

A MODEL FOR FIRST NATION LEADERSHIP IN MULTI-PARTY
STEWARDSHIP OF WATERSHEDS AND THEIR FISHERIES

Evelyn Pinkerton
School of Community and Regional Planning
University of British Columbia

Dave Moore
Director
Shuswap Nation Fisheries Commission (SNFC)

Fred Fortier
Chair
Shuswap Nation Fisheries Commission (SNFC)

A Report Prepared for the
Royal Commission on Aboriginal Peoples
Land, Resource, and Environment Regimes Project

October 1995

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ACKNOWLEDGEMENTS

The authors are grateful for the thoughtful comments of reviewers Fay Cohen and George Speck, and the cooperation and assistance of the Skeetchestn Band, watershed committee members, government agency personnel, and other interviewees. Responsibility for any errors remains with the authors.

Introduction

This report documents the first stages of a multi-party collaborative watershed management pilot project initiated by the Shuswap Nation in their territory in southeastern British Columbia. The pilot project has implications for province-wide fisheries conflicts, because it is an important attempt to create a situation in which local parties move beyond these conflicts to focus on a broadly-based local effort to improve fisheries and watershed health. This example thus illustrates how fisheries conflicts could be addressed at the local level in other parts of British Columbia and Canada. It suggests that local level agreements among local parties, and between these local parties and government, can provide the context in which larger framework agreements are fleshed out and implemented in the most practical and constructive manner. It also suggests that--wherever aboriginal people with a unique relationship to fish and other watershed resources live in close proximity to non-aboriginal communities--local parties can provide leadership in showing how to most constructively approach land use conflicts and fisheries management problems.

In documenting the development of the pilot project, we analyze the essential factors which have made it successful so far, and what it would take for it to achieve the goals of its initiators. To do this, we examine in turn the initiation of the pilot, the first stage of development, the second stage of development (only partially completed), and a potential third stage.

An important aspect of the pilot project model is its potential for contributing to better management, especially integrated management of watershed resources, at both policy and technical levels. This aspect will be explored at a more theoretical level, since it is more a potential than an reality at this point.

Organization of the Report

1. **Methods** describes how the insider and outsider researchers divided tasks and worked together.
2. **Brief Theoretical Background** indicates that the report relates to a large and growing body of scholarship on what can be achieved by local involvement in management, and on how it has been achieved.
3. **Measuring Success** outlines the areas of management where community-based groups can make an important contribution.
4. **The Problem** outlines the types of current conflicts over allocation and management in the B.C. fishery, and how the conflicts detract attention from the imperiled status of the resource.

5. **The Watershed Planning Model** summarizes the reasoning behind the Shuswap approach to the problem outlined in the previous section.
6. **Shuswap History with the Watershed Planning Model** outlines the history of the development of the concept and how it fits into Shuswap regional and local institutions.
7. **The Pilot** describes the goals of focusing on one pilot example.
8. **Key Factors in the Initiation of the Pilot** examines five factors critical to the successful initiation of the pilot project.
9. **Key Factors in Building the First Stage of Collaboration** examines eight factors which contribute to the successful initial building of co-operative relationships within the watershed, and how the pilot illustrates the building of these.
10. **Key Factors in Building the Second Stage of Collaboration** describes seven conditions which are usually present in second-stage collaboration.
11. **What Could Evolve in a Third Stage of Collaboration Building** describes six factors critical to the ability of the local planning body to implement its plan.
12. **Interim Measures Fisheries Management Planning** describes how watershed planning relates to interim measures planning.
13. **Benefits to be Derived from Implementation of the Model** summarizes the results which could emerge if the model were successfully implemented.
14. **Conclusion**

Methods

This report is the result of insider/outsider collaborative research, an approach which has distinct advantages when dealing with this subject area. Insiders and outsiders bring different perspective and resources to the effort, perform different tasks and functions, and can interact creatively.

The "insider" authors from the Shuswap Nation Fisheries Commission bring a detailed understanding of the development of the political goals and processes which led to the pilot, an understanding of the dynamics of the relationship between Shuswap local and regional institutions, and a vision of what is possible in Shuswap territory. The university-based "outsider" brings an analytical framework based on comparison of this pilot to processes in other jurisdictions which she has researched either directly or through the literature. This direct experience and theoretical

background make possible a richer and more rigorous analysis. Not being part of the process, an outsider also has access to non-aboriginal local residents and agency personnel from a different perspective than insiders.

The outsider conducted 20 interviews in Shuswap country with watershed committee members, band leaders, tribal council staff, government agencies, and Kamloops-based sportfishermen. Most of the interviews were conducted in person during her visit to Shuswap country in October 1993. At that time, she attended a watershed committee meeting, attended a Skeetchestn Band educational fishery and feast, and had extensive discussions with the insider co-authors. A few follow-up and additional telephone interviews occurred in November 1993. Interviews varied from half an hour to several hours on multiple occasions.

The insider co-authors acquired the necessary approvals to conduct the study, selected the key areas for study, suggested and made some of the initial interview contacts, wrote the historical and "interim measures" sections of the report, and reviewed the entire report for accuracy. Several Skeetchestn Band leaders also reviewed the report. Interviews with local residents were conducted informally, based on their understanding that the Shuswap wanted to make the watershed committees work, and wanted to analyze their strengths, limitations, and possibilities.

Overall, the insider/outsider working relationship was dynamic, highly interactive, and allowed independently developed understandings to be compared and refined. Such an approach may well have a better chance than more conventional ones of producing an accurate and balanced account. In this case, there was strong agreement among the co-authors about the goals of the study; all were committed to identifying problems as well documenting achievements, in the context of what could reasonably be expected in the situation.

Brief Theoretical Background

In developing a suitable analytical framework, the report drew on three different approaches to the problem: conflict resolution and collaboration, institutional analysis, and co-management. The applied emphasis of this report and space limitations do not allow more than the briefest mention of these differing theoretical perspectives. The interested reader is referred below to sources which explore them in greater depth.

1. Conflict Resolution and Collaboration. There is a large literature on conflict resolution among individuals or parties, and a much smaller literature devoted to conflict resolution and collaboration-building among multiple parties. The goal of the Shuswap was not simply to reduce conflict, but to engage local

parties actively in joint problem-solving and ongoing collaboration on land use and fisheries planning. Sociologist (in the subfield of organizational behavior) Barbara Gray (1989) provides a useful summary of the conflict resolution literature and then moves on to discuss cases of multi-party collaboration. Her framework for analysis of three stages of building collaboration was appropriate for the Shuswap watersheds when somewhat modified to reflect their informal, rural, and residentially stable character. Scholars have also found Gray's framework useful for analyzing the B.C. Roundtable on the Environment and the Economy (Kofinas and Griggs 1996).

2. Institutional Analysis. A substantial literature has emerged from both political science and institutional economics on the characteristics of local representative bodies which have been developed around the world to deal with natural resource problems. Daniel Bromley (1989) in economics and Elinor Ostrom (1990) in political science have been leaders of this field. This literature looks at what structural features of local bodies enable them to be effective in making rules for their members and in monitoring compliance with those rules. This perspective tends to view individuals as making decisions to act collectively because it is in each person's own economic self-interest to do so. In this tradition, William Blomquist (1992) analyzed how water users' associations developed around groundwater basins or "watersheds" to regulate their members' water use--or risk exhausting their supply. Edella Schlager and Elinor Ostrom (1993) analyze the types of rules which 44 local fishermen's bodies from around the world make and enforce, the incentives created by their ability to make these rules, and the ability of the rules to address certain fisheries problems.

3. Co-management. Co-management studies, especially from the perspective of cultural ecology (a sub-field of anthropology), and human ecology (a sub-field of ecology), have explored existing examples of joint decision-making between government agencies and communities or local groupings of fishermen, and have predicted inductively the conditions under which power may be successfully shared between government agencies and community-based groups (Pinkerton 1989, Berkes et al. 1991). More recently, scholars have focused on fisheries problems which benefit from the joint efforts of more than one local party or sector working collaboratively (Pinkerton 1994, Pinkerton and Weinstein 1995). Co-management studies often focus on the watershed as an ecological unit or ecosystem around which human communities can most beneficially organize their management activities. The appropriate scale of the watershed depends on the nature of both natural and human resources.

Measures of Success

The simplest measure of the "success" of these arrangements is whether resources are managed more sustainably under them than under more conventional ones. Since sustainability may be difficult to measure in the short term, scholars have adopted a series of other criteria which are likely to correlate with sustainability. We use these criteria as well, since the pilot project is still at an initial stage. These concern the contribution that locally-based groups can make to superior management, including:

(1) improved data collection and analysis: locally-based groups have an important contribution to make because of their superior opportunities to collect and interpret data about local resources through their year-round residency close to the resource, and through their historical memories as both data sources and interpretive aids for new data. Local groups alone may not have enough resources to collect some kinds of data systematically, but with the collaboration of government agencies, they are likely to be able to do more with less. Some data collection may be done voluntarily, because of local concern about sustainable management. With the rise of environmental awareness in the 1990s, many local populations are conscious of their dependence on sustainable management, aware that there is nowhere else to go, and that it is in their interest to contribute to better local management. They are also more ready to hold government accountable for openness about the completeness or scarcity of data, and therefore the degree of risk that local communities bear when decisions are based on scant information.

