

**The Community Dynamics of Source Water Protection:
The Lower Elwha Klallam Tribe**

By

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Executive Summary: The Lower Elwha Klallam Tribe is caught between the competing interests and demands of tribal members and federal agencies that seek to exert oversight and control over tribal lands and resources. The tribal government is receiving increased pressure to build reservation housing for its members, despite the short supply of land suitable for development. The recent purchase of additional tribal lands should make it possible to accommodate tribal members who want to move back to the reservation from outlying areas. However, recently acquired lands include a significant portion of the groundwater recharge zone for the existing community water system. The tribal government's navigation between the competing demands for public facilities and services highlights how water quality management (as well as housing) is not simply a technical matter of engineering and limiting development in ecologically sensitive areas. The Source Water Assessment and Protection (SWAP) programs of the Environmental Protection Agency aim to assist the Lower Elwha Klallam and other tribes in resolving water quality management issues through the application of technical assessment, capacity building and funding mechanisms. This paper examines how this EPA program intersects with tribal social, cultural and environmental factors at the local level. Findings include:

- Growth management and source water protection present challenges to a small tribe's governance system that is oriented more to dealing with external threats to community resources and tribal autonomy than to regulating internal community dynamics.
- Internal responses to source water protection issues have included; the development and reorganization of the Tribe's Environmental Quality program, the development of a Well Head Protection Ordinance currently serving as a guide for environmental staff, the creation of several mechanisms to aid in the coordination of tribal operations, and the consideration of entering into cooperative agreements with external management agencies to both support tribal authority and provide a broader context for management decisions.
- EPA assistance to the Tribe is limited by the fact that tribal participation in EPA SWAPs is voluntary and does not require that assessment activities result in policy development or implementation. SWAP statutes are geared towards State participation and do not necessarily address the unique needs of small tribal communities. Because SWAPs are often incapable of resolving local tribal water quality management issues within this statutory framework, Agency goals for tribal completion of SWAPs may suffer.
- Modifications to SWAP tools to make them more responsive to tribal needs could include: Coordinated social and technical assessments of community source water issues to ensure that protection measures are appropriate given local conditions. The further development of EPA capacity building efforts to create tribal utility boards as a logical link between assessment and policy implementation. The provision of long term base funding for tribal environmental programs through the Tribal Environmental Agreement process or an alternative funding mechanism. Base funding should be a multi-year commitment that addresses tribal environmental priorities in an integrated multi-media fashion.

EPA Indian Policy and Source Water Protection in Indian Country

Native American Tribes play an increasingly critical role in regulating the environment on Indian Lands. As the tribe's regulatory muscles grow, often with the blessing of the federal government, tribal communities must adapt not only to different regulatory standards and procedures, but also to a different planning approach (Slade and Stern 1995). Tribal communities must be mindful that, as the regulatory power of tribal governments increases, so will the potential for overlap and conflict between the needs and goals of the community and those of federal agencies like the Environmental Protection Agency (EPA). Federal agencies must likewise be cognizant that national level policies have varying consequences for local communities. The sovereign nation status of tribes and the trust responsibilities of the federal government, coupled with the unique cultural, historical and social context of native communities, has meant that agencies such as the EPA have had to increasingly identify and incorporate the special needs of Indian Country into their regulatory framework.

The EPA has implemented an Indian Policy that incorporates federal ideals of tribal self-determination into its regulatory framework on Indian lands. Announced in 1984, the policy seeks to expand direct tribal involvement in EPA program implementation. The EPA Indian Policy has two major elements¹. First, the EPA or tribes rather than states should oversee federal environmental statutes on Indian lands. Second, where it is authorized, the EPA will cooperate with and assist tribes in developing and implementing tribal programs under those federal statutes. Consistent with these policies, EPA has been influential in urging Congress to enact statutory authority for tribes to assume environmental authority via the Treatment as a State (TAS) process. Program implementation includes programs under the Clean Air Act, Clean Water Act, Safe Drinking Water Act (SDWA) and CERCLA or the Superfund Act.

A cogent example of this Indian Policy can be seen in EPA efforts to protect sources of drinking water in Indian Country. An agency Source Water Protection (SWP) goal is that by the year 2005, 60% of the population served by Community Water Systems (CWS) will receive their water from systems with SWP programs in place under both Well Head Protection (WHP) and watershed protection programs. The SDWA amendments of 1996 provided an even greater focus on prevention as an approach to protecting drinking water and as a complement to treatment approaches. The amendments embody the concept that new, responsible regulatory flexibility, within a baseline of national protection, is appropriate if triggered by sound information concerning relevant local conditions (Environmental Protection Agency 1997). The key element of these new prevention provisions is a clear state lead, with flexibility in implementation and resource allocation to achieve results. The amendments also have strong capacity-building elements that parallel prevention provisions. Capacity building requires states to develop a strategy to enhance and ensure technical, financial and managerial capability of water systems. The capacity development strategy can provide a baseline of information parallel to the technical assessment work. Together they give states a tool for decision making on development and protection of source water supplies.

EPA Indian Policy, which places a premium on tribal self determination, has led the agency to make several interpretations of the SWP statutes as they apply to Indian Country (Environmental Protection Agency 1997). While states are required to complete and implement Source Water Assessment Plans (SWAPs) within a well-defined timetable, the statute does not explicitly require

tribes to complete or implement SWAPs. EPA does recommend that each tribe implement such a program to the extent appropriate resources are available to do so, but the voluntary nature of tribal SWAPs presents EPA staff with a set of unique challenges and opportunities. A Region X Tribal SWAP Specialist has commented that,

One of the weaknesses of the statute is that it is totally voluntary for tribes to participate. I think that any efforts that we can get tribes to undertake are successful given that the program is voluntary. So when we work with tribes, we encourage them to get over certain hurdles to try to achieve a minimum of acceptability in what they are doing. We encourage them to do the best they can with the staff and resources they have available.

The voluntary nature of tribal SWAPs may make it difficult to achieve the same level of protection that is statutorily required of states, but it also opens the possibility of exploring alternative and creative responses to SWP. Again, a Region X Tribal SWAP Specialist comments,

When EPA works with a non-tribal system, we are locked into the state source water approach. So if we were offering assistance to the state, it would have to be within the framework of the state approach. When working with a tribe there is no state approach and in fact no requirement for the tribe to even undertake the SWAP. So it gives a lot more flexibility in the type of approach that can be used.

Therefore, while tribal SWAPs present the EPA with certain problems, they also present the agency with an opportunity to explore new approaches to SWP, and to build strong and productive cooperative relationships with tribes consistent with EPA Indian Policy.

The Role of Applied Anthropology in Tribal Source Water Protection

With its emphasis on setting aside pre-conceived notions of the single “right way” to proceed, Applied Anthropology can play a strong role in the development of these cooperative relationships. Applied anthropology has proven itself useful in mediating cross-cultural interactions over the meaning and protection of natural resources by developing a number of study methodologies and theories aimed at aiding in the expression of traditional economic knowledge and management systems, and in underscoring the particular local context of resource management issues. Those methods and theories can be used to focus discussions between the EPA and tribal communities over SWP and land development that are directly embedded in these traditional cultural expressions and local contexts. Exposing the cultural logic that underlies resource use and development helps build culturally appropriate SWP strategies for tribal communities. Approaching the question of local resource management and land use in a contextual manner enables communities and regulatory agencies to identify useful strategies for addressing questions of environmental policy development and implementation.

This paper provides a template for addressing the statutory weakness of tribal SWP statutes by providing EPA with an identifiable tool for assessing not just the technical aspects of SWP, but

also for assessing the policy development and implementation capabilities of tribal communities. SWP is more than a technical matter; it is also an institutional matter. If institutions are unwilling to participate in SWP planning, or if they are responsive to a competing set of public service demands, SWP objectives may be challenged. This approach highlights the points of connect and disconnect between tribal communities and EPA and allows the agency to address the weaknesses in their current approach to tribal SWP. This type of socio-political analysis provides a baseline assessment of community SWP capabilities, while fitting nicely into EPA's current emphasis on voluntary assessment as opposed to mandated policy implementation for tribal lands.

In order to highlight the various points of connect and disconnect between the realities of tribal operations and EPA tribal SWP efforts; it is necessary to see how local decisions are shaped by more global institutions to which they are linked. This paper will first present an ethnographic assessment of the Lower Elwha Klallam tribal community and its responses to SWP. Second, it will examine the larger question of EPA regulatory policy as it relates to oversight of tribal community drinking water to show how this larger issue intersects with local socio-political institutions and cultural mores. To facilitate this approach, analysis will be guided through the use of an ecological model developed for examining the success of public health promotion activities (McLeroy et.al. 1988). This is an approach capable of conceptualizing multiple loci that influence regulatory behavior. These loci are found at varying levels of society, and have dynamic intersystemic relations with one another (Brofennbrenner 1977 & 1979).

An Ecological Approach to Source Water Protection Analysis

Although originally developed for health promotion activities, the ecological model is well suited for an assessment of tribal source water protection practices because it focuses attention on individual, bureaucratic and social environmental factors as targets for regulatory control and policy development (see Figure 1). The ecological model provides a framework for addressing the importance of interventions directed at changing organizational, community and public policy factors that support and maintain unhealthy regulatory behavior. What the model provides is a tool for analyzing the dynamic inter-relationship between the individual, his or her community, the various local institutions that seek to regulate community actions, and the increasingly hierarchical social, political and regulatory structures such as the U.S. Environmental Protection Agency that seek to regulate the actions of a large number of communities.

