

**Tribal Science and Farmers' Resistance:**  
**Restoring Nature, Culture and Power in the American Northwest**

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**Abstract**

In the northwest corner of the United States, farmers have attempted to defend their place-based knowledge and heritage against the scientific and regulatory strategies of local Native American tribes who have sought to restore salmon habitat in farming areas. The apparent irony of this scenario stems from a set of relatively unique circumstances in the American Northwest. Ethnographic and historical evidence shows how a century of tribal activism to regain treaty fishing rights has converged with new forms of activism amongst farmers, whose counter-discourses depict themselves as ecological stewards of the land. [Political ecology, Environmental science, Salmon habitat restoration, Agriculture, Native Americans]

**Introduction: An Unusual Scenario**

In the Skagit River Valley of Washington State, in the northwest corner of the United States, farmers are resisting efforts by environmental advocates to convert their land into salmon habitat. They complain that the people behind these efforts are urban outsiders who have learned about the environment through television and books, and who are attempting to impose a romantic vision of nature onto a working landscape. They express offended outrage that the

scientific knowledge produced in support of restoration is based on abstract and anti-farming assumptions, has not been produced through a transparent and democratic process, and does not factor in the social and economic requirements for maintaining the local agricultural industry. They argue that the resulting restoration projects will not achieve their intended goals anyway since they do not account for ecological processes, such as invasive species and certain hydrological forces, which farmers observe in their own daily experiences of the landscape. Finally, these farmers charge restoration advocates with not respecting the historical and cultural relationships that multi-generational residents have developed with the land, nor the independence with which they have been stewarding it for more than a century. As a result, some farmers conclude that habitat restoration has little to do with recovering salmon, and more to do with governmental and urban elites attempting to control the water, the land, and the people of the region.

So far, this scenario resonates closely with “first world” political ecologist James McCarthy’s description of the American Wise Use movement whose members resist the “interventions of distant, highly bureaucratic, and professionalized environmental groups,” publicly “proclaim their superior knowledge and understanding of local environments, assert the historical precedence and legitimacy of their uses” and “suggest that conservation is merely a cover for increased state control and the assertion of class privilege in the region” (2002: 1281). Indeed, the parallels between what McCarthy and I observed among rural residents of the American West suggest that we are witnessing a similar phenomenon, and that Skagit farmers are themselves influenced by the Wise Use philosophy. Based on his study of the Wise Use movement, McCarthy makes a compelling case for why the general explanatory framework of political ecology, an approach developed for the “third world,” also applies to the “first world.”

As he explains, a narrative in which local, marginalized rural resource users resist the interventions of scientific experts, governmental agencies, and transnational environmental organizations is reproduced repeatedly in political ecology case studies from the developing world (e.g. Neumann 1991; Peluso 1993; Zerner 2000). He points out that such a narrative also appears to apply surprisingly well to the Wise Use case – as it seems to with the Skagit case. McCarthy argues that scholars had not previously applied the same analysis to rural resource users in the American West and other “late capitalist” societies for two main reasons: one, because these potential research subjects did not appeal to academics’ political allegiances; and, two, because the related literature generally assumes that Westerners have primarily aesthetic or rationalistic relationships with nature. On the contrary, McCarthy demonstrates that, despite the obvious difference in wealth, the place-based members of Wise Use fit the role of marginalized rural resource users in the dominant political ecology narrative given their analogous circumstances, opponents, and strategies of resistance.

It is tempting to also apply such an explanatory narrative to Skagit Valley farmers, except for one major difference: many of the environmental advocates in the Skagit case work for two local Native American tribes. The tribes’ ultimate goal is to restore salmon habitat in order to restore harvestable runs of salmon that will help revitalize their cultural traditions and commercial fisheries. These major aims and the persistency with which they pursue them reflect the Native “heart” behind salmon habitat restoration in the valley (see Tomblin 2009: 194, quoting the Indigenous Peoples' Restoration Network). Otherwise, the tribes hire predominantly non-Native scientists, as well as attorneys, to achieve their habitat restoration and fish recovery goals. These non-Native albeit “tribal” scientists conduct research and implement restoration plans according to the principles of conventional, Western science, with no noticeable

incorporation of traditional ecological knowledge (TEK) or participatory approaches. The local tribal research centre is widely respected by regional salmon recovery advocates, and its results inform not only tribal restoration projects, but also those of governmental agencies and local to international environmental organizations. In addition, one of the local tribes attempted to impose a regulatory requirement for habitat restoration on farmland by pursuing a 15-year legal argument founded largely on the state's definition of "best available science."