(2) a more wholistic approach to management priorities: locally-based groups are likely to have a more detailed understanding of many aspects of the local watershed ecosystem, the complex interactions of forests, wildlife, fish, rangeland, and water, and the impacts of different uses on all resources over time. This understanding may be complementary and helpful to the one held by non-local scientists, who are often required to look at larger processes, sometimes at the expense of local ones. With an awareness of local resource interactions, local communities are well placed to take an integrated approach to the management of different resources managed by different agencies with different jurisdictions and objectives. The ability of various agencies themselves (e.g. Department of Fisheries and Oceans, Ministry of Environment, Ministry of Forests) to take an integrated approach and to work together varies a great deal and may be dependent on factors such as funding, personalities, and turf protection. While communities have to deal with these factors as well, they have a stronger incentive in the long run to work together to develop an integrated approach and reach agreement between different local resource users, because they have to live with each other and with the consequences for their communities in the long run.

(3) more effective implementation of a plan or enforcement of

regulations: locally-based groups have the potential to use the entire local community as the eyes and ears of enforcement, if the plan, its regulations and the regulatory regime is perceived as legitimate, just, and necessary. This can happen when the community has participated in an educational process related to the planning which is the basis of regulations, and enforcement officers who may have been formerly perceived as "them" become perceived as "us" through co-operative arrangements. Small aboriginal communities in Washington State have had to struggle with the dilemma of hiring relatives as enforcement officers. They have learned that fishery officers are in a stronger position to carry out their duties if they work for more than one community (Pinkerton and Keitlah 1990).

(4) more effective resource enhancement: In British Columbia, the Department of Fisheries and Oceans (DFO) had already discovered it could initiate effective community-based salmon enhancement projects involving construction of small-scale facilities and training in enhancement and assessment techniques. These projects became self-managing after a time, and were often the focus of organized community volunteer efforts. They may also become income generators for the community if they are allowed to sell a percentage of the "extra" fish resulting from their enhancement efforts to pay for the continuation of those efforts. In this way, they may lower the cost of enhancement, and even make it self-sustaining. Even without cost recovery, community-based enhancement projects have the potential to produce a net benefit.

(5) more effective habitat protection: not only can local people provide an ever-present monitoring of local habitat destruction--a critical ingredient in any government program--but they also have the potential to mobilize local political pressure and bring it to bear upon the agencies which are charged with enforcing or implementing existing regulations, or making more effective regulations. This will happen, of course, when a local community has gone through the process of educating itself about habitat protection and formulated standards and a plan for itself. Local populations also have the capacity to organize volunteer effort toward the rehabilitation of habitat, with small amounts of seed funding for some materials.

(6) more appropriate harvest regulations: with a greater understanding of local conditions, local bodies which participate in the making of regulations give those regulations a better chance of being sensible, appropriate to local conditions, and enforceable. Local participation in the development of regulations also plays a key role in the creation of legitimacy. Regulations perceived as legitimate are more enforceable.

(7) the reduction of conflict among parties with different historical use patterns: conflict has become such a pervasive management problem that the reduction of conflict, not to mention

the creation of co-operation among different parties--especially those sharing the same watershed--is a management benefit in itself. The fact that some watershed uses are not inherently compatible without careful planning and tradeoffs means that conflict cannot be completely avoided. However, if the settling of conflict is put in the context of creating a long-term public good--the conservation and sustainable management of all resources used by local people--the conflict will be more easily and wisely settled. Local parties especially can see that the benefits of co-operation far outweigh the costs of conflict. The benefits become more evident when parties discover they have interests which overlap in significant ways. In the next section we outline the basic fisheries conflicts in British Columbia in order to better explore how watershed planning can help resolve them.

The Problem: Conflict over Allocation and Conservation of Fish

A simmering conflict erupted almost annually in the 1990s between differently-situated commercial, sport, and aboriginal fishing sectors. The conflict was partly over allocation: who was to have access to fish, with whom they would have to share access, and how. But the different historical fishing patterns of the different groups (in the ocean, river mouth, or upriver) meant that the fishing activity of whoever had the most access determined the nature of conservation measures that could be practically implemented. Thus, for example, if ocean-based sport, commercial, and even aboriginal fisheries intercepted almost all the stocks returning to Shuswap tributaries upriver, the Shuswap would be unable to exercise their right of access to fish, much less conserve and enhance these stocks. Some stocks which had formally returned to tributaries had already become extinct, and others were severely depressed.

The allocation question between aboriginal, sport, and commercial seems straightforward enough on the surface. In 1990 the Supreme Court of Canada's Sparrow decision ([1990] 1 SCR 1075), as based in Section 35 of the Constitution Act of 1982, affirmed the aboriginal right to a priority allocation of fish. The right is sui generis, meaning it is unique and can be defined and exercised according to aboriginal custom and traditional practice. This right to fish "for societal purposes" means having the ability to reproduce culture and traditions: teaching young people how to harvest, process, and distribute fish according to tradition (Weinstein and Morrell 1994). The Shuswap tradition and current wish is to harvest fish in their tributaries, but current fishing patterns of other groups severely hamper this possibility. By 1995 the Shuswap were still unable to reach even 10% of their allocation under the Aboriginal Fishing Strategy, the DFO mechanism for implementing Sparrow.

The second aspect of the conflict centres around what fishing strategies best conserve stocks. Despite their lack of allocation,

the Shuswap have chosen to work on conservation issues. About 50% of their management effort is directed toward educational efforts with others on the Fraser Panel, the Pacific Salmon Commission, the B.C. Aboriginal Peoples Fisheries Commission, the Pacific Northwest Treaty, the Fraser Basin Management Board, etc. They hope to institute greater awareness of the conservation requirements of discrete and smaller stocks which tend to be overharvested under current fishing patterns. On the Skeena River in northern B.C., the Gitksan have been successful in obtaining and implementing an upriver allocation of fish, based partly on its contribution to conservation; more abundant species are targeted and other stocks are released after live capture. The Gitksan have also discovered that sockeye taken upriver command a good price and the processors in Prince Rupert have continued to buy them (Taylor 1993).

The Shuswap direct the other 50% of their management effort toward reducing conflict and building collaboration at the local and regional level around habitat protection and restoration of local watershed health. Because the access rights of First Nations are linked to their traditional territories, local watersheds are logically the place where First Nations are likely to be able to work constructively with other groups and interests to address conflicts and improve the management system.

In the Fraser River, First Nations have realized the impacts of habitat alterations over time which have changed salmon stock composition in the Fraser basin. Some localized fisheries in the headwaters depend on discrete salmon stocks which are too weak to fish or have been lost entirely. This situation has limited First Nation access to traditional community fisheries. It has elicited working policy discussion between First Nations and government agencies on developing basin-wide co-ordination of habitat management which would be sensitive to these impacts. This is somewhat reflective of the evolved fishery co-management models in the US, as now First Nations on the Fraser recognize that an allocation right in the fishery can lead implicitly to a management right beyond contemporary consultation models.

Perhaps the strongest incentive for conflicting parties--on both the provincial and local levels-- to find a way to work together is that they are all likely to lose the fishery if they cannot. All over the province, there are powerful forces pushing toward alternative uses of water, including export, diversion, hydroelectric development, increased real estate development, and the waste disposal needs of domestic and industrial users. B.C. has barely begun to try implement the principles of forest practices legislation, and land use planning is currently too uncoordinated to reverse the steady erosion and loss of fish habitat, unless the needs of fish (and other resources such as wildlife and water) are clearly prioritized and built into planning. Conflicting fishing interests will have to pull together powerfully in order to mobilize the political strength and support to protect

the fish. It will not be easy to convince non-fishing interests that sustainable fish management means radically different habitat protection measures. However, all parties are now beginning to understand that the health of wild fish populations is directly related to the health of the watershed and is considered by many as an indicator of ecological health.

Watersheds are a practical and simple geographic unit around which conflicting parties can work together to plan what has to be the first priority: how to conserve and protect the fishery from extinction. This does not mean that province-wide planning and organizations do not have a role, but simply that it makes sense for watersheds to be a basic planning unit, and a place where people need to have some influence so they will have an incentive to protect the resource.

The First Nations of B.C., in response to DFO's co-management initiatives, have developed a planning framework that engages discussions on fisheries on a province-wide basis, while enabling local watershed discussion to continue. Three tiers outlined in a First Nations/DFO memorandum of understanding will recognize unilateral First Nations discussions, bilateral discussions between First Nations and DFO, and tri-lateral discussions that involve the interest groups. Terms of reference guiding these discussions will be developed from the groups involved at each level. It is hoped that over time the process will be legitimized by the participants because they will have participated in its development.

The Watershed Planning Model as a Solution Adopted by the Shuswap

There were, then, a number of reasons why the Shuswap adopted the watershed as the basic planning unit. We summarize these reasons here, before discussing how this developed historically in the next section. The Shuswap use the term "band" to refer to the local Shuswap community, each of which occupies a small watershed or group of watersheds.