The model will be used as a tool for analyzing project data. It gives a framework for understanding how individual and institutional beliefs, values and behavior relate to these different socio-political levels. Analyzing the data in this way helps ensure that results are not narrowly focused on a single level of the problem, but instead give a holistic picture of regulatory behavior and the various socio-cultural processes that influence it. Likewise, it helps to identify the threads that connect the individual and the community to these increasingly complex and farther removed regulatory structures. In this manner recommendations can be as expansive or specific as needs be, depending on which level of the regulatory framework is the focus of attention.

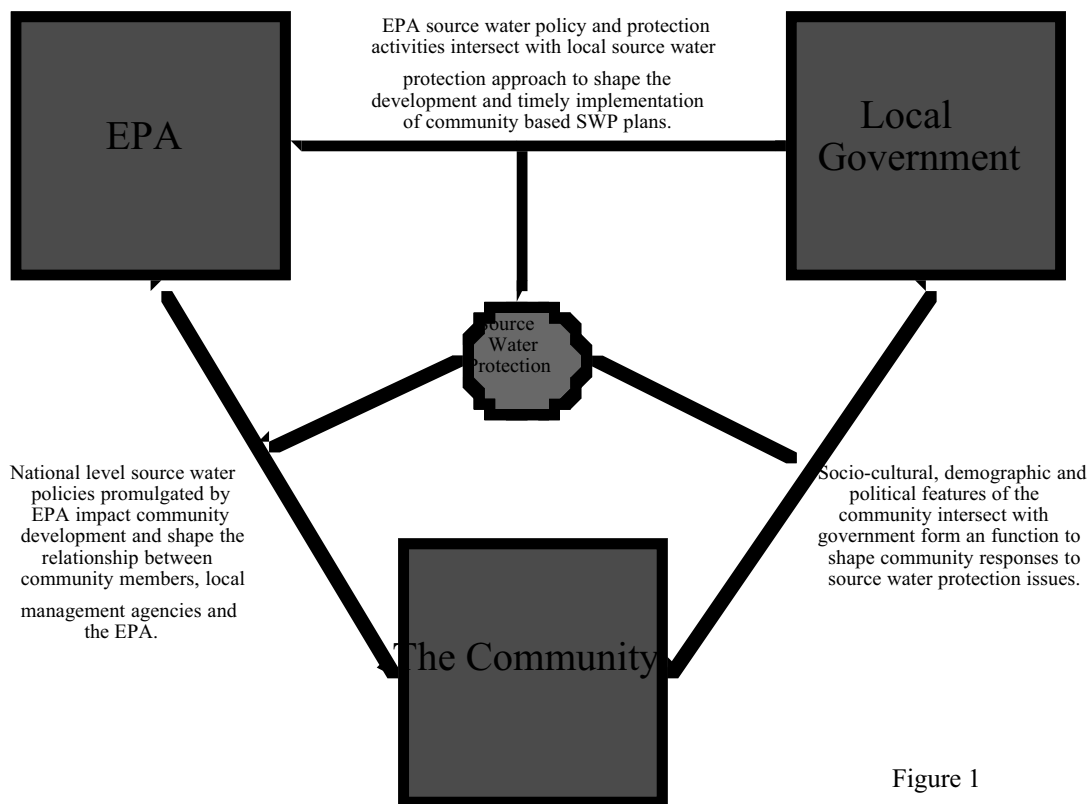


Figure 1

For the purposes of this paper, the greatest attention is focused on three distinct yet interconnected levels. One level of interest is the local community. Analysis of this level will focus on the socio-cultural and demographic nature of the local community in order to determine how it is influenced by a set of internal and external factors that drive community life. The analysis helps to highlight the forces that are at work on the community; how they are shaped by developments at the national level, and how they impact the activities of both individual community members and tribal programs. These forces must figure prominently into determinations regarding the feasibility of local SWP programs. Features of community life that impinge on the ability of individuals and community organizations to address SWP must be acknowledged in order for a local SWP plan to be successful.

The second level of analysis focuses on the activities of the tribal government and its various programs. Analysis will focus on the limitations placed on tribal government responses to SWP that are created by both pressure from the community and pressure from outside agencies such as the EPA to conform to federal standards. The tribal government must continually balance

the need for community development and environmental protection with the need to maintain a productive government to government relationship with the EPA and other outside agencies responsible for oversight of tribal operations. An analysis of this level will serve to outline the barriers to SWP policy development and implementation inherent in current EPA guidelines, and that in some cases are embedded in the structure and organization of the community itself. Identifying these barriers and their relation to these various influences will help to determine useful interventions at both the local and the EPA level for empowering the tribal government to address questions of SWP on tribal lands.

The final level of analysis will be that of the EPA as a key player in the development of SWP policy. The goal of public policy should be to strengthen mediating structures, like the tribal government, that provide connections between individuals/ small groups and their larger regulatory environment. The task of the EPA is to strengthen the ability of these local socio-political structures to influence policy development and implementation. Analysis will examine EPA policies and practices that either create barriers to, or enable the development of culturally and contextually appropriate regulatory strategies at the local level. Analysis will detail the points of connect and disconnect between this macro level agency and local communities and institutions in a manner that will help highlight possible changes that may be beneficial to both.

The Lower Elwha Klallam Tribal Community and Source Water Protection

The aboriginal territory of the Klallam people covers a large portion of the northern Olympic Peninsula in what is now Washington State. Today the Klallam people are politically, and to a degree socially, divided between the three separate bands or villages of Elwha, Jamestown and Port Gamble (a.k.a. Little Boston) that have come to be recognized as separate tribal entities by the federal government. The Lower Elwha Klallam Reservation, federal trust lands, and fee lands pending trust status comprise 609 acres located at the mouth of the Elwha River near Port Angeles Washington and on the bluffs 8 miles to the west. (see Figure 2). Individual allotment lands held by the United States in trust for individual Indians within the Public Domain total 635 acres. Tribal enrollment is 708 with an estimated 470 members living on reservation (Wright 1991:26; Bureau of Indian Affairs 1993). The recent purchase of a neighboring section of land known as the Halberg Addition will eventually expand the reservation to approximately 849 acres. The Reservation encompasses the site of a historic village also known as Elwha. Community tradition states that the Lower Elwha Valley is the site of the creation of the Klallam people, and has been occupied by them for thousands of generations.

The idea of establishing a reservation for the Klallam people in the vicinity of Port Angeles was considered as early as 1872, but was not realized for another 100 years. In 1934 there were approximately 30 Klallam families (120 individuals) living in squalid conditions on or near Ediz Hook in Port Angeles. These families were forcibly evicted by the City in 1936 (Wray 1997). In 1937, 353 acres of land in the Lower Elwha River Valley were purchased and put in trust for the Lower Elwha Klallam Tribal Community (Bureau of Indian Affairs 1980, Morrison 1939; Ruby and Brown 1986:107). Through the Indian Reorganization Act, the 14 family heads came together to form the Lower Elwha Valley Association, and adopted articles of association and bylaws for an agricultural cooperative. Even though the purpose of acquiring trust land in 1937 was to establish a reservation, the Lower Elwha Klallam Reservation was not proclaimed until January 19, 1968. In

April 1968, following the establishment of the reservation, the tribe adopted a tribal constitution and bylaws, thus making social, health, education and other services available to tribal members.

This original settlement has grown to its present form with a primary economic resource for the Tribe being commercial fishing, although most fishing activities are subsistence oriented. Tribal members gather clams, oysters, crab, mussels, barnacles, sea urchins, squid, chitons, abalone, octopus and sea cucumber in their usual and accustomed harvesting areas that extend from the Hoko River to Hood Canal. Tribal members also engage in commercial and subsistence fishing of Pacific Cod, walleye, pollack, Pacific tomcod, whiting, flounder, dabs and sole, greenlings, ratfish, sablefish, cabezon, spiny dogfish, rock fish, perch, shark and all five species of pacific salmon (Wray 1997).

In 1992 the Lower Elwha Klallam Tribe entered into a self-governance compact with the federal government. Since that time, tribal operations have expanded to include a Police Department and court system, Health Clinic, Childcare and Headstart programs, Social Services, Tribal Environmental Quality, Housing, Fisheries (including hatchery operation), Elwha Restoration Program, and a number of other tribal services funded through annual funding agreements with various federal agencies including the EPA. The purchase and consolidation of Tribal lands has expanded the Reservation to its current size and land use disposition (see Figure 3).

Water Resources of the Lower Elwha Community

Numerous studies have been issued concerning the nature of surface and groundwater resources available to the Lower Elwha Klallam tribal community. In 1992 the Tribe received its first funding for environmental management addressing impacts to human health. The funding allowed the Tribe to identify groundwater as a priority, and was secured by direct congressional authorization through the Northwest Indian Fisheries Commission Coordinated Water Quality Program. The goal of the program was to test individual wells for bacterial contamination, which in 1992 effected over 50% of individual wells on-Reservation. During the environmental impact assessment phase of the Elwha River Ecosystem and Fisheries Restoration Act (Public Law 102-495), the tribe was required to assess possible impacts to the area groundwater resulting from dam removal on the Elwha River (Bureau of Reclamation 1994). This initial groundwater assessment was eventually expanded through additional funding to include assessment activities associated with the development of a Well Head Protection Plan (WHPP) for the CWS (Bureau of Reclamation 1998, 1995; Hart Crowser: Earth and Environmental Technologies 1995; Lower Elwha Klallam Tribe 1982).

