EVALUATING THE COLLABORATION TOWARDS A FUTURE VISION AND ECOSYSTEM OBJECTIVES FOR THE SALMON RIVER WATERSHED

(Thompson / Okanagan, British Columbia)

by

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ABSTRACT

In 1995, the Salmon River Watershed Roundtable (SRWR) became a pilot project for a collaborative process to establish community-developed ecosystem objectives, (part of a larger project to develop goals, objectives and indicators of ecosystem health). This thesis evaluates the collaboration using mostly qualitative methods including document analysis, participant observation, interviews with process participants, and a survey of watershed residents. A comparison of the case study to a 5-stage model of collaboration framed the description of events, revealed parallels between the case study and the model, and placed the case study in the "structuring" stage of collaboration. Through evaluating the process from the participants' viewpoints, several conclusions were drawn. (1) The overall goal of the pilot project was achieved, community developed ecosystem objectives were established. (2) Process strengths included: wide-spread awareness and support for the project within the watershed; a clearly defined convenor role; a well organized and facilitated process which encouraged participation of people present; and the education of local residents about their watershed and their neighbours. (3) Process weaknesses or areas for improvement included: unclear roles of watershed residents and government agencies; poor attendance at community meetings; long and repetitive meetings; mistrust over the use of government funds; and scepticism about the ability of the SRWR to implement the objectives developed. Although the project cost $124, 955 in contributed funding, as well as huge commitments of time and energy, most process participants thought the benefits of the process out-weighed those costs. Benefits included: anticipated improvements in ecosystem health; education of, and

shared understanding among watershed stakeholders; information for use in other planning processes; and organizational direction for the SRWR. Successful elements of the case study provide a strong basis for continuing the pilot project into its next phases (developing ecosystem indicators and a monitoring program) and for cautiously attempting the process in other watersheds. Further assessments should be conducted in the future to determine the productivity of the process outcomes with respect to long term improvements in ecosystem health. Future efforts to develop ecosystem objectives should pay special attention to the cultural and social appropriateness of process methods, and power, authority and accountability within the process. Specific recommendations made for the SRWR regarding roles and responsibilities, communications, process, skills development and future research are also applicable to future projects. Both the federal and provincial governments have roles to play in the future promotion and development of ecosystem objectives in collaboration with local multi-stakeholder groups.

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PART I

BACKGROUND AND CONTEXT:

The Ecosystem Approach, Collaborative Processes, and Qualitative Research Methods

CHAPTER ONE

INTRODUCTION

"As the Salmon River Watershed Community, what creative actions do we need to ensure a long range future for the watershed, a future which we can all celebrate?...What do we hope to see in place in the watershed in 20 years?"

- Focus questions from "Creating and Celebrating our Watershed's Future" (Workshop), December 2 & 3, 1995

"Where do we want our children to be 50 years into the future?" "Where do we want our descendants to be 100 years into the future?" "What type of lifestyle should we and future generations enjoy?" "In what sort of environment do we want to live?" These types of questions are typical of visioning exercises--exercises which a community can use to look at where it wants to be at some point in the future. The answers to these questions can provide guidance on the types of actions required by individuals and whole communities *today* in order to reach desired future visions.

An "ecosystem approach" in environmental, resource or community planning, advocates the consideration of three systems in defining and planning actions towards a future vision: the environment (referring to the biophysical elements of an ecosystem: earth, water, plants, animals, and the complex interactions amongst these elements); the economy (referring to the human system of goods production, exchange and use); and society (referring to human social needs, constructs, and interactions)[1]. Under such a philosophy, human systems are considered to be inextricable from the environment; humans are part of natural systems and, as such, affect

[1]Modified from various sources, (e.g., Hancock 1993a and Hartig and Vallentyne 1989).

and are affected by the biophysical environment in which they live, or work, or from which they receive usable products. Practicing an ecosystem approach (in developing or implementing future visions) could be done at a variety of different spatial scales, depending on how "ecosystem" is defined. The term "ecosystem" was coined by Arthur Tansley in 1935 to refer to " ...a system resulting from the integration of all living and non-living factors of the environment." Another widely cited definition described an ecosystem as,

> "...a unit of biological organization made up of all the organisms in a given area interacting with the physical environment so that a flow of energy leads to characteristic trophic structure and material cycles within the system," (Odum 1969).

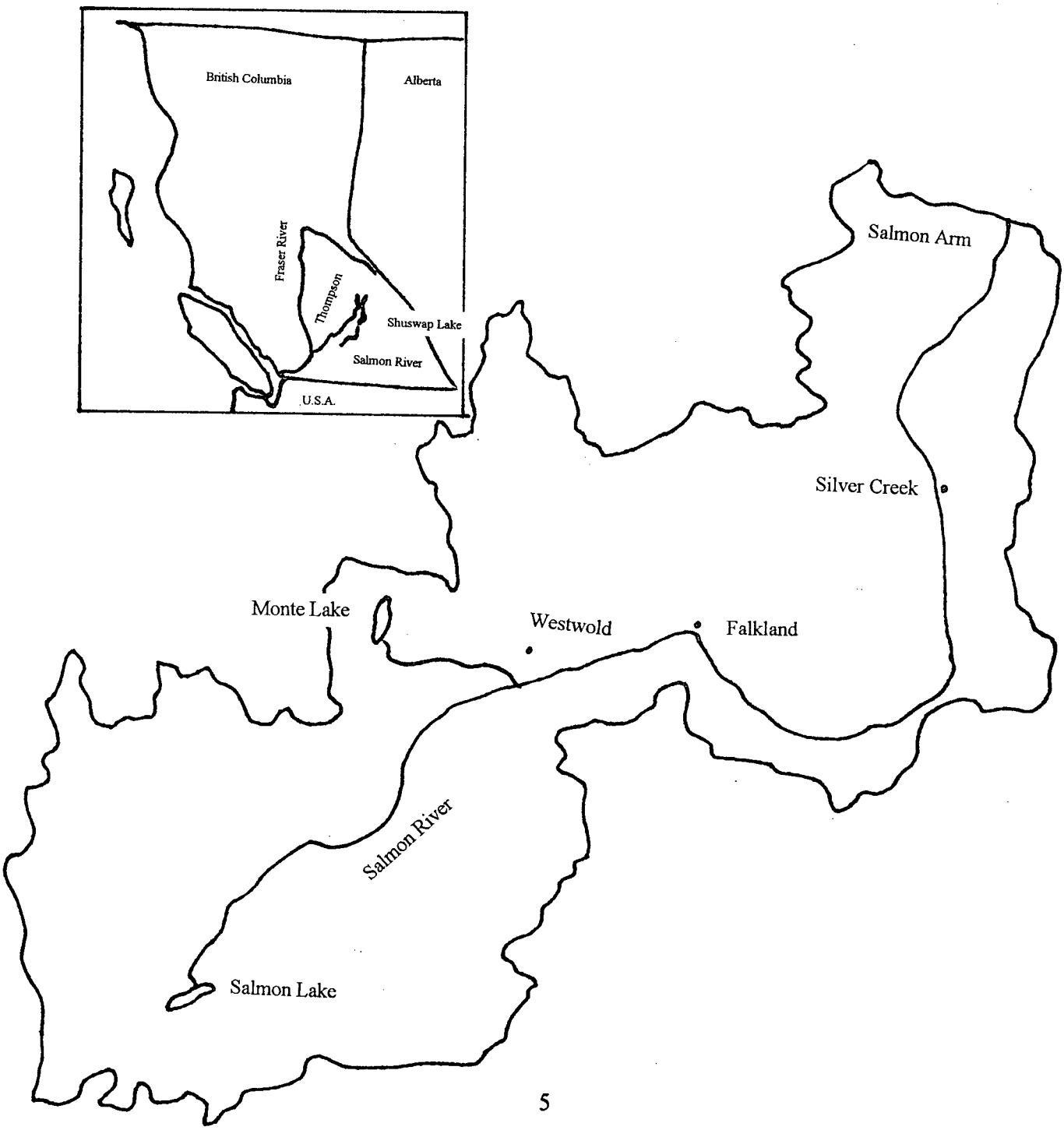
Today, an "ecosystem" is largely defined using a combination of ecological relationships and human purpose. For example, for planning at an international level, the entire biosphere can be viewed as an ecosystem with global biophysical, economic and social characteristics. At more local levels, both hydrology and vegetation types have been used as primary ecological definers of ecosystems, with the scale of the ecological relationship being chosen by human purpose (e.g., the entire Fraser River Basin could be considered as one, hydrologically-defined intact ecosystem, as well, a small tributary watershed of the Fraser River could also be considered as one, hydrologically-defined ecosystem).

The concepts of developing future visions and the ecosystem approach have been combined in environmental, resource and community planning and management exercises which strive to account for the future of all three ecosystem sub-systems. One method of articulating future visions on an ecosystem basis is through the development of ecosystem objectives. "Ecosystem objectives" are narrative statements which describe the collective vision that different stakeholders have for the future of their ecosystem. These objectives can be used to

guide decision-making within an ecosystem, and can provide focus for the development of environmental indicators and other research or monitoring activities. Ecosystem objectives and the processes by which they can be developed have received recent attention in Canada (CCME WQGTG 1995, and Marmorek *et al* 1993). Most recently, in 1994, the Salmon River Watershed Roundtable (a multi-stakeholder group composed of citizens, industry, interest groups and government agencies in the Salmon River Watershed near Salmon Arm, British Columbia) agreed to be a pilot project for a watershed management framework advocating the development of ecosystem objectives. The Salmon River Watershed Pilot Project was an exciting one, because, in order to develop ecosystem objectives, the Salmon River Watershed Roundtable (SRWR) was faced with addressing--either directly or indirectly--many of the hottest issues in British Columbia today (e.g., resource management conflicts, grassroots and Native participation in the governance of land and resources, and other fish, forest, and agricultural issues). The process by which the SRWR involved local residents and other stakeholders to develop ecosystem objectives and a future vision for their watershed is the focus of this thesis. A map of the Salmon River Watershed can be found in Figure 1.1.

Developing ecosystem objectives is a collaborative process. Collaborative processes are those in which "parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (Gray 1989). The "problem" explored in a collaborative venture could be a source of conflict between the different parties involved (conflict-based collaborations), or it could be the needs associated with a common goal or concern (vision-based collaborations). Ecosystem objectives are developed under vision-based collaborations. The specific framework explored in this thesis

Figure 1.1. The Salmon River Watershed, British Columbia, Canada. (The Salmon River empties into Shuswap Lake which feeds into the South Thompson River, which joins the North Thompson to form the Thompson River, and then ultimately empties into the Fraser River.)



advocates consensus decision-making and the inclusion of all affected parties. In theory, this practice challenges the traditional approaches to watershed management in Canada in which government agencies have taken the lead role in setting the priorities and work agendas for watershed management programs. The collaborative aspects of this process entail diverse, sometimes opposing, and often traditionally segregated interests to work together towards articulating and implementing a common vision. Such collaborative processes are, by nature, more time consuming and exhaustive in terms of human resources than a command and control approach. Advocates of developing ecosystem objectives think that there will be an eventual pay-off in the long term through a healthier ecosystem as a result of more stakeholders jointly taking responsibility for protecting and using resources. In the short-term, it is possible to gauge the success of the *process* for setting ecosystem objectives (in terms of whether or not it fosters an environment in which ecosystem objectives can be constructively developed and given the best possible chance at being implemented).

Since this process for developing ecosystem objectives or a watershed vision could have radical implications for the way planning and management of resources is conducted, and since the process has certain costs associated with it, it is crucial that the process is evaluated before it is extended to other watersheds. If changes to traditional planning processes are to be made in the best ways possible, it is important to evaluate experiments and pilot projects so that what works well, what does not work, and what changes are worth making on a larger scale can be discerned. Through examination of the Salmon River Watershed case study, insight has been gained into both successful elements of the process and areas for improvement.

Recommendations have been made in this thesis regarding the application, modification, or improvement of this process for use in other ecosystems in British Columbia and Canada.

1.1 GOAL AND OBJECTIVES OF THIS STUDY

The goal of this thesis is to evaluate the process to develop ecosystem objectives in the Salmon River Watershed, located in the Thompson / Okanagan region of B.C.'s interior. There are several more specific objectives:

(1) **To review the relevant literature, and place the case study in the context of current theory on ecosystem management and collaborative processes.** This objective includes (1) exploring concepts like the ecosystem approach to resource management, (2) outlining the framework for developing ecosystem objectives which resulted in this pilot study, and (3) defining collaboration and explaining how collaborative concepts relate to the effort to develop ecosystem objectives and a future vision for the Salmon River Watershed.

(2) **To describe the procedures used in the case study and compare them with those found in the academic literature.** In order to evaluate the success of the process, the events of the process must be documented (i.e., how did the process unfold, who was involved, when and where did it take place, etc.). These events can be compared to how the process was *expected* to unfold based on what has occurred in the past with respect to ecosystem objectives or similar concepts.

(3) **To evaluate the success of the process from both the participants' and an academic point of view.** This objective relates firstly to whether or not the people who have used

the ecosystem objective setting process and/or are affected by its results are satisfied with the process. As well, this thesis examined how observations in the Salmon River Watershed compared to expectations of collaboration described in academic literature.

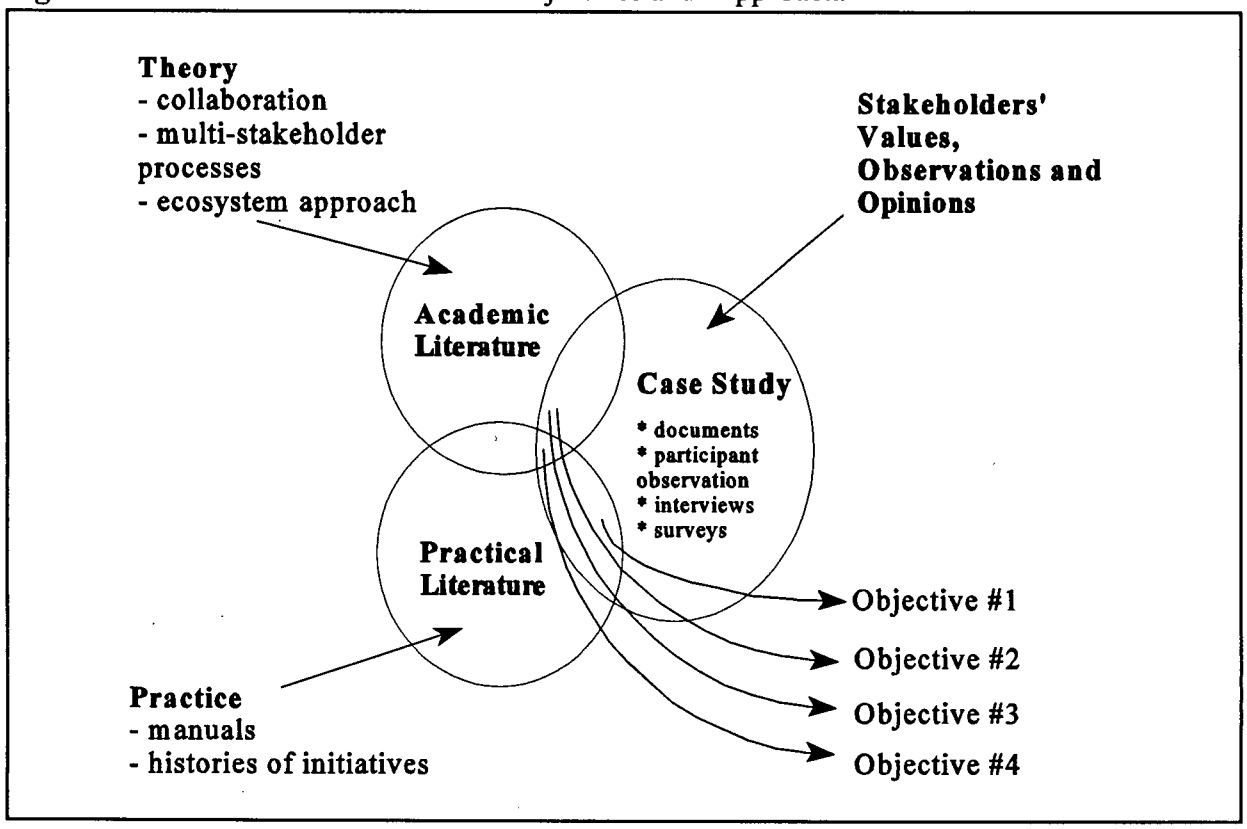
(4) **To make recommendations regarding the applicability of the process to other watersheds and ecosystems in British Columbia and the rest of Canada.** Finally, based on the experience in the Salmon River Watershed, some recommendations have been made about future processes. These recommendations look at both the strengths and weaknesses of the case study and suggest overall improvements (which could be applied in other watersheds) and issues to be addressed specifically in the Salmon River Watershed.

These research objectives and the relationship of the case study to the literature examined are shown in Figure 1.1.

1.2 OVERVIEW OF RESEARCH METHODS

Evaluating a process, like the development of ecosystem objectives or a watershed vision, entails looking at what makes a process successful and why. The types of questions involved are largely qualitative in nature. It is hard to quantify what people like or dislike about a process, especially when these likes or dislikes are intricately linked to the context in which the expression was made. Consequently, this research falls under a qualitative research paradigm. Qualitative methods were used as the primary source of data collection, though some quantitative sources of data were used to supplement the qualitative methods where appropriate, (e.g., in a survey where a large sample size would have made more qualitative data impossible to analyze within the time and budgetary constraints of this project).

Figure 1.2. An Overview of Research Objectives and Approach.



In order to provide for triangulation of data sources, several methods were used to collect data on the case study.

(1) **Document Analysis.** Documents produced by the Salmon River Watershed Roundtable or other organizations involved in the process under study were collected and reviewed. The types of records included (where appropriate) meeting minutes, technical reports, planning documents, and public education materials.

(2) **Participant Observation.** I closely followed the process by attending all the relevant meetings held in the watershed pertaining to the development of ecosystem objectives. Like any other interested party, I would participate and contribute to the meetings, identifying myself as a student studying the process. I took field notes in which I

recorded things like general attendance, issues raised, unusual or significant events, and my own impressions of the meeting/event.

(3) **Personal Interviews with Process Participants.** A total of 25 interviews were conducted with a diverse cross-section of people who participated in the case study. These interviews were conducted in order to find out participants' views on how well the process worked, what they liked or disliked, what suggestions they had for improving the process, and how they thought the results of the process would be used.

(4) **Mail Survey of Watershed Residents.** A survey of all households in the watershed was conducted by mail. The intent was to reach those people who had not actively participated in the ecosystem objective setting process but who, nonetheless, are affected by the results and may have an opinion about the process. The survey was also viewed as a good way to gauge general awareness of the Salmon River Watershed Project.

The data collected about the case study was examined and presented with respect to a five stage model of collaboration.

1.3 SCOPE AND LIMITATIONS OF STUDY

It should be noted that while this thesis comments on the success of developing ecosystem objectives and a future vision for the Salmon River Watershed, it cannot say anything about the success of the ecosystem objectives themselves (other than whether or not they are a good reflection of the process). In other words, this thesis does not attempt to assess the success that ecosystem objectives have in maintaining/restoring/ensuring healthy ecosystems.

(That is a project which would indeed be valuable to conduct in a few years time.) In this thesis, the process for arriving at ecosystems objectives is being evaluated, *not* the ecosystem objectives themselves.

The empirical data collected in this thesis comes from a single case study: the Salmon River Watershed. While conclusions made in the study are specific to the Salmon River Watershed, they provide a strong basis for making recommendations about how this process could potentially be used in other watersheds in both B.C. and the rest of Canada.

1.4 HIGHLIGHTS OF THE FOLLOWING CHAPTERS

The thesis has been organized into two parts:

Part I: Background and Context

Part II: Case Study and Conclusions

Part I starts by outlining (in Chapter 2) the pre-history of the ecosystem objective setting process. That is, the evolution of a multi-disciplinary, integrated approach to watershed management from which the concept of ecosystem objectives emerged. Chapter 2 then goes on to describe the framework for the development of ecosystem goals, objectives and indicators piloted in the case study, and ends with a discussion of ecosystem objectives in British Columbia. In Chapter 3, the concept of collaboration is introduced and related to the concepts described in Chapter 2. A five stage model of collaboration is described through which the case study is examined in later chapters. Chapter 4 describes how qualitative research methods were chosen and applied to collect and analyze case study data in relation to the collaborative framework.

Part II reveals how ecosystem objectives were developed in the Salmon River Watershed, as well as what watershed residents think about both the process and the final products of the process . Chapter 5 uses the five stage collaborative model to describe the effort to develop ecosystem objectives and a watershed vision. Chapters 6 and 7 offer an evaluation of the process at the different stages. Finally, Chapter 8 summarizes the conclusions about the case study and offers recommendations for the future use of ecosystem objectives, and suggested actions in the Salmon River Watershed.

CHAPTER TWO

ECOSYSTEM OBJECTIVES AND THE ECOSYSTEM APPROACH

"Sometimes you're just overloaded with so many things, that it [environmental concern] just gets shoved on the shelf...If you do one thing, you throw other things out of balance!"

- Salmon River Watershed Resident, October 1995

As the quote above illustrates, there is a growing perception amongst Canadians that life is increasingly becoming more complex. Problems the world over are more intertwined, complicated, and messy. The interdependence of environment issues and development issues (whether they be social or economic in nature) has been a constant theme in government, private, and academic studies, reports, and planning initiatives since the Brundtland Commission (WCED 1987). Along with recognition of the interdependence of social, economic and environmental issues, has come several attempts to deal with the messy, complicated, and integrated nature of these problems. The development of ecosystem objectives and visions is one of these attempts.

The first part of this chapter provides the history from which the concept of ecosystem objectives arose, (i.e., the evolution of integrated approaches to environmental or resource planning and management). After the context is set, some of the substantive questions about ecosystem objectives are answered, such as *What are "ecosystem objectives"? Where did the concept originate? What is their purpose?* Following this, some of the more process oriented issues are explored, such as *How are ecosystem objectives developed?* and *How are they being*

used in British Columbia today? The next chapter then delves deeper into the process issues surrounding the development of ecosystem objectives, and more general approaches to environmental planning and management.

2.1 EVOLUTION OF A MULTI-DISCIPLINARY, INTEGRATED APPROACH TO WATERSHED MANAGEMENT

In 1990, The Royal Commission on the Future of the Toronto Waterfront, headed by the Rt. Hon. David Crombie, made the following observation:

> "Traditionally, human activities have been managed on a piecemeal basis, treating the economy separately from social issues or the environment. But the ecosystem concept holds that these are inter-related, that decisions made in one area affect all the others. To deal effectively with the environmental problems in any ecosystem requires a holistic or 'ecosystem' approach to managing human activities."

In November 1995, Mr. Crombie echoed this message during his keynote address to a conference on sustainability here in British Columbia (Sustainability - It's Time for Action. A Working Conference on Achieving Sustainability. Landmark Hotel and Conference Centre, Vancouver, B.C., November 3-5, 1995). A focus of this conference was to share strategies among groups who are wrestling with the complicated nature of environmental, social, and economic problems. In B.C., these interdisciplinary problems have led to recent conflicts (e.g., Clayquout Sound, First Nations standoffs in summer of 1995). At the same time, numerous community-based multi-stakeholder processes are sprouting up in the hopes of heading off or dealing with these resource conflicts. (For a recent summary of 27 of these processes, see CORE for Convening Partners 1995). An "ecosystem approach" figures prominently in the philosophy of many of these groups. Indeed, it could be said that currently, the "ecosystem

approach" is one of the most espoused concepts in environmental or resource planning and management.

Many authors have independently described what an ecosystem approach means to them (e.g., Dixon and Easter 1986, Economic Commission for Europe 1993, Giles 1977, Grumbine 1994, Hartig and Vallentyne 1989, Hufschmidt 1986, Likens and Bormann 19--, Mackenzie 1993, Ontario Ministry of Environment and Energy 1993a and 1993b, Pantulu 1985, Reynolds 1985, and Slocombe 1993). The emphasis in these descriptions varies widely; the development of an ecosystem approach can be attributed to no particular field or school of thought. In fact, it could be said that several different disciplines and/or sectors have independently evolved their planning and management approaches from narrowly focused ones to more holistic ones. As a result, several different terms have arisen to describe similar holistic management activities, (e.g., "integrated resource management", "watershed-based management", "ecosystem-based management", "ecosystem approach to planning and management", etc.). The following examples show how more holistic management themes have evolved in several different fields. (These examples are not meant to be a comprehensive review of any of these fields; rather, they are intended to exemplify the trends.) Table 2.1 highlights the evolution of each of the perspectives discussed below.

2.1.1 Conservation Biology / Terrestrial Perspective

Grumbine (1994) describes the *ecosystem management* concept from a conservation biology/land-based parks perspective. In Grumbine's view, the biodiversity crisis is the driving force behind ecosystem management. He relates the history of ecosystem management to the history of wildlife ecology and the development of knowledge surrounding species' ecological

Table 2.1. Evolution to an Ecosystem Approach in Different Disciplines

Field / Perspective	**Perspective Evolution**	**Current Approach**
Conservation Biology / Terrestrial Perspective	increasing knowledge of species needs and dependence on ecosystems → perceived biodiversity crisis related to societal values, resource use, administration and human population growth	recognising and including human societal mechanisms in strategies to solve the biodiversity crisis
Biophysical / Engineering Approach	minimizing impacts by treatment of biophysical problems (like erosion, or water pollution) → changing human land use practices to create fewer problems	becoming more systems oriented within a utilitarian framework
Aquatic Ecosystem Science	single species approach to scientific investigation → recognising community structure and interactions, and links to human activity	addressing complex interactions within research mandates
Community Development and Human Health	meeting human needs today → sustainable living strategies treating the body → promoting healthy lifestyles	developing sustainable living strategies for healthy people now and in the future

needs for survival (e.g., the implications of minimal viable population size on the size of parks and nature reserves). The historical examples which he highlights include such events as: (1) the Ecological Society of America's Committee for the Study of Plant and Animal Communities's (1932 and 1950) recognition that a comprehensive U.S. nature sanctuary system would protect ecosystems and species of concern, provide buffer zones and offer all around better management alternatives; (2) Craighead and Craighead's (1979) work showing that grizzly bear population needs could not be met solely within the borders of Yellowstone National Park; and (3) the late 1980s general acceptance of an ecosystem approach to land management by many scientists, managers and others, (exemplified by attempts to apply an ecosystem approach in the early

1990s in Yellowstone Park, in the State of California, and by the U.S. Forest Service). Grumbine notes that ecosystem management has not "evolved in a vacuum". Societal values, resource use, inefficiency of administrative and legal mechanisms, and population growth all influence the state of ecosystems and must be accounted for within ecosystem management. Grumbine notes the traditional goal of "ecosystem management" (in his view to provide goods and services for humans) must be reconciled with the "new" goal of protecting ecological integrity. He offers the following definition of ecosystem management:

> "(It)...integrates scientific knowledge of ecological relationships within a complex socio-political and values framework toward the general goal of protecting native ecosystem integrity over the long term."

2.1.2 Biophysical / Engineering Approach

Dixon and Easter (1986) take a somewhat different approach when they describe *integrated watershed management* as a biophysical/engineering approach to problems such as soil erosion, sedimentation, and flooding. The rationale which they present for watershed-based management draws heavily on the biophysical linkages and relationships within a watershed, including the affects of human interactions with the environment. They note the traditional view of watershed management: " a biophysical, engineering problem complicated by the presence of people", and contrast this with more recent views in which watershed management "must explicitly recognize the range of physical, social, economic, and political factors that result in the observed pattern of use". Within the same publication, Hamilton and Pearse (1986) also describe watershed management in biophysical terms: soil erosion, sediment, chemical water pollution, water yield, distribution and delivery of water, and changes in the water table. In their

view, watershed management involves "blending productive and protective uses of the land and water resources in an area delineated by watershed boundaries".

The Ontario Ministry of Environment and Energy (OMEE)(1993a) describes the evolution of *watershed planning* along a similar vein. Before the mid 1980s, water management in Ontario focused primarily on the quantity of urban run off and its impacts on flooding, erosion, and other engineering problem. In the mid-1980s, water quality concerns were also required to be addressed in water management plans, (primarily sediment control and, later, fisheries protection). This has steadily grown to encompass a broad range of measurable variables for the protection of the aquatic environment in general. The Ontario Ministry of Environment and Energy (1993a) depicts the evolution of watershed planning from the pre-1980 era of minimizing impacts of development through to the early 1990s emphasis on maintaining and enhancing natural systems, with the most recent direction being the integration of a variety of engineering and management activities into an "ecosystem-based approach to water resource and land-use management using the boundaries of a sub-watershed." In a companion document (OMEE 1993b), the OMEE outlines the rationale behind the movement towards watershed management and an ecosystem approach. It cites interconnections between human activities and environmental conditions as the main reason that traditional water management practices (segmented among jurisdictions, and single resource based) are ineffective, and states that environmental versus economic conflicts can be better addressed using a proactive, anticipatory approach with the goal of long-term sustainability.

In 1992, the British Columbia Ministry of Environment, Lands and Parks (MOELP) outlined its vision for new water management policy and legislation: " a sustained and healthy

water resource." Like the Ontario example above, the MOELP recognized that,

> "...values in water go far beyond domestic, industrial and agricultural uses. We are understanding its importance to fish, plants, wildlife, and aquatic ecosystems, and appreciating its spiritual, aesthetic and recreational values," (MOELP 1992).

The basic components of the vision included:

- stewardship by all British Columbians;
- understanding of the resource and its capacity to replenish itself;
- respect for water as a powerful force in nature;
- harmony among environmental, economic and social values; and
- integrated watershed management.

2.1.3 Aquatic Ecosystem Science

Other authors have described and emphasized the movement towards an ecosystem approach from an aquatic ecosystems perspective. Schindler (1986) documented the need for a shift within the aquatic ecology discipline from past management approaches based on one or another of the following: (1) short-term bioassays on single species, (2) large, complicated deterministic models, and (3) short-term "impact statement" studies, to more *whole ecosystem approaches*. He noted studies in population ecology and aquatic community structure which could significantly alter and improve the knowledge-base upon which decisions for ecosystem management are made.

A more recent example of the change in the aquatic ecology discipline is the Ecosystem Integrity and Cumulative Effects Assessment Program of the National Hydrology Research Institute (NHRI). This integrated scientific research program has an ecosystem approach at its foundation:

> "The keynote of the program is its ecosystem approach, a research perspective addressing the complex interaction among the physical, chemical and biological

> components of an ecosystem. This approach recognizes that environmental and economic components are fundamentally linked and a balance between them must be achieved so that human populations can manage natural resources in a sustainable manner" (NHRI 1994).

In fact, NHRI scientists are currently part of the interdisciplinary research effort that is taking place in the Salmon River Watershed--the case study discussed in part two of this thesis (DOE FRAP 1995).

2.1.4 Community Development and Human Health Fields

Similar movements towards holistic, system-oriented management have occurred in both the community development and human health fields. Global initiatives such as the World Commission on Environment and Development's (WCED) (1987) report, *Our Common Future*, and the IUCN/UNEP/WWF (1991) strategy for sustainable living, entitled *Caring for the Earth*, link community development, health, and environmental quality on a variety of scales from local to global. They suggest policy and actions which promote community development in environmentally, economically, and socially sustainable ways. More recent community development projects have tried to integrate this concept into their frameworks. Roseland (1991) notes that "liveable" communities are (obviously) "those that people want to live in". Sustainable community development implies an approach which makes communities more livable by looking at environmental issues (like transportation, land use, air quality), and social issues (like health, safety, gender equality, education), in addition to the more traditional focus on economic growth (Roseland 1991).

At the same time, there is recognition in the health profession that improving human health on a global scale is dependent on environmental conditions. This theme is summarized by

Hancock (1993b):

> "Health is not dependent on medical care, but on access to the basic prerequisites to health: food, shelter, work, education, income, a stable ecosystem, social justice, and sustainable resources."

There are some recent examples which show the expansion of the health profession from a narrow physiological focus to the environmental context of human health. In 1994, Health Canada undertook a joint initiative with Environment Canada to hold a workshop on "Incorporating Societal Values in Ecosystem Health Objectives: Addressing the Challenge" at the 1994 International Symposium on Ecosystem Health and Medicine. As well, in 1993, the Ontario Premier's Council on Health, Well-being and Social Justice produced a report entitled "Our Environment, Our Health. Healthy Ecosystems, Healthy Communities, Healthy Workplaces" which endorsed a broad definition of healthy environments, including economic, social, cultural, physical and psychological environments. Throughout the document, interdependencies are recognised, and target actions are suggested which include actions by participants in several different fields (e.g., actions on toxic chemicals and the preservation and protection of prime agricultural lands). In 1990, the BC Ministry of Health and Ministry Responsible for Seniors set up a "Healthy Communities" initiative to provide resources to support community actions related to a variety of broad based factors influencing community well-being and health (e.g., unemployment, housing, the distribution of income, educational opportunities, water quality and recreation) (CORE for Convening Partners 1995).

2.1.5 Ecosystem Health and Ecosystem Integrity

Intermingled with the evolution of a "watershed management approach" or "ecosystem approach" is the concept of ecosystem health. Ecosystem health is an analogy to the traditional

human health sciences. Rapport (1996) describes how, over time, the concept of "health" has been extended from humans to other life forms, human institutions and social constructs. He further explains that extending the analogy to whole ecosystems is a natural progression. It should be noted that the analogy has been heavily criticised, mostly by ecologists who state that the analogy is a dangerous oversimplification of ecosystems (Suter 1993; Calow 1992). Rapport (1996), while acknowledging the debate, proposes that healthy ecosystems could be characterized by a number of key properties:

(1) "they are free from ecosystem distress syndrome, a common set of signs that are present in most heavily damaged ecosystems...

(2) they are resilient,...

(3) they are self-sustaining and can be perpetuated without subsidies or drawing down natural capital...

(4) they do not impair adjacent systems,...

(5) they are free from risk factors,

(6) they are economically viable, and

(7) they sustain healthy human communities" (Rapport 1996).

The Canadian Council of Ministers of the Environment Water Quality Guidelines Task Group (CCME WQGTG) (1994) proposed a way to address the discomfort of some ecologists with the term "ecosystem health" while at the same time taking advantage of the communicative benefits of the term "health". The task group proposed that the term "ecosystem integrity" be used to describe "those ecosystems which possess a 'high level' of biological diversity (e.g. species composition, relative frequencies, and spatio-temporal distribution), 'appropriate' types

and levels of processes (e.g., nutrient cycles, energy flow, metabolism, production, predation, etc.) and persistence of habitat," (CCME WQGTG 1994). The term "ecosystem health" could then be used in a broader context so that a healthy ecosystem is one in which "the environment is viable, liveable and sustainable; the economy is equitable, sustainable and adequately prosperous; and the community liveable, equitable and convivial" (Hancock 1993a as cited by CCME WQGTG 1994). In this thesis, the terms "ecosystem health" and "ecosystem integrity" are used as suggested by the CCME WQGTG.

2.1.6 Summary of Trends

In the sections above, several different perspectives on the development of integrated approaches to the planning or management of environmental resources and ecosystems were presented. There are three main issues raised by the discussion of these perspectives: (1) the inclusion of humans within an ecosystem management perspective, (2) the definition of ecosystem--how are the boundaries delineated, and (3) the extent to which the different perspectives are systems-oriented or single resource oriented. Of the different perspectives discussed, all of them advocate some sort of blending of human use with natural requirements for sustainability; all the different perspectives have acknowledged the apparent conflicts between conservation and human use, and state the need to "balance", "integrate", "blend" or "recognize links between" these uses in order to mitigate conflicts. Despite this commonality, there is no consensus on whether or not humans are considered part of the ecosystem. The distinction, made by so many authors, between the human world and "natural world" would indicate that humans are not part of the natural world--a view which is philosophically different

from the one presented in Chapter 1: humans are part of the ecosystems in which they live, and work, and from which they use resources.

Although many different disciplines have begun to broaden the range of considerations in their planning/management activities, there is still a predominant discipline approach. This is especially obvious in the ecosystem boundaries issue. It's clear from the biophysical/engineering approach presented above that hydrologically-defined, watershed boundaries are the preferred unit for planning and management of resources. Contrast this with the conservation biology perspective where other landscape units such as wildlife habitat or ranges, or vegetation types or successional stages are preferred. Contrast this further with the community development and human health fields in which the human community defines the management unit, and the "ecosystem" or the "environment" is seen as this nebulous, yet important, thing on which the human community depends. To complicate matters even more, combining the issues of human inclusion in ecosystems and defining ecosystem boundaries, what happens when--from an aquatic ecosystems perspective--an ecosystem is defined as a lake? Humans do not live in lakes, yet they might impact them through their activities. Are human considered part of the lake ecosystem?

The ecosystem boundary issue is related to the presence/absence and extent of a "systems" perspective. In a systems perspective, the effects of actions are considered over an entire system, rather than just an endpoint of interest (e.g., examining the impact of applying fertilizer on a crop in terms of its impact on stream quality, soil quality, other life forms, etc, and not solely on crop yield). Yet, how one defines the "system" of interest is somewhat arbitrary. Where does the analysis stop? Within the biophysical realm of ecosystems alone, there are

several systems in operation, without even considering economic and social systems!

These three issues must be addressed in the defining of an "ecosystem approach". Specifically,

(1) the degree to which humans are considered part of ecosystems

(2) how the ecosystem boundaries are defined

(3) the scope of the systems perspective (i.e., what systems are included in the approach?)

The following guidelines, alluded to in Chapter 1 can be used to identify an ecosystem approach. An ecosystem approach (to any planning or management activity) is one which considers biophysical, social and economic impacts of planning and management activities, notes the inter-relationships between human activity and environmental conditions, (and explicitly considers humans as part of the ecosystem), defines the ecosystem boundaries on the basis of an ecologically-defined unit which makes intuitive sense for the planning or management activity at hand.

The next section, explores how the concept of ecosystem objectives--originating in the aquatic ecology discipline, has evolved along the path towards an ecosystem approach as defined above.

2.2 RELEVANT HISTORY OF DEVELOPING ECOSYSTEM OBJECTIVES

2.2.1 Great Lakes Development of Ecosystem Objectives

One area in which the above noted trends in watershed planning and management have unfolded is the North American Great Lakes. Reynolds (1985) described the emergence of an

ecosystem approach in the Great Lakes as no accident. He cited an historical succession of management approaches from "ego-centric to piece meal to environmental and now to the ecosystem approach" arising from population and technological growth in the Great Lakes Basin.

An ecosystem approach to Great Lakes management was advocated binationally in the revised Great Lakes Water Quality Agreement of 1978. In 1987, a subsequent revision of the agreement strengthened this approach by including provisions for the signing parties (Canada and the United States) to develop ecosystem objectives for the Great Lakes (Bertram and Reynoldson 1992). Following this revision, the International Joint Commission (IJC) established the Binational Objectives Development Committee (BODC) to oversee the development of ecosystem objectives for the Great Lakes. The BODC in turn set up the Ecosystem Objectives Work Group (EOWG) for Lake Ontario, comprised of Federal, State, and Provincial Agency members. This group went through an iterative process of drafting preliminary objectives, sending them out for comment to various stakeholders, and then holding a workshop with these stakeholders to revise and finalize a set of ecosystem objectives for Lake Ontario (Bertram and Reynoldson 1992; examples are provided in Section 2.2.2). Following this, the EOWG set up six technical sub-committees to develop indicators appropriate to each of the ecosystem objectives they had developed. By 1992, a parallel process was in place which resulted in ecosystem objectives and indicators for Lake Superior (Lake Superior Binational Program 1993).

Box 2.1: Ecosystem Goals and Objectives for Lake Ontario.

Ecosystem Goals

The Lake Ontario ecosystem should be maintained and as necessary restored or enhanced to support self-reproducing diverse biological communities.

The presence of contaminants shall not limit the use of fish, wildlife and waters of the Lake Ontario basin by humans and shall not cause adverse health effects in plants and animals.

We as a society shall recognize our capacity to cause great changes in the ecosystem and we shall conduct our activities with responsible stewardship for the Lake Ontario basin.

Ecosystem Objectives

Aquatic Communities: The waters of Lake Ontario shall support diverse healthy, reproducing and self-sustaining communities in dynamic equilibrium, with an emphasis on native species.

Wildlife: The perpetuation of a healthy, diverse and self-sustaining wildlife community that utilizes the lake for habitat and/or food shall be ensured by attaining and sustaining the waters, coastal wetlands and upland habitat of the Lake Ontario basin in sufficient quality and quantity.

Human Health: The waters, plants and animals of Lake Ontario shall be free from contaminants and organisms resulting from human activities at levels that affect human health or aesthetic factors such as tainting, odour and turbidity.

Habitat: Lake Ontario offshore and nearshore zones and surrounding tributary, wetland and upland habitats shall be of sufficient quality and quantity to support ecosystem objectives for health, productivity and distribution of plants and animals in and adjacent to Lake Ontario.

Stewardship: Human activities and decisions shall embrace environmental ethics and a commitment to responsible stewardship.

2.2.2 Definition and Examples

The Economic Commission for Europe (ECE) (1993) defined ecosystem objectives in the following way:

> "Narrative statements which attempt to describe a desired condition for a given ecosystem through a set of parameters, taking into account ecological characteristics and uses".

An "ecosystem goal" is a more broad-based narrative statement, often linking the thoughts of one or more ecosystem objectives (Bertram and Reynoldson 1992). Where ecosystem objectives have been developed in Lake Ontario (see Bertram and Reynoldson 1992), a "hierarchy" of objectives has been established with ecosystem goals being the most general, ecosystem objectives being somewhat more specific, and indicators or guidelines being the most specific. Bertram and Reynoldson (1992) provided the ecosystem goals and objectives which were developed for Lake Ontario by the Ecosystem Objectives Work Group (EOWG), (see Box 2.1). Further work by the EOWG (1992) proposed indicators for these objectives. Examples of these indicators were listed by the CCME WQGTG (1994) and are shown in Box 2.2.

It should be noted that although the ECE's definition for ecosystem objectives might lead itself to a very scientific interpretation (based on the phrase "...through a set of parameters..."), the examples from Lake Ontario do not specify parameters. Rather, they implicitly suggest the types of parameters that may be appropriate as indicators. Ecosystem objectives are more like "motherhood" statements than measurable variables. Ecosystem objectives are tools which can be used to guide planning and actions within an ecosystem. They should represent a common vision of the future; a future in which all ecosystem residents and users work cooperatively to reach their common objectives. In the grand scheme of things, ecosystem objectives support the concept of ecosystem-based management, the intent of which is better management of all resources, ultimately resulting in ecosystems in which human needs (social and economic) and ecological needs (i.e., the needs of a system to perpetuate itself) are both met--resource use takes place within ecological carrying capacity. A more recent definition of "ecosystem objectives" (DOE FRAP 1995) captures these ideas:

"***Ecosystem objectives:*** a description of a desirable living environment (as defined by stakeholders) that balances social, economic and environmental goals."

Box 2.2: Examples of Ecosystem Health Indicators Suggested for Lake Ontario.

Aquatic Communities
- fish harvest levels
- size spectra of top predators
- benthic community structure
- physical measurements (e.g., pH, temperature)

Wildlife
- presence/absence of Northern Pike
- deformities in Green Frog
- contaminants in Black Tern eggs
- hunting success of Belted King Fisher

Human Health
- toxic contaminants body burden indicator
- public perception of risk

Habitat
- area of wetland
- length of tributary channels
- area ratios (e.g., urban/industrial)

Stewardship
- water consumption
- population density
- environmental volunteers
- land use

(Source: Ecosystem Objectives Work Group 1992)

2.2.3 A Framework for Developing Goals, Objectives and Indicators of Ecosystem Health

Influenced by emerging trends in environmental management, the Water Quality Guidelines Task Group (WQGTG) of the Canadian Council of Ministers of the Environment (CCME), whose work focused on developing *The Canadian Water Quality Guidelines* (for recreation, drinking water, aquatic life, etc.), broadened its concerns to look at the aquatic ecosystem in its entirety. In 1992, the WQGTG set out to develop a framework for guiding the development of aquatic ecosystem indicators. Under the influence of the concepts "ecosystem health", and the "ecosystem approach", as well as emerging trends in stakeholder participation

and community involvement in decision making, the framework placed indicator development within a holistic approach to ecosystem management. The resulting framework (CCME WQGTG 1994) consists of four steps:

(1) **Scope the issues and collate the existing ecosystem knowledge-base.** This step involves taking stock of what is known about the ecosystem in question with respect to ecological information, economic and social activities and the physical components of the ecosystem. Once compiled, this information must be made available to all stakeholders for them to use in establishing common terms of reference and understanding about the ecosystem in question.

(2) **Articulate ecosystem goals and objectives.** In this step, identified stakeholders (loosely defined as anyone--be they agencies or individuals--with an interest in the management of the ecosystem's resources) use the knowledge base as a starting point from which to negotiate and then articulate consensually-derived ecosystem goals and objectives.

(3) **Develop (or select) indicators to gauge progress towards ecosystem goals and objectives.** In this step, a comprehensive suite of indicators is selected (or developed as necessary) to report on the attainment of ecosystem goals, and objectives (from step 2).

(4) **Conduct targeted research and monitoring.** The indicators developed in step 3 are applied through monitoring programs. In the process of setting goals and developing indicators, information gaps in the knowledge base will become apparent. Research can then be directed into areas where it is most needed. New information (and that collected from regular monitoring activities) should feed back into the knowledge base. Periodic

review of goals, objectives, and indicators should be conducted to account for this new information.

The framework is a summary of ecosystem-based management trends developed across Canada and around the world over the past decade. These four steps are the common elements of a number of different programmes. In some programmes, different terms are used for analogous steps (e.g., "developing an information system" rather than "collating the existing ecosystem knowledge base" or "developing a vision" instead of "articulating goals and objectives").

2.3 THE DEVELOPMENT OF ECOSYSTEM OBJECTIVES AND FUTURE VISIONS

The current thesis is an evaluation of steps 1 and 2 of the CCME framework: the development of ecosystem objectives. As noted above, the first step of the CCME framework has two main goals: *taking stock* of what information is available (including social, economic and environmental attributes of the ecosystem in question), and *providing a common starting point* (ensuring that all the players in step two are working from the same terms of reference). The CCME framework states that a review of current information should be conducted, and that this information must be made available to all stakeholders. This type of knowledge compilation was attempted before the ecosystem objective-setting process was undertaken for Lake Ontario. Peter Sly from the Rawson Academy of Aquatic Sciences in Ottawa was contracted to pull together "The effects of landuse and cultural development on the Lake Ontario ecosystem since

1750" (Sly 1991). This 135 page document reviewed scientifically observable changes in various components of the ecosystem. It should be noted that this exercise was, to a large degree, very technical in nature, and the results of the study were published in an academic journal--not the most accessible medium for the general public. The CCME framework implies that this type of knowledge review must be taken a step further than in the Lake Ontario example to make information available to everyone with an interest in knowing it. With this information in hand, the ecosystem's stakeholders can then come together in some type of forum to agree upon ecosystem goals and objectives. The framework advocates a community based forum with representative interests from all facets of the ecosystem community.

It should be noted that the CCME framework is very general and does not provide any operational detail on how the ecosystem objective setting process should be carried out. For example, no advice is provided for inviting stakeholders to the table, or for designing the type of forum in which the ecosystem objectives should be developed. The task of developing these operational details has fallen to the Salmon River watershed pilot project.

2.4 ECOSYSTEM OBJECTIVES IN BRITISH COLUMBIA

In 1992, an ad hoc steering committee formed to organize and sponsor a workshop on Ecosystem Goals and Objectives in British Columbia. The committee was initially composed of members from Environment Canada, the Ministry of Environment, Lands, and Parks, and the Ministry of Forests, and was jointly chaired by Fred Mah (Environment Canada) and George Butcher (Ministry of Environment, Lands, and Parks). The workshop, which was held at Dunsmuir Lodge (on Vancouver Island) from December 7-9, 1992, tackled the problem of how

to apply an ecosystem approach in British Columbia through increasing the understanding of ecosystem goals and objectives (i.e., how are ecosystem objectives set, and how are they implemented?) (Marmorek *et al* 1993). Speakers at the workshop provided a wide range of experiences from different projects and case studies in other parts of Canada and from the United States. Over the course of the working sessions, a procedure for setting ecosystem goals and objectives emerged. Although more distinct steps were identified, this procedure is basically analogous to the CCME WQGTG framework described earlier, (see Figure 2.1). The workshop participants also suggested a number of generic ecosystem goals in a variety of categories (biology/conservation, resources, aesthetics, socio-economics, and planning), and provided a list of "essentials" for public participation processes (Marmorek *et al* 1993). By the end of the workshop, participants seemed eager to do some test applications of this approach.

Following the workshop, a group called the "Ecosystem Objectives Steering Committee" (EOSC) began to meet on a regular basis under the guidance of joint chairs Fred Mah and George Butcher. Membership in this group grew to include representatives from the following agencies: Environment Canada, Ministry of Environment, Lands, and Parks, Ministry of Forests, Ministry of Agriculture, Fisheries and Food, Department of Fisheries and Oceans, Canadian Forest Service, Ministry of Employment and Investment, Agriculture Canada, Ministry of Health, Ministry of Social Services, and the Fraser Basin Management Program. By July of 1993, the group had set out their terms of reference:

> "...to advance ecosystem objectives and monitoring by (1) devising a strategic plan for ecosystem objectives in British Columbia, (2) producing and implementing a communication strategy for ecosystem objectives, (3) obtaining agreements from member agencies to participate in and implement ecosystem objectives, and (4) piloting

> the ecosystem objectives framework in a demonstration project" (EOSC Meeting Minutes, July 27, 1993).

Over the course of the next year and a half, the group continued to meet every couple of months. The committee's secretarial work was carried out through Environment Canada under Fred Mah's direction. The group worked on developing a strategic plan, writing up a fact sheet about ecosystem objectives and the ecosystem approach, developing a communication strategy (through Flanders Research Consulting), and choosing a pilot project for the ecosystem objectives framework (EOSC Meeting Minutes, July 27, 1993 to November 4, 1994). Over the course of this time, the EOSC became familiar with the draft CCME WQGTG framework for developing goals, objectives and indicators of ecosystem health (see Section 2.2.3). The committee used the document to support its goal of advancing ecosystem objectives, and worked with the authors (WQGTG's Technical Secretariat: the Guidelines Division, Evaluation and Interpretation Branch, Environment Canada's head office in Ottawa) to choose a pilot project. The last meeting of the EOSC was in November 1994. At that time, the Fact Sheets and communications strategy were in draft form, and the Salmon River Watershed had been chosen as a pilot project. (Details about the interaction between the EOSC and this pilot project are presented in Chapter 5 and Appendix C.)

There were a number of factors contributing to the demise of the EOSC. Fred Mah described some of the frustrations which led the co-chairs to discontinue the committee:

> "We felt that it's not functioning. It was a very frustrating committee, especially when we tried to do a facts sheet for the ecosystem objectives, you know. We went through three facilitators, okay? And with that we went through about six different drafts and didn't get any agreement...So finally, I said--George and I--said, 'Well, this is nuts'...The socio-economic agencies, from the very beginning, some of them expressed, 'I don't know why I'm here. I was asked to come'...They didn't know why they were there.