- (1) the need to start planning at the local community level, i.e. with the bands. A band could access expertise at the Shuswap Nation Tribal Council offices, but was ultimately responsible for its own watershed;
- (2) the need to develop the capacity and expertise at the band level to work with the broader watershed community in its area;
- (3) the need for the co-operation and support of key watershed interests in order to do effective planning and management;
- (4) the need to build commitment to problem-solving, and to create constructive relationships between people where they can experience

the benefits of improved management together before entering contemporary conflict negotiation forums;

(5) the need to use wholistic integrated planning to address the range of problems at the local level;

(6) the need to develop a united voice at the local level to bring management issues to the attention of management agencies in an effective way;

(7) the need to work at a level where good stewardship can be observed and supported, and where some of the benefits of good stewardship can be circulated back into the local community, e.g. through improvement projects, increased access to fish, and clearer development guidelines.

(8) the need to work at a level where the local band can be a leader and a "co-ordinating agency" which mobilizes the energy of other parties, and helps focus the other local agencies.

In summary, the watershed as a planning unit was perceived by the Shuswap as a practical place to build the human relationships which would make a realistic plan possible, and a place to work toward a watershed plan, and to explore the institutional possibilities for a more longterm collaboration at the local level in the implementation of the plan

The Shuswap History with the Watershed Planning Model

1. **Background.** According to community recollection, the Shuswap people enjoyed a prosperous but hard working life style. The bounties offered by seasonal change in fish or berries were seen as a gift of the creator. Secwepemc, as the Shuswap call themselves, say that since time immemorial, a responsibility to protect those gifts was bestowed on all of those who had the right to live off the surplus of the "Shuswap ranch." From time to time, the benefits of natural surpluses resulting from hunting, fishing, and gathering were the basis for trade. Geographically central to the headwaters of the Fraser and the Columbia Rivers (Figure 1), the Shuswap people probably experienced a healthy economy in trade, particularly from their fisheries. No doubt, with the natural productive capacity, the production in fisheries from these watersheds must have been an attraction to all forms of life.

Even today, following almost a century of salmon stock declines, Shuswap territory supports an annual average production of about 57 per cent of all Fraser River sockeye, as well as 25 and 34 per cent of Fraser River chinook and coho respectively. Some one hundred and ten different salmon stocks reproduce in Shuswap territory, and an additional 40 to 50 stocks migrate through the territory to spawn in tributaries of the upper Fraser. It is thus one of the most important spawning and rearing areas of the province.

In modern history, the Shuswap have experienced many changes in fishing, hunting, and gathering practices. In 1910 in a memorial from the Chiefs of the Shuswap Nation to Sir Wilfred Laurier, Premier of the Dominion of Canada, the chiefs made a formal call for treaties to address the outstanding land question. Further, they associated depletion of wildlife and fish with the settlement of the Europeans. In 1913 and 1914, recorded history tells us that, in the rush to complete what is now the Canadian National Railway, slides blocked the migration of salmon and depleted or destroyed some salmon stocks. Urban, hydroelectric, and corridor development have eroded much of the fisheries productive capacity of these rivers today.

At the tail end of many intercepting fisheries downstream, the Shuswap community fisheries became less fruitful as competition for fish grew downstream and in the ocean. Natural fish production decreased with the available habitat, and the extirpation of some stocks occurred when harvest demand eventually exceeded production. Conservation limitations, imposed by their own communities and then the government, became a way of life by the 1950s. The remaining fisheries had to be relocated to the far west of the territory along the Fraser River, where stocks of salmon migrating through to the upper Fraser could be intercepted. The Skeetchestn Band (the initiator of the pilot project to be discussed below) enacted a fisheries by-law in 1985 that, along with habitat protection measures, restricts aboriginal fishing to encourage the rebuilding of salmon runs in the Deadman River, a tributary to the Thompson River in the Fraser watershed (Figure 2).

In 1982, the Central Interior Tribal Councils (CITC), a Native administrative collective, initiated a fisheries program as an economic development initiative. The focus of this initiative was to conduct baseline research leading eventually to increasing fish production through hatchery augmentation. The Department of Fisheries and Oceans' Community Economic Development Program funded the CITC's multi-year fisheries enhancement initiative as an adjunct to the DFO Salmonid Enhancement Program. Early in the program, salmon population assessments preceded hatchery planning at five sites, including the Deadman River (the future pilot project site, Figure 2).

Fisheries work in the Shuswap territory and throughout the Fraser River watershed sensitized First Nations to habitat protection issues. They rallied against habitat loss threatened by pulp mill pollution and the planned "twin tracking" construction alongside the Fraser by Canadian National Railways. But by 1986, DFO was experiencing the effects of fiscal restraint and inflation was eroding a once healthy operations budget in the Salmon Enhancement Program and specifically the Community Economic Development Program. Poor co-ordination of planning between First Nations communities and DFO led to conflict over objectives and the winding down of the Central Interior Tribal Council's fisheries program.

For these and other reasons, CITC closed its doors in 1986.

2. **Concept Development.** In 1986 the Shuswap Nation Tribal Council was formed to promote Shuswap Nation Unity. In 1987 Pat Matthew was approached to conduct a literature review of locally-based fisheries management institutions and provide recommendations to the SNTC Chiefs. Matthew recruited Dave Moore, who was polling interior sport fishing groups about developing an inland fisheries enhancement program. Matthew and Moore initiated a process of problem analysis to scope out a plan for a tribal fisheries co-operative management program. Following initial discussions, the program development committee (Matthew, Moore, Simon, Manuel) saw initial project mobilization as a catalyst for building understanding and interest within Shuswap communities. Fear that more conflict than co-operation might be created kept the committee from forming planning committees with sportfishing groups initially. However, the SNTC requested Moore to continue liaison with sportfishermen for informational purposes.

Initial discussions within the Shuswap communities were conducted to generate guidance in the program development. However, no clear directions developed from within the communities. Fisheries problems and land-use conflicts were common to all communities, but local knowledge and awareness seemed to be focused on the immediate effects of action on fishing opportunity. Moore and Matthew decided to initiate projects that would support the development of community involvement in larger issues which could help enhance awareness. It was hoped that this would lead to clearer program direction in the future.

A fish habitat erosion problem and the need for volunteer support, donations, and team work led to the first "work party" on Deadman River in September 1988. The day-long work party was hosted by the Skeetchestn Band, with some organizational help from Moore and Matthew. The band formed half the crew, while the other half were non-band local residents and members of the Kamloops B.C. Wildlife Federation and three local sportsfishing clubs. In the words of a member of the latter:

"...We had a tremendous day. I think it kind of opened the eyes of the non-Natives who had come out. They just didn't realize that the Natives were so interested in conservation. We just all met at the site and there was a bunch of work to be done. We spent the morning putting the wire gabions [cages] together and packing them over the edge of the river and hand filling them with rocks, using a fireman's chain, a line of people. This probably helped meld things together. Everybody had one goal to achieve. It just flowed so well together. Then the girls from the band put on a bannock for us under the trees. You wouldn't believe the catering they had gone to. Tablecloth, the whole nine yards. In the end everybody went home with a great feeling of togetherness."

Positive feedback and a stronger resolve by community leaders and non-native groups to address local streambank erosion problems resulted in follow-up work parties, sorting and planting disease resistant red osier dogwood to stabilize the banks. Articles about the work parties appeared in the regional BC Wildlife Federation newsletter, leading to a fundraising event and a BCWF donation to the band's community-operated DFO hatchery. Skills within the band in the co-ordination of more effective work parties increased over time. Yet dependency on a range of technical and policy support was unlikely to disappear. Training and budget forecasts indicated that the bands would require tribal level professional support to assist them in moving toward self governance in land and resources.

The success of the first Deadman River work party and requests by the different groups (e.g. sport fishers) to be involved and to sponsor projects of their own with bands was a motivator in the calling of a meeting of all concerned by Shuswap Nation Tribal Council (SNTC) in winter 1988. The objective was to create a community resource working group to draw upon for fund raising, to provide a community sounding board for co-ordinated planning of projects, and to respond to the requests of participants for more information on Native issues. Early exploratory meetings were perhaps overly formal; the SNTC was preoccupied with the terms of reference because of political sensitivities around new relationships. However, terms of reference began to seem less necessary as several proposals were well received by agencies and resulting joint projects built trust. The existence of many groups applying for funding in multi-party partnerships was well received by governments and a source of pride within the community resource working groups. Funding was generated quickly and administered initially by the SNTC for the sponsoring group or groups. Funding was supplied by a collection of government conservation grants, employment training, and First Nation/government economic development programs.

3. The tribally-based watershed planning model for fisheries. The model concept paper was written in the winter of 1990-91 to explore with the bands a process for developing long term fisheries management plans. The details of the model were a hybridization of watershed approaches in Washington State and the most promising policy paths perceived by the SNTC for British Columbia needs. Moore and Matthew identified capacity problems within band communities which limited the effectiveness of decision making by band governments. Similar limitations within the non-Native community meant that the availability of SNTC technical staff to the general public in evening forums was highly attractive. Full agendas in band council meetings did not permit them to be the appropriate forum to deal with all stages of government and public planning relating to fisheries management. The proposed solution was to develop a process and a forum that was supportive of goal setting and partnerships, but which respected the decision making

authority of the band government, allowed open information exchange, and built upon the successes of existing partnerships.

