomes. These include extensive base-line studies and long-term monitoring efforts. The majority of those interviewed agreed that by driving the focused agendas specified in their mission statements NGOs are able to augment the valid scientific data necessary to complete the base-line studies of proposed restoration projects. It was also widely agreed that NGOs successfully foster ample numbers of environmental stewards that bolster the long-term monitoring efforts needed to determine outcomes. The restoration consultant interviewed stated that NGOs serve as "scientific facilitators and specialists that are respected among all stakeholders and are able to shed light where the [government] agencies fall short". One NGO representative indicated that they have over 40 site steward volunteers who have adopted specific sites that they monitor in perpetuity. Both GO and NGO representatives agreed that salmon habitats are so complex that the successful outcomes of habitat restoration can be difficult to interpret.

Currently, due to state budget cuts, there are gaps in the funding needed for the sufficient amount of research and monitoring. When the government issued salmon recovery plans began to be established in the 1980s there was more money in the budget to hire scientists and scientific technicians to accomplish these tasks. Unfortunately, since salmon recovery efforts were in their infancy and immediate positive or negative outcomes from those efforts were not seen there have been many cuts in funding for salmon recovery plan implementation. NGOs have the ability to contribute valuable resources to supplement government funding for programs dedicated to research and monitoring.

An interviewee from an NGO created by the legislature mentioned that even today "there can't be any pre-determined outcomes in any of these [habitat restoration] projects, it has to be a good faith approach of negotiations, compromise and understanding". They went on to say that they believe their organization has an indirect impact and that, although there are monitoring efforts in play, due to salmon's complex life cycles and habitats it is hard to judge how many fish might be utilizing the restored habitats. Another participant from a related NGO agreed with these statements and pointed out that in discussions with salmon recovery partners it has come to light that there is an unmet need in the areas of research and monitoring, saying that "there needs to be funding and coordination of these efforts in order to give a scientific answers as to how these projects have improved salmon habitat, there is a big gap in this area of need".

While the majority of representatives from NGOs seemed confident that their efforts were making a difference a participant representing a tribal agency made the claim

that “there are no NGOs doing large enough projects to change the number of fish in a way that you could measure and no one group is doing something you can recognize. It is like a puzzle and we need to figure out how all the pieces fit together so we can determine which ones are beneficial”. The prevalent opinion among interviewees was that with the proper funding and coordination NGOs could accomplish the necessary research and monitoring needed to supply landowners with scientific data that supports the success and importance of habitat restoration projects. This enables them to negotiate the compromises needed in order to continue conducting projects for the sake of improving the salmon runs in Puget Sound’s watersheds.

Every species of salmon found in the Puget Sound region has a different life cycle that involves the use of varied habitats. In order to decipher the problems that salmon might have with a particular habitat you have to consider the life cycle of the targeted species. Some are more sensitive to disturbances to freshwater habitats while others are more reliant on healthy saltwater habitats. These differences create their own unique challenges. Restoration focused NGOs are required to adapt and tailor each restoration project to fit site particulars. One NGO participant explained that “the design of each restoration project must be unique so it is difficult to design the perfect project, but each project is also a learning experience” and that “by looking at the best available science we can develop projects that maximize opportunities”. It was also pointed out that things tend to change throughout the duration of most projects and in hindsight there are always things that could have been done differently. In order to accomplish the feasible habitat restoration goals necessary to overcome problems with the variety of proposed sites

NGOs do their best to adjust to the range of features presented by the complexity of salmon life cycles and habitats.

The majority of interviewees agreed that NGOs keep up to date on all of the current scientific literature relating to restoration ecology and that the scientists employed by NGOs have the ability to look at the best available science and apply that information to research and monitoring efforts. It was generally agreed that, due to decades of NGOs performing scientifically sound work, they have gained the trust and respect among all stakeholders and are able to boost areas where government agencies fall short. A participant from a restoration focused NGO claimed that having a long history of doing successful habitat restoration projects had proven to be beneficial because it has created a broad institutional knowledge regarding these efforts. The interviewee who is employed by a for-profit consulting firm involved in habitat restoration and is on the board of a volunteer based NGO stated that "[NGOs now] have an authoritative voice on specific topics that brings validity to the issues that surround salmon recovery". They also made the point that in closely following their mission statements NGOs are able to successfully disseminate information to targeted and well established citizen science groups that then put this information to work enhancing the salmon recovery plans set forth by GOs.

It was unanimously agreed that as development in the Puget Sound area continues to increase both habitat availability and salmon numbers are steadily decreasing and that there is a definite and obvious link between the two. A participant from a tribal agency brought up the fact that habitat destruction can be measured in terms of how many more bulkheads and hardened surfaces are being built than are being taken out. They stated that

"For every 5 miles of restored stream there are 7 miles still being damaged. Although this is an improvement from the 10 miles that used to be damaged per every 5 restored, the fact remains that state and federal agencies are still doling out permits authorizing more development in the future". Another participant acknowledged that "the scale of watershed destruction is something that people are just starting to address". The link between habitat destruction and decreasing salmon runs is complex on many levels and by providing a variety of education programs focused on habitat preservation NGOs have the capacity to break down the multiplicity of these factors into segments that are more digestible to the general public.

NGOs work to provide the burgeoning community with a service that guides them in making connections about the complexities behind restoration efforts, such as that the act of someone replacing their driveway culvert with a bridge will benefit habitats further downstream or that in designing a restoration project you can't just consider conditions on that site but also on the flood plain above it. Two participants from state agencies mentioned that NGOs provide a logical framework for information sharing and help people understand the link between development and habitat by emphasizing what is in their own backyards and explaining that we are all up or downstream from something else. One of those interviewees also made the point that people are generally not fond of surprises and if you are planning to do something that will affect their backyards you will have a better outcome if citizens are well informed and feel they are an active participant in those plans.