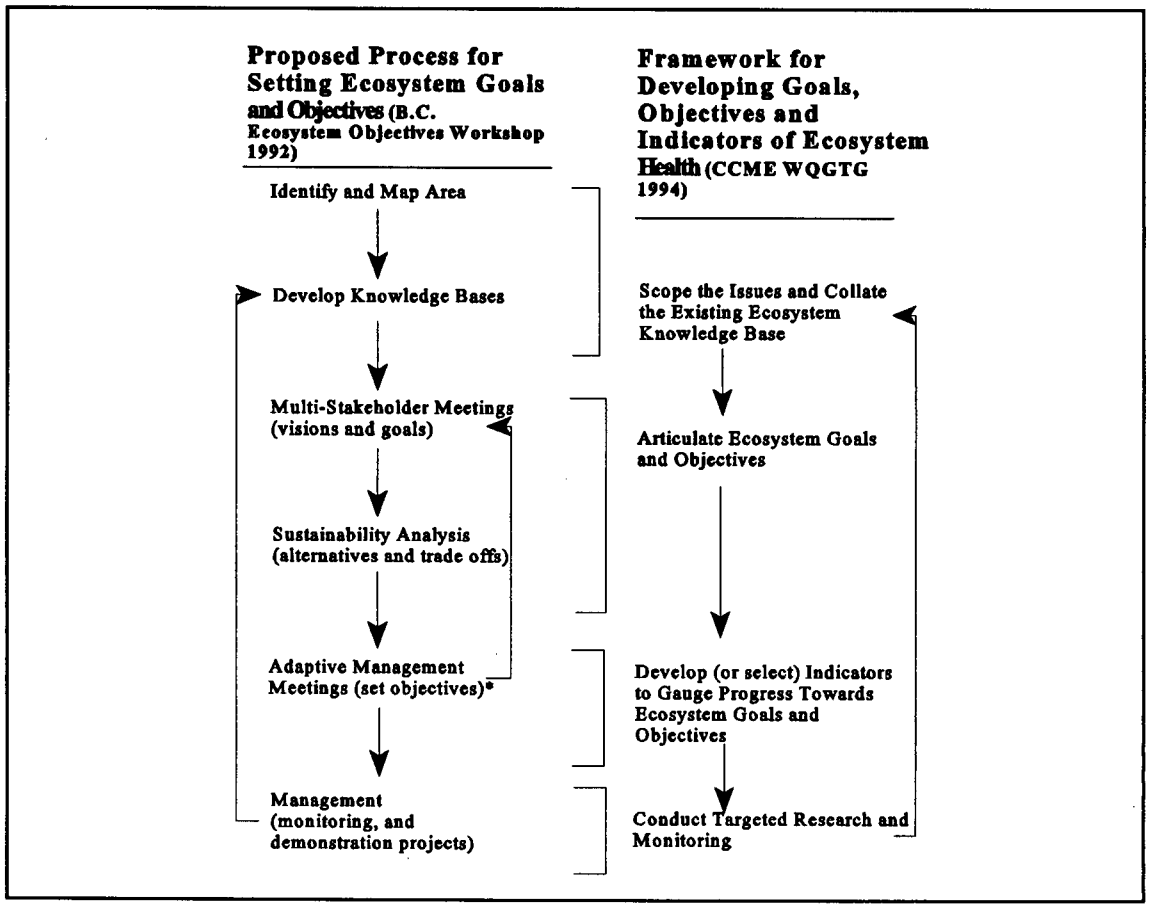


Figure 2.1: A comparison of the ecosystem objectives setting processes proposed by two different sources: (1) in an ecosystem objectives workshop held in B.C. in 1992 (see Marmorek *et al* 1993) and (2) by the CCME WQGTG (1994). (*Participants at the workshop acknowledged confusion over the term "ecosystem objectives." The term is sometimes used to refer to qualitative statements (like in the Lake Ontario example) and sometimes used almost synonymously with "indicators" to refer to more quantitative measurements. In this instance, "objectives" is being used to refer to measurable indicators.)

> They didn't know that when we sent out the letter, this is a new process, includes socio-economics. And they said, "Well, what does socio-economics have to do with this?"... So we decided, 'Ah, just let it die'. And you know, nobody even bothered to call to say, 'How come we haven't had a meeting?'" (Fred Mah, Pers. Comm. August 30, 1996).

In telephone interviews of EOSC members conducted by Anne Carlson of Flanders Research Consulting between April 5 and April 11, 1994, other members of the steering committee echoed the sentiment about social and economic oriented agencies:

> "Non-trade agencies (economic/health) are sitting around the table. I don't think they understand why. I personally am on board, but the concept is ambiguous, unclear to some.
>
> The problem is that the people from Economic Development and Health are not clear about their role. We need information from them in order for this to succeed. Part of the problem is that their representation on the Steering Committee has not been consistent.
>
> The only problem for the Steering Committee that I can see is the confusion for the representatives from Social Services, Health, Economic Development, they do not understand their role. This must be addressed while there is still enthusiasm, or it may kill the process through dropping attendance." (Flanders Research Consulting 1994).

In addition to the confusion over the roles of different agencies, and the general frustrations felt by the co-chairs due to inability to reach agreements or have other agencies "do work", Fred Mah noted in his August 1996 interview with me that another one of the problems with the EOSC was that he (and his co-chair, George Butcher) failed to obtain agreements from the "higher levels" of the agencies with which they wanted to work. This was, unfortunately, even the case for the MOELP, where a change in directorship of the Water Quality Branch, lead to George Butcher being directed away from the ecosystem objectives project and onto other projects:

> "So, I'm the only one. That's it! You know, [George]'s still involved, but not really because he can't spend any of his dollars on the project...Were you at the conference when I presented 'Lessons Learned?' I had one that said, 'Obtain agreement at the highest level possible', and I didn't do that." (Fred Mah, Pers. Comm. August 30, 1996).

Finally, there is also the issue of the relationship of the EOSC to other interdisciplinary, multi-sector environmental planning/coordinating initiatives underway in British Columbia at the same time the steering committee was struggling to survive (e.g., Commission on Resources and Environment (CORE), Fraser Basin Management Program (FBMP), Land-Use Coordinating

Organization (LUCO), Land and Resource Management Plans (LRMP), etc.). When the EOSC was initially formed, a CORE representative was asked to attend, however, the representative sent by CORE only attended one meeting (Fred Mah, Pers. Comm. August 30, 1996).

So, other than one meeting, the EOSC had no official links with CORE. The committee did, however, establish firmer ties with the FBMP, and consistently had at least one representative from the program (though not always the same person) at their meetings. At the last meeting of the EOSC, the group was still wrestling with the issues of their relationship to others in the B.C. environmental and resource planning arena, especially with regards to where the committee should cultivate relationships in order to best promote the use of an ecosystem approach to environmental planning and management. An excerpt from the EOSC minutes illustrates this point:

> "It was stated that ecosystem objectives would have a very broad effect if we had LUCO's 'buy-in' as LUCO reports to CORE [*and CORE reports directly to cabinet*]. We need a strategy to get ecosystem objectives in LUCO and therefore build them into the framework. The point was made that if this is the way the system works (i.e., land-use planning, etc.) then it is not surprising that social agencies view it as a resource issue. Governments are beginning to place a greater emphasis on social/economic analysis. It was also stated that the 'Why support an ecosystem approach?' document could be a powerful procedure to integrate programs. We could go directly to CORE, although LUCO is looking for ways to integrate programs...The point was made that we must determine when we are ready to introduce ourselves to LUCO. It was suggested that perhaps we should instead introduce the Committee at a higher level so that those levels are aware of the Committee, then begin with LUCO." (EOSC minutes, November 4, 1994).

It seemed that there was some general confusion regarding just where the committee fit into the scheme of things. This probably contributed to the frustration felt by different members, and the ultimate demise of the group.

This plethora of planning exercises at the provincial level has also probably contributed to the failure of the B.C. Ministry of Environment to move forward with the ecosystem objectives project. There is just too much planning fatigue. In any case, Environment Canada has continued work in the area of ecosystem objectives under the Environmental Quality Program of the Fraser River Action Plan (FRAP). One of the objectives of this program is to develop a process for establishing ecosystem objectives, with an eye to producing a manual describing the step-by-step process for developing ecosystem objectives (FRAP 1995). It is through the Environmental Quality Program that the Salmon River Watershed has officially become a pilot project for setting ecosystem objectives according to the CCME framework.

2.5 CHAPTER CONCLUSIONS

In recent years, the ecosystem approach has arisen from many different origins to become a popular concept in watershed management activities. The integration of social, economic and environmental considerations in resource management has led to new approaches for planning and making decisions on an ecosystem basis. An example of one of these new approaches is the development of ecosystem objectives. The ecosystem objectives concept was first piloted in the Great Lakes, where it evolved into a process which explicitly recognised human concerns and needs in providing guidance for ecosystem management. The process was further refined by the CCME WQGTG who advocated a more participative role for community stakeholders within a process to set ecosystem objectives. Ecosystem boundaries are defined within this process on the basis of human purpose, yet following an ecological logic. This new process garnered interest here in British Columbia. The Salmon River Watershed (in the

Thompson drainage basin) has become a pilot project for this ecosystem objective setting process. The next chapter looks at participative public involvement processes which have both influenced the theory behind the CCME WQGTG framework for ecosystem goals, objectives and indicators, and helped to describe the case study.

CHAPTER THREE

MULTI-STAKEHOLDER PROCESSES AND COLLABORATION THEORY

"It's the only legitimate way--the truest form of democracy. This is an opportunity for a quantum leap in the way we do business."

- Salmon River Watershed Roundtable Member, October 1995

"I have found in the past that there are usually one of two problems with this type of operation. (1) They turn out to be a waste of time because nothing ever gets done, or (2) the agenda has already been set and the meetings are window dressing and again a waste of time."

- Salmon River Watershed Resident, March 1996

The collaborative multi-stakeholder processes which have emerged in recent years to tackle interdisciplinary management problems are confronted with the jeers and cheers epitomized by the above comments. Those who espouse the noble concepts of consensus, inclusion, and equality are continually bombarded with the everyday realities of financial constraints, overwhelming time commitments, power manipulation, and conflict. The ecosystem approach (see Chapter 2) has resulted in a variety of experiments in collaboration: in order to integrate social, economic, and environmental concerns into one management framework, diverse, sometimes opposing interests must sit at the same table. There are many dangers associated with collaborative multi-stakeholder processes (the "nothing will get done" criticism--stakeholders talk around the issues without ever reaching consensus, or consensus decisions result in actions that are too weak to have any observable impact). Yet there is also the potential for great rewards (agreements that are long lasting, have widespread support, and which more people implement). The development of ecosystem objectives and a watershed

vision is just one example of the many multi-stakeholder initiatives that have taken place in Canada in recent years. The purpose of this chapter is to outline the theoretical basis for examining and evaluating this initiative in light of the potential dangers and rewards associated with collaboration.

The first part of this chapter provides some background by reviewing multi-stakeholder processes (MSPs) in general. That is, what are MSPs? When are they used? And what are the different types? Collaboration theory will then be presented as a way to frame the evaluation of the case study. What does collaboration entail? And how does collaboration theory relate to other ways in which ecosystem objective setting could be evaluated? Following this, a discussion of the assumptions and limitations involved with using this collaboration model is given, and the chapter ends with a few conclusions summarizing the analytical framework for examining the Salmon River Watershed case study.

3.1 MULTI-STAKEHOLDER PROCESSES (MSPS) IN ENVIRONMENTAL PLANNING AND MANAGEMENT

As was noted at the beginning of Chapter 2, the problems of the world (be they environmental, economic, social or other) are interconnected--to the point at which, "basically, every real world policy problem is related to every other real world problem" (Mason and Mitroff 1981). This has important implications for the way in which problem solving methods are designed. Mason and Mitroff (1981) set out four criteria for designing "real world problem solving methods": participative, adversarial, integrative, and managerial mind supporting. Basically, they propose that methods should involve the variety of people having resources or

knowledge about a problem, all points of view/perspectives should be aired constructively, the diverse knowledge must be put into a coherent plan of action, and it must all be intuitively understandable to those persons struggling to arrive at insight on complex problems. Many multi-stakeholder processes are designed to (or by default/accident) address these criteria. In fact, some sort of MSP is probably an essential element of a participative, adversarial, real world problem solving method.

Although the idea of including stakeholders in decisions which affect them is not new (e.g., Connor 1974, Arnstein 1969), stakeholder involvement (or community involvement or public involvement) initiatives have exploded over the last decade and have infiltrated the theory about decision-making at the global to local levels. At a global level, the World Commission on Environment and Development brought the integrated nature of environment and development problems (as well as the concept of sustainable development) to the world's attention. Other global events like the United Nation's Commission on Environment and Development (UNCED) 1992 Rio Conference, and the October 1996 World Conservation Union's World Conservation Congress (Montreal) are examples of a continuing effort at the global level to pursue a sustainability agenda. As follow up to the World Commission on Environment and Development (1987), Canada set up the National Round Table on the Environment and the Economy. Following the federal government's lead, many provinces, including British Columbia, also set up round tables, and under their guidance, local Round Tables were set up in many communities (BCRTEE 1994 and NRTEE 1994). (For a review of the history behind setting up local round tables, see Lotz 1995.) Although local round tables have been formed for a variety of reasons, they often follow a general mandate "...to explore options and determine

ways that the community or region can become more sustainable, taking the local environment, economy and social fabric into account" (BCRTEE 1994).

One of the principles most espoused by round tables in Canada is that of "consensus", loosely defined as general agreement amongst all parties concerned. In 1993, the Canadian Round Tables (i.e., the National and Provincial Round Tables) reached consensus on several guiding principles of consensus processes: purpose driven, inclusive not exclusive, voluntary participation, self design, flexibility, equal opportunity, respect for diverse interests, accountability, time limits, and implementation.

Box 3.1: Some terms used to describe Multi-Stakeholder Processes.

Multi-Stakeholder Process: "...one where those affecting or those affected by a particular plan, policy, or project come together to assist the proponent with the design, planning and perhaps implementation of that plan, policy or project" (Donaldson 1994). The "stakeholders" are "those affecting" and "those affected"--basically, anyone who has an interest in the plan, policy or project in question. Sometimes MSPs are referred to as community involvement or public involvement programs.

Collaboration: "A process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (Gray 1989).

Consensus Process: "One in which all those who have a stake in the outcome aim to reach agreement on action and outcomes that resolve or advance issues related to environmental, social, and economic sustainability" (Canadian Round Tables 1993).

Consensus Based Planning: "Group planning based on three successive levels of consensus or shared understanding: (1) listening with respect and an open mind to one another's perspectives until all have a common "sense" of what is being talked about, (2) making decisions together, and (3) members of the group taking action together based on decisions they have made" (SRWR 1994).

Although round tables are a good example of MSPs, they are not the only example; several MSPs have been established in both British Columbia and the rest of Canada which are not formally considered "round tables". Before it was dissolved in 1994, the B.C. Round Table on the Environment and Economy had identified at least 40 different projects here in B.C. alone which they considered to be equivalent to local round tables (BCRTEE 1994), largely on the basis of their use of a consensus decision

making process. Here in B.C., there are also examples of larger, regional MSPs like the Fraser Basin Management Board (FBMB), the Commission on Resources and Environment (CORE), and the Land Resource Management Plans (LRMPs). Other MSPs operating within B.C. include:

- Local Resource Use Plans (LRUPs),
- Local Government Advisory Committees,
- Watershed Management Partnerships,
- Community Resource Boards, and
- Healthy Communities, (for more details and examples see BCRTEE 1994 and Lotz 1995).

In short, there are an endless variety of multi-stakeholder processes. Donaldson (1994) provides a general definition of "multi-stakeholder process":

> "...one in which those affecting or those affected by a particular plan, policy, or project come together to assist the proponent with the design, planning and perhaps implementation of that plan, policy or project".

Some terms used to describe multi-stakeholder initiatives are given in Box 3.1 for easy reference.

3.1.1 A Continuum of Public Involvement and Multi-Stakeholder Processes

As noted above, there are a wide variety of activities all considered to be multi-stakeholder processes (also known as public involvement processes and sometimes community development processes). In 1969, Arnstein described "A Ladder of Citizen Participation" which was composed of eight rungs starting in "nonparticipation" (manipulation and therapy), moving through "degrees of tokenism" (informing, consultation and placation), and finishing with degrees of citizen power (partnership, delegated power, and citizen control). Donaldson (1994) presented a slightly simplified version of Arnstein's ladder, called "the public involvement

continuum" (see Figure 3.1). Donaldson's continuum lists six different types of public involvement initiatives, all of which may be appropriate for different uses:

(1) **Public Information/Education.** Decisions have been made by government or some other project proponent, and the public is being informed of those decisions, (e.g., emergency measures, research results).

(2) **Information Feedback.** Decisions have been made, and comments on that decision are requested from the public. The proponent does not necessarily use the public comment (e.g., comments on proposed municipal by-laws).

(3) **Public Consultation.** Public comment is sought on a project (plan or policy) through a formal setting, usually once the project has been well defined and is past the conceptual stages. The most familiar example is that of environmental impact assessments.

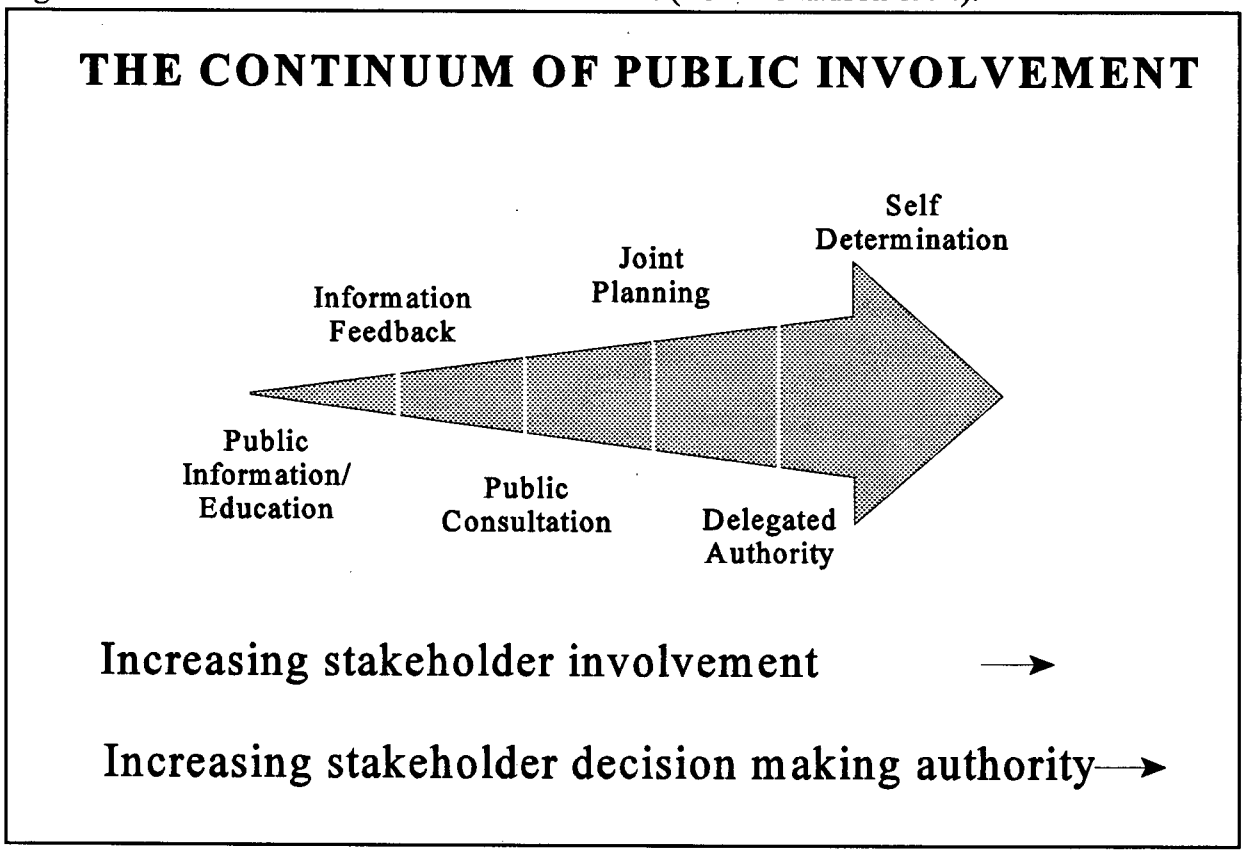
(4) **Joint Planning.** This is the type of initiative most commonly referred to as "multi-stakeholder"; all affected parties have the right to be at the planning or decision-making table with government and the proponent of the project, plan or policy, (e.g., round tables on the environment and economy).

(5) **Delegated Authority.** Some decision making authority and the ability to carry out those decisions are granted to a non-governmental body, however, these bodies are limited by a prescribed framework (often the Acts which created them), (e.g., Ontario Conservation Authorities, and the Fraser Basin Management Board).

(6) **Self Determination.** This is a somewhat utopian notion that community planning and actions for sustainability can occur in "a way that is free from political interference...with

no motivation other than it is the right thing to do". The only place where this term is commonly used is in the context of First Nations self-government.

Figure 3.1: The Continuum of Public Involvement (from Donaldson 1994).



The types of public involvement initiatives listed in the continuum differ in the degree of stakeholder involvement and decision making authority. These types also differ in the degree of collaboration involved. "Collaboration", which will be examined more extensively in later parts of this chapter, has been defined as

> "A process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible" (Gray 1989).

At the public information/education end of the continuum, there is little (if any) collaboration: the stakeholders are not jointly tackling a problem; one party (often government) is informing the others (public interests) of problems or decisions. Near the centre of the continuum, "joint planning" probably most closely resembles a collaborative, multi-stakeholder process as defined by Gray (1989). It is not clear how the concept of collaboration fits with the "self determination" end of the continuum. Donaldson uses the term "self determination" to refer to a community's ability to plan and carry out actions for sustainability free from formal political/governmental interference, but she does not say how community decisions should be reached in such a case. Since the focus in this thesis is on a multi-stakeholder process in the "joint-planning" region of the public involvement continuum, the next section will focus on ways to describe these types of joint-planning, collaborative initiatives.

3.1.2 Ways to Describe Collaborative MSPs

There are several other ways in which in which MSPs can be categorized into "types" based on dominant characteristics of the process. There are three aspects which deserve special attention in collaborative MSPs: the motivation for collaborating, origins and outcomes, and power and authority.

3.1.2.1 Motivation for Collaborating

Some authors distinguish between two main types of collaboration based on the motivation behind the collaboration: vision-based, and conflict-based (e.g., Gray 1989, BCRTEE 1994, and Kofinas and Griggs 1996). Vision-based collaborations are those in which stakeholders who have some joint interests or concerns come together in order to work together towards those common interests. Conflict-based collaborations are those in which stakeholders

with opposing views or interests are brought together because of a perceived need (by some convening party) to reduce or resolve conflict. Obviously, a collaborative MSP which is based on conflict will have more initial hurdles to overcome than one based on a common vision. In these conflict-based cases, an incentive for all parties to collaborate must be clearly established early in the process (Gray 1989). The potential rewards of working together--towards some form of negotiated agreement--must be greater than what an individual stakeholder could obtain on his or her own (Fisher and Ury 1981). Although vision-based collaborations may have an easier start than their conflict-based counterparts, an initial vision is not necessarily sufficient for ongoing collaboration: "The essence of collaboration is moving beyond discussion of apparent common ground to grappling with differences and fostering the commitment to collective action in the future" (Kofinas and Griggs 1996).

Westley (1995) presents a more refined framework for looking at the origins of vision based collaborations. He distinguishes three types of collaborations: planning-led (e.g., commissions and task forces), vision-led (those inspired by a visionary leader), and learning-led (those emerging from the reactions of many individuals simultaneously to certain stimuli; e.g., citizen movements or inter-university networks). Each of these three types differ in how well they handle the tasks of issue definition, action mobilization, resource mobilization, and structuring. Planning-led collaborations are best at resource mobilization and structuring, while vision-led and learning-led collaborations are better at issue definition and action mobilization.

3.1.2.2 Origins and Intended Outcomes

Related to the motivation behind a collaborative MSP are other questions surrounding the origins of the process/project, like, "who initiated the collaboration?", and "what was their

intention in doing so?". Sometimes a distinction is made between "mandated" and "grass-roots" processes (e.g., BCRTEE 1994 and Dovetail Consulting and Argent 1994). Mandated processes are those which are set up by government for a specific purpose. They tend to be deliverable-driven, and have a guaranteed set of resources from which to draw (e.g., The Commission on Resources and Environment Act which resulted in the CORE planning tables). Grassroots MSPs are often more general in scope, and are initiated by non-governmental community members, who may be filling a need that government is not adequately filling, or reacting to government actions (Dovetail Consulting and Argent 1994). Grassroots MSPs usually do not have guaranteed funding sources and may not have the legal authority to implement their decisions.

Associated intimately with the origins of a collaborative MSP is the intended outcome of the process. Gray (1989) points out that some collaborations are set up solely for the purpose of information exchange among stakeholders (leading to voluntary agreements) while others produce more binding agreements and require formal commitments from stakeholders.

3.1.2.3 Power and Authority[2]

A collaborative venture implies some sort of power sharing since decisions are jointly made, and jointly implemented. For example, in the case of a mandated MSP, a government or agency is sharing some of its power with other stakeholders. There are several issues surrounding power and authority which impact collaborative MSPs, two of which will be

[2]"*Power*: 1a: possession of control, authority, or influence over others b: one having such power 2a: ability to act or do b: legal or official authority, capacity, or right", "*Authority*: 2: the right to give commands or to carry out or enforce others' commands 3: a person or persons having powers of government" (Webster's New Encyclopedic Dictionary 1993).

touched on here: the strength of the convening power, and the balance of power among stakeholders.

Gray (1989) notes that collaborative processes "differ with respect to the strength of the convening power and the availability of an institutionalized arena within which discussions can be initiated". For example, a court ordered negotiation may give the convenor the legal authority to order parties to the table, but, may be hard-pressed to arrive at a consensus decision (Gray 1989). Sometimes the legal authority to carry out actions may induce stakeholders to participate because they know there is a real potential for action. Yet, sometimes legal authority makes stakeholders suspicious: *If they have the power to act alone, why do they need us?*

The balance of power issue complicates things further. As Westley (1995) points out, "most organizations hoard power", and most people socialized in hierarchical organizations are not prepared for the kind of unstructured power sharing of a successful collaboration. Ideally, stakeholders entering into a collaborative MSP would be equals, but this is rarely the case. Individuals or organizations enter into MSPs with different amounts of power as a result of different financial resources, knowledge, mandated authority (in the cases where government agencies are involved), or political connections. Kofinas and Griggs (1996) note,

> "Collaboration is not a panacea...even the most pro-active and creative vision-building processes motivated by a strong sense of collective interest rarely result in ideal outcomes for all parties."

The degree to which, and the method by which power is shared among stakeholders can add an interesting dimension to a description of a MSP.

Although it is possible to describe MSPs like the Salmon River Watershed case study in terms of these general observable characteristics, the description alone cannot tell us whether or

not the case study is a successful collaborative MSP, and it certainly cannot address some of the "Big Picture" questions such as whether or not a collaborative MSP was the most appropriate way to address the problems in the first place (discussed in Section 3.3.2). Before looking at what makes a collaborative MSP successful, it is necessary to examine the collaborative process in more detail.

3.2 COLLABORATION THEORY

Although the development of collaboration theory is relatively new, its roots lie in the merger of case study research on interorganizational behaviour with a number of more established theoretical perspectives including resource dependence theory, corporate social performance theory/institutional economics theory, strategic management theory/social ecology theory, microeconomics theory, institutional theory/negotiated order theory, and political theory (Gray and Wood 1991). Based on a special two volume review of collaborative alliances (found in the *Journal of Applied Behavioral Science*, March and June 1991), Gray and Wood (1991) point out that none of these theoretical perspectives can alone serve as the foundation for a general theory of collaboration, largely because of their orientation on individual organizations (i.e., not the collaborative aspects of work occurring between organizations or individuals). Wood and Gray (1991) note that the abundance of case study research is increasing due to the proliferation of collaborative alliances to solve organizational and societal problems. This research will enhance collaboration theory in the future.

3.2.1 The Collaborative Process

Gray (1989) notes that although there is no clearly prescribed pattern for a collaborative

Figure 3.2. The Collaborative Process (based on Gray 1989, Selin and Chavez 1995, and Kofinas and Griggs 1996).

Stage 1: Antecedents

- ✔ motivation (conflict or vision based)
- ✔ origins (mandated or grassroots)
- ✔ intended outcome
- ✔ balance of power
- ✔ leadership/convener characteristics

Stage 2: Problem Setting

- ✔ identification and legitimacy of stakeholders
- ✔ problem definition
- ✔ clarity of stakeholder's expectations about outcomes
- ✔ commitment to collaborate
- ✔ identification of resources

Stage 3: Direction Setting

- ✔ establishing ground rules
- ✔ developing shared understanding and values
- ✔ agenda setting
- ✔ organizing subgroups
- ✔ joint information search
- ✔ exploring options
- ✔ evaluating options
- ✔ reaching agreement and closing the deal
- ✔ dispersing power among stakeholders

Stage 4: Structuring

- ✔ formalizing relationships
- ✔ assigning roles
- ✔ monitoring the agreement and ensuring compliance
- ✔ dealing with constituencies/external mandates
- ✔ building external support

Stage 5: Outcomes

- ✔ programs
- ✔ impacts
- ✔ benefits derived
- ✔ external support

process, common issues arise in most collaborative efforts which have lead to a general sequence of events. She goes on to describe these events in three phases, problem setting, direction setting and implementation.

The first phase, problem setting, can be thought of as pre-negotiation. In this phase, stakeholders are identified and brought to the table where they must commonly agree on their problem. (Parties who don't agree to the problem definition would have little incentive to collaborate.) This stage must also generate commitment from the stakeholders to participate--

usually accomplished if the stakeholders feel that the process will be fair, equally weighted, serve their interests, have positive outcomes, and that the other parties will agree to collaborate.

The second phase, direction setting, both sets out the procedural context for, and deals with the substantive issues of the problem identified in the first phase. Stakeholders share their values and interests related to the problem so that they can develop "...a realistic understanding of how the other stakeholders view the issues and what their interests are (Gray 1989)." (Gray refers to Fisher and Ury (1981) who note that the chance of serving one's interests increases when those interests are communicated.) There are two main tasks in this phase of Gray's model: researching options, and decision making. In the researching options part of this phase, ground rules are established for conducting discussion, negotiation, mediation, timetables, agendas, etc., knowledge is gathered and organized as needed, and options are identified. In the "decision making" part of this phase, options are evaluated, and decisions are reached.

The third phase identified by Gray, implementation, ensures that agreements reached are carried out. This could involve dealing with constituencies (if agreements were made through representatives), building external support for agreements, and setting in place a chain of actions and a way of monitoring those actions to ensure that agreements are fulfilled.

Other authors, looking at collaboration more specifically in the environmental or natural resource fields have proposed modified versions of Gray's Model. For example, Selin and Chavez (1995) describe a five stage process for collaboration in environmental planning and management. They include a pre-problem setting step, "antecedents", which describes the context from which the collaboration emerged. This description covers the range of issues described in the preceding section (i.e., motivation, origins, power, etc.). They also divide

Gray's last phase, implementation, into two steps: "structuring" (in which the MSP is formalized or institutionalized), and "outcomes" (a description of the MSP's results, products and impacts). KoFinas and Griggs (1996), in their analysis of collaboration in the B.C. Round Table on the Environment and Economy, also emphasize the "structuring" part of phase three, while not actually dividing the phase into two distinct steps.

In this thesis, the five stages of collaboration identified by Selin and Chavez (1995) are used as the collaborative model (see Figure 3.2). The descriptive elements or tasks identified for the different stages have been culled from Selin and Chavez (1995), Gray (1989), KoFinas and Griggs (1996), and from the ways to describe a collaborative MSP presented in Section 3.1.2.

3.2.2 The Relationship and Relevance of Other Theoretical Frameworks to Collaboration Theory

A collaborative model has been presented in this thesis because collaboration is at the heart of the developing ecosystem objectives or a watershed vision: people with different interests and values seeking out common ground and collaborating to state their common vision. Yet, it is important to note that this process takes place within both a particular organizational framework (i.e., the Salmon River Watershed Roundtable and its associated organizational structures for community involvement) and a governance framework (the Canadian political system in general, and B.C. in particular).. Although the process to set ecosystem objectives is a distinct collaborative process which can be characterized and studied, it is not separable from the organizations and governance issues which have used and shaped it.

Although this study does not look at organization or governance *per se*, it would be naive to think that organizational structures and governance issues do not affect the way in

which the collaborative process unfolds. For example, Westley (1995) points out how the strength of the organizational paradigm in which a planning process unfolds can influence things such as the receptivity of an organization to knowledge, and the ability of a management process to be adaptive. The connection between collaboration theory and organizational theory are strong enough in the literature for specific works merging these areas of thought, (e.g., Kraus 1980). In fact, both these areas of study seemed to have evolved from the same body of literature on corporate behaviour. For these reasons, more specific information regarding the SRWR's organization or operating practices, (or the governance structures within which it operates) is provided in Appendix C (when appropriate) to interpret the collaborative process. As well, in the later chapters, some recommendations made touch on organization or governance in instances where these issues affect the collaborative process of ecosystem objective setting. However, a detailed account of organization or governance issues in the Salmon River Watershed will not be addressed in this thesis.[3]

3.3 A FRAMEWORK FOR EVALUATING A COLLABORATIVE MSP

The main goal of this thesis, stated in Section 1.1, is to evaluate (and describe) the development of ecosystem objectives and a watershed vision in the Salmon River Watershed. The description part of this goal was carried out by re-counting the story of the Salmon River Watershed case study through the 5-stage collaboration framework presented in Section 3.2.

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[3]These issues have been addressed, for this case study, to some degree elsewhere (Cantwell and Day 1996, Dovetail Consulting 1995, and Dovetail Consulting and Argent 1994).

There are any number of ways in which the case study, once described, could be analyzed and evaluated. For example, Kofinas and Griggs (1996), in their analysis of the B.C. Round Table as a collaborative process, outlined several conditions facilitating collaboration and then looked at how well the B.C. Round Table fulfilled these conditions. Lotz (1995), in her master's thesis, reviewed the Howe Sound Round Table's activities with respect to a five stage model of collaboration in order to both test collaboration theory as a model for guiding the establishment and operations of local round tables, as well as to assess the local round table's strengths and weaknesses in the different collaborative stages.

In this study, the evaluation of the process to set ecosystem objectives and a watershed vision was conducted firstly by the tasks associated with the 5-stage model of collaboration (i.e., the events taking place in the case study were compared to the expected tasks of each phase of collaboration as provided in Figure 3.2). Secondly, data collected in interviews and surveys were used to explore, in depth, some of the issues associated with the tasks of the different collaborative stages, and to identify strengths and weaknesses. In order to provide substantive guidance to the interviews and surveys, (i.e., focus the questions asked into relevant areas of interest) published literature on a number of selected case studies were reviewed and recommendations from these sources were extracted:

(1) The Puget Sound Water Quality Authority, Washington State (Pinkerton 1991, and Hansen, Dyckman and Kelly 1989),

(2) Integrated Catchment Management, Western Australia (Wallis and Robinson 1991, and Mitchell and Hollick 1993),

(3) Remedial Action Plan Sites, the Great Lakes (Mackenzie 1993),

(4) The Commission on Resources and Environment, Vancouver Island CORE process (Kelly and Alper 1995, and CORE 1994), and

(5) The Atlantic Coastal Action Plan, (Environment Canada 1993).

Over the course of conducting the literature review, other sources emerged which were not necessarily tied to any particular case study, but which, nevertheless put forth recommendations or suggestions regarding what makes a collaborative MSP successful (Chrislip and Larson 1994, Marmorek et al 1993, and BCRTEE Dispute Resolution Core Group 1991). The recommendations and suggestions for successful collaboration which were culled from all these sources have been assigned to the five different stages of collaboration. (This assignment is shown in Box 3.2.)

3.4 "BIG PICTURE" QUESTIONS

This chapter opened with the observation that there are both dangers and rewards associated with collaborative multi-stakeholder processes. It then proceeded to outline a collaboration framework for evaluating the development of ecosystem objectives and a visions for the Salmon River Watershed. There is an implicit assumption being made here: *a collaborative MSP is an appropriate way (if not the most appropriate way) for the ecosystem objective setting process to occur*, therefore, it will be evaluated as a collaborative process. As was pointed out in Chapter 2, as well as at the beginning of this chapter, trends in resource management are towards more integrated, collaborative models of management. These models seem to be better equipped to deal with the nature of real world problems. Yet, even advocates

Box 3.2. Recommendations and Suggestions for Successful Collaboration in Five Stages.

Stage 1: Antecedents

➢ Conditions for a successful consensus process: (1) unresolved conflict or conflict potential; (2) incentives for all key stakeholders to seek a consensus decision; (3) all stakeholders must support the process; (4) political will to see the process through; and (4) the presence of a champion is a boon (BCRTEE Dispute Resolution Core Group 1991).

➢ "The local lead agency must have a clear sense of purpose and the authority to assure implementation of plan recommendation" (Pinkerton 1991).

➢ "The co-ordinator of the planning process must be highly experienced in interest-based planning" (Pinkerton 1991).

Stage 2: Problem-Setting

➢ "The selection of watershed committee members must include a balance of representatives from all the affected local interests" (Pinkerton 1991).

➢ "Technical and educational resources must be available to the coordinator and must be used judiciously by the coordinator" (Pinkerton 1991).

➢ Stakeholders need to know the basic concepts behind the problem and how it affects them, and they need to understand the planning process (Hansen, Dyckman and Kelly 1989).

➢ "For consensus to be used effectively, it must be understood...the committee members should want to use it...committee members are trained in the process...(and) there is trust established among the committee members", (Hansen, Dyckman and Kelly 1989).

➢ "Identify key individuals who can guide the RAP [remedial action plan] process through all its permutations" (Mackenzie 1993).

➢ "Scope out the process-oriented issues: Who will be involved, what are the short range goals and long-range visions, which agencies have implementation responsibility, what are the ground rules for discussions and plan development, and how will decisions be made" (Mackenzie 1993).

➢ A partnership approach requires "a search for common objectives, decisions at the onset about the relative roles and powers of state agencies, local governments and citizens, and identification of mechanisms that will be used to make decisions when conflicts arise" (Mitchell and Hollick 1993).

➢ "Participation in a shared decision making process will be more effective and efficient if a higher state of "readiness" is achieved before the negotiation table is convened"; participants must understand the process (CORE 1994).

➢ Elements of a good planning process: (1) consulting about consultation (meet with key participants, clearly define expectations and roles); (2) who are the decision makers? (explain consensus decision making) and (3) a balanced viewpoint (good representation from all sectors) (Environment Canada 1993).

➢ Create broad-based involvement (Chrislip and Larson 1994).

Stage 3: Direction-Setting

➢ Secure agreement on goals, strategies and implementation tasks (Chrislip and Larson 1994).

➢ Participants must be educated in ecosystem ideas, and confusion and burnout of participants must be avoided (Marmorek et al 1993).

➢ "The coordinator must provide guidance to the watershed committee in how to set and reach long-term goals and help them to build consensus" (Pinkerton 1991).

Box 3.2. (Continued)

Stage 4: Structuring

➢ In order for representatives to speak effectively for the interests they represent, there needs to be opportunities for representatives to meet with their constituents (CORE 1994).

➢ Promote visible support from acknowledged leaders, seek support from or gain the acquiesence of established authorities, establish management structures to oversee the implementation, review the process, establish detailed action plans for each implementation initiative (timelines and responsibilities), find champions and create implementation teams with the capacity and commitment to initiate and sustain action, and "spin off" implementation tasks to existing organizations (or create new ones if necessary) (Chrislip and Larson 1994).

➢ Participation must lead to results; and institutions must change (identify barriers and provide incentives) (Marmorek et al 1993).

Stage 5: Outcomes

➢ "Community support for the plan will be strongest where a local constituency is built through community education and participation in volunteer projects" (Pinkerton 1991).

➢ There must be ongoing public education and awareness, and hands-on citizen involvement (citizen action stimulates interest) (Environment Canada 1993).

General Suggestions / Recommendations

➢ "The agency overseeing the planning grant should be willing to intervene in a project which is not proceeding successfully, but should avoid creating rigidities" (Pinkerton 1991).

➢ There are several elements critical to successful ICM (integrated catchment management): setting geographical boundaries, identifying environmental limits (capacities), including community desires, developing local strategies, encouraging self-monitoring, involving the wider community, and auditing the process (Wallis and Robinson 1991).

➢ Policy and procedural uncertainty and information constraints limit participants' ability to commit to the process (CORE 1994).

➢ Flexibility: new ideas should always be considered (Environment Canada 1993).

of consensus processes (like the BCRTEE 1994) acknowledge their drawbacks. Making an assumption (like the appropriateness of a collaborative MSP) carries the danger of "blinding" the researcher to alternative ways of doing business. One can forget to test the null hypothesis, (that is, a collaborative MSP is *not* an appropriate way to set ecosystem objectives) and in doing so, miss addressing the most fundamental "Big Picture" questions surrounding MSPs.

Noting this problem, the collaborative framework has been used, keeping some "Big Picture" questions in mind. These "Big Picture" questions are listed in Box 3.3. The current

research has resulted in some commentary on these questions (See Chapter 8).

Box 3.3. "Big Picture" Questions Surrounding the Development of Ecosystem Objectives as a Collaborative MSP.

1. Is the "watershed" the most appropriate planning unit for ecosystem objective setting?

2. Is a collaborative, consensus-based model appropriate to deal with the problems and issues identified in the case study?

3. Could ecosystem objectives be set another way?

4. Do ecosystem objectives, set through a collaborative MSP, result in a healthier ecosystem than what could be achieved through alternative methods?

5. Are ecosystem objectives (or any form of watershed vision) necessary for effective environmental management?

3.5 CHAPTER CONCLUSIONS

Collaborative MSPs have emerged as a way to deal with integrated, complex problems, especially those spanning environmental, economic and social concerns. Projects attempting to use an ecosystem approach in planning and management activities (such as many of the round table initiatives) are collaborative ventures. Successful collaborations usually follow a general five stage process: antecedents, problem-setting, direction-setting, structuring, and outcomes. From the tasks expected of a collaborative MSP in each of these stages, and from the suggestions and recommendations related to these stages from other case studies, an evaluation of the Salmon River Watershed case study has proceeded. The 5-stage model of collaboration served as a template to tell the case study's story, the tasks associated with each stage served as

a basis for drawing conclusions about the case study's success in each stage, and the recommendations and suggestions from other studies served to guide the development of interview and survey questions (see Chapter 4) which were used to explore each stage of collaboration in more depth--identifying particular strengths and weaknesses of the collaboration. Detailed methods of how research was conducted to evaluate the case study is given in the next chapter.

CHAPTER FOUR

RESEARCH METHODOLOGY

"Qualitative data are sexy. They are a source of well-grounded, rich descriptions and explanations of processes in identifiable local contexts."

- Miles and Huberman (1994, p.1)

4.1 THE QUALITATIVE RESEARCH PARADIGM

In this thesis, the evaluation of the process to develop a vision and ecosystem objectives for the Salmon River Watershed was conducted under a ***qualitative research paradigm*** (described by Creswell 1994, Marshall and Rossman 1995, and Miles and Huberman 1994). There are several assumptions of the qualitative paradigm:

(1) Qualitative data is comprised of words, not numbers (Creswell 1994).

(2) Qualitative data analysis is iterative in nature (Creswell 1994, Marshall and Rossman 1995, and Miles and Huberman 1994). Distinctions between the acts of data collection, data analysis, and writing are not clear. In many cases, these activities occur simultaneously, and some authors show these activities as occurring in a cycle (e.g., Marshall and Rossman 1995, p.41).

(3) The concern is primarily focused on process rather than outcomes (Creswell 1994).

(4) Qualitative research is descriptive; meaning and understanding is gained through words or pictures (Creswell 1994).

(5) The qualitative researcher is the primary instrument for data collection and analysis (Creswell 1994 and Marshall and Rossman 1995).

(6) Qualitative research is inductive; concepts and theories are built from details (Creswell 1994, and Miles and Huberman 1994).

The qualitative research paradigm is especially suited to studies which strive to explore, explain, or describe phenomenon, cultures, or processes (Creswell 1994, and Marshall and Rossman 1994). Since the current research describes and evaluates a social process, the qualitative research paradigm is particularly well suited to this study.

4.1.1 Quantitative Data Within the Qualitative Research Paradigm

Although Creswell (1994) cautions that using one research paradigm consistently is more pragmatic in terms of time, resources and consistency, both Creswell and Miles and Huberman (1994) note that combined qualitative and quantitative approaches can be effective in triangulating observations and building strong arguments in some cases. Both of these sources describe some different ways in which qualitative and quantitative data have been combined within a single study. In the current study, the "dominant-less dominant" design described by Creswell (1994) is used. The qualitative research paradigm is the "dominant" design of the study, while the quantitative aspects of the study take on a "less dominant" role, supplementing the qualitative methods only when appropriate to add scope and detail to the study.

Although it was noted above that qualitative data is comprised of "words" and is not reduced to numbers that can be statistically manipulated (as in quantitative research), numbers can be (and are) used in analyzing qualitative data. Miles and Huberman (1994 p. 252) describe how counting is continually occurring. For example, when identifying a theme or category, (and assigning emphasis or weight to that theme) a researcher will note the

number of times a theme occurs as well as qualifying the context of the occurrences. To report that a particular theme occurred in 15/20 encounters or incidents is consistent with the qualitative paradigm and does not constitute a paradigm shift in methodology.

4.1.2 Describing Qualitative Methods

Creswell (1994) provides a basic outline for describing qualitative research. First, Creswell recommends that the assumptions of the primary research paradigm are described. There are then four main areas to cover: the researcher's role, data collection, data analysis procedures, and verification steps. A brief description of the basic elements of these areas is given in Box 4.1. The next few sections of this chapter summarize the data collection and analysis procedures. A detailed account of the qualitative research methodology, including the researcher's role, some background to data collection and analysis procedures, and verification steps, is given in Appendix A.

Four methods of social research were used to collect the information presented in this chapter: document analysis, participant observation, in-depth interviews, and a mail survey. These methods are described below.

4.2 DOCUMENT ANALYSIS

In this study, documents produced by the Salmon River Watershed Roundtable or other organizations (e.g., the Ecosystem Objectives Steering Committee [EOSC] described in Chapter 2) involved in setting ecosystem objectives for the Salmon River Watershed were collected and reviewed. ***These documents were used in describing the case study with respect to the 5-stage model of collaboration***. This included the following types of

Box 4.1. Elements to Discuss in Qualitative Research Methodology

(1) **The Researcher's Role**
- What is the past experience of the researcher, noting history with the case study? (Creswell 1994)
- Gaining entry: how did the researcher obtain permission to study the case (Creswell 1994 and Marshall and Rossman 1995)
- Comments about sensitive ethical issues like confidentiality (Creswell 1994)
- How does the researcher deploy the self within a case study (Marshall and Rossman 1995)

(2) **Data Collection**
- Identify parameters for data collection (setting, actors, events, process under study) (Creswell 1994)
- How are informants selected? (Creswell 1994, and Miles and Huberman 1994)
- Types of data and rationale for collecting it (Creswell 1994, Marshall and Rossman 1995, and Miles and Huberman 1994)
- Describe protocols and procedures for collecting data (Creswell 1994)

(3) **Data Analysis Procedures**
- Note/describe the iterative nature of qualitative research (distinct from the qualitative paradigm) (Creswell 1994)
- How was the data reduced and interpreted? (Creswell 1994 and Miles and Huberman 1994)
  - coding procedures for identifying themes
- How is the data displayed? (Creswell 1994 and Miles and Huberman 1994)
- Mention any specific analysis procedures which are relevant (e.g., grounded theory, case study analysis, ethnographic research (Creswell 1994)

(4) **Verification Steps**
- In what ways were observations triangulated? (Creswell 1994, Miles and Huberman 1994)
- How was feedback built into the study? (Creswell 1994)

documents:

(1) SRWR meeting minutes, (including selected meetings of the SRWR's planning and executive committees)

(2) EOSC committee meeting minutes,

(3) summaries of community meetings held in the Salmon River Watershed,

(4) documents associated with the "knowledge base contract" (described in Chapter 5) (the research proposal by the consulting firm who conducted the work, and draft and final documents of the technical and public report),

(5) *Watershed Reflections* (the SRWR newsletter),

(6) fact sheets about the Salmon River Watershed prepared as public information material,

(7) documents associated with the verbal history and problem perceptions survey (described in Chapter 5) (consultant's survey design, and final reports),

(8) materials prepared for/at/after the December 1995 Watershed Planning Workshop (described in Chapter 5),

(9) other materials handed out at community meetings, and

(10) SRWR planning documents not explicitly related to the ecosystem objectives setting process but which influenced its adoption and/or application.

4.3 PARTICIPANT OBSERVATION

Participant observation was also used to study and record the events of the case study. This method was especially suited for gaining insight into how and why the process unfolded the way it did, and for relating the events to the tasks of the 5-stage model of collaboration. In June of 1994, I began attending meetings pertaining to the development of ecosystem objectives for the Salmon River Watershed. Like any other interested party, I would participate and contribute to the meetings, identifying myself as a student studying the process. (A comprehensive list of the meetings I attended can be found in Appendix B.) Field notes were taken at these meetings in order to record things like general attendance, issues raised, unusual or significant events, and my impressions of the meeting/event. In recording field notes, I tried to indicate a range of contextual features that might be used later

in the analysis. In general, the field notes for the Salmon River Watershed case study encompass the range of items suggested by Spradley's (1980 as cited by Hammersley and Atkinson 1983) "Elementary Checklist" for field notes:

(1) Space: the physical place or places.

(2) Actor: the people involved.

(3) Activity: a set of related acts people do.

(4) Object: the physical things that are present.

(5) Act: single actions that people do.

(6) Event: a set of related activities that people carry out.

(7) Time: the sequencing that takes place over time.

(8) Goal: the things people are trying to accomplish.

(9) Feeling: the emotions felt and expressed.

4.4 INTERVIEWS WITH PROCESS PARTICIPANTS

Interviews were used in this study to gather participant's views and insights on how well the process worked, what they liked or disliked, what suggestions they had for improving the process, and how they thought the results of the process will be used. These interviews were of critical importance to assessing the success of the "problem setting" and "direction setting" stages of the collaboration. These observations were then triangulated with other data (e.g., document analysis) in forming conclusions and recommendations about the process.

4.4.1 The Interview Process

In the fall of 1995, 25 people who participated directly in the process to develop a watershed vision and ecosystem objectives for the Salmon River Watershed were interviewed. Each interview took approximately 1 to 1 and 1/2 hours to conduct (including explanations, and signing the consent form). The interviews took place either at the participant's home, office, or other comfortable meeting place in the watershed (e.g., a restaurant). All participants agreed to let the researcher tape record the interviews. The interviews were semi-structured. A set of questions was followed, however, participants were encouraged to comment on any issues that they found important or interesting, and related to the process. The questions served mainly to initiate discussion on critical events in the process. During the interviews, handwritten notes were recorded, which comprise the interview data. Interview materials (introductory letter, consent form and questions) are given in Appendix D.

In addition to these 25 interviews, two informational interviews were conducted which were not part of the interview set described above. One interview was with Fred Mah from Environment Canada (co-chair of the former EOSC) and one was with Dorothy Argent and Neils Christiansen from the SRWR. The questions used in these interviews were tailored specifically to the individuals.