The response of the SNTC to the partnership concept was positive. The first draft of the watershed model was presented to the SNTC Chiefs in the winter of 1990. The Chiefs' sensitivities over the objectives of joint work projects were further alleviated by the good will fostered through the community resource working group in Kamloops.

A key ingredient of the watershed model was the formation of band fisheries committees to advise band councils on fisheries issues and to lead co-operation at the watershed level. The SNTC felt that, although fisheries committees were band business, the implications of their role for self-governance were important to the entire Shuswap Nation. The SNTC Chiefs were willing to accept band-level leadership in trial pilot projects as long as fisheries committees operated under a strict terms of reference mandated by each band council.

The Skeetchestn Band took on the role of the first pilot. They invited Moore to the Band Council to resolve outstanding concerns over the content and structure of the first draft of the model. The band felt that general, rather than detailed, terms of reference for their role, would be an appropriate starting point. The SNTC relied on the band's CEDP hatchery project manager, the only fisheries resource person in the band, to advise on the suitability of the proposed system. The first draft of the model was revised to insure that the communities had an opportunity to build and maintain controls within the process that supported self-governance and did not overly constrain their flexibility in discovering the most appropriate path.

The model to be piloted by the Skeetchestn Band called for the band fisheries committees to convene watershed committees made up of representatives of all key sectors in their local watersheds to advise them and work with them on watershed planning. The Community Resource Working Group could see a continuing, if less direct, role for themselves in the process and supported it. They felt they would be able to participate to some extent in watershed planning through the watershed committees.

Revisions of the watershed model internally within the SNTC were more academic and centered around protecting internal departmental turf. Professionals were called in to review the process and to integrate the Natural Resource Management Departments. Ratification was a community responsibility, however, so key band representatives were eventually brought into the internal review round table. Ratification of support in principle for the model by participating bands followed this joint review and rewriting. This led to tenuous support and participation by a number of SNTC and Cariboo Tribal Council bands.

Band fish committees were now formalized, where they had been only ad hoc in the past, when they existed at all. Band political portfolio holders assumed authority in the fish committee meetings and liaised with the Band Council in the ratification of the fish committee's terms of reference. The band fisheries resource person controlled project planning and advised the fish committee on tribal council wide fisheries programs, while the SNTC worker was called upon to edit and/or write proposals, liaise with agencies, co-ordinate between bands, and provide technical advice. The SNTC representative could not assume any role of authority. Community participation in band fish committees was cyclic and usually issue based.

Band fish committees and watershed committees were created far more easily where the band already had a fisheries resource person trained and on staff through a CEDP project. This fisheries resource person was readily available to the band, to the SNTC, and eventually to the watershed committees. Much in the same way that the Community Resource Working Group assisted in fund raising and project planning, the watershed committees worked with the band fisheries committee to develop joint projects. Tree planting, river bank armourment, and water management are examples of some joint projects in the Deadman Valley.

Watershed committees were formed using much the same approach as with the formation of the Community Resource Working Group. Invitations were circulated to those who had attended past work parties and new participants whose fears about "Indian control" were replaced with comfort. The band as host prepared information and presentations that were the basis for discussion and entertainment during the committee meeting. Snacks and coffee were always served during breaks at watershed meetings to foster a sense of neighbourly and hospital openness and friendship. Although Moore and Matthew chaired the first few watershed meetings, an implicit desire by the band to have their fisheries resource person chair the meetings resulted in his taking the chair within the first year. The band and agencies attempted to funnel many local land use planning forums through the watershed committee. In the Deadman Valley these included Ministry of Forest's Local Resource Use Planning (LRUP) and parks planning, the Provincial Emergency Program (1990 flood relief), and pesticide application discussions. In a second pilot in the Barriere River watershed, joint projects included water quality investigation in Leonie Creek and trout creel surveys and committee advocacy of a catch and release program on the North Thompson River.

The Shuswap intended the tribal watershed model to be driven from the grass roots. Policy direction came from the bands and most operations were conducted or co-ordinated through the SNTC. Band level decisions included those issues that did not affect other First Nations or communities outside the Deadman Valley. Watershed issues would involve the Deadman Valley residents and those agency

and corporate interests affected by the watershed planning. B.C. wide and national issues were treated with equal disinterest by the local band and non-Native community people where visible benefits or impacts on local issues were not immediately evident. Nor did the bands or committees have an instrument to co-ordinate the joint and larger fisheries concerns of the 17 historic Shuswap bands and larger watershed representative groups to bring a united regional voice to more global environmental issues.

Out of this problem, the Shuswap Nation Fisheries Commission (SNFC) was created, as a Shuswap Nation multi-watershed advisory commission on fisheries. Its mandate is to coordinate and facilitate issues or work when one band cannot do the job alone (particularly in the recovery of Shuswap fisheries). Line authority flows through the Unity of Shuswap Chiefs, much the way authority flows from the Band Councils to the fish committees that advise them. Similarly, the political representative to the Fisheries Commission (its chairman) reports directly to the higher political body (the Unity of Shuswap Chiefs). The Fisheries Commission Director is accountable to the communities, and communicates with them through weekly meetings with operations staff who work directly in and with the communities. Three of the operations staff are area managers, who get policy direction from the bands, and balance that with direction from the Fisheries Commission Director, who is responsible for co-ordinating a Shuswap Nation wide plan. The Fisheries Commission office in Kamloops is for pooled professional services to the bands, including policy and area co-ordinators, information services, and biologists. The Director makes an annual report to the Fisheries Commission itself, which is composed of all the fish committee representatives and their band commissioners. His role combines technical functions and some policy co-ordination functions at the local level.

Unlike the band fish committees, the SNFC is chaired by the political representative. Unlike any other Shuswap Nation organization, the SNFC has commissioners from every band, rather than from areas defined by the two tribal councils in the area (Shuswap Nation and Cariboo). Fifteen bands are currently participating. Commissioners are responsible for reporting the activities of SNFC to their respective Band Councils, and make decisions at SNFC meetings based on the terms of reference given to them by their individual band fish committees. Their authority remains with the band governments, and management advice flows to them from the fish committee on local issues and from the SNFC office in Kamloops on global issues.

The Band Councils use the band fish committees as processors of information and planning for the band government. Band Councils also use the watershed committees as local land use planning round tables for information exchange with the non-Native community. When crisis occurred, such as the 1990 flood event, the watershed committee was used as a support base. The Shuswap Nation

Government of Chiefs uses the SNFC as a fisheries policy advisory table as well as the coordination centre for fisheries planning in the Shuswap territory. It has entrusted this group to draft interim measures plans for fisheries in the Shuswap Nation, with the support of participating bands (see section below on Interim Measures). Although a favourite target for agencies to air new policies, the SNFC is sensitive to the community authorities. Policy issues that affect communities require local review and direction. Coordination of these reviews at the commission level occurs to collectively advise the Shuswap Chiefs where policy is a national issue. Similarly, watershed committees were the target of government bureaucrats selling local policy (i.e. pesticide use) and issues that affected individuals in the watershed committees required family or Band Council review.

The Pilot

The Skeetchestn Band was willing to undertake the first pilot of watershed planning in the Shuswap Nation area, setting up a band fish committee and a Deadman Valley Watershed Committee representing all watershed residents in 1990. This pilot is our main focus because it has been established the longest and is in many ways the most developed process. Its description is used to illustrate how a watershed planning process can work.

There are always a few disadvantages in focusing on one case study. One of these is that the uniqueness of one case raises the question of whether what has been done in that area could be repeated in an area with very different characteristics. The Skeetchestn Band is small; the Deadman Valley is very rural and sparsely populated. In addition, the situation has its own unique limitations. To overcome these drawbacks, we adopt a modified case study approach, occasionally drawing in examples from other watersheds when they help us generalize about how watershed processes work. Sometimes we do this to demonstrate that the model can apply to more diverse situations; at other times we use other examples to suggest by a composite picture what an ideal model might look like.

The goal of examining the pilot in some detail is to identify key factors contributing to a band's and a watershed's ability to do three things: (1) start a process, (2) build successful collaborative relationships on a sound basis, and (3) formulate actions plans and implement them.

Key Factors in the Initiation of the Pilot

We identify here factors which contribute significantly to the ease with which integrated watershed planning may be initiated. Each individual factor may not be a necessary component for

starting successful watershed planning, but the presence of each factor contributes incrementally to successful planning of this type. Taken together, they are good predictors of success.

1. Watershed characteristics which create significant overlapping interests among residents make identification of common ground easier and a pilot program or project easier to initiate. The resource which all valley residents have to conserve, control, and properly allocate is water. The cooperation of all parties is required if water is to be properly managed, as discussed below.