These studies have determined that alluvium within the floor of the Elwha River valley serves as the primary water supply aquifer for the Lower Elwha Klallam Tribe. Constrictions in the valley walls form three inter-connected sub-basins, each filled with water bearing alluvial deposits. Public water systems obtain groundwater supplies from each of these three sub-basins. The LEKT and the Elwha Place Homeowners Association operate wells in the lower basin; the City of Port Angeles obtains its water from the middle basin, and the Dry Creek Water Association uses three wells located in the upper basin (see Figure 4).

Figure 2

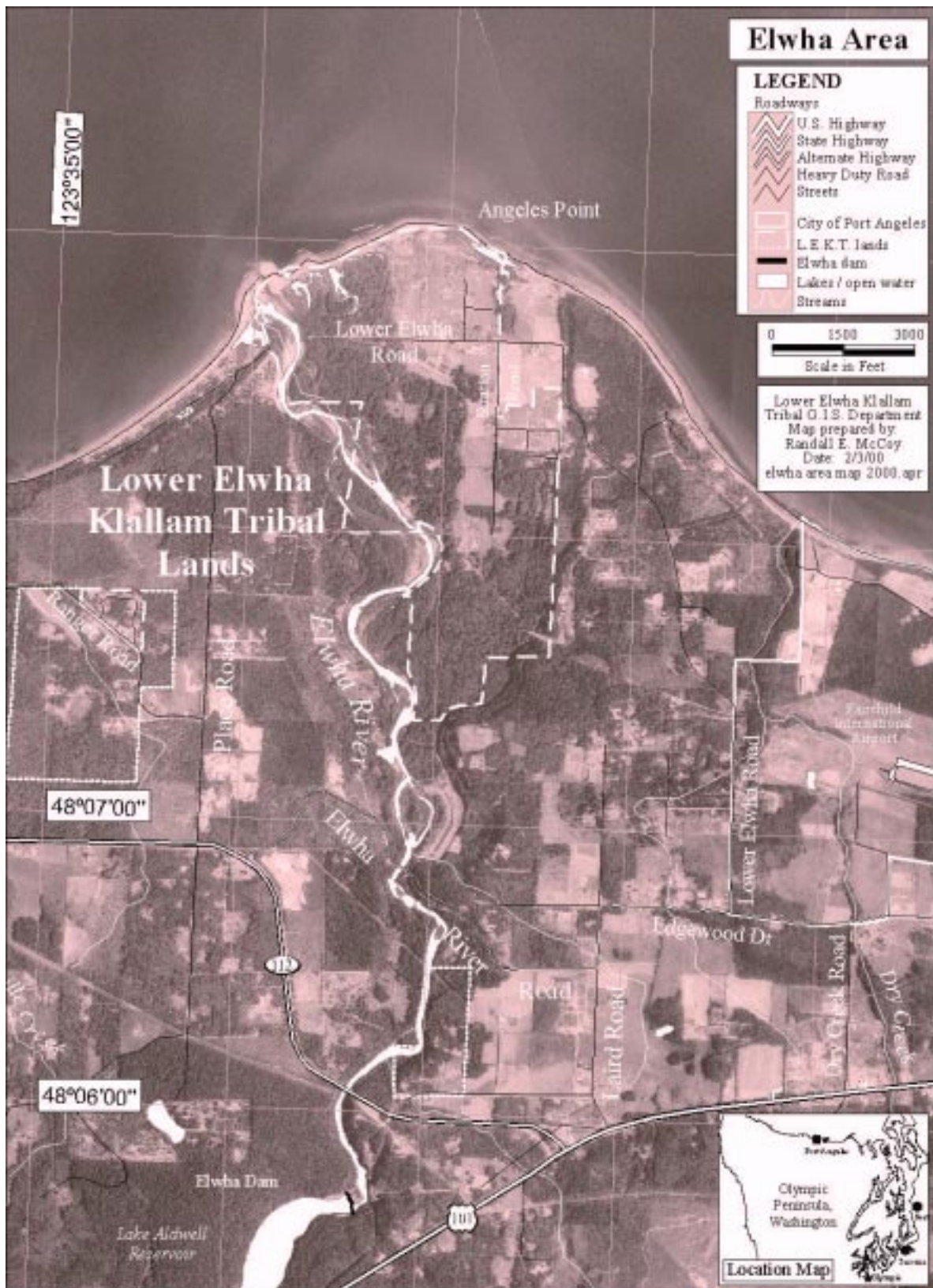


Figure 3

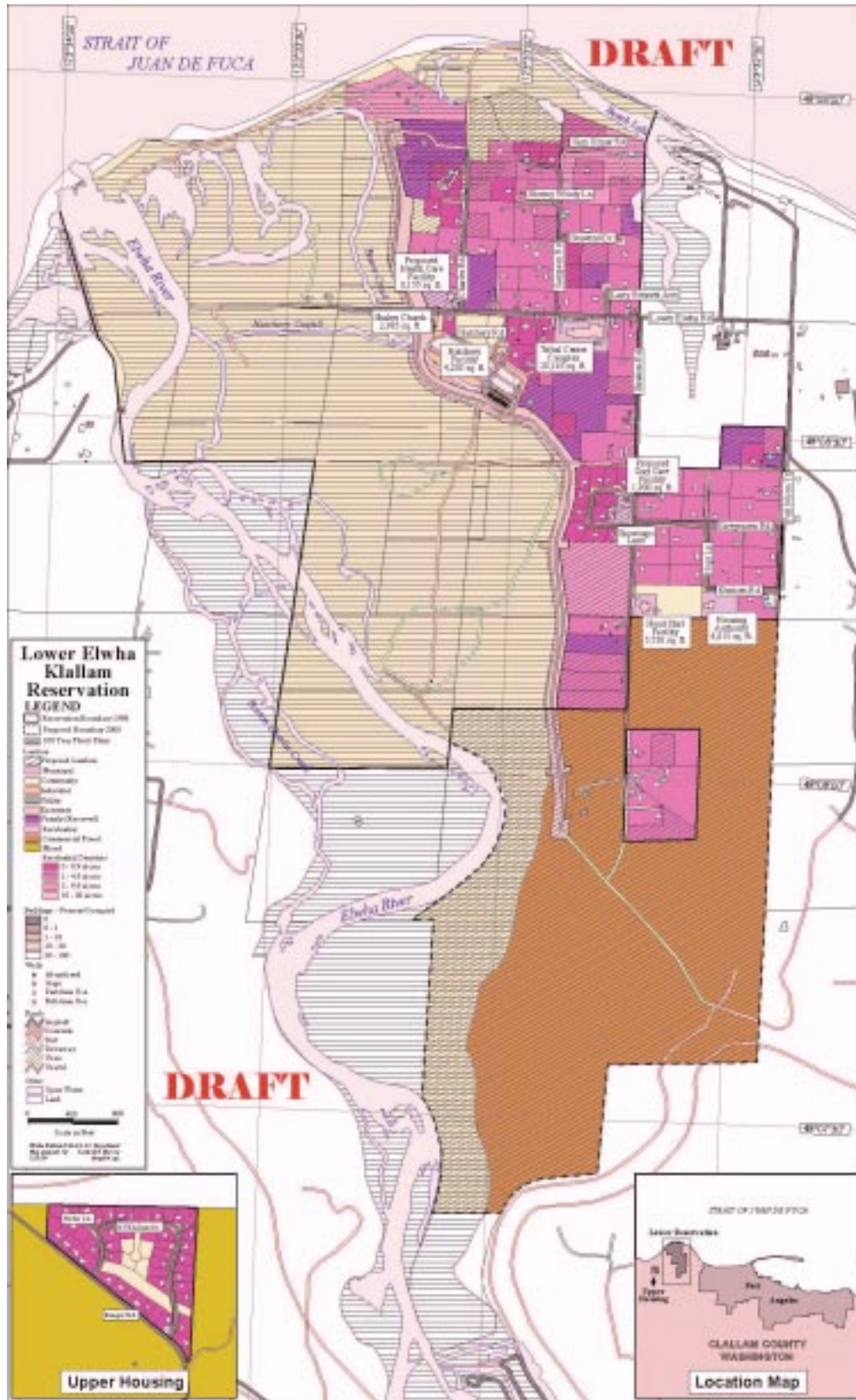
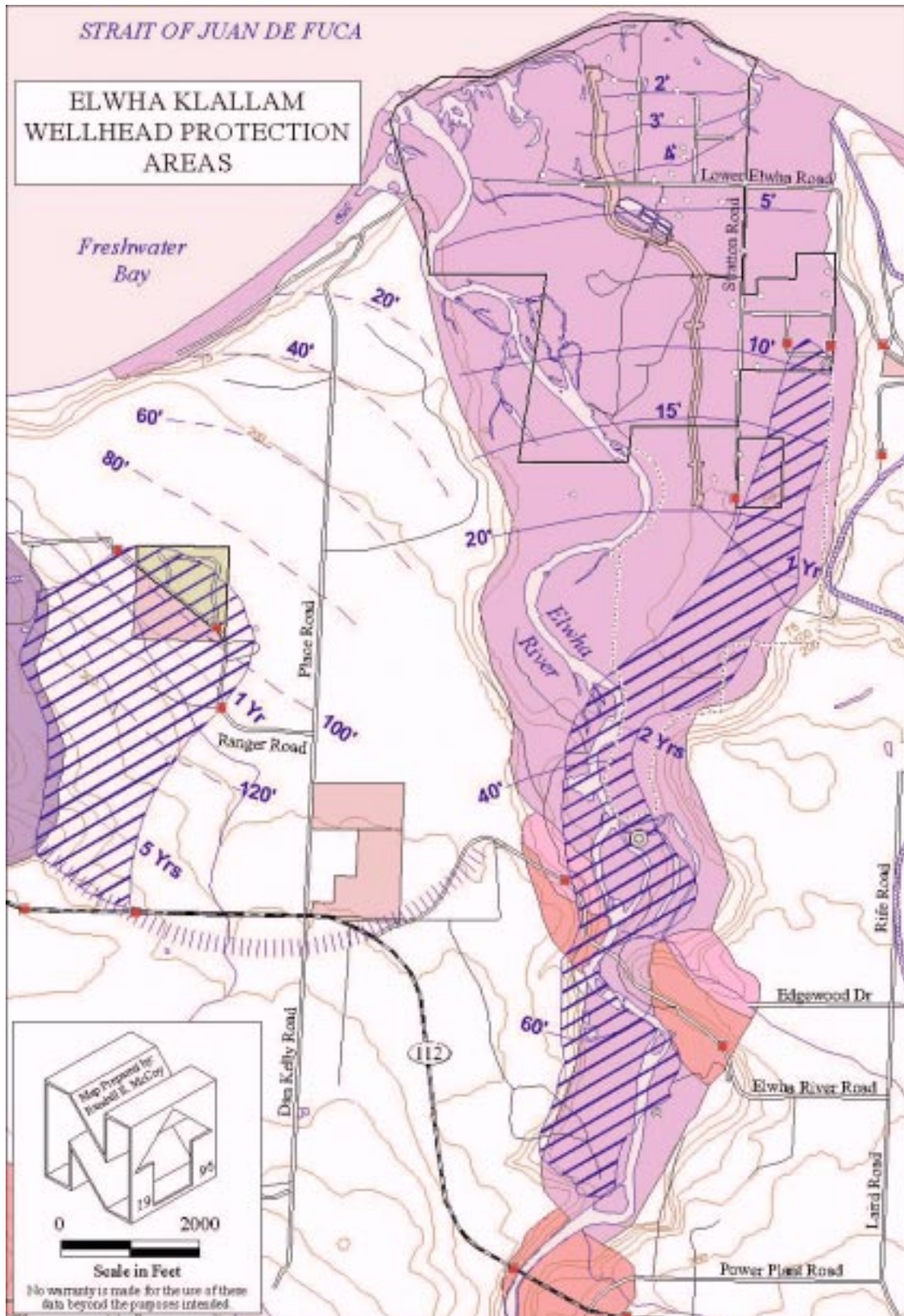