Thus, the presence of Native American tribes in the Skagit case, and their pursuit of a scientific and legal strategy, radically problematizes what is otherwise a recognizable political ecology scenario taking place in the "first world." In other words, although Skagit farmers resist the interventions of professional environmental elites, these are not necessarily *distant* professionals working for outside organizations – rather, many of them work for another major resource-based community in the valley, which is indisputably more "local" than the farmers, namely, Native Americans. Nevertheless, an ethnographic study of how the major themes of political ecology are expressed locally, as McCarthy recommends, is still invaluable in making sense of the contested politics of habitat restoration in the Skagit Valley. Indeed, the conflict has everything to do with the colonial legacy, marginality and disenfranchisement, access to resources, resource-based livelihoods, place-based identities, the effects of market integration and globalization, and state decentralization, among other factors, which constitute the central concerns of the field (McCarthy 2002: 1283). Nevertheless, the Skagit case does not easily conform to the recurrent explanatory narrative of political ecology in which local people and local knowledge are pitted against scientific, state, and market forces, and in resisting this narrative it raises multiple questions.

In the Skagit Valley, a largely Euro-American community of farmers make arguments in defense of their place-based knowledge and heritage while opposing the scientific and regulatory interventions of local Native American tribes. Why is it that this situation strikes an ironic, even comical, tone? Its discordance stems most simply from the possibility that it represents a relatively unique set of circumstances in the American Northwest converging with persistent tropes and allegiances in political ecology. How is it, we might ask, that relatively wealthy American farmers, many the descendants of colonial settlers or more recent immigrants, can make any claim to marginality and a place-based heritage in the American West? This is similar to the question that McCarthy poses, and answers, in his study of *Wise Use* (2002). But in the Skagit case this question becomes even stranger: how is it that a largely Euro-American community of farmers can claim localism, if not a form of indigenism (Dombrowski 2002; Hodgson 2002), when their major opponents are Native American tribes? And why is it that the actual indigenous people in the valley do not appear to be making resource claims based on their indigenous status, but are rather leveraging Western science and the regulatory arm of the state – forms of power conventionally viewed as antagonistic to indigenous culture? Why, if it is the indigenous group producing the majority of the scientific knowledge underpinning environmental objectives, does that knowledge not represent an integration of Western science and TEK, nor a consideration of the larger socio-cultural context, nor a willingness to employ participatory approaches? Why do the farmers primarily construct themselves in opposition to urban environmentalists, even when it is the local tribes who are pursuing the most aggressive strategies for habitat restoration? Is the indigenous group still in a position of resistance in this case? Are the farmers now resisting? Who is resisting who? Who is resisting what? And why?

I cannot do justice to all of these questions in this short paper, but in raising them I reach several preliminary conclusions. First, the growing political strength of Native American tribes in western Washington State is shifting relationships of power such that persistent hierarchies stemming from the colonial relationship are becoming less clear (see Cronin and Ostergren 2007). Furthermore, divisions between indigenous people, rural resource users, the state, Western science, and environmental organizations are shifting in ways that the predominant narrative of political ecology does not necessarily predict. Specifically, the Skagit case represents an instance in which a traditionally oppressed group appears to be succeeding in its resistance, not by resisting the influence of science-based conservation and state power, but rather by strategically using them as tools for cultural revitalization and economic development.

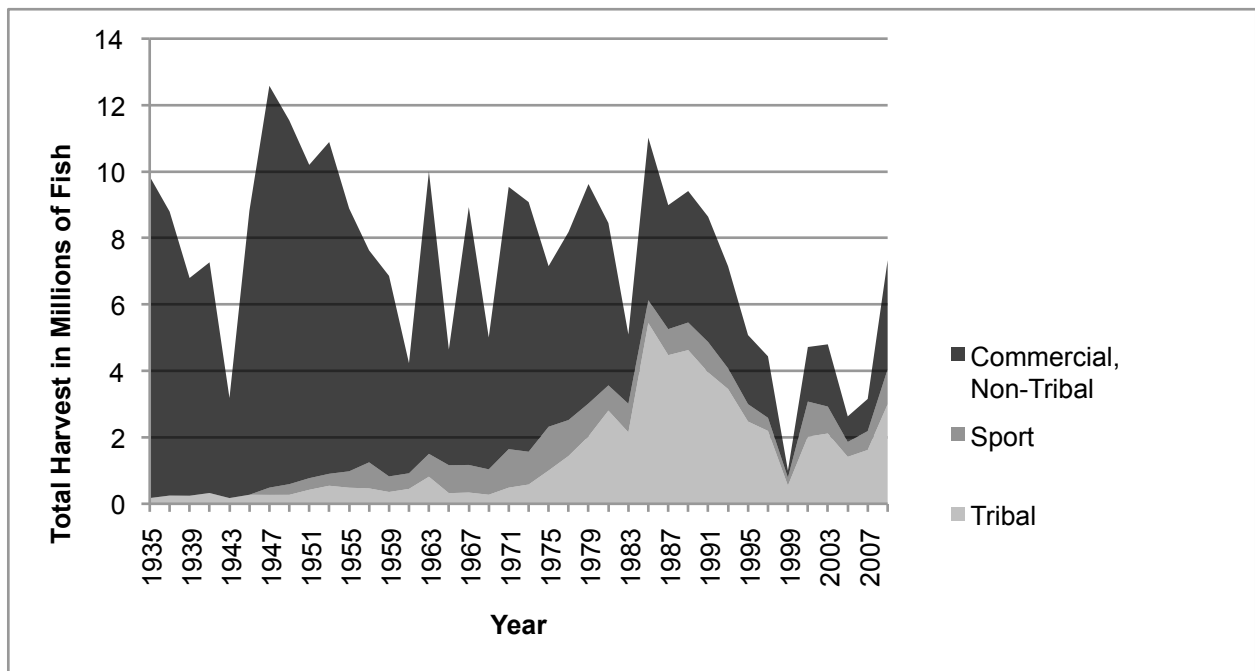
Second, that western Washington tribes can and do rely on the tools of natural science and the law to achieve their need for fish recovery reproduces the persistent dominance of these approaches in environmental problem-solving, while reflecting the tribes' increasingly conventional role in environmental management. In other words, the case suggests that despite what activist scholars may hope for, environmental science in the hands of an indigenous group does not necessarily become more indigenous, more inclusive of social considerations, or more democratic (see, e.g., Escobar 1996; Peet and Watts 1996; Linda Smith 1999; Fortmann 2008). Instead, as critical political ecologist Tim Forsyth notes, "Environmental social movements may ... not necessarily lead to a radical reframing of environmental discourses, but instead may co-opt and replicate existing narratives in order to increase their political power" (Forsyth 2003: 164). Furthermore, as Forsyth argues, with Agrawal (1995), the persistent association of indigenous groups with indigenous knowledge and marginality may "help to reiterate" a local-global hierarchy (2003: 187).