(a) Relatively small geographic size can be an advantage. The Skeetchestn Reserve is about 20,000 acres and the entire Deadman Valley about four times as large, arranged in a single broad 20 mile floodplain along the river with one main road. The small size throws people into contact with each other and with the land and water they all use. It allows watershed meetings to have the informal and relationship-building character of routine neighbourly encounters, even though these encounters would not happen without the watershed meetings.

(b) A relatively small population (151 band reserve residents, 80 non-aboriginal residents in about 17 households) means that there is an opportunity to establish face-to-face communication and trust, where these did not already exist. This type of communication was also possible in the larger and more populated Barriere and Salmon River watersheds, so it is not limited to smaller places. The successful groundwater management institutions in California described by Blomquist which became self-managing were based on far larger populations of urban dwellers who had face-to-face communication only in meetings. Smallness of scale is not a necessity, but rather an advantage, in building co-operative relationships and institutions, because there are more grounds for trust and mutual monitoring in a small-scale situation.

(c) Low precipitation and high demand for water means that there is a strong need for integrated water management which takes the different uses into consideration. At present this semi-arid valley (16 inches of annual precipitation) has a barriered stream in which water can be released for irrigation or fish needs at key times. However, the water is almost fully subscribed for irrigation, and fish needs will become higher as fish runs and rearing areas are restored. In addition, forest practices in the upland forested areas affects the hydrology of feeder creeks (often important irrigation sources) as well as the Deadman River. The hydrological characteristics of the watershed require thoughtful planning to resolve potential conflict among uses. In addition, all residents stand to lose from events such as flooding: ranchers' fields are ruined by flood deposits, at the same time that fish habitat and riparian areas are destroyed by floods. The need for water management thus unites residents.

(d) The relative importance and local location of forests is key to the impact forest practices will have now and eventually on hydrology (the rate of water flow through the watershed). This includes what percent of the watershed is forested, where in the watershed the forests are located, and what percent of the forests have high commercial value and will be slated for logging. Because there is little forest cover in Deadman Valley, because it is located mostly in the steep uplands, and because three percent of it has already been logged, residents are concerned about the hydrological impact of plans to log 20 to 30 percent of the watershed. Therefore they feel a strong need to become involved in planning and monitoring the rate of cut, and the size and location of clearcuts and access roads. The importance of these "external" concerns (logging rights are held by interests outside the valley) has had a symbolic galvanizing effect, bringing local residents together to support each other.

(e) Current and potential fish abundance is especially important for the resident band, but of interest to all residents, because of their awareness of the positive economic impact of both band fisheries and recreational fisheries on the local economy. At present all stocks are very depressed, with 10 year averages of chinook escapement at 673, coho at 889, and steelhead at 355. The spawning capacity is at least triple or quadruple this, and thus residents wish to take this into consideration in planning.

(f) The habitat's capacity to support more fish if restored is very high, and an important motivator for local united action. Over past decades when less was understood about the role of streamside vegetation in stabilizing banks, trees were removed from banks by both band and non-band residents to maximize pastureland. Today beaver are completing the job. Periodic severe floods and annual erosion have seriously degraded habitat under these conditions. Both mechanical and natural methods of stabilizing streambanks can be used for the triple purpose of protecting ranchers' lands from erosion, reducing the tendency of the channel to shift (which can cause even greater pasture loss), and stabilizing and improving fish habitat. In addition, stream flow alterations through the strategic deposit of large organic debris can create more pool and glide habitat to support overwintering of smolts which must now rear in the Thompson River, where they are more subject to predation.

(g) The main present and potential future economic activities of local residents can be mutually supportive if they can work together where their interests intersect. The degraded condition of fish habitat and streambanks gives the band and ranchers common cause to work together to improve different aspects of the river on which they each depend. Ranching is an activity shared by the band and non-natives, and the band has irrigation works as well as plans to expand the fishery. In Deadman Valley, logging and tourism are seen as the (usually conflicting) plans of outsiders, plans which

the locals attempt to influence in order to mitigate their local impact. In contrast, in the more heavily forested Barriere watershed, the local band is involved in logging and sawmilling, and hopes to work with the locally based forest industry to affect a sustainable rate of cut. Deadman Valley is thus a simpler situation in terms of fewer economic activities with a large degree of overlap. In the Barriere, the situation is more complex; there are more players (trappers, sport fishermen, tourism, logging, milling, village settlement); and the common ground is being established with more time and effort. Deadman Valley is a simpler illustration of the same process.

2. Adequate human resources must be available to give a pilot project enough organizational capacity, support, and energy to appear able to sustain a credible effort.

(a) In Skeetchestn, the band leadership was visionary about initiating co-operation with other watershed residents. This vision may have been more easily developed because of the band leadership's broad perspective through involvement in a variety of initiatives at the policy level. Band leadership was self-confident in its vision and ability to lead the process.

(b) In Skeetchestn, the band leadership was well-educated and politically experienced. The chief counsellor had formally occupied the top policy position in the Shuswap Nation Tribal Council.

(c) In Skeetchestn, the band was able to develop some expertise and technical support through earlier participation in the Community Economic Development Program of the Salmonid Enhancement Program initiated by Department of Fisheries and Oceans. The salmon enhancement expertise accumulated through this project, even though it was only one person, enabled the band to become involved in an ongoing way with a hatchery facility, a counting fence, and habitat assessment projects (the latter funded by Ministry of Environment). This technical experience and ability to access some resources around fish production, escapement data, and habitat assessment allowed the band to take some technical and logistical leadership in fisheries planning, and to have some resources to share with the watershed committee.

(d) As a member band of the Shuswap Nation Tribal Council, the Skeetchestn Band could access other technical, organizational, and political expertise at the SNTC level on an occasional basis. This was important at the start-up phase, and has the potential to help at key developmental points. The SNTC could also help with funding possibilities, and access to government agency personnel who worked at a variety of levels. Access to all levels of agencies increased the band's ability to solve problems. If policy agreements made by the Shuswap Nation with agency or departmental heads were not reflected by agency actions at the local level, SNTC staff could

communicate problems to a higher level in the agency.

(e) The band was able to organize watershed committee meetings and lead the process through its technical person, the hatchery manager. Even though only this one trained fisheries resource person was available, and was focused principally on other tasks, this one person enabled the start of a watershed process. The limitation of having only one trained technical person and no policy specialists is that it is not possible to have a structure of accountability to the band because (1) other band personnel do not know enough about the process to ask the relevant questions, and (2) it is difficult for the band to give more than general direction to the fisheries person. Larger communities can often depend on a few key resource people, sometimes at both a technical and policy level, and hence a greater flow of two-way communication.

(f) A few key "spark plugs" helped fuel the process in the watershed committee. At least four non-band watershed residents participated regularly in the watershed committee meetings in a style which lent key energy and resources to the process. These individuals initiated discussion of local issues, often possessed valuable local knowledge and sometimes had access to outside sources of information, expertise, organization, and funding.

(g) In another later pilot area, the process was helped by the more general effort of community development through human resource development. Band members went through a series of retreats and workshops to prioritize how to strengthen and develop their collective well-being. An early priority was self-development through targeted training such as "Lifespring", "the Pursuit of Excellence", and other programs focusing on self-awareness and spiritual growth. A later priority which built upon the earlier training was to re-establish the community's relationship with natural resources, especially fish and wildlife. The effort to develop resource management capacity--and to reach out to the wider community to develop a broader political will to manage local resources sustainably--was here based on an experience of the positive benefits of strengthening self-awareness and self-confidence.

3. Prior experience with multi-party processes in resource issues made it easier for the band to initiate the watershed committee process. The band's experience with work parties in 1988 and 1989, when both local and Kamloops-based non-natives turned out to spend a day working alongside band members on habitat restoration projects, made it easier to reach out to local residents with some confidence in the response. Especially important was the positive energy generated by the delight in discovering at the work parties that people shared a strong common interest in restoring the fish, and in minimizing impacts on fish of other activities. One sport fishermen explained what a break-through in communication this

represented:

"When we were out there at the first work party, I saw old faded signs saying NO FISHING, so I asked one of the band members. He said the band had done it for three years because they had only 11 chinook return up the river. So the band instituted no fishing and had a warden system set up if anybody broke the band rules. During the next year I got this excited phone call from this chap [from the band] I'd struck up a conversation with during the work party, that they had counted maybe five times the low number of chinook returning the next year. They were so excited the system of no fishing had worked and they were on the upward swing. This was a surprise to white people. There were members who were completely flabbergasted that the Indians really cared about these things."

This act by the band member of sharing the good news about salmon run increase with an outsider illustrates how the work party experience had led band members to value the moral as well as physical and logistical support they received from non band members in their effort to restore local stocks. This experience allowed them to be hopeful that a watershed committee could also yield positive results.