Most participants felt that NGOs have a variety of roles in helping community members to make environmentally based connections. A representative from a restoration focused NGO claimed that they do this by directly working with landowners on restoration projects while others organize citizen stewardship groups and hold regular meetings. The educators who were interviewed made the point that many NGOs use outreach education to connect people to their local ecosystems. Representatives from restoration based organizations claimed that they foster collaborations in order to drive research projects that are too broad for small individual groups to get started on their own. These particular connectivity goals accomplished by NGOs can't halt development but can enlighten landowners and contractors in ways that enable development to continue in a sustainable manner and teach them how to utilize methods that do less harm to the environment.

There was a general consensus among interviewees that one of the most difficult things about monitoring outcomes of restoration efforts are the timelines. One participant primarily involved in habitat restoration projects pointed out that "It is rare to do some of these projects within a year; projects are sometimes three or four years out, sometimes even over a decade" and that "this can be a source of frustration for the organization and the funders". When interviewing partners participating in salmon recovery efforts about the gap in monitoring efforts it was concluded that although restoration efforts have been going on for several decades there remains a need for more coordination and funding when it comes to finding scientific answers to how these projects have improved salmon habitats.

The state and tribal agency participants explained that salmon recovery efforts are primarily dictated by the ESA listings made by the United States Fish and Wildlife Service (USFWS) and NOAA. They pointed out that these agencies do their best to provide guidance in both the planning process of project implementation and large scale post-project monitoring efforts. This enables them to track the overall recovery of the species from an ESA and fisheries management perspective. One of those participants stated that "in order to accommodate the effort of salmon recovery local jurisdiction and zoning laws must be revamped; industrial zones and stormwater protocols need to be reviewed and enforced". This means that there is an obvious link in tracking recovery efforts from local governments to WA's Tribal and State governments and eventually to the U.S. Federal government. It is a dynamic and political process. They made the point that by encouraging volunteer participation NGOs can directly expose the public to these links and create community enthusiasm for implementation and monitoring projects. Going on to say that this public enthusiasm can incite politicians at all levels to take action in support of recovery efforts for fear of not being reelected. A representative from a tribal organization felt that in terms of implementing and monitoring restoration projects and collecting environmental data NGOs are helping the tribes, the state, and the federal government move forward the recovery efforts necessary to get WA's endangered salmon species removed from the ESA listing.

The complexity of salmon habitats and salmon life cycles, as well as the complications surrounding the politics of salmon recovery, contribute to the fact that outcomes are hard to successfully determine. It was pointed out by several participants from both GOs and NGOs that there was consistent destruction of habitat for nearly 150

years before it occurred to anyone that we should be conducting restoration efforts. A participant from a restoration focused NGO said that "To have the expectation that we have the ability to fix that damage within a five or ten year time-span is unrealistic. Without more extensive monitoring of restored habitat it will be difficult to ascertain whether the efforts put forth by NGOs [in support of salmon recovery plans] have had a positive or negative effect on recovery efforts". It was unanimously agreed that even if the gaps in monitoring efforts are filled it is possible that the outcomes of recovery efforts may not be seen for years to come. The uncertainty surrounding the successful determination of outcomes is compounded by the fact that habitat destruction is still outpacing restoration efforts and causing political conflicts over this matter to become more ubiquitous and heated.

4.6 Alternate Funding Sources and Resource Efficiency

Most of those interviewed agreed that NGOs can be more creative in the way they approach the implementation of a project and the collection of environmental data. A participant from a restoration focused organization confirmed that by using these alternative approaches NGOs are able to help both the tribes and the state move the whole salmon recovery process forward. They pointed out that their access to alternative funding streams and the ability to utilize volunteers and citizen scientists also allows NGOs to complete projects with a lower overhead.

These creative approaches started fairly early in the salmon recovery process. One interviewee related a story concerning the early recovery work by hatcheries explaining that most of those NGOs have since evolved to focus more on habitat restoration. As

pointed out earlier in this document most hatcheries are managed by the tribes and funded by the state. The executive director of a tribally supported NGO indicated that their organization would step in to identify where there was a lack of funds curtailing the ability to release as many fish as they would have liked. At this point the participating NGO would step in and provide volunteers to help run the eggs boxes to spawning streams thereby fulfilling the objective of getting more fish in the water. They explained how NGOs would identify issues that were important and utilize volunteers as well as other government and non-government funding sources to complete the work the tribes couldn't due to a lack of state and federal funding.

They went on to say that by becoming involved with the state and the tribes in both hatchery and habitat restoration work NGOs have cultivated effective partnerships with other NGOs, the tribes and the state in terms of identifying and helping to carry out key projects. A majority of the participants supported the idea that NGOs have the ability to complete some projects without having to rely on government funding. Once these key projects have been identified several participants, from both NGOs and GOs, pointed out that instead of NGOs competing for funds for those projects NGOs with both similar and diverse missions have the ability to create partnerships with one another, the state and the tribes to work together to implement projects geared towards restoration efforts. One participant stated "This [funding] reality encourages better partnerships and bigger projects; for example, the acquisition of a conservation easement, feasibility, design and construction of a project and monitoring and maintenance activities could fall to three different NGOs". One interviewee from a state organization pointed out that there is a lot to be gained in employing this funding tactic due to NGOs all having their particular

specialties. Yet, they did infer that problems could arise due to competition for active volunteers, major donors and corporate attention.

Another participant from a private organization pointed out that there are times when NGOs are tasked with the administration and management of larger projects and they may not have inadequate staffing to handle the pressures involved with implementing them. While this could be partially true, effective partnerships have been seen to have the ability to alleviate this problem. One NGO participant stating that they believe there is strength in numbers when NGOs combine their missions and collaborate.