4.4.2 Profile of the Interview Sample

All the people interviewed had attended at least one of the community meetings, described in Chapter 5. As is standard in qualitative research (see Creswell 1994), and sometimes used in quantitative research (see Babbie 1986) these informants were purposely

(not randomly) selected to obtain a wide range of views, roughly equal representations from the different communities involved in the process, and to be roughly representative of the people present at the community meetings in terms of age and gender, while at the same time, representing a diversity of people. The interview participants were selected based on my observations of who attended meetings (discussed in Appendix C; raw data in Appendix E).

Table 4.1: Profile of Interview Participants

Category of Participant		# / 25	% of total
Sex	male female	15 10	60 40
Age	20-29 30-39 40-49 50-64 65+	3 1 7 10 4	12 4 28 40 16
Community* Representation	Mount Ida Silver Creek Falkland Westwold Government Roundtable	4 5 5 4 3 4	16 20 20 16 12 16
Residency	watershed resident non-resident**	20 5	80 20
SRWR Familiarity	former SRWR knowledge no former knowledge	19 6	76 24
Income	employment sources non-employment sources***	15 10	60 40
Self-Identity****	farmer/rancher landowner interested citizen agency representative environmentalist	8 7 14 3 3	32 28 56 12 12

*The term "community is used here to refer to either the geographical community of origin, or the organizational community with which the participant is identified.
**Non-residents included government and some of the Roundtable staff.
***Non-employment sources of income include retirement income, and social assistance.
****Some participants identified themselves with more than one category, so numbers do not add up to 25.

Approximately 70 different people attended the community meetings (though not all of these people attended each month) (personal observations). Of the people actively attending, over 1/3 of them were interviewed for this study, making the results--by my judgement--a reliable indication of participants' views of the process. A profile of the interview participants is provided in Table 4.1.

4.4.3 Data Analysis

In nearly all the cases where I present interview data, I include a reference number (e.g., [22]) which refers to the participant who made the comment. This was done for two reasons: (1) so that I could keep track of whom a quote was taken from, and (2) so that readers may review quotes in light of what the same participant said previously. In a couple of cases, a symbol is given in place of a reference number. This was done where I thought the cumulative information given in the quotes from an individual could easily lead to their identification. In other cases, it seemed more useful to report the number of individuals conveying a similar message (e.g., 12/25 participants) than identifying the reference numbers.

Analysis Procedure

From the interview data, patterns, themes, and categories were sought and grounded theory (see Strauss and Corbin 1994) was developed to explain the patterns identified. The methods used in this thesis to discern patterns in the data were similar to--though simpler than--the coding procedures described by Berg (1989), and Miles and Huberman (1994).

The first level of analysis occurred when the notes taken during the interviews were reorganized into "role-ordered matrices" (described by Miles and Huberman 1994). The responses in each matrix were reviewed for similarities. When common/similar answers were

found, they were assigned a code in the margin (often a symbol or letter). When no more logical groupings could be made of the responses, the groups/themes were named and presented, either in table format, or discussed directly in the text. Direct quotations were presented in the text as examples of the categories. The direct quotations, although identified from the role-ordered matrices, were transcribed directly from the audio tapes.

All relationships identified should be assumed to be qualitatively derived relationships unless a statistical relationship is explicitly stated. There are only a couple of instances where quantitative analysis is applicable to the interview data. In some places, simple descriptive statistics (like percentages) are given when I felt this would aid the reader.

4.5 A SURVEY OF WATERSHED RESIDENTS

In February and March of 1996, a survey of all households in the Salmon River Watershed was conducted by mail. ***The intent was to reach those people who had not actively participated in the ecosystem objective setting process but who, nonetheless, are affected by the results and may have an opinion about the process.*** The survey was also viewed as a good way to gauge general awareness of the Salmon River Watershed Project. This information was critical in evaluating the "structuring" and "outcomes" stages of the collaboration.

4.5.1 The Survey Process

In total, 1,991 surveys were disseminated on the postal routes which most closely corresponded to the watershed boundaries. (Postal routes are identified in Appendix F.) The survey population was comprised of all the Salmon River watershed residents. The actual

study population was comprised of those residents with mail service. The sampling unit for this survey was one person from each household, and the sampling frame consisted of every house or residence on the mail routes most closely following watershed boundaries.

The survey used both open-ended and categorical questions. A copy of the survey can be found in Appendix F.

4.5.2 A Profile of the Survey Sample

The only common thread among the survey respondents was that they lived in (or on the border of--allowing for postal routes that did not exactly follow watershed boundaries) the Salmon River watershed. Every sampling unit of the study population (1,991 households) was sent a mail survey. The sample obtained has been considered a random sample according to the equal probability of selection method (EPSEM) (see Babbie 1986). (In this case, each member of the study population had an equal, 100% chance of being selected for the survey.)

A response rate of 10.4% (207 returned questionnaires) was obtained for the mail survey, however, the actual response rate varies for different questions since not every respondent answered every question. (When reporting data, the sample size, n, is given.) The relatively high non-response rate (89.6%) raises the question of whether or not the respondents look like a random sample of the initial study population, (i.e., raises the issue of non-response bias). The seriousness of the non-response bias in the sample depends on how values for parameters in the response population differ from the actual population (Nachmias and Nachmias 1981). Babbie (1986) states that there are no hard and fast rules

for determining acceptable response rates, and further states that a demonstrated lack of non-response bias can be more important than a high response rate.

In order to demonstrate lack of non-response bias, some demographic variables about the survey respondents were compared to known population parameters for census areas most closely following watershed boundaries. Table 4.2 shows demographic data for the survey respondents in relation to data for the whole watershed population where available. The respondents were largely older (mean age was 50), owned their own homes (89.8%, compared to 60-83% in the general watershed population), and were not involved with the Roundtable. A large number of the respondents (38%) have lived in the watershed for less than 5 years, which is comparable to the actual watershed population in which 30% have lived in the watershed for less than 5 years (Quadra Planning Consultants Ltd. 1996). After comparing the occupations of employed survey respondents to the actual watershed population, the survey group was found to be statistically different in occupational composition than the actual watershed population (Chi-square test: $\chi^2 = 76.2889$, df = 10, $p<0.00001$). These differences are observable in Table 4.2. There were a larger number of representatives from agriculture, forestry, business and "other" industries (domestic work, fishing, trapping, mining) in the survey respondents than in the actual population, and a lower representation from the following groups: manufacturing, wholesale and retail, accommodation and food, and government, health and education. As well, when the total labour force (employed, unemployed, and self-employed) was examined, the survey respondents were significantly different than the watershed population (Chi-square test: $\chi^2 =$

35.2791, df = 2, p<0.00001). The occupations of all survey respondents (labour force and non-labour force) are shown in Figure 4.1.

Table 4.2. A Profile of Survey Respondents.

Category of Participant		**#**	**% of total**	**watershed population**
Sex	male	89/168	53	
	female	79/168	47	
Age	<20	1/168	0.6	28
	20-29	8/168	4.8	
	30-39	28/168	16.7	(20-64) 56
	40-49	48/168	28.6	
	50-64	50/168	29.8	
	65+	33/168	19.6	18
Occupation	**Labour Force by Industry**			
	agriculture	30/114	24.2	13
	forestry	12/114	9.7	6
	manufacturing	1/114	0.8	9
	construction	10/114	8.1	8
	transport/ storage	2/114	0	1
	wholesale/retail	2/114	1.6	16
	finance, insurance & real estate	2/114	1.6	3
	business & services	20/114	16.1	11
	accommodation & food	1/114	0.8	7
	government, health, & education	17/114	13.7	18
	other	17/114	13.7	6
	Total Labour Force			
	employed	114/124	91.9	65
	self-employed	8/124	6.5	19
	unemployed	2/124	1.6	13
	Non-Labour Force			
	Retired	37		
Land ownership	own land	110/168	65.5	
	own river-front land	56/160	35	
	do not own land	58/168	34.5	
Residence	own home	158/176	89.8	60-83
	rent	18/176	10.2	

Category of Participant		#	% of total	watershed population
Duration of residency in SRW	<1 year 2-5 (<5years) 6-10 11-20 21-30 31-40 41+	11/150 46/150 57/150 15/150 30/150 21/150 5/150 12/150	7.3 30.7 38 10 20 14 3.3 8	30
Roundtable Membership	member non-member	25/166 141/166	15.1 84.9	

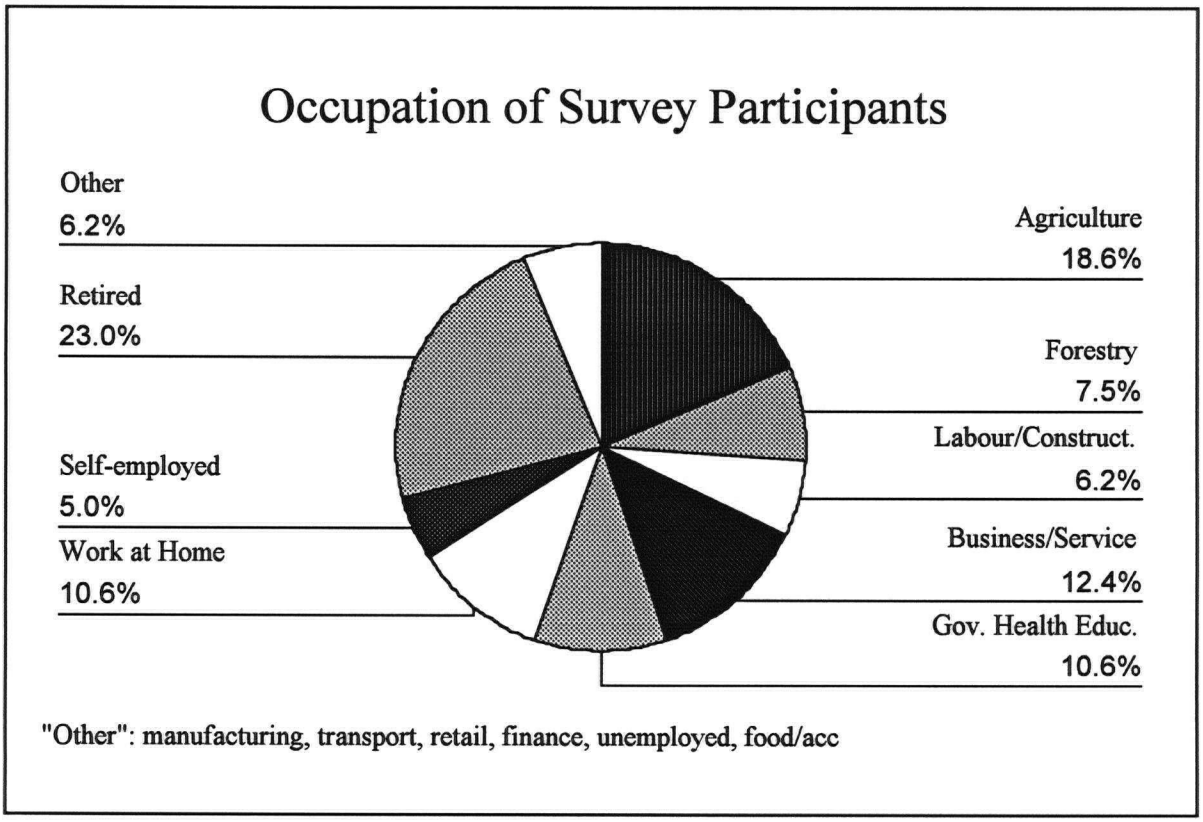

Figure 4.1. An Occupational Profile of Survey Respondents.

Based on this comparison, a lack of non-response bias was *not* inferred through demographic similarity of survey respondents to watershed residents. However, neither can a serious non-response bias be shown since differences between the population parameters of

the actual response stratum and non-response stratum on the questions of interest (i.e., opinions about the collaboration towards ecosystem objectives) cannot be estimated. Only the potential for non-response bias exists. With this potential in mind, the survey sample was cautiously treated as a random sample of the watershed population and 95% confidence intervals were calculated (when extrapolating from the survey respondents to watershed residents) for reported statistics. As well, considering that the initial sample consisted of every sampling unit within the study population, (i.e., every household in the watershed) a 10.4% response rate for the survey translates to the opinions of 10.4% of the households in the watershed. This is the most comprehensive survey of watershed residents on these issues to date, and the response rate is high considering most surveys only reach 1.5%[1] of the actual survey population.

4.5.3 Data Analysis

The survey generated both qualitative (written answers) and quantitative (mostly nominal, though some numerical) data. The qualitative data were treated similarly to the interview data described above. The quantitative data were analyzed, mostly, using simple descriptive statistics (frequencies and percentages), and 95% confidence intervals were calculated where appropriate.

In those cases where respondents did not answer a question, they were assigned a code number which was excluded from the calculation of frequencies (either 9 or 99). Thus, the total number or respondents changes for different questions. The total number of

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[1]This value is based on the common use of 5% sample size and a common response rate of 30% (Nachmias and Nachmias 1981 pages 183 and 422).

respondents for a question is reported whenever I refer to survey data.

4.6 CHAPTER SUMMARY

The methods used to study the collaboration towards a watershed vision and ecosystem objectives for the Salmon River Watershed were mostly those of the qualitative research paradigm. Four methods of data collection were used: document analysis, participant observation, in-depth interviews, and a mail survey. The first two of these methods were used primarily to tell the story of the case study, while the second two were used to evaluate the success of the collaboration and make suggestions for both the case study's future, and the future development of ecosystem objectives in other ecosystems. The interview participants were considered to be representative of the people who participated in the process based on purposive sampling methods. The survey respondents were treated as a random sample of watershed residents.

PART II

CASE STUDY AND CONCLUSIONS:

Collaborating to Set Ecosystem Objectives in the Salmon River Watershed

INTRODUCTION TO PART II

In part II of this thesis, the collaborative model described in Chapter 3 is used to describe the process for developing a watershed planning vision for the Salmon River Watershed near Salmon Arm, B.C. The success of the collaboration is then evaluated, and conclusions and recommendations are made for the future of ecosystem objective setting.

The story of how this process unfolded is told according to the five stages of collaboration presented in Figure 3.2. The first stage, *antecedents*, sets the context in which the collaboration developed. The second stage, *problem setting*, identifies and brings all the different stakeholders together to define their common problems and expectations for working together. The third stage, *direction setting*, explores the common problems and seeks agreements on how to tackle these problems. The fourth stage, *structuring*, formalizes the agreement, roles and responsibilities of the stakeholders involved in upholding the agreement as well as builds external support for the agreement. The final stage, *outcomes*, looks at programs, impacts and any benefits arising from the collaboration.

It is important to note that there is "blurring" and overlap between some stages; the tasks do not all occur sequentially. For example, "the identification of resources", or "the developing of shared understanding and values" are tasks that--while they are assigned to a stage of the collaborative model in which they predominate--are continuous over time. In order to facilitate discussion of the case study, events are presented chronologically under the stage of collaboration which fits sequentially with most of the events being described.

This particular collaboration took place under the auspices of the Salmon River Watershed Roundtable (SRWR)--a local round table for social, economic and environmental

sustainability. In 1995, the Roundtable embarked on a project to develop a "watershed-wide vision" and to set ecosystem objectives for the watershed. The methods which the Roundtable used were collaborative: diverse stakeholders were brought together in various fora to share their concerns and hopes and plan for the future of the watershed in which they live or work. Some background information on the Salmon River Watershed and the Salmon River Watershed Roundtable (SRWR) is provided below. (For an expanded version of this background information, see Appendix C.)

A. General Characteristics of the Watershed

The Salmon River Watershed is located in British Columbia's interior, and covers approximately 1510km^2 in the region between the urban centres of Kamloops, Salmon Arm, Vernon and Merritt (Quadra Planning Consultants Ltd. 1996). In many ways, the watershed is typical of most inhabited watersheds in B.C. outside the lower mainland. There is a mix of rural and urban residents, there is heavy reliance (or at least perceived heavy reliance) on resource based activities like farming and forestry, there is a mix of good and bad stories with respect to environmental conditions, and there is the potential for great conflict over resource use/conservation, First Nations land claims, and urban/rural development issues. There are also some characteristics which are not as typical, the most significant being the existence of the Salmon River Watershed Roundtable (SRWR).

B. Social/Economic Profile

The largest urban area is the town of Salmon Arm which has a total population of

about 14,500, however, only a portion of the town actually overlaps the watershed's boundaries. The total population of the watershed is 7, 845 (1991 census data taken from Quadra Planning Consultants Ltd. 1996), with 4, 460 living in Salmon Arm, and 3, 384 living in the rural portion of the watershed. The rural portion of the watershed contains a number of small communities located along the valley bottom (e.g., Silver Creek, Yankee Flats, Falkland, Westwold). The upland areas and the region near the headwaters are more sparsely populated. The watershed's current population growth rate (4%) is higher than the provincial average (3%).

Economically, the historical mainstays of the watershed have been agriculture and forestry. A variety of crops and livestock are farmed in the watershed, however, beef and hay dominate in the upper watershed and dairy and some row crops are grown in the lower watershed. The upland areas are mostly designated for forestry purposes and this area is managed under three forest districts (Salmon Arm, Vernon, and Merritt). Although agriculture and agriculture-related work is still dominant in the rural areas of the watershed, the government/health/education sector, along with wholesale and retail sales and other businesses, comprise the largest portion of the workforce in the entire watershed. The largest single source of income (1/3 of the total income for the watershed) comes from non-employment sources (e.g., pensions, unemployment insurance, social assistance, investment income, etc.). This may be a reflection of the large retiree population migrating to the Salmon Arm area. It is predicted that in the future, retiree income, tourism, and the service industry will drive the watershed's economy (Quadra Planning Consultants Ltd. 1996).

C. Resource Uses and Environmental Issues

There are a number of water and land based resource uses which have different requirements and impacts on the watershed, some of which may be conflicting (e.g., domestic use and irrigation from river, domestic use and irrigation from groundwater, fish spawning, recreation--fishing, swimming, tubing, hunting, camping, bird watching, snowmobiling, dog-sledging, cross-country skiing--, forestry, farming, mining, trapping, wildlife, and residential development) (Quadra Planning Consultants 1996). These resource uses have led to several perceived issues/problems in the watershed including water quality and quantity problems, lack of fish spawning habitat, increased nutrient loads in the river, eroding river banks, and residential development threatening the agricultural nature of the valley (summarized from Argent and Christiansen 1995 pp. 2-3).

D. The Salmon River Watershed Roundtable

The Salmon River Watershed Roundtable grew out of a project initiated in 1991 by some landowners in the Salmon River Valley near Salmon Arm. (The history of how the Roundtable evolved is summarized from Argent and Christiansen 1995, and Personal Communication with Roundtable Members.) Back in 1991, a few concerned Salmon Valley landowners brought some of the issues listed in the preceding section to the Environmental Management Committee of the District of Salmon Arm (DSA). It soon became apparent to the committee that, alone, they had neither the expertise or understanding of the watershed to deal with the complex problems presented to them by the landowners. The committee sought other stakeholders to join them in discussing issues of mutual interest. Momentum grew for

the project as both more agencies and more landowners became involved. In January 1993, interested parties undertook a strategic planning exercise, out of which the Salmon River Watershed Roundtable emerged.

The SRWR is a multi-party organization comprised of landowners, First Nations, citizens, government agency representatives, and industry, and is open to anyone in the watershed with an interest in attending. In fact, the only *explicit* criteria for membership on the Roundtable is that members have an interest in the watershed. Members can join the Roundtable as individuals or as representatives of other organizations or agencies (e.g., Department of Fisheries and Oceans or the B.C. Cattlemen's Association). The *implicit* criteria for Roundtable membership is that members either live or work in the watershed, or that they use or impact the watershed's natural resources (e.g., tourists). Over the past two years, the Roundtable has made a concerted effort to make more people aware of the Roundtable (and invite them to attend meetings) through mail-outs to all watershed residents and by holding meetings in different regions of the watershed. Currently, the most active members seem to be those with the greatest stake in Roundtable activities--those people who give or receive money for demonstration projects (e.g., Roundtable staff), those who receive direct benefit from Roundtable actions (e.g., landowners who have riverbank restoration/erosion control projects on their land), or those who stand to face short-term losses from Roundtable activity (e.g., groundwater users against the Roundtable's support for provincial groundwater legislation).

The Roundtable operates through consensus and is organized into a number of subcommittees (e.g., executive committee, planning committee, field action committee, legislation committee, education and awareness committee). Members are all volunteers, however, they have one paid coordinator as well as co-op students or students of other funded work-experience programs when available. Currently, the official chair of the Roundtable is Mr. Dennis LaPierre, a sheep farmer from Falkland. Mr. LaPierre is receiving assistance in his chairpersonship from Ms. Dorothy Argent (former Salmon Arm Counsellor) who was the SRWR chair from the inception of the project until April 1996. (Mr. LaPierre was the only person to express interest in taking over this role.) The Roundtable has also set up a Watershed Resource Centre (in Silver Creek) which is the hub of Roundtable activity. It provides the chair, coordinator and volunteers with some office space and a place to keep resources, information, displays, etc. The Roundtable funds itself mainly through government grants for research and studies, field action activities and core administration costs (Argent and Christiansen 1995).

CHAPTER FIVE

THE FIVE STAGES OF COLLABORATION IN THE ECOSYSTEM OBJECTIVES PILOT PROJECT

"[The Roundtable] started people talking about the process, or about the problems. I think it was the winter of 1991/92--tremendous snow pack and lots of rain in the spring. Lots of people started to lose bits of their farms...And people were interested in talking to somebody about it and wanted to get something to happen. And so, the Roundtable was really important in getting people to talk. Farmers were coming looking for some place to tell their problems to--that they would get a response."

- Salmon River Watershed Resident, October 1995

"I think [the Roundtable's] role has changed from when they started. I mean, they were involved first of all in setting up an organization and making their contacts with different agencies. And I guess that's what took time. And we were a little bit impatient wondering when the community involvement was going to happen."

- Salmon River Watershed Resident, November 1995

In 1995 the Salmon River Watershed Roundtable (SRWR) embarked on a project to establish community-developed ecosystem objectives for the Salmon River Watershed. There were several events preceding the formal commencement of this project (dating back to 1991). Highlights of these events, as well as the official events of the project to establish community-developed ecosystem objectives, and the follow-up events to the project are recounted in this chapter according to the 5-stages of collaboration. (An expanded, detailed version of these events is presented in Appendix C.)

In each collaborative stage, a summarized version of the main events is retold from SRWR documents and the field notes which I recorded as a participant observer in the process. A "quick reference" summary of the main events is provided in Figure 5.1.

Following the summary of events, the case study is reviewed in relation to the "tasks" of collaboration given in Chapter 3 (see Figure 3.2).

Figure 5.1. Key Events in the Collaboration towards Ecosystem Objectives.

ANTECEDENTS

1991	DSA's Salmon River Restoration Project
1992	Salmon River Restoration Committee
1993	Visioning workshop results in Mission Statement EOSC seeks a pilot project for ecosystem objectives

PROBLEM SETTING

Dec 93-Nov 94	EOSC and SRWR hold ongoing meetings
Jan 1994	SRWR is officially formed
Oct 1994	SRWR adopts the Salmon River Watershed Planning Guide
Nov 1994	Letter of Agreement (facilitation contract) between SRWR and Environment Canada

DIRECTION SETTING

Knowledge Base Development

Feb 1995	Technical Coordination Meeting
May 1995	Terms of Reference for Knowledge Base Contract
July 1995	Seeking Agency Cooperation in the Salmon River Watershed (report)
Sept 1995	Verbal History and Problem Perceptions (report)
Nov 1995	The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Public Summary Report
Mar 1996	The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Technical Report

Community Development of Ecosystem Objectives

Jan 1995	SRWR Work Plan Workshop
Feb 1995	Facilitator Training by ICA
May-Nov 1995	Monthly community meetings in Mt. Ida, Silver Creek, Falkland and Westwold
Dec 1995	Falkland Workshop
Feb 1996	Work Planning Workshop for 1996
Mar 1996	Interim ecosystem goals and objectives adopted by SRWR

STRUCTURING AND OUTCOMES

Apr-May 1996	Follow-up community meetings in Mt. Ida, Silver Creek, Falkland and Westwold
June 1995-Present	SRWR involvement with Forest Renewal BC
July 1995-Present	SRWR involvement in the Okanagan / Shuswap Land and Resource Management Plan (LRMP)
Present	Continuation of CCME framework pilot project (developing indicators and a citizen's monitoring program)
Other Outcomes:	guidance to other SRWR projects ammunition for funding proposals more credibility for the SRWR

5.1 ANTECEDENTS

Antecedents to collaboration are those factors which describe the context from which a collaboration emerges. In the Salmon River watershed case study, there are many events leading up to the project to develop a watershed vision and ecosystem objectives. The Salmon River Watershed Roundtable is itself a collaborative organization. In a sense, the antecedents to the watershed vision / ecosystem objectives project is the whole collaborative history of the Roundtable: how and why it formed, its history of defining problems and taking collective actions, how it organized itself, funded itself, and promoted itself, and how the Roundtable became interested in embarking on a process to set ecosystem objectives. (See Appendix C.) The main events leading up to the ecosystem objectives pilot project are summarized in Table 5.1.

Table 5.1. A Summarized Chronology of Antecedent Events

1991	The Salmon River Restoration Project was initiated by some Salmon valley landowners in cooperation with the District of Salmon Arm (DSA) in order to address some of the environmental problems (like erosion) being experienced in the valley.
1992	The Salmon River Restoration Committee (SRRC), spear-headed by the Neskonlith Band, joined forces with the DSA sponsored initiative to jointly undertake restoration projects on the river.
May 1993	The Salmon River Watershed Project (DSA initiative and SRRC) held a visioning workshop to determine its membership's common vision. The workshop resulted in the group's mission statement: "To be a catalyst to achieve and maintain a healthy Salmon River Watershed through coordinated management of all resources, respect for all concerns and cooperative, positive action."
1993 and 1994	The Salmon River Watershed Project became a demonstration watershed for both the Fraser River Action Plan (FRAP), and the Fraser Basin Management Program (FBMP), giving the project exposure both provincially and nationally.
1993	The Ecosystem Objectives Steering Committee (EOSC) became interested in the work of the Salmon River Restoration Project/Committee as a potential pilot project for developing ecosystem objectives.

The "tasks" (or descriptive elements) of the antecedents stage of collaboration include: motivation for the collaboration, origins, intended outcome, balance of power, and leadership/convener characteristics. These "tasks" are summarized for the case study below.

(1) The Salmon River Watershed Roundtable has evolved as a vision based organization. The project was started by individuals who had some common concerns about the river. Those people who have "hopped on board" since the inception have bought into the espoused mission statement and operating practices of the Roundtable. The Roundtable has never had to face really contentious opposition--perhaps because they focus their energies on building ties with those agencies and landowners who react positively to the Roundtable's approach. This is not to say that there is not opposition to the Roundtable and its activities: there is. A prominent member of the Roundtable expressed these sentiments in an interview last fall:

> "I'm not worried about the ones who think, 'I won't have anything to do with government. They're my cattle. I've been doing this for years--thank-you very much! Get off my property!'. We sure know a few of those ones! When we walk through the river on their property, you know, whoa! A few shot-guns can come out! And, don't spend energy on that. It's a waste of time. Spend energy on those that are willing to do something. So, I think that's how we're going to grow. And, then, if we end up with our demonstration...[*fade out*]...on things, people who are cynical or think, 'Ah! They're going to go away', or 'They're not going to make it', or 'You know, it's all a bunch of hogwash', they'll get more and more pressure because they'll see what's happening and I think that will create a sense of responsibility. And some, well, you'll just have to wait till the next generation happens! And there's more work that we've got than we can do right now. We don't have to worry about those--that'll come later. So, don't waste your time on the nay-sayers!" [28]

For the most part, those individuals/segments of the watershed population in conflict with the Roundtable ignore it--they do not attend meetings or interact with the Roundtable unless the Roundtable is seen as a significant threat (e.g., through influencing development decisions at

the regional level, or lobbying for groundwater legislation at the provincial level. As the Roundtable gains more influence with regulating bodies, it will likely face more conflict.

(2) The Roundtable is a "grassroots" organization (BCRTEE 1994, and Argent and Christiansen 1995). This is largely reflected by the Roundtable's volunteer base of local citizens and landowners. Although the Roundtable is a grassroots organization (as differentiated from a mandated organization), its membership includes several government agencies who do independently have mandates within the watershed. Thus, through its membership, the Roundtable has avenues to conduct work within the watershed.

(3) The intended outcome of the Roundtable is stated in its mission statement:

> "To be a catalyst to achieve and maintain a healthy Salmon river Watershed through coordinated management of all resources, respect for all concerns and cooperative, positive action." (SRWR 1994a)

Although it is not a mandated power, the Roundtable can be a "catalyst" to decisions at various levels of government through lobbying, providing advice, and working in direct partnerships, as is the case with the agencies who are members of the Roundtable.

(4) While the Roundtable espouses concepts such as inclusion and consensus, in practice, there are unavoidable power imbalances within the Roundtable. Although everyone is allowed to share their views on topics discussed, and no actions are officially taken when there is no agreement, it would be naive to think that power is distributed equally amongst Roundtable members--the diversity of the membership itself leads to power imbalances. There are clearly differences in persuasive power between a government agency representative, who may be able to offer resources or a legal mandate to a project along with his/her opinion, and an average resident of the watershed who can only offer his/her opinion.

Even among the "average citizens" there are power differences. One local resident told me that despite feeling that he has a lot to offer the Roundtable in terms of life experience, education and long term residency in the watershed, no-one listens to him because he does not own land.

There is also the concern that "the person with the pen holds the power". Roundtable members who belong to committees or prepare written work for the Roundtable have more opportunity to influence the Roundtable's work products than the average member. This power imbalance is in many ways unavoidable: someone has to do the actual "work". Any Roundtable member is welcome to attend any of the committee meetings, so there is a way for general members to "keep tabs" on committee members.

(5) The Roundtable had strong leadership in the form of Dorothy Argent, and a few other key individuals, right from its inception. Ms. Argent's role as chair of the Roundtable lasted 4 years, and from the perspective of most Roundtable members, she was a successful leader in terms of being well liked and respected by other members of the Roundtable--even admired for her dedication and sacrifice of personal time. As well, Ms. Argent seemed to take personal satisfaction from her role as SRWR chair.

Other prominent individuals in the Roundtable included Ms. Argent's husband, Neils Christiansen, who chaired the Roundtable's planning committee, and has served a very visible role in the Roundtable--working to organize, and facilitate several of the Roundtable's key planning initiatives, and writing key Roundtable documents like the Salmon River Watershed Roundtable Planning Guide (SRWR 1994a). Together, Ms. Argent and Mr. Christiansen are viewed by many Roundtable members as the "heart" of the Roundtable. When other

Roundtable members spoke to me during interviews about the Roundtable, they often referred to "them", Dorothy and Neils, and their labour, and visions.[1] Comments made to me in interviews usually reflected very positively on the leadership of Dorothy, Neils, or other Roundtable members:

> "Without Dorothy, there wouldn't be a Roundtable." [14]
>
> "What if we didn't have all the free labour of Neils and Dorothy?!" [18]
>
> "Neils is a good facilitator. He can field questions that are from tough personalities or emotional." [6]
>
> "Good leadership. People have a lot of energy--Neils, Dorothy and Mike Wallis." [3]

There were also comments from survey participants which were not quite so supportive:

> "I guess this thing is a waste of my tax money. Ms. Dorothy A. does not even live near the river." [b129]
>
> "It would be nice if Dorothy Argent and her Henchmen and Natives had something better to do, which includes all of you bureaucrats and Natives who are sucking the tax paying public DRY.[emphasis by respondent]" [a062]

As well, there is a perception held by some watershed residents that a select group of Roundtable members/leaders are involved in the Roundtable because they benefit through grant money:

> "One agenda. Not open for new ideas. Just a name to get grants for a few people who live by grant alone...I attended meetings for 2 1/2 years and could see it was all talk and very little action. Time and money should be utilized and audited in a more professional manner (my opinion)." [b065]
>
> "Meetings organized and run by people that know nothing about anything but how to work the systems for grant monies--beats working for a living...People attending

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[1]Occasional references were also made to the Roundtable's hired coordinators (Thyson Banighen and Mike Wallis) who also served prominent leadership roles in the Roundtable, facilitating much of the day to day operations of the Roundtable and field-work activities.

these [meetings are] reaching for grant money or other self-interests." [b112]

"You need people with credentials [emphasis by respondent] to repair and maintain a river!...Too many people government bureaucrats, hired guns who work on this project and collect a salary for it...[need] someone with ranching background, who knows livestock, historic grazing rights leading the group." [a004]

"This Roundtable provides jobs for a select few, and goes on and on!" [b003]

"INFILTRATED [emphasis by respondent] with people who benefit via government grants." [b008]

(6) Overall, the Roundtable organization was probably the most appropriate forum to convene the process to develop ecosystem objectives and a watershed vision. As one government employee [18] emphasized in an interview, this is a role that government cannot fill--there is a lot of suspicion and hostility towards government (see following chapters) in the watershed. A neutral body like the Roundtable is more appropriate. As well, at the time the planning process was initiated, the Roundtable had four years of experience building consensus within their organization. Many interview participants said that the Roundtable's role was to lead the process (see Chapter 6).

5.2 PROBLEM SETTING

Problem setting is the stage of collaboration in which stakeholders are identified and convened to agree on their common problems or reasons for working together. In the Salmon River watershed case study, the problem setting stage of the ecosystem objectives project consisted of a few key meetings and a few key documents through which the SRWR and the Ecosystem Objectives Steering Committee (EOSC) learned about one another and agreed on a mutually beneficial work project. The two groups began discussing a joint

project in December 1993, and continued to meet throughout 1994, culminating in a contractual "letter of agreement" (known as the facilitation contract) between the SRWR and Environment Canada (for the EOSC). As well, the SRWR evolved as a group over the course of the year--officially becoming a round table in January 1994, and then later adopting their guide book, "The Salmon River Watershed Planning Guide". A summary of these key events is given in Table 5.2.

Table 5.2. A Summarized Chronology of Problem Setting Events.

December 1993	A ***special meeting*** was held in Salmon Arm between members of the EOSC and the SRWR, to discuss their mutual interests, and the possibility of working together on a project to develop ecosystem objectives for the Salmon River Watershed.
January 1994	The ***Salmon River Watershed Roundtable*** was born out of the Salmon River Watershed Project's first annual Strategic Planning Workshop. One of the strategic directions that emerged from the workshop was to plan towards a watershed stewardship plan.
April 1994	The SRWR's planning committee writes "Terms of Reference for Creating, Adopting and Implementing a Watershed Stewardship Plan for the Salmon River", stating that, "The philosophical basis for developing the plan lie in the combined work of the Salmon River Watershed Roundtable and the Ecosystem Objectives Steering Committee of the federal and B.C. governments" (SRWR 1994c).
June 1994	The EOSC held an all day meeting in Salmon Arm in which they toured the watershed, and had an early discussion of the information requirements necessary to develop a knowledge base for the watershed (as the first step in setting ecosystem objectives).
October 1994	The SRWR adopted the "***Salmon River Watershed Planning Guide***" which outlined objectives of the mission statement (respect for all concerns, coordinated management of all resources, cooperative, positive action, and a healthy Salmon River Watershed), and "guiding concepts" through which the group hoped to meet the mission statement (consensus based planning, sustainable living, the ecosystem approach and ecosystem objectives, and making the plan useful to the landowners).
November 1994	The EOSC held their last meeting. (See Chapter 2 for details on the EOSC's demise.)
November 1994	The "***facilitation contract***" was signed between Environment Canada and the SRWR. This letter of agreement gave the Roundtable the funds to create a work plan (for setting ecosystem objectives), train community members in facilitation methods, and have these newly-trained facilitators conduct community meetings throughout the watershed to gain input to the "stewardship plan for the development of ecosystem goals and objectives".

Specific "tasks" or descriptive elements of the problem setting stage include: identification and legitimization of stakeholders, problem definition, clarification of stakeholder's expectations about outcomes, commitment to collaborate, and identification of resources. Based on reviewing documentation of the SRWR and the EOSC, the following conclusions can be drawn about the case study in reference to the tasks of problem setting:

(1) The common "problem", identified by the SRWR and the EOSC was the establishment of community developed ecosystem objectives for the Salmon River Watershed. The letter of agreement between Environment Canada and the SRWR described this common problem, and identified at least some of the financial resources for achieving it. This contract also made reference to some of the skill resources needed: methods of facilitation from the Institute of Cultural Affairs (see Appendix C) were to be learned and used in the process.

(2) The stakeholders identified for the process included, the SRWR, the EOSC, and the watershed "community" in general. Of these groups, it was a key group of individuals (Fred Mah, George Butcher, Dorothy Argent, Neils Christiansen) who actually did the problem defining, with some influence from other agencies involved with the EOSC and from Environment Canada's head office. The issue of community legitimacy (i.e., the right people?) is discussed in the next chapter.

(3) Contractually, the SRWR and the EOSC had clear expectations on the end-products of the process: a report which would describe narrative, community developed

ecosystem objectives for the Salmon River Watershed.[2] That is not to say that they were clear about how the process would unfold, because neither party could predict the future--there were still many stakeholders to become involved in the process (i.e., lots of unpredictable elements), however, the groups became so interlinked (through SRWR membership on the EOSC, and EOSC membership on Roundtable committees), there were plenty of opportunities to clarify expectations with one another.

(4) Formal commitments to collaborate were not established between community members, but were established between the Roundtable and some government agencies. Both the SRWR and the EOSC representatives (Environment Canada and MOELP) formally committed themselves through the Letter of Agreement. Response to the process from community members was not determined until the community meetings started. (Discussed further in Chapter 6.)

(5) Initial financial resources--outlined in the facilitation contract--were augmented by the Environmental Partners Fund, the Vancouver Foundation and Environment Canada to a total of $74,955 for the ecosystem objectives part of the project and $50,000 for the knowledge base part of the project. Details of the financial resources for setting ecosystem objectives are given in Chapter 8.

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[2]From discussions with Fred Mah (Co-chair, EOSC), it appears several members of the EOSC members were uncertain of their roles or what they expected out of the process--see discussion in Chapter 2. This was one of the factors which led to the EOSC's demise. In any case, those former EOSC members who carried the process forward (i.e., Fred Mah and George Butcher) had clearly outlined expectations of the process.

5.3 DIRECTION SETTING

In the third stage of collaboration, *direction setting*, the stakeholders agree on procedures (for approaching their problems) and then set to work tackling the substantive issues of the collaboration. The facilitation contract signed by Environment Canada and the SRWR outlined two main activities which are described in this stage of the collaboration. First, the agenda and work plan were outlined through a planning workshop. Then, second, the more "active" part of the process (i.e., carrying out the agenda) took place, including training a group of community facilitators and holding a series of community meetings (in which participants looked at their ideal vision of the watershed, the watershed's history, current conditions, problems, and options for solving problems), culminating in a watershed-wide workshop in Falkland in which a future vision for the watershed and an action plan towards achieving that vision were developed. After the Falkland workshop, the "vision" expressed by workshop participants was formally written into ecosystem objectives adopted by the Salmon River Watershed Roundtable. Along with all these activities came the development of a knowledge base (containing both technical and folk knowledge) to provide information in support of the project. The key events in the process of developing ecosystem objectives and the knowledge base are summarized in two tables: 5.3, and 5.4.

Table 5.3. A Summarized Chronology of Knowledge Base Development

February 1995	A **Technical Coordination meeting** was held in Salmon Arm (organized by Environment Canada). The purpose of this meeting was to get everyone conducting scientific studies in the watershed (or who have scientific information about the watershed) together to share presentations on their work, and to brainstorm what types of information were needed for (and available for) the watershed-wide planning process.
February - March 1995	Discussions were ongoing amongst Environment Canada, Ministry of Environment, Lands and Parks, the SRWR, and a few outside advisors (e.g. university professors and consultants) to outline the requirements for developing an adequate knowledge base for use by watershed stakeholders.

May 11, 1995	**Terms of Reference were established for the knowledge base contract.** A two forked approach was taken for gathering information: "folk knowledge" gathered from community members through a verbal history and perceptions survey, and scientific knowledge gathered through a collection and review of existing information sources available from government agencies, private industry, libraries, archives and any other known sources (both technical and public versions must be made available). In addition, a survey of "agency cooperation" would be conducted (Planning Committee Minutes, May).
June 8, 1995	Knowledge base contracts were let to Dovetail Consultants (Seeking Agency Cooperation and Design of Verbal History and Perceptions Survey) and Quadra Planning (Overview of Conditions and Trends).
July 13, 1995	Dovetail report completed: ***Seeking Agency Cooperation in the Salmon River Watershed.***
September 1995	Draft document: The Salmon River Watershed and Overview of Conditions, Trends and Issues (Public Version), was prepared by Quadra Planning Consultants Ltd.
September 1995	The SRWR published the folk-knowledge reports: ***A Verbal History of the Salmon River Watershed***, and ***Problems in the Salmon River Watershed*** (Christiansen and Romaine 1995a and 1995b).
November 1995	***The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Public Summary Report*** (prepared by Quadra Planning Consultants Ltd.) was published by Environment Canada Fraser River Action Plan
March 1996	Environment Canada Fraser River Action Plan Published ***The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Technical Report***, the final product of the knowledge base contract completed by Quadra Planning Consultants Ltd.

Table 5.4. A Summarized Chronology of Community Development of Ecosystem Objectives

January 1995	**SRWR Watershed Work Plan Workshop** was held to outline entire project.
February 1995	**Facilitator Training** of community members by the Institute of Cultural Affairs.
March 9, 1995	SRWR Annual General Meeting in which the watershed wide planning process was adopted as a nine month process ending in the development of ecosystem objectives.
May 4, 1995	The schedule for community meetings towards the development of a "Community Watershed Stewardship Plan" was determined (see Appendix C for details).
May 30-June 7, 1995	The first set of **community meetings** was held in Mt. Ida, Silver Creek, Falkland, and Westwold. Theme: Where are we going?
July 4-12, 1995	The second set of community meetings was held. Theme: What is our history?
August 1-9, 1995	The third set of community meetings was held. Theme: What are the priority problems?
September 19-27, 1995	The fourth set of community meetings was held. Theme: What do we know?

October 17-25, 1995	The fifth set of community meetings was held. Theme: What are our options?
November 14-22, 1995	The sixth and final set of community meetings was held, (informal meeting preparing for the Falkland workshop).
December 2-3, 1995	Creating and Celebrating our Watershed's Future, (**Falkland Workshop**) was held in Falkland.
February 2, 1996	Special meeting was held to create interim ecosystem goals and objectives. Participants included planning and executive committees and a few others
February 8, 1996	Interim goals and Objectives were established (Planning Committee Minutes) but needed some revisions before going to Roundtable for approval.
February 15, 1996	Executive Committee **Work Planning Workshop for 1996** work plan acknowledged support for the Roundtable's activities from Falkland workshop and proposed a set of activities for the year.
March 20, 1996	The Roundtable decided the draft strategic plan (from February 15th work plan workshop) should be presented to the watershed communities for approval (does it meet with their expectations from the Falkland workshop?) (SRWR Minutes).
March 20, 1996	**Interim ecosystem goals and objectives were adopted by Roundtable** (SRWR Minutes).

From the collaborative framework presented in Chapter 3, there are several specific tasks associated with direction setting: establishing ground rules, developing shared understanding and values, agenda setting, organizing subgroups, joint information searches, exploring options, evaluating options, reaching agreement and closing the deal, and dispersing power among stakeholders. Some observations about the case study in relation to these tasks is provided below.

(1) Establishing ground rules, agenda setting, and organizing sub-groups, were all initiated at the January 1995 "Work Plan Workshop". A general agenda and timeline had been set for the process, which was then later refined by the planning committee, once the project was under way. Sub-committees were established to undertake the work required to develop ecosystem objectives and a watershed vision, and, throughout the

process, adhoc committees were put together to undertake various tasks related to the project. Finally, the guiding principles, outlined in the Salmon River Watershed Roundtable's planning guide, served as ground rules for how the Roundtable would conduct its actions.

(2) A "joint information search" took place in the form of compiling the knowledge base to support the development of ecosystem objectives. While the actual information was compiled by consultants or Roundtable staff, there were several steps at which a larger sampling of stakeholders (and sometimes outside experts) influenced the search. Examples of this are the Technical Coordination Meeting, consultations that Roundtable members held with external sources when outlining the knowledge base contract, the collection of public input into the verbal history and problem perception study, and the public review of the knowledge base report prepared by Quadra Planning Consultants Ltd.

(3) Different visions for the watershed were explored and evaluated by residents in some of the community meetings and the Falkland Workshop, and by Quadra Planning Consultants in the knowledge base contract. The task of exploring options was built specifically into the project's agenda; the October 1996 community meeting tackled this subject. Additionally, within the knowledge base contract, Quadra Planning Consultants Ltd. (1995b and 1996) provided a listing of potential actions for the Roundtable and watershed residents to address different sustainability issues in the watershed. The next task, evaluating options, is implicit in the choices the Roundtable makes while it is continually undertaking new activities (e.g., restoration projects or involvement in larger scale planning processes--see Chapter 7).

Box 5.1. Interim Ecosystem Objectives for the Salmon River Watershed. (Approved by Planning Committee, Adopted by Roundtable March 20, 1996)

The intention of the Salmon River Watershed Project is to achieve and maintain a healthy, sustainable Salmon River Watershed ecosystem through:

Managing for ecosystem health with:

1. Forests managed for human and natural needs:
   - 1.1 Sustained yield of all forest products (timber, range, medicinal herbs, etc.) based on realistic inventories and growth and yield projections.
   - 1.2 Maintenance of all life forms by maintaining all stages of plant succession (from bare ground to old growth forest).
2. Agriculture managed for human and natural needs:
   - 2.1 Encouraging local consumption.
   - 2.2 Use of best agricultural practices.
   - 2.3 Maintenance of the agricultural land base.
   - 2.4 Agriculture which is ecologically sustainable and diverse.
3. A diverse and sustainable economy through:
   - 3.1 Encouraging products and services of high value added.
   - 3.2 Supporting new initiatives on products, marketing and training.
   - 3.3 Encouraging diverse, local control of economic resources.
4. A healthy river having:
   - 4.1 Clean water.
   - 4.2 Reduced peaks and troughs in surface and ground water flow patterns.
   - 4.3 Re-established riparian corridors and wetlands.
5. Mentally, physically, emotionally and spiritually healthy people through:
   - 5.1 An empowered citizenry.
   - 5.2 Medical, environmental and social preventative and curative health care.
   - 5.3 Clean air, water and food.
   - 5.4 A spiritual approach to living as individually expressed.
6. Healthy and diverse natural species and their habitats through:
   - 6.1 Maintenance and increase of habitats to support all life forms.
   - 6.2 Maintenance and restoration of species and populations.

Active community social life including:

7. A strong sense of the watershed as a community with:
   - 7.1 Resource management recognizing watershed boundaries when resource use overlaps into adjacent watersheds.
   - 7.2 Residents and others recognizing and taking responsibility for their actions on the watershed.
   - 7.3 Collective empowerment and involvement in watershed planning and action.
   - 7.4 Participation and cooperation in watershed-wide events and celebrations.
8. Accessible and appropriately located recreation opportunities through:
   - 8.1 A recreational plan for the watershed.
9. Community pride in rural roots and lifestyle with:
   - 9.1 Residents expressing their pride in the watershed.
10. Cooperation to control local resources with:
    - 10.1 Community members participating in shared land use and resource management decision-making.

Box 5.1. (continued)

Developing knowledge and support with:

11. Government supporting watershed community needs through:
    - 11.1 Providing information for watershed decision-making. (example: water withdrawals)
    - 11.2 Continuity of technical and financial support of community groups in watershed management and resource use.
    - 11.3 Training and quality control and quality assurance for community monitoring of watershed development.
    - 11.4 Supporting community empowerment leading to shared decision making.
12. Sustaining the visioning process for the watershed with:
    - 12.1 Regular feedback to residents on progress towards vision.
    - 12.2 Community participation in vision, goals and objectives adjustment.
13. Gaining and spreading knowledge of the watershed with:
    - 13.1 Pro-active education and awareness programs.
    - 13.2 Open communications between citizens and agencies.
    - 13.3 Citizen data gathering.
    - 13.4 Encouragement of innovative programs. (example: demonstration programs)

(4) Ecosystem objectives, drafted as a result of this process, were adopted by the Roundtable in March 1996. These ecosystem objectives are given in Box 5.1.

(5) The products of the Falkland workshop are a reflection of the shared understanding of the participants at the workshop--but not necessarily the entire watershed community. There is little question that the participants in both the community meetings and Falkland workshop were required to share their views through small group exercises (a result of ToP facilitation methods--see Appendix C), and that new understandings developed between watershed residents who had never before communicated. (In the interviews I conducted with process participants, several of them told me they had learned about their watershed and the other residents of the watershed through participating.) It should also be noted that, at the Falkland workshop, the most vocal participants were government agency representatives, and long time Roundtable members (some of whom are

local residents), not the newly recruited local residents. So, the recorded "understanding" could be skewed towards the views of the most vocal participants.

(6) The dispersion of power amongst stakeholders involved in the process did not visibly change, although the Roundtable as a whole probably gained more influence as a result of the process. (This is discussed further in Chapter 7.)

5.4 STRUCTURING AND OUTCOMES

Structuring, the fourth stage of collaboration, is the stage in which the relationships made, and agreements reached during direction setting are formalized, monitored and supported. The last stage of collaboration, *outcomes*, delineates the impacts or changes that have occurred as a result of the collaboration. Since the Roundtable is currently in the "structuring" stage of the collaboration towards a watershed vision (and ecosystem objectives), most of the events described in this section are ongoing, and most of the outcomes are still to be realized.

There are two large scale programs with which the SRWR has become involved and with which the Roundtable will use information generated by the ecosystem objectives project: the Okanagan / Shuswap Land and Resource Management Plan (LRMP), and Forest Renewal B.C. (FRBC) (see Appendix C). Participation in these projects, and holding another set of community meetings in which the interim ecosystem objectives were published were important events in working towards building support for the Roundtable's vision. In addition to these projects, the Roundtable is continuing the pilot run of the CCME WQGTG's framework for developing goals, objectives and indicators of ecosystem health (described in

Chapter 2). Now that ecosystem objectives have been adopted by the Roundtable, the next steps in the framework are to develop indicators to gauge progress towards the objectives, and a monitoring program through which to apply the indicators. These activities are described chronologically in Table 5.5.

Table 5.5. A Summarized Chronology of Events in Structuring and Outcomes.

April-May 1996	Another set of community meetings were held in Mt. Ida, Silver Creek, Falkland and Westwold in order to gauge (and garner) support for the 1996 work plan targeted at working towards the interim ecosystem objectives.
June 1995 - Present	SRWR became involved (as a partner) in an application to Forest Renewal BC prepared by Riverside Forest Products Ltd. Some of the gaps in the Salmon River watershed knowledge base could be filled by the work undertaken by this project.
July 1995 - Present	SRWR became involved in Okanagan Shuswap Land Resources Management Plan (LRMP) process. Results of the SRWR's efforts to develop ecosystem objectives and a watershed vision have been used in the Roundtable's statement of interest to the LRMP process.
Present	Continuation of the CCME framework through the development of indicators and a citizen's monitoring program.

Specific tasks of "structuring" include: formalizing relationships, assigning roles, monitoring the agreement and ensuring compliance, dealing with constituencies/external mandates, and building external support. Specific tasks of "outcomes" include: programs, impacts, benefits derived and external support. Some conclusions about the case study's achievement of these tasks are given below.