4. The convenor (the band) is perceived to have appropriate stature and power to initiate the process. As one watershed resident put it, "the band has just as much vested interest as anyone else, and a more encompassing concern for the land. That allows them to act as mediator for other people, moderate, and maintain balance, and not be suspected of too strong a bias." Significantly, this statement recognizes that part of the stature of the band is based on its wholistic perspective on management. Fisheries management is not just about harvest regulation or hatchery production: it involves management of the watershed as an integral and interactive unit. The band is recognized as the party which can best maintain this perspective and draw other perspectives together. The legitimacy of the band in convening and chairing the process has not been questioned, and non-native committee members state that the band may be able to implement some recommendations which other parties would not have the power to implement. The perceived legitimacy of the bands' leadership was in fact partially created or enhanced by the fact that they took an initiative which no other party appeared ready to take. Moreover, as this First Nation launched substantive discussion with the agencies, other parties were interested in keeping abreast of developments and influencing the application of decisions in a manner that minimized the impacts on their livelihoods.

5. The convenor (the band) has a clear sense of purpose. The band's action in convening the watershed committee is based on the policy development described in the previous section and the previous training of a band member in fisheries enhancement and

assessment. Initiation of a process has a good chance of success when the convenor knows what end product is desired (usually a watershed plan with broad local support) and believes that the involvement of all local parties in the planning is the most effective as well as desirable way to achieve this end. This means that there are no hidden agendas, and the purpose eventually becomes clear to everyone.

In summary, all five key factors important in initiating watershed planning were present in the Deadman Valley: significant overlapping interests based on watershed characteristics, adequate human resources, prior multi-party involvement in local resources, a convenor of appropriate stature and power, and a convenor with a clear sense of purpose.

Key Factors in Building the First Stage of Collaboration

Summarizing the work of many theorists of collaborative problem solving, roundtable, and mediated processes, Barbara Gray (1989) divides the stages of the development of collaboration into three stages which could be roughly characterized as problem setting, direction setting, and structured implementation. In the next three sections we use some of this framework, while also borrowing from the literature on co-management and institutional analysis to construct a broader framework appropriate for analyzing this situation. Some of the criteria have emerged from the comparison of this situation to others documented in the literature, and will in turn enrich that literature.

1. **Adequate representativeness of all relevant sectors by the participants** is key. In Deadman Valley, the two relevant local sectors are ranchers and band members. The band is represented by the one fisheries resource person (the hatchery manager), and occasionally also by a band councillor or member of the fish committee. The ranchers and other local landowners are represented by eight to ten participants, comprising over half of the non-band households in the watershed. At this point, participation is open to all and representation is not formalized.

2. **A locally-accepted basis for the legitimacy of participants** is necessary. In this case, participants are felt to be accountable to their neighbours and the watershed if they are permanent residents. Obviously, band members are the most long-term and permanent residents. Other valley residents are most often long-term residents as well, often for two or three generations, and population is stable.

3. **A shared definition of the problem** is important. In this case local residents share a fear of developments such as greater road access, real estate intensification, or inappropriate forest practices which would upset the delicate balance of current uses.

In inviting others to participate, the band stated its perception of the need for resource planning in the watershed to integrate the use of water, range, and forests, and the need for valley residents to reach agreement and speak with one voice to government on these issues. Other residents responded from the need to communicate, explore options, and support one another when they have conflicts with government agencies or various forms of development which conflict with current resource uses or local values. After the 1990 flood, resulting from an unusually high (500 year frequency event) rain which damaged much pasture land, eroded streambanks, and changed the river's course, forest practices became an important focus of united local concern, although it is far from being the only common concern.

4. **Consistent attendance** at meetings is important. In this case, meeting attendance can get as low as six, but is usually eight to twelve people. These have included the majority of key people on a consistent basis.

5. **Adequate frequency and regularity** of meetings is also important. In 1993 and 1992 the Deadman Valley Watershed Committee met three times a year. In 1991 it met once; in 1990 it met four times. Although this might be considered not frequent enough to accomplish anything, it was apparently frequent enough to create a sense that members could at least respond to immediate specific arising problems. Members interviewed stated that meetings were "frequent enough" because they were all extremely busy during spring and summer, and felt that they were in sufficient contact to call a meeting to resolve any arising problem. (A few members discussed particular issues outside the meeting context, but there were no systematic discussions or pollings of opinion). The frequency of meetings is adequate for what the committee has taken on so far, which is to discuss a few immediate problems and to develop a general shared sense of what they do not want in the valley. So far they have not undertaken an extensive resource mapping or inventory process which could precede planning.

6. **An appropriate style of facilitation** is key. The band representative uses what might be called a passive style of facilitation: he chairs the meetings in a non-interventionist, non-directive style and "flows with the sense of the meetings, becomes part of the scene". Other committee members found the style to be appropriate, because they felt it was "neutral" and compatible with the egalitarian ideology of the valley community. A co-operating government agency person commented: "He's not interested in politics; he just cares about fish and wants to get stuff done." Of course, passive facilitation is not necessarily apolitical, and may in fact promote inclusiveness.

However, it is important to note that a local band can also have very positive results from a more "active" style of facilitation, as exemplified in another watershed where an older, policy level

band representative chairs watershed committee meetings. With a more active facilitation style, a band can exercise more leadership in a co-ordination role, being a catalyst to focus the committee more directly and immediately on what actions they may take toward watershed planning. An active facilitator also can call more frequent meetings, call on more resources to stimulate participants, and generally galvanize the group into giving the committee's activities a high priority. This is not to say that one style will ultimately be more successful than another, but to note that one style asserts more band leadership and may produce results more rapidly. It also demands more resources, however, and may be more difficult to sustain. The style of facilitation depends, of course, on the availability of scarce human resources and the priority given to watershed planning. And there are several intermediate facilitation styles between the two described here.

7. **Joint information searches** are useful exercises both in producing essential knowledge as a basis for discussion, and in building a sense of a shared stake and shared effort within the group. The Deadman Valley Watershed Committee has engaged in at least three information searches which were important in creating the first stage of co-operation.

(a) the 1990 post-flood evaluation of riparian areas and review of forestry practices, covering the property of all landowners along the river. Riparian assessment was conducted with engineering expertise from Ministry of Environment and technical support from the SNTC, and was sponsored jointly by the band and the watershed committee.

(b) the 1990-1991 review of a logging company's five year management and working plan, with assistance from a SNTC forester, and helicopter and personnel time donated by the company.

(c) the 1991 study of alternative sources of water for band ranchlands and irrigation projects, in response to watershed committee concerns about water use and allocation. The band decided to commit itself to dedicating band water rights on Deadman River toward fisheries development, and to allocating \$10,000 to look for other water sources whose use would not affect fisheries. The band studied the feasibility of constructing a dam on Criss Creek, a Deadman River tributary with 15-20 kilometres of unusable habitat because of spring flash floods and summer dry periods.

8. **Clarity about expected outcomes in the long run** is still lacking. Questions about the eventual intent of the committee and direct questions about a possible watershed plan were received with hesitancy or blank looks during the October 1993 watershed committee meeting.

In its July 1990 letter to watershed residents, the band had stated its concern regarding "the lack of overall resource planning in the Deadman Creek watershed. This includes issues surrounding

water management, forestry, agriculture, and range use." The band had articulated a clear expected outcome at that time: "To address this problem, the Band would like to establish an ongoing committee that would meet on a regular basis to oversee the creation of an integrated resource plan for the watershed." When later asked about the plan, one committee member commented that "my mind is boggled about forestry issues and planning, but we could do a plan with the help of an SNTC forester, since we just learned they have one."

Gray's framework assumes that clarity about expected outcomes is essential to completing the "problem setting" stage of co-operation. Although Deadman Valley Watershed Committee members agree in a general sense that forest practices are a problem, and suspect they exacerbated the 1990 flood, there is no general agreement at present that the committee will do more about forestry than respond to five year harvesting plans which are presented to them in meetings containing a number of other agenda items. (Several committee members believe they have been successful in reducing the size of cutblocks, but it is unclear at present how future overall plans will be affected, and whether there will actually be a net benefit in reduction or mitigation of impact).

Part of the reason that the committee has not yet developed a clear expectation may in fact be because it has focused on watershed problems as chiefly forestry problems, an area where it has the least expertise, and where the process of distributing information and organizing a definition of the problem and how to address it has been previously defined by the Ministry of Forests' planning processes, Land and Resource Use Plans (LRUP) and Comprehensive Resource Management Plans (CRMP). In fact, about half of the watershed committee meetings in the last two years have been organized by the Ministry of Forests and/or the logging companies, which set most of the meeting agenda. Only a small portion of these meetings are allocated to other watershed committee concerns. Although the ministry has no particular authority to do this outside of forest lands management, the forestry sector has successfully captured the initiative and managed to create the impression that watershed planning is forestry planning, as witnessed by the response of the committee member who is hesitant to plan because forestry issues are "mind-boggling."

In fact, several other issues or sectors could be valid starting points for planning, and might be less "mind-boggling" for committee members because they would tap local experience and knowledge. They would also rest on a firmer definition of rights, where there are potential conflicts with forest uses. Fisheries, different local water requirements, wildlife, and soils are possibilities. Local residents have a long history with water use, flooding, and recently the increased fluctuations in flow regimes from creeks draining logged uplands. If the problem or the goal

were approached as protecting fish habitat, water flows, water rights, irrigation, or soils, the information needs would be differently structured, and forestry issues would be framed as not the main definer of the situation, but one of several factors both impacting and impacted by the plan objectives.