Figure 4



Prior to 1968, there were no drilled wells available to residents of the Reservation. When the Tribe was recognized by the federal government in that year, no residents had running water. Residents used different systems, including hand pumps and open wells. One resident used an irrigation pump purchased from Sears to pump water from nearby Bosco Creek. After the tribe gained federal recognition in 1968, Indian Health Services (IHS) had wells dug throughout the reservation. These activities included digging two wells to meet the future needs of a CWS. In 1985 the first community water system was constructed at the Heights development serving 38 home on twenty acres. Following construction of the Lower Elwha Flood Control Levee in 1989 funds became available to build on lands in the Valley. The current CWS in the Valley went online in 1993 following the construction of the first round of Housing and Urban Development houses built for the Tribe.

While HUD houses were served by the community system, existing homes were given the option of connecting to the system or maintaining their own private wells. The years since 1993 have witnessed a slow transition from individual wells to a CWS. Many individuals declined to give up their private wells, and only did so when the continuing costs of treatment for ongoing and chronic bacterial contamination became prohibitive for individual families. An additional 14 wells were backfilled and 2 were capped without backfilling to facilitate groundwater monitoring without compromising the remaining individual domestic wells. Tribal Environmental Quality monitors individual wells for nutrients on a three year rotation and for bacteria following flood events that submerge drainfields and well heads.

Today the Lower Elwha Klallam Tribe uses groundwater to meet its domestic water needs with two CWS and several domestic wells. The system serving the Lower Reservation supplies 85 connections, including 79 homes and 6 community building connections. Water for the Lower Reservation system is drawn from two community wells located in the southeastern corner of the reservation. The water system serving the Heights (a 20-acre parcel of land approximately 8 miles west of the Lower Reservation) serves 54 residential connections. The system is managed by a half time utility operator, and is supported by monthly fees of \$20 per month plus .50 cents per 100gal excess fee. The commercial rate paid by the tribal center and other tribal operations is \$50 a month plus a .25cent excess fee. These fees are used to support monitoring and testing activities that are required by EPA regulations.

Threats to Community Source Water

The Tribe has identified a number of possible threats to these CWS. One of the major concerns is the very shallow (static level 3'-18') nature of the unconfined aquifer serving the Lower Reservation. The shallow water table makes the groundwater supply particularly susceptible to surface water contamination. The problem is exacerbated by the increasing density of residential development on the Lower Reservation. Development is dependent on on-site septic systems, and the shallow water table is very susceptible to contamination from septic systems. The Tribe is struggling with a limited land base, and has recently purchased the 200+ acre Halberg Addition contiguous to the southeast corner of the Lower Reservation with the intent of developing it for tribal housing. Any development in this area will impact existing tribal wells, especially in the absence of an enforceable land use regulations.

Plans to build 100 homes in this area will drastically increase the risk of groundwater contamination from individual septic systems, which may occur in densities exceeding those recommended by the State of Washington. Creating a community waste-water system to reduce this risk is unlikely due to its cost prohibitive nature (Bureau of Reclamation 1998). In addition, housing development in this area will create increased storm water run-off necessitating the development of a control system either through building regulations or the development of a removal system (Lower Elwha Klallam Tribe 1998). Last, increased housing density will also raise the risk of contamination from household chemicals such as pesticides, motor oil etc. These risks are of great concern because the Halberg Addition lies within the delineated well head capture zones for the Lower Reservation's community wells (Hart Crowser: Earth and Environmental Technologies 1995). Developing this area for tribal housing will create a host of possible threats to this community water system.

The community wells serving the area known as The Heights face a different set of threats. The static water level for the aquifer serving The Heights is approximately 200'. In addition, the aquifer is closely bounded up gradient by a high ridgeline, and this area is mostly undeveloped. These factors make the existing CWS fairly impervious to chemical contamination. Following recent up-gradient construction that re-channeled a seasonal stream to its historic bed, wells show recovered delivery capacity. Between 1985 and 1998 a 14 foot drop in static level indicated stress on the aquifer. Early assessment concludes that the stress resulted from dissemination of winter storm-water to sheet flooding, not from excess domestic water supply demand as was previously suspected. The Tribe will continue to monitor static level on these wells to confirm this assessment.

The particular problem facing Heights wells stems from the fact that the capture zone is located on land held in trust for individual Indians by the United States. The wetland that appears to absorb and delivering surface water to a break in the aquifer cannot be protected under Tribal jurisdiction. These lands are included in Western Washington Public Domain and remain outside the management of county, state, tribal, or federal oversight.

The Tribe has completed a Well Head Protection Assessment for their community water systems. These assessments have delineated the location and hydrological features of community well capture zones. They have also compiled a risk inventory listing all possible threats to the systems. Last, the Tribe has developed a *Groundwater Resource Protection Ordinance With Designated WellHead Protection Districts*. This ordinance was completed in 1995 and covers permitting and inspection requirements, regulations for on-site septic systems, domestic and abandoned wells, salt water intrusion, and the enforcement activities of tribal programs. However, this ordinance has never been formally passed by Council, and so continues to serve as a guide for environmental staff without imparting any real regulatory or enforcement power to them. The Community Development Director for the LEKT commented:

We completed a Well Head Protection Plan, but, the regulatory structure that would be put into place to manage the plan did not happen. A structure that would have a permit process so that the Tribe would have planned review of all the activities listed in the groundwater ordinance. We got to that point and it didn't *live* enough with the community to become policy.

Consequently, the Tribe has little to no formal regulatory structure to mitigate possible threats to the community's drinking water that may result from land use practices and tribal housing development.

Traditional Resource Management in Klallam Culture

This lack of formal regulatory structure makes sense when viewed within the context of traditional Klallam resource management. Klallam culture is characterized by a dynamic, fluid, outward focus designed to allow individuals access to resources over a large territory by vesting control and management in resource sharing kin networks. Conversely, local community resource management is characterized by informal situational control. The Lower Elwha Klallam Tribe has entered into cooperative management agreements with outside federal, state and local agencies; while their attempts to create a formalized strategy for the management of local resources on the Lower Elwha Reservation have proven problematic. Rapid growth in the Elwha community, coupled with a dramatic increase in housing development and the possibility of dam removal on the nearby Elwha River, may have adverse impacts on local drinking water quality if not addressed in a concerted manner. The development of an operational strategy for local Source Water Protection and management is greatly aided by a programmatic examination of community beliefs, values, goals and concerns, and their possible impact on community water quality.