(1) With respect to assigning roles, and programs, the Roundtable's 1996 work-plan was an attempt to articulate the results of the Falkland workshop in a manner that could launch actions towards fulfilling the watershed vision and ecosystem objectives. Although a lot of ideas were presented in the 1996 work plan (see Appendix C), only a few of them are concrete tangible actions of their own (e.g., "create a volunteer

coordinator position", or "catalogue and organize info collected"). Listed actions such as "explore sustainability options", "share successes and problems", "increase understanding of hydrologic cycle", and "establish active relationships with other watersheds", etc. are less activities than goals.

(2) Although there is, yet, little formalization of relationships, the Roundtable knows that this is an area which requires a lot of attention in the next few years. The Roundtable has, over the past year, put some effort into drafting agreements (or partnership protocols) with First Nations bands in the watershed, and has been successful in signing a formal agreement with the Upper Nicola Band. As well, one of the action arenas on the 1996 work-plan is to empower community decisions through strengthening working relationships (work on aboriginal relations, establish active relationships with other watersheds, formal agreement with local government, create linkages with local community associations and groups, follow through with First Nations protocol and working relationships, explore next steps after FRAP, obtain agency technical support, and promote better working relationships with local government representatives).

(3) "External" residents know about the Roundtable's work, and a majority of them support it; current studies indicate the support of government or external organizations is mixed, but needed. During interviews, a couple of government employees said they thought the results of the process to develop a watershed vision and ecosystem objectives may not be well received by some bureaucrats further up the hierarchy:

> "There's a possibility that the government bureaucrats may not like the public pressure, but there's a lot of people out there, in government, who are holding up

some important processes. It will probably make a few people uncomfortable, but overall, benefits." [18]

Another study, also involving the Salmon River Watershed, came to the conclusion that there is currently inadequate government support at the provincial level for these types of initiatives to be successful (Cantwell and Day 1996). Other organizations, which are external to the Roundtable, have an effect on the watershed and the Roundtable's potential activities (e.g., the LRMP process). The Roundtable has an opportunity to build support for the community vision that was arrived at, through participating in the LRMP. The support of watershed residents is discussed in Chapter 7.

(4) Monitoring the agreement (ecosystem objectives) is anticipated to happen through the development of indicators and implementation of a citizen based monitoring program. It is uncertain how any "infractions" of ecosystem objectives would be dealt with, or how *compliance* would be *ensured*. As will be seen in Chapter 7, some of the process participants think that ultimately, the Roundtable is not an enforcement body; compliance can only be ensured through people desiring to change their actions.

(5) There are some impacts and benefits which are clearly anticipated: information to use in the LRMP and FRBC projects, the continued testing of the CCME WQGTG's framework, guidance to other programs of the Roundtable, increased awareness of watershed residents, ammunition for funding proposals, and more credibility for the Roundtable as an NGO working on behalf of the watershed community. These outcomes and benefits are explored further by process participants and watershed residents in Chapter 7.

5.5 CHAPTER CONCLUSIONS

To summarize, the Roundtable is a vision based collaboration which is grass-roots driven. The mission of the Roundtable is to be a catalyst towards achieving a healthy Salmon River Watershed. It is an organization in which the balance of power is such that everyone can be heard, but some--due to the roles they play within the Roundtable--have more influence on the work conducted. The few strong leaders within the SRWR are supported by members, but have received a somewhat cooler reception in the larger watershed community.

The purpose of the collaboration studied in this case study was to establish community developed ecosystem objectives for the Salmon River watershed--the main stakeholders in the process being the SRWR, certain government agencies, and watershed residents. A formal letter of agreement between Environment Canada and the SRWR outlined the work required for the project, and established the expected outcome of the project (a written report describing the ecosystem objectives), as well as providing some of the financial resources (from Environment Canada and the Ministry of Environment, Lands and Parks). The financial resources were later augmented by the Environmental Partners Fund, and the Vancouver Foundation.

The January 1995 Work Plan Workshop officially started the project by setting an agenda of actions. These actions were supported by the development of a knowledge base for the Salmon River watershed which included both scientific and folk knowledge. The knowledge base was used to aid in the exploration and evaluation of options in the community meetings and Falkland workshop. The final result of the community meetings and Falkland workshop--reflecting the shared understanding or the participants--was a list of

Interim Ecosystem Goals and Objectives for the Salmon River Watershed. As a result of the process, the SRWR has probably gained some power or influence with other organizations, but the power relationships within the Roundtable have not noticeably changed.

The 1996 Work Plan attempted to describe actions aimed at achieving the vision set through ecosystem objectives. One of the areas to concentrate on in the next few year is formalizing relationships with other organizations which influence or are influenced by the Roundtable's actions. There is general support among watershed residents for the Roundtable's work, however, this support would be augmented with strong government support for the Roundtable's vision. Continuation of the CCME WQGTG's framework for developing goal, objectives and indicators of ecosystem health will lead to the development of indicators and a monitoring program for the watershed. Other anticipated outcomes include the provision of guidance to other SRWR projects, increased awareness of watershed residents, and more credibility for the SRWR speaking on behalf of watershed residents and interests.

CHAPTER SIX

AN EVALUATION OF "PROBLEM SETTING" AND "DIRECTION SETTING"

"We're all walking around in a dark room, feeling our way along the walls. And sometimes, we're in different rooms and we don't even know it!"

- Salmon River Watershed Roundtable Member, October 1995

In many ways, the success of a collaborative process hinges on the sense of accomplishment and satisfaction of the participants. If participants feel that the process met their needs and was carried out in a legitimate, credible and productive way, the results of the process will be more positively received and stand a better chance of being implemented. The likes, dislikes, concerns, and expectations of process participants can be used to recommend improvements or changes to the methods used and to suggest new foci for substantive issues. In this chapter, the problem setting and direction setting stages of the Salmon River Watershed Case Study are evaluated from the participants' points of view.

To capture their insights, 25 participants in the SRWR's community meeting series were interviewed. (Details of the participants and the interview methods are given in Chapter 4.) Many of the interview participants (19/25) had previous experience working with the Roundtable in some capacity, either as general members (who may have volunteered for specific work projects or attended some meetings), or as committee members. These participants were able to comment on a range of topics leading up to the community participation part of the collaboration, based on their experiences with the Roundtable. Other interview participants, whose experience with the Roundtable began with the community

meetings, had also developed opinions on what they thought had occurred prior to the community meetings, so they too were able to comment on both the "problem setting" and "direction setting" stages of collaboration. Interview participants were asked specifically to focus their comments on the process to develop a watershed vision and *not* the work of the Roundtable in general. However, most participants found this very difficult because all were aware of other work being undertaken by the Roundtable, some of them were involved in other activities, and because the planning process is inter-related to other Roundtable activities.

There are two places in this chapter where data from survey respondents were used to help evaluate problem- or direction-setting: determining stakeholder's perceptions of problems and issues in the watershed, and determining why people do, or do not participate in these types of processes. (Details about how the survey was conducted can be found in Chapter 4.)

The next six sections of this chapter present the opinions of process participants in the following areas (all related to the tasks of problem- or direction- setting): general approach of the Roundtable, problems and issues in the watershed, underlying philosophy of the Roundtable, roles of different participants, participation, and education and preparation. The chapter concludes by identifying strengths and weaknesses of the collaboration based on the opinions presented.

6.1 GENERAL APPROACH OF THE ROUNDTABLE

The first question the participants were asked was whether or not they thought there was anything new or significant about the process to develop a watershed vision and ecosystem objectives. They were asked to relate this process to past watershed management approaches and their own experience. Most of the comments centred around four themes: community involvement, government involvement, process format or meeting structure, and the uniqueness/newness of this type of experience to the participant. Box 6.1 summarizes the statements made.

The majority of participants [14/25] made some reference to the enhanced role of **community involvement** in this process compared to other processes in which they had been involved, or their perception of the way government usually operates. Some participants reflected on how the present differs from the past:

> "[Previously] The public were seldom involved in the process other than getting permission for those people to be crossing their property--that sort of thing." [2]

> "We've lived randomly through the watershed and taken. There's just been all the traditional layers of government, which are still in place now. Ninety-nine percent of the situations throughout the province are still running business as usual, you know. That's the change I think. It isn't doing away with government, it's utilizing it and working with government and the inhabitants--people of the valley--working with the other government agencies in a different fashion. I like to think the people are taking an assertive role and not such a subservient role." [11]

> "The approach is right. They should consult the people that live here. Not in the past, as far as I know. The irrigation rights were set in the past. There was no one consulted on the river. Fisheries and Oceans regulate the fish stock, if they can, on the river and they have their own rules for that." [12]

> "Well, I think before, things like this, you know, there was government [there] and then there was us, the community [here]...It's more of a grassroots movement now, I think, than things used to be. I think we've had more say." [5]

The people who commented on the community involvement aspects seemed to view community involvement as generally a good idea (some differences in opinion about the effectiveness of this particular program were discovered later in the interviews).

The second theme explored by participants had to do with **government involvement** in the Roundtable. Two participants--one of whom was a government employee--emphasized that government agencies (from various levels) are working together more effectively through the Roundtable:

> "One of the things with the traditional approach was that agencies didn't talk to one another. Even within a single agency, various segments of that single agency didn't. So there was sometimes duplication of effort. Things that needed to be done weren't done. Information that was gathered by one person didn't necessarily get into the hands of the person who uses it. You know, that kind of stuff...you could almost use the term 'in isolation'." [2]

> "Too often when individual agencies tried to do something alone, they were trying to get people to approach an issue from their single perspective. This is a much more rounded approach. It's definitely a vast improvement." [18]

A couple of participants related resource aquisition to government involvement (following-up on this theme later in questions specifically related to the role of government). One government representative stated that agencies have been very good about donating time to the Roundtable [26]. Another said he wondered "...if we're trying to bite off too much, trying to do too much at once with limited support, limited funding. It's a huge project." [18]. One long term watershed resident from the Westwold area commented that,

> "We've loaded so much work on these government people, it's getting to the point that they're just doing what they absolutely have to do. Some of them are, oh, a year or two behind on their work load. And if they keep overloading them, the whole system may collapse...And it seems to be the same problem with all governments...Maybe the concept is good, and maybe they'll bring us some helpful

things, but it's just--getting to implement anything will be very, very difficult unless it can be done with the minimum of work." [20]

Some interview participants focused their comments directly on the **meeting structure or process methods** [8, 16, 19, 22]. One government employee noted the general consensus approach used:

> "The idea behind it is that it is--instead of being top-down--it is bottom-up in terms of management. So, in that respect, it's new in an overall sense...You get back to the difference between X and Y management and you could liken it to how do the Japanese run their companies. It's more of a consensus basis, and uhm, the differing opinion is the person who has the floor rather than a hierarchial approach. But, I don't think that approach is new relative to your life span and my life span. I mean, it's relatively new to North American ways of doing things." [19].

A couple of the local residents mentioned that the actual methods used in meetings were new to them. One resident noted that the way they use "bits of paper and then group them" was new to him [16], while another commented that just the use of a series of meetings to tackle an issue was new to her [8]. There was also some concern expressed that the meeting structure or process might not be suitable for the communities in question:

> "I have a problem with the process in that it's a highly literate process...I have this idea that there's a conjunction of social groups--analogous to classes--that comes together at the Roundtable (or perhaps doesn't come together at the Roundtable), that there's an urban group...There's a different class, the government employee class. They're all very literate, highly literate, educated, urban and they speak a different language than the farmer class. And there's presumably a couple of different classes of people who live here. You know, there are farm workers and there are farm owners. Some of the farmers who live in this valley are rich enough that they could take on the entire process of fencing off the river and planting the trees and maybe do it out of petty cash! ...Those people are not particularly literate and have a certain disdain for the literate people...There are urban people who live in the watershed who are interested , maybe have--I don't know--some kind of 'eco-guilt', or something like that, that drives them to do good works in ecological terms. The government employees aren't driven by the same kinds of things and that's how you would differentiate classes of people: their drives as well as their incentives, right? There are rich farmers who live in the valley who think they're all crazy, who are, in fact,

looking for their 'main chance'. They're individualistic, perhaps to an extreme, maybe sociopaths! They can't actually live in cities, can't live in any group larger than a family and maybe don't even live very well with their families. And you can be quite illiterate and be quite rich. And there's the Native groups which would maybe form yet a separate class. They feel that they've been robbed of the river. And that, they don't recognize or understand--at all--the incredible amount of talking and paper that has come out of the process."[16]

"There is a degree to which decision-making has been delegated and detached from the local rural communities in these areas. I think it's my own up-bringing that has made me somewhat jaundiced about the perspectives on various issues. I don't see that the concept is new. I'm much more comfortable with processes that honour their ancestry." [27]

The last "theme" echoed by several participants (all general watershed residents) was that being involved with **this type of process was new to them**--they had nothing to compare it to, or they weren't sure what watershed management entailed prior to this process [8, 16, 21, 24, 25, 33]. Typical comments included:

Box 6.1 Things Identified (by participants) as New, Different or Significant about this Process.

1. General citizens are developing the vision and goals rather than being informed of the government's vision. It's a bottom-up process. [4, 6,11, 14, 19, 26]
2. Government agencies and general citizens are working together. [5, 11, 26, 28]
3. The public has not been consulted enough in the past. [1, 3, 12]
4. Previously, agencies were working in isolation from one another, with much duplication of efforts. Now there is more cooperation among agencies. [2, 18]
5. Too much work is being placed on government departments; limited funding to do work. [18, 20]
6. The meeting structure and facilitation methods are new. [8, 16, 19]
7. The process and actual meeting formats are highly literate [16] and may not be reflective of the way local rural residents learn and make decisions [22, 27].
8. More people are becoming educated through the communications effort associated with this process. [26]

"I wasn't here [moved to the watershed from out of province]. I don't know the background. As far as the community process idea, this is the first time I've been actually involved in that kind of a thing...The whole thing is really new to me." [21],

or

"This is the first watershed project that we've been involved in. The only other type of involvement we've had is with the forestry meetings, and they didn't have a sequence of meetings as they have had here." [33].

6.2 PROBLEMS AND ISSUES

6.2.1 Other Sources

Prior to the current study, some effort had gone into determining the problems and issues relevant to the Salmon River Watershed, (Christiansen and Romaine 1995, and Quadra Planning Consultants Ltd. 1996). Christiansen and Romaine (1995) outlined problem categories identified by 52 watershed residents during interviews conducted by Todd Romaine in July and August of 1995. These categories have been shown in Table 6.1.

Quadra Planning Consultants Ltd. (1996, pp. 109-112) also identified key problems in the watershed, based on their review of data and information sources, and the report by Christiansen and Romaine (1995). Quadra Planning Consultants Ltd. discussed problems in four categories: water, ecosystem health, sense of community, and rural lifestyle and livelihood. The discussion of **water problems** included reference to water quality (high summer temperatures, pollutants from urban and rural run-off), water quantity and flow (erosion, loss of fish and wildlife habitat), and water use (inefficient uses and increasing

Table 6.1 Problem Categories from Christiansen and Romaine (1995).

Problem	No. of Interviewees	Problem	No. of Interviewees
1. Water quantity	28	11. Farming viability	7
2. Logging	25	12. Salmon	6
3. Native land claims	20	13. Inadequate education	6
4. Water quality	18	14. Lack of jobs	5
5. Government	15	15. Canada's system	4
6. Erosion	15	16. Greed	3
7. Riparian vegetation loss	12	17. Financial costs	2
8. Lack of community	10	18. Grazing - destroys land	1
9. Uncontrolled development	9	19. Land Speculation	1
10. Cattle in river	9	20. Racism	1

demands). The discussion presented under the heading **"ecosystem health"** related mostly to reasons for protecting and conserving natural areas within the watershed[1]. They gave three main reasons for protecting the "quality of environmental resources": respect for other (non-human) life forms, natural areas are an indicator of the health of human communities, and natural areas have economic and social value. Without defining "ecosystem health", this report goes on to propose that land-use decisions, human activity, settlement patterns, and resulting habitat alteration are the main threats to ecosystem health. Quadra Planning Consultants Ltd. discussed population growth, increased cultural mix of new residents, and friction between suburban and rural lifestyles as placing a strain on the **sense of community** in the watershed. Other issues such as uncertainty about native land claims, frustrations with decisions made outside the watershed, and increasing dependence on government income

[1]The manner in which Quadra Planning Consultants Ltd. used the term "ecosystem health" is more consistent with the term "ecosystem integrity" than "ecosystem health" according to the definitions provided in Chapter 2.

support, are also contributing to the lack of community. They also report that, related to the loss of a sense of community, is the "erosion" of **rural lifestyles and livelihood** in the watershed as a result of fewer jobs in forestry and agriculture. The main discussion in the Quadra report centres around the viability of traditional livelihoods: essentially, it is much tougher to make a viable living from farming, with the few exceptions of the large specialty, high value commodity farms (no examples provided).

6.2.2 Interview Participants

In the current study, I did not want to duplicate the former efforts at identifying problems and issues, yet, I felt it would be a valuable opportunity to triangulate observations if I made some inquiries as to what the interview participants felt were the main issues of concern. Each interview participant was shown the table taken from Christiansen and Romaine (1995) (Table 6.1). Interview participants were asked whether or not they agreed that these were the main problem areas in the watershed. They were asked to think of any additional problems (not listed above) and to tell what they thought was the most important problem.

Two watershed residents said they disagreed with these problem areas, however, the comments made by these residents were similar to those of other interview participants. One of these two residents was very typical in the way he looked through the list, agreeing with some problems, and rejecting others:

> "I cannot tell which one is the most important. I cannot see any connection with racism and the watershed. Greed is everywhere, not contained to the watershed. Financial Costs--there's part of that involved. I wouldn't say that grazing destroys land. I don't believe that. It could be in certain areas where there is already a lack of growth and they let too much livestock in. It all depends on management, but I

> wouldn't generalize it as being bad. Lack of jobs? That is for sure. There is no actual lack of jobs, but there is a lack of paid jobs!...Farming has been always important in this valley, all the time since the last century...Logging has to do with it. There is definitely--in the way logging was done--there is, and especially the road building gave a lot of silt in the spring. Cattle in the river? I don't know of any farmers that let cattle in the river anymore, or ranchers." [12]

Other participants who, although they generally agreed with the problem categories, also had "trouble" with some of the wordings, specifically categories 11 and 18 [11], and 9 [25], or said that they would have grouped things differently [16]. The other resident who disagreed with the problem areas had more of a concern that problems were being sought where there were none:

> "Well, this is difficult because in this area we don't feel that things, especially along the river, have changed that much, and that there's not that much problem. So, it's everybody else that's saying we've got a problem. But we don't feel we have got that much of a problem." [8]

Two other residents, who lived together and were interviewed together, also expressed concern over the "problem focus" of the community meetings:

> "I kept wanting to say solutions and possible things that one could do, so, I think I have a problem with the 'identify the problem' thing too...It's more a feeling of how to sustain and live in the watershed without having to worry about whether or not there's a problem." [27]

> "[*Long pause before answering question.*] I think the biggest problem is the problem orientation: delaying any sort of action until you identify the problem--which relates to the process as well. The reason for the Roundtable is they perceive a problem. So that to me automatically puts people off. It also narrows the focus...So, I don't relate to that focus." [22]

From those participants who either said they agreed with the problem categories (8/25), were uncertain about the categories (12/25), or did not answer the question directly (3/25), there were a range of comments. Two government agency representatives said they

felt these categories captured the range of problems in the watershed [18, 19]. Some interview participants just re-iterated some of the problems on the list, saying, *yes, these are definitely problems* [1, 2, 3, 21]. Other participants [29, 33] noted that "problems" are not continuous among people, or across the watershed geographically:

> "Well, I think we're all affected in different ways. I mean, I know water quantity, for example, is a serious problem to some people, but it doesn't affect us at all. We're on a well, we don't draw any water from the river either for domestic or farming purposes. So that may well be a serious problem, I can only tell by what I've heard at meetings--the opinions expressed by people who live closer to the river than we do. I guess we're more affected by what happens up from the river, like the logging, and particularly logging on private property affects us more than logging on crown land." [33].[2]

Box 6.2 Most Important Problems or Issues Identified by Interview Participants.

1. Water flow / quantity [1, 6, 11, 21, 29, 31]
2. Land-use or development planning [5, 18, 25, 26, 28, 33]
3. Convincing / educating stakeholders / residents [14, 16]
4. Water quality [6, 29]
5. Lack of community [4, 22]
6. Native land claims [20, 29]
7. All problems are related; can't pick a "most important" [3, 12]
8. Clearing of riparian zone [2]
9. Greed [25]
10. Erosion [34]
11. Lack of jobs [5]
12. Farming viability [8]
13. Lack of legislative tools like groundwater legislation [19]

Some participants had specific comments about the problem categories. Two residents, both from the farming community stated that "cattle in the river" was not a problem anymore due to fencing [12, 20]. A couple of rural residents [24, 34] also seemed confused over the inclusion of social problems

[2]This participant had obviously not 'picked up on' the relationship between ground water and surface water that has been explained in several community meetings.

on the list: "Well, I don't know how this 'lack of jobs' has anything to do with it. I don't know about racism" [34]. Yet, others from the rural community did see the inclusion of social issues as important:

> "It's interesting that, you know, considering that the way the Roundtable wants to direct itself, you know, from a sort of a--well, they're concerned about environmental issues, equally as important are social, economic concerns. It's interesting that...the weight of these answers are towards water matters...But in my view, what seems to be lacking most, from a watershed wide perspective, is a sense of community and what stems from that, then, is uncontrolled development. In my view, everything falls behind that." [4]

In the interviews, there were only a few problems identified which were not explicitly covered by the categories in Table 6.1. These problems are listed below:

(1) Lack of education and awareness by the local community, and "bad attitude" or resistance to change [11, 18, 21, 28];

(2) Lack of groundwater legislation and an over-subscription of surface water licences [2, 14];

(3) Climate change [14];

(4) Geomorphological changes due to changes in the riparian zone [14]; and

(5) Beavers clearing the riparian zone [34].

The most important problems identified by interview participants are given in Box 6.2. It should be noted that there are overlaps and linkages between many of these problems. Interestingly enough, no-one mentioned fish, salmon, or lack of spawning habitat as the most important problem, despite the "return of the salmon" being an early goal of the Roundtable.

6.2.3 Survey Respondents

In the mail survey which was sent to watershed residents, survey recipients were

asked to write out the most important problem (if any) in each of three categories (social, economic and environmental). Only 56 of the 197 respondents answered this question. All the problems identified by these respondents have been listed (in the respondent's own words) in Boxes 6.3 (Social), 6.4 (Economic) and 6.5 (Environmental). Similar problems have been grouped together under common headings.

Other than noting areas of concern, in several cases, it is very difficult to draw conclusions about what exactly the survey participants perceive to be the problem. Unlike in the interviews, survey participants cannot be asked to expand on answers such as "Young Offenders Law", or "Metered water supply for users direct from river". Does the person who wrote "Young Offenders Law" think that the law is too lenient? Too strict? Is there another

Box 6.3 Most Important Social Problems Identified by Survey Respondents

Apathy and Education
- apathy
- uneducated locals
- illiteracy
- ignorance
- health

Crime and Justice
- Young Offender's Law
- young offenders and repeat offenders
- judicial system

Population Pressures
- development pressure due to increasing population
- too many people
- increasing population with urban outlook

Community Participation and Cooperation
- cooperation of farmers and others and government
- co-operation
- lack of community cohesion
- lack of community involvement

"Lifestyles"
- morals and respect
- alcohol
- greed
- isolation
- too much T.V.

problem with it? Is the other survey respondent in favour or against metering the water supply? The context is simply not available to answer these questions.

6.2.4 Comparison of "Problem" Studies

By comparing the problems identified by Christiansen and Romaine 1995 and Quadra Consulting Ltd. 1996 with the responses from my interviews and survey participants, a few observations stand out. First of all, in all studies, water quantity and quality (and associated problems like erosion) are noted as important. This is not surprising. Water quality and quantity issues--along with salmon habitat enhancement--was the earliest focus of

Box 6.4 Most Important Economic Problems Identified by Survey Respondents

Viability of Traditional Resource-based Jobs
- running out of timber
- difficult to make a living farming
- loss of forestry jobs
- market forces, low cattle prices
- global and free market economy rendering much local production non-viable

Unemployment / Under-employment
- employment of youth
- low wages / poor jobs
- we're all broke
- more unemployed and more on social assistance
- no meaningful work

Miscellaneous
- not enough fed/prov $ allocated to necessary projects
- governments want fees for owner improvements
- export of raw materials

the Roundtable, and still continues to be important. Linked to water is the problem of erosion. Erosion was an important problem in the study by Christiansen and Romaine, and although in my study, it did not receive much attention directly in the question related to problems, erosion was referred to throughout both the interviews and surveys. For example, people cited erosion problems on their land as reasons that they became involved with the Roundtable, or they discussed erosion control efforts that they had seen or wanted to try.

On the whole, there was not much emphasis on issues of ecosystem health (as discussed by Quadra Planning Consultants Ltd. 1996) in either the interviews or surveys. The overwhelming majority of comments on any biophysical element of the watershed related to strict utilitarian values: e.g., modifying the river to get the "best" use of water for agriculture and domestic use. A few survey respondents did mention the importance of restoring fish habitat, however, these references might relate more to a desire to enhance the fishery resource than to restoring ecosystem health.

Box 6.5 Most Important Environmental Problems Identified by Survey Respondents

Cattle in or near the river
- rancher's animals should not be allowed to crap in the river
- uncontrolled cattle access to river
- existing rules need enforcement; manure on snow near ditches
- too many feed-lots beside the river
- cattle sewage at river sides
- cattle in river

Fish or Fish Habitat
- restoring salmon stocks
- watershed should be restored so salmon can spawn
- lack of fishing
- lack of fish

Water Quality and Quantity
- metered water supply for users direct from river
- too much irrigation
- too much irrigation
- even out the flow of water all year round
- water volume and quality
- water quantity in summer/early fall
- need extended sewer system
- silting

Shoreline, Banks and River Channel
- development of shorelines
- Salmon River and tributaries need a buffer zone on each bank
- car bodies used for rip rapping
- changes in river channel
- river should be rocked; there is no harm in this
- beavers eating willows

General Pollution
- littering
- too much garbage
- pollution

Cooperation to Solve Problems
- unreasonable environmentalists
- not sufficient effort to connect river problems
- securing cooperation of landowners on river
- landowners are not subsidized to make improvements

Logging
- private land logging → erosion of river
- clearcut logging
- logging

There were a few problems/issues mentioned in both the interviews and surveys which were not explicitly covered by the problem categories in Christiansen and Romaine 1995, but which do relate to the "sense of community" and "rural lifestyles and livelihood" discussions in the Quadra Report. Interview participants discussed land use and development and lack of knowledge and awareness. Survey participants noted population pressures, crime, and also noted awareness and apathy as significant issues.

Some of the less popular problems in the study by Christiansen and Romaine (cited by 1-3 people) were either not mentioned in my interviews or surveys (e.g., racism) or mentioned by only one participant (e.g., greed). Native land claims seemed to have been much more important to the participants in Christiansen and Romaine's study (mentioned by 20/52) than in my interviews (mentioned by 2/25), or in my surveys (none of the survey participants cited native land claims as a problem. Despite this, my impression--at least from the surveys as a whole--is that there is definitely some fear and misunderstanding on native issues. Consider the following survey responses:

> "[*Under what circumstances would you attend a meeting?*] When Canada starts treating Indians the same as us. [*What issues would you like to discuss?*] Fair treatment for whites. Why are we fixing our rivers and letting the Indians net all they want every year?" [a047]

> "The Roundtable is run specifically by people who live either at the coast, in cities, or natives with one object[ive] which is to harass all Salmon Valley property owners who pay taxes and to fulfil the environmental movement's Walt Disney <u>DREAM</u> [emphasis by respondent] at the expense of the tax paying land owners. It would be nice if Dorothy Argent and her henchmen and natives had something better to do, which includes all of you bureaucrats and natives who are sucking the tax paying public DRY [emphasis by respondent]...Do you need this info to see if you can steal my property and give it to the Natives?" [a062]

> "Salmon enhancement? Another tax grab for native fishing (poaching)." [b131]

A significant issue which surfaced in the survey responses as a whole is the potential for conflict, both in relation to native land claims, and environmental issues (discussed in more detail in Chapter 7).

6.3 UNDERLYING PHILOSOPHY OF THE ROUNDTABLE

The participants were asked if the Roundtable was promoting any particular "philosophy" or "agenda" or giving any special attention to particular issues in the meetings, and, if so, what was the Roundtable's philosophy? Only one person said "no" when asked if the Roundtable was promoting a specific philosophy; 13 said "yes" and 11 didn't give a yes/no response. Regardless of what initial response was given, most participants had something to say on the subject, and their comments had no qualitatively observable relationships to their initial answer. There were seven main motives or philosophies attributed to the Roundtable, given in Box 6.6.

Box 6.6 The Roundtable's Underlying Philosophy or Approach as Identified by Interview Participants.

1	Community involvement in decision-making, local control, or bottom-up decision- making [2, 3, 5, 16, 18, 19, 26, 28]
2.	Using "consensus" [22, 25, 33]
3.	Promoting collective visioning [14, 28, 19]
4.	Ecosystem approach or holistic approach [1, 4, 6, 16, 29]
5.	Water quality and quantity as the important issues [8, 20, 21, 31]
6.	Promoting environmental work (restoration, or improving environmental conditions) [11, 12, 34]
7.	Educating the public [18]

Some participants thought that, although the Roundtable was not actively promoting any particular philosophy, some themes were emerging:

> "Well, I don't know if the Roundtable is promoting a particular philosophy. I certainly think that out of all of this, you know, the natural direction--if there's a philosophy that arrives out of this--is sort of a holistic perspective of how we can live harmoniously with all the elements around us." [4]

> "I don't think they're blatant about promoting some kind of philosophy, but there's certainly people at the table that have some strong sentiments about what they think good government means. And the idea of the grassroots concept has got all the answers, or let's say is a better process--maybe not has all the answers--but is a better process than what we have currently." [19]

> "Sometimes I feel that there is, but then I'm not sure if it's the Roundtable, or if it's members of the Roundtable. Sometimes it seems like I'm hearing the watershed has been terribly managed and, you know, they want to plant trees along side the banks, and uhm, you know, just sort of the whole environmental thing that is going on this decade. This decade of the 90s is an environmental decade as they say...an environmental approach to handling the watershed." [6]

Most participants gave their comments about the Roundtable's philosophy in general terms such as "public decision-making within reasonable parameters" [2], "getting all input and not offending anyone" [33], "collectively working on a vision" [29], or "They're environmentally concerned and water concerned" [31]. Some made their comments in a very approving manner, while others seemed somewhat more critical or suspicious of the motives. For example, with respect to the promotion of community involvement and the use of consensus, positive descriptions of the watershed's philosophy like,

> "I think it's that we as citizens can make an impact! That we don't have to sit and wait, you know, for our MLA or whatever to go out and do something like that. That we can do it as a group if we get together." [5]

were balanced by comments like,

> "For me, it's not just this process, it's the whole area of consensus management has--from my point of view--been co-opted by people with major agendas and that's why I have basically stopped being involved...So, that the agenda, the current one is made all that much more serious by the funding base and expectations that result from achievements that's 'reportable', that achieves the objectives that were chosen in the first place. And that's part of my despair about the whole thing...It's a very structured, very controlling process." [22], or

> "Consensus *ad nauseam*...I suppose people of our age group [50-something] and our education are really not used to that--to this sort of consensus nonsense. It wastes an awful lot of time. And trying not to offend anybody--that's practically impossible." [25].

One resident from Mt. Ida told me,

> "I think there's a lot of cultural philosophy being verbalized, but I guess if it keeps them interested--as long as they don't get too side-tracked from the hydrology and the water, of course that's my biased point of view...[*What do you mean by 'cultural philosophy'?*] Well, they start with 'How do you feel?', you know, this sort of thing. You know, I almost think we're back in the 60s! Flower children or something!" [14]

I checked for any "qualitative correlations" between the answers of participants and their status with respect to special roles on the Roundtable. (Eleven interview participants had a special role on the Roundtable. These special roles included membership on any of the Roundtable's committees, the role of committee chairs, or employment by the Roundtable.) Those people with a special role emphasized community involvement in decision making [1, 2, 3, 16, 19, 26, 28], collective visioning [28, 29], an ecosystem or holistic approach [4, 16, 29], and education and awareness [18] in their answers. While a couple participants without special roles mentioned community involvement [5], and an holistic approach [6], those without special roles emphasized the use of consensus [22, 25, 33], the issues of water quality and quantity [8, 20, 21, 31], and the promotion of environmental work [11, 12, 34] when describing the Roundtable's philosophy.

6.4 ROLES OF DIFFERENT PARTICIPANTS

In this section of the interviews, I wanted to find out how the participants perceived the roles of three main groupings of participants in the effort to develop a watershed vision and ecosystem objectives: the Roundtable, government agencies, and general citizens of the watershed. The responses for all participants were reviewed, and a table was prepared summarizing the main roles (as described by interview participants) of each group, (see Table 6.2). The roles of each group are discussed in a little more detail in the sections below.

6.4.1 The Salmon River Watershed Roundtable

There were four main roles of the Roundtable, each identified by at least five different participants. The one identified by 9/25 people interviewed was that of "facilitator and/or leader". The context of these comments implied that people view the Roundtable as an entity that can--to varying degrees--provide guidance, and organization, to the process as well as to collate disparate views:

> "To gather information and facilitate and condense the information and coming up with proposals that the watershed members and meeting attenders wish." [6]
>
> "Well, they're trying to get everyone's thoughts kind of organized in the same direction...unless they can get everyone working together--well, that's what they're trying to do, get everyone working together." [20]
>
> "To keep it happening...to present an alternative to the old way of 'directives' from Fisheries saying 'you can't do this' and 'you can't do this'. To give an alternative way of managing and to get all the interests in their fair view of monitoring and so on, like economic, social, and ecological...so there's a balance there." [26]

Although a facilitator is often thought of as a neutral party in a multi-stakeholder venture, only one participant, a government employee, made any reference to neutrality in his/her comments about the Roundtable's role:

"It's sort of a role that a government agency can't fulfil. It has to be conducted by a neutral body, led by community members. Recognising, of course, that this isn't a government agency or-and it can't pretend to represent everybody because it's not, there's no democratic selection of the members. But it's not a bad compromise." [18].

One community member did remark in reference to the Falkland Workshop,

"What I sense is there arose such a potential for conflict around the table, and generally people are afraid of that, the idea was accepted to have outside facilitators to kind of ease the process" [22].

Table 6.2 Roles of the SRWR, Government Agencies and Watershed Residents in the Process to Develop a Watershed Vision and Ecosystem Objectives

The Salmon River Watershed Roundtable	Government Agencies	Watershed Residents
■ facilitator / leader [3, 4, 6, 8, 14, 20, 21, 22, 26] ■ generate ideas/ problem solve within the community [1, 4, 6, 11, 18, 25, 26] ■ provide a forum for sharing views and information [2, 11, 16, 18, 29] ■ "go-between" between government and citizens [1, 5, 12, 16, 28] ■ information source [3, 29, 33, 34] ■ keep the process interesting (people will stop going if it isn't interesting) [33] ■ seek government resources [24] ■ educate people [27] ■ solicit community participation [19]	■ provide funding [1, 2, 3, 4, 5, 14, 16, 21, 25, 27, 28, 34] ■ provide scientific or technical expertise [2, 3, 5, 8, 14, 16, 18, 21, 28] ■ recognize the plans of the Roundtable / listen to citizens [1, 3, 4, 11, 12, 19] ■ share information and mandates [6, 25, 28] ■ integration / co-operation with other agencies [25, 26, 33] ■ explain policy / provide education [2, 19, 28] ■ use the Roundtable for political leverage (for funding) from higher government levels [16] ■ provide direction so that the Roundtable doesn't go off on a "red-herring" [18]	■ give their opinions, knowledge, experience and needs [1, 2, 3, 4, 6, 8, 29] ■ be good stewards / live sustainably /be responsible for actions [12, 21, 27, 28, 34] ■ take responsibility for educating themselves [2, 14, 18, 28] ■ just get involved in the Roundtable [5, 11, 26, 31] ■ do "hands-on" work [2, 28, 33, 34] ■ develop a sense of community [2, 22]

Another main role of the Roundtable identified in the interviews was to generate ideas or to be some sort of alternative problem solving body. One Mt. Ida resident expected the Roundtable to "initiate ideas to deal with concerns [of landowners]" [11]. One of the government representatives thought the Roundtable was "trying to provide direction to answer questions" [18].

Many people considered the Roundtable to be a general forum for discussion among residents with differing views, or among government agencies:

> "To provide a forum to allow open discussion and for viewpoints to be 'put into the pot'." [29]
>
> "The Roundtable is a forum where all stakeholders, including government, can come together and discuss common problems and work out solutions." [2]
>
> "I would guess that most of it's [the Roundtable's] energy is taken up in talking to government agencies...I think that it is really important that the government employees talk to one another and I think it's really important that the Roundtable provide them a place where they can do that." [16]

There were also those people who thought that one of the main roles of the Roundtable was to provide linkages between the general "citizenry" of the watershed and the government agencies, or a "liaison between government and public" [5]:

> "The Roundtable, as shared before, I think is the meeting ground. It's the place where the top and the bottom meet I guess. And it's, it provides the community the opportunity then to direct their own affairs...What I've experienced with the Roundtable is that agencies meet their agendas better by doing it this way and having the residents set their priorities and looking at that." [28]

6.4.2 Government Agencies

There were three main roles attributed to government agencies. By far the most popular was the role of providing funding for Roundtable and restoration activities

(mentioned by 12/25 participants). Another highly popular role for government was to provide scientific or technical expertise (9/25 participants). People were very clear in their identification of these two roles, usually stating simply, "to provide funding", "to provide special expertise", or "provide scientific knowledge". The third main role was the need for government to recognize and respect plans generated by the Roundtable. It seemed that these comments reflected the participant's view of the ideal role of government, not necessarily the actual current role:

> "The government should not be in a, well sometimes an upper class role...The government should more listen to landowners and what they have to say because they [landowners] really see the environment and what changes in their environment." [3]

> "I hope that government would continue to encourage this process of citizen involvement in their own landscape...Government isn't immune to being little empire builders, eh! And I think some government agencies have a history of being fairly arrogant. I think the Ministry of Forests was for a long time the power agency, and they're used to saying what goes on in a lot of watersheds, you know. And now, the Ministry of Environment is a very popular ministry now... And I just hope that these ministries keep recognising the Roundtable as a valid tool...When a resource plan actually gets built, is it going to be recognised? I think that's still a question. And, if it isn't recognised by the Ministry of Forests, if they're just thinking this is a community lark, well, that will be a failure." [11]

Many interview participants also made references to different types of "sharing" that should be (is being) done by government agencies within this process: sharing information with stakeholders and other agencies, explaining their mandates or explaining policy, and also cooperating with other agencies. There were also a few residents who vented frustrations or even hostility about governments or the governance system when making their comments:

> "Well, I was gonna say that I wish the government would just fund it and trust them to do it as if it weren't. I feel like the expectation of a solution and the time pressures actually get in the way of finding a solution. But the trouble with the government is that they always have to have a plan ready and a budget, so, and they don't, they can't

take risks and just fund something with the expectation that it may or may not work. [27]

"There's too much government I think. They don't listen, that's the problem. That's the only darn part. It's that you can talk to those guys in town there, and they don't listen to you, or they listen to ya and they don't do nothin' about it. Might just as well talk to the walls!...They've got a role but they won't do it." [31]

"They should be letting go of some of the control that they've harboured over the years, and they should be acting more to support initiatives started by stakeholder groups. And that support should come in terms of financial backing, absolutely, from the tax base that everyone's paying into, and technical support. Those are the two things we need from government. That's probably all we need. And if they were to play that role, they would find that they could downsize and be really effective as sort of umbrella management agencies. They need not keep everything in house to be effective." [1]

6.4.3 Watershed Residents

Most interview participants, especially the watershed residents themselves, were more hesitant in describing the role of watershed residents. There were longer pauses as people thought about the role, and more phrases like "I guess just get involved". People needed encouragement to give more specific answers. (For example, I would ask them to tell me how they thought people could "get involved".) The most cited answer was for residents to provide their opinions, knowledge and experiences to the process (7/25 people interviewed), though many people also noted the need for residents to take responsibility for good watershed stewardship actions. Interestingly, two of the three government representatives considered the role of watershed residents to be more of a voluntary role than did the residents who were already involved. Government employees said,

"I mean, that's a tough one. Just simply to do as they choose, but I think everyone should at least make an effort to find out what the program is. And then, they can make an educated decision as to whether they want to participate." [18] and

> "That's totally voluntary. If they don't think it's worthwhile, then they don't have a role and you can't force them to have a role. [*And suppose they are volunteering...*] That's a tough one, I mean, that's up to them to decide what their role will be--how extensive. That's almost a question you have to ask to them individually. I can't sit here and say 'here's their role'." [19]

From the residents themselves came comments like,

> "Oh, well, that's the big role! To get involved in the Roundtable as saying that's the big opportunity to have input into the directions of the watershed that you live in." [11]

> "Their role would be to find out what it's about and participate from their own particular perspective, I mean, not guessing what the neighbour's needs are down river or some other industry's needs, just express what their own experiences and needs are. [4]

> "I think everybody should have an interest in it. It affects everybody." [31]

6.5 PARTICIPATION

6.5.1 "Right" People?

The interview participants were asked if they thought the right people were involved in the process. Most people 13/25 did not answer with a yes/no. The general sense from the responses was that the people who were present were "the right people":

> "Everyone who's doing it out of the goodness of their hearts--they're certainly the right people." [26]

> "The right people come forward that are the ones who are interested." [28]

However, there were also critical groups of people missing. Participants said that the following groups should be there (who were not, or who were not there often enough): Ministry of Forests [16, 14], Ministry of Agriculture [2, 18], Ministry of Health [2], the Columbia Shuswap Regional District [4], Community Associations [8], Native groups [26,

29] and "'sawmills and big companies" [31]. Some participants noted that the right people may come to meetings, but their participation is not consistent, so there are never all the groups represented at the same time:

> "Well, there's some of them come one time and not another. I'm not sure. Maybe some of them don't realize the importance of it." [20]

> "At one time or another, yes, they have been there...those are the right people, but they're not always there at the right times." [19]

Some people speculated as to why certain groups weren't attending meetings consistently. A Roundtable staff member said, with respect to First Nations:

> "They're not certain of their role and what the Roundtable is doing. They didn't want it to interfere with their land claims. Maybe they weren't clear of the final goal of the project." [29]

In some cases, participants noted low attendance at community meetings. Specifically, interview participants thought that general residents, landowners and farmers were not attending meetings in great enough numbers [2, 3, 8, 21, 26, 27, 29]:

> "I don't know about any right or wrong groups. I think it would be wonderful if there was more people--more people interested and involved." [27].

Again, participants tried to hypothesize reasons for low turnouts. One resident from the Westwold area noted that,

> "In one sense, I don't think the communities have been as cooperative as they should be, but everyone is very busy with their work, their farming and logging and so on. And again, if they feel they haven't got a problem why bother going to a meeting? You know? And I think that there are some around who--I don't wanna say--mistrust. They sort of think 'Oh, this is another government thing and they've got the agenda already laid out and it's just gonna go down our throats and we want it--you know. I don't know how you over-come something like that. Again, it's the apathy of people." [8].

Another from the Mt. Ida area remarked,

"Some of the people just have a negative attitude about the whole thing. They're distrustful. They don't buy into the process until something's done.. I think there's just a general malaise that you find in the Canadian population over just about anything that's important." [2].

A couple of interview participants made reference to the *quality* of participants in the process. One government representative made some rather disparaging remarks about the quality of representatives from other agencies:

"Water management has a lousy representative. They need a stronger representative...Ministry of Agriculture, Fisheries and Food, I mean, it was really disappointing that there was very rarely anyone from their agency and, if you wanna put it on a industry basis, they probably have the greatest single impact on the watershed in terms of what I'm concerned about which is stream health, water quality/quantity, and fish. And the guy that did show up on occasion was a dinosaur." [*]

One local resident noted,

"When I go to the community meetings, the community, the people who live in the valley are in the minority--in every meeting. And generally, they're not the 'power brokers'. These rich and influential people who live here...are not going to the meetings, but they're negative about the meetings when it comes up. So I'm sure that the farming community talks about what's happening...They almost certainly look at the cars in the parking lot. If there are certain brand new diesel pick-up trucks with 400 horse power motors there, then they say 'Ah, I know who's at this meeting, I'll go here', you know, 'But, there's no point in going if he's not, 'cause he's upstream of me', you know." [16].

Some people just said: "I don't know. It's hard to know who's right" [24], or "It's hard to know who's out there" [4].

6. 5.2 Equal Opportunity?

The one question in the interview which received a nearly unanimous (24/25) response was "Does everyone who shows up for a meeting have an equal opportunity to

express their views at that meeting?". All but one person said yes, and they were generally emphatic about their response:

> "Very good this way!" [11]
>
> " As good as any public meeting, perhaps better due to the structure." [2]
>
> "Anybody can have their say--no problem with that!" [24]
>
> "All meetings are run very respectfully and warmly." [4]
>
> "That's one of the things I like about it!" [5]
>
> "Definitely, there's no problem there!" [20]
>
> "I love this about the ICA process." [28]

Some people referred to the methods used in meetings as being especially good for encouraging participation from everyone, even the shy people [2, 16, 18, 21, 26, 28]. A typical comment was, "The structure encourages participation" [18].

The one interview participant who said there was not equal opportunity to express views in meetings was actually a staff member of the Roundtable. This participant was concerned that the educational component of community meetings was too long to allow enough time for landowners to give their views on questions:

> "I think the style of the meetings is not open enough. That means that the educational part is too long. So, I'm missing questions that directly go to the landowners, 'What do you think about that?' or 'What kinds of experience do you have?'...'What do you think about solutions?'...Something like that would be a good feedback." [3]

Although most of the comments to this question were very positive, there were some words of caution as well. One resident said that,

> "I think sometimes the ideas--after they are expressed--are 'moulded' a little bit by the person who's leading the meetings...but people are allowed, encouraged even to participate" [33].

Similar sentiments had been expressed by other participants in relation to other questions:

> "The questions are very leading--the way that they have set them up...I don't know whether the results are really as true as they're hoping they would be...It was sort of almost as though you were led into how you should think." [8]

> "This particular process, because of its own agenda, got in its own way...The agenda is to come up with achievable objectives within a year, right?...It's very school like, with a pre-determined objective and time line. It's sort of forced...In my jaded view of what has happened, it has become too systematized, become an agenda. It certainly doesn't require people to express any mutual dependency." [22]

Another participant said that,

> "At any meeting, there are, in general, 'talkers' and 'less talkers', right?...I think that the government employees, as a group, are paid 'sitters and talkers' and so that , and they actually expect that their words have weight and they don't actually have a way of ranking people who come in wearing jeans and boots with dirt on them. They can't tell that farmer X is a socially important person in the community, and farmer Y who looks much the same is a less important person...Communication has two parts. Everybody can talk equally, but I don't think everyone gets listened to equally." [16]

6.5.3 Why do People Participate?

Interview Participants

Interview participants were asked both why they were participating in the process, and why they thought others were participating in the process. The responses given by participants have been compiled in Table 6.3.

In an almost amusing way, several participants--who generally attributed good intentions to themselves--seemed much more suspicious of other people's motives for participating in the process. Other than those people who said their involvement was primarily due to their employment (i.e., Roundtable staff members or government

employees), and one resident who said, "I wanted to stay on top of what they're doing and regulating" [34], participants said they were involved because they're interested, concerned, want to make the world better, like the project, or have skills to offer:

> "I'd like to leave this world a little bit--even one corner of it--a little bit better spot than what it was when I first arrived. I think, globally, if we don't act pretty decisively--and before too long--we've lost logging, in my opinion. Very deep environmental concern, I guess." [2]
>
> "It's something that I can get involved in as a volunteer, something that I think will, you know, it will help me in my farming objectives. It'll--what sense of community spirit I'll like to have--you know, I think it's an honest and legitimate and valuable thing for the community. And it's something that I think is, that I can speak proudly of to my family." [4]

Table 6.3 Reasons for Participating in the Process to Develop a Watershed Vision and Ecosystem Objectives.

Reasons Interview Participants were Involved in the Process to Develop a Watershed Vision	**Interview Participant's Conjectured Reasons for the Involvement of Others**
(1) Want to make the world a better place / it feels good to be involved in this [1, 2, 4, 12, 27, 28]	(1) Individual agendas, usually to get help with erosion problems on their own land, or fear of loosing water rights. [4, 14, 19, 21, 22, 25, 27, 28, 31, 33]
(2) It's my job. [1, 3, 18, 19, 26, 29]	(2) Same reasons as me. [11, 12, 14, 20, 24, 28]
(3) Environmental concern [2, 21, 25, 33]	(3) Environmental concern [4, 11, 18, 19, 26]
(4) General interest [4, 6, 24, 31]	(4) Curiosity or general interest [3, 4, 5, 27, 29]
(5) It's important to be involved in the community / landscape in which you live. [6, 11, 20]	(5) Sense of community [18, 28]
(6) Want to support the Roundtable / like the people. [5, 22]	(6) Suspicious about what people are "up to" [11]
(7) Have skills to offer. [14]	(7) Retired and have lots of time on their hands [26]
(8) Want to "stay on top" of what they're doing and trying to regulate. [34]	(8) Want to vent steam [2]
	(9) Various reasons [1]

Although some people said they thought others were doing it for the same reasons as themselves, or had other positive motives (e.g., environmental concern, or a sense of community), almost half of the participants (10 residents and two government representatives) attributed more selfish or suspicious motives to others:

> "The majority of people I know participate that way--through a personal agenda." [22]

> "Well, I think a couple of them, anyway, just so they're aware and on top of--and again so they're not gonna get something rammed down their throats. Trying to keep an eye on the government...I heard one woman say that long before this ever happened, you know, a year or more ago, when she said that they had suddenly discovered--and this was not in agriculture, it was in another field--and it was to late to have any say in it. From now on, we've got to attend every meeting there is going in order to know what's happening so we don't get anymore of these rude surprises. It's too bad that it has to be that way." [8]

Survey Participants

Forty-five of the 197 survey respondents said that they had attended at least one of the 1995 community meetings. These respondents noted six main reasons for participating in this process (see Figure 6.1):

(1) *Interested* - Respondents were concerned, interested, or thought it was important.

(2) *For information* - Respondents wanted to acquire expertise or information.

(3) *Curiosity* - Respondents were simply "curious".

(4) *To restore river* - Respondents wanted to restore the river.

(5) *To participate* - Respondents simply "wanted to participate".

(6) *Live by river* - Respondents noted that they live by the river and so thought they should go to a meeting.

There were a few responses that did not fit any of these categories, so they have been grouped under the category called "other". The "other" reasons for participating in a meeting included: to receive a prize, because they were asked to attend since they had work done on their property, to take part in the water conference (June 1994), and because of a rumour that irrigation rights were threatened by the Roundtable.