Third, that the farmers in this case persist in constructing themselves in opposition to restoration advocates reflects the tenacity of a long-standing polarization between American rural resource users and environmental and managerial professionals dating to the turn of the nineteenth century (Hays 1959). It also reflects an apparent unwillingness on the part of these rural landowners to recognize the agency and growing political power of their Native American neighbors. In these ways, the Skagit case represents an exception to the numerous case studies in the related literature which document persistently stark inequities and dichotomies between indigenous and other place-based people, and the homogenizing influences of Western science, the state, and transnational environmentalism.

### **Tribal Activism: Restoring the Right to Fish**

Until 1974 the relationship between Native American fishermen of western Washington and science-based state conservation policies fit the more common pattern: tribal communities had little access to state power, and since Euro-American settlement they were systematically restricted from their traditional livelihoods in the name of assimilation and conservation, with traumatic consequences. Once colonists settled the western Washington area in the late 1800s, it took only about fifty years to transform the largely forested, marshy landscape into one which supported international trade in timber, minerals, and agricultural crops, and produced enough hydroelectric power to meet about a quarter of the city of Seattle's electricity needs. The logging of upland forests, clearing of lowland forests for settlement, draining and diking of marshes and waterways for agriculture, and damming of the river for energy took a major toll on the eight varieties of salmonids and other fish and wildlife species that rely on the valley's riverine and estuarine habitats. Approximately ninety percent of the valley's original wetland and estuarine

habitat was lost since settlement (Beamer et al. 2005). In addition, the development of a major industrial salmon fishery in the 1890s further decimated local runs. Given the massive transformation of the region’s river basins and nearly unregulated industrial harvest, the western Washington commercial salmon fishery peaked early, in 1913, with Puget Sound canneries packing a record 2.6 million cases of 48 one-pound cans (Boxberger 1989). Harvest records and subsequent population estimates show that Washington’s salmon runs began a long albeit stochastic decline over the course of the next century (Figure 1).



**Figure 1. Salmon harvest by user group in Washington State, 1935-2009.**

Note that this is a stacked area graph, such that the visible areas of each color represent the total harvest by each user group, which together represent total salmon harvest. Source: Washington Department of Fish and Wildlife Fisheries Statistical Reports, 1965, 1985, and 1995 unless otherwise noted, as follows: commercial, non-tribal harvest is total commercial harvest minus tribal harvest; sport harvest through 1979 is Chinook and coho landings only; tribal harvest through 1949 is from data on landings by gear (“Other Gear”) for all areas for Chinook, coho and chum, and for Puget Sound for pink and sockeye. Harvest data were not collected prior to 1935. 2009 figures are provisional. Data are presented for odd years only to reduce stochasticity due to biannual pink runs.

In the meantime, Native Americans began to work as commercial fishermen and cannery laborers as obvious ways to enter the new market economy, despite efforts by Indian agents to



make them into farmers. However, Native and other non-white residents were soon forced out of the commercial fishery through territorial, physical, and economic competition from white fishermen, a constituency supported by state policies favoring commercial ocean gear over river and near-shore gear. Tribal fishermen were furthermore restricted from even traditional fishing under the guise of conservation, a discriminatory logic made popular by the fact that tribal river fishing was visible and easily scapegoated by non-Native residents. By the 1930s state officials were harassing and even arresting tribal members fishing for subsistence on reservations, and poverty and destitution became noticeable among local Native communities (Boxberger 1989).