All local residents have water rights. First Nations argue that by implication they also have rights to protect fish habitat under the Sparrow decision. The right of First Nations with treaties to protect local fish habitat was affirmed in Saanichton Marina Ltd. v. Claxton [1989] 36 B.C.L.R.(2d.)79 [B.B.C.A.]. The court did not state, however, that the right to protect habitat was specified in the treaty, but rather that the right to fish carries with it the right to protect habitat. This finding in Saanichton Marina should also apply to Sparrow.

Fisheries, soils, and water rights issues have not been taken as a starting point for planning so far, partially because the Ministry of Forests has been relied upon to set agendas, and to interpret the impact of logging on these resources. When asked to supply an analysis of the impact of logging of the 1990 flood (which swept away the hatchery, greenhouse, fences, and changed the course of Deadman River), the ministry's consultant reported that there was no impact, because only three percent of the forests had been logged. He recommended that 30 percent of the remaining timber could be safely logged. In short, the committee is not operating from its own strengths, and not using local rights as an implicit platform from which to launch planning.

Of course, there is less institutional support for the committee to take this approach. The Ministry of Environment supports the Ministry of Forests planning process and feels all the watershed committee planning should be done under these auspices. To follow the guidelines of an existing planning process by the most politically powerful agency is of course easier for everyone in the short run, because it is already organized and requires the least effort. It is also the approach in which the committee is least likely to be able to achieve the original purpose of the band.

Of course, forestry is far from being the only or even perhaps the most important problem in Deadman Valley. The problems are most likely the result of many small cumulative actions over time by many parties, including logging companies. Thus, this analysis still means that forestry planning may not be the most helpful starting point for addressing the problems.

From the forgoing, one might be tempted to conclude that the Deadman Valley Watershed Committee has not progressed to the second stage of co-operation. However, a look at successful second stage processes suggests that considerable co-operation has been established, based in this case on shared local cultural norms (independence, respectful non-interference with others), a shared

sense of place (sense of commitment to long-term residence and dependence on the natural resources and their management), a shared sense of the problem (unplanned development by outsiders which does not take locals into consideration, or lack of co-ordination among locals), and a shared sense of appropriate action (mutual support in the face of outside developers and government agencies; better communication about insider differences). These shared elements are apparently powerful enough to hold the group together over time despite the lack of other activities or foci. Perhaps most important, the meeting provides a forum which is otherwise lacking and which residents feel they need. As one rancher comments: "The main thing is that if we didn't have those meetings, we wouldn't get together and talk at all." By this he does not mean that people would not discuss the issues at all, but they would not have an opportunity to discuss them in a collective and focused way without the meetings. In other words, some degree of intermittent communication among some committee members helps keep the process going, but all members know this is not enough.

Key Factors in Building the Second Stage of Collaboration

1. **Continued development of a shared understanding of the problem** is usually considered part of the second stage. Some understandings have been fully developed: the need to stabilize streambanks, the need to work with the community and the Ministry of Environment and DFO referral processes when altering the riverbank on one's land, the necessity to limit beaver activity, the value of vegetation in the riparian zone, the need to fence cattle from access to the entire creek. Others have not been achieved yet: that increased fish runs will require more water than the dam currently holds for agriculture.

2. **Continuance of a common sense of purpose, enlarged** to include more activities is also key. The common purpose here continues to be finding ways to limit new development, especially real estate, roads, and forest practices which impact hydrology. Attempts to exert tribal jurisdiction and local jurisdiction to regulate these developments can be mutually supportive. One resident took the Ministry of Highways to court to fight the use of tordon along roadways to control weeds. He used an environmental coalition to corroborate his claims that tordon was harmful, and he used the watershed committee to establish a principle on the manner in which residents would limit the use of pesticides.

3. The second stage involves the **articulation of the values which guide each party's interest in the process**. Here there is great clarity in the focus on the shared interest in keeping the valley and its life style as it is.

4. An important second stage process which has not been widely identified, but which is relevant here, is the **increased sharing of**

the burden of initiative within the committee. The lack of complete dependence on the facilitator to "make something happen" at a meeting is an indication of the maturing of the co-operative process. This ability was evident during the discussion of tordon spraying by Ministry of Highways at the October 1993 meeting observed by the "outsider" author, as discussed below.

At this meeting, it is significant that the committee was able to move on this issue because it integrated its own collective knowledge of the herbicide "tordon" and the knapweed it was intended to control. After considerable disagreement and discussion, the committee reached a consensus (a) that tordon is dangerous to humans if it gets into the water supply, (b) that it is not possible to eradicate knapweed with tordon without endangering the water supply, (c) that knapweed was introduced to the valley by a known individual at a known time and had spread at a known rate by an understood means, (d) that the Ministry's attempt to control knapweed with biological predators had a limited effect, (e) that mowing had no effect, (f) that pulling could remove knapweed for a season, (g) that residents had to learn to live with knapweed, but could reduce its impact by pulling, (h) that some individuals were not willing to give up their right to spray on their own land, but (i) that these individuals were willing to give 30 days notice of intent to spray to their neighbours, (j) that neighbours might be able to organize 4-H children to pull the knapweed to avoid spraying if given 30 days notice, (k) that some landowners who would prefer to spray were willing to forgo spraying along the highway frontage in deference to their neighbour's objections.

In this discussion, one committee members offered to share an information sheet on the effects of tordon, another member offered to write to the Ministry of Highways, and a third member shared a great deal of information on his experience over time with knapweed. In short, the committee drew extensively on internal resources and the burden of initiative was widely shared.

Other types of initiatives which occurred at the same meeting included: (1) committee members asked the band about available resources and expertise and attempted to access them through the band; (2) committee members several times asked the band facilitator for help in achieving some task; (3) one family dependent on water for truck farming announced being able to access \$10,000 to do a hydrology study related to conflict over logging above their water supply; (4) a committee member sought to initiate "another meeting on this if [a scenario everyone rejected] happens", asking the committee for comment and support on a particular issue; (5) two committee members had put items on the agenda and initiated the discussion of two different issues.

In short, a number of committee members are taking initiatives and contributing resources such as ideas, knowledge, experience,

written information, and letter writing, without depending on the band for help. This sharing of responsibility and initiative has allowed a certain maturing of the process, despite the limitations discussed above.

It is important to balance the advantages in this situation--in which the committee does not take band resources too much for granted on all issues--and the situation which may develop when the band takes a more active role, and a higher profile in developing the process. In the latter type of process, the band may indeed have a more enhanced leadership position, be perceived as having more ability to influence government decision-making, be able to engage larger political issues, be able to mobilize more resources and focus the will of the group on the goal of creating a management plan.

However, there is a balance to be struck between two extremes. At one extreme, there may be over commitment of resources by the band and the SNTC, which may allow the committee to take band services for granted. Ideally the band would play a facilitation role active enough to stimulate activity from the committee, helping people to develop a vision of what is possible, and to begin to take action as rapidly as they have the resources to do so on issues of common ground.

5. **Formal assessment of process fairness or formal terms of reference** have not happened yet, but the practice of co-operation among staunch individualists is being created, explored, tested, and appreciated. This is a very important first stage to building the mutual monitoring capacity and the agreements about what it is acceptable for people to demand of each other. Informal understandings are being created about how individual rights are balanced by community rights.

6. **Formal rules about how decisions are reached** or how to break an impasse are also lacking. There are no formal minutes kept and circulated to all attendees. Yet the norms are developing to balance respect for individual rights with an accommodation to the desires of the community. For example, one member who had written several letters to the editor in support of tordon spraying was, by the end of the meeting, offering to refrain from spraying out of respect for the feelings of neighbours.

7. There is no **inventory of all technical, financial, and human resources** which could potentially be accessed by the committee, and no plan of when to access them. The committee does not have a complete inventory of resources available from SNTC and SNFC and of funding sources through the Green Plan, the Fraser River Task Force, Transmountain Pipeline, agency programs, etc.

In summary, there are substantive agreements being built about what people want for the valley, but not formal procedural

agreements about how residents will work together or where they would like to go. There are what might be called informal agreements about how to work together based on some degree of trust and mutual respect. Valley residents have certainly moved beyond the initial fear expressed by one resident that "this might develop into a radical group," and band/non-native communication has taken a giant step forward. Some residents even feel that too much formality would kill the process, and would like to be able to have a good time in a neighbourly style at the same time they do business. This suggests that residents would not be interested in developing procedural agreements for their own sake, but might have an incentive to develop them if it were obvious they would help to accomplish a specific substantive task or shared group goals.

What Could Evolve in a Third Stage of Collaboration Building

1. Negotiation and agreement among parties in the production of a watershed plan, based on inventory and mapping of all watershed resources. This would likely involve considerable self-education by the committee, leading to a better understanding of local resources and the needs of various parties. Production of a plan of action for sustainable management of all watershed resources in a manner which balances conflicting demands on resources. This would be the crowning achievement of a watershed committee, putting it in a strong position to lobby government to adopt the local agreement, even if a mandate for such local planning did not yet exist. Likely, strong local planning will emerge from empowered self government structures evolving through future treaty negotiations.