At the time of American settlement, the Klallam territory formed a social continuum within which the village was only one of several important social groupings.² These groupings can be conceptualized as belonging to four levels or discrete units: the family; the house group, each composed of several families; villages, each composed of several house groups; and the tribe as a whole which occupied a well-defined territory. However, it was the non-discrete, non-localized, resource sharing kin group that represents the most important unit of analysis for the discussion at hand. This group controlled the most important ceremonial rights, the most productive natural resources and drew its membership from a large spectrum of village sites (Suttles 1960; 1963).

These inter-village relationships formed an exchange system that was adaptive under the particular environmental conditions of the region. Resources in the Pacific Northwest are abundant, yet highly localized. The resource sharing kin group represented a mechanism for the gathering and redistribution of goods to group members living in different ecological zones along the coast (Suttles 1962; 1968). Therefore, Klallam culture provides a well-developed framework for managing natural and cultural resources at the regional level. The importance of inter-community relationships realized through the resource sharing kin group represents a fundamental stress point in Klallam life. The most important social relations were between individuals in different communities. These relationships were organized into a formal system of resource management. The right to access resources and participate in their management was obtained by establishing formal relationships with both affinal and cosanguinal kin in other communities. Klallam culture was characterized by a dynamic, fluid, outward focus designed to allow individuals access to resources over a large territory by vesting control and management of those resources not in individual leaders or local institutions, but in far flung kin networks.

This system is still meaningful to Klallam people, and has significant implications for the management of local resources like drinking water in the contemporary Elwha community. Elwha

elders living today clearly recall a time when contact with non-Klallam individuals and agencies was sporadic, and daily life was heavily influenced by traditional practices and beliefs. Far from being ancient history, this management system is firmly rooted in daily life in the contemporary community of Elwha. The social structure of Klallam communities is not designed to promote exclusive management of this important resource. Contemporary tribal members have resisted attempts by the tribal government to place restrictions on local source water. These attempts are often viewed as illegitimate meddling in the lives of individuals and their families. The situation has been complicated by the lack of a formalized Source Water Protection Plan for the Lower Elwha Reservation. The lack of a formal plan has meant that tribal resource managers must respond to possible threats to water quality in an ad hoc manner, thereby exacerbating the tension between tribal members and resource managers over land use. Unilateral control of local resources by a village political entity that exists outside of the kin network is anathema to Klallam sensibilities about the relationship between resources and social organization.

The success of the Lower Elwha Klallam Tribe in protecting the quality of surface water in the Elwha River Valley contrasts sharply with their inability to draft a programmatic plan for the protection of source water on the Lower Elwha Reservation. The guidelines for watershed management along the Elwha River, as well as within the nearby City of Port Angeles, allow for the tribe to be informed of any development in the area that may impact source water quality as well as natural and cultural resources related to the Klallam. The process of notification, consultation and mitigation is very clear. In sum, off-reservation development in some instances is very strictly monitored with involvement from the tribe. The reservation community of Elwha is in a very steep curve of growth. The tribe has experienced a 400% increase in housing development in the last 10 years, which will no doubt rise as the 130 enrolled tribal members currently lacking on-reservation housing seek to be relocated to their home community. At the present time there is no oversight process for the impact of on-reservation development, either by the Tribe or individual tribal members, on source water quality. The Tribe has a long history of mitigating off reservation impacts to fisheries, with 30 years of program and infrastructure development. On reservation protection of environmental impacts to human health and its related assessment and policy development are a relatively new phenomenon for the Tribe.

The sheer magnitude of development on the Lower Elwha Reservation has put an enormous amount of strain on local natural and in particular water resources. The traditional management system was able to ameliorate increased pressure on local resources because of the availability of surplus land. Rapid growth in a community would result in the formation of splinter groups that would eventually form their own separate communities. In the words of one Klallam elder,

I'll give you an example of how villages were. If you had ten children, and they grew up, you wouldn't have them all living in your village. It would just get to crowded. Let's say your son got married and had a couple of kids. They would just move to a place with access to water and what not and start a new village. Folks moved around a lot anyway, so it was easier to just make that split and start over.

However, the contemporary Elwha Klallam Tribe is relegated to a reservation that represents a fraction of their aboriginal land base with no possible outlet for population overflow. In short, social and political divisions have always been present in Klallam society. The availability of land and the presence of non-discrete lineage resource sharing groups allowed for the functional amelioration of intra-community divisions. The static nature of modern Klallam communities creates schisms that are difficult to resolve given the current (and foreign) social and political make-up of the village.

The traditional cultural emphasis on loose local control of resources has been buttressed by several features of the contemporary socio-political landscape of the community. Recent development on the Lower Elwha Reservation has greatly increased the population density of the community. In 1932 the average family living at Elwha occupied between 20 to 40 acres of land. Today the average family occupies 0.5 acres. The problem of population density is compounded by the fact that 60% of the reservation is unsuitable for development due to chronic flooding.

Increased population density has placed a premium on land development. Individual tribal members seeking housing and a tribal government attempting to respond to the needs of the community have occasionally felt the need to sacrifice a certain level of water resource protection in the name of community growth and development. It is important to note that the Elwha Klallam are not willfully sacrificing the protection of their resources. When faced with this trade off, many tribal members feel that tribal disturbances of resources do not carry the same connotation of disrespect that is associated with disturbances by non-Klallam agencies. Rather, tribal disturbances are viewed as part of a historical continuum that connects the contemporary Klallam with their ancestors in a tangible and concrete manner. In short, changing demographics of the Elwha community, coupled with a strong sense of political and cultural empowerment associated with local growth, has led the community to resist a formalized Source Water Protection Plan in favor of continued autonomy and growth.

This would suggest that the traditional management system may not fully serve the Elwha community. Increased population density has created a strong movement towards more centralized development planning and management. In 1988 the Lower Elwha Reservation was home to 14 families. This core group of long time residents has begun to feel the social strain of rapid community development. They feel that rapid uncontrolled development has created a sort of social and political chaos as the ranks of the community are swelled with Klallam people in search of tribal services. This feeling is also shared by many newly relocated Klallam who are concerned that unregulated growth will threaten the cohesion of the community. While individual Klallam do not necessarily want their own behavior controlled, they none the less feel the need for a formalized management plan to counter negative impacts on the quality of life in the community.

The move toward more centralized planning is being increasingly embraced by a tribal government under pressure from federal agencies to adopt planning and management guidelines that meet federal standards. The Lower Elwha Klallam have moved toward assuming direct implementation of federal environmental regulations, including the protection of sources of drinking water, through the Treatment as a State (TAS) process. TAS allows tribes to assume direct implementation of EPA programs. The Tribe's current management dilemma has become more visible as

a result of TAS, and has brought increased scrutiny by the EPA and other federal agencies that have begun to pressure the tribal council to adopt stringent new management guidelines.

With no outlet for a growing population, the traditional system breaks down and ceases to respond to the physical and psychological needs of the community. It is, however, still quite successful at the regional level and has strengthened the political position of the Tribe in regional watershed based management plans. Unfortunately, the movement towards more centralized local planning will be a painful process as it strikes at a key stress point in traditional Klallam life. In short, Klallam socio-cultural organization, coupled with a complex set of demographic and geographic factors, including population growth and a limited land base, have intersected with the growing involvement of the Tribe in the environmental protection arena to create a fundamental dilemma for the tribal government. Cultural and demographic features of Klallam life have created certain salient and powerful limitations to the types of responses the tribal government can employ to threats to community source water. This is occurring at precisely the same time the Tribe is seeking to take more control over local resources through the TAS process and direct implementation of EPA programs.

Lower Elwha Tribal Government Responses to Source Water Protection

The premium the Lower Elwha community has placed on fluid and informal management of local resources is clearly reflected in the organization and operation of the Lower Elwha government. Many analyses of the function and operation of tribal governments have focused on the apparent disparity between Western democratic political structures, which have been imposed on tribal groups, and the traditional social and political institutions that are responsible for social and political control. Robert Bee has remarked that, "many tribal communities are plagued by ideal/structural incongruity that has become institutionalized as an exploitable pretext to be seized by all parties in tribal political conflict, not only 'traditionalists'" (1998: 285). The Lower Elwha Klallam Tribe has avoided much of the infighting and factionalism that have been raised as a hallmark of native communities. The challenges faced by the tribal government are not a result of internal factionalism, rather they are a result of the incongruity between the internal needs and structure of the community and the external requirements of tribal operations mandated by their relationship with the federal government. This situation is complicated by the unique relationship between the community, its political structure, and resource use and planning. Those elected officials who are responsible for adoption of regulations are also the owners and developers of the land. This creates an inevitable conflict for a tribal government operating without checks and balances on open market development.

Land use regulations that may hamper development activities are likely to be opposed by the community. The high level of integration between community social and political life means that there is likely to be little support for these regulations at the level of government. The Tribe's Community Development Director has said, "The Tribe has consistently resisted attempts to zone the reservation to manage land use practices. Its just something there is not a lot of support for, because there are not a lot of outsiders to regulate. If there were outsiders to regulate, there would be more motivation to limit land use practices. But when the burden of planning falls only on tribal members, it sounds like it should be easier to accomplish. In reality it is much much harder because there is no will in the community to get it done."