Other than getting government and non-government funding in the form of grants, memberships, donations and fundraisers there are other creative ways that NGOs are able to get small amounts of seed money. Several interviewees mentioned the fact that there are businesses, both large and small that have programs where part of the money from your purchase is donated to the NGO. They also pointed out that on some occasions donations are made in the form of lab equipment or field supplies. In Oregon salmon recovery efforts receive funding from the lottery. A state organization employee interviewed had hope that perhaps we could eventually have a similar program here in Washington and stated that "NGOs play a role in looking under of other rocks to find non-government funding."

Two interviewees mentioned that in generating revenue for their mission in the form of small non-government grants they can begin to garner more attention which can then leverage other funds. Contrarily another participant from a private organization pointed out that "Sometimes NGOs are leveraged so much that the allocation of funds

does not necessarily fulfill the final outcomes due to NGO's needing to cover expenses and overheads costs within the organization". All others interviewed were more of the opinion that by utilizing partnerships, combining varied funding sources, using creative resource efficiency methods and side stepping government agency bureaucracy challenges NGOs not only have a lower overhead for implementing restoration projects but are also able to conduct them more expedient and efficiently.

An interviewee from a state organization pointed out that, since NGOs didn't have to wait for decisions to go through the government process NGOs are able to act on projects more quickly than the state or tribes. The fact that NGOs have shorter timelines for project implementation than the state or the tribes contributes to cost effectiveness. A representative from a tribal agency noted that NGOs are also able to complete more projects than the tribes because of their use of volunteers and alternative funding sources.

The salmon recovery process has come to be driven by the EPA listings of several salmon species found in Washington's watersheds. This means that many recovery efforts are supported by federal funding mechanisms. Acquisition of federal dollars comes with its own set of political issues. An NGOs representative directly involved in habitat restoration even pointing out that the entire yearly budget for all salmon recovery efforts is twenty million dollars and that could easily be the cost of only one major restoration project. Also going on to say that any project costing over one million dollars is hard to get funded and many restoration projects take years to complete. They said that "although it shouldn't take 15 years and 15 funders to complete a project there are times when that is what it takes for project success and completion". It was widely agreed that

it takes stable and meaningful funding to implement, complete and effectively monitor salmon recovery projects and that stable funding is the biggest challenge when it comes to salmon recovery efforts.

A representative from a state agency made the point that in looking at the amount of money that is dedicated to salmon recovery efforts the amount provided by the federal government dwarfs that of even the most well-endowed NGO supporting foundations to the tune of millions to trillions of dollars. They went on to say that they even though they thought that "volunteer efforts and community enthusiasm is irreplaceable so is government money".

4.7 NGOs as Bridging Organizations

Several interviewees from NGOs and GOs pointed out that as a non-government, non-regulating and non-partisan party NGOs are able to fill a particularly unique niche when it comes to tackling habitat issues. By NGOs serving as non-biased entities citizens are able to approach restoration and recovery efforts in a non-threatening environment. This can help to build the public's trust in government agencies. The Executive Director of a tribally supported NGO that mediates for the Nisqually Tribal government made the point that NGOs can serve as an impartial party and help with negotiations between the WA State government agencies and WA State Tribes, as well as between tribes that are having a difference of opinion.

Since they are not involved in setting or enforcing NRM policies restoration focused NGOs are able to work with landowners and act as a non-threatening go-between

in dealing with regulating government agencies to fix habitat problems. They look for win-win situations that help people help fish and avoid feeling intimidated by government officials. Prior to The Boldt Decision there were more conflicts and contentions between sport and tribal fisherman than there are today. The regulations put in place since then have helped to alleviate some of those issues but there are still three distinct user groups: tribal, recreational and commercial. All of these groups have a common desire but with different needs. Within these groups there are always differences of opinion. One role that NGOs have is the ability to offer an impartial compromise and facilitate a negotiation approach to working with landowners on restoration projects. A representative from a restoration focused NGO said that "At this point there are just not enough fish and no one is ever totally happy with the situation and the proposed improvements aimed at alleviating habitat problems." This point was reiterated by a tribal agency participant. Certain NGOs have realized that to have successful negotiations with landowners you cannot have predetermined outcomes; you have to have empathy and an understanding of opposing views and be able to facilitate discussions in order to come to compromises that are acceptable to the involved parties.

An affiliate of an NGO that promotes citizen science made the observation the there are NGOs that focus on organizing work parties and other volunteer opportunities as a way to get the word out concerning: the state of salmon, connecting people with their watersheds, informing people about activities that have detrimental impacts on salmon and their habitats and what they can do to change it. In taking on that role they are able to create mutual benefits because it enables people to get to know their neighbors and see firsthand what is being done in the realm of habitat restoration efforts. This may

influence a landowner's opinion about whether or not to conduct habitat restoration efforts on their properties. It was even mentioned by one participant that having all facets of the community taking part in salmon recovery discussions could help change the perspective of others. They also mentioned that by NGOs relating information concerning how and what they do to support Salmon Recovery Plans has the potential to benefit not only salmon but also the community as a whole.

Chapter 5: Conclusion

The Puget Sound Salmon Recovery Plan (PSSRP) that was created shortly after Washington's State and Tribal governments pooled their resources and began working together to co-manage salmon fisheries dictated that community involvement should be incorporated to bolster salmon recovery efforts. This mixing of a top-down and bottom-up approach to salmon recovery has seen many successes and has become an example in innovative NRM and as previously mentioned has even been labeled by NRM experts as "The Washington Way". Although there is some overlap Western Washington's environmental NGOs all have particular niches and missions.

By doing in-house and outreach events environmental education related NGOs have the ability facilitate salmon recovery plans by educating the public and policymakers, creating a larger populace of environmental stewards and well informed legislators. The education provided by NGOs affects how people interact with their environment and how they vote on policy issues. Some NGOs educate the public on how to effectively work with elected officials on policy issues. Many NGOs have the ability to bring people together from community member to local, state, tribal and federal governments to raise their awareness of impending policy issues.