Meanwhile, beginning as early as 1887, Native American tribes in Washington State turned to the courts in an effort to reclaim their access to the fishery. Their case rested on treaties signed with the U.S. government in 1855, which in exchange for the vast majority of the land in Washington Territory, had stipulated that, “the right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the territory.” Decades of legal battles pitted Washington State’s property and commercial fishing interests against the U.S. federal government’s responsibility to uphold treaties and protect Native American tribes. Propelled by mounting political activism of the 1960s, the tribes’ case culminated in an outstanding legal victory in 1974, upheld by the U.S. Supreme Court, known as the Boldt Decision.<sup>ii</sup> Federal district court Judge George Boldt had determined that the treaty phrase “in common with” meant that federally recognized tribes had reserved by treaty the right to harvest up to fifty percent of the state’s harvestable fish. With the Boldt Decision, western Washington Native American tribes became official co-managers of the state’s fisheries, and tribal harvests increased dramatically until they were approximately half of total catch (Figure 1). The ruling in *U.S. v. Washington* was “one of the most controversial legal rulings in the history

of the region” (Lombard 2006: 301) and it set a precedent for indigenous rights worldwide (e.g. see Ichikawa 2001).

The trouble was that by 1974 even total salmon harvests were only a small fraction of what they had been when the legal battle started, let alone at the time of the treaties. By 1999 salmon runs had dropped so low that several stocks of Puget Sound salmon were listed as threatened under the U.S. Endangered Species Act (ESA). Hence, the question for the tribes now was whether the treaty protected not only the right to harvest half of the salmon, but the right to harvest salmon at all – or in other words, the right to protect the fish and their habitat from destruction. In 1985 the U.S. ninth circuit court determined that this question would only be settled with the “concrete facts” of a particular case. Western Washington tribes eventually found such a test case: the thousands of culverts built under state roads, which block access to more than 3,000 miles of habitat, with the potential to produce an estimated 200 thousand additional adult salmon (Blumm and Steadman 2010). In 2007 federal court Judge Ricardo S. Martinez ruled in favor of the tribes on the culvert case, writing that “it was ... the right to *take* fish, not just the right to fish, that was secured by the treaties.”<sup>iii</sup> With this ruling, western Washington tribes held the state accountable for culvert repairs that would cost hundreds of millions of dollars, just as the global economy slid into a major recession. With the state unwilling to meet this order, negotiations stalled in October of 2009, sending both parties back to court.

The rulings on the culvert case so far indicate that Washington State will be required under federal law to protect sufficient runs of salmon to allow treaty tribes to attain a modest living by fishing in their traditional places. (Note that due to the Boldt Decision this means that non-Native state fishermen would have the treaties to thank for ensuring the existence of their half of the resource, as well.) Given the wide-ranging habitat needs of salmon, from open ocean

to mountain streams, and all intervening land uses and jurisdictions, the environmental protection required by the treaty right to harvest fish could necessitate major changes in how land and water are managed and regulated in the state. At this point, Martinez's ruling stops just short of making salmon habitat protection and restoration an explicit treaty requirement – a significant limitation noted by tribal as well as state officials. However, with its implication for habitat protection the treaty fishing right potentially constitutes the most powerful legal tool available to protect salmon in this region – even more powerful than the U.S. Endangered Species Act, because the treaty right would apply to all jurisdictions, and not only those under federal ownership and jurisdiction (Blumm and Steadman 2010; Lombard 2006). In this way, western Washington tribes have stepped rapidly into a position of significant legal and political power with respect to regional fisheries co-management and environmental management in general.

### **Tribal Science: Restoring Habitat**

While it remains to be seen how western Washington treaty tribes will act on the results of the culvert case, they have in the meantime employed a variety of additional strategies to restore salmon habitat and recover harvestable runs of fish. These take place in conjunction with the efforts of state and federal natural resources agencies and environmental organizations, all galvanized by the ESA listing of Puget Sound salmon stocks in 1999. Of the three federally-recognized Native American tribes of the Skagit Valley (Sauk-Suiattle, located in the mountains; Upper Skagit, located mid-river; and Swinomish, located on the saltwater near the river's mouth), all produce scientific research in support of fisheries management and salmon recovery by hiring teams largely comprised of non-Native biologists, funded mostly through governmental grants. Scientific knowledge produced by these tribal research centers informs restoration

projects designed to recreate a more habitable river system for the fish. Restoration strategies include planting trees along streams, removing and setting back dikes, removing and modifying culverts and tide gates, re-creating spawning channels, and strapping logs into river banks, among other activities, all intended to release or replace the habitat-forming processes of the river. To date, these projects have been implemented primarily on public land, by purchasing private land, or by persuading landowners to voluntarily restore land, sometimes with financial compensation. Restoration work in the valley proceeds according to a highly technical and coordinated effort on the part of local tribes, state agencies, a state-supported watershed group, and other environmental organizations.