This feature of Elwha community life has been further complicated by recent gains in the area of tribal sovereignty. PL 103-413, the Tribal Self Governance Amendment, PL 93-638 contracting system and the TAS process have made it possible for more tribes to take over virtually all programs presently administered for them by the various agencies of the Department of Interior. These are unquestionably positive gains in the struggle for tribal sovereignty, and they represent a growing desire within the federal government to allow tribal communities a wider latitude in planning their own economic, political and cultural development. However, with self-governance comes an increasing responsibility as tribal governments seek to promulgate federal programs and standards (often with a reduced budget). Self-governance has important ramifications for tribal sovereignty in the form of federal oversight in tribal arenas that had previously escaped such close scrutiny. Regardless, the move toward more centralized planning is being increasingly embraced by a tribal government under pressure from federal agencies to adopt planning and management guidelines that meet federal standards. The Tribe's current management dilemma has brought increased scrutiny by the EPA and other federal agencies that have begun to pressure the tribal council to adopt stringent new management guidelines.

Internal Strategies for Developing Formalized Planning

The primary barrier to more centralized planning is the lack of coordination between tribal programs. Currently there is no existing mechanism for coordinating the disparate activities of the various departments and programs involved in both resource protection and resource development. Separate tribal offices deal with housing, transportation, water planning, fisheries and river restoration. These offices either do not have a formal mechanism for communication, or have no authority to make the hard wide ranging decisions necessary to balance development and protection. Most coordination and program interaction is informal. For example, the Community Water Planner, stated that interaction between her office, fisheries and the other environmental planners was adequate but informal. There is only a small staff of environmental planners, and their offices are adjacent making consultation easy. She also suggested that informal consultation with planners from other programs was possible to attain. The Water Planner went on to state that this informal communication creates no obligation to act on possible problems, and so the dialogue ends before any positive regulatory or planning decisions can be made. The small size of the tribal government and its various programs facilitates informal communication, which is further supported by the decentralized "organic" nature of the tribal political organization. Unfortunately, informal communication does not solve the larger problem of the lack of coordinated planning. A uniform response to land use and planning will continue to suffer in the absence of a forum for coordinating planning activities between resource development and resource protection.

The Tribe has made some steps toward addressing this problem. One of the most significant being the creation of the position of Community Development Director. The Community Development Director is the chief officer for the Tribe's environmental programs, and the creation of the position may be an attempt to break the current gridlock. This position would seem to empower the Director to take a wider role in addressing development issues. Towards this goal, the current Director has proposed the development of a comprehensive planning board to address development planning on existing and newly acquired tribal lands. This board would consist of representatives from all tribal programs involved in development, and would serve as a vehicle for resolving conflicts and coordinating activities. The fate of the planning board is uncertain. It has met a good

deal of resistance from factions within the government who have suggested that inappropriately rigid environmental regulations may “put people out on the streets” by restricting housing development. Other department heads have been similarly resistant to the idea. Some have stated that there is already a good deal of coordination between programs, and that another layer of bureaucracy would only hinder timely actions.

Community participation in tribal operations and planning may be at its maximum level, and the creation of any new board or committee must be weighed against the availability of tribal members to participate. A unique feature of the Elwha community is the extremely high level of individual involvement in tribal operations and governmental activities. It is safe to state that the level of individual involvement in the political life of the community far exceeds that of any non-tribal municipal entity. Most adult members of the tribe sit on numerous boards, commissions and panels. This broad base of involvement in tribal operations may help to quit any nascent divisions between segments of the community. Unfortunately, the small bounded nature of the community may also hobble local decision making because of the many cross cutting ties and loyalties between individuals in the community. The Community Development Director has a very real and understandable need for a more formalized and structured planning process that would lend weight to attempts at balance development and protection. Likewise, department heads and program planners see coordinated planning as a potential waste of time and money that will make it difficult for them to fulfill their obligations to their own funding sources.

Despite this debate, the Tribe has begun plans to bring planners together for meetings on coordinated planning for newly acquired tribal lands. This is largely a result of a tribal resolution that was passed mandating comprehensive planning for the newly acquired Halberg Addition. The passage of this resolution was a Department of Housing and Urban Development requirement prior to the release of dollars to purchase the Addition. The resolution has given the Community Development Director a procedural lever to move forward with attempts to create a planning board. Attempts to coordinate planning have coincided with a reorganization of the Tribe’s Environmental Quality Program. The Community Development Director describes the reorganization this way:

We are reorganizing our program staff so that they can work across programs. Water planning, environmental education, land use, forestry all coordinated and funded through multiple funding sources. The idea is to fit funding into our program rather than fashioning what we do around the funding. As the department expands from being just one person to being many people, we find that working across programs by having one person in their area of strength serving many different programs is a real benefit to the kinds of responses we can undertake.

A closely related attempt to facilitate coordinated planning has been the preliminary development of an environmental checklist to be used as project review of tribally funded actions. In the summer of 1999 the Tribe passed Resolution 36-99. The resolution states that construction projects funded by the Tribe, or in conjunction with the Tribe, must undergo a 15-day review process by departments within the Tribe and centered in the Department of Community Development. An

environmental checklist must be completed and accompany the plans to be reviewed. The proposed purpose of this checklist is to create a dialogue between people and departments about how to complete construction projects and protect natural resources. It remains to be seen whether this review process accomplishes that goal, or results in the same sort of fractured dialogue currently characteristic of tribal planning.

Another possible solution to his problem may be looming on the horizon. In 1993 Congress created an Office of Tribal Justice Support within the BIA to provide technical assistance and funding to tribal governments for judicial development (PL 103-176). One of the unique characteristics of tribal political organization is the almost complete lack of an independent judiciary. Tribal governments tend to be heavily weighted towards legislative functions, with little separation between these functions and those of an executive or judicial branch. Because of this, dispute resolution tends to be highly politicized, and often is embittered and acrimonious. This results in a high rate of legislative turn over and severely destabilizes tribal governments attempting to grapple with serious and contentious disputes over resource allocation and protection.

The development of an independent judiciary could provide an important check and balance on administrative malaise, and could provide a possible arbiter in development and environmental protection disputes. "Tribes could use this program to help create or strengthen a judiciary's hand in dealing with leadership behavior. Significantly for the persistence of traditional political structure and ideology, the law specifically permits tribes to explore and develop traditional tribal justice systems, and traditional methods of dispute resolution" (Bee 1999: 291). While the development of a system for independent judicial review of development planning at Elwha may not necessarily overcome the internal resistance to formalized planning, it may provide the Tribe with a mechanism for dispute resolution that incorporates more traditional informal methods.

External Strategies for Developing Formalized Planning

The Tribe has also considered several external-planning mechanisms to support the internal reorganization and project review that they are undertaking. Tribal planners are very aware that short-term impacts as a result of community development could occur while the Tribe is focusing on long term planning strategies. In response to this concern, the Tribe has begun to look for outside agencies that could provide immediate oversight and review of community development projects during this reorganization interim period. Utilizing various threshold reviews by federal agencies would provide two substantial benefits to the Tribe. First, it would give tribal staff access to additional technical and policy expertise not currently available within the Tribe. Second, it would remove some of the onus for decision making from the tribal council and tribal planners. Submitting to external review would allow the Tribe to defer contentious decisions regarding environmental protection and possible limits on community development to external agencies.

One example of this type of threshold review is represented by the National Marine Fisheries Service (NMFS) designation of critical habitat pursuant to the Endangered Species Act. In the early fall of 1999, the Tribe approached NMFS with a request for the agency to make a critical habitat designation for newly acquired tribal lands that included significant salmon habitats. A NMFS determination that any of the lands were critical habitat would have required the agency to take a clear role in review of all development actions on those lands. The Tribe initially viewed this

possibility as a positive action, as it would have given tribal staff a clear mandate to limit certain types of development for environmental reasons.

The Tribe later determined that NMFS involvement on reservation lands, something the agency would only involve itself in at the request of the Tribe, could possibly have serious implications for the Tribe's status as a sovereign nation. Giving NMFS a lead role in management of reservation lands could represent a long term bargaining away of the Tribe's sovereign authority in return for the agency's help in short term project oversight and review. In response to this concern, the Tribe is now considering developing a Memorandum of Agreement (MOA) with NMFS that would allow the Tribe to retain primary authority over critical habitats, while managing them pursuant to NMFS policies and goals. This cooperative arrangement would buttress the Tribe's management prerogative regarding reservation lands. The Tribe's constitution is somewhat weak with concerns to the authority to regulate tribal trust land. However, the constitution does contain language that states that the Tribe can enter into agreements with state and federal agencies to carry out specific tasks. Implied in that statement of the ability to enter into an agreement with a state or federal agency is the authority to carry out that agreement. If the Tribe entered into an agreement with NMFS to manage critical habitat on the riparian land (the stream banks) and on the submerged land (the river beds) of the Elwha River, it would provide tribal staff with a mechanism for carrying out management activities while simultaneously strengthening the Tribe's authority over reservation trust lands. Unfortunately, NMFS has been slow to respond to the Tribe's request to negotiate a MOA, and so the fate of a cooperative agreement between the Tribe and the agency is uncertain at this time.