Restoration focused NGOs are able to implement restoration projects more expediently and with a lower overhead than government agencies. This can be accomplished by side-stepping political bureaucracy and encouraging community involvement by providing volunteer opportunities and receiving donations of materials and equipment. Due to the complex nature of salmon habitat it can be difficult to see the outcomes of restoration efforts. Baseline studies and long term monitoring are essential in

interpreting these outcomes but come at a cost. NGOs employ citizen scientists to supplement the valid scientific data needed to complete pre-restoration base-line studies and use citizen stewards to monitor restored sites in perpetuity. This role is imperative in supporting Washington's salmon recovery plans. By restoring damaged salmon habitat and educating the public and policymakers about habitat preservation NGOs uphold the treaty fishing right of maintaining healthy salmon habitats.

NGOs can act as bridging institutions when working with land owners whose properties are adjacent to compromised salmon habitat as they are non-threatening, non-biased party. They are able to bring together concerned stakeholders and elected officials in an effort to reach a common goal. They can also step in and mediate issues between the tribes, the state and federal agencies as well as working with tribes who may be experiencing conflicts of interest. This is a niche that neither tribal nor state government organizations have the ability to fulfill.

By analyzing the ways NGOs inform community members and policymakers of the details behind the implementation of WA's salmon recovery plans additional support may be acquired that may help advance progress in environmental education, habitat restoration, and cooperative NRM efforts both locally and abroad. By highlighting and summarizing the tactics environmental NGOs have employed to support the PSSRP and pointing out the benefits and deficiencies of combining the top-down and bottom-up strategies used in WA State to address salmon conservation other regions experiencing comparable situations may be able to apply the more successful tactics and alter their approach to NRM efforts in new and innovative ways.

This study has shown that the overall opinion of all participants and published literature support the idea that NGOs do have a positive and noticeable impact on the salmon recovery efforts put forth by Washington's Tribal and State governments. NGOs were shown to do this by taking on the roles of environmental educators and scientists that serve to augment governments programs and projects. They are able to work as mediators in several arenas in a non-biased and non-threatening manner that could not be accomplished by government agencies. In working to conserve, protect and restore salmon habitat they are helping to uphold the treaty fishing right to a healthy salmon habitat.

Other questions that can be explored in further research include: Can strategies such as the Aquatic Reserve Program or No Take Marine Protected Areas play a more holistic and significant part that goes beyond the current perspective addressing salmon recovery issues and habitat restoration projects? Do NGOs have the authority and ability to confront sensitive theoretical questions like the continuation of harvest and hatchery programs, should they? Should the treaty right to fish be given higher deference than non-tribal fishing?

Given more time I would have liked to include a more diverse selection of interviewees including: NGOs that focus on lobbying and litigation; a more diverse group of stakeholders including industry and development professionals; more representatives from tribal, state and federal regulating agencies, and Tribal Elders. I would have also liked to have conducted more research on the application of citizen science in salmon recovery. Further research could also be completed exploring the role of NGOs in shoreline protection, storm-water remediation, emerging toxic chemicals of concern and

the many other stresses to which sensitive species living in urbanizing estuaries are exposed. Due to time constraints the issues mentioned above were not explored in this research.

Salmon conservation and recovery is still as much about treaty fishing rights as they were at the time of the signing of the MCT. There is a court case in appeal wherein Washington's Treaty Fishing Tribes are suing the state concerning the removal of culverts that impede the migration of salmon runs. The tribes are also in negotiations to call for a no-harvest order on the ESA listed Chinook salmon species and are up against protests by recreational and commercial fishers. The good news is that tribes are currently celebrating a huge victory in the upholding of the treaty fishing right to a healthy salmon habitat due to the recent decision by the Army Corps of Engineers not to install a major coal and oil transport facility in the treaty protected waters of the Lummi Nation.

Sometimes big ideas need to come from outside of government structures and be permitted to marinate before any action is taken. NGOs provide the opportunity to foster these ideas and assist in the actions necessary to implement them. As the tribal agency employee interviewed pointed out, "salmon recovery is a social exercise." Their health affects the entire Puget Sound community. It affects our society, economy, and our health; if salmon don't have a healthy habitat then neither do we.

The progressive approach to salmon recovery in Washington State would not be where it is today without the tenacity and dedication of the recently passed Nisqually Tribal Leader and Treaty Rights advocate Billy Frank Jr. and his constituents. He had a genuine knack for being a frank negotiator in all political arenas and bringing people

together from all walks of life. If we continue to follow in his footsteps we can fulfill the salmon recovery mission that he fought for his entire life. In his words, “We are confident that by working together – all of us – we can achieve our goal of returning wild salmon stocks to abundance.” Billy Frank Jr. (March 9, 1931 – May 5, 2014).

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Appendices

Descriptions of Select Non-Government and Government Organizations Involved in Washington State's Salmon Recovery Efforts

Nisqually River Foundation (NRF)

The Nisqually River Foundation (NRF) is a 501 (c) 3 Non-Profit Organization (NPO) who's origin goals were to provide funding and staffing to support the work of the Nisqually River Council (NRC) in implementing the Watershed Stewardship Plan. The NRF is not limited to coordinating NRC meetings; they also organize Citizens Advisory Committee (CAC) meetings as well as all subcommittee assemblages. The objective of the NRC and CAC meetings is to enable Council members to identify potential salmon recovery projects.

The most current project involves partnerships with the Nisqually Indian Tribe (NIT), the Nisqually National Wildlife Refuge (NNWR) and United States Geologic Service (USGS) to develop and implement a review and monitoring plan to gauge the results of the monumental 2009 Nisqually Delta Restoration project. The NRF is responsible for informing the public, and other land managers, concerning what will be a long-term and large-scale monitoring project. The NRF is also currently spearheading a Nisqually River Water Trail planning effort intended to promote conscientious recreation alongside the main stem of the Nisqually River. The planning process will identify recreational activities that have the least impact on salmon and respects salmon recovery efforts. NRF works to encourage and support sustainability in the Nisqually Watershed in order to create better stewardship for our resources and strives for perpetuity of a more

harmonious common culture in regards to maintaining an environmental, social, and economic balance concerning salmon recovery efforts.