2. Negotiation among parties about how to monitor and regulate implementation of actions called for in the watershed plan. Institution building in the watershed committee could occur around how to mutually monitor actions, based possibly on the role of the water bailiff in the Water Improvement District set up in 1973. An alternative and far more complex model is that of the southern California groundwater basin users associations (Blomquist 1992), in which groundwater users agreed among themselves on a fair system of allocating water among themselves, and of monitoring the use of each member so that violations would be rare and the cost of monitoring would be low.

3. Agreement on the ultimate role of the band in the watershed plan. A rough model for the role the band could play may be found in the pilot watershed planning process under the Chelan Agreement of 1990 in Washington State. Tribes had asserted their case for water rights as well as rights to protect fish habitat in Phase II of US v. Washington (These rights were implied in previous litigation and believed by all parties to exist, although not yet tested.) Tribes had been recognized by the state governor as governing entities with an important leadership role to play. The

previous 1988 multi-party watershed planning exercise for water quality in the pilot area (Sequim Bay) had taken place under the aegis of the county as "lead agency". The county hired the facilitator who helped the parties go through a year-long planning process and then get the watershed plan accepted by the state agencies who were required to implement it (Pinkerton 1991). After the Chelan Agreement was signed, the neighbouring Dungeness-Quilcene watershed management plan was undertaken, with some overlap in actors from the Sequim Bay planning process. This time the tribe was the local lead agency, except that the tribe did not like the concept of "lead" agency. Instead, the tribe chose to call itself the "co-ordinating agency." This reflected the tribal view of the proper role of government in the local area. Government's job, in this view, is to facilitate the development of agreement among local parties, while holding up a standard of what is necessary for the sound management of resources, and educating people about that standard. The trust-building which had occurred in the Sequim Bay watershed planning process among local parties resulted in strong local support for the tribe to be co-ordinator of the second watershed planning process (Seiter 1993).

Ironically, cutbacks in the staffs of government agencies such as the Ministry of Environment often leave them in a position to do little more than facilitate agreements among parties they theoretically regulate. Viewed in the light of this unwritten policy, the experience of the tribe in the Dungeness-Quilcene watershed differs little from the role which a government agency or tribe could or does play in Canada in facilitating or co-ordinating agreements among third parties.

4. The development of procedural agreements between the watershed committee, the band, the SNFC, and the SNTC. The watershed committee has already become a supportive component of planning in which the SNFC works with the band to clear the route to progress by getting the appropriate level of government to work with the appropriate person in the band. The watershed committee could be asked to review band or SNFC annual plans involving global, multi-watershed resources, and make recommendation to both entities about addressing issues of concern. The plans could be reviewed in terms of values and principles which were supported and ratified by the major local parties in the watershed. This process would enable the band to carry the agenda from local area management planning into the "big picture" planning, e.g. of the Fraser River watershed, and province-wide issues. The process would also allow two-way education, as band and SNFC representatives could report back to the committee the interactions in the global forums. Finally, the process would clear paths to deal effectively with local issues.

5. The creation of a local support group through the education of residents outside the watershed committee to the plans of the committee and recruitment of volunteers to help implement the plan.

Also educate and recruit supportive third parties in Kamloops, such as the community resource working group and fish and game clubs who worked so enthusiastically on early work parties and are eager to do more.

6. Assignment of tasks to volunteers and sub-committees who can pull in outside help into work parties hosted by the band or the watershed committee to implement parts of the plan, to write funding proposals to achieve other parts of the plan, and to get funds for contracts to be administered by the band.

The ultimate result of this third stage of collaboration would be a consensus-driven local body which is putting work into habitat restoration in a co-ordinated and organized fashion as part of a staged larger plan and which then has good credibility and is in a strong position to communicate with government agencies and to support the band in its effort to return more fish to the watershed. The rationale for returning more fish to the watershed is that local efforts which contribute to increased production should be given an incentive to continue their efforts--by receiving some share of the increased production.

Interim Measures Fisheries Management Planning

Interim measures planning is that which precedes pre-treaty planning, and is relevant to, but is not considered to be part of treaty making. The tribal watershed planning model provides a process for interim measures planning. The process supports the building of capacity to manage local resource use (self governance and local area management). The bands see interim measures as a safe venue to develop an understanding and process to deal with local land and resource issues outside of treaties.

The watershed committees are likely to be uncertain of the definition of interim measures, but respond willingly to band processes that are clear and involve them in issues that affect them. Capacity building for local area management is well received by the watershed committee as it is by the band. In practice local watershed residents who have experienced the process at work would rather work through local resource people they know than with distant bureaucrats who appear infrequently. In the case of shared conflicts with government, an open forum can be far preferable to one-on-one conflict resolution with government. When parties share a conflict, more creative solutions may emerge from an open forum that is built on trust and fuelled by shared vision.

The legacy of interim measures planning for natural resources appears in three levels of resource management planning and includes native and non-native groups: (1) Capacity building: Local community expertise is developed specific to local needs. Education on local issues is shared by all participating watershed

residents. Agency and tribal support are required only as needed once basic facilitation skills and process are in place in a way that respects the communication needs of the communities and the authority of the band government. Increased communication at the local area level helps to inform government bureaucrats and tribal authorities about local issues and directions.

(2) Co-ordination of local area planning through watershed committees could aid in the development of watershed partnerships that would launch projects on watershed issues. Interim measures planning through a watershed forum would make tribal planning a rational and highly supportable process to non-natives concerned about the affects of future treaty making.

(3) Mobilizing global commitment to sustainable resource management is the most difficult process in the watershed model and in interim measures planning. Local priorities are potentially eroded by the good intentions of problem solving in larger forums. Interim measures planning is best served at this level by clarifying issues that can be addressed in B.C.-wide or Canada-wide forums, while avoiding making decisions for watershed residents on issues that have not involved them so far. The global forums are less sensitive to individual rights or community rights. Consequently, bands are cautious not to let themselves be put in the position of defending aboriginal rights and claims in any non-governmental forum. Old models of treaty making suggest that deliberations outside of treaties are deleterious to final agreements. Where governments have enabled local problem solving first, the result is local collaboration on applied solutions.

Benefits to be Derived from Implementation of the Model

1. Affirmation of a sense of direction and purpose by local residents dealing with local conflict. This is the case especially with projects having immediate short-term goals which are also part of long-term objectives.
2. Jobs from projects provide local employment and administration of projects leads to development of band infrastructure. Some projects have the capacity to become self-generating.
3. Increased fish runs, partly resulting from habitat and run enhancement activities locally, and partly resulting from the greater priority that band and others will give to negotiation of a larger allocation of fish in recognition of their rightful access and contribution to enhancing runs.
4. Improved morale in local communities based on success in restoring runs through self-restraint and hard work. This is a catalyst for further co-ordinated activities, projects, etc.

5. Increased access to increased stocks, (a) by the band through negotiations and a greater interest in fish, and (b) by sport fishermen downstream who will intercept a percentage.

6. Increased interest of the entire watershed community in the fisheries resource and in better fisheries management. Hence greater ease in mobilizing community to protect a resource which is becoming more abundant through enhancement and habitat improvement, and adding value to the community through the work of community residents. The community can serve as a watchdog and audit of management activities of government, as well as individual community members' activities, and would support and participate in management activities of the band.

7. Avoidance of much of the conflict occurring on the coast by the broader community becoming aware of mutual benefits and global needs and becoming involved in comprehensive management planning.

8. A superior data base assembled in the plan and continual updating of the data base through ongoing community interest and involvement in the plan, and an increased ability to predict impacts of proposed activities on valued resources. The data base is valuable as a management tool for government agencies as well as for community input into planning and the community's pro-active formulation of its own plans.

9. A superior ability of community members to monitor each others' behaviour in the watershed, as well as the behaviour of outsiders, once they make mutual commitments to a course of action judged to be necessary for sustainable use of local resources, and agree to a mode of mutual monitoring and sanctions for non-compliance.

Conclusion

1. The pilot project has progressed successfully through most of the first stage of collaboration-building, and has built the trust necessary to proceed to the second stage. The conditions have been identified which could make a second and third stage possible, and these conditions can be fulfilled if the appropriate steps are taken.

2. There are considerable potential management and community economic development benefits to be derived from the completion of a collaborative process, for the band community and for the watershed community as a whole. Most important, the basis for local problem solving has been created before conflict based negotiations occur at higher levels in non-local forums.

3. The successful launching of this process would illustrate the mutual self-interest of band communities and their neighbours in working together to achieve these benefits, and suggests that many, if not all, current fisheries conflicts may be addressed through

watershed-based collaborations based on principles of sustainable and integrated management and common ground.

A Shuswap legend says that in the remotest antiquity, a mythological coyote (*Sek'lep*) led the salmon up the Fraser, beyond an obstruction, tumbling over each other in great numbers and into all the rivers, entrusted to the care of the river people. At some distant period, when the world turns, *Sek'lep* is expected to return and again bring back the wild salmon to the Fraser. Today, the coyote is said to be back in the Fraser.

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