In addition, between 1996 and 2008 the Swinomish tribe led an aggressive legal campaign, supported in part by the state fish and wildlife agency and several local environmental groups, to add a regulatory component to their habitat restoration strategy in Skagit County. Their goal was to require wide (up to 180 feet), vegetated buffers on all fish-bearing streams running through farmland. For their case petitioners relied on the state's new Growth Management Act (GMA), a land-planning initiative that requires counties to limit urban development and protect natural resources, including both salmon habitat and farmland. The GMA specifically stipulates that salmon habitat must be protected according to "best available science." Thus, the tribe and other petitioners charged Skagit County with non-compliance under the GMA for not protecting salmon habitat according to best available science. The 12-year court case hinged first on the definition of "best available science" and later on the definition of "protect." It was ultimately decided by the Washington State Supreme Court in favor of the farming community, defended by Skagit County, by interpreting the word "protect" to mean *protect the status quo* rather than *enhance existing habitat conditions*. In the meantime, the

lawsuit had the effect of motivating a small group of local farmers in Skagit County to debate the definition of “science” and even hire their own consultants to produce “best available science” about local riparian conditions that would hopefully meet their respective interests (Breslow 2001). The litigation over habitat buffers was frequently identified by farmers, tribal members, and restoration advocates alike as the most proximate cause of hostilities surrounding salmon habitat restoration in the valley.

### **Farmers’ Resistance: Defending Land and Livelihood**

Farmers resisted these scientific and legal strategies to restore salmon habitat on their land with determined, multifaceted opposition. They wrote letters to the editor of the local paper, organized and unified in new ways, fought back in the courts, and successfully lobbied for direct changes to the state’s hydraulics code, exempting agricultural tidegates and floodgates from fish passage requirements. Skagit County, which has jurisdiction over all of the lower, inhabited part of Skagit Valley except for Native American reservations, unequivocally supported the farmers’ cause. Agriculture is the largest land use in the lower valley and the largest single economic contributor to county revenues, and farmers have traditionally held the majority of the county’s three commissioner seats. In addition, the local agricultural industry is supported by multiple local to national farming and farmland advocacy organizations. Yet although Skagit farmers are familiar with agricultural science, they were unprepared to engage in scientific debates with the tribes and state agencies concerning the ecological merits of salmon habitat restoration (despite the efforts of the small group of farmers mentioned earlier). Instead, while the Swinomish tribe and its supporters predominantly employed scientific arguments in technical, legal, and public

contexts, the farming community and Skagit County primarily relied on social, economic, and cultural counter-arguments.

Thus, in addition to leveraging political ties to county commissioners and state legislators, farmers appealed to deep-seated public anxieties about the loss of open, pastoral land and American family farms. In public statements Skagit farmers argued that habitat restoration on farmland would undermine an already dwindling land base to the point that arable acreage would slip below a “critical mass” necessary to maintain the economic viability of the local agricultural industry. They warned that with a weakened land base and economic structure farmland would fall into the hands of developers and the Skagit Valley would end up like Kent Valley to the south, a once-pastoral landscape now paved with big-box stores. They concluded that therefore farmland actually protects salmon from the onslaught of development. They furthermore argued that local farms ensure a safe, local food supply; they lauded the agricultural industry’s contribution to the local economy; and they repeatedly emphasized the unique, multi-generational heritage of Skagit Valley farming families. All of these assets, they implied, were threatened by efforts to convert their land to salmon habitat (Breslow 2011).

The farmers’ fierce defense of their land and opposition to habitat restoration may be explained in part by the fact that while fishermen and other Northwesterners were documenting the century-long decline of salmon, American farmers were facing their own more recent drama of loss. The American “farm crisis” of the 1980s generated considerable local anxiety about the loss of farmland and family farms at the county, regional, and state levels. Between 1982 and 1997, for example, the Puget Sound region lost more than 20 percent of its farmland, 25 percent of its farms, and eight of its nine commercial processing facilities, including a major processor from Skagit County (Canty and Wiley 2004). Analysts explain these changes as the result of

globalization, corporate consolidation, and increasing property values for uses other than agriculture. In this context, Skagit farmers overwhelmingly viewed salmon habitat restoration in terms of loss – loss of land, productivity, and operational efficiency. But what they expressed most fear about was the possibility that habitat restoration threatened the economic viability of the farm as a whole, and therefore represented the potential loss of one’s livelihood, identity, and heritage as a farmer (Breslow 2001).

### **Blaming Fishermen and Opposing Scientists**

In addition to defending the value of agriculture and evoking its vulnerability, farmers opposed salmon habitat restoration by claiming that habitat loss due to agriculture was not a significant cause of salmon decline. Instead, they blamed fishing. In particular, many farmers as well as other non-Native people in Skagit Valley blamed tribal fishing. Farmers would argue that although most of the valley’s farmland was reclaimed from lowland marshes in the late 1800s, they could still remember a heyday of fishing in the 1950s, and it was only since 1974 and the Boldt Decision that the fish appeared to take the steepest decline (see Figure 1). Farmers would express severe frustration at being targeted as the cause of salmon decline when it seemed obvious to them that fishing was the problem. In addition, since tribal harvesters continue to fish in the river and close to river mouths, they are still easily scapegoated as a visible minority, even though much non-tribal commercial fishing takes place off shore. As noted earlier, such anti-tribal fishing rhetoric dates back for at least a century, despite statistical records showing that tribal fishing has not been responsible for the majority of the harvests (Figure 1).