An important faction of the NRF is the Nisqually River Education Project (NREP). For 25 years this program has been devoted to exposing students to nature and giving them hands-on science experience. Supplying students with these opportunities serves to make them better stewards of the environment, encouraging them to take actions to improve the health of the Nisqually Watershed.

The NRF also manages The Nisqually Sustainable Program. The purpose of this program is to emphasize environmentally conscious local business practices. The program is open to all locally owned businesses. An NRF staff member meets with all the enrolled businesses and analyzes their energy consumption, water use as well as other potentially environmentally harmful practices. In exchange for efforts on the part of businesses to adjust their operations to be more environmentally sound, NRF provides free training workshops and other tools to help business owners improve their practices.

The NRF also helps to facilitate a The Nisqually Stream Stewards (NSS) program. This joint program is primarily administered by the NRC and the Nisqually Indian Tribe. This yearly course trains community members in the science involved in restoration projects and provides them with the skills necessary to become proficient and successful citizen scientists. The class enables participants to meet other community members, acquaint themselves with local professionals and participate in volunteer opportunities that actively make attempts to improve environmental conditions in the Nisqually Watershed. The program has been in existence for 10 years, and many former students in

the course have gone on to become board members and active members of local environmentally centric community groups. (http://nisquallyriver.org/who-we-are/nisqually-river-foundation/).

Nisqually Reach Nature Center (NRNC)

The Nisqually Reach Nature Center (NRNC) is a private 501 (c) (3) NPO. The mission of the NRNC is to a operate a "a volunteer-run, membership supported organization, which promotes the understanding, appreciation, and preservation of the Nisqually estuarine ecosystem and its integral role in the local environment, history, and culture through interpretation, and research" (http://www.nisquallyestuary.org/).

Since 1982 the NRNC has been offering estuarine environmental education at its Luhr Beach facility, which is owned and partially maintained by the WDFW. Since that time their emphasis has shifted from public outreach education for the general public to concentrating on providing supplemental curriculum focus on field and laboratory protocol for Thurston and Pierce County school districts, as well several home school groups, community colleges, state colleges and government employees.

The advent of the 15,000 acre Nisqually Reach Aquatic Reserve in 2011 has provided the opportunity for the center to be eligible for grant funds from the EPA. Working closely with the WDFW and the Washington Environmental Council (WEC), and with the help of the Puget Sound Corps, the Center has been able to participate in several Aquatic Reserve related research programs. These include forage fish surveys; Pigeon

Guillemot burrow monitoring and mussel tissue toxicity surveys (http://www.nisquallyestuary.org/).

Nisqually Land Trust (NLT)

The Nisqually Land Trust (NLT) acquires critical lands essential to permanently protecting the Nisqually River watershed, its scenic vistas, water flow, wildlife and natural areas. It is an independent, private, NGO incorporated in 1989 and federally recognized as a 501 (c) (3) NPO in 1990. The mission of the NLT is to acquire and manage critical lands to permanently benefit the water, wildlife and people of the Nisqually River watershed. The actions of the NLT are primarily based on the Nisqually Watershed Stewardship Plan which, in response to a 1985 legislative directive, is coordinated and managed by the Nisqually River Council. It is also operating under the directive of the Nisqually Chinook Salmon Recovery Plan and the Nisqually Steelhead Recovery Plan, which are organized and coordinated by the Nisqually Indian Tribe (http://nisquallylandtrust.org/about_us/).

South Puget Sound Salmon Enhancement Group (SPSSEG)

The South Puget Sound Salmon Enhancement Group (SPSSEG) is a local voice for regional salmon recovery. SPSSEG engages willing landowners to restore salmon habitat throughout all of the watersheds in the South Sound region. They search for and find appropriate partnerships with other organizations in order to make restoration plans, procure funding to carry out and monitor technical habitat restoration and fishery enhancement projects. SPSSEG considers collaborations with local communities, in the

South Sound to have the potential to boost salmon populations in our rivers and their tributaries in their watersheds (http://spsseg.org/about/).

Their non-biased, non-governmental status helps them obtain substantial results in the arena of habitat restoration in an expedient and cost efficient manner. SPSSEG has a vision that that the collaborative efforts they participate in have the potential to create; persistent and vigorous salmon runs in South Puget Sound region ecosystems; a more effective leadership stance concerning South Puget Sound freshwater, estuarine and marine salmon recovery and habitat restoration efforts; wide community support and active engagement in accomplishing their mission to "protect and restore salmon populations and aquatic habitat with an emphasis on ecosystem function through scientifically informed projects, community education, and volunteer involvement". (http://spsseg.org/about/).

The Norwest Indian Fisheries Commission (NWIFC)

The Northwest Indian Fisheries Commission (NWIFC) indicates that serving the Treaty Tribe's of Western Washington is their main objective. Their website goes on to claim that PNW Tribes and Treaty rights are what they are "all about". The NWIFC has been in existence for roughly forty years for the express service of up-holding the Treaty rights of PNW Tribes. Part of the recovery process is in relating the story of how the PNW Tribes have fought, litigated and compromised in their efforts to protect and restore the natural resources that define their cultural heritage and provide them sustenance and income. The NWIFC provides support and services for 20 PNW Treaty Tribes. Their main

Headquarters are located in Olympia, with satellite office in Forks and Burlington; they employ around 70 people who have a wide variety of expertise and skills.

Following the Boldt Decision that re-affirmed the tribes' treaty-reserved fishing rights the NWIFC was created in order to effectively establish them as co-managers of salmon fisheries with the State of Washington. The NWIFC includes spokespersons from each member tribe who operate in order to elect a chair, vice chair and treasurer for the commission. These commissioners proceed to recommend and supply courses of action to the NWIFC executive director, who has the capacity to then implement recommended direction.