The Tribe has also considered entering into cooperative arrangements with local and state agencies in an attempt to lend external support to on-reservation management activities. One such cooperative arrangement would involve the Tribe entering into a regional water planning and purveying relationship with the nearby City of Port Angeles and Clallam County. The municipal and industrial water lines for the City of Port Angeles draw their water from the Elwha River and are located immediately adjacent to the southeast corner of the Lower Elwha Reservation and within the Tribe's designated Well Head Protection Areas. The Tribe has shown some interest in using the City system to provide water to the reservation, but has expressed concerns that they be involved as full partners in the system and not as simple users. The Tribe's position is supported by the fact that it is currently engaged in watershed planning for the Elwha River at a number of levels. The Tribe is a full partner in the Elwha River Ecosystem and Fisheries Restoration process related to dam removal on the river. In addition, the Tribe is designated as a full management partner in the State of Washington's "2514 Watershed Management Process." Entering into a formalized regional water management and purveying process with other local agencies would lend a good deal of support to tribal staff charged with protecting community source water by providing them with external support for decisions effecting on-reservation development and land use.

Coordinated and cooperative water planning between tribes and local agencies has been attempted by other tribes in Western Washington with varying degrees of success. The Upper Skagit Tribe has been identified by Skagit County as a full partner in the County's water planning process. This partnership is an outgrowth of the Tribe's concerted effort to work with the county during their Source Water Assessment and Well Head Protection activities supported by the EPA Region X. The

Nooksack Tribe has become a major purveyor of drinking water for non-Indians living off-reservation. The Tribe had previously purchased its water from a neighboring private water association. The water association no longer has the capacity to serve all its clients, and so the Tribe obtained funding to construct its own delivery system and has now contracted to provide water to its former service provider.

A less successful example of cooperative water management can be found between the Lummi Tribe, the City of Bellingham and Whatcom County in northwest Washington state. Unlike Upper Skagit and Nooksack, the Lummi have a large amount of non-Indian in-holdings scattered throughout their reservation trust lands. Historically the Tribe has been plagued by the potential for contentious fighting and bad faith between the Tribe and local governments. While the Lummi would seem to be an excellent candidate for cooperative water planning given their close proximity to the City of Bellingham and the large number of non-Indians within their trust lands, they have been unable to reach an accord with other local agencies and individual water users.

Cooperative water planning between the Lower Elwha Klallam Tribe, the City of Port Angeles and Clallam County would seem to be a very real possibility given the success of other tribes in the state. However, the Tribe must be cognizant of the potential for inter-jurisdictional disputes and plan appropriately. The success of a cooperative arrangement between the City of Port Angeles and the Tribe could aid in the delivery of clean drinking water to the Lower Elwha Reservation and provide tribal staff with another tool for addressing environmental management and development issues on reservation lands.

The Lower Elwha Klallam tribal government is somewhat constrained in its responses to SWP given the particular socio-cultural structure of the community it represents. The government and the community are rapidly realizing the need for more formalized management and policy as the community grows in size and its responsibilities for direct implementation of environmental programs grow in complexity. The Tribe has undertaken a number of steps to reorganize and coordinate the internal operations of the tribal government to better balance community growth and environmental protection on tribal trust lands. In addition, they have examined the possibility of cooperating more closely with local and state agencies in order to further protect closely related off-reservation resources and lend support to tribal authority of on-reservation resources. Together these strategies can provide the Tribe with a set of powerful tools for guiding community growth and development in a manner consistent with community values and goals, while simultaneously providing a high level of protection for the local environment.

The Role of the EPA in Tribal Source Water Protection

The U.S. Environmental Protection agency also employs a number of tools for protecting sources of community drinking water. These tools include assistance with the technical assessment portion of SWP planning, assistance with building tribal capacity to develop and implement SWP policy, and funding to support tribal environmental protection efforts. Together these tools represent a powerful force for influencing tribal responses to SWP. Individually and collectively these tools have the ability to either hinder or advance tribal SWP goals depending on how the EPA applies them, as well as the unique context of the tribal community in question. The previous sections of this paper have outlined a number of the dynamic factors that both frame and shape the

ways in which the Lower Elwha Klallam Tribe have attempted to protect the sources of their community drinking water. What remains to be seen is how EPA SWP activities intersect with those of the Lower Elwha community. The final portion of this paper outlines that intersection and assesses the success of EPA SWP strategies. This will serve to highlight the strengths and weaknesses of the EPA approach, and lead to suggestions for modifying EPA policy to more fully support the SWP goals of tribal communities throughout Indian Country.

Pollution prevention is the basic premise behind the EPA Source Water Assessment and Protection (SWAP) Program. The EPA statutes regarding SWAP goals and mandated actions were primarily developed to address non-Indian water systems located within the jurisdiction of state governments. As a result of this primary focus on state systems (as opposed to tribal systems) the statutes are somewhat weak on actual development and implementation of source water protection measures. The basic premise of the SWAP statute is that states will set the stage for protection by providing information to the public and to communities so local agencies can develop protection plans. EPA does not place the onus for protection on the state because local protection efforts will largely be driven by local planning that will require local ordinances and land use actions beyond the scope of state jurisdiction.

The EPA emphasis on assessment rather than on policy development and implementation is sensible given the large number of water systems within a state and the differences in complexity and local context surrounding those systems. However, EPA tribal SWAP goals may be difficult to meet given this lack of support for post-assessment policy development. EPA has set a goal that 40% of the population served by tribal CWS will receive their water from systems with SWAPs, and where needed, SWP programs in place. While, EPA seems well on its way to meeting the assessment portion of this goal within that time frame, it has found it difficult to address the development of SWP plans “where needed”. A Region X Tribal SWAP Specialist has commented that:

This is not a one-card game. Communities are pilling the cards on, and the first thing to do is to have better communication with all the parties involved. It may not mean that you are going to have protection in place in the first 6 months, or even 6 years. If you have a SWAP you can start communicating the results through maps and lists of potential contaminant. So say in Elwha’s case, if there is going to be future housing development activities, then at least the people making decisions in housing know where the WHP area is located. There may not be anything formal in place, but at least there have been some lines of communication opened up, and I would consider that a success.

EPA provides a good deal of technical assistance to help tribes map water systems and identify possible risks to their source water. EPA has no mechanism for influencing the type of land use or water policy that a tribe may or may not adopt as a result of this assessment. Consequently, many tribes find themselves in a situation similar to that at Elwha, having done all the pre-development assessment for policy development with little follow through. While the EPA short-term goal

of completing assessments may be met, long-term EPA goals to protect sources of drinking water for tribal communities may suffer from this lack of linkage between assessment and policy development and implementation. It will expend EPA and tribal resources in the completion of assessment activities, only to find those reports sitting on shelves gathering dust with no discernible benefit to SWP having been realized.

Coordinated Social and Technical Assessments of Community Source Water

One possible means to address the lack of connection between assessment and policy development activities would be to conduct a social and political assessment of a tribe's source water situation in conjunction with the more traditional technical assessment activities performed by EPA. The ecological model presented in this paper can provide tribes and EPA with a framework for identifying possible strengths and limitations inherent to the community and its governing body. This type of assessment would highlight the points of connect and disconnect between community life, tribal operations and EPA assistance that may surround the development of SWP policies. Native people have made a strong argument that natural resources, cultural life and community organization are often times indistinguishable for one another. This argument has prompted legislators to mandate the inclusion of Social Impact Assessments (SIA) as a component of all Environmental Impact Statements (EIS). Ed Liebow (1987) has suggested that the SIA allows decision-makers to evaluate the likelihood of community changes within the broader context of economic and community development. He goes on to argue that tribes and public agencies often have different needs they expect to be fulfilled by assessment work. These differences of opinion, and the conflicts they may engender, can be addressed by an ethnographic approach to SIA. In response to the perceived need for an ethnographic approach to SIA, anthropology has developed a series of methods and theories concerned with the identification, and protection of cultural resources, as well as the amelioration of disputes that may arise over their interpretation. The use of an ecological model, in conjunction with a SIA of the impact of SWP planning, could provide the tribes and EPA with a baseline understanding of the tribe's policy development capacity. This would help to ensure that SWP activities do not stall at the assessment level, thereby fulfilling the long-term SWP goals of EPA and tribes.

The cooperative agreement between the Society for Applied Anthropology (SfAA) and the EPA provides a unique opportunity to more fully integrate technical and social assessments of tribal SWAPs. The EPA Office of Ground Water and Drinking Water (OGWDW) purpose for sponsoring the SfAA Fellowship Program is to explore the contributions anthropology can make to environmental protection, and provide insight into the local realities and particular obstacles that communities face when protecting their local resources. The SfAA views the purpose of the source water fellowships as a pilot test of the ability of the cooperative agreement to illuminate the connects and disconnects between communities and government agencies. The final goal is not only to assist the tribes, but to transfer what is learned to help other tribal communities as well.

Capacity Building and Community Source Water Planning

The second tool EPA possesses for addressing tribal SWP is assistance to tribes to undertake capacity development. Capacity development is an important component of the SDWA as amended in 1996. The capacity development provisions offer a framework within which tribes and EPA can work together to ensure that systems acquire and maintain the technical, financial and

managerial capacity to achieve the public health protection objectives of the SDWA. (Environmental Protection Agency 1998). Water system capacity is the ability to plan for, achieve, and maintain compliance with applicable drinking water standards. Again the capacity development portions of the SWAP statutes differ with regards to states and tribes. The law prohibits Drinking Water State Revolving Fund (DWSRF) assistance to a state system that lacks the technical, financial and managerial capacity to achieve the public health protection objectives of the SDWA. However, tribes are not funded through the DWSRF, and consequently EPA has fewer financial mechanisms for requiring tribal capacity.

In Region X tribal capacity building in the area of drinking water is conducted through a program separate from the technical SWAP program. The capacity building program focuses on the development of tribal utility boards as a logical link between technical assessment and capacity development assistance. The Region X Capacity Development Specialist noted that making judgments on other tribal members and family members, or limiting the development activities of tribal members can be very problematic in small tribal communities. Service actions such as suspending water service for non-payment of fees is a serious dilemma for a tribal utility operator. In response to this dilemma, EPA has proposed the development of tribal enterprise utility boards that could take issues to the tribal council with the authority to get attention and serious deliberation. Other defining features of a utility board would include the support and structure provided by a tribal utility ordinance document. The Specialist further stated that EPA feels that a utility ordinance should include planning capacity measures so the tribe is able to assess manpower needs and the status of their physical structures. All these components have a useful life, and tribes need to plan ahead so that they can replace them when necessary.

The formation of functional tribal utility boards with the support and backing of the EPA could be used to address the inclusion of tribes in the type of regional water planning being considered by the Lower Elwha Klallam and other tribes in Washington state. Tribal/state relations are often complex. As a result of differing legal views about their respective jurisdictions, tribes and states often find themselves competing aggressively for authority, particularly with regards to regional resources like water. State-tribal cooperative agreements can be an effective strategy for implementing a sound and comprehensive SWAP program that avoids addressing difficult jurisdictional questions, provided that parties do not compromise important political or legal rights. Despite differences, EPA notes that successfully negotiated agreements are possible. (Environmental Protection Agency 1999). These cooperative agreements usually focus on information exchange and transboundary coordination. In the 1994 Survey of Tribal Water Quality, the American Indian Lawyer Training Center noted that one approach to these agreements is to avoid matters that depend on jurisdiction. “ We know of several tribal state agreements that avoid the jurisdictional issue altogether, while providing for information sharing, common regulatory standards and procedures, joint inspections, cross deputization of enforcement officials, prior notice and opportunity to comment on permits, and a variety of other procedures that address the interests of both parties and enhance environmental protection.” (1994).

EPA supported tribal capacity development can be a powerful tool for shaping tribal responses to SWP. EPA assistance in developing functioning tribal utility boards helps build community support for utility operations, provides the tribe with a stable forum for addressing utility

operations, and gives the tribe a solid infrastructure capable of entering into regional water management debates. As such, EPA capacity building efforts can support tribal SWAP goals by helping the community in question build the framework necessary for developing and implementing SWP policy at the local and regional level.

EPA Funding Mechanisms

One shortcoming of EPA capacity building efforts is that success is highly dependent on the vagaries of the EPA's funding initiatives. EPA funding for tribal capacity development and environmental program operation is often tied to short term competitive grants. This creates a serious dilemma for tribal program managers. An environmental planner for a western Washington Tribe commented at a recent EPA Region X Tribal Summit that,

We haven't really gotten to the bottom of answering the financial question. We can't move forward unless the tribe has a financial base to know that they are going to be able to stay in the water and move toward program delegation. We need to know that we have base funding every year, and that we are not waiting for an annual announcement to compete. It's difficult to continue a significant investment in program development, especially when it is in a critical arena. We have resources out there that we need to protect, and we need to know how to plan for that on a multi-year basis.

EPA has traditionally relied on a number of methods for funding tribal environmental programs. A significant source for building capacity and environmental program operation has been through grants provided under the Indian General Assistance Program (GAP) Act. The objectives of the GAP Act are to provide funds to recognized tribal governments to build capacity. This includes planning, hiring staff, monitoring and assessing resources and pollution threats. GAP strives to provide tribes with an opportunity to build a core environmental program and prioritize problems. Many EPA specific grants can also be used to build capacity in concert with GAP funds. Another EPA funding tool is the Performance Partnership Grant (PPG), which is a multi-program grant to a tribe or state by EPA from funds allocated and otherwise available for categorical grant programs. PPGs provide an option to combined funds from two or more specified categorical grants into one or more PPG. The purpose of PPGs is to give the flexibility to address a tribe's highest environmental priority across all media while continuing to address core program commitments. PPGs are intended to reduce administrative burdens and costs by reducing the numbers of applications, budgets, workplans and reports. PPGs, GAP and should allow tribes the flexibility to develop program implementation based on specific tribal priorities (Environmental Protection Agency 1998).

Another EPA strategy for providing long term base funding to tribal programs is the Tribal Environmental Agreement (TEA). The TEA is a three-tier process. A Tier 1 TEA is primarily intended to recognize the unique culture of each Tribe, document the source of each Tribe's authority to protect its homeland and resources, and lay the groundwork which can improve the government to government relationship. This agreement is signed by the tribal leader and the regional administrator. The Lower Elwha Klallam Tribe signed a Tier 1 agreement with the Region X Administrator Chuck Clark on October 22nd, 1999. A tier 2 agreement focuses on a tribal environmental assess-

ment which is intended to assist the tribe in developing an environmental program and provide EPA with basic environmental needs inf. which EPA can utilize in its planning process. Tier 3 is the Tribe's Specific Action Plan. The plan belongs to the tribe and does not require EPA approval. It is EPA's responsibility to review the plan and determine how it can help the tribe meet its goals. This requires negotiation between the EPA and the Tribe resulting in a final plan that outlines commitments to be made by both sides and signed by the tribe and Regional Administrator.

Many tribes have raised serious misgivings about the TEA process. One of the problems identified by tribal planners is that EPA tribal grant administrators are not well equipped to track the type of multi-year funding initiatives proposed through the TEA process. EPA is attempting to address this problem of communication between EPA grant administrators and tribal planners by establishing an email connection between tribes and the EPA, and by developing a web page that will serve as a site for posting questions and comments and receiving replies from EPA. This web page projected entitled the Tribal Environmental Resource Project (TERP) is currently in development with several pilot tribes in western Washington.

A second problem associated with the TEA process has been the lack of an identified procedure for completing the Tier 2 and Tier 3 portion of the TEA. TEA pilot tribes in western Washington have consistently commented that the format of Tier 2 needs assessments proposed by EPA does not realistically meet the generalist and integrated needs of tribal level planning. Tribal environmental issues are closely linked across environmental media and are dealt with by a small staff. Tribes feel that it is essential to submit needs assessments and funding requests for separate environmental media in an integrated fashion. This will decrease the likelihood that a portion of a program initiative will be funded while another key component of the initiative will not. This concern is closely linked to the last complaint often voiced over the TEA process.

To date EPA has not adequately identified a statutory or regulatory mechanism for transferring long term base funding to tribal environmental programs. This has led some tribal planners to question the efficacy and purpose of the TEA process. One tribal planner commented that,

The problem is that we're always out on the frontier of management issues. For example, we have money for two years to get our flood-plain management plan done. Then we suddenly no longer have any money to fill that position. EPA doesn't care if you drown as long as the water's clean. If the dirt doesn't have contaminants in it, then they don't care if you're buried in a landslide. This kinds of functions to fracture planning rather than to integrate it. EPA has lots of money for assessment and policy development. But to put something on the ground and keep it there in Indian Country where they don't have a tax base requires a bigger commitment that they (EPA) are willing to make. Unless you are a large tribe with a large land base to generate some basic operating revenues, you simply wont be able to implement what comes out of the EPA planning process.

EPA funding provides the lynch pin for all other EPA activities in Indian Country. Technical assessment and capacity building activities can and are useful tools for developing the informational and infrastructural baseline needed to address SWP in a coherent and effective manner. However, both assessment and capacity building efforts tend to operate on short time lines and on a limited funding base. This often results in a cyclical process whereby tribes complete a portion of the planning and protection process, only to see it wither away for lack of long term funding. This has led some EPA SWAP staff to comment that SWP in Indian Country can be a moving target, forever in a state of flux. Tribal advocates have already begun to search for other options to the TEA process. As a result, the National Congress of American Indians (NCAI) has proposed draft legislation entitled the Indian Environmental Self-Governance Act. The NCAI has supported this legislation and dedicated resources to lobby for its passage. This legislation would allow EPA to bypass current statutory restrictions, and provide long term base funding to tribal environmental programs. Addressing the current limitations of the TEA process could go a long way towards more closely linking the separate but equally important EPA activities associated with tribal SWP.

In conclusion, the separate EPA SWP tools of technical assessment, capacity development and funding can provide tribes with a powerful set of tools for addressing community SWP goals. In addition, this tool set can help both the EPA and tribes explore alternative and creative responses to SWP currently beyond the scope of state SWAP activities. The challenges are great, but the ability to address SWP in a culturally appropriate manner and to develop SWP plans that have meaning and purpose within the socio-political context of a given community may well be the most significant outcome of the tribal SWAP process.

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Foot Notes

¹ In 1984 EPA became the first federal agency to adopt a formal Indian Policy. The policy was reaffirmed by President Clinton in 1994 in a memorandum regarding government to government relations with tribal governments, leading EPA to establish the American Indian Environmental Office (AIEO) and the Tribal Operations Committee (TOC) to help EPA identify and address tribal environmental priorities.

² One might think that the pre-settlement era is ancient history with little bearing on the way that contemporary management decisions are made. However it is important to recognize the fact that this history is indeed relevant to contemporary natural resource management discussions. Current discussions take place in a context where they are evaluated against an ongoing stream of historical events to which people see direct connections. In the case of reservation land management in the Pacific Northwest, either these events have occurred in the lifetimes of both Indian and non-Indian people alive today, or most certainly in the lifetimes of Indian people who were personally known to people alive today (Liebow 1993).