Tribal members and restorationists I talked to did not deny that tribal and non-tribal fishing alike has had a significant effect on salmon declines, but they noted that many other

factors are also to blame, including habitat impacts from dams, mining, logging, development, and agriculture. And they pointed out that all of these are subject to some kind of regulation for the protection of salmon, except agriculture. From their perspective, the obvious unfairness was that the local agricultural industry is thriving while the local salmon fishery is all but gone. Furthermore, despite strict regulatory limits on harvests, tribal fishermen suggested they would be unwilling to voluntarily stop fishing altogether when fishing is a major part of their cultural identity and an important expression of their treaty right and sovereignty. Tribal interviewees also pointedly observed that tribal fishing has not been the major cause of fish decline, but rather non-tribal commercial fishing and the development of the tribes' former lands which were ceded in exchange for reserving the very right to fish. As one tribal member put it, "If we're not fishing, well then what did we really receive for giving these people our land? ... This is what we gave up our land for, and we're not going to stop fishing, you know, that's not in the cards."

Nevertheless, despite the fact that farmers blame tribal as well as non-tribal fishermen for the decline of the fish, and despite the growing political power of the tribes, the farmers I heard from did not view tribal members as their major opponents. Instead, they expressed special frustration with the mostly non-Native restoration advocates and scientists working on behalf of the tribes as well as for governmental agencies and NGOs. These were people farmers constructed as urban, environmentalist, overly educated outsiders who were ignorant of what it takes to manage a rural working landscape, but who were nonetheless trying to tell them what to do with their land. As one farmer put it succinctly, "The worst streams are in the urban areas, and yet it is those people who are telling us what to do." In fact, farmers constructed "fish people" as outsiders and farmers as place-based resource users to such a degree that it was possible for one farm advocate to make the following statement without a hint of irony:



You know, there's a feeling on the other side ... on the fish folks' side that, gee, you should just for the benefit of the fish, give up part of your ability to make a living. ... And so, you know, you've got the emotionalism of the generations, of the ancestors, out there, and you have the fact that any time anybody from a tribe or fisheries agency opens their mouth about what you should do on the [farmers'] land, they say something that can't be done – you just can't do it that way.

What this quote misses, of course, is that Native American fishermen already lost much of their ability to make a living from *fishing* and that it is also the “emotionalism of the ancestors,” and the desire to protect their respective place-based livelihoods and heritage that is similarly motivating the tribes' defense of salmon.

### **Taking Care of the Land: Co-Constructions of Nature, Culture, and Power**

Indeed, what is fundamentally at stake for both the farming and tribal communities is similar. Both have been co-constructed with the natural resources on which they depend, such that their resource-based livelihoods are integral parts of their cultural identities. As a farmer remarked, “There isn't really a dividing line between what we do for a living ... and who we are,” and as a tribal fisherman said, “You kind of grow up to it ... it's in the blood. ... that's what defines Native Americans, is the hunting, the fishing, the gathering.” Yet while both communities are motivated to defend the resources supporting their respective livelihoods, the co-construction of the tribal and farming communities with different generative capacities of the same river basin has resulted in seemingly incompatible ethics for how to manage the valley's natural resources, and for what purpose. Furthermore, the relatively recent arrival of restoration advocates and environmental scientists to the valley has effectively added at least a third community to the mix (in addition to the valley's numerous other residents), who bring with them their respective ideas for how to manage the landscape. In effect, the valley has become a shifting terrain of nature-cultures, generated according to the contested place-making and claims-

making abilities of its diversifying human inhabitants. At the same time, the variability and dynamism of the valley itself significantly shapes these efforts to restore or defend specific landscapes.

### *Farmers*

In interviews, farmers were especially explicit in their allegiance to forebears who made their current agricultural livelihoods possible. For farmers with a heritage of four or five generations in the valley, the idea of willingly converting farmland to salmon habitat was equivalent to being ungrateful to their ancestors. As one agricultural advocate explained:

Farmers feel as though they've got to go out to those gravestones and say, "I gave away part of my heritage that you chopped out of this place, and I'm sorry that I did that." ... And they feel as though they have to apologize to their ancestors that worked damned hard to get it to the point where it is now.

Farmers were also anathema to giving up good farmland they had personally created. As one farmer said, "We have worked and worked and worked to improve the fertility and the tilth. ... We've hauled tons of straw and grass seed chaff onto that ground, and tons of cow manure." Skagit farmers pride themselves on maintaining exceptionally productive and well-manicured fields.

What is perhaps less immediately obvious is that the landscape also made the farming community. In other words, the people and social structure making up the core of the contemporary agricultural community literally grew from the unique demands of creating and maintaining an arable landscape in a river delta prone to flooding and tidal inundation. As one farmer explained:

Back into the late 1800s, early 1900s, you know, this was all swampland and trees here. And so all the agricultural land that you see, basically somebody put their back into it all and created it. ... You know, they didn't hire out; they grew their workforce. So if they wanted to farm a little bit more they had another kid. And so over time, what that created

was a really strong bind. Not only inside of a family, but amongst families, because they were all working together. Take a look, just for instance, the drainage system around here. It's one thing where ... you could drain right straight to the bay or something. But you also depended on all your contiguous neighbors.