Another role taken on by the NWIFC is to support Treaty Tribes in their function as natural resources co-managers. The commission offers services in subjects such as biometrics, fish health and salmon management enabling more resourceful use of limited federal funding. The NWIFC has established an avenue for tribes to tackle shared NRM concerns and permits the tribes to address these concerns to Washington State and Federal regulatory agencies with a unified voice.

Following Judge Boldt's ruling, the NWIFC was instituted to aid tribal governments in conducting methodical and biologically sound fisheries. Further litigation decisions upholding treaty harvest rights of culturally significant natural resources have expanded the tasks required of PNW Treaty Tribes as natural resource managers. It is obvious today that tribal input is imperative in all aspects of regional NRM.

The Treaty Tribe's pledge to maintain astute NRM is clearly laid out in the introduction to the NWIFC Constitution:

> "We, the Indians of the Pacific Northwest, recognize that our fisheries are a basic and important natural resource and of vital concern to the Indians of this state, and that the conservation of this natural resource is dependent upon effective and progressive management. We further believe that by unity of action, we can best accomplish these things, not only for the benefit of our own people but for all of the people of the Pacific Northwest." (http://nwifc.org/about-us/)

Presided over by Treaty Tribal members, the NWIFC appoints commissioners for the policy development and general organization guidance. The executive director of the commission oversees the NWIFC implementation of policies and all NRM actions that have been certified by the commissioners.

The Puget Sound Partnership (PSP)

The Puget Sound Partnership (PSP) is a state agency that leads the all of Puget Sound region's collective efforts to restore and protect crucial environmental habitat. PSP works to engage multiple government agencies and NGOs to participate in partnerships in order to move towards a common conservation and restoration agenda. PSP's vision is to create vibrant, endurable natural systems and commitments to collaborative ecological recovery efforts; its mission is to "accelerate collective effort to recover and sustain the Puget Sound" (http://www.psp.wa.gov/puget-sound-partnership.php).

Through their philosophy of having a shared, science-based system of assessment and monitoring PSP considers that one of their more significant duties is to ensure that smart economical investments are made in order to promote successful conservation and restoration efforts. Successful economic decisions aid to inform future considerations concerning the most effectual allocation of future funding sources. PSPs actions to

support policy implementation as well as organizing and allocating the funding needed for watershed partnerships to succeed in achieving salmon recovery goals within the PSPs attempts to alleviate monetary and regulatory obstacles for their partners in conservation and restoration within the Sound. PSP acts as a catalyst within the recovery effort system to ensure project completion by acting as mediators in order to improve the regulatory and policy atmosphere by funneling outside resources toward actions of precedence (http://www.psp.wa.gov/puget-sound-partnership.php).

According to their website the Washington State Legislature identified six ecosystem recovery goals for creating a resilient Puget Sound:

- Healthy Human Population—A healthy population supported by a healthy Puget Sound that is not threatened by changes in the ecosystem.
- Vibrant Quality of Life—A quality of human life that is sustained by a functioning Puget Sound ecosystem.
- Thriving Species and Food Web—Healthy and sustaining populations of native species in Puget Sound, including a robust food web.
- Protect and Restored Habitat—A healthy Puget Sound where freshwater, estuary, nearshore, marine, and upland habitats are protected, restored, and sustained.
- Abundant Water Quantity—An ecosystem that is supported by good groundwater levels as well as river and stream flows sufficient to sustain people, fish, wildlife, and the natural functions of the environment.
- Healthy Water Quality—Fresh and marine waters and sediments of a sufficient quality to support water that is safe for drinking, swimming, and other human uses and enjoyment, and which are not harmful to the native marine mammals, fish, birds, and shellfish in the region. (http://www.psp.wa.gov/puget-sound-partnership.php)

The bulk of PSPs funding comes from federal sources such as the federal Puget Sound National Estuary Program. PSPs budget for the last two years was $18.8 million. These funds included $9.9 million from the U.S. EPA, $7.5 million Washington state dollars, and $1.4 million from NOAA. The extensive ecosystem recovery effort in the entirety of the Puget Sound garners funds from various entities; this includes funds from

local, state, tribal and federal government. NPOs, NGOs, and foundations also make important resource contributions, whether monetary or in the form of citizen science volunteerism (http://www.psp.wa.gov/puget-sound-partnership.php).

The role of PSPs Administrative Services Division ensures that key policy making members of regulatory agencies have the sufficient information needed to approve funding for the most important and effective recovery projects. Their administrative division engages in government relations, communicates with media outlets, and provides tactical support to the Ecosystem Coordination Board, Puget Sound Leadership and Salmon Recovery Councils and the Science Panel. They also provide core support for other agencies which include, in part, the human resources and IT departments.

PSPs Local Ecosystem Recovery Program works to line-out recovery measures, eliminate obstructions, and direct resources towards the advancement of the most important recovery actions. The duties of the Ecosystem Recovery Coordinators from PNW regional watersheds include: ensuring decision-makers are well-informed about the issue of concern and providing capital, technical expertise, diplomatically overcoming local barriers to recovery efforts. This is accomplished by working alongside local amalgamate organizations and salmon and watershed recovery groups to obtain workable regional solutions.

PSP also collaborates with partners to formulate recovery actions with the most precedence; The Policy & Planning Program developed and implements a shared roadmap, the Action Agenda, in order to work towards reaching desired ecosystem recovery goals. This shared roadmap highlights partnerships and their role in choosing

actions that consist of the foremost and most exceptional investments necessary for successful recovery. The Policy & Planning Program endorses policy efforts designed to remove barriers inhibiting salmon recovery and develops actions that will provide the opportunity for working partners to successfully relate more positively to the public.