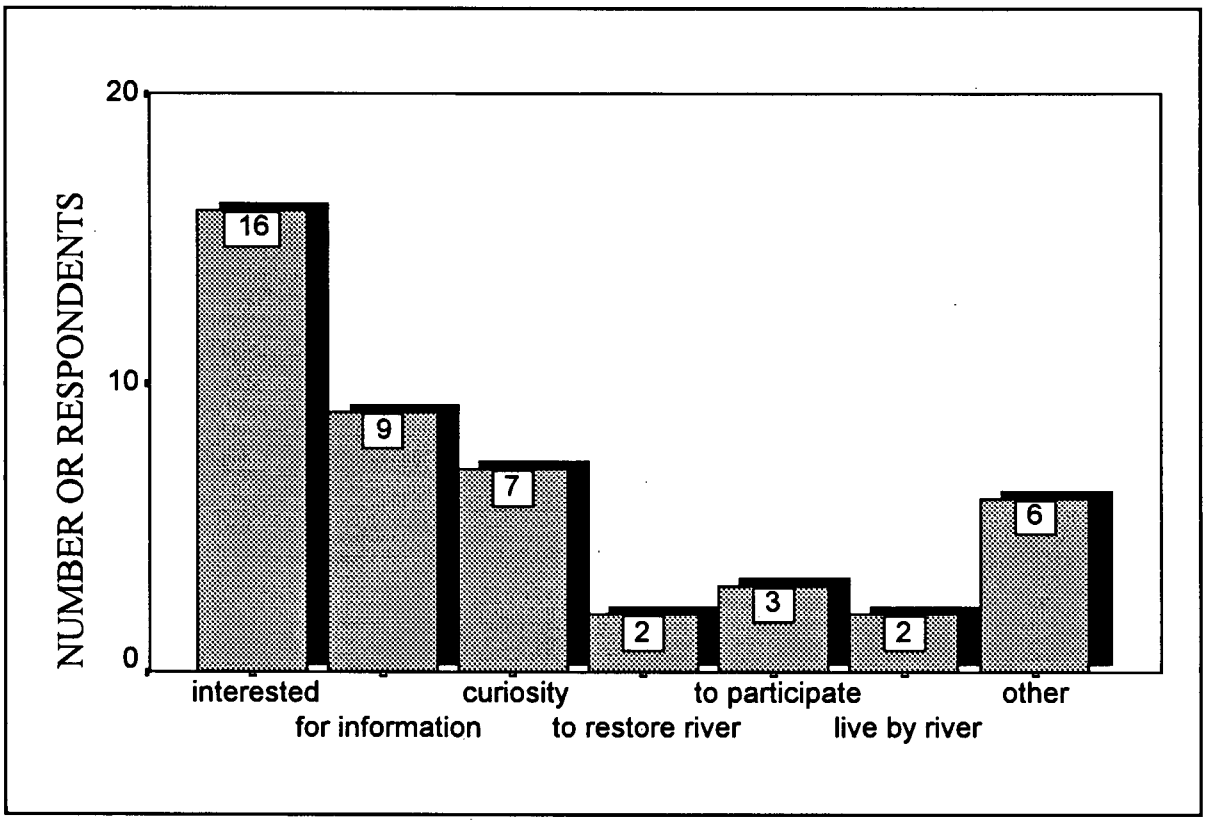


Figure 6.1. Reasons Survey Respondents Attended Community Meetings (n=45)

Those survey respondents who did not attend any of the community meetings were asked why they had not attended. These results are shown in Figure 6.2. Five distinct reasons were given:

(1) *Didn't know* - The respondents said they did not know about the meetings, or were not sure what they were about.

(2) *Too busy* - The respondents said they were too busy, had other committments, or were out of town during the meetings.

(3) *Personal reasons* - The respondents cited personal reasons such as disabilities, lack of child care, or no transportation to the meetings.

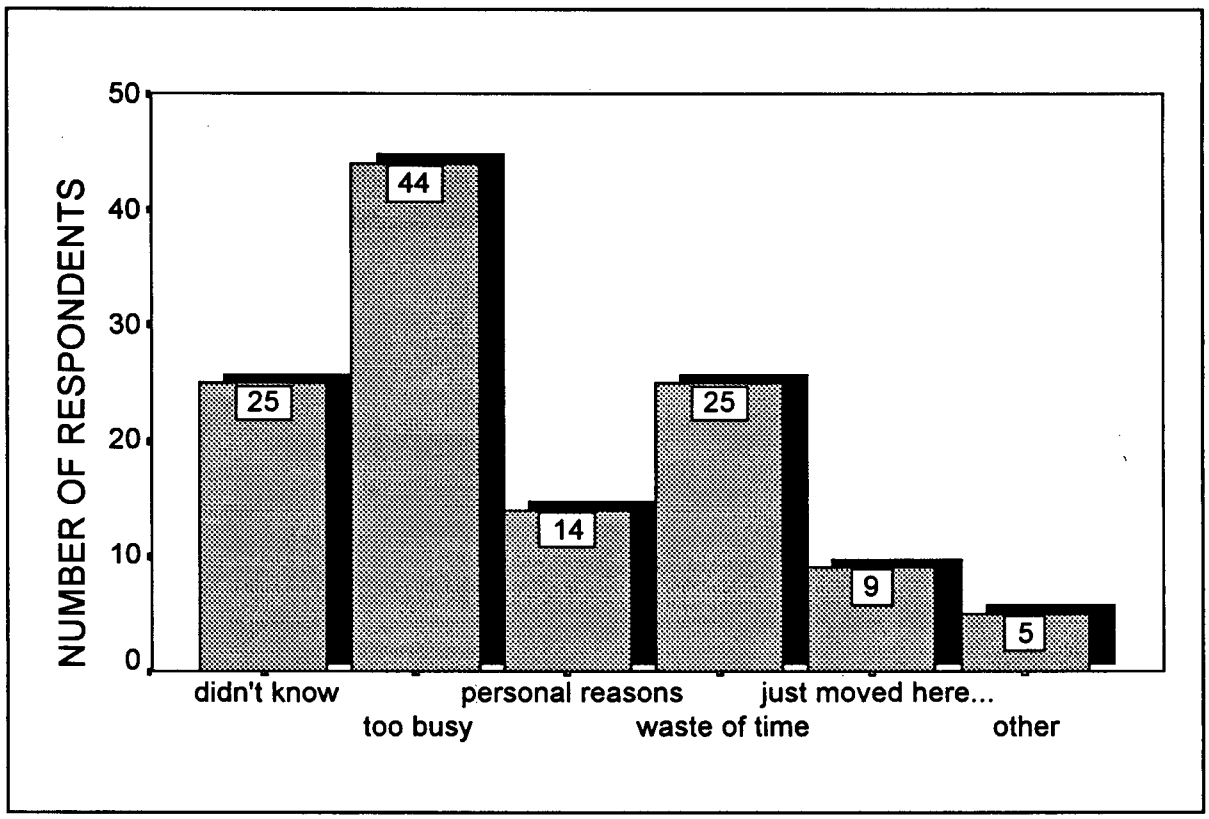


Figure 6.2. Reasons Survey Respondents Did Not Participate in Community Meetings (n=122).

(4) *Waste of time* - The respondents thought the meetings were a waste of time, said they were not interested, did not think it concerned them, or questioned the motives of the meeting organizers.

(5) *Just moved here...* - The respondents said they had just recently moved to the

watershed and either had not been living there when the meetings were held, or had not "settled in" yet.

(6) *Other* - Other responses included feeling disappointed with a previous Roundtable meeting (was told they would discuss funding for landowner improvements to land, but this was not the case), interest in other watersheds (not the Salmon River), peer pressure not to attend, no reason, meetings not held in respondent's area of the watershed, and uncomfortable with meeting format (speaking in public).

These respondents were further asked to describe the conditions under which they would attend a meeting. Some of these responses related directly to the reasons for not attending, and some were more variable (See Figure 6.3):

(1) *If more information* - Respondents need more information about the project or meetings before deciding to attend.

(2) *If could contribute* - Respondents said they would attend if they thought they could contribute, it would not be a waste of time, they would be listened to, or if they were really interested.

(3) *If not busy* - Respondent would attend if they were not busy, or if the meetings were scheduled at a different time.

(4) *Childcare/transport.* - Respondents would attend if they had childcare or transportation.

(5) *If want information* - Respondents would attend if they needed information.

(6) *If friends went* - Respondents would accompany their friends to meetings.

(7) *No circumstances* - Respondents would not attend meetings under any circumstance.

(8) *If against proposal* - Respondents would attend if they were against a proposal, policy or study of the Roundtable and wanted to voice their dissent.

(9) *Don't know* - Respondents did not know what would make them attend.

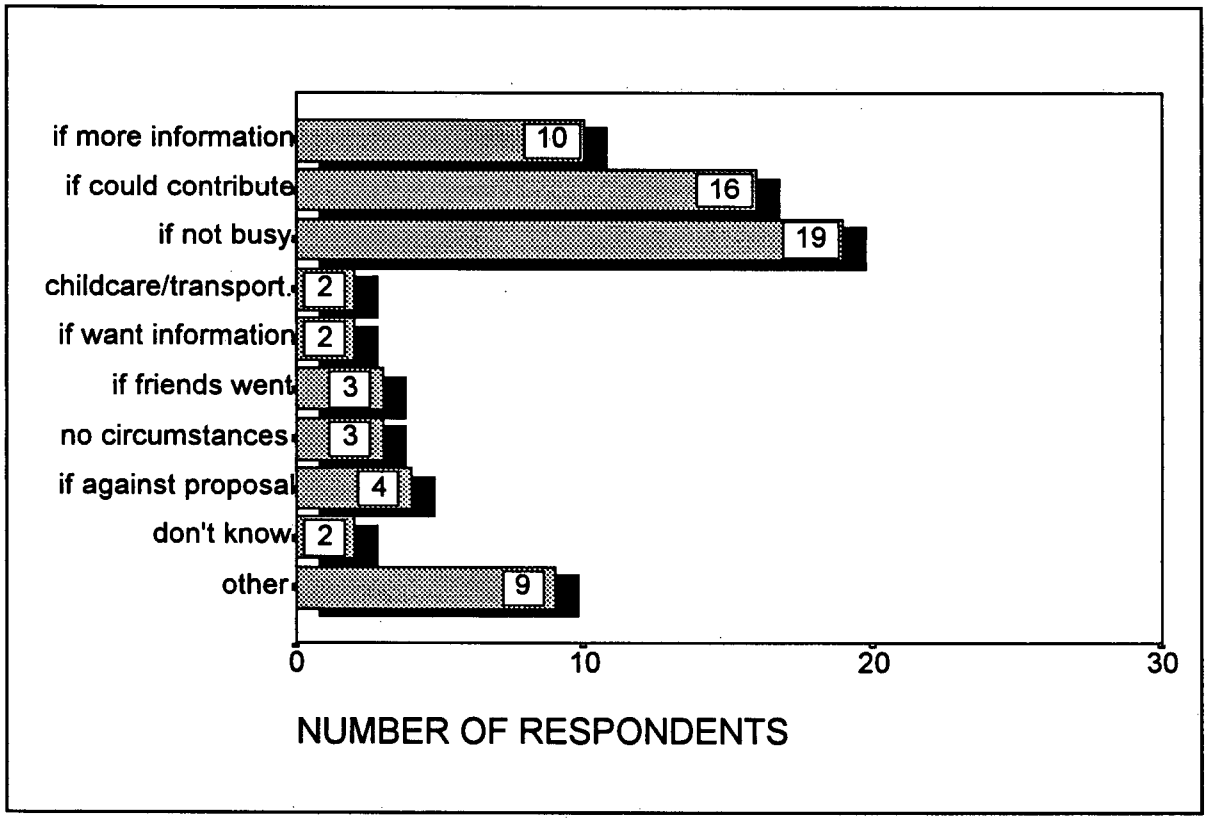


Figure 6.3. Conditions Under Which Survey Respondents (who have never attended a Roundtable meeting) Would Consider Attending a Meeting. (n=70)

(10) *Other* - Other responses included "When Canada starts treating Indians the same as us," [a047], when people in power positions or other people in general act responsibly, if their decisions are required, in an emergency, if other streams were involved, if it was a summary meeting to tell people what

was expected of them, or "If anyone involved had a hint of watershed expertise" [b112].

6.6 EDUCATION AND PREPARATION

There were two objectives in this part of the interview. One was to find out what sorts of information (e.g., ecological data about the watershed, or information about how government agencies work) or training (e.g., facilitation skills) people felt was necessary for them *personally* to have in order for them to participate to the best of their ability in the process to develop a watershed vision. The second was to find out what sort of knowledge or skills they could contribute to the process.

6.6.1 Feeling Well Prepared?

Before exploring these two objectives, participants were asked whether or not they felt adequately prepared--in terms of educational material provided to them, or their training--to participate in the process. About half of the participants (12/25) said "yes, they felt well prepared". Many commented specifically that the information provided to them by the Roundtable was very useful [3, 4, 5, 14, 20, 24, 27]. One even commented, "I don't think they [the Roundtable] could do much better" [31]. Another said,

> "I don't know what other information there'd be. We're getting everything that they got, I guess. They're always sending stuff out." [24]

A couple of people noted that although they were getting lots of information on paper, they were having difficulty finding time to read it all [14, 27].

Seven of the interview participants said they didn't feel well prepared to participate. A couple of these participants made comments directly counter to the ones above:

> "It's [information] normally not distributed as easily. You have to ask or go looking for it. And that means, basically, you have to have a pretty good interest in particular subjects to know what you're looking for." [25]

One resident said that she would like more concrete things rather than "umbrella" type of things [6]. A couple of participants, both of whom have scientific backgrounds, felt that they were not well prepared on account of there being too much information missing (data gaps) or the task being over-whelming:

> "No way! We're all walking around in a dark room, feeling our way along the walls. And sometimes we're in different rooms and we don't even know it! There's such a diversity of information available and so many information gaps, some of which we can't even explain--can't even articulate what that gap is! There's lots of, I guess you could call it, 'misunderstanding' in terms of lacking technical information, or differences of opinion, all those kinds of things." [1]

One government employee felt strongly that no one could be adequately prepared if they were basing their knowledge on the report prepared by Quadra Planning Consultants Ltd. (Note that this person was commenting on the first draft of the Quadra document):

> "If we're focusing on the summer meetings and into the fall here, the answer is NO! And the reason is these meetings have been premised on the Quadra Report. And I believe that the Quadra Report is deeply flawed...There are technical elements that are down right wrong. Some of it was overlooked...And the public document is totally unsatisfactory." [@]

6.6.2 Information and Training Desired by Interview Participants

There were three main categories of information and training desired by interview participants: (1) a menagerie of general / lay information; (2) scientific / technical information; and (3) skills training. A description of specific information and training requested by participants is given in Box 6.7.

In addition to the list in Box 6.7, five participants commented that the best preparation for participating in a process like this is life experience [2, 4, 14, 29, 33]:

> "I don't think formal education of, really in the normal sense of the word, is necessary. I think one of the things that does help with perspective is people who've lived a few decades and have a bit of life experience to kind of put things in perspective...come in with what you know." [2]

Box 6.7 Information and Training Desired by Interview Participants

General / Lay Information
- watershed history [19, 25], including its human history [6]
- map of the watershed [21]
- explanations of terminology [8]
- more information on Natives [19]
- information about how the Ministry of Forests operates [1]
- explanations of general issues [5]

Scientific Information
- water use and water budget [1, 18, 19, 28]
- more information about groundwater [2, 26]
- geology [25]
- water quality/pollution [31]
- mineral reserves (uranium and gravel pits) [26]
- effects of clear-cutting [2]
- fisheries and wildlife [19]

Skills Training
- facilitation [2, 28]
- conflict resolution [18]
- fund-raising [28]
- public participation methods [1]

> "I guess simply the most valuable thing would be experience, having been here a long time, regardless of how much scientific information you have...the discussion that ensues helps you develop good ideas out of your experience." [4]

A couple of participants suggested that they would like to see more information given in alternative (to paper) formats, like videos, slides, and watershed tours [22, 27].

6.6.3 Things Participants Can Contribute

Box 6.8 lists the things interview participants said they could contribute to the process. Some participants were clearly not limiting their comments to the process to develop a watershed vision; they offered contributions towards restoration or field work

Box 6.8 Things Interview Participants Can Contribute to the Process

Planning and Roundtable Organization

(1) Opinions and observations [2, 3, 5, 11, 22, 25, 29, 33]
(2) Scientific knowledge or the ability to interpret scientific knowledge [1, 2, 18, 19]
(3) Organizational or fund raising skills [3, 28]
(4) Ability to explain how government departments operate [1, 14]
(5) Publicity / write articles [26]
(6) Talking to others in community [16]

Restoration Work or Field Activities

(1) Energy for volunteer work projects [3, 12, 16, 25, 33]
(2) Work on Roundtable committees [4]
(3) Suggestions for dam sites [31]
(4) Keeping garbage out of river [8]
(5) Truck [12]

undertaken by the Roundtable (see Box 6.10) [3, 8, 12, 16, 25, 31, 33]. Some of these same participants, as well as others, noted things they could contribute to the planning process , or the general operation of the Roundtable (see Box 6.2) [1, 2, 3, 4, 5, 11, 14, 18, 19, 22, 25, 26, 28, 29, 33]. There was a third grouping of participants who either did not know what they could contribute, or thought they could contribute nothing to the process [6, 20, 21, 24, 27, 34]:

> "Well, not too much because a lot of those people that come to the meetings are very well educated." [20]

6.7 DISCUSSION AND CONCLUSIONS

Through the evaluation of problem setting and direction setting, several strengths and weaknesses of the collaboration to develop ecosystem objectives and a watershed vision have been identified, and a number of issues for further consideration have been raised. These strengths, weaknesses and issues are discussed below.

6.7.1 Strengths and Weaknesses of the Case Study

Conclusions drawn about some of the strengths and weaknesses of the Salmon River Watershed Case Study are presented in Table 6.4[3]. Interestingly enough, in many instances, the strengths and weaknesses identified were related to the same activity.

Table 6.4 Some Strengths and Weaknesses of the Case Study

Issue / Activity	Strength Identified	Weakness Identified
Work atmosphere / approach	- positive, cooperative, friendly atmosphere in meetings - unique opportunity for residents and government to mix and work together	
Clarity of roles of different participants	- The role of the Roundtable was clearly recognizable to people (facilitator, organizer, problem solver).	- The role of government agencies was somewhat unclear (though their idealized role was clearly identified as a funding source and technical expert). - The role of watershed residents was poorly defined.
Facilitation methods	- encouraged participation - allowed for equal opportunity for everyone in attendance to participate - produced useable results	- left some people feeling manipulated--feeling that a result was forced, or that there was too much pressure for a result to be produced
Meeting attendance		- poor in terms of number of individuals - poor in terms of age representation from the community

[3]These strengths and weaknesses were identified from the interview and survey results along with information on problem- and direction-setting provided in Appendix C.

Issue / Activity	Strength Identified	Weakness Identified
Educational materials	- appropriate in quantity and distribution	- Both interview and survey participants exhibited glaring errors in their understanding of ecological and hydrological relationships indicating that either the content of educational material, talks, etc. is not being read or not being understood.
Conflict resolution	- Small conflicts (e.g., emotionally charged inquiries) were handled well within meetings.	- Large conflicts (e.g., hostility between Douglas Lake Cattle Ranch and Upper Nicola Band) were avoided rather than risking failure.

6.7.2 Questions and Issues for Further Discussion

Several additional issues were raised during the course of the problem and direction setting evaluation:

(1) Meetings attended by government agency representatives tend to be dominated by these representatives.

There are several possible reasons for this phenomenon. As one government employee told me:

> "Sometimes when people walk in, they're not used to public speaking, talking in front of a group, they tend to shy away from it and they wanna be just passive observers rather than active participants. When that happens...some of us who are the most seasoned sages tend to speak out or knock someone's head off or something [*laugh*]." [19]

Another Roundtable member pointed out (earlier in this chapter) that government employees are "paid sitters and talkers" and consequently are better at it than watershed residents. Still

other participants said things like, they felt they did not know enough (in comparison to other participants--like agency representatives) to contribute anything to meetings. One of the participants at the Falkland workshop remarked,

> "It's an intellectual process...you're expected to know stuff. I end up feeling like I don't, so I hand over the responsibility." [27]

(2) There are strong pockets of racism, fear, and misunderstanding surrounding native issues in the watershed.

Although there were no explicit questions regarding Native issues or Native land claims in either my interviews or surveys, there were several comments made in these areas--especially on the surveys--with disturbingly racist overtones (see Section 6.3.2.4).

(3) Who was the appropriate community to involve in the process to set ecosystem objectives for this Watershed?

On paper, it would seem that the project was oriented to the whole watershed community; a collective watershed vision was to be developed. In practice, this was not the case--the rural agricultural communities were the primary target of the entire ecosystem objective and vision setting process. The rationale for the rural focus--which was told to me by the Roundtable chair at one of the early meetings--was that the rural landowners have a greater impact along the length of the river than the more urban population of Salmon Arm situated at the river's mouth. Urban dwellers were not excluded from the process, but they were not actively sought, nor was it made convenient for them to attend (the community meetings were all held in rural areas of the watershed). Some survey respondents said specifically that they did not know that the meetings concerned them, because they live in

Salmon Arm, and no meetings were held there [b098]. Several rural residents noted urban thinking and the influx of urban people to the watershed as being a problem [a016, a001]--it leads to more development and deterioration of rural lifestyles. Several of the (presumably) urban respondents on the survey noted farmers and rural landowners as causing environmental problems due to poor practices [a051, b055]. Perhaps it would have been good to have had more cross-cultural (urban and rural cultures) events to generate a better understanding of issues. The urban perspectives were not entirely missing from the meetings, most of the Roundtable staff, some general members, and government agency members provide that perspective. The concern here is that these particular community involvement meetings did not meet the needs of the Salmon Arm component of the watershed community.

(4) Was the facilitation training workshop conducted by ICA worthwhile?

Was this expense "worth it"? The stated purpose of the training was to build capacity within the watershed so that they could conduct their own facilitation, yet, only four of the 20 people who attended the facilitation training actually helped out in the community meetings (Neils Christiansen, Todd Romaine, Al Banguay, and Ian Brown); in fact, most of the meetings were facilitated solely by Neils Christiansen. Do the people who took the training benefit the Roundtable in some other way? For example, are they better able to work on their Roundtable committees?

CHAPTER SEVEN

AN EVALUATION OF "STRUCTURING" AND "OUTCOMES"

"Good may come out of the process if actions happen, if landowner's talk. I hope the salmon come back."

- Salmon River Watershed Resident, October 1995

"And low and behold: the only decision was that they had to do it all over again..."

- Salmon River Watershed Roundtable Member, October 1995

This chapter evaluates the *structuring* and *outcomes* stages of the collaboration towards ecosystem objectives and a watershed vision for the Salmon River Watershed. The opinions of process participants and watershed residents (gathered through interviews and surveys) are used to evaluate these stages in three main areas: building support, action outcomes, and perceived benefits. It should be noted that the SRWR is still in the midst of structuring and generating outcomes from the process to develop ecosystem objectives and a watershed vision. Never-the-less, there are a few factors related to these stages of collaboration which can be evaluated at this time.

As in the last chapter, interview data is used to capture the insights of those people who actively participated in the process, and survey data is used to both augment these views, and add scope by assessing views held by watershed residents.

7.1 BUILDING SUPPORT

Stakeholder support could be attributed to the process to develop ecosystem objectives and a vision for the Salmon River Watershed if the following three conditions were met:

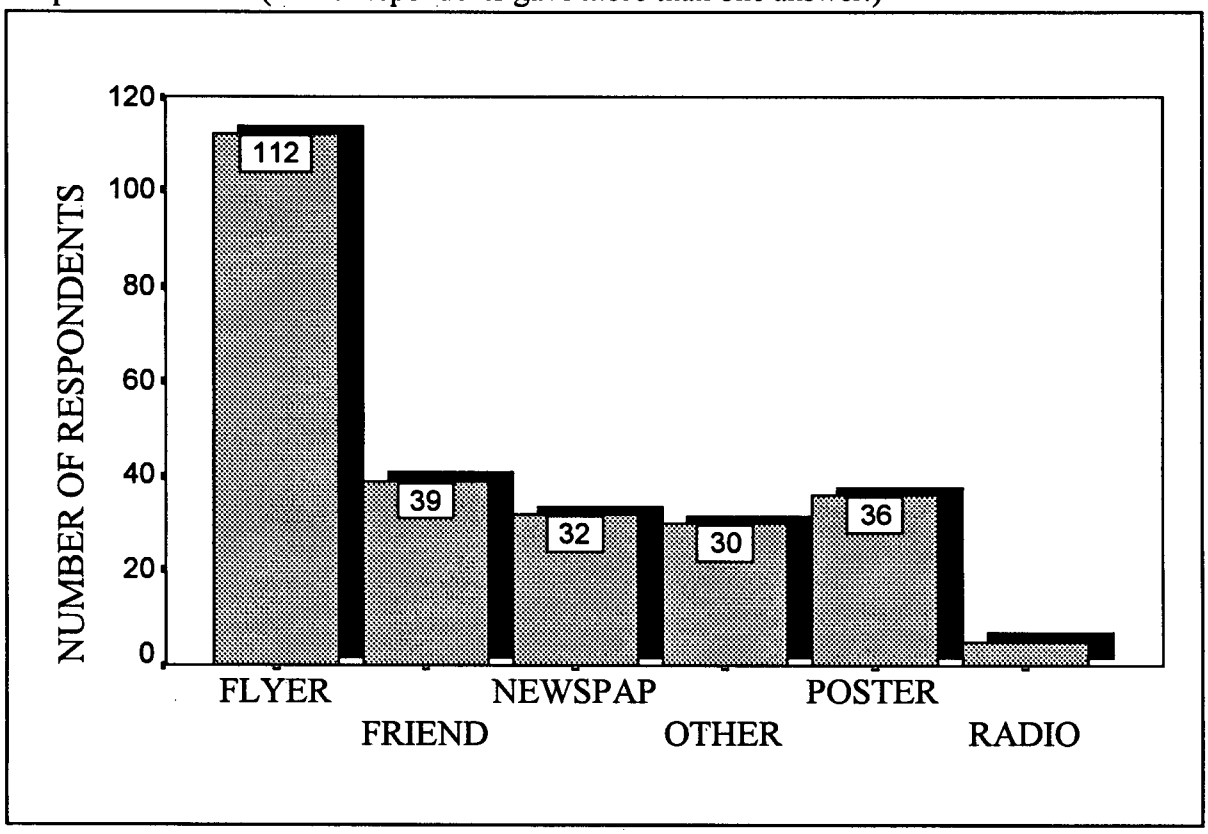
(1) Stakeholders had knowledge/awareness about the project;

(2) Stakeholders thought the project was legitimate, worthwhile, and realistic; and

(3) Stakeholders had positive expectations for the project and its ability to produce useful results.

Both survey respondents and interview participants were asked questions related to these points. Those survey respondents and interview participants who actively participated in the development of ecosystem objectives (i.e., by attending community meetings or the Falkland Workshop) were asked to comment further on things that they liked or disliked, and suggestions that they had to improve the process.

Figure 7.1. Ways in Which Survey Respondents Became Aware of the Roundtable. Total Respondents=173. (Some respondents gave more than one answer.)



7.1.1 What do stakeholders know about the Roundtable and community meetings?

A huge majority of watershed residents, 90.7 ± 4.2 % (175/193) had heard of the Roundtable. As well, 69.1 ± 6.7 % (132/191) knew that the Roundtable was holding community meetings in Mt. Ida, Silver Creek, Falkland and Westwold. A majority of the survey respondents, although they had heard about the Roundtable, had not participated in any of the meetings (76.4%, 146/191) and did not consider themselves to be part of the Roundtable (84.9%, 141/166). The fact that so many people--who were not involved with the Roundtable's work--were knowledgeable about the Roundtable (and interested enough to fill out this survey) indicates that the first condition of "support" given above (i.e., knowledge/awareness about the process) was fulfilled.

In order to suggest future strategies for garnering awareness within the watershed, survey respondents were asked how they had heard about the Roundtable. These results are shown in Figure 7.1. Respondents were asked to indicate as many of the following choices as applicable: flyer, friend, poster, or "other". (Participants who indicated "other" were asked to specify.) Of these, the flyer was by far the most effective mechanism for generating awareness about the Roundtable's activities.[1] As well, there was some success from other media such as newspapers (specified in the "other" section) and posters[2], and several people

---

[1]It is possible that this result says more about the respondents affinity for reading their mail than the effectiveness of the flyer to reach all residents (i.e., perhaps there is a high correlation between noticing a flyer in the mail and responding to a survey in the mail because the respondents represents a segment of the watershed population who pays more attention to their junk mail).

[2]I suspect that some of the respondents who indicated "poster" might have actually been referring to the flyer; one side of the flyer looks like a poster, announcing meeting times.

(39) had heard about the Roundtable through a friend. "Other" responses included:

(1) radio (5),

(2) informed by a government employee (4),

(3) school district involvement (2),

(4) personal contact from Roundtable members (5),

(5) former Roundtable events (bus tours and watershed open house) (2), and

(6) six other miscellaneous answers such as, "I watched them from my house (planting trees)" [b133].

7.1.2 Is the process legitimate? Worthwhile? Realistic?

Eighty-four percent (± 6.7 %) of watershed residents (101/120) thought meetings and workshops were a good way to develop a vision for the watershed. Some survey respondents followed-up their answers with written comments. The following are typical comments from those who said that meetings and workshops are a good way to develop a watershed vision:

> "[*Meetings and workshops*] provide opportunities for understanding between different interest groups." [a001]
>
> "[*It's*] the only way for maximum input, otherwise, solutions are imported from afar." [a018]
>
> "I don't know of a better way of getting a community to look at itself and the directions its going." [b012]
>
> "[*It*] involves the immediate residents: 'don't complain if you don't participate'." [a030]
>
> "The more input and public awareness is beneficial." [a045]

There were, of course, those respondents, 15.3% (19/120) who did not think that the

meetings were a good idea. These respondents had two main concerns:

(1) ***Financial concerns*** such as, "Waste of time and money" [b064] or "People attending these [*meetings are*] reaching for grant money or other self-interests" [b112]; "INFILTRATED with people who benefit via government grants [*emphasis by respondent*]" [b008]; and "Enough money has been spent on the 'vision'. Let's get practical" [b003].

(2) There is a ***vocal minority and a silent majority***: "Vocal minorities monopolize discussions and try to impose their views on landowners." [a046]; and "The silent majority never shows up." [b081]. Others cautioned that, "Meetings and workshops appeal only to those who are 'socially active'." [b068].

In their comments regarding whether or not meetings and workshops are a "good way" to develop a vision for the watershed, several respondents made suggestions for improving the process. These suggestions have been compiled and are presented in Box 7.1.

The survey respondents were further asked if they thought that the vision developed was realistic for their lifestyle. Of the 129 respondents, 23.3% thought the vision was realistic, 8.5% unrealistic, and 68.2% said they did not know. Of those respondents who gave a "yes" or "no" answer to this question, just over half (22/41) had actually attended a meeting. So, it is likely the other 19/41 respondents had *not* seen the actual "vision" developed for the watershed, and were just speculating on whether or not it was "realistic" based on whatever their previous knowledge of the project happened to be.

These issues were explored in more depth with the interview participants. Participants were asked whether or not they thought the process being used to develop ecosystem objectives and a watershed vision (i.e., the community meeting series, culminating in the Falkland workshop) was a legitimate way to go about this activity. Sixteen of the 25 participants said "yes", one said "no" and seven did not give yes/no answers.

Many of those who thought the process legitimate made comments about the process being inclusive and open to any interested parties, or that it was legitimate because it considered the opinions of local residents:

> "Anyone in the watershed, whether it be a landowner or an occupant, can come to a meeting, can say their piece and be listened to." [2]
>
> "We as citizens have the say. This is where we live. This is where we work, raise our kids, whatever. But, we've got the say. Someone in Salmon Arm or Victoria or something like that is not deciding. It's us." [5]

Several others just said its "the only way to go" [1, 2, 26, 28, 33].

From the people who were uncertain about the legitimacy of the process (i.e., could not give a yes/no answer) or who said the process was not legitimate, the predominant sentiment seemed to be: *The idea is good, but the appropriateness of the final results is questionable*. Two reasons for questioning the legitimacy of results were given. The first was low attendance, or inappropriate attendance, at the meetings:

> "It's doing its best to stimulate community involvement, *if* you get a reasonable number of people from the community to show up and express their views--enough views from which, you know, certain ideas can develop." [4]
>
> "It's fair as long as it's all-inclusive. And I go back to my previous comment about all groups being represented. And providing that those important things like the visionary statements are arrived at with everyone feeling comfortable at the table." [19]

Box 7.1. Suggestions from Survey Respondents for Improving the Process. (These are direct quotes from the survey.)

Issue clarification and communication

- The issue of private vs. public water rights needs to be clarified as well as grazing tenure on public lands.
- They should send out more info on what they propose to do with the river, when, and who is going to do it, and get on with it.
- More notices sooner.
- Key issues should be advertised.
- Distribute information through libraries, schools.

Using mail surveys

- Surveys are good too.
- Important environmental documents (like this) in Mail. [*emphasis by respondent*]

Using the media

- Public awareness through media would be more effective.
- Videos of problems are a great help (to illustrate).
- Use the media to explain what the watershed is. There are too many new residents (last 5 years) who probably don't have a clue.
- Findings and conclusions and summary of discussions should be published in local papers.

Miscellaneous suggestions

- I think we should be looking at what has worked in other parts of the world.
- Better to visit the farmers concerned. Also the town.
- Need a more scientific focus.

> "My gut reaction is that it can't come up with something that will be important to the farmers...I don't think it matches the social expectations of the people who live here. Like, they're all hierarchical, they're paternalistic, they're capitalists, right? So, I think that if you wanted to come up with a document, something, that they would read, then you would have to have a different process. I think that this is a process that would probably work really great for a bunch of university students or graduates." [16]

The second reason provided by interview participants was that the structure of the meetings produced a "forced" result, which is often too dilute to address the real problems:

"I think that this sort of process is really the only way, but this particular process, because of its own agenda, got in it's own way--is inhibiting that. The agenda is to come up with achievable objectives within a year right?...So again, it's very school-like with a pre-determined objective and time-line. It's sort of 'forced'." [22]

"I think there are flaws in the process too in that it has to come up with some kind of average solution and that often times, the solutions to problems aren't in the average...And there's no point in coming up with an average solution if it's the wrong solution...They write down 'cows in the river' when really it's 'Joe Smith's cows in the river--he's got a hundred cows in the river and he's got to get them out'." [16]

7.1.3 Did participants have positive expectations for the process and its products?

In order to gauge general participant satisfaction with the collaboration towards ecosystem objectives and a watershed stewardship plan, interview participants were asked to think of things they liked or thought were done well in this process, and things that they disliked or thought could be improved. These observations have been recorded in Table 7.1. (It should be noted that this is a compilation of things said by different people, so there may be some contradictions in the table.)

Overall, participants thought that the whole project, and most notably the community meetings, were well organized (in terms of preparation, set-up, and appropriate agendas) and well facilitated. As well, some people made particular reference to Neils Christiansen's ability to facilitate meetings and handle tough questions. Typical comments included:

"The meetings in general, they seem to have been organized very much on a similar line...it seems to work quite well to get people to talk about--to give their opinions and then they're usually written up on the large pieces of paper...That seems to be quite well organized." [33]

"I really value the time and the effort that people in the watershed table have put into it. I feel that their motivations are good, and that they really care about the watershed. And I think it's an important thing to be bringing it out into the community, get community feedback and community input and community involvement, and community responsibility." [27]

"Every meeting has a, sort of a format which is laid down, because, you know, you get a group of people and they start talking and going off on tangents and this sort of thing. You're kept on track by their agenda and by their--the way the meeting is set-up. You know, you have a plan and they said--well, it's like teaching: you tell people what you're gonna do and then you do it, and then you tell them what they've done. So, they basically follow that type of a process. You know, I was really quite impressed by how it was organized and set-up." [21]

The concerns or suggested improvements that most people had for the project focused on the time-consuming or repetitive nature of the process, and strategies for securing greater involvement of community members.

"I thought that we, the Roundtable and the community had gone through this whole process a year ago...I mean, I thought people had come to some general decisions about what they wanted to do with this process. And low and behold, the only decision was that they had to do it all over again in a more formal, structured approach...I found it a little bit repetitive and disorganized and convoluted. I mean, holy cow! You couldn't have had more meetings if you tried!" [18]

"I think the biggest thing that could be done better is that they need to reach out and get more of the interests at the table...I'll grant them that they have extended the invitation and if the people don't respond, well, they've obviously got other priorities. But maybe one of the things they could do is, if there were some incentives for those people to come--like if they thought it was going to benefit them...then they might be more motivated to come...The meetings start to get repetitive, and then those people get turned off." [19]

"It's the things that have been done really well that I object to! There just haven't been any loose ends...The most powerful group processes that I've ever done, takes people to the point where things are on the point of falling apart...That's when people connect. That's when energy rises, at the point of despair...The earlier meetings were *not* representative of this community. A good half of the people that were here weren't from the Falkland area at all." [22]

The survey respondents who had attended at least one of the community meetings (45/191) were also asked what they liked or disliked about the meetings. These findings are presented in Table 7.2. Like the interview participants, these survey respondents liked the organization and facilitation of the community meetings, disliked the pace of the meeting-

process (too slow), and thought there were not enough community members in attendance. There were three additional "likes" about the process described by a significant number of survey respondents: the informal, friendly atmosphere; the informative nature of the meetings; and the discussions about different issues. Respondents wrote things like,

> "Seemed well organized and friendly and informative." [b010]
>
> "Generally, they are good opportunities to hear community opinion and distribute information of the watershed."[b012]
>
> "I liked people talking with each other about the river as a common factor." [b020]

Many of the survey respondents echoed the interview participants' concerns about the slow pace of the process, and added concerns about lack of focus and not enough action:

> "There is a lot of listening being done, but not a lot of doing as per the wishes of the people, therefore, why bother?? Sorry, but good intentions don't cover everything." [a009]
>
> "I felt that the same issues come up over and over and now we need more action--less meetings." [b018]
>
> "Too pedantic. The public talks aren't closely tied to the progress of bank restoration. The final draft documents of the process haven't been any sort of blue print for action by the individual concerned landowners." [b020]
>
> "Didn't get anything done, just speculated about future. Used too many big words and catch phrases." [a011]

When the interview participants were asked to look ahead to the end of the community meeting series and say whether or not there would be consensus on a vision for the watershed, the majority of people (18/25) said yes, one said no, and six did not answer. Upon further questioning about their expectations for the process, nearly all participants expressed some form of cautious optimism for the process, or at the very least, said they

Table 7.1. Interview Participants' Observations of Things Done Well, and Things to Improve. Numbers in brackets refer to the number of people making the same observation. No brackets indicates one person's observation.

Things Done Well	Things to Improve
(1) **Good motivation behind the project**. (2) (2) **Well organized** (13) (3) **Facilitation:** - good facilitation of community meetings (9) - Neils Christiansen is a particularly good facilitator (5) - meetings are run respectfully; everyone is important (3) - February 1995 facilitator training was well done (2) (4) **Specifics about community meetings:** - great notification of meetings and themes (7) - thoughtfully located - effective history theme in July (5) **Educational products / activities:** - educational documents like fact sheets - resource centre (2) - watershed tours	(1) **General process concerns:** - too slow (5) - too repetitive (3) - too many meetings (3) - the Roundtable is not decisive enough (2) **Things to consider when planning a community meeting:** - stakeholders' work loads (e.g., farming timetables) - social and emotional backgrounds of residents - incentives or a strategy to encourage participation (2) - need early buy-in from community associations - provide more examples of tangible work done in past (3) **Meeting notification:** - the flyer doesn't work - need to phone residents or go door to door to invite them to meetings (6) (4) **Educational products:** - need more data on water quality and quantity - reports are too technical (5) **Other concerns:** - government negativity - feeling manipulated by the agenda during meetings - some restoration work is not practical--won't work

hoped the process would work. Several participants remarked that awareness about the river and the watershed has greatly increased because of the Salmon River Watershed

Project, and that they expect awareness will continue to be generated over the course of the project. One local resident remarked that,

> "I can see where it's had an impact even with people who don't agree with it. I mean, I think that's significant impact, that they're even thinking about it and generating an opinion...at least you're getting some discussion about it, you know." [4].

Table 7.2. Survey Respondents' Descriptions of Things They Liked and Disliked About the Community Meetings. Numbers in brackets refer to the number of people making the same observation. No number indicates one person's observation.

Likes		**Dislikes**	
(1)	**Meeting atmosphere**	(1)	Too few community participants (4)
	- informal, friendly atmosphere (5)	(2)	All talk, no action (7)
	- meeting the neighbours (2)	(3)	Too slow and long winded (3)
	- cooperation in meetings	(4)	Lack of focus (3)
(2)	**Education and information**	(5)	Bad time of year for farmers
	- meetings were informative (6)	(6)	Too many big words
	- the displays	(7)	Poor master of ceremonies
	- presentations of past conditions	(8)	Being "led" into answers
(3)	**Good discussions, thoughts, and opinion sharing** (6)	(9)	"They addressed how to remedy something without going to the root of the evil." [a017]
(4)	**Facilitation and organization** (6)	(10)	Lack of historical knowledge
	- incorporating public input (2)	(11)	"Don't know if decisions made at meetings will meet government department policies." [b014]
	- good explanations (3)		
	- well organized agenda		

Even one local resident who had been quite critical of the whole process said that it has already worked to some extent (because people were talking) and that, while he is sceptical that the results will have much meaning to the people who live in the watershed, the results of the Falkland workshop will give government agencies the validation they need to spend their budgets in the Salmon River Watershed [16].

Other than the recurring theme of poor attendance at community meetings, four worries or sources of scepticism were noted:

(1) Worry about how interest in the project will be sustained, [33]

(2) Concern about increasing the divisions within the watershed community (e.g., rural/urban split), [22]

(3) Difficulty working from the bottom-up when dealing with top-down government, [1] and

(4) Scepticism about whether or not there will be long terms actions resulting from the process [25].

One participant pointed out that, to develop realistic expectations about the accomplishments of this type of process, one must keep in mind:

> "It's not a short-term process, it's a long-range investment. It's the kind of thing you might see benefits a long time down the road from now." [19].

7.2 ACTION OUTCOMES

There were four themes used in questioning interview participants and survey respondents about the expected actions or outcomes of the collaboration towards ecosystem objectives and a watershed stewardship plan:

(1) What will be the final product of this process?

(2) Who will use this product, and how will it be used?

(3) Who will implement, enforce or monitor any agreements or decisions made? And,

(4) Will (or how will) the actions of watershed residents change as a result of this process?

7.2.1 The Final Product

After interview participants were asked whether or not they thought there would be a consensus decision about a vision or ecosystem objectives for the watershed (see previous section), they were asked to describe the product they anticipated from the visioning exercise. Most people had some difficulty answering this question; in fact, 13 stated that they did not know what the final product would look like: "It's totally incomprehensible to me" [25]. However, many participants elaborated on this answer, saying things like:

> "I guess they're just trying to get everybody's views or categories people think are important, eh? They might bring out some more kinds of feedback--certain things are important. There's gonna be more in certain categories." [34]

Suggestions about what the product might look like included the following:

(1) A set of guidelines for the Roundtable to follow [11],

(2) An action plan which prioritizes and does not spread the Roundtable's resources too thin [33],

(3) Guidance on where the Roundtable is "going" [5],

(4) A report like the monthly meeting summaries [21],

(5) "A five year plan that the human element in the valley can buy into, plus the infusion of funds to make it work." [26], and

(6) Establishment of core groups of people in the different communities working on strategic directions outlined by the whole Roundtable [28].

As well, two people (a community member and a Roundtable staff member) both said that they viewed the community involvement process as just another step in a larger process of watershed restoration.

It should be noted that there was a high degree of cynicism towards the final product expressed by several interview participants (residents, government employees, and Roundtable staff). Some had cynical predictions of what the product would look like; for example:

> "Oh it will be beautiful, very well organized, laser printed. It will be eminently reasonable, and politically correct. So that brings me to my point of despair. Why is it that all our history is reasonably, beautifully produced...and that the process isn't engaging enough people? Partly because they don't 'reach', or won't." [22]

> "It'll be a multi-page document, right? There will be a section on history. It will have a section about ecosystem objectives. It may have a section on responsibilities. Right? But I don't think it will actually have a section that says, 'you have to put in fence posts 20m back from the river and not let your cows eat the trees until they're big enough to sustain the damage'. It just won't say that--I'm sure of it. The entire process is couched in soft language...This process smacks of propaganda, you know? That it's very much one sided." [16]

> "I guess what I see is some king of report outlining some general vision statements...I can't see them--this process--developing a report which provides any type of detail. I mean, people aren't going to be saying: as a community they've agreed to reduce water pollution by 90% by 2002 based on taking these steps." [18]

Others, especially in the rural areas of the watershed, expressed concern that the verbal or written vision developed through this process would favour urbanites, or people from Salmon Arm:

> "I'm a little worried about what it might be. I think it might favour the--like so many other areas--it favours the urbanites, simply because there's more of them." [8]

> "Whether it will be the best or not, I don't know. It depends a lot on whether it's all Salmon Arm people, or people who live across, along the river. I imagine there'll be a pretty heavy Salmon Arm representation because that's a big population area... They've got a very skilful group organizing it. And no doubt the organizers will work it around and try to influence the people to their way of thinking. And it depends on who goes as to how they'll be influenced." [20]

Even a prominent Roundtable member and advocate of the process commented that, he wasn't sure what "whoever renders down all the information that comes out of the final set of meetings--whoever puts it together, wants out of it" [4].

There was also the suggestion made by several people (7/25) that there will be some sort of product/report/decision/vision arrived at because there has to be one; the process used is designed to result in a product. Finally, interview participants were also asked whether or not they thought that their input would be included in the final product (whatever that might be). Seventeen of the 25 people interviewed said yes, three said no, and five did not give an answer. There were no outstanding comments on this question. Most people thought they had contributed as much as anyone else during the meetings, and were pleased to see some of their ideas reflected in the meeting summaries. Those who answered "no" to this question seemed to do so out of the feeling that, "Individual input is masked" [16] or "There's not really any individual impact" [8] rather than feeling that their input had been excluded.

7.2.2 Use of the "Final Product"

In the survey, watershed residents were asked to indicate which of the following groups would use the information gathered in the community meetings and the Falkland workshop: government agencies, the watershed Roundtable, local people, schools, regional districts, "don't know", or "other" (they were asked to specify if they checked "other"). These results can be found in Figure 7.2. Fifty-nine of the respondents (83/141) said that the Roundtable would use the results. Large numbers of respondents also indicated the other groups listed in the survey. It was interesting to note that there was no difference between "agencies" and "locals". "Other" responses included:

(1) no-one (or, "I hope no-one") (3),

(2) everyone (3),

(3) people looking for profit or hand-outs (2),

(4) special interest groups (2),

(5) realators and developers (3), and

(6) specific government agencies (environment, taxes, and recreation) (3).

Interview participants were also asked who they thought would use the results of this initiative. In contrast to the survey respondents, interview participants (17/25) most frequently identified government agencies and departments as the likely users of the results. But, like the survey, other potential users included regional districts (4/25), the Roundtable itself (7/25), and residents and landowners in the watershed (5/25). One person said that it would be great if groups like the Cattlemen's Association would also look at the results of the Falkland Workshop [19]. A couple of people said they didn't know who would use the results, and four people didn't answer the question.

Interview participants were asked to say how they thought the products(s) of the community meetings and the Falkland Workshop would be used. Participants were hesitant in answering this question, as they were in describing their perceptions of what the product(s) might be. The few definitive answers included:

(1) Planning purposes (4/25),

(2) Targets, guidelines, threshold values (3/25),

(3) Leverage for government funding (2/25), and

(4) Reading material which will just sit on a shelf (3/25).

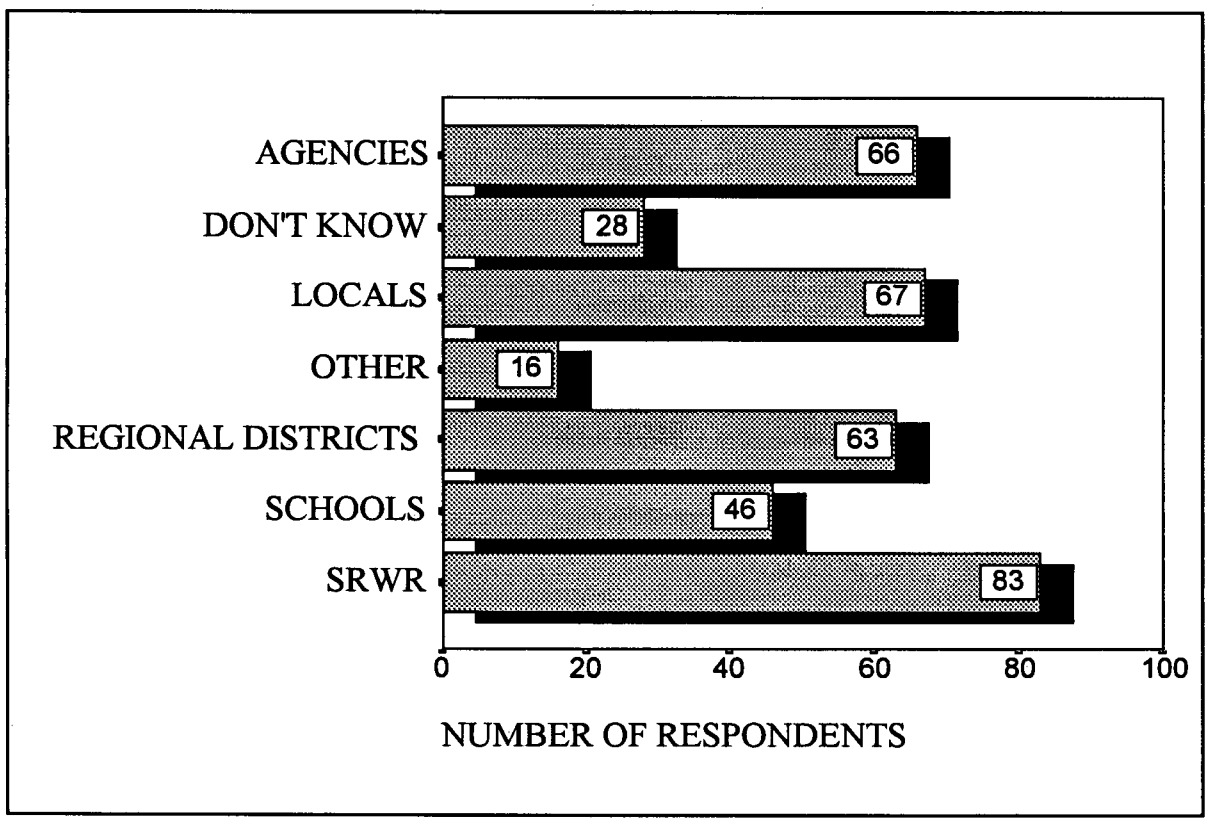


Figure 7.2. Survey Respondents' Perceptions of Who Will Use the Information Generated. Total Respondents=141. (Some respondents gave more than one answer.)

Again, a few people (3) said that they did not know how the results would be used. Several people (9) gave ambiguous answers such as, "In a managerial sort of way" [25], or avoided the question by referring to other Roundtable activities or issues.

It is also interesting to note that there was concern raised by the residents of the Westwold area regarding the use of the project's results. Their main concerns seemed to be that the process could lead to more government control and compulsory measures:

"I don't like to see anything compulsory, and--as I've said before--rammed down our throats...Real, true, grassroots farmers and agriculturalists and so on and so forth, they automatically try to look after their--after things. But, on the other hand, there's a lot of environmentalists...creating the problems because what they suggest is not necessarily practical." [8]

"What they're trying to do is, uh, control the whole watershed. Of course, there might be certain areas where they'd put in lots of controls that they wouldn't somewhere else too. And I suppose there'll be lots of government people at this workshop." [20]

7.2.3 Implementing, Enforcing or Monitoring

Related to the question of who will use the results of the collaboration towards a watershed vision and ecosystem objectives is the issue/question of who will or should implement, enforce, or monitor any agreements reached. Some people were very specific in their ideas about how things could be done locally, with help from "higher levels" or outsiders if necessary:

"Monitoring by and large should be local--the watershed stakeholders...We could maybe take water samples, but we can't necessarily do the microscopics for *E. coli* and what-not. We can't, in most cases, do much lab work...we might be able to take samples and send them to the right people or the right lab." [2]

Some even talked about the possibility of setting up some sort of watershed authority to implement the vision or, the need for the Roundtable to have authority or a legal mandate if they are to implement anything:

"I've been a long-time advocate of a watershed authority, or a one stop for all government services type of thing, on a watershed basis, because so many of the government specialty groups, you know, they've got overlapping jurisdictions, and so on and get in a real bureaucratic mess. And I think gradually, even B.C. is starting to move in that direction." [14]

"I would like to see some of that authority maybe devolved to whoever is managing the watershed--whatever body is doing that." [2]

"But I think so that it has some teeth, there has to be some legalities in the end...Because I don't think--the Roundtable could still be the organizing body, but I don't think they're going to have, at the moment, they don't have any authority that I can see." [33]

However, another watershed resident cautioned,

"If the Roundtable is given authority, then they're going to have another big government grant to do that. And the provincial government, I think they're overloaded with work now, so I don't know. There again is cost. We've got to stop the growth of these bureaucracies and spend the money they're getting a lot more wisely." [20]

Some interview participants thought that the plans would have to be implemented, enforced or monitored by government (under the Roundtable's advice and guidance) and had ideas about how this would take place:

"In my view, the first avenue to obtain tangible results is through the regional district--through revision of the land-use bylaw...Then, you know, agencies who have to respect the bylaw will have to take measures and then other levels of government. But they have to give regard, at least, to what the community, not only wants, but has written down to say so." [4]

"The plan can be published and circulated to the different agencies so that when they go about--say the Ministry of Forests, when they're developing their forest management plan, or the forest companies are developing their cutting plans, or whatever, they can be in consultation with the Roundtable and see how all their plans jive with the watershed plan." [11]

"Visions and regulations, you know, could probably be monitored by the various government agencies that are already set-up...They'd be looking at it from their own direction or from their own view or whatever--their own mandates. If it was an independent organization, like say the watershed committee, that could encompass all of it, I guess." [6]

There were also those interview participants (6/25) who thought implementing, enforcing and monitoring the vision should be a collaborative effort of all those who live in the watershed and are affected by the project. These answers were, by and large, a lot less

specific in stating who would do this work (or how):

> "If it is a grassroots movement, and the people are supportive of this vision, then you'd think that, just naturally, it would fall out of that, that the people, who came up with it would be the ones who would want to enforce it...The people who come up with it are the people who should want to implement it." [19]

> "It should be the role all together. Everybody should act then, mostly together." [3]

Finally, the word "enforcement" made several interview participants uncomfortable. They noted that they hoped things would not need enforcement; if people agreed with the vision, then everyone would implement it [12]. One resident said:

> "My guess is that there's tons of enforcement agencies already existing...enforcement isn't the answer. The answer is in how you get people who are defacto land managers to manage it in a socially responsible way or in an ecologically sound way." [16]

And some residents thought that the results of the visioning process could not be enforced due to reasons of lack of authority (mentioned above).

7.2.4 Changing Behaviour

The last theme explored with interview and survey respondents with respect to outcomes of the collaboration was how their actions or the actions of other watershed residents would be affected by this process and the resulting watershed vision. Ninety-two percent (± 5.3 %) (96/104) of watershed residents said they would try to live in accordance with the vision developed through this process. It's interesting that, of the respondents who said yes, only 30 had attended any of the meetings. Sixty-six respondents said they were willing to live with the vision which they had no part in making, and probably knew little about!

Survey respondents were also asked whether or not they would attend future meetings of the SRWR. More than half of the respondents (65.2%, 73/112) said "yes", and 34.8% (39/112) said "no". Although they were not asked to do so, some respondents elaborated on their answers, mostly with comments like, "If I have the time" [b001], or "If I had a ride" [b028]. Only a couple of people offered reasons as to why they would not attend a future meeting. These were similar to the reasons survey respondents gave for not attending the community meetings (see Section 6.3.5.3):

> "After all of this, the river is still not in a position to attract more fish!!! Would not attend any future meetings in present format." [b019]

> "I attended meetings for 2 1/2 years and could see that it was all talk and very little action. Time and money should be utilized and audited in a more professional manner (my opinion)." [b065]

The issue of changing stakeholder behaviour was explored in more depth with interview participants. The participants were asked specifically how the products or results of the collaboration would affect the actions of people living or working in the watershed. Most people did not talk about any specific actions which they thought would occur; most discussed how they thought actions in the watershed were related to education and awareness, social pressures or other actions, or mentioned that changes in action will occur gradually (largely because of the learning people need to experience before changing their behaviour). The relationships among education, awareness, actions, and social pressures described by interview participants are shown graphically in Figure 7.3. Both education (about the watershed and the effects of current activities) and social pressures or influences (from peers who support the Roundtable's work) will lead to greater awareness of the

watershed and the effects of human actions:

> "It's an educational opportunity. People may become more aware of their consequences of their actions and you would hope that they would act accordingly...I guess in a meeting process like this they may understand how many people either oppose them or support them and that would hopefully have a motivating factor." [18]

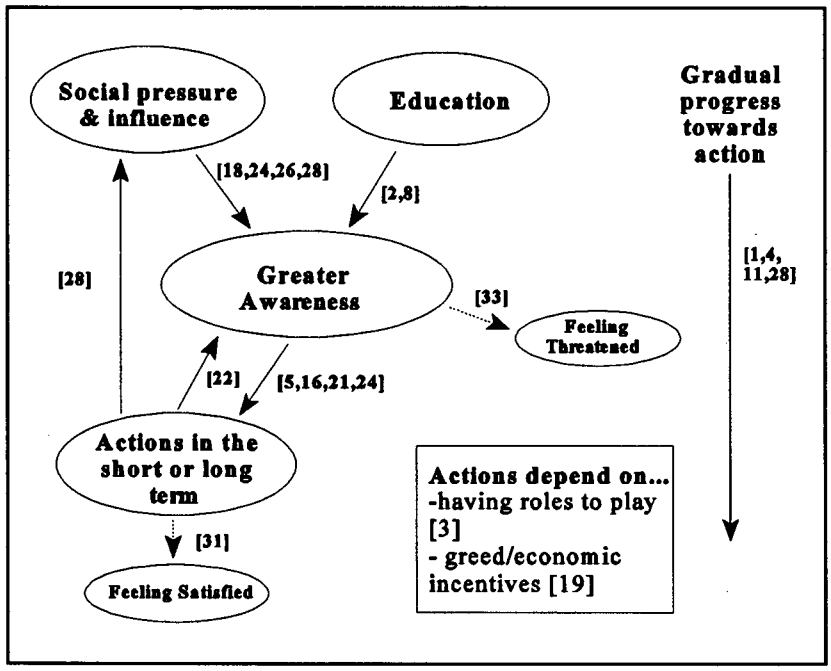
> "If people know what to do, then they'll probably do it, eh. Somebody sees somebody else doing something good, well, then they're bound to. They're influenced by what the other people are doing." [34]

> "Hopefully, and ideally, you know, people would think more in terms of being part of a system and whether what they're going to do is going to, you know, have some bad effect on the system, whether its agricultural practices or whatever." [21]

> "[*People will act*] only if an extremely well planned and thorough education program is accompanying what's going on or maybe leading it." [2]

Greater awareness, generally, leads to changes in behaviour, which most interview participants are hopeful will benefit the health of the Salmon River watershed. There was one participant who warned that greater awareness of actions leads to some people feeling that their way of life is threatened,

Figure 7.3. Interview Participant's Description of the Relationship among Education, Awareness, Actions, and Social Pressures.



and as a result, they do not participate in the Roundtable [33]. Still others noted that actions are likely to result but, there are conditions other than education to consider:

> "Some really interested to get involved. I think the Roundtable has to find a position for them to act. It's--at the moment, they don't really have a position--just show up at the meetings and sitting there, but they don't have really a role in the Roundtable. So, it's important that they do something." [3]

> "Depending on the person, it may or may not have any effect...Probably in certain cases, we're talking about what's identified on this paper as [*referred to the list of problem categories from Christiansen and Romaine 1995*] number 16 which is 'greed'. And that's always something that is in human nature." [19]

A couple of participants also noted the cyclic nature of actions leading to greater awareness and more social pressure which both lead to more action [22, 28]. As well, four participants (all regular-attending Roundtable members) commented that actions and changes in behaviour will occur gradually and incrementally with time [1, 4, 11, 28].

There were only two interview participants who gave concrete examples of how the products of this collaboration could be used to change actions in the watershed. Both of these comments related to laws and/or enforcement. One local resident referred to the Forest Practices Code and said,

> "If they start implementing those fines, it's gonna change the way a lot of people are doing things" [20].

A Roundtable staff member--after initially commenting that there would be "not a Hell of a lot" of action as a result of the process--said that

> "If they [*ecosystem objectives*] resulted in a community plan or regional or municipal by laws then they may affect some activities." [29]

7.3 PERCEIVED BENEFITS

Related to the level of participant satisfaction and the action-oriented outcomes of the process, are its perceived benefits. Interview participants were asked to describe *who* would benefit from the project to develop ecosystem objectives and a stewardship plan for the Salmon River Watershed, and then to speculate on *how* these benefits would materialize.

With respect to "who" would benefit, the answers ranged from no-one (1/25) to everyone (10/25), though some participants delineated more specific groups. A few participants noted that the people who live in the watershed would benefit (6/25), (one noted riparian landowners, and one noted working people). There were others who thought the effects of the process would be further reaching--everyone in the Fraser Basin (3/15) to everyone in the world (2/25) would benefit. As well, some participants said that the benefits would be for future generations (3/25), for First Nations (1/25) or for "the environment" (1/25).

Interview participants identified five main ways in which in which the beneficiaries (above) would benefit from ecosystem objectives and a watershed stewardship plan. The first, and most cited, category of benefits was ***an improved or healthier bio-physical environment*** (12/25). Participants noted there would be improvements in fisheries, water quality (and ability to swim in river), water quantity (and prevention of flooding and erosion), and just "healthier systems" in general. These types of benefits were suggested as long term benefits of the process--if we carry out the plan, then hopefully these things will result. The next category of benefits related to the ***organizational direction*** that would be provided to the Roundtable by carrying out this process:

> "If nothing else, they know where they're going and know what we're trying to do." [14]

> "It may help to give the community an identity...It'll give them something to reflect against when they consider other goals. Any future development can reflect these notions." [4]

> "In an overall sense, it would give that community and the satellite communities more of a direction as to where they wanna go, what they envision the valley to look like 20 years from now or whatever. It'll give then some targets to shoot for." [19]

A couple of people also noted that the process would put the Roundtable in ***a better position to influence*** the regional districts [14] or for leverage with government departments (either for funding or for convincing higher level bureaucrats to support watershed based planning) [18]. There were also those people who cited ***greater education and awareness*** of issues in the watershed as being one of the main benefits (4/15). Some mentioned education and awareness as a stepping stone to other beneficial activities, like restoration work (which in turn results in a better place to live.) Lastly, some interview participants said that benefits would be derived though having a greater sense of ***community identity***, or by the watershed being ***a better place to live*** (4/25):

> "Theoretically speaking, if there were more salmon, people might, you know, come to look at them the way they go up there to look at Adams River. Now, there's never gonna be the same amount, but, I mean, you know, people down in Vernon might say, 'Well, let's go up and have a look at the Salmon up there in the Salmon River', you know, that sort of a thing. There could be a little spin-off in eco-tourism." [21]

7.4 DISCUSSION AND CONCLUSIONS

Over the course of evaluating the structuring and outcomes stages of the collaboration towards ecosystem objectives and a watershed vision, more strengths and

weaknesses of the case study were identified, along with some issues which require further clarification. These conclusions are presented in the sections below.

7.4.1 Strengths and Weaknesses of the Case Study

As was the case with the strengths and weaknesses identified after the evaluation of problem and direction setting (Chapter 6), many of the strengths and weaknesses identified in this chapter relate to the same issue or activity. They have been presented in Table 7.3.

Table 7.3. Strengths and Weaknesses Identified in the Case Study.

Issue / Activity	Strength Identified	Weakness Identified
Generating Awareness	- good job of generating awareness of the Roundtable and of the community meeting series in the general community; flyer was highly effective - The process stimulated discussion even among those who did not actively participate in the meetings.	
Questions of legitimacy	- This type of process is highly supported by the majority of survey respondents.	- A number of participants were cynical about the product that would be produced. - There is a perception among several watershed residents that government funds are not being used appropriately (i.e., they are being used for individual profit, or wasted on un-neccessary work projects).

Issue / Activity	Strength Identified	Weakness Identified
Clarity of expectations		- A large portion of participants did not know why this process was needed, or what the expected outcome of the process would be.
Time commitments		- high frustration level over the number and length of meetings
Implementation of the vision	- Volunteer support for work projects is available. - A majority of survey respondents would attend future meetings.	- A high frustration level has resulted among participants, former participants, and watershed residents: all talk and no action. - Roundtable lacks the authority to implement actions.

7.4.2 Additional Issues and Questions Raised

In addition to the strengths and weaknesses listed above, there were a few issues which revealed themselves during the evaluation of the structuring and outcomes stages.

(1) Observations of Cultural and Social Appropriateness

There were a few important cultural observations made about the rural residents of the Salmon River Watershed--the main participant group in the visioning exercise--which could have some implications for the way in which planning processes are conducted in the watershed in the future. First of all, a very vocal fraction of the residents are conservative, individualistic, and against government intervention in their lives:

> "Unless shown differently, I see these proceedings as another way for government and pressure groups to interfere with my life." [b123]

> "[Attended a meeting] Just to see how much more government intervention we have in our lives...STAY out of our lives and livelihood...FIND Something to do that will help homeless- jobless- people- we don't need more farmers put out of business. [emphasis by respondent]" [b008]

Secondly, there is also suspicion and distrust of people viewed as "outsiders":

> "Having lived adjacent to the river for 50 years +, in Westwold, and there has been no change in the Salmon in this time. It is very disturbing to have people with no knowledge of this river wasting their time and mine...I would prefer that people not living the Westwold area would mind their own business." [a067]

> "No one has ever got sick in 23 years. The people on the Salmon River Watershed Roundtable have not lived on the river for 23 years...There is no harm in rocking the river, some was done here 23 years ago. Still as good. Nothing has moved. People do not need workshops. They have enough brains to look after the river...I hope no one will use the information of the Roundtable. They have not lived here for 23 years...They are fencing off the river, the weeds will grow wild. What a big waste of taxpayers' money. The people on the river will look after it." [b016]

> "Who are you--government, industry, ad hoc--NO CREDENTIALS--Stay out of MY BUSINESS. You seem to want authority with no responsibility. No legal power. No rights. AFTER you clean up Vancouver, Kelowna, Prince George, etc. come see me. Who are you? What is your real agenda? See me after you clean up more populated, politically more powerful areas. [emphasis by respondent]" [a060]

Thirdly, the residents (those observed in community meetings) were not open to discussing their feelings about issues (see Section 6.2.2.2). My observations from community meetings indicate that participants were more comfortable commenting on something than creating something new. Finally, as one of the interview participants pointed out (Section 6.3.1 [16]), and many survey comments confirmed, meetings are not the usual way of conducting business in the watershed. The residents are not particularly literate and comfortable with meetings, and many of them do not understand why there has to be so many meetings--it's just a waste of time and money to them. Yet, as many survey participants also pointed out, meetings are perhaps the only logistically feasible way to generate a vision for a whole

community. So, if this is the forum available, then the question becomes, how can it/they be structured to best fit the cultural and social needs of the community?

(2) The use of Tax Payers' Money

Another issue, which was continually referred to in a number of different forms by both interview participants and survey respondents, was the use of tax payer's money. People discussed how money should (or should not) be used, and expressed suspicion that grant money was being sought for the personal benefit of people involved in the Roundtable. Consider the following examples:

> "It would be nice if Dorothy Argent and her Henchmen and Natives had something better to do, which includes all of you bureaucrats who are sucking the tax paying public DRY." [a062]
>
> "I feel they're [the meetings] a waste of time and any damage past and future is that of the property owners, not the publics! Waste of tax payers money." [b064]
>
> "Time and money should be utilized and audited in a more professional manner." [b065]
>
> "This may be a nice idea, but this is a hard country for people to make a living, and with people finding it hard to put food on the table, can't afford to landscape a river." [b085]
>
> "Smoke and Mirrors!!! Money spent--little willow sapling planted. Beavers will undo this in 1/10th the time it took to do. NOT PRACTICAL [emphasis by respondent]." [B112]
>
> "Where all the grant money is going because nothing seems to be done?...lots of money spent, nothing accomplished." [b130]
>
> "Enough money has be spent on the "vision". Let's get practical." [b003]
>
> "STOP wasting government funds and grants. More important things to do. [emphasis by respondent]" [b008]

> "I look at these many surveys, meetings and discussions and I think if they put all that money and time into helping the average person along the river, who does have trouble spots, then maybe they would accomplish something worthwhile. As they say, talk is cheap, only in these cases, it isn't." [a028]

The perception that money is being wasted is a huge barrier to generating more support in the watershed community, and in encouraging greater involvement in the Roundtable's general activities.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS

"I have a kind of mind that looks at all these government employees that I'm paying for and watch five dollar bills drop on the table every minute or so, I think. I can see that money and you wonder what's going through their minds. Is it worth it?...to come up from Vancouver every time you have a meeting and sit there and all the talk talk talk talk talk--I mean, in the end it would be nicer to have a much more efficient, quick method. And you can do that with dictatorship and strong government departments. But, obviously, it hasn't worked in the past. So this is the alternative--an expensive method, lots of government grants that got in there and you always say, 'Is it well spent? Is the river worth all that money?'...But no one would have done it if that hadn't happened...Some people have reacted and said, 'Oh gosh, it's all talk. If I go to one more planning session I'm going to vomit,' --but it's worked!"

- Salmon River Watershed Roundtable Member, November 1995

In Chapter 1, four thesis objectives were identified, all relating to the greater goal of evaluating the process to develop ecosystem objectives and a watershed vision for the Salmon River watershed. The first of these objectives (placing the case study in the context of current watershed management and collaboration theory) was addressed in Chapters 2 and 3. The effort to develop ecosystem objectives is in line with recent trends in watershed management (and other fields) towards more ecosystem-based approaches in which the environment, economy and society are all considered. Collaborative, multi-stakeholder processes--like the SRWR--have become a popular way of addressing multi-disciplinary problems--such as resource and environmental planning. The SRWR has used a collaborative, consensus based model to develop ecosystem objectives.

The second research objective (to describe the procedures used in the case study and compare them to the literature) was done through a comparison of the Salmon River

watershed case study to a 5-stage model of collaboration. This chapter integrates the third and fourth objectives of the thesis (evaluating the success of the case study, and making recommendations about the process for the future) into the conceptual and contextual framework developed in addressing the first two objectives. Conclusions are made about the case study, followed by recommendations for the Salmon River Watershed Roundtable, and for future initiatives. Conclusions are also made about the productivity and value added of different research methods used in this study. The chapter ends with some general discussion on the "learnings" described by the SRWR, reflections on "Big Picture" questions, and some closing remarks.

8.1 CONCLUSIONS ABOUT THE SALMON RIVER WATERSHED CASE STUDY

8.1.1 Were the Goals of the Project Achieved?

In Chapter 5 (and Appendix C), the story of the collaboration towards ecosystem objectives was told. The goal of this project was to establish community developed ecosystem objectives. This goal was achieved. There were a few key components of the process for which the SRWR had clear objectives. Most of the objectives of the 1995 Work Plan Workshop, the Facilitator Training, the Community Meetings, the Falkland Workshop, and the Development of the Knowledge Base were achieved. These objectives and the extent of their attainment are reviewed in Table 8.1.

Table 8.1. The Attainment of Main Component Objectives in the Process to Set Ecosystem Objectives in the Salmon River Watershed.

Main Event or Component	Objective of Component	Objective Met?	Comments
1995 Work Plan Workshop	To convene a core group of community partners to create a work plan for the establishment of community developed ecosystem objectives.	yes	- agenda and nine month timeline developed - confusion by some SRWR members who thought they had done the same thing the previous year
Community Facilitator Training	To train community facilitators in the methods of the Institute of Cultural Affairs, and then have the facilitators conduct meetings throughout the watershed.	no	- while the trainees were SRWR members or staff, most did not live in the watershed (were not actual community members) - most of the meetings were facilitated solely by Neils Christiansen; only 4/20 trainees helped out in any of the meetings
Community Meetings	To develop understandings about the watershed and its future, and for participants to experience cooperation, empowerment, and have fun.	partly	- overall, some understanding was created, and some participants did have the intended experiences, however, these things were limited to a very small segment of the watershed population
June	To compare two possible futures for the watershed: an ideal future and the future expected if trends continue.	no	- the visioning exercise was alien to the participants; participants were not yet comfortable with the meeting format
July	To augment the verbal history of the watershed by documenting participants views of historical environmental, economic, social and political events.	yes	
August	To identify the priority problems standing in the way of sustainability.	partly	- some meeting participants expressed concern that problems were being "manufactured", and that most were out of their hands (not empowered)
September	To review and comment on the draft Overview public report.	yes	

Main Event or Component	Objective of Component	Objective Met?	Comments
October	To identify actions which can be taken by participants to address problems.	partly	- several options were proposed, but participants were unclear on what they personally could do
November	No clear objective.	n/a	- served to advertise the Falkland workshop
Falkland Workshop	To produce several outcomes: * greater understanding, respect and cooperation between government and residents * a common vision of the future of the watershed * long term ecosystem goals for developing indicators * working task forces committed to resolution of some of the blocks to sustainable living in the watershed * a greater sense of community	partly	- a common vision and elements from which ecosystem objectives were later written were outlined - no new committed task forces emerged - mixed reviews on "understanding" and "greater sense of community"
Knowledge Base	To consolidate relevant bio-physical, social and economic data about the watershed, for use by stakeholders.	yes	
Seeking Agency Cooperation	To meet with representatives from nine government agencies and outline issues surrounding government participation.	yes	- additionally, sources of information were identified which were used in the Overview reports
Problem Perceptions	To identify problems in the Salmon River watershed as seen by the watershed's residents.	mostly	- covers the range of problems; in this thesis, some additional problems were identified and the relative importance of some perceived problems varied
Verbal History	To tell the verbal history of the Salmon River watershed as viewed by community residents.	yes	
Overview Technical Report	To collect and review existing pertinent information to provide the Roundtable and all other stakeholders with a better understanding of the watershed.	yes	
	To identify problems from previous reports and surveys and propose options, scenarios, and strategies for addressing the problems.	yes	

Main Event or Component	Objective of Component	Objective Met?	Comments
Overview Public Report	To prepare a summary report of the above, written for general public consumption.	partly	- language and report size were appropriate, but visually unappealing for mainstream audience

Although Table 8.1 attempts to break down and analyze the collaboration to set ecosystem objectives by its clearly identifiable components, this breakdown does not account for the many continuous, tangential, and informal events which are just as important as the formal components in terms of the final outcomes. Informal dialogue and relationship-building occurs continuously before, after, and between meetings. Ongoing activities or tasks related to organization, and personal relationships and discussions--which may have nothing to do with the collaboration--all work to strengthen (or in some cases weaken) working relationships. Thus, the results of the process do not hinge on the success of any component meetings or events, but on the whole process including its formal and informal elements. The strengths and weaknesses of the collaboration as a whole are discussed in the next section.

8.1.2 Main Strengths and Weaknesses

The main strengths and weaknesses of the process were identified by process participants and watershed residents in Chapters 6 and 7. These conclusions are reviewed below.

Strengths of the Salmon River Watershed Case Study:

(1) ***Awareness of the Project.*** The residents of the Salmon River watershed are well aware of the SRWR's existence (90.7 ± 4.2 % at a 95% confidence level). The use of the flyer (describing community meetings dates and summaries) created widespread

awareness of both the SRWR and the community meetings held from June-November 1995.

(2) ***Support for the Project.*** Support for the process has been demonstrated through (a) the optimism of process participants when describing their expectations for the process and its products; (b) the process participants descriptions of the process as "legitimate"; (c) watershed residents' descriptions of the process as a "good way" to establish a watershed vision (84 ± 6.7 % at a 95% confidence level); and (d) the offers of volunteer labour made by process participants.

(3) ***Clearly Defined Convenor Role.*** Process participants clearly viewed the Roundtable fulfilling a needed, neutral, leadership role--in this case as an organization which could both organize and facilitate constructive discussion on important issues, and provide a forum for information sharing among residents, government, and other stakeholders.

(4) ***Well Organized.*** Process participants highly praised the organization of the process (appropriate format, themes and materials).

(5) ***Facilitation Methods which Encouraged Participation.*** The process participants praised the facilitation methods (ToP) for being inclusive and encouraging participation of everyone present. Many participants noted the ability of the methods to produce a product.

(6) ***Understanding and Education Among Local Process Participants.*** Several participants stated they had learned through the process--learned about the river and learned about their neighbours--and enjoyed the opportunity to discuss problems and issues, and meet other people in the watershed.

Weaknesses of the Salmon River Watershed Case Study:

(1) ***Unclear Role of Watershed Residents and Government Agencies.*** The role of watershed residents in the process to set ecosystem objectives was too intangible to capture the interest of most residents (resulting in poor meeting attendance) and left those who did attend with feelings of uncertainty about their role. While the role of government agencies (perceived by participants to be mainly a source of financial and technical resources) was partially fulfilled (i.e., agencies like Environment Canada, Fisheries and Oceans Canada, Ministry of Environment, Lands and Parks provided funding and scientific expertise to the Roundtable) the continuation of financial and technical support is uncertain, and there existed uncertainty and mixed opinions as to the extent of any additional role of government in the visioning exercise (i.e., should the government just recognize and accept the vision of the residents, or should bureaucrats be active in developing that vision?).

(2) ***Poor Attendance (by Locals) at Community Meetings.*** In the opinion of process participants, too few local community members attended the community meeting series. Attendance was low enough that the representativeness of the results is questionable, *Is there a vocal minority and a silent majority?* As well, the community meetings were not representative of the residents in terms of age, were rarely attended by First Nations representatives, and did not encourage participation from the urban segment of the watershed (Salmon Arm).

(3) ***Frustration Expressed over Too Many Meetings: Too Long and Too Repetitive.*** Process participants felt there were too many meetings, many of which repeated

discussions of things which had been decided in the past. There is a vocal faction of watershed residents who viewed the entire meeting series as a waste of time and money. "Meetings" are not a culturally familiar way of planning for many of the watershed residents.

(4) ***Mistrust Expressed over the Use of Government Funds.*** Several watershed residents expressed suspicion over the use of tax payer's money on a process which was culturally alien to them.

(5) ***Cynicism and Doubts About the Ability of the Roundtable to Implement the Vision Developed.*** Although both process participants and general watershed residents were supportive of this type of process, there was a "Let's wait and see what happens" attitude. Individual commitments to meet the group's collective vision have not yet been established. The Roundtable has no authority to enforce or ensure implementation of the vision--only the ability to espouse goodwill.

8.1.3 Costs and Benefits of a Collaborative Process to Establish Ecosystem Objectives

It might be tempting to think of analyzing this process by a cost benefit analysis. Such analyses are most readily done when results of processes have identifiable and tangible effects (quantifiable products) such as salmon enhancement or job creation and the values associated with them can be measured. The costs and benefits of processes, however, are generally more qualitative and the relationships between them are not always clear. Attempts to estimate process costs have been made using the concept of transaction costs, which include the costs of effort in negotiation and coordination, collecting information, and enforcing agreements (Schmid 1995 and Colby 1995). These costs relate specifically to the

relationships among people which define their opportunities, their responses to acts of others and their privileges and responsibilities (Schmid 1995). Measurements of transaction costs have been proposed which use qualitative methods such as participant observation or ethnographic investigations to assess transaction costs (e.g., amount and value of time to any individual) which could then be translated into a quantitative estimate of monetary cost used in traditional cost benefit analysis (Feeny 1995).

The enormity of conducting such an analysis in the Salmon River watershed case study is staggering. Besides the direct monetary expenditures depicted in Table 8.2, the process is highly time and energy consumptive (i.e., there are likely high transaction costs for the many individuals involved). As well, the process carries the risk of backlashes from those persons who fear they will lose from the process in the short term, or those who are un-familiar with planning culture (i.e., meetings, consultations, agendas, timelines, etc.). The number of people involved, to varying degrees, and with varying levels of interest would make the assessment of transaction costs alone an overwhelming project. Even supposing that such an assessment of costs could be made, a similar assessment of the benefits could not be meaningfully conducted. The benefits of a process such as the one to develop ecosystem objectives in the Salmon River watershed cannot easily be described in quantitative terms since nearly all of the benefits are intangible and qualitative in nature:

- education of local watershed residents about the linkages between their actions and ecosystem health;
- anticipated improvements in ecosystem health in the long term;
- shared understanding between diverse stakeholders in the watershed, leading to a

greater sense of community identity and making the watershed a better place to live;

➤ organizational direction for the SRWR; information to use in the LRMP and FRBC projects;

➤ ecosystem objectives to use in the continued testing of the CCME WQGTG's framework for developing goals, objectives, and indicators of ecosystem health; and

➤ more credibility for the Roundtable as an NGO working on behalf of the watershed community.

Table 8.2. The Financial Costs of Setting Ecosystem Objectives.

Project	**Source of Funding**	**Amount of Funding**
Community Establishment of Ecosystem Objectives (work plan workshop, facilitator training, community meetings and Falkland Workshop)	(a) Environment Canada and MOELP	35,000
	(b) Environmental Partners Fund	21,555
	(c) Vancouver Foundation	12,400
Communications (publishing fact sheets and flyers)	(a) Environment Canada	6,000
Developing the Watershed's Knowledge Base	(a) Environment Canada	50,000
		Total: $124, 955

In this case study, although some of the costs have been described in quantitative terms ($), they *should not* be compared quantitatively to the benefits. An assessment of whether or not the benefits of the case are worth the costs is a *qualitative value judgement*. The opinion of most process participants is exemplified by the opening quote of this chapter:

yes, the process is costly, but worth the price. Before this process is attempted in other watersheds, a more in-depth assessment of the costs should be conducted, with particular emphasis on increasing cost-effectiveness. Some initial ideas are provided in the recommendations in the next two sections.

To summarize the main conclusions about the case study, the strengths and benefits identified in the process both warrant the continuation of the pilot project into its next phases (developing ecosystem indicators and a monitoring program) and the cautious application of the process in other ecosystems--taking care to build upon the strengths of this case study, and to address its weaknesses.

8.2 RECOMMENDATIONS FOR THE SALMON RIVER WATERSHED

Several recommendations can be made specifically for the Salmon River watershed as a result of the case study. These recommendations have been grouped into five different areas (roles and responsibilities, communications, process related recommendations, skills development, and future research). Whenever possible, the target group of the recommendation is named (e.g., SRWR, government agencies, other stakeholder groups). The recommendations are followed by a discussion of three key issues related to many of the recommendations.

8.2.1 Roles and Responsibilities

(1) Power roles should be formally acknowledged as such within the SRWR's organizational structure, and accountability should be built into these roles (e.g.

paid or elected positions). Power roles are ones which give certain Roundtable members more power to influence other members or the decisions made, or more control over the Roundtable's work products, (e.g., committee chairs). Explicitly acknowledging power imbalances (and the reasons for them) should help to alleviate some of the suspicions (held by watershed residents) about power abuses.

(2) ***Committed government Roundtable members should take on the initial responsibility of educating their organizations about the Roundtable's vision.*** This is a challenging role since many of the government participants are ground-level workers. They have the daunting task of sending information about the Roundtable up the bureaucratic hierarchy. (The role of government agencies in similar processes in the future is discussed in the next section.)

(3) ***The SRWR should outline a tangible role for general watershed residents.*** Participating in a meeting is not considered to be "real work" with real results by many of the locals. By giving individuals tangible, culturally-meaningful tasks, the SRWR could capitalize immediately on new interest. Volunteer statements of commitment could also be developed to help volunteers know what is expected of them.

(4) ***The roles and responsibilities of organizational members of the SRWR (such as government agencies) should be clearly stated in protocols / agreements.*** This has already been started with a partnership protocol with the Upper Nicola First Nations Band. If the extent of influence--especially of government agencies--is clearly delineated, this may reduce the fears of those persons who are suspicious of

government involvement in the Roundtable's project.

8.2.2 Communications

(1) ***The SRWR should develop a socially sensitive communication strategy*** in order to accomplish the following:

(a) educate watershed residents and other stakeholders about leadership roles and responsibilities within the Roundtable;

(b) clarify--for participants--the importance of understanding others' views, the purpose, rational and expectations of meetings and other process-oriented events which may be culturally unfamiliar to many watershed residents;

(c) clarify and give examples of real, tangible actions which watershed residents can do to improve the "health" of their watershed, and where they can get the support they need to carry out these actions. (Actions will have a better chance of being adopted in the short term if they are related to the life experiences of residents, and do not require significant cultural changes.); and

(d) publicize the benefits of the SRWR's work, and incentives for watershed residents to volunteer for the Roundtable, attend meetings, and making changes in their lives.

(2) ***The SRWR should attempt to cultivate and communicate the conditions under which residents said they would attend meetings,*** (or say they do attend meetings) (see Section 6.5.3). While it may be hard to give residents "more time"; effort can go into making people feel that they can contribute, and that it's not a waste of time.

Residents want to know about tangible work (rather than academic work) and the results/benefits of this work to them and their environment.

8.2.3 Process-Related Recommendations

(1) ***The SRWR should make more use of existing community organizations in future initiatives in the watershed.*** Participants suggested the need for ties to community associations, where existing networks of people are already established .

(2) ***The purpose of all future process-oriented events should be clearly defined and supported by all participants.*** Although the rationale for the meetings was clear to the organizers, most of the meeting participants interviewed were unclear on the purpose, and as a result, became frustrated when their own expectations were not met. Inclusion of a broader range of stakeholders in the problem-setting stage of this collaboration could have helped to alleviate this confusion (most of the stakeholders became involved in the direction-setting stage). Additionally, strengthening or making explicit the relationship between meetings and tangible field projects would better demonstrate the need for meetings.

(3) ***The Roundtable should clearly and explicitly distinguish between issues requiring a consensus decision, and those which can be better dealt with by an accountable individual.*** By prioritizing issues that must be dealt with in a meeting, or which need a consensus decision, the consensus model of decision making would be used only when it is necessary, alleviating some of the frustration SRWR members feel over the number and length of meetings they attend.

(4) ***The SRWR should experiment with other methods (alternatives to meetings) for acquiring community feedback.*** For example, a mail survey could be a way for the Roundtable to generate feedback and address specific concerns of the non-meeting attending segment of the community.

8.2.4 Skills Development

(1) ***The Roundtable should continue to build its conflict resolution capacity and garner trust among all potential stakeholders in the watershed.*** This will place it in a better situation to successfully mediate future conflicts. Part of this could involve skills development in conflict resolution techniques by members of the Roundtable, and part of this could involve eliminating suspicion about the Roundtable's motives through a good communications strategy. Also, the Roundtable should research other avenues for conflict resolution within the watershed (i.e., capacity of government departments or other multi-stakeholder processes like LRMP) to deal with issues which may be out of its realm of experience or beyond its capacity.

(2) ***The SRWR should build in opportunities in future projects to make use of the members it had trained as facilitators.*** While the resource of people trained in ICA facilitation methods was not fully exploited within the ecosystem objective setting process, these people can be used in future projects. In fact, if they are to truly be a resource to the Roundtable, they must be given opportunities to practice and improve these newly learned skills.

8.2.5 Future Research

(1) ***The SRWR should ensure that its future projects and the next phases of the pilot***

project to test the CCME WQGTG framework are reviewed for cultural sensitivity and appropriateness. (The issue of cultural sensitivity is discussed further below.)

(2) ***Government agencies thinking of funding and promoting these types of processes should investigate their productivity.*** Specific assessments should include whether or not this process results in actions in the future, and whether or not there is a link between acquiring education through attending meetings and changing behaviour.

(3) ***The SRWR should document the results of its field work (restoration) projects over time in order to demonstrate long term benefits to watershed residents.*** If the Roundtable can demonstrate tangible, positive changes in environmental conditions as a result of their work projects, more interest and less suspicion will be generated in the Roundtable's work.

8.2.6 Discussion of Three Key Themes in Recommendations

There are three important themes in the recommendations suggested above which require further discussion: (1) future assessment of the productivity of the process; (2) power, authority and accountability of both the Roundtable as an entity, and the individuals in key roles within the Roundtable; and (3) cultural sensitivity and appropriateness of the process.

8.2.6.1 Future Assessment of Productivity

The most significant reason for undergoing the process to establish community-developed ecosystem objectives is the anticipated reward of a healthier ecosystem in the long term. In the future, it is important to document whether or not this is actually the case. That is, having gone through this process, do the residents of the Salmon River watershed manage

their ecosystem resources more sustainably than they would have if they had not undergone this process? Furthermore, how do the long term affects of this process compare to traditional approaches to watershed management in which government agencies take the lead role in outlining the vision for resource management. Periodic "check-ups" on the pilot project over several years would be necessary to document the real effect of ecosytem objectives on the "natural", social, and economic environment of the Salmon River watershed.

8.2.6.2 Power, Authority and Accountability

Issues surrounding power, authority and accountability were raised in the evaluation of the case study in relation to mistrust over use of government funds and unclear roles of government and certain Roundtable members. These issues also relate to the decision making fora used by the Roundtable. There are three important questions to address:

(1) *Who has the power to make or influence decisions?* While the Roundtable is (on paper) a consensus-based organization, decisions are made in two ways, by individuals of the Roundtable, and by consensus of the whole Roundtable. Within the Roundtable there are certain roles (like committee chairs and staff) which enable some individuals to have more power over decisions made. These individuals have more opportunity to influence others' thinking through writing and preparing documents, and chairing or facilitating meetings.

(2) *Who is accountable for, and has authority to implement the decisions made?* While intuitively, decisions made by consensus should have more power than individual decisions (since more people are behind consensus decisions), there is less personal

commitment to acting on group decisions because it is easier for people to abdicate responsibility--let someone else do it. Who then, is accountable for decisions made through the consensus model? Who has the authority to implement them? Some interview participants suggested that the Roundtable has no authority to implement its vision. Does the government do this? Is the government accountable to the Roundtable's vision? If they are, then ground-level government representatives to the roundtable need the authority to marshall resources within their organizations.

(3) *How does limited active participation by stakeholders (watershed residents) affect the "power" assigned to the decisions made?* Does the small group of residents who participate in meetings and the even smaller group of Roundtable members who articulate the Roundtable visions through documents and meetings with higher authorities (i.e., government agencies) have the authority to do so? Can they act on behalf of the entire watershed? The survey results indicate that the Roundtable's work is generally supported, but some accountability must be built into the process.

The issues of who has the power to make decisions, and who has the authority or the responsibility to enact those decisions are intricately linked to some of the frustrations and concerns expressed by watershed residents and process participants--specifically, suspicion and concern over grant monies, and the number and length of meetings. Addressing power, authority and accountability issues could go a long way towards alleviating these concerns. Some of the suspicion surrounding power abuses might be lessened by formally building decision making power into individual roles within the Roundtable (and publicizing what the roles and responsibilities are) and making these individuals accountable for their decisions

(through either election or employer-employee relationships). Concern surrounding the amount of time devoted to consensus processes (and the cost that this incurs to tax-payers) might be lessened by clearly delineating the types of decisions on which consensus is necessary within the organization (e.g., broad visions), and those which can be more efficiently undertaken by knowledgable persons who become accountable through their clearly defined roles. Consensus should be used only when it is really needed. When the consensus forum is used for "obvious" answers, people feel that it is a waste of time and money, and/or that they are being used to confirm a pre-determined agenda.

8.2.6.3 Cultural Sensitivity and Appropriateness of Methods

This discussion was started in the conclusions of Chapter 7, and is related to some of the issues raised in the preceding section (e.g., mistrust of people, especially outsiders, in power roles). The Roundtable has made a valiant effort at a first attempt to hold community meetings, and an admirable attempt to generate creativity and initiate discussions on an emotional level. Despite this, some research should be conducted into more culturally sensitive methods of visioning before further planning initiatives are undertaken in the watershed. This research could focus particularly on (1) culturally sensitive communication methods in order to reduce tension caused by mis-communication of information about the project; (2) ways to adapt the ToP process to the community using it; and (3) testing response to the methods chosen (e.g., including representative locals in the design phase of the process, and then testing response to the methods chosen on a sample of the population before committing to a large project). Based on the Salmon River watershed experience, future endeavours could build on those elements of the ToP process which the participants

liked the most--such as encouraging participation from everyone present--but modify both the subject matter to appeal to the watershed population at large, and the specific exercises to provide enough cultural comfort that community participation is not plagued with disinterest. Perhaps more effort could go into collecting and collating views before meetings are held (e.g., for this thesis, I acquired lots of views from people who had not been to a single meeting, through my mail survey); meetings could be used to critique, correct, and augment the compiled views; and educational components could be built into the process to help foster a future cultural environment which is more open to creative discussion.[1] This would encourage watershed residents to provide input to the visioning process today, while building the community's capacity for more socially-creative[2] processes in the future.

8.3 RECOMMENDATIONS FOR FUTURE COLLABORATIONS TO ESTABLISH ECOSYSTEM OBJECTIVES

The project to establish community developed ecosystem objectives for the Salmon River watershed was a pilot project for a process proposed by the CCME WQGTG. The evaluation of the pilot project--conducted in this thesis--has concluded that the process has enough merit to be attempted again. However, before this is done, the stakeholders involved in such an attempt should address the weaknesses spotted in the pilot project, and build upon its strengths.

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[1]Training, and with time, familiarity in ToP methods will likely lessen suspicion of results, and generate comfort with the process.

[2]"Socially-creative" as opposed to "individually-creative": expression in a group environment allows an immediate exchange of ideas not available when submitting a response.

In the case study, there were three levels of interests which initiated the pilot project: the federal government (Environment Canada), the provincial government (Ministry of Environment, Lands and Parks), and the multi-stakeholder group (the Salmon River Watershed Roundtable). Below, some suggested actions for the initiation of future projects are made for each of these three levels.

8.3.1 Federal Government

(1) ***The federal government should take a lead role in communicating and promoting, to initiate the development of ecosystem objectives.*** Specific actions could include:

(a) Developing, in cooperation with other stakeholders (provincial agencies, community multi-stakeholder groups and NGOs), advice documents, protocols, methods, guidance manuals, etc. to aid groups interested in undertaking a visioning process or establishing community developed ecosystem objectives.

(b) Promoting ideas through education materials and workshops aimed at an audience of community leaders.

(c) Providing funding to multi-stakeholder community groups to develop the skills necessary to successfully undertake collaborative visioning exercises.

(2) ***The federal government should collate and exchange knowledge on a Canada-wide basis.*** This should not be a one way exchange from government to community groups, rather the federal government should serve a facilitative role. Specific actions could include:

(a) Developing forums for the exchange of learning experiences from ecosystem-

based groups across the country who have attempted to develop ecosystem visions or ecosystem objectives.

(b) Researching and documenting new methods or ideas emerging around the world in the area of consensus-based management coupled with an ecosystems approach, and making this information available to multi-stakeholder projects.

(c) Assessing the common information needs of multi-stakeholder processes and looking for opportunities to fill them.

8.3.2 Provincial Government

(1) ***The provincial government should take a lead role (in cooperation with multi-stakeholder groups) in local application of the ecosystem objectives model.***

Specific action could include:

(a) Determining where, within the provincial planning framework, vision-setting and ecosystem objectives development are most appropriately situated; directing information and resources (of both federal and provincial origin) to these areas; and, institutionalizing a mechanism for delivering the results of local level visioning exercises (like the project described in this thesis) to the appropriate place within the provincial planning framework (e.g., should the results feed into LRMP processes?).

(b) Providing support for regional level employees to form partnerships and participate in multi-stakeholder groups (i.e., donating transportation, employee time, and in-kind support to projects).

(c) Working cooperatively with the federal government to publicize, promote and

communicate the benefits of the ecosystem objectives project.

(2) ***The provincial government should provide locally appropriate advice to multi-stakeholder processes*** on regulations, and scientific information through assessing the local information needs of multi-stakeholder processes and looking for opportunities to fill them.

8.3.3 Federal and Provincial Considerations for Funding Projects

Both levels of government must also develop some criteria for determining which types of processes to fund. Based on the pilot project evaluation, an agency should consider funding ecosystem objective setting projects for groups which show promise in the following areas:

(1) Have a proven track-record in the use of an inclusive, multi-stakeholder, consensus based decision making process.

(2) Use the Technology of Participation or similar facilitation methods.

(3) Attempt to gather public input using more than one method (e.g., use both community meetings and the mail system).

(4) Have conducted a cultural assessment of their process methods, and currently pursue methods which are culturally/socially sensitive and encourage wide-spread participation.

8.3.4 Multi-Stakeholder Groups

In addition to the recommendations listed for the Salmon River watershed case study (Section 8.2), stakeholder groups who wish to undertake a visioning exercise on a watershed, community or ecosystem basis should address the following recommendations.

(1) ***Develop expertise/skills in facilitation, organization, conflict resolution, etc.*** before initiating the project. These skills can then be further developed over the course of the project.

(2) ***Cultivate community support for the process*** (including both subject and methods) before initiating the project.

(a) Develop links with existing community organizations, like local community associations.

(b) Include more local people in the design phase of the project, ensure that topics are locally relevant and that people want to discuss them, and clarify expectations about the results of the process at the onset. A test of the methods and subjects could be conducted on a small group of local people before effort is expended on a large-scale project.

(c) Make use of field trips to generate interest and awareness. (Some of the people I interviewed cited a field trip of the Salmon River Watershed as stimulating their interest.)

(3) ***Combine alternative methods (e.g. home meetings, or mail surveys) with a community meeting process.*** To reach a maximum number of people, a variety of methods, appropriate to different audiences in the community, must be used.

(4) ***Research areas of conflict or potential conflict*** before the process is started, and build mechanisms for dealing with them into the process.

(5) ***Use the results of the Salmon River pilot project as a tangible example of an expected product.*** Explaining what happened in the Salmon River pilot project and

showing other multi-stakeholder groups the results of the process will enable other groups to conceptualize what the process is all about.

8.4 CONCLUSIONS AND RECOMMENDATIONS ABOUT THE PRODUCTIVITY OF RESEARCH METHODS

Because of the ongoing need to evaluate processes and pilot projects like the one in this thesis, it is important to reflect on the methods used in evaluation and their relative merits. Four methods of qualitative research were used in this thesis: document analysis, participant observation, in-depth interviews, and a mail survey. Based on the experience of using these methods in this thesis, several conclusions were drawn about their relative advantages and limitations. These conclusions are presented in Table 8.3.

In evaluating the Salmon River Watershed case study, each of the methods added to the description or evaluation of the events. To start, the ***document analysis*** was crucial in recounting the record of events both chronologically, and according to the 5-stage model of collaboration. The "facts" of the events were collected this way--the what happened, when, where and with whom. The ***participant observation*** also added to the story by capturing those things which are not usually recorded in official meeting minutes or records--things like comfort, or confusion.

Being a participant observer also gave me a better sense of the process--the qualitative difference between hearing a story (third person) and being a part of the story (first person). I had first hand knowledge of who was involved, who could answer certain questions, where I could find certain information, and the many project details and social

dynamics which may not appear in documents, or which may not be disclosed by an informant (someone being interviewed) because the right question was not asked, or the informant did not think the detail to be important. Being a participant observer in the process also helped me in the evaluation part of this project (the "why" questions); it enabled me to form opinions about the process which were important in selecting issues to discuss and questions to ask in the interviews and surveys.

The ***in-depth interviews*** which I conducted with process participants were essential to the evaluation of the case study. Through the interviews, I gathered the opinions of several people who had gone through the same experience that I had (attended the meetings, read the educational material provided, and formed opinions about different aspects of the process). This allowed for the triangulation of results: my opinions (through participant observation) were validated by the opinions of other process participants (through interviews). By interviewing people who had actually participated in the process, I was able to gather data which was more than speculative. The participants did not just speculate about the process, they were able to evaluate the process based on their own experiences within it. These types of experiences and opinions are the key to finding out what works, what does not work, and to making recommendations to improve the process.

The ***survey*** was important to address some of the questions which were larger than the mechanics of the process--things like: Is the process viewed as legitimate in the larger watershed community? Is there enough support and interest for this type of project for the work to continue? Are the problems and issues addressed and the results meaningful to people outside the clique? The survey placed the evaluation of the process into a larger

Table 8.3. Summary Evaluation of Research Methods Used in this Study

Method	Advantages	Limitations
Document Analysis	- access to a number of factual details which people tend to forget (like dates of meetings, who attended, how certain issues/projects were initiated) - access to the "official" version of events	- little explanation of events
Participant Observation	- exposure to social dynamics and project details not officially recorded - first hand sense of the process leading to opinions and explanations	- subjectivity of the method, while acknowledged, requires triangulation with other methods to support explanations - limitations in academic formats for passing on personal experiences to other researchers
In-Depth Interviews	- access to experiences and opinions necessary to identify strengths and weaknesses of a process and suggest improvements - provides an excellent opportunity to triangulate observations (between interviews, and with other methods)	- explanations made within the confines of the project studied--hard to relate to the external environment
Mail Survey	- access to experiences and opinions necessary to relate the process studied to the larger context in which it occurred - can be triangulated with other methods	- no opportunity to confirm understanding of answers or probe for deeper understanding or more specific answers

context. While the interviews found out what the people who participated in the process thought of it, the survey found out what those people who live in the watershed (and may not have participated) thought of it. These types of opinions are key to making recommendations about future initiatives in the watershed based on the acceptance of the current project.

8.5 GENERAL DISCUSSION

To round-out the discussion of the Salmon River watershed case study, there are two more topics to touch on: *What did the SRWR learn from this process?* and *What insight can the evaluation of this process shed on the "Big Picture" questions posed in Chapter 3?*

8.5.1 "Learnings" From the SRWR

In its final report on the "Community Establishment of Ecosystem Objectives" (SRWR 1996a), the SRWR outlined 12 things which had been learned through conducting this process. Most of these "learnings" (depicted in Box 8.1) agree with (and are supported by) the conclusions and recommendations made in this thesis. There are, however, two conclusions made by the SRWR which are pre-mature, and which my data--while inconclusive--would not warrant as optimistic an expression as made by the SRWR. The first is number 8: *Community involvement in setting objectives leads to commitment to carrying them out*. This commitment cannot be shown until actions are carried out based on the objectives, and indicators show that these actions are effective. It's easy to espouse commitment to an idea, but a lot more difficult to commit to actions. Interview participants told me that changing actions will be a long, slow process. Even those who say they are committed to the project say changing their actions (e.g., farming practices) is difficult. The second is number 9: *Community involvement in action plans can lead to very cost effective ways for government and other agencies to meet their mandates*. To my knowledge, there has been no study comparing the costs associated with a traditional command and control approach and this community involvement approach to action planning (and it is probably too soon to do so since the end point has not yet been reached). As well, it is too soon to say whether or not government mandates have been met through this process since that depends on the actions that result. There is certainly a perception among watershed residents that money has been wasted in this community involvement process. Whether or not it will be more cost effective in the long run (due to greater commitment of the community), remains

Box 8.1 "Learnings" from the SRWR

1. Community establishment of ecosystem objectives is clearly workable!
2. To be meaningful, such establishment needs to be part of the ongoing life of the community.
3. Momentum needs to be developed by involving members of the community in co-creating all stages of the project: work plan, creation of a knowledge base, implementation, monitoring, and reviewing objectives.
4. Considerable background information (verbal, traditional and scientific) needs to be gathered, integrated, shared and assimilated for meaningful objectives to result.
5. Care must be exercised in blending the various cultures (Native, non-native, rural, urban, scientific, traditional, etc.) involved in community establishment of ecosystem objectives.
6. Ideally, six months would be allowed for the consultant to gather his portion of the knowledge base.
7. Having all interests (residents, government, business, First Nations, etc.) involved in the process provides a most effective way to achieve coordination among existing agencies and programs.
8. Community involvement in setting objectives leads to commitment to carrying them out.
9. Community involvement in action plans can lead to very cost effective ways for government and other agencies to meet their mandates.
10. Individuals and organizations require some time and practice in consensus based processes to feel safe and to use them as learning opportunities for co-creating win win results.
11. The Institute of Cultural Affairs' Technologies of Participation and their underlying philosophy of participation can effectively and efficiently tap the wisdom of all participants and lead to enthusiasm for next steps.
12. In addition to a training, such as provided in the project, a corp of community facilitators needs ample practice in real life to become skilled and at ease in facilitating community meetings.

to be seen. There are also the issues raised in Section 8.1.2 regarding the difficulties in assessing the costs and benefits of a process such as this one.

8.5.2 Reflections on "Big Picture" Questions

In Chapter 3, five "Big Picture" questions were posed. These questions relate to the implicit assumption being made in this thesis: a collaborative multi-stakeholder process is an appropriate way (if not the most appropriate way) for the ecosystem objective setting process

to occur. Although the answers to these questions are largely beyond the scope of this study, some thoughts about the questions or how they could be answered are given below.

(1) Is the watershed the most appropriate planning unit for ecosystem objective setting?

Certainly, the Salmon River Watershed Roundtable is convinced that a watershed planning basis is the way to go. However, as was seen in the LRMP discussion of boundaries (Appendix C), watershed boundaries do not always reflect the purpose of the planning exercise. There are two issues for consideration: the purpose of the planning or management exercise, and the ecological relevance of the landscape unit used in the planning exercise, noting, dominant interactions between the human society, the economy, and the environment. At some point, a judgement call must be made--which of the dominant interactions are valued the most, or are causing the most problems? These interactions define the boundaries. In the Salmon River watershed case study, the watershed is an appropriate landscape unit in which to develop a vision and ecosystem objectives. Water quality, water quantity, water movement, are significant problems in the watershed which have led to the watershed being an ecologically relevant unit in which to conduct planning exercises. Despite this, there are issues related to this region for which watershed boundaries might not be the most appropriate ecological boundary for planning. This was exemplified in the LRMP process where timber supply areas were used. Forest ecosystems may span several watersheds. Similarly, planning for wildlife could result in similar conclusions when wildlife ranges encompass more than one watershed. If the Roundtable is to move beyond water issues in the future, it will need to be flexible on the geographical boundaries of its interests, or it will

need to identify issues as scale dependent (i.e., some are watershed issues, while some are broader issues).

(2) Is a collaborative, consensus-based model appropriate to deal with the problems and issues identified in the case study?

This question has been addressed under the discussion of power, authority and accountability above. The summary of this discussion is "yes" for general planning and visioning activities, and "no" for everyday operations of the Roundtable and work activities.

In a very practical sense, the ultimate decision makers in the watershed are all the people who live, or work in the watershed, or who have legal authority to implement or enforce their decisions (i.e., government), since these are the people whose actions affect the environmental, economic and social conditions of the watershed. If the Roundtable is truly representative of these ultimate decision makers, then the visions, goals, and guidance arrived at through the Roundtable's consensus decision-making should, if explained, make sense to these ultimate decision makers who will then implement these visions through their daily actions, legislation, etc.

(3) Could ecosystem objectives be set another way?

Certainly, there are other ways in which ecosystem objectives could be developed. For example, when ecosystem objectives were initially developed for Lake Ontario and Lake Superior, they were developed largely within the scientific community, without involvement of local residents--other than some comment from large scale public interest groups. As well, it would be possible to hire a consultant to write ecosystem objectives for an area and then to "correct" the objectives with community feedback. (In the Salmon River Watershed, this

second option might have produced more interest in attending meetings, especially if the objectives were viewed as controversial.) However, these alternatives are not consistent with the intent, and philosophical--even ethical--basis under which the Roundtable attempts to operate, and which the CCME WQGTG framework endorses. That is, that the community--the stakeholders of interest--jointly develop objectives that reflect a collective vision, and that, having been part of the collective process, all stakeholders would desire to implement the vision. This method is described as inclusive, positive, "the right thing to do", and something that will "pay-off" in the long term. It remains to be seen whether or not these objectives will serve a different role than the ones developed for the Great Lakes. It would be an interesting study for someone to conduct a follow-up study to ecosystem objectives in the Great Lakes, and the Salmon River Watershed, and compare their effect over time.

(4) Do ecosystem objectives, set through a collaborative MSP, result in a healthier ecosystem than what could be achieved through alternative methods?

This question has not been addressed at all through this thesis, and cannot be addressed until enough time has passed to observe changes in actions, and ecosystem conditions. Participants in the process hope that it will result in a healthier ecosystem.

(5) Are ecosystem objectives (or any form of watershed vision) necessary for effective ecosystem management?

It is certainly hard to imagine any effective management strategy which does not start with some sort of goal or objective. Without the sense of direction provided by goals, objectives or a vision, strategies could be nothing more than a stab in the dark. It should be noted that a vision is not static! In fact, an effective vision is probably one that is dynamic

and is revised with the times--as new information becomes available, or as environmental, social and economic conditions change.

It is questionable as to whether or not the ecosystem objectives developed in the case study are, on their own, specific enough to lead to effective ecosystem management actions. However, keeping in mind that these objectives are the first stage of a larger pilot project, the generality of the objectives is not too alarming. Out of necessity, the next phase of the pilot project (developing indicators) will ground these altruistic statements into concrete measurable variables. What is of more concern is the question of whether or not the ecosystem objectives developed were a true reflection of the watershed community. The objectives developed (see Box 5.1) seem far removed--in terms of form--from the sampling of watershed residents with whom I have been in contact through the meetings, interviews and surveys. This will limit the audience of the objectives to the literate, educated, planning-oriented segment of the Roundtable or government agencies. With respect to content, the objectives do cover the range of problems and issues deemed important by watershed residents. Despite this, it would be dishonest for these objectives to be reported as a consensus of the entire watershed community. Active participation of residents in the process (through meetings) was too low. This situation could be remedied somewhat if the non-meeting attending segment of the watershed population were given an opportunity to input into the objectives in a more culturally comfortable manner (e.g., commenting on the objectives through the mail).

8.6 CLOSING REMARKS

In a critical sense, a lot of discussion in this thesis has focussed on concerns participants and residents had with the process; this was done in the hope of bringing to light issues that need to be addressed in order to improve the process. This emphasis on "concerns", should not overshadow a very crucial finding of this thesis: ***the majority of people surveyed and interviewed from the Salmon River watershed support the efforts of the Roundtable.*** They think that meetings are a legitimate way to work towards community consensus. And, they are willing to try to live in accordance with the vision developed in this process, even if they did not actively participate in its creation! This is a finding which must be pursued in order to turn the plan into action: watershed residents must be given specific advice on tangible actions which they can do in their everyday lives towards making the vision for the Salmon River watershed a reality.

The Salmon River Watershed Roundtable's attempt at community development of ecosystem objectives was a valiant first attempt to put the CCME WQGTG's framework into practice. Evaluation of this pilot project has revealed strengths of the process, and support for the process to warrant the continued, cautious exploration of this approach in other areas. The pilot project has also proved useful in identifying areas where more work must be done in the future to address concerns of affected residents and to foster an environment which will encourage changes in behaviour and implementation of the future vision.

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APPENDIX A

Additional Notes on Research Methods

A. THE RESEARCHER'S ROLE

I first became aware of the Salmon River Watershed Project while working under contract for Environment Canada in Ottawa. I was working on projects related to the development of ecosystem goals, objectives and indicators. (One specific project was a draft version of the CCME WQGTG's framework for developing goals, objectives and indicators of ecosystem health, described in Chapter 2.) Through contacts at Environment Canada's regional office in B.C., I became aware of both the Salmon River Watershed, and the Ecosystem Objectives Steering Committee's (EOSC) interest in using the Salmon River Watershed as a pilot project for setting ecosystem objectives. When I decided to undertake a graduate degree at the University of British Columbia, I based my research proposal around this case study as a result of both my interest and prior knowledge of the case. Thus, my initial entry into the case study came through my previous employment. In fact, the first trip that I made to the Salmon River watershed was as a contractor for Environment Canada. In June 1994, I attended a conference on "Stewarding Our Watersheds", hosted by the Salmon River Watershed Roundtable (SRWR), and also attended the Ecosystem Objectives Steering Committee's meeting in Salmon Arm following the conference.

After completion of my contract with Environment Canada, I had a more formal entry to the case study as a graduate student researcher. I applied to both Environment Canada (Fred Mah) and the B.C. Ministry of Environment, Lands, and Parks (George Butcher) for funding for my research. My funding proposals were accepted, and Fred Mah and George Butcher were invited to sit on my graduate committee. In turn, I was invited to a meeting of the EOSC (its last meeting) at which time I was introduced to the committee and to representatives of the SRWR (Dorothy Argent--at that time chair of the Roundtable, and her husband, Neils Christiansen--chair of the SRWR's planning committee). At that meeting, I was told by Ms. Argent and Mr. Christiansen that I would be welcome to attend any of the SRWR meetings. All SRWR meetings are open to the public and not confidential; I could attend, note the events, and use them in my thesis.

Because my research involved human subjects, I did not only need to gain entry to the case study, I also required ethical approval from the University of British Columbia's Behavioral Sciences Screening Committee for Research Involving Human Subjects before I could conduct any formal interviews or surveys of people involved with the case study. This permission was granted on May 30, 1995. As part of my application to the Screening Committee, I guaranteed to keep confidential the identities of persons whom I interviewed. (The issue of confidentiality is addressed further below.) No guarantees of confidentiality were given to mail survey participants, however, they were asked to return the survey forms anonymously.

"Deploying the self" within a case study refers to how a researcher behaves within the social setting under study. In this case study, I assumed the role of a participant observer in meetings and workshops, and also interacted with process participants through interviews and surveys.

Through both my role as a participant observer, and my role as an ethnographic interviewer/survey administrator, there arose the confounding issue of my influence on the process which I was studying. In order to acknowledge my interaction with, and influence on the study, I kept track of my input into the process in my field notes. Details about how I interacted with the other people involved in the case study, and how I may have influenced the case study are given below in relation to my three participatory research methods.

(a) Participant Observation

I always felt welcomed by the Roundtable chair, committee heads, and staff members at all the meetings I attended or whenever I requested information from them. In fact, my relationship with many of these people became quite friendly--staff would joke about me being the most faithful meeting participant, and I was often asked if I could help out with small tasks (see above). I also developed friendly relationships with some of the local residents and a couple of agency representatives who were Roundtable members. Other Roundtable members with whom I had less contact, such as government employees who were not always consistent in their representation, seemed ambivalent about my presence at meetings.

With respect to the community meetings, I think most local residents associated me with the Roundtable staff (despite my introducing myself as a student from UBC), and were generally ambivalent about my presence at meetings. Those local residents with whom I had the opportunity to work in small groups were generally very friendly to me, and sometimes asked me questions about what I was studying. After I had started interviewing process participants, people whom I had interviewed would greet me and talk to me during meetings.

There are two potential ways in which my presence in meetings could have affected the process which I was studying. First of all, as a participant in the community meetings and Falkland workshop, I was expected to provide my ideas on various subjects discussed during small work-group sessions (i.e., discussing an issue and reaching some conclusions in small groups of 2 or 3 people as part of the Technology of Participation group discussion methods [see Appendix C]). During larger group discussions I would generally refrain from participating. Through the Technology of Participation facilitation methods, the ideas, suggestions, and conclusions resulting from each small work-group become part of the larger vision or plan developed. So, in this manner, some of my ideas may have become part of the official paper records emerging from the meetings, however, my contribution--like that of any participant--was small in relation to the whole.

Secondly, in this case study, there was the potential for a "Hawthorne effect", that is, that people behave differently because they know they are being studied. Since I identifed myself as a

student researcher evaluating the process, meeting participants knew they were being studied. Despite this, a Hawthorne effect seems unlikely or very limited. As mentioned above, most people associated me with Roundtable staff and did not treat me in any special way indicative of my role as an evaluator. Most questions posed to me about my research were made in the context of polite conversations. My role as an evaluator did not receive extensive attention within the meetings. Since I attended meetings regularly and participated in the same way as the others present, I was accepted as just another meeting participant.

(c) Interviews

In general, I found people receptive to being interviewed, (one exception is noted in the next section). Many people were very hospitable to me when I arrived at their homes. I was often offered coffee or tea and snacks, and on four different occasions I was invited to stay for a meal. People answered my questions seriously; they appeared to put a lot of thought into what they said. Most wished me well with my study.

My interaction with interview participants also influenced the results which I received. There are two important issues to note. Firstly, during the interviews, I played a facilitative role: I aided the participants in telling me their views about the process under study by guiding them through a set of topics (outlined on the questionaire in Appendix D). In this role, I would often have to clarify questions posed to participants by phrasing them differently, or explaining terms, and then probe them for clarification when I was uncertain that I understood their comments. My communicative ability influenced the exploration of participants' views. One further issue was that my interaction with some of the interview participants likely increased their knowledge and understanding about the meeting process in general. For example, after I had questioned people, they would often question me about similar issues (like what my expectations for the process were, or whether or not I knew what was going to be done with all the information the Roundtable was gathering). In many cases I was more knowledgable about the process details and history of the project (from document analysis and attending other meetings) than the people I was interviewing. I answered their questions to the best of my ability, noting where I had obtained my knowledge.

(d) Surveys

I actually had some people whom I had met over the course of my involvement with the Roundtable write short notes to me on the survey form--such things as "Hope all is well Kathy", or "Hi Kathy!" Other than these few notes, survey respondents did not react to me personally, though some reacted to the survey. There was the whole range of responses from very positive comments like, "Filling this in has made me aware and informed. I'll pay more attention in the future." [b034] and "Important environmental documents (like this) in the Mail.[emphasis by respondent]" [b121], to, hostile comments like, "Who are you? What is your real agenda? See me after you clean up more populated, politically more powerful areas." [a060], "Do you need this info to see if you can steal my property and give it to the Natives?" [a062], and "I think that you are wasting tax payers money!!! [emphasis by respondent]" [b113].

Finally, as a researcher in an ongoing process, I had to make an ethical decision about whether or not to share my emerging results with the people involved in organizing the case study while the pilot project was still underway, and this knowledge might affect the way in which organizers conducted later parts of the process. I chose to share the emerging results from my interviews (when I had conducted approximately half of them) with one of the coordinators in the hope that this knowledge would be beneficial to the Roundtable in organizing and preparing for the Falkland workshop.

B. NOTES ON DATA COLLECTION METHODS

1. Document Analysis

The examination of documents (official or informal) is a standard way to analyze social situations, constructs or processes (Berg 1989, Hammersley and Atkinson 1983, and Marshall and Rossman 1994). In some cases, it is possible to draw on "inside" written accounts (i.e., documents written specifically for the purposes of the research, for example, diaries of study participants), however, most of the time, researchers review material that has been produced for other purposes (Hammersley and Atkinson 1983). This latter case is the situation for the Salmon River Watershed case study. Hammersley and Atkinson (1983) list a variety of informal and formal documents that are suitable for review. At the informal end there are fictional literature, diaries, autobiographies, letters, and mass media products. At the more formal end, there are enumerations, official records and reports, and government statistics. Berg (1989) provides a list of more specific official records suitable for social research (court transcripts, police reports, census information, financial records, crime statistics, treaties, political speech transcripts, internally generated government agency reports, school records, sales records, and similar documents), and also discusses the use of public archives and commercial media accounts. Regardless of what type of written documents are studied, there are several questions that researchers should keep in mind when reviewing documents,

> "How are documents written? How are they read? Who writes them? Who reads them? For what purposes ? On what occasions? With what outcomes? What is recorded? What is omitted? What is taken for granted? What does the writer seem to take for granted about the reader(s)? What do readers need to know in order to make sense of them?" (Hammersley and Atkinson 1993).

2. Participant Observation

"All social research takes the form of participant observation: it involves participating in the social world, in whatever role, and reflecting on the products of that participation...As participants in the social world we are still able, at least in anticipation or retrospect, to observe our activities 'from the outside' as objects in the world" (Hammersley and Atkinson 1983).

Participant observation is the basic method of all qualitative studies (Marshall and

Rossman 1995); immersion in a case study setting enables the researcher to experience and understand the process under study as the participants do. Hammersley and Atkinson (1983) note that when a researcher is a participant observer in his or her own society, it is often difficult to assume a novice role (i.e., be a passive participant as a result of ignorance). In the Salmon River Watershed case study, this was my situation--I was expected (by other participants) to actively participate in the meetings I attended. In a couple of instances, I was asked if I could take notes at meetings.[1] There were several instances when I was asked if I was able to do volunteer work for the project. For the most part, it was not possible for me to commit to any volunteer activities since I lived a six hour drive away from the case study. However, when I was able to, I would try to arrive early at meetings to help set up or stay late to help clean up. I was also occasionally asked by Roundtable facilitators or staff to help out with tasks during community meetings and at the Falkland Workshop. Such tasks included preparing flip-charts for meeting participants to use in group work exercises, washing coffee cups, helping set up the Falkland Community Hall for the workshop, and being a group leader for one of the small group exercises at the Falkland workshop.

3. Interviews with Participants

In-depth interviewing is used extensively by social scientists interested in participants' views of events, processes or phenomenon under study (Marshall and Rossman 1995). There are different degrees of formality and structure in qualitative research interviews, however, most are conversational in nature. Marshall and Rossman (1995) state:

> "[T]he participant's perspective on the phenomenon of interest should unfold as the participant views it, not as the researcher views it. A degree of systematization in questioning may be necessary in, for example, a multisite case study or when many participants are interviewed. The most important aspect of the interviewer's approach concerns conveying an attitude of acceptance--that the participant's information is valuable and useful." (p. 80)

Several steps were involved in making the interviews possible. Once the project had received ethical approval, the next step was to finalize an introductory letter, consent form, and the actual questions to guide the interviews (Appendix D). Once these materials were prepared, the interview was "tested" on three participants. Based on feedback from those three participants, some modifications were made to the interview questions. The test interviews were especially helpful in identifying potential problems with language/terminology and the types of responses that could be expected. Following these modifications, the rest of the participants were interviewed.

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[1]This never happened at any of the community meetings described in Chapter 6, only in a couple of Roundtable committee meetings that I attended.

Interview participants were made aware of the study through an introductory letter. (In a few cases, the letter was not mailed to the participant: it was given to them at a community meeting. I approached them to discuss the possibility of conducting interviews after they had a chance to read the letter.) In total, letters were either mailed or hand delivered to 34 potential participants, each of whom was assigned a number between 1 and 34. The letters were followed by phone calls in which meeting times were arranged. Only one person refused to be interviewed.[2] Four people could not be reached by phone (after several attempts were made) and were no longer pursued. Four others were not interviewed due to scheduling problems. The remaining 25 participants were interviewed.

There were two exceptions to the general interview methods described in Chapter 4. One participant was interviewed by telephone since scheduling a personal interview became next to impossible, and this participant's input was highly desirable since he/she played a pivotal role in the process as a staff person for the Roundtable. This interview was not tape recorded. The second exception occurred as a result of two sets of two participants desiring to be interviewed together [22 and 27, and 25 and 33]. In both cases, these participants were husband and wife.[3] In each case, I gave both participants an opportunity to answer each question, and I recorded their answers separately.

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[2] This person said that he thought there were better people for me to interview. I explained that I wanted to interview people with different amounts of "knowledge" about the process, and that any opinions he had about the meetings which he attended would be valuable. He repeated that he did not want to participate and then questioned me--in an accusatory tone--about where I lived and why he did not remember me from any of the meetings.

[3]As a general rule, I tried not to interview two members of the same family unit because I made an assumption that people living in the same household would likely share similar views on the topics in my interview. However, in these two cases, it was difficult to choose between husband and wife because both seemed to be involved with the process to the same degree, and both--having heard of my study--wanted to be interviewed. After conducting these interviews and reviewing the results, I found that in both cases, the husband and wife had fairly distinct answers; they seemed to disagree on as many points as they agreed. I was also initially reluctant to interview two people at the same time because of the possibility of participants basing their responses on something the other participant said, rather than interacting solely with me. However, since the views of these participants were valued, and since I wanted to interview them in an atmosphere that was most comfortable to them, I decided to proceed with the "double" interview. I was also cognizant that, although I had only one subject in my other interviews, the settings were far from standardized, so the fact that I was interviewing two persons at once did not seem too unusual. (In other interviews, there were occasional interruptions from children, pets, spouses, phone calls, meals and work related crises, and in some cases it was not possible to meet in total privacy.)

(a) Confidentiality in Analysis

There are some issues of confidentiality which influence the ways in which the interview data were analyzed and reported. Each informant was assured that his/her name would not be used in the thesis, and that any quotations or information provided to me would be structured into the thesis in such a way that participants could not be personally identified. **Priority was given to maintaining the anonymity of the interview participants**, even when this was to the detriment of understanding the data. What this means in practical terms is that I only provided the most critical piece of contextual/demographic information about a participant when presenting a quote. For example, I might write, "One resident from the Falkland community stated that...", if I thought that residency in Falkland had the most bearing on that particular comment. I would not write, " A 45 year old female school teacher living in the Falkland area stated that...". The pool of people who attended meetings was small enough that an informant could be easily identified--by other process participants who might read this thesis--through this second quote. For similar reasons, I have not identified the government agencies of the government representatives, despite the fact that this information might be interesting to put their comments in perspective.

Aside from the interview data, there are places in this thesis where I have named individuals who played key roles in the process under study. I did this when it was less cumbersome than referring to the person's role, or when I wanted to emphasize that the same person played different roles.

(b) Notes on Qualitative Data Analysis Used in Interviews

* As was mentioned in Section 4.1, qualitative research is iterative. Many authors describe how analysis is either cyclically linked to, or occurring simultaneously with data collection and narrative writing (Berg 1989, Creswell 1994, Marshall and Rossman 1995, and Miles and Huberman 1994).

* When using the term "**grounded theory**", "theory" refers to "plausible relationships proposed among concepts and sets of concepts," (Strauss and Corbin 1994). The development of grounded theory is inductive: after reviewing a entire set of qualitative data (e.g., the answers to an interview question) certain themes tend to emerge (e.g., *people used hostile comments when they talked about government bureaucracy*, or *there were two distinct views on whether or not the right people attended the meeting*, etc.). These themes or patterns might stand as conclusions on their own, or they could be linked to other themes as larger conceptual patterns emerge.

* In the **role ordered matrices** used to organize interview data, interview participants were organized by their roles (their membership in one of the community groups shown in Table 4.1) down the left-hand column. The top row of the matrix gave the headings of questions or topics covered in the interview. The resulting cells were filled with each participant's comments, copied directly from my handwritten interview notes. The advantage of organizing the data into these matrices was that all the responses for one

topic could easily be reviewed together, and then further broken down by community groups when desired.

4. Mail Survey

Surveys are another method commonly employed by social scientists in order to "learn about the distribution of characteristics, attitudes, or beliefs" (Marshall and Rossman 1995). Surveys generally consist of a number of standardized questions (some of which may be open ended), and may be conducted at one point in time (defined as a time period), or at different points in time and then compared (e.g., if testing how values change over time) (Marshall and Rossman 1995).

A one page, double-sided survey was prepared and then reviewed by members of my graduate committee and the chair of the Salmon River Watershed Roundtable's Planning Committee (Neils Christiansen). The surveys were sent as un-addressed admail (i.e., "junk mail") in envelopes which had a notice of their contents (i.e., survey) in place of an address label. A business reply envelope was included with the survey to encourage people to return the completed survey.

Of the surveys which were returned, two were rejected because the respondents indicated on the survey that, although they are on the same mail route as residents of the Salmon River Watershed, they actually lived in the Chase Creek Watershed. Another six were excluded because they were returned unanswered, and one was excluded because it was returned four months after the return deadline and after I had already started analyzing data. Of the remaining 198 responses, one was a letter response, so it was only used in the qualitative analysis of survey data. Additionally, five other respondents attached letters to their completed survey forms.

(a) Notes on the Analysis of Survey Data

* Quantitative data was entered into a dbase spreadsheet in which each survey question became a different variable. The program "SPSS for Windows Release 6.0 Student Version" was used to calculate frequencies (in both numbers and percentages) of different categories of answers for each variable. This program was also used to produce some graphical representations of the data, and to conduct the chi-square tests reported in Chapter 4.

* In some cases, survey respondents were able to indicate more than one response to a question. (For example, when asked who would use the information gathered in community meetings and the Falkland workshop, participants were given several choices and were able to indicate as many as they deemed relevant.) In these cases, each possible choice was treated as a separate variable, and the presence or absence of an answer by the respondent was recorded as a different category.

* 95% confidence intervals were calculated only for original quantitative data where clear choices were made by the respondents. In other words, qualitative data which I interpreted and assigned to categories in order to make graphical presentations (e.g. Figure 6.2), or data from questions in which several responses could be given (e.g., Figure 7.2), have not been given confidence intervals.

C. DATA VERIFICATION STEPS

There were two main ways in which data and conclusions were verified in this study. Whenever possible, when conclusions were drawn, different sources of data were used; observations were triangulated. For example, when reporting the events of and drawing conclusions about a meeting, I might use the official record of the meeting, my personal field notes from the meeting, and segments of the interviews in which participants referred to this particular meeting. The second way in which data and conclusions were verified was through feedback with the case study. Two members of the SRWR sit on my committee (Fred Mah and George Butcher), and were expected to spot any gross errors in reporting events.

APPENDIX B

List of Relevant Meetings, Workshops, and Events Attended by Researcher

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LIST OF MEETINGS ATTENDED

Date	Meeting	Location
June 23-26, 1994	Stewarding Our Watersheds Conference	Salmon Arm
Nov. 4, 1994	Ecosystem Objectives Steering Committee Meeting	Vancouver
Jan. 21-22, 1995	SRWR Work Plan Workshop	Salmon Arm
Feb. 13, 1995	SRWR Technical Coordination Workshop	Salmon Arm
Mar. 9, 1995	SRWR Annual General Meeting	Salmon Arm
Mar. 23, 1995	Meeting Regarding Knowledge Base Proposal for the Salmon River Watershed	Vancouver (UBC)
Apr. 13, 1995	SRWR Planning Committee	Salmon Arm
Apr. 13, 1995	SRWR Meeting	Salmon Arm
May 11, 1995	SRWR Executive Committee	Salmon Arm
May 11, 1995	SRWR Planning Committee	Salmon Arm
May 11, 1995	SRWR Meeting	Falkland
May 30, 1995	Community Meeting	Mount Ida
June 7, 1995	Community Meeting	Westwold
June 8, 1995	SRWR Planning Committee	Salmon Arm
June 8, 1995	SRWR Meeting	Salmon Arm
July 6, 1995	Community Meeting	Falkland
July 10, 1995	Community Meeting	Silver Creek
Aug. 1, 1995	Community Meeting	Mount Ida

Date	Meeting	Location
Aug. 3, 1995	Community Meeting	Falkland
Sept. 25, 1995	Community Meeting	Silver Creek
Sept. 27, 1995	Community Meeting	Westwold
Oct. 19, 1995	Community Meeting	Falkland
Oct. 23, 1995	Community Meeting	Silver Creek
Nov. 14, 1995	Community Meeting	Mount Ida
Nov. 20, 1995	Community Meeting	Silver Creek
Nov. 22, 1995	Community Meeting	Westwold
Dec. 2-3, 1995	Celebrating and Creating Our Watershed's Future (Workshop)	Falkland
Feb. 8, 1996	SRWR Planning Committee	Salmon Arm
Feb. 8, 1996	SRWR Meeting	Salmon Arm
May 6, 1996	Community Meeting	Silver Creek

APPENDIX C

History and Chronology of Events in the Collaboration towards Ecosystem Objectives in the Salmon River Watershed

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A. THE SALMON RIVER WATERSHED

The Salmon River Watershed is located in the B.C. interior, and covers approximately 1510 km² in the region between the urban centres of Kamloops, Salmon Arm, Vernon and Merritt (Quadra Planning Consultants Ltd. 1996). The river itself is 110 km long and flows in a northeasterly direction from its headwaters in Salmon Lake (on the Douglas Lake Cattle Ranch) to the Salmon Arm of Shuswap Lake at the town of Salmon Arm (Quadra Planning Consultants Ltd. 1996). The river system is part of the Thompson Drainage Basin, which ultimately drains into the Fraser River. A map of the region can be found in Figure 1.1.

In many ways, the watershed is typical of most inhabited watersheds in B.C. outside the lower mainland. There is a mix of rural and urban residents, there is heavy reliance (or at least perceived heavy reliance) on resource based activities like farming and forestry, there is a mix of good and bad stories with respect to environmental conditions, and there is the potential for great conflict over resource use/conservation, First Nations land claims, and urban/rural development issues.

Unless otherwise cited, the factual information presented in this section was taken from Quadra Planning Consultants Ltd. (1996). To provide a socio-economic profile of the watershed, Quadra Planning Consultants Ltd. used 1991 census data for the census areas most closely resembling the watershed's boundaries.

1. Social, Political and Economic Profile

Jurisdictional boundaries do not usually follow ecological borders; this is certainly the case for the Salmon River Watershed. Three Regional Districts have jurisdiction over the area: Columbia Shuswap Regional District (CSRD), Thompson Nicola Regional District (TNRD), and the North Okanagan Regional District (NORD). As well, two district municipalities have area within the watershed: Salmon Arm, and Spallumcheen. In addition to the regional and municipal governments, five native bands belonging to two nations (Shuswap and Okanagan) have traditional territory within the Salmon River Watershed and there are three Indian Reserves in the watershed. The largest urban area is the town of Salmon Arm which has a total population of about 14,500, however, only a portion of the town actually overlaps the watershed's boundaries. The total population of the watershed is 7,845 (1991 census data), with 4,460 living in Salmon Arm, and 3,384 living in the rural portion of the watershed. The rural portion of the watershed contains a number of small communities located along the valley bottom (e.g., Silver Creek, Yankee Flats, Falkland, Westwold). The upland areas and the region near the headwaters are more sparsely populated. The watershed's current population growth rate (4%) is higher than the provincial average (3%). Table C.1 provides a further breakdown of population by age group.

Economically, the historical mainstays of the watershed have been agriculture and forestry. Most of the land in the valley bottom and around Salmon Lake (a total of 63,000 acres) is located within the Agricultural Land Reserve (ALR). A variety of crops and livestock are farmed in the watershed, however, beef and hay dominate in the upper watershed and dairy and some row crops are prominent in the lower watershed. The upland areas are mostly designated for forestry purposes and this area is managed under three forest districts (Salmon Arm, Vernon, and Merritt). There are four major forest licensees in the watershed: Riverside Forest Product Ltd., Tolko Industries Ltd., Federated Cooperatives Limited, and Ardew Wood Products Ltd. Current trends show less than historical

Table C.1. Population Data for the Salmon River Watershed (Based on Quadra Planning Consultants Ltd. 1996. Note "% of total" data for age categories do not add up to 100% in the original source.)

Description	Whole Watershed	Salmon Arm in Watershed	Rural Watershed
Total Population (#s)	7,845	4,460	3,384
Age 0-19 (% of total)	28	26	30
Age 20-64 (% of total)	56	52	58
Age 65+ (% of total)	18	23	13
Recent migrants/less than 5 years in watershed (% of total)	30	29	31

importance of these resource sectors in the incomes of watershed residents (Quadra Planning Consultants Ltd. 1996). Although agriculture and agriculture-related work is still dominant in the rural areas of the watershed, the government/health/education sector along with wholesale and retail sales and other businesses comprise the largest portion of the workforce in the entire watershed. The largest single source of income (1/3 of the total income for the watershed) comes from non-employment sources (e.g., pensions, unemployment insurance, social assistance, investment income, etc.). This may be a reflection of the large retiree population migrating to the Salmon Arm area. It is predicted that in the future, retiree income, tourism, and the service industry will drive the watershed's economy (Quadra Planning Consultants Ltd. 1996). A breakdown of the watershed's labour force is given in Table C.2.

Table C.2. The Salmon River Watershed's Labour Force (Based on Quadra Planning Consultant's Ltd. 1996.)

Description of Labour Force	Number	Percent of Total Labour Force
Non-Labour Force	3,945	n/a
Total Labour Force*	3,900	
employed	-	65
self-employed	-	19
unemployed	-	13
Labour Force by Industry*		
Agriculture and Related	495	13
Fishing and Trapping	25	0.6
Logging and Forestry	250	6
Mining, Quarrying	40	1
Manufacturing	365	9
Construction	325	8
Transport and Storage	115	3
Communications and Utilities	50	1
Wholesale and Retail Trade	620	16
Finance, Insurance, Real Estate	120	3
Business and Other Services	430	11
Accommodation and Food	285	7
Government, Health and Education	675	18
Other	105	3.4

* numbers do not add up to 100% in source.

Over 90% of the watershed residents speak English only and are either Christians (65%) or have no religious preferences (34%). Home ownership in the watershed is reasonably high: 60% in the Salmon Arm portion of the watershed and 83% in the rural areas. The crime rate (101 per 1,000 in 1993) is lower than the provincial average (147), and also much lower than close by urban areas such as Vernon (161) or Kamloops (155).

2. Environmental Issues

Perhaps the best way to describe the biophysical environmental issues in the watershed is to mention some of the issues and characteristics which have garnered interest within the watershed. The river itself has the interesting feature of flowing underground for an 8 km stretch near the community of Westwold. (The river only flows above ground on this stretch during spring freshet.) There have been several recent studies related to the hydrology, water quantity, water quality, and fish and wildlife habitats of the river (e.g., Aquametrix Research Ltd. 1995, Burt and Wallis 1995, and Miles 1995; for a more complete listing see Quadra Planning Consultants Ltd. 1996)--the details of which are too lengthy to cover here. From these studies, it is apparent that there are a number of resource uses which have different requirements and impacts on the watershed, some of which may be conflicting.

A summary of these uses is listed below.

* *Water Resource Uses*: domestic use and irrigation from river, domestic use and irrigation from groundwater, fish spawning, recreation (fishing, swimming, tubing)

* *Land Resource Uses*: forestry, farming, mining, trapping, wildlife, residential development, recreation (hunting, camping, bird watching, snowmobiling, dog-sledging, cross-country skiing)

These scientific studies, along with personal observations (by local residents and interested citizens), have led to a perception that the environmental condition of the watershed is deteriorating. Some problems which initially sparked action by members of the Roundtable are summarized by Argent and Christiansen (1995 pp. 2-3) (These issues have been further developed and researched over the course of the collaboration to develop a watershed stewardship plan, and are expanded upon in Chapter 6.):

(1) Water quality and quantity problems preclude the rebuilding of historically large sockeye salmon stocks in river (e.g., inappropriate flow in different seasons, and high summer water temperature),
(2) Cattle manure and fertilizer application increase nutrient loading to the river,
(3) Clearcut logging affects water flow,
(4) River banks erode due to lack of riverside vegetation and high spring run off, and
(5) Residential development threatens the agricultural nature of the valley.

B. ANTECEDENTS

1. Origins of the Salmon River Watershed Roundtable

The Salmon River Watershed Roundtable (SRWR) grew out of the Salmon River Restoration Project initiated in 1991 by some landowners in the Salmon River Valley near Salmon Arm. (The history of how the Roundtable evolved is summarized from Argent and Christiansen 1995, and Personal Communication with Roundtable Members.) In 1991, a few concerned Salmon River valley landowners brought some of the issues listed in the preceding section to the District of Salmon Arm (DSA). The mayor formed an Environmental Management Committee (comprised of councillors including Dorothy Argent and Tom Brighouse) to address the landowners concerns. It soon became apparent to the committee that, alone, they had neither the expertise nor understanding of the river and its watershed to deal with the complex problems presented to them by the landowners. The committee sought other stakeholders to join them in discussing issues of mutual interest. For the first year, the group attracted several more groups and individual members to the table (government agencies, First Nations, industry, ranchers, farmers, landowners, special interest groups and interested citizens) and shared their joint concerns for the river.

As interest in the project grew, so did impatience to do something tangible about problems on the river. In 1992, the Neskonlith Band (who are situated at the mouth of the river) formed the Salmon River Restoration Committee (SRRC) which (1) hosted an international youth exchange program in which the youth carried out restoration activities on the river, and (2) produced a half hour video about the river. As well, a technical committee was formed to look at other options for restoration projects. Momentum grew for the project as both more agencies and more landowners became involved.

In January 1994, members of the project undertook a strategic planning exercise, out of which the Salmon River Watershed Roundtable emerged. The adoption of the name "Salmon River Watershed Roundtable" reflected two of the concepts or approaches that had been adopted by the group. The first was a shift from the initial concern on the river itself to a broader concern for the entire watershed (the river still being a major focus). The second was a recognition that their operating procedures reflected those of the Roundtable movement described in Chapter 3. Argent and Christiansen (1995) point out:

> "It is interesting to note that we did not set out to create a Roundtable. As our project evolved we realized we were in support of the National Round Table's principles and that *round table* best described our work."

2. Membership and Operating Procedures

The SRWR is a multi-party organization comprised of landowners, First Nations, citizens, government agency representatives, and industry, and is open to anyone in the watershed with an interest in attending. In fact, the only *explicit* criterion for membership is that members have an interest in the watershed. Members can join the Roundtable as individuals or as representatives of other organizations or agencies (e.g., Department of Fisheries and Oceans or the B.C. Cattlemen's Association). The *implicit* criterion for Roundtable membership is that members either live or work in the watershed, or that they use or impact the watershed's natural resources (e.g., tourists). Original membership was somewhat selective--composed of people who the Environmental Management Committee had contacted based on the Committee's view of who might be interested based on their sectoral interests, or their environmental knowledge. Over the past two years, the Roundtable has made a concerted effort to make more people aware of the Roundtable (and invite them to attend meetings) through mail-outs to all watershed residents and by holding meetings in different regions of the watershed. Currently, based on my observations at meetings, the most active members are those with the greatest stake in Roundtable activities--those people who give or receive money for demonstration projects (e.g., Roundtable staff), those who receive direct benefit from Roundtable actions (e.g., landowners who have riverbank restoration/erosion control projects on their land), those who stand to face short-term losses from Roundtable activity (e.g., groundwater users against the Roundtable's support for provincial groundwater legislation), and those motivated by strong environmental convictions. Table C.3 provides an example of who was involved in Roundtable meetings in

the year preceding the ecosystem objectives/watershed stewardship plan project.

The Roundtable operates through consensus decision-making, defined as "general agreement or concord: harmony" (SRWR 1994a). The Roundtable uses the community participation methods of the Institute of Cultural Affairs (a non-profit consultative institute based in the United States, which has 25 years of experience in development and planning processes in approximately 30 different countries) known as "the technology of participation" (described later in this appendix). The Roundtable reports that these "technologies" have aided them in building consensus and community (Argent and Christiansen 1995).

The Roundtable is organized into a number of subcommittees (executive committee, planning committee, field action committee, legislation committee, education and awareness committee), each of which is headed by a chair. Different documents describing the Roundtable's organizational structure have slightly different variations on the names and number of subcommittees (DFO FRAP 1995, BC RTEE 1994, CORE for Convening Partners 1995, SRWR Meeting Minutes April 14, 1994). This probably reflects the dynamic nature of the work that is carried out by the Roundtable--committees are formed as needed, some die, some lay dormant for a while until they are needed again. The five subcommittees listed above seem to be the ones that were predominant in the Roundtable prior to the watershed planning process and are still functioning to some degree in the Roundtable today (Based on SRWR Minutes from December 1993 to present).

The *executive committee* is responsible for overseeing financial and administrative matters of the Roundtable. This committee is comprised of one local, one federal, and one provincial government member, the chairs of all the Roundtable committees, two First Nations representatives, and two landowners (CORE for Convening Partners 1995). The chair of the Roundtable also chairs the executive committee. The *planning committee,* seeks and provides information needed to make informed decisions, and is the primary organizer of the initiative to create a watershed stewardship plan (CORE for convening partners 1995). The membership of this committee is not set; it is open to any Roundtable members interested in working on particular aspects of planning (SRWR Minutes March 14, 1994). Members of this committee have included representatives from federal and provincial agencies (Environment Canada, DFO, MOELP, MOF, a representative from Riverside Forest Products Ltd., and interested citizens) (SRWR Minutes March 14, 1994). The *Field Action Committee* is in charge of restoration work at sites along the river: reviewing proposed projects, and then coordinating and carrying out the work (CORE for convening partners 1995 and SRWR Minutes March 14, 1994). Membership is open, but composed primarily of landowners, First Nations, and government agencies (DFO and MOELP). The *Education and Awareness Committee*'s purpose is to encourage community awareness throughout the watershed through the SRWR newsletter, flyers, brochures, and the use of other media when appropriate and membership is open to anyone (SRWR Minutes March 14, 1994). The *Legislation Committee* examines and suggests possible changes in legislation which effects

Table C.3: Attendance at Salmon River Watershed Roundtable Meetings December 1993 to December 1994. The left column lists the organization or stakeholder group. The top row lists meeting dates. In the column under each date, the number of representatives from each stakeholder group who attended the meeting is given. No data for shaded areas.

	Dec 9/93	Feb 2/94	Mar 10/ 94	Apr 14/ 94	May 12/ 94	Jun 9/94	Jul 14/94	Aug 11/94	Oct 13/94	Nov 10/94	Dec 15/94
SRWR Staff (includes co-op students)		1	1	1			1			3	2
District of Salmon Arm	2	1	2	2			1		1	1	1
Columbia Shuswap Regional District	1	1	1				1				1
BC Ministry of Environment, Lands and Parks	2	3	2	3			1		2	1	2
BC Ministry of Forests		2	2	1			1				2
Environment Canada		1	4	2					1		1
Department of Fisheries and Oceans			2	1							
BC Ministry of Agriculture, Fisheries and Food			1								1
IRM (?) Planner, Vernon		1					1				
Fraser Basin Management Program				1			1				
SABNES/Shuswap Naturalists				1			1				
Action Canada Network							2				
SEAS (Shuswap Environmental Action Society)	1		1	1			1				1
Okanagan Indian Band	1									1	

	Dec 9/93	Feb 2/94	Mar 10/ 94	Apr 14/ 94	May 12/ 94	Jun 9/94	Jul 14/94	Aug 11/94	Oct 13/94	Nov 10/94	Dec 15/94
Shuswap Native Tribal Council (non-native staff member)	1						1				
Shuswap Nations Fisheries Commission	1	1	1	1					1		1
Neskonlith Band	2	2					1				
Spallumcheen Indian Band		1	1	1							1
Riverside Forest Products	1	1	1				1		1		1
Salmon River Motel		1									
Shuswap Sun (newspaper)				1							
Shuswap Adventure Tours							2				
Interested Citizens	4	5	5	6			5		4	3	6
Landowners / Farmers	4	4	5	1			5		1	4	2
Vancouver Community College			1								
Okanagan Community College							1				1
Salmon River Healing Teaching							1				
Consultants or other scientific experts (not agency representatives)	1										1
Guests from other watersheds		3									
unknown affiliation		2									
TOTAL	**21**	**30**	**30**	**23**			**28**		**11**	**13**	**24**

the watershed (SRWR Minutes March 14, 1994). Membership is open, and has included interested citizens and agency representatives (DFO and MOELP). Committee heads usually sit on more than one committee since their attendance is encouraged at both executive and planning committee meetings.

All Roundtable members are volunteers, however, they have one paid coordinator[1] as well as co-op students or students of other funded work-experience programs when available[2], and in the future the Roundtable hopes to explore work projects with the Elder Hostel. (In the past, the SRWR has provided watershed tours for Elder Hostel.) When the project first started, under the auspices of the DSA, the chair of the Environmental Management Committee, Ms. Dorothy Argent (who was then a Salmon Arm Counsellor) also became the chair of the Roundtable. Even once the Roundtable became a separate entity from the DSA (and after Ms. Argent lost her bid--during a close race--for re-election to the DSA), Ms. Argent continued to chair the Roundtable (with over-whelming support from Roundtable members) until the Roundtable's annual general meeting this year (April 1996). Ms. Argent stepped down as chair for her own personal reasons, and her feeling that change would be healthy for the Roundtable. Only one candidate expressed interest in taking over the job of chair: Dennis LaPierre, a sheep rancher from Falkland who has been involved with the Roundtable for the last couple of years and has sat on the executive committee. Mr. LaPierre is now the official chair of the Roundtable, but Ms. Argent is assisting him in co-chairing the Roundtable during a transition period.

3. The Watershed Resource Centre

In January 1994, the Roundtable established a Watershed Resource Centre in the Neskonlith Band office on the reserve just outside Salmon Arm. In June of 1995, the Resource Centre was moved to Silver Creek in order to be more central to the rural watershed community. The Resource Centre is the hub of Roundtable activity; it provides the chair, coordinator and volunteers with some office space and a place to keep resources, information, displays, etc. The Resource Centre fields calls from watershed residents who have concerns or questions about the Roundtable's work, or their own observations of conditions in the watershed. Many landowners use the Roundtable as a source of information to lead them to the government agencies suitable to solve their problems. Currently, the Roundtable has no statistics on how many call or inquiries are fielded by the Resource Centre

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[1]Two people have held this position. Thyson Banighen was the coordinator from January 1994 to March 1995. Since March 1995, this position has been filled by Mike Wallis.

[2]Student and youth projects have included involvement with two groups of international youth exchanges, the Ladder project (work experience for 10 local youths), Canada World Youth, the Kitimivik Program, and joint projects with various local schools (e.g., site maintenance projects). Next year, the Roundtable hopes to set up a program through which they can hire 15 local youth to work on watershed restoration projects.

(Dorothy Argent and Neils Christiansen, Pers. Comm. November 19, 1995), however, this is something which they may look into recording in the future.

4. Pre-1995 Visions and Values

In May 1993, the Roundtable held a visioning workshop to determine its membership's common vision. The result was a mission statement:

> "To be a catalyst to achieve and maintain a healthy Salmon River Watershed through coordinated management of all resources, respect for all concerns and cooperative, positive action."

The Roundtable also set themselves the ultimate goal of returning the Salmon River and its watershed to their former biological abundance, recognising that this goal cannot be stated in precise quantitative terms.

The workshop was attended by roughly 30 people composed of people from both the DSA Environmental Management Committee initiative, and the SRRC (Argent and Christiansen, Pers. Comm. November 19, 1995). The draft statement resulting from the workshop went through several iterations. It was mailed to everyone on the Salmon River Watershed Project's mailing list (roughly 80 people at that time), comments were solicited, and a meeting was held to finalize the statement (Argent and Christiansen, Pers. Comm. November 19, 1995). Argent and Christiansen (Pers. Comm. November 19, 1995) estimated that 40 people directly imputed into the statement through the workshop or written comments.

In October of 1994, the SRWR formally adopted the "Salmon River Watershed Planning Guide" (SRWR 1994). This document identified four objectives of the mission statement:

- exhibit respect for all concerns
- utilize coordinated management of all resources
- be achieved through cooperative, positive action, and
- maintain a healthy Salmon River Watershed.

The guide then described four concepts through which the SRWR wished to meet these objectives:

- *consensus based planning* - "Group planning based on three successive levels of consensus or shared understanding: (1) listening with respect and an open mind to one another's perspectives until all have a common 'sense' of what is being talked about, (2) making decisions together, and (3) members of the group taking action together based on decisions they have made";

· *sustainable living* - "To live in a sustainable way is to have a lifestyle (with all its social, environmental and economic components) which can be sustained into the indefinite future without deterioration of either the lifestyle or the social, environmental or economic systems on which the lifestyle depends. To live in a sustainable way is to ensure that one's children and their children's children are able to live equally well";

· *the ecosystem approach and ecosystem objectives* - An approach in which "each and every living and non-living entity in the watershed [including humans] is viewed as part of a complex [eco]system in which everything is interdependent with everything else...[ecosystem] objectives are developed for the long term health and sustainability of the ecosystem"; and

· *making the plan useful* to the landowners, agencies and businesses through which the plan will be implemented (SRWR 1994a).

5. Roundtable Projects Prior to 1994/95

Prior to the ecosystem objectives initiative, the SRWR (or former Salmon River Restoration Project) has been involved in a number of projects. Some of the main projects have been summarized from DFO FRAP 1995, CORE for convening partners 1995, BCRTEE 1994, and SRWR 1995f:

(1) Establishing the watershed resource centre,
(2) Producing several educational videos including "Voices of the River",
(3) Conducting several river restoration projects (as of the fall of 1995, the Roundtable had 24 sites and was working with 20 different landowners),
(4) Lake Rainbow Trout Stock Monitoring,
(5) Hosting a "Stewarding Our Watershed's Conference", June 23-26 1994,
(6) Conducting a water use survey of riverside property owners,
(7) Conducting a water quality assessment study, and
(8) Holding two watershed "celebrations" (open house informational events, including watershed tours) attended by more than 1, 000 participants.

(Further details can be found in SRWR 1995f.)

6. Resources

The Roundtable has obtained funding for its work in three main ways: (1) through agency support of research and studies, (2) through funds generated to support field action activities (i.e., restoration or enhancement projects), (3) and through funding provided to cover core administration costs (Argent and Christiansen 1995). Funds moving through the Roundtable have dramatically increased in the last couple of years. The total revenue for the 1993/94 fiscal year was $71,711 (expenditures $68,789); this increased to $231,199 in 1994/95 (expenditures $170,552) (DFO FRAP 1995). A rough breakdown of the

Roundtable's funding sources is as follows: federal government- 77.6%, provincial government - 15.1%, municipal government - 1.7%, and corporate contributions - 4.7% (DFO FRAP 1995). It should also be noted that there has been considerable donations in time and in-kind work from numerous volunteers within the watershed and from government agencies. The Roundtable estimated a contribution of $60,000 worth of volunteer labour in their proposed budget for 1995-1996 (at $10 per hour) (SRWR Executive Committee Meeting, May 11, 1995).

Much of the federal and provincial funding has been funnelled through demonstration projects. The Salmon River Watershed Project is a demonstration project for both the Fraser River Action Plan (FRAP), and the Fraser Basin Management Program (FBMP) (Argent and Christiansen 1995). As a demonstration watershed for FRAP, the focus is "...involvement of local people in rehabilitation and sustainable management of the watershed" (DFO FRAP 1995). In the demonstration watersheds, "FRAP plays a crucial role by providing seed money to get round tables up and running. The program also provides advice and technical assistance to local round tables, carries out hands-on habitat restoration and holds workshops" (Environment Canada and Fisheries and Oceans 1995). The Fraser River Management Program selected the Salmon River Watershed as one of its six demonstration projects. The goals of this program were to increase the profiles of these projects, and through this heightened awareness, encourage agencies to direct their funds to the projects (the FBMP does not have funds of its own to put towards these projects) (Fraser Basin Management Program representative, EOSC Meeting Minutes October 25, 1993 and November 24, 1993).

The SRWR estimates its needs for operating the Roundtable and Resource Centre to be $86, 434 annually (including the costs of staff, travel and office expenses) (SRWR 1995f).

7. Recognition

The work of the SRWR has led to considerable recognition for the Roundtable locally, provincially and federally. Locally, in December 1994, the SRWR was first requested by the CSRD to comment on a development proposal to build a multi-unit mobile home park in the watershed at Silver Creek. In a memorandum to Roundtable members (January 3, 1995), the SRWR chair wrote,

> "We have 'earned our stripes' with the political bodies as a <u>referral agency</u> to give input and direction into land use planning, so that our efforts can be integrated into the Official Community Plans for the different districts...[a] letter [was] sent on your behalf to George Abbot, Chair of the Columbia Shuswap Regional District, to state your opposition to the development of the trailer park in Silver Creek. As agreed, a committee of three met the day after the [last Roundtable] meeting to write the letter, summarizing the concerns brought forward by the Roundtable members present. This letter was the first to be read at the Public Hearing, among other responses from referral agencies. There were ninety residents that showed up in opposition to the

development at the public hearing. This is the first time we have been requested by the CSRD to comment as a referral agency and we expressed our appreciation for that in the letter we sent to them."

The SRWR recommendation to not approve the project probably had a large impact on the CSRD's decision to disallow the project (SRWR Meeting Minutes January 1995, and personal communication from Mr. Peter Devall, the developer in question). Since then, further development proposals have been forwarded to the Roundtable for comment. The SRWR has also been involved in a number of projects with local schools, (e.g., monitoring the growth of willow saplings or beaver control mechanisms) which provides an educational opportunity for the watershed's youth.

Provincially, the SRWR chair, Dorothy Argent, has been the driving force behind initiating a Provincial Watershed Alliance (growing out of the Sustainability, It's Time for Action Conference 1995), and has become a popular speaker at various forums related to sustainability, watershed/ecosystem based planning, and community development within B.C. As well, the Roundtable has become involved with the Land and Resources Management Plan (LRMP) for the Okanagan-Shuswap area, and has been granted a seat at this planning table. Federally, the Roundtable has been recognised as far away as Ottawa and the Atlantic provinces for its multi-stakeholder approach to watershed planning and management (an example of this is Environment Canada Headquarter's involvement in the ecosystem objective setting process).

All this recognition has made the SRWR a powerful voice for residents of the watershed: powerful in levering funds for research and work projects, powerful for conveying opinion and influencing planning and/or development decisions at various levels of government, and powerful in terms of its educational capacity both within the watershed and elsewhere. This has led the Roundtable to question its own mandate and authority: Do they really speak for the watershed community as a whole? As one prominent member of the round table expressed in an interview, although the Roundtable has a mission, it doesn't have a mandate--only the public can give them the authority to speak on the public's behalf.

8. Towards a Watershed-Wide Management Plan

To provide the rest of the context (antecedents) for the collaboration to develop ecosystem objectives and a watershed vision, two other factors need to be mentioned. The first was the desire of the Roundtable itself to undertake a planning process. As early as the fall of 1993, the Roundtable expressed interest in undertaking a watershed-wide planning process and developing a future vision that reflected the views of the entire watershed community--not just the Salmon Arm Region of the Watershed (Salmon River Restoration Project Minutes December 1993). They decided to hold a strategic planning workshop in the New Year, to be attended by all members of the group, in which they would discuss their future plans.

The second factor was the federal-provincial Ecosystem Objectives Steering Committee's (EOSC, see Chapter 2) desire to have their process for developing ecosystem objectives tested in a pilot project. During the summer of 1993, the Salmon River Restoration Project was selected as a demonstration project for the Fraser Basin Management Program. Through FBMP involvement with the EOSC, the EOSC kept informed on the development of the program's demonstration projects, and the Salmon River Watershed in particular (EOSC Minutes July 27, 1993 and October 25, 1993). [The EOSC appeared to be "keeping tabs" on a number of different programs which espoused some ecosystem concepts (e.g., Ecological Science Centres, Land Resource Management Plans, Integrated Watershed Management Plans, Fraser River Action Plan Assessment Programs, Model Forests, and the B.C. Roundtable) (EOSC Minutes July 27-October 25, 1993).] According to Fred Mah, the EOSC developed a set of six criteria which they applied to the six FBMP's demonstration projects to determine which of the six would be most suited for their own ecosystem objectives pilot study (Fred Mah, Pers. Comm. August 30, 1996). (Although Fred Mah could not remember all of the criteria at the time of my interview with him, he said, "I think one of the things we needed was a consensus process and people were not at logger-heads with each other.") He also noted that, at the time, there was a lot of political pressure for the EOSC to choose the Nicola Watershed for their pilot study:

> "But we looked at the Nicola and we said, 'Uhn-ah, it's not going to work because it's not a fully public supportive approach.' All they were looking at was to do with community futures. All they were looking at was how to revive the economy of Merritt. But, you know, the politicians were pushing." (Fred Mah, Pers. Comm. August 30, 1996).

By the end of November 1993, the EOSC had chosen the Salmon River Restoration Project as an appropriate pilot project for the development of ecosystem objectives based on the assumption that "the community is already using an ecosystem approach, and therefore the project has a good chance of success" (EOSC Minutes November 24, 1993). The EOSC set up a meeting with the Salmon River Restoration Project and then the EOSC discussed their strategy for approaching the group: offer assistance, not leadership (EOSC Minutes November 24, 1993).

C. PROBLEM SETTING

The problem-setting stage of this collaboration recounts the events culminating in a formal work agreement between these two groups.

1. The SRWR Takes an Interest in the EOSC's Process.

On December 13, 1993, a special meeting was held in Salmon Arm between members of the EOSC [including Fred Mah and George Butcher (co-chairs), Bev Raymond and Patrick Shaw (employees of Fred Mah), and John Power (Environment Canada)], members of the Fraser Basin Management Program (Prad Khare and Greg Mallette), and members of

the SRWR (including agency members, interested citizens, the mayor of Salmon Arm, a native representative, and a forest company representative; no-one from the agricultural community was in attendance) (SRWR Minutes December 13, 1993). A week before this meeting, the Roundtable held its regular monthly meeting, at which time the December 13th meeting was announced as an opportunity for the EOSC co-chairs to "Share their expertise in ecosystems with us" (SRWR Minutes December 9, 1993). From the minutes of the December 13th meeting, it appears that this was primarily an information meeting. Fred Mah gave a presentation to the Roundtable about "holistic approaches", a five step model to develop ecosystem goals and objectives, and work that had been done to develop ecosystem objectives in the Great Lakes (see Chapter 2). There was little discussion of the presentation afterwards (Fred Mah, Pers. Comm. August 30, 1996), although there was some discussion on coordination between various agencies, and the Roundtable's submission of comments to the B.C. Ministry of Environment, Lands and Parks Water Stewardship initiative.

Over the next few months, discussion continued between the SRWR and the EOSC (primarily Fred Mah and George Butcher):

> "You see, after the first presentation there were no questions, and George and I thought, well, we'd 'had it' for the time being. After the presentation there was dead silence, you know. I knew that we'd had it unless we continued communicating. So what we did is we continued to phone Dorothy, and everything, and George, because he knows Tom Brighouse, [*District of Salmon Arm Councillor and SRWR member*] so he went through that route as well...I think the only thing we wrote back to them was, 'Thank-you very much for the opportunity to present, blah blah blah, hope that we can continue to communicate with each other'. But, subsequent to that, it was through phone calls, because, you know, Dorothy wanted to know about this, and know about that--this type of thing." (Fred Mah, Pers. Comm. August 30, 1996).

Fred Mah and George Butcher also attended the SRWR Strategic Planning Workshop on January 13 and 28, 1994. (This workshop was facilitated by the Institute of Cultural Affairs (ICA) using the Technology of Participation (ToP) Action Planning Method described in Box 6.1, and was attended by approximately 30 people--watershed residents, agency representatives, and First Nations). One of the "Strategic Directions" that emerged during this workshop was "planning" towards a watershed stewardship plan. Goals proposed at the workshop related to documenting and prioritizing issues as well as collecting and organizing data available for the watershed (SRWR 1994b). Considering that both Fred Mah and George Butcher participated in the team that outlined the planning goals, it is probably no coincidence that these are the types of activities expected in "step one" of the CCME framework described in Chapter 2 (scoping the issues and collating the knowledge base). Following the 1994 strategic planning workshop, Dorothy Argent and Neils Christiansen began regularly attending EOSC meetings (EOSC minutes February 2 - June 27, 1994), and Fred and George became members of the SRWR Planning Committee.

As well, during the winter and spring of 1994, the EOSC worked on refining its own strategic plan (to outline a mission statement, and operating concepts), developing a fact sheet on ecosystem objectives (in which the SRWR was used as a case study), and devising a communications strategy for ecosystem objectives (EOSC minutes February 2 - June 27 1994). The actual work of the EOSC was undertaken through Fred Mah's office (at that time called the Environmental Quality Objectives Section of the Integrated Programs Branch of Environment Canada, Pacific and Yukon Region). The Monthly EOSC meetings served to guide/approve the work (although there was some difficulty reaching agreements within the group--refer to discussion in Chapter 2). There was also a lot of interaction at this time between Fred Mah's office and Environment Canada's headquarters in Ottawa--the Evaluation and Interpretation Branch, (EIB). I was working under contract for the EIB, and the section in which I was working was asked to provide feedback and ideas on the EOSC's work products. Members of the EIB were highly supportive of the EOSC's approach--largely because the EOSC was promoting a framework prepared by EIB staff as part of their duty as the CCME WQGTG Technical Secretariat (see Section 2.2.3).

Although not a lot of mention is made of the EOSC in the SRWR's minutes between January and March 1994, discussions were obviously taking place. By April 1994, the Roundtable was committed to pursuing a formal partnership with the EOSC. The Roundtable's planning committee had drafted "Terms of Reference for Creating, Adopting and Implementing a Watershed Stewardship Plan for the Salmon River", (SRWR 1994c). These terms of reference stated,

> "The philosophical bases for developing the watershed plan lie in the combined work of the Salmon River Watershed Roundtable and the Ecosystem Objectives Steering Committee of the federal and B.C. governments" (SRWR 1994c).

The months of May and June 1994 were a period of clarification with respect to the ecosystem objectives project. The SRWR minutes (May 12, 1994) recorded an announcement that the EOSC had chosen the SRWR as a pilot project, and the EOSC minutes (June 8, 1994) show discussion between EOSC and SRWR members regarding who (agencies) is involved currently in the SRWR, and how exactly the Roundtable operates. During this period, the Roundtable was also heavily involved in preparing for a conference entitled "Stewarding Our Watersheds" which it hosted in Salmon Arm from June 23-26, 1994. A meeting of the EOSC was scheduled to take place in Salmon Arm following the conference.

2. A Work Agreement is Formalized

On June 27, 1994, the EOSC held an all day meeting in Salmon Arm.[3] The morning session included a Salmon River Watershed bus tour for EOSC members, show-casing some

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[3]I sat in on this meeting as a contract employee of Environment Canada (Ottawa). (This was actually the last day of my contract with Environment Canada.)

of the restoration work that had been done by the Roundtable in the valley between Salmon Arm and Falkland. The rest of the day was more formal. Several (8) members of the SRWR were present, guests from Environment Canada's Ottawa office (Mike Wong, Amanda Brady, and myself) and Health Canada (Andy Gilman) were present, and several agency representatives, most of which had some former contact with the Roundtable were also present. Formal presentations were made by Dorothy Argent (describing the accomplishments and aspiration of the Roundtable), Mike Wong (regarding ecosystem objectives work in the Great Lakes), Andy Gilman (health issues arising from environmental contamination; cooperation between federal agencies), and Doug Pollard (results from an international workshop on protected landscapes) (EOSC minutes June 27, 1994). The rest of the afternoon was spent brainstorming information requirements for developing a knowledge base for the Salmon River Watershed. This was to be the first step towards developing ecosystem objectives. The terms of reference for the SRWR's stewardship plan (which had been prepared by the planning committee, see above) were also distributed (EOSC minutes June 27, 1994). Although this meeting could have been important in terms of meeting one another and learning about one another (through the watershed tour and the presentations), with respect to the brainstorming session, there was a lot of confusion regarding why the information was needed, who was collecting it, and whether or not it was being collected in order to establish a geographical information system (GIS) for the watershed.

Following the EOSC's June 27th meeting, the Roundtable continued communicating with the EOSC in developing its watershed stewardship plan. Thyson Banighen, the SRWR's Coordinator, prepared a short paper entitled "Citizen Involvement in Establishing Ecosystem Objectives for the Salmon River Watershed" for the EOSC. In this paper, he outlined the ways in which the SRWR wanted assistance from the EOSC: (1) establish[ing] a set of indicators for monitoring success achieved in implementing the stewardship plan [yet to be developed...], (2) provid[ing] information useful in developing and implementing the stewardship plan, (3) locating work on sustainability indicators across Canada and the rest of the world, and (4) accessing the funds and other resources needed to carry out all of the above (Banighen 1994). As well, the planning committee reported to the Roundtable that, since they had established terms of reference for a watershed stewardship plan, their next step was the creation of a planning framework (SRWR minutes July 14, 1994). Over the next few months, the *Salmon River Watershed Planing Guide* (SRWR 1994a) was prepared (penned by planning committee chair, Neils Christiansen). This guide was formally adopted by the Roundtable on October 13, 1994 (SRWR minutes October 13, 1994) after having first passed review by the planning committee. The "ecosystem approach and ecosystem objectives" were written into the planning guide as one of the four concepts guiding the development of a watershed stewardship plan. The planning guide was distributed to both SRWR and EOSC members. By this time, it was clearly established that the SRWR's planning committee was the segment of the Roundtable in charge of the project to develop a watershed vision and ecosystem objectives.

Shortly following the adoption of the SRWR's planning guide, the EOSC held their last meeting (for details of the EOSC's demise see Chapter 2). I had just been told that I would receive funding from Environment Canada and the BC MOELP to study this project, and I was invited to attend the EOSC's meeting. At this meeting, I learned that draft agreements had been prepared between the two lead EOSC members (Environment Canada and BC MOELP) and the SRWR. A letter of understanding had been drafted, and a contract referred to as the "facilitation contract" had been prepared to give financial support to the Roundtable for strategic planning related to the development of ecosystem objectives (EOSC minutes November 4, 1994).

Later that month, (November 28, 1994) a Letter of Agreement --the former "facilitation contract"--was signed between Environment Canada and the SRWR. Environment Canada agreed to fund the Roundtable ($35, 000: 25k for the 1994/95 fiscal year, and 10k for the 1995/96 fiscal year) for the following deliverables: "A report outlining the watershed-wide vision, short and long-term ecosystem objectives and goals as proposed by the community participants, and an implementation plan". The tasks of the Roundtable were to include:

(1) Convening a core group of community partners to create the work plan for developing the watershed-wide vision, and
(2) Training community facilitators in the methods of the Institute of Cultural Affairs and then having these facilitators conduct meetings (and a final workshop) throughout the watershed, to gain input to the "stewardship plan for the development of ecosystem goals and objectives".

Although the agreement was signed only by the SRWR and Environment Canada, MOELP was also named in the agreement as providing advice to the SRWR through George Butcher. It was also stated in the agreement that the Roundtable must attempt to find additional funding elsewhere. The Roundtable did succeed in obtaining another $21, 555 from the Environmental Partners Fund, and $12, 400 from the Vancouver Foundation (SRWR 1995g). Later in the 1994/95 fiscal year, Environment Canada gave another 6k to the Roundtable (under what was referred to as the "communications contract") to cover the costs of developing information fact sheets about the watershed, and covering the costs of mail-outs to watershed residents (Fred Mah, Pers. Comm. August 30, 1996). With this funding in hand, the SRWR was set to under-take a formal planning process towards developing a watershed vision and ecosystem objectives.

D. DIRECTION SETTING

The Letter of Agreement signed by Environment Canada and the SRWR outlined two main activities which are described in this stage of the collaboration towards a stewardship plan and ecosystem objectives for the Salmon River Watershed. First, the agenda and work

plan were outlined, and then the more "active" part of the process (i.e., carrying out the agenda) took place.

1. The Agenda and Work Plan are Outlined

The first step in establishing an action agenda for developing a watershed stewardship plan and ecosystem objectives was to convene a "core group of community partners to create the work plan" (Letter of Agreement November 28, 1994). The Roundtable set this 2-day workshop for January 21 and 22, 1995 (a weekend) at the Okanagan Community College in Salmon Arm. The **Work-Plan Workshop** was advertised to Roundtable committee members (i.e., those members who sit on one of the Roundtable's five committees described above) through a mail-out dated January 3, 1995. Committee members were strongly encouraged to attend through a faxed announcement from the SRWR chair. As well, general Roundtable members were invited to the workshop at the Roundtable's monthly meeting which was--for the very first time--held in Westwold (SRWR Minutes, January 12, 1995).[4] Two facilitators (from ICA in Seattle, WA) were hired by the Roundtable for the workshop, and the workshop was attended by 31 people (10 landowners, 9 interested citizens, 2 staff, 5 ministries and agencies, 1 industry, 2 First Nations and 2 local government).

The workshop appeared to be very similar in format to the strategic planning workshop that the Roundtable held a year previous to this one, and again, participation included roughly 30 people. Some members seemed a little bit confused as to why they were doing the same thing again. When I spoke to participants at the breaks and identified myself as a student studying the process, I had at least five different Roundtable members tell me that they wanted to talk to me at some point during my evaluation of the project. They made comments such as, "Too much time and money is being spent on planning, and not enough on the river itself," and "Didn't we do this already? Why do we have to do it again?". It was interesting to note that these types of comments were not present in a sheet of quotes from workshop participants that was included in a mail-out after the workshop. All the comments in the mail-out were very process-positive (e.g., "My time spent here for these 2 days has enabled me to chart my future better, and given more focus to my life--clarified my goals", and "It [the workshop] has shown that the group has made progress in the past year, and has acquired a clearer identity".)

Despite the apparent mixed reviews from different workshop participants (above), the workshop was an important step forward in the development of ecosystem objectives for the watershed. An agenda and nine month time-line was developed for the "community development of ecosystem objectives" (SRWR 1995a). The "victory" of the nine month

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[4]As a result of holding the Roundtable meeting in Westwold, a few landowners from the Westwold area took part in the Work-Plan Workshop.

process was described as having 300 participants at a workshop in September.[5]

Following the Work-Plan Workshop, there were a few more events that laid the foundation for the more "active" part of developing ecosystem objectives and a watershed vision. On February 13, 1995, Environment Canada held a **Technical Coordination Meeting** in Salmon Arm. The purpose of this meeting was to assemble everyone (agencies and academics) who was conducting scientific research in the watershed (or who had scientific information about the watershed) to share presentations on their work, and to brainstorm information requirements (and availabilities) for the watershed planning process. This was, essentially, a precursor to developing the knowledge base, described in the next section.[6] (I attended this meeting as an observer; I did not present any work.) The last segment of the meeting, "Integrating current research studies into the knowledge base to support the development of ecosystem objectives", was the most interesting with respect to my study. This section of the meeting was facilitated by Neils Christiansen. Workshop attenders were asked, "What 'kernels' of technical wisdom about the Salmon River Watershed do the residents need to know [in order to come up with ecosystem objectives]?". Participants brainstormed several ideas which were grouped into six different categories which could be used in developing the knowledge base: human impacts, habitat restoration/rehabilitation/conservation, understanding water, community stewardship, value of riparian zones, and fish habitat requirements.

Later that same month, (February 21, 1995) a **Facilitator Training** was held in Salmon Arm, the purpose of which was to train community members in the facilitation methods of the Institute of Cultural Affairs. The training was conducted by two ICA members from Seattle (Dorthea Jewell and Gordon Harper). The local residents were trained so that they could facilitate the community meetings held later in the year. Twenty spots were available at the training. Of these, five were filled by government agency representatives, twelve by Roundtable members who live in Salmon Arm or the surrounding area (but not watershed residents) (of these one was from a local First Nation, one was a local industry representative, and one was from a local environmental group), one by a rural Salmon River Watershed resident, and two by student employees of the Roundtable (SRWR 1996). The facilitation training was advertised to all members via the December 15, 1994 Roundtable meeting minutes (sent to all Roundtable members) and through a memorandum

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[5]Note that later that spring, the time-line for the project was moved back a few months so that the September workshop became the December workshop.

[6]There did not seems to be any formal relationship between this brainstorming session and the one previously conducted at the June 27, 1994 EOSC meeting in Salmon Arm (see Section 6.1.2). In fact, in a recent interview (August 1996), Fred Mah told me that while some of the ideas may be similar, the information gathered at the June 27, 1994 EOSC meeting was not consciously used in outlining the knowledge base contract.

from the SRWR Chair to all members (dated January 3, 1995), and volunteers were signed up on a first come, first served basis.

The actual training given to the participants was based on the ICA method called "The Technology of Participation" which is described in detail by Spencer (1989). Based on Spencer (1989) and a copy of the handout/booklet given to me by one of the facilitator trainees, I have prepared a summary of ICA methods (see Box C.1). It should be noted that most of the workshop participants already had some familiarity with the ICA methods since ICA had facilitated the Work-Plan Workshop (which many of the facilitator trainees had attended), and because Roundtable member, Neils Christiansen, had used ICA methods in facilitating former SRWR events.

I was curious to know why the Roundtable chose to hire (and Environment Canada agreed to fund) facilitators and trainers from an American organization rather than look for a similar group closer to home. Fred Mah explained why:

> "First it was raised by Neils at the Roundtable. And I said, 'What's the difference between their technique and somebody else's technique?' And I said, 'What's their success story?' See, I was quite concerned because we're trying something new, okay, and I knew that a lot of facilitators, they're facilitators but they're not very good, because as I said, on the [*ecosystem objectives*] steering committee we went through three of them and we couldn't get anything. So, what he did is he provided me with a book called 'ToPs'...and then also he got information on an estuary in Louisiana. The ICA people facilitated that process. And in actual fact, even though they are not calling them ecosystem objectives and so on, they are doing similar things. And it was a success story, and so, I said, 'Let me see what I could find anywhere else where there's a success story like this.' I couldn't find anything, so I said, 'Okay, that's what we'll go with'" (Fred Mah, Pers. Comm. August 30, 1996).

Later that year, in the interviews that I conducted, a couple of Roundtable members--one of whom had taken the facilitator training--discussed the methods with me. Although they were not specifically asked questions about it, a couple of interview participants noted that they thought either the facilitation instruction or the ICA methods in general were useful:

> "The training that was incorporated into that for facilitators--as a separate workshop--was excellent." [1]

> "I particularly like the ICA technique in terms of grounding into action...I would say that the facilitation process we've used from the very beginning, and what it's done (even though sometimes it's a bit of work) but it's really kept it focused. We've had clear goals. We have measurable goals. We know what to celebrate at the end. We know who was doing what. So, I think the technique is very good...It's been really

interesting having been through this which is really action-oriented at the end. It's focused in a way that you get something out of it." [28]

Although most people whom I interviewed were probably unaware that the ICA "Technology of Participation" was being used, there were several other interview participants who made comments related to the ICA technique. People recognised a pattern to the process used:

> "It's new to me--the process of writing things on little pieces of paper and making some sort of an agreement about them, and pasting them on the board. The process is well developed enough that it's something you could learn. I'm sure that Neils and Dorothy, or Neils, went off and learned this process--found out that it existed as a process, and took it up." [16]

The next big event to take place in the watershed was the **SRWR Annual General Meeting** held at the Lion's Club Hall in Salmon Arm on March 9, 1995. Although this meeting was announced in a mail-out to all members, I only counted 22 people in attendance--a small number for an AGM, considering that the Roundtable considers its total membership (people on mailing list) to be approximately 120 (Argent and Christiansen, Pers. Comm. November 19, 1995). This may have been because the meeting was held on a week-day during business hours when most residents are working. Those people who did attend were mostly general citizens and landowners, though a couple of members of the FBMP, and a local town counsellor were also present. The meeting opened with songs (parodies of familiar camp songs performed by local counsellor Tom Brighouse). The results of the Work-Plan Workshop were summarized and presented by Neils Christiansen. The plan was reviewed and adopted by the members present, giving official sanction for the development of a watershed stewardship plan according to the devised work-plan. During the meeting, the participants also reviewed segments of the 1994 strategic plan in small groups and then reported to the larger group on the progress that had been made during 1994.

2. Development of the Knowledge Base

The discussion of the events that transpired as the work plan was implemented have been organized into three sections: the knowledge base (which describes the events that took place in the effort to consolidate and make available information about the Salmon River Watershed); the community meetings (which describes the effort to include local community members in the development of ecosystem objectives and a watershed vision); and the Falkland workshop and follow-up (which describes the culminating event in the community meeting process).

Box C.1: Summary of the "Technology of Participation" (ToP) Group Facilitation Methods of the Institute of Cultural Affairs (ICA), (based on Spencer 1989 and ICA 1994).

* The **ToP Strategic Planning Process** begins with "developing a common vision and ends with construction of an implementation timeline complete with assignments, deadlines and scheduled review sessions" (Spencer 1989). The process combines elements of the ToP discussion method, and ToP workshop method--both of which are described below.
* The **ToP Discussion Method** (or Focused Conversation) is designed towards both rational (what do the participants need to know, understand or decide?) and experiential (what do the participants need to experience with one another?) objectives (ICA 1994). It uses a series of generic questions (modified to suite the circumstances) which a facilitator uses to guide a discussion through four stages of conversation which mimic the natural stages that the human mind goes through when responding to stimuli (Spencer 1989). These four stages are:
  (1) ***Objective*** (Getting the Facts). Questions are designed to elicit what people experience through their senses. e.g., What did people say about the plane crash? What scenes do you remember?
  (2) ***Reflective*** (Emotions, Feelings, Associations). Questions seek to elicit people's emotional responses to what they perceive. e.g., What excited or frustrated you about the actions you witnessed?
  (3) ***Interpretive*** (Values, Meaning, Purpose). Questions look for meaning, purpose or significance in the events that have been told. e.g., What was the most significant event? How do these events relate to one another?
  (4) ***Decisional*** (Future Resolves). "Questions allow individuals to decide their relationship and response to the topic and the discussion they have had together" (ICA 1994). e.g., What changes are needed?
* The **ToP Workshop Method** is a structured team work experience which can build practical team consensus using five key steps:
  (1) ***Context*** (Setting the Stage). The facilitator gives an overview of the workshop and sets the mood for full participation. The process and timeline is outlined.
  (2) ***Brainstorm*** (Generating New Ideas). Brainstorming enlists all participants in generating ideas and insights. Participants first brainstorm individually, then in small teams, share their ideas with one another, selecting 5-7 important ideas which are written on cards and given to the facilitator. The facilitator reads out all the cards, places them on the wall or a board, and asks for clarification when necessary. No ideas are rejected.
  (3) ***Organize*** (Forming New Relationships). Facilitator asks the group for natural clusters/groupings of the ideas on the board. When the group is satisfied that all the obvious groupings have been made, the facilitator asks for a round of cards with different ideas and any new groupings are made. Each groups is given a quick 1-2 word label.
  (4) ***Name*** (Discerning Consensus). Facilitator aids the group in suggesting and choosing a descriptive name for each idea group which addresses the workshop question. There is consensus on names, even though there may not be consensus on each idea in groups.
  (5) ***Reflect*** (Confirming the Resolve). In this last step of the workshop, a chart or visual image is made of the information clusters and the significance of the product is discussed using the discussion method.
* The **ToP Action Planning Method** "promote(s) the successful launch of a project at its most critical phase by clarifying directions, aligning resources, designating leadership roles and responsibilities, and building team trust and support" (ICA 1994). The ToP planning method involves using the discussion and workshop methods to first determine (1) a group victory (and also note the current reality); (2) key actions (how will the group get from the current reality to the group victory?); and a calendar of actions and assignments (who will do what, and when?).
* **ToP Strategic Planning** refers to long term action planning towards a (1) Vision, (2) Contradictions

The idea of "developing a knowledge base" was rooted in step one of the CCME WQGTG framework for developing goals, objectives and indicators of ecosystem health (see Chapter 2). In order to make discussions (and resulting decisions) as informed as possible, all (or as much as possible) of the relevant biophysical, social and economic information about the watershed was to be consolidated and rendered into a format that could be used by stakeholders. Previous mentions of the knowledge-base related to brainstorming sessions held at the EOSC meeting (June 27, 1994), and the Salmon River Watershed Technical Coordination Meeting (February 13, 1995). The content of these sessions were certainly available to those persons who outlined the knowledge base project (primarily Neils Christiansen and Fred Mah, with input from others as described below).

In the spring of 1995, a steering committee was set up for the knowledge base contract composed of Fred Mah, George Butcher, Janet Stavinga (Environment Canada, Ottawa) and Neils Christiansen (Fred Mah, Pers. Comm. August 30, 1996). Then, on March 23, 1995, Fred Mah (Environment Canada) assembled a group (comprised of SRWR member, Neils Christiansen; Environment Canada employees, Fred Mah and Gabrielle Gagné; consultants from Turtle Island Earth Stewards, Thyson Banighen[7] and Deen Sellwood; UBC professors, Hans Schreier and Tony Dorcey; and myself) to discuss a knowledge base proposal for the Salmon River Watershed. Most of the discussion at this meeting centred on how a contract could be devised for gathering, integrating, and presenting biophysical, social and economic knowledge for the watershed. Following the meeting, Neils Christiansen discussed the project further with Deen Sellwood and Michael Goldberg (Social Planning and Research Council of B.C.), and wrote out his perceptions of the project. After Neils's ideas were on paper, Fred Mah and Neils Christiansen had several conversations which lead to the following conclusions: (1) Neils' proposal focused too much on "folk knowledge" and a "much higher ratio of hard scientific information [needed to be] compiled and made available"; (2) the money available for the knowledge base contract (50K) was allocated primarily for scientific data collection and not more than 10% could be spent on gathering folk knowledge--this must come from other sources; and (3) Neils would write terms of reference for the knowledge base contract (memorandum from Neils Christiansen to attenders and invited participants of the March 23, 1995 meeting at UBC, March 28, 1995).

The terms of reference prepared by Neils Christiansen (May 3, 1995) for developing the knowledge base divided the project into four tasks:

(1) Obtaining Agency Cooperation,
(2) Verbal History and Perceptions,
(3) Current Status and Trends, and
(4) Problems, Options and Scenarios.

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[7]At this time, Thyson Banighen was no longer working as the SRWR Coordinator, though he was still a volunteer member of the group.

The first two tasks were written into one contract. The first task involved the consultant meeting with representatives from nine different government agencies/regional districts in order to discuss, in depth, issues surrounding government participation in "resolving issues jointly with the other public and private stakeholders" (May 2, 2995 version of "Watershed Information" given out at SRWR Planning Committee Meeting , May 11, 1995). The issues emerging from these interviews were to be written into a report. The second task involved designing a survey to collect the verbal history and perceptions of sustainability issues and problem resolution strategies from watershed stakeholders, and then, to train a Roundtable employee to administer the survey. (This Roundtable employee would then conduct the survey, write a report, and circulate the report within the watershed for comment.)

The second contract covered tasks three and four. This involved the "collection and review of existing pertinent information (reports, maps, data bases, etc.) available from government agencies, private industry, libraries, archives, and other sources, to provide the Roundtable and all other stakeholders with a better understanding of the watershed" (Evolution of the Salmon River Watershed, Terms of Reference Version 5/3/95). The information search was to be focused into five areas: socioeconomic profile, land use and ownership, ecological inventory, water quantity, and water quality. The fourth task involved identifying the "problems" from previous reports and this data survey, and then, based on the information collected, propose options, scenarios, and strategies for addressing the problems. Two reports were to be prepared: (1) Technical report summarizing all the data, problems, options, etc., and (2) a public report which was a summary of the technical report written for general public consumption (grade 8 English).

At the June 8, 1995 SRWR meeting, it was reported that the first contract (seeking agency cooperation and designing the verbal history and perceptions survey) was let to Dovetail Consulting and the second contract (Evolution of the Watershed) was let to Quadra Planning Consultants Ltd. A month later, (by July 13, 1995), the Dovetail contract had been completed, and a summer student, Todd Romaine, had been hired by the Roundtable to conduct the interviews for the problems, perceptions and verbal history study (SRWR minutes July 8, 1995). The report by Dovetail Consulting, entitled, "Seeking Agency Cooperation in Support of the Salmon River Watershed Roundtable" described watershed issues identified by government agencies, prospects for agency participation in Roundtable initiatives, and information sources identified by government agencies. This information was used by Quadra Planning Consultants Ltd. in conducting their work on the knowledge base. The reports prepared by Todd Romaine and Neils Christiansen, based on the interviews conducted by Todd Romaine, were available for the September community meeting (described in the next section).

The contract tackled by Quadra Planning Consultants Ltd. was much larger than the one completed by Dovetail Consulting, and the time frame for completion, though short, was somewhat longer. The first draft of the public version of this report, entitled "The Salmon River Watershed and Overview of Conditions, Trends and Issues" was timed for presentation

at the community meeting series' September meeting. Feedback on the public document was gathered at this set of meetings, and through submissions after the meetings. Similarly, when the first draft of the technical document was available, the Roundtable sent copies to several government scientists for review. Based on results of both the community and scientific reviews, Quadra Planning Consultants Ltd. re-wrote both reports. In November 1995, "The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Public Summary Report" (prepared by Quadra Planning Consultants Ltd.) was published by Environment Canada Fraser River Action Plan, and mailed to 500 residents and agencies in the watershed and another 100 copies were kept for distribution from the Roundtable's resource centre (Planning Committee Report, SRWR minutes February 8, 1996). Although the technical report was not yet ready for publication, the public report was published at this time because the Roundtable wanted Salmon River watershed residents to have an opportunity to read information about the watershed before the Falkland strategic planning workshop (described in the following sections). Finally, in March 1996, Environment Canada Fraser River Action Plan Published "The Salmon River Watershed: An Overview of Conditions, Trends and Issues. Technical Report", the final product of the knowledge base contract completed by Quadra Planning Consultants Ltd. This technical report was distributed to all the people who attended the Falkland workshop (described later in this chapter), all the agency people with a mandate in the watershed, and all the people who contributed data to the project (Fred Mah, Pers. Comm. August 30, 1996).

3. Community Meetings

By the May 11, 1995 Planning Committee Meeting, a schedule had been set for the local community meetings. The rational behind these meeting was to "develop understandings about the watershed and its future", and for participants to "experience cooperation and empowerment and have fun" (local community meetings outline, SRWR Planning Committee Meeting, May 11, 1995). The plan was for the meeting participants to work through a number of themes over a six month period in each of five rural communities within the watershed. Each meeting had three components:

(1) a "being" component in which each participant may (if they choose) tell something about themselves or their own experience (e.g., their favourite spot in the watershed);

(2) a "knowing" component in which the participants would work on a learning exercise (e.g., participants were encouraged to critically review information presented); and

(3) a "doing" component in which participants were encouraged to take personal actions between meetings (e.g., bring a friend to next meeting, or volunteer for a SRWR work crew) (SRWR Planning Committee Meeting, May 11, 1995).

The meeting themes and activities (as outlined at the May 11, 1995 Planning Committee Meeting) are given in Table C.4. In the Roundtable's regular monthly meeting on May 11,

Table C.4. Community Meeting Themes and Activities (From May 11, 1995 SRWR Planning Committee meeting). Note that some of these themes were modified later in the process--see the text below.

Month	Theme	Activities
June	Where are we going?	Being: Where is your favourite spot in the watershed? Knowing: 1) Overview of process & timeline 2) Two visualizations of the future Doing: 1) Some possible personal actions? 2) Bring history to next meeting.
July	What is our history	Being: What is your fondest memory of the watershed? Knowing: Review and critique verbal history & perceptions study. Doing: 1) Some possible personal actions? 2) Bring problems to the next meeting.
August	What are the priority problems?	Being: What's one issue in the watershed that bothers you personally, where located? Knowing: Priority problems workshop. Doing: 1) Some possible personal actions? 2) Bring knowledge to next meeting.
September	What do we know?	Being: One of your learnings about the watershed, where located? Knowing: Review and critique of contractor's knowledge base draft report. Doing: 1) Some possible personal actions? 2) Find out some useful information.
October	What are our options?	Being: What information did you find? Knowing: Review and critique of contractor's options and scenarios draft report. Doing: Some possible personal actions?
November	What is our collective vision?	Being: Reports on actions undertaken. Knowing: Vision workshop. Doing: 1) Some possible personal actions? 2) Bring others to the December meeting (Falkland Workshop).

1995, ideas for advertising the meetings were generated by Roundtable members (SRWR Minutes, May 11, 1995). Suggestions included advertisements in local papers and flyers, and announcements on local radio stations.

Originally, there were five different communities selected for the community meeting series: Mt. Ida (in the Salmon Valley near Salmon Arm), Silver Creek (up-stream from Mt. Ida), Falkland (approximate centre of the watershed), Westwold (up-stream from Falkland),

and Upper Nicola (the region of the Douglas Lake Cattle Ranch and the Upper Nicola Indian Band near the mouth of the river). As discussed below, all meetings in the Upper Nicola community were cancelled. A summary of each set of community meetings--based on both my own observations of the meetings and the official meeting summaries is given below.

(a) June 1995: Where are we going?

The first set of community meetings was held between May 30 and June 7, 1995. These meetings were facilitated by Neils Christiansen with help from two other ToP-trained Roundtable members: Mike Wallis (staff) and Ian Brown (interested citizen). This set of meetings focused on comparing two possible futures for the Salmon River Watershed: the ideal future desired by watershed residents, and the future expected by watershed residents if current trends continue. Participants were first asked to envision their ideal watershed 25 years into the future, and then the watershed that they expect. Following this, they were asked to look for discrepancies between the two futures and discuss the implications of these discrepancies. The meeting summary prepared by the SRWR offered the following conclusions:

> "As they explored their descriptions and feelings and what, if anything, they wanted to do about them, some felt it is easy to dream and harder to face reality and wondered, '...if we are creating an issue, maybe there is no issue to resolve.' As discussions progressed, residents reached several conclusions. We have no control over climate, taxes and government. But we have some control over items like local population, land use and politicians. And we have lots of control over our own actions, lifestyles, choices and attitudes." (June Meetings Summary, SRWR 1995d).

Following the very first community meeting, (Mt. Ida May 30, 1995) the SRWR Community Meetings Task Force (facilitators and staff hosting the community meetings) met to review the success of the meeting. Feedback from some participants at the first meeting led the task force to revise the visioning process for the subsequent meeting in the other three communities (Community Meetings Task Force Report, SRWR Minutes July 13, 1995). One of the facilitators told me that the visualization part of the meeting did not work with the people. Another staff member of the Roundtable told me that some landowners thought they were being "treated like little children". (In the visioning exercise, participants were asked to close their eyes and imagine they were flying over the valley, in a plane, in the year 2020.) I definitely perceived a strong sense of discomfort with the exercise from the general citizens (most of whom were farmers) attending this meeting. When the facilitator, Neils Christiansen, asked participants how they felt when imagining the two different scenarios (their ideal watershed, and the watershed that would result if current trends continued), there was silence, finally broken by some offerings by Dorothy Argent (SRWR chair), Sonja Andersson (staff member) and myself. Finally, a couple of farmers offered a general "happy" feeling for the dream, and "concern" for the expectation. (Later that summer, one of the Roundtable's facilitators told me that getting people in the watershed to talk about their feelings was like pulling teeth.) At the next meeting I attended on this same theme

(Westwold, June 7, 1995), the visioning exercise had been modified. Participants were simply asked to envision their ideal watershed 25 years into the future; they were no longer closing their eyes and flying in a plane. Participants were still asked for their feelings about the different possible futures. Only staff members gave input about the ideal future (all positive feelings like "comfortable" or "optimistic"), however, only local residents gave input about the expected future ("concern", "need for action").

In my field-notes from the meetings I attended at Mt. Ida and Westwold, I noted a few issues that emerged in the meetings aside from the formal agenda. At the end of the Mt. Ida meeting, participants were given an opportunity to ask questions. The ensuing discussion lasted almost an hour. Two concerns were raised by landowners. The first was over a letter the Roundtable had sent to MOELP advocating groundwater legislation. One landowner in particular was very upset about this letter, and claimed to be speaking for many of his peers. He said that he did not want "hassles" every time he has to drill a new well and that they (him and his peers) do not think they should have to pay for water licenses. He accused the Roundtable of misrepresenting the watershed community. Dorothy Argent addressed his concerns by stating that the decision to send the letter was made at a Roundtable meeting by all the members present, and that it is important for people to come to meetings and express their views so that the community is fairly represented (this is the premise behind these community meetings--to generate more community participation). The other concern raised at this meeting was simply, "What's the big deal?!" The landowner raising this concern said that he thought the Roundtable was trying to create issues where there were none. He came to this meeting out of curiosity, but said he doubted he would come back because he thought the meetings to be pointless. Ms. Argent encouraged him to come back, saying that the Roundtable needed a "voice of realism". At the Westwold meeting, one local landowner raised his concern about the use of "hearsay" in Roundtable reports. He referred to a report written a couple of years ago which mentioned erosion on a certain clearcut, which in his opinion, was not eroding. The erosion situation had not been checked by the author of the report. Ms. Argent satisfied his concern by telling him that this particular report was just a compilation of things that people said, and not an officially published document.

I should also note that at this second meeting I attended on this theme, I made a distinct effort not to contribute much in the way of ideas and suggestions since I felt that I had given my input in the previous meeting.[8] I asked one of the staff members how they were addressing this issue (i.e., giving their input in more than one meeting). I was told that they had been contributing in all of the meetings, and that their input seemed important for getting the discussion going--which certainly agreed with my own observations of the meetings.

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[8]It became more difficult in subsequent meetings to limit my participation since most of the meetings had a component of pair or small group work. It would have been unfair to the person(s) with whom I was grouped for me not to participate.

(b) July 1995: What is our history?

The second set of community meetings was held from July 4 to 12, 1995. I attended the meetings at Falkland (July 6, 1995) and Silver Creek (July 10, 1995). This set of meetings was facilitated by Neils Christiansen with help from Walt Moore and Al Banguay (interested citizens). The focus of this meeting was to augment the documented history of the watershed, referring to environmental, economic, social and political events. Participants were handed out summary sheets containing information Todd Romaine had collected (up to this point) in the verbal history study. They worked in pairs to review assigned sections of the hand-out, selecting 1 or 2 items that surprised them or they thought were particularly noteworthy. These items were then shared with the whole group. The next part of the exercise was brainstorming things that the participants knew about the valley which were not already on the list. The "list" got bigger at each subsequent meeting in the set, so that those in the fourth meeting could see the original list--from Todd Romaine's work--and all the additions from the other community meetings. The participants were then asked to look for "any discernable trends in the types of things we've selected to look at". The official meeting summary agreed well with my own notes of the meeting:

> "As the wall of history grew, residents discussed trends such as 'decreasing fish and wildlife', 'more rain and less snow', 'problems with an increasingly absentee and conflicting bureaucracy', and 'diminishing family-oriented community events'. One trend seemed to sum up many of the others: 'more urbanization and urban thinking'. Rural thinking was described as connected to the land and whole family social events, while urban thinking was related to making money unconnected with the land and to social activities separated by age group" (SRWR Community Meetings Summary for July 1995).

After this second set of meetings, the Community Meetings Task Force reviewed the success of the meetings to date (Community Meetings Task Force Report, SRWR Minutes July 13, 1995). A few significant things were noted in this review. First of all, the Upper Nicola meetings were all permanently cancelled due to "difficulties there between the Band and Douglas Lake Ranch" (SRWR Minutes July 13, 1995). The task force also noted the low attendance at meetings. On average 13 people would attend each meeting, of which an average of four people would be staff or facilitators.[9]

My own observation of these meetings were that they were less contrived than the first set, and that participants seemed to enjoy themselves more. It was not necessary for staff to provide extensive examples of how to participate at this meeting; people seemed genuinely interested in the bits of history before them, and eager to discuss the history. This may have been because it was the second meeting, and participants were more familiar with the procedure, however, I suspect it was because they were more comfortable reacting to

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[9]These numbers are mean attendance figures calculated from the community meetings I personally attended, see Appendix E.

something (the history summary) than creating something new (like a vision) which involved a larger degree of personal risk (describing their personal images of the future in a public group). The only other significance item noted during this set of meetings occurred after the formal agenda was completed at the Silver Creek meeting. One of the local farmers described how he occasionally met informally with about 12 other farmers who live along the river to discuss problems that they are having, primarily with government agencies (and particularily DFO). He said that he doubted any of these other farmers would come to any of the meetings held by the Roundtable because they were very suspicious of anything involving government, especially DFO. He said that one of the main complaints that this group of farmers had with DFO was the corruption of employees (one in particular). He eluded to pay-offs, bribery, and preferential treatment for farmers who are friendly with the DFO representative. He said there was definitely extreme hostility in relations between these farmers and DFO.

(c) August 1995: What are the priority problems?

The third set of community meetings, held from August 1 to 9, 1995, were facilitated by Neils Christiansen with help from one of the Roundtable's summer student employees, Todd Romaine. The focus question for this meeting was "what are the priority problems in the watershed, which, if solved, would lead to long term economic, social, political and environmental sustainability?". During these meetings, participants were asked to brainstorm examples of "desired sustainability" for the watershed's future. The next exercise was to brainstorm ideas about problems standing in the way of progress towards sustainability. Following the ToP workshop method described in Box 6.1, different categories of problems were named at each meeting. The August meeting summary prepared by the Roundtable listed the major problems in the watershed as being: (1) water (both quantity and quality), (2) difficulties with government, (3) urban encroachment, (4) reduced viability of farming, (5) lack of jobs, (6) sustainability of forest operations, and (7) native land claims. This summary took into consideration the interviews being conducted by Todd Romaine as well as the problem brainstorming in the meetings. The meetings summary also showed a breakdown of the problems cited into two categories (those cited in interviews, and those cited in meetings). This breakdown showed that in the community meetings, water, government and erosion were by far the most topical problems. All other problems were cited four (or less) times (out of a total of 80 responses recorded at the meetings).

During these August meetings, for the first time, there were government agency representatives (from DFO, and MOELP) present. The agency people had been invited by the Roundtable in order to answer questions posed by local residents.

(d) September 1995: What information is Available? (What do we know?)

The fourth set of community meetings were held from September 19 to 27, 1995. This set was facilitated entirely by Neils Christiansen, and like the August meetings, there were agency members in attendance (from DFO, MOELP, and Environment Canada). I

attended meetings at Silver Creek (September 25) and Westwold (September 27). (At the Silver Creek meeting, there were also some visitors attending from Environment Canada in Ottawa.) At this meeting, various reports were given to the meeting participants. Two reports had been completed: the verbal history of the watershed, and problem perceptions in the watershed (both written by Neils Christiansen and Todd Romaine, based on interviews conducted by Todd Romaine). As well, the draft public version of the knowledge-base report prepared by Quadra Planning Consultants Ltd. was ready for review. The review of this report was the topic of the rest of the meeting.

The participants were divided into work groups of three to four people. Each group was assigned a section of three to five pages of the report which they were to read, discuss, note anything they considered new, unusual, or surprising, and anything which they didn't understand or that needed clarification. Each group then reported their findings to the whole group. Information that the groups found new or surprising included a wide range of facts spanning the socio-economic section of the report to the fish and wildlife section, with the most surprising being some of the socio-economic facts like non-employment income being the largest single source of income in the watershed (September Meetings Summary, SRWR 1995). Participants made various suggestions to improve the clarity and usefulness of this report: inclusion of a brief one to two page summary at the beginning, fewer technical terms and the inclusion of a glossary, greater use of graphics, and clarification of statements which seemed to contradict one another.

No contentious issues were raised at the meetings I attended. In fact, my impression was that most people seemed to enjoy this exercise; people liked the opportunity to comment on what they had read and related to their own experience. In the Westwold meeting, the facilitator asked participants at the end of the meeting to reflect on what we had done and then to say whether they thought it was a difficult exercise. One of the agency members present said he thought the exercise was difficult because he had not had time to carefully read and review the whole report and prepare his criticism. There was some general agreement from others present that it may have been useful to get the report ahead of time. However, others admitted that if they had received the document previous to the meeting, they probably would not have read it anyway. One woman said that if she knew what we were going to do at the meeting, she would not have come, but, because she didn't know, she came to the meeting, learned something, and had a good time as well.

(e) October 1995: Which problems are important to you, and what do you want to do about them? (What are our options?)

During the October meetings (held between October 17 and 25, 1995), the participants discussed which problems (from August meeting series) were important to them, and what they wanted to do about them. This meeting was again facilitated solely by Neils Christiansen. No agency representatives were present at either of the meetings I attended (Falkland, October 19, 1995, and Silver Creek, October 23, 1995).

Sheets were handed out summarizing the "priority problems standing in the way of sustainable living" which were summarized from the August Meetings. Everyone was asked to choose a problem which they thought they could work on (i.e., suggest some actions towards resolving the problem). These problems were written down and grouped (using ToP workshop methods). People then chose which group of problems they wanted to work on, forming pairs or small groups. Each group independently brainstormed options for dealing with the problems, including the intent (or rational) of the option and some steps for implementing each option. The name, intent and steps of each option were written on a flip chart, and one member of each group reported the group's work to the larger group. The suggestions were quite numerous and so lengthy that they could not all be included on the Roundtable's one-page summary of the October meetings. An example of a suggestion to combat the problem of low summer water flows was to have reservoirs and ponds. The intent: retain spring run-off. The steps: (1) obtain permits, and (2) build small and simple reservoirs and ponds.

At the closing of these meetings, the facilitator tried once again to get people to express how they felt during this exercise. A few people at the Falkland meeting expressed optimism. At the Silver Creek meeting, people avoided the question by asking questions of their own, such as "What will happen to these options proposed at the meeting?" and "What can we do with all this information?". Neils Christiansen responded that the Roundtable will start to look at how it can act on some of the suggestions, and that the actual written material will be summarized and put into some format so that it could be used at the up-coming Falkland workshop.

(f) November 1995: Informal Meeting (Originally: What is our collective vision?)

The last set of community meetings was held from November 14 to 22, 1995 and had the lowest attendance of all the meetings. At the Mt. Ida meeting, there were only a total of five people in attendance: me, the facilitator, the SRWR chair, one landowner (a committed SRWR member) and one other SRWR volunteer. The attendance was marginally higher in the other communities, but still less than ten participants. Again, the meetings were facilitated solely by Neils Christiansen, and there were no agency representatives present. I attended three meetings in this set (Mt. Ida, November 14, Silver Creek, November 20, and Westwold, November 22).

Although the original theme for these meeting was "What is our common vision?", this theme was not pursued in the