In the low-lying area of the Skagit delta, agriculture depends on an intricately engineered system of dikes and drainage ditches, much like the Netherlands (which is in fact where many local farmers trace their ancestry). Coordinating the diking and drainage system necessitates cooperation among all of the families within a basin. If any one farmer shirked their responsibility, the dike might break, causing the river to flood catastrophically into neighboring farms. In the early days of Skagit agriculture this was a regular occurrence and led to the development of cooperatively managed diking and drainage districts, quasi-governmental social structures that persist to this day, and are an essential part of the Skagit farming system (Duncan 1998; Willis 1973).

Skagit farmers frequently expressed an ethic of agricultural stewardship in their belief that farming is what the land should be used for and that farmers are responsible for maintaining its productivity. The sign of a good farmer could be seen in how well he or she worked the land; *not* working the land, however, farmers suggested, was not a recognizable category within their paradigm. To their irritation, “natural” was a quality that restorationists seemed to want to create or impose on what was otherwise a working landscape. Moreover, several farmers made reference to the Christian religion and the “ancient role” of farming, thereby invoking a heritage that is itself thousands of years old, albeit originating on a different continent, and which they have attempted to re-create in the Skagit Valley. Such deep-seated attachment to the place they have created and which in turn creates them, is at least in part what motivates their determination to protect it.

## *Native Americans*

That local Native Americans are also deeply attached to the Skagit Valley is most obviously revealed in its name. “Skagit,” or in its orthographic spelling *Sqaj̓ət*, is the name of the Lushootseed-speaking Coast Salish people who lived on the lower Skagit River and nearby islands, the descendants of whom currently reside on two local Indian reservations, along with the descendents of neighboring groups (Roberts 1975). Despite the move to reservations and general modernization over the last century, and despite popular notions to the contrary, contemporary Native Americans in the Skagit Valley and elsewhere in the Northwest region continue to rely directly and extensively on their local environment for sources of food, ceremonial materials, spiritual power, and cultural identity (Donatuto 2008; Onat and Hollenbeck 1981; Sepez 2001).

As with the Skagit farming community, Native Americans developed cooperative systems in order to cope with the dynamism of their natural resources (Suttles 1987). For example, the problem of how to allocate such a wide-ranging resource as salmon necessitated the development of territorial fishing grounds, the institution of potlatching, and intermarriage among families in different river basins to ensure access to what was a highly variable and unpredictable resource. Despite new reservation and tribal affiliations dating to the time of the treaties, contemporary Native communities also reflect pre-treaty historic kin networks, as when an extended family gathering drew members from as far away as Canada and eastern Washington State.

What is less recognized is that the Native people of the Skagit Valley also significantly shaped their landscape. European explorers were delighted to discover “natural” prairies in the Skagit area – gently rolling pastoral hills dotted with oak trees, reminiscent of “the most admired

Parks of England” – which proved to be ideal locations for their first settlements (Whidbey, as quoted in Boyd 1999: 1). However, as some of the first settlers observed and subsequent research has shown, many of these “natural” prairies were in fact created and maintained by Native people with intentional annual burns to improve hunting and gathering and clear sites for cultivation. In addition to their well-known reliance on fish and shellfish for protein, what is less widely appreciated is that Coast Salish people actively tended edible plants as their major sources of starch in prairies, ponds, and estuarine “gardens,” practices that influenced the vegetation ecology of the area (Deur and Turner 2005; White 1999).

Furthermore, the Skagit Valley is the setting for the origin stories of Native Americans who trace their ancestry there (Onat and Hollenbeck 1981). Likewise, Coast Salish spiritual beliefs may inspire a Native sense of responsibility to care for the landscape not only because it is a source of food and important materials, but also because it is imbued with the spirits of their ancestors, as indicated by the following quote from a member of the Sto:lo nation to the north: “So throughout the territory you have all these different resources that were at one time ancestors who were transformed so we could have those resources. ... So that brings us back, then, to ... ‘This is our land and we have to take care of everything that belongs to us.’” (McHalsie 2007: 105-108). Contemporary western Washington tribes have the additional responsibility to “take care” of the fisheries and fish habitat in their official capacity as co-managers. But they face the hurdles of local farmers’ respective commitment to agricultural stewardship, as well as property rights activism and anti-Indian prejudice. In stark words, a Native elder explained the tribes’ dilemma of how to convince non-Native people to care for the salmon and their habitat:

I find them, the white people kind of strange in that sense because I can’t get them to understand why it’s important you need to protect that streambed, protect the home of the salmon. ... I’m not in a position as an Indian to go tell white people. I can tell him he’s wrong, I can voice my opinion that way, but it’s got to be the white people that’s got to

change within themselves before we can reach [a] conclusion. . . . I don't know [how that is going to happen]. Find some intelligent white people, I guess, that are environmentally concerned. 'Cause I can't force the knowledge on you. Although I know it's been imposed on Indian people. But I can't force you to change. If I tried I'd be shot right now.