Another critical sector of PSP is their Science & Evaluation Program. This sector is tasked with coordinating and implementing science-based protocols standardizing the measuring and monitoring that enables complete and thorough analysis of collective restoration projects. By tracking the status of Near Term Actions the results of any ecosystem recovery indicators are reported to the Puget Sound Action Agenda.
The ecosystem recovery progress results of PSP's Science & Evaluation program are reported and available via the Puget Sound Report Card and Vital Signs websites. They are also published in a biennial State of the Sound report. The Science & Evaluation Program also supports the Puget Sound Ecosystem Monitoring Program and generates a Biennial Science Work Plan.

PSP, along with The Recreation and Conservation Office, works closely with Lead Entities (LEs). LEs are regional, watershed-based organizations comprised of diverse groups of community members, policy-makers, stakeholders as well as industry and scientific professionals that engage in meetings to choose strategic plans for local salmon habitat recovery strategies. They also assist in procuring funding and managing projects which implement their strategies.

Lead Entities (LE)

Lead Entities (LEs) are crucial to the development of the most effective and economical strategies to restore salmon habitat. They also specialize in recruiting the most appropriate organizations to bring their strategic plans to fruition. LEs consist of:

- A lead entity coordinator (usually a county, conservation district, or tribe)
- A committee of local, technical experts
- A committee of local citizens
- A lead entity grant administrator (usually county, conservation district, tribe, or regional organization) (http://wwwtest2.rco.wa.gov/salmon_recovery/lead_entities.shtml)

The strategies developed by LEs funnel state and federal money to where is will be spent the most efficiently. They are responsible for coordinating projects are beneficial to local and rural economies by providing and preserving local jobs. The main objective of LEs is to be the frontrunners in salmon recovery and sustaining the PNW salmon populations required for viable, tribal, recreational and commercial fisheries throughout Washington State. LEs employ habitat strategies, in part developed by scientific experts, and all members consult to prioritize their recovery plans and to guide the order of their project lists. Their unique approach makes certain that recovery efforts will be completed in the best order to ensure that the habitat restoration projects they help to implement are able to sustain healthy salmon populations for years to come.

One of the unique methods of LEs is its combination of both regional science and local social values in order to recognize the most beneficial salmon recovery projects. The inclusion of local technical experts and concerned citizen committees guarantees that

the most prevalent science and community interests come together and the projects with the highest intrinsic priorities of particular watersheds are the first to be chosen and implemented. LEs are a prime example of citizen supported and scientifically based salmon habitat recovery efforts. Their actions provide a harmonized, resourceful, and valuable reaction to recovering the salmon species listed on the Endangered Species Act.

Governor's Salmon Recovery Office and the Recreation and Conservation Office (GSRO)

The Governor's Salmon Recovery Office (GSRO) was instituted by the Legislature; the agency was created as a result of the Salmon Recovery Planning Act that was passed to address the listing of certain salmon species being put on the EPA endangered species list. The agency is responsible for the coordination the salmon recovery strategy for the entire state of WA (http://www.rco.wa.gov/salmon_recovery/gsro.shtml).

> "Other tasks include:
>
> - Helping develop and implement regional recovery plans.
> - Securing funding for local, regional, and state recovery efforts.
> - Preparing the Web site and biennial *State of the Salmon in Watersheds* report to the Legislature.
> - Advising the Salmon Recovery Funding Board." (http://www.rco.wa.gov/salmon_recovery/gsro.shtml)

The WA State Recreation and Conservation Office work to support the Governor's Salmon Recovery Office (http://www.rco.wa.gov/salmon_recovery/gsro.shtml).

The Recreation and Conservation Office (RCO)

The RCO is a state agency specializing in the management of grants allocated for the augmentation of outdoor recreational prospects; they also work towards the preservation of prime Washington State wildlife habitats and farmlands. Their efforts have been credited for helping to bring salmon back from practical extinction. RCO has proven itself to be an example of a consummate grant management agency and providing effective leadership on complex NRM and outdoor recreation issues. The RCO is an excellent steward of public resources; they utilize a rational and objective grant process in order to make deliberate investments that select the most paramount and imperative restoration projects. Collaborating to care for, safeguard, and repair crucial lands for salmon habitat, the RCO empowers society to partake in and take accountability for watershed restoration (http://wwwtest2.rco.wa.gov/about/index.shtml).

The RCO is well aware that collaborative partnerships with scientific and industry professionals, grant recipients, active volunteers, and the general public, are what enables them to be so successful. They are respectful of the community's interests and main concerns and take them into consideration when conducting their grant allocation process. They encourage and oversee a respectful, healthy workplace where employees become skilled at finding inventive ways to accomplish their prime objectives. These objectives are to incorporate effectual and competent methods to manage the natural resources to which they are entrusted, as well as ensuring that local ecosystems sustain dynamic biodiversity of wildlife and humans. The RCO strives to constructively modify outdoor recreation opportunities that will lead to the improved health and well-being of

PNW residents. None of these efforts come free of cost though; since RCO was established in 1964, it has allocated grant funds exceeding $1.7 billion dollars to practically 7,500 projects. The agency is currently awarding approximately 230 grants at the amount of $60 million dollars for every fiscal year. The RCO doesn't accomplish such successful funding efforts on their own; since their agency was instituted their grant recipients have matched more than $950 million dollars towards restoration resources. The RCO endorses the following organizations:

- Recreation and Conservation Funding Board (RCFB)
- Salmon Recovery Funding Board (SRFB)
- Invasive Species Council
- Governor's Salmon Recovery Office
- Habitat and Recreation Lands Coordinating Group
  (http://wwwtest2.rco.wa.gov/about/index.shtml)

Collaborating with this collection of boards and organizations enhances their ability to provide effective leadership, substantial funding, and scientifically based support (http://wwwtest2.rco.wa.gov/about/index.shtml).

Nisqually National Wildlife Refuge (NNWR)

NNWR is managed by the U.S. Fish and Wildlife Service, an agency within the Department of Interior. While Nisqually River's estuary has been set aside for wildlife, almost all other major estuaries in WA State have been filled, dredged or developed. NNWR was established in 1974 in order to ensure the protection of the delta, and to preserve and restore sustainably diverse fish and wildlife habitats. The refuge has a Comprehensive Conservation Plan (CCP) in place that serves to lay out goals and tactics for the improvement of wildlife habitat conditions within the Refuge. The plan also

provides the means to create the partnerships necessary to achieve these goals. The refuge website has this to say about their current partnerships and the ones they will continue to form to accomplish conservation and preservation of cultural and environmental resources:

> "The National Wildlife Refuge System is committed to building partnerships which encourage conservation and preservation of our natural and cultural resources. Partnership with the Refuge System brings innovative approaches to solving land management and water disputes in the most environmentally protective manner. Scientifically-informed and technologically-based stewardship of our public lands, waters, wildlife and special places must be collaborative efforts between the Refuge System, other government agencies, and private organizations if conservation efforts are to succeed." (http://www.fws.gov/refuge/Nisqually/about.html)

This statement encompasses the core goal of the collaborative NRM efforts of NGOs and government agencies; creating stewards of the watershed that are well informed in both the science and the technology needed to maintain and restore healthy environments for local wildlife.

NNWR Key Partners

The Nisqually Indian Tribe (NIT) is a key partner in the restoration planning and policy making process within the Nisqually Watershed; providing technical and cultural design assistance in not only restoration plans, but also in post-project monitoring efforts. NIT is an active participant in estuary restoration projects on all tribal lands as well as partnering in projects that occur on within the NNWR boundaries. The NIT employs a Tribal Administration in order to guarantee that the Nisqually Tribe's needs are successfully met and to provide direction in day to day Tribal administrative obligations.

Daily administrative duties are supervised by a Chief Executive Officer working for and receiving policy direction from the Tribal Council. The organizational management structure is designed to ensure strict separation of management functions and policy making. The Tribal Administration also provides a strict chain of command within the organization.

The NIT created operates the Nisqually Department of Natural Resources (NDNR). The NIT has customarily sustained their society by protecting and respecting the natural resources they have relied on for generations. The NDNR works to maintain healthy ecosystems in the NIT's native lands and waterways. They do this in order to ensure biodiversity in the Nisqually Watershed as well as preserving their cultural heritage. (http://www.nisqually-nsn.gov/)

The Nisqually River Council (NRC) works to inform key partners about, advocate for, and coordinate the implementation of the Nisqually River Management Plan. They also work to foster key partnerships with other government and non-government entities working to protect and restore the Nisqually Watershed. Their Mission is to create sustainability in the Nisqually Watershed for current and future generations by developing a common culture of environmental, social and economic balance (http://www.nisqually-nsn.gov/index.php/council/).

The Salmon Recovery Funding Board (SRFB) was created in 1999 by the Washington State Legislature; the board's main responsibility is to procure funding for programs aimed to protect or restore salmon habitat. The creation of the agency was directly in-line with salmon recovery strategies laid out in the Salmon Recovery

Planning Act. In the 1990s, as an increased number of salmon species became listed as endangered and the affected watersheds increased, Washington's Tribal, State as well as Federal government leaders recognized that they had to make a collaborative effort to recover salmon populations. The Governor appoints five citizens and five state agency directors to be on the SRFB. The diversity of the board enables the understanding and perspectives of the local public as well as the experience and technical knowledge of major state natural resource agencies to be presented and discussed before a project receives funding (http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).

Working in tandem with the GSRO, RCO, and LEs, The Salmon Recovery Funding Board is responsible for addressing the statewide salmon recovery project funding priorities. The distinctive approach established in the requirements of the Salmon Recovery Planning act have become a prime model in the nation for collaborative NRM focusing on salmon recovery; to the point where it is now fairly well known as 'The Washington Way'(Weber, E.P., Leschine T.M., & Brock, J., (2010).. Part of the unique approach to WA State salmon recovery efforts is the required participation of local communities to work with government agencies to assist in the process of writing recovery plans (http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).

Once a plan has been formulated it is approved by the federal government and implementation of the project can proceed. Plans are developed by local public committees and then submitted to SRFB for further review concerning the technical proficiency and practicality of the project. By employing this "bottom up" strategy for salmon recovery programs, local communities feel a greater sense of ownership for their

watersheds and more accountability for the outcomes of local restoration efforts (http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).

By ensuring the project selection process is overseen and vetted by the state, only the projects promising to be the most scientifically sound, practical, and effective are funded. Once a project is approved for implementation, SRFB plays a critical role in supporting the organizations carrying out the recovery plans that have been approved for funding by the federal government. Staff in the RCO assists in the management of state funding; proper management of funds is vital for securing additional federal grants for future restoration projects. The physical in-situ work of restoring salmon habitat on properties acquired for salmon recovery is completed by the chosen recipients of SRFB acquired grants (http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).

> "SRFB awards two type of grants:
>
> - General salmon recovery grants
> - Puget Sound Acquisition and Restoration grants" (http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf)

The main objectives of the projects funded by SRFB grants are to restore degraded salmon habitat, remove barriers that prevent salmon migration, and to preserve any remaining pristine salmon habitat. It is required that the organizations that apply for these grants be willing and able to supply at least 15% of the cost of the chosen project via alternative sources of funding. By choosing an amalgamation of community endorsed projects that are approved by scientific professionals there is assurance that the projects

given the most priority and that receive funding have local and scientific support http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).

By not only funding restoration projects but also funding the monitoring of completed projects SRFB is making the necessary efforts to ensure that salmon recovery projects are successfully improving salmon recovery. SRFB is currently conducting monitoring of previously selected and completed projects throughout WA State in order to assess what types of restoration efforts are the most valuable http://www.rco.wa.gov/documents/fact_sheets/SRFB_fact_sheet.pdf).