It may be in part because of the prejudiced social context in which they are forced to operate that Native American tribes indeed hire “environmentally concerned,” largely white professionals to help them recover the salmon and restore habitat. In doing so, they effectively engage a third land management philosophy that differs significantly from both an agricultural and indigenous one.

### *Restoration Advocates*

Unlike the Skagit farming and tribal communities, most professional restoration advocates are not from the Skagit Valley originally and do not depend directly on its resources. Instead, in interviews many traced their inspiration for environmental protection to meaningful childhood experiences and eye-opening environmental science classes where they had learned about ecology, hydrology, geology, and their interconnections. As one restorationist put it, “I came out of university with a very clear sense of everything is related and everything is connected.” As another said, “I took an environmental studies course . . . and I just kind of went, ‘Wow! You're not going to be able to do anything in the future unless you have a clean environment!’” Restoration advocates suggested their conservation work in the Skagit Valley was motivated by a broad commitment to protecting or improving the ecological health of the planet in general.

Restorationists collectively constructed nature, and the Skagit River in particular, as something with an inherent agency and the right to exist free from human intervention. As one restorationist explained:

So the world outlook would be one of we do not dominate nature. Dominating nature is ... we can control it, we can take the machinery and we can retool it in any way we want, and it'll work. Well, I don't agree with that, and I feel that the way that the world *really* works is that we are a part of nature, and that we are subject to its whims.

With this philosophical orientation, restorationists are attempting to put new ideas for how humans should relate to the environment into practice. This entails working in community-based organizations to make bottom-up changes, as well as re-shaping the scale of political decision-making to the scale of the resources on which society depends – in this case, the watershed.

Like salmon fishermen, however, restorationists are faced with the challenge of not having direct control over the environment, and therefore they must find ways to influence the people who do in order to achieve their goals. But unlike the tribes, restorationists lack access to the legal power of the treaties and the Boldt Decision. Instead, restorationists appear to depend largely on science as their main source of political and legal power. Most concretely, the ESA and GMA requirements to base critical habitat protection on “best available science” grant legal and regulatory power to science. In addition, restorationists use scientific and technical information to leverage funding for their work, and to gain credibility with their peers. It may be due not only to the empirical validity and technical utility of science, but also to its potential as an avenue for legal, economic, and cultural influence, therefore, that Skagit restorationists invest a huge amount of time, effort, and resources in producing and defending the science that supports their work. Restoration projects are shaped accordingly.

### **Conclusion: Nature-Cultures in the American West**

The foregoing explanation for why the Skagit case presents an unusual, even ironic, scenario relative to those more commonly presented in the political ecology and environmental anthropology literatures suggests at least four major conclusions. First, contrary to constructions

of Western relationships with the environment as strictly economic, rational, or aesthetic, the Skagit case suggests that at least three communities in a relatively wealthy, urbanizing region of the American West expend tremendous energy defending, re-creating, and newly creating distinctly moral and cultural relationships with a river valley. Two of these – farmers and Native Americans – are clearly place-based communities, co-constructed with the diversity and dynamism of the valley’s natural resources.

Second, the Skagit case underscores the importance of historical contingency and national policy in shaping the relationship between indigenous people and the state. It is clear that the treaties of 1855, tribal activism, and the support of the U.S. court system have enabled Native American tribes in western Washington to gain rare and significant access to legal, political, and scientific avenues of power relative to indigenous people elsewhere in the world. In turn, western Washington treaty tribes strategically employ scientific arguments in legal, technical, and public contexts in their effort to restore salmon habitat. In these contexts, such “tribal science” does not obviously benefit from the incorporation of TEK and participatory approaches. Nevertheless, if these strategies allow tribal fishermen to harvest salmon in significant numbers they will ultimately enable the revitalization of traditional cultural practices and TEK. In this way, and third, the Skagit case cautions against constructions of Western science and state power as necessarily threatening to or erosive of indigenous culture.

Yet, fourth, the Skagit case also underscores how conventional science, whether wielded by a tribe or other entity, still does not account for the sociocultural complexity of environmental problems, nor recognize the significance of cultural landscapes. Restoration science in the Skagit Valley persists in discursively separating nature and culture even as it obviously generates new nature-cultures on the ground (Latour 1993). In doing so, environmental science engenders the



anger and resentment of place-based rural Americans whose cultural as well as economic attachments are eclipsed from scientific models of the landscape, even as they see it being reshaped according to urban ideals.

In these ways the Skagit case exemplifies the explanatory benefits of an ethnographic study of the major themes of political ecology in a “first world” context. It also cautions, however, against allowing conventionally accepted allegiances and antagonisms to obscure an understanding of how relationships among those themes may have shifted, and are realigning into unexpected, yet still potentially hopeful, narratives of social and environmental change.

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<sup>i</sup> This paper is based on research conducted while the author was a graduate student at the University of Washington and does not represent the views of the Western Governors' Association or the Washington Governor's Office.

<sup>ii</sup> *U.S. v. Washington*, 384 Federal Supplement 312 [U.S. District Court, Western District of Washington, 1974].

<sup>iii</sup> *U.S. v. Washington*, No. CV 9213RSM, 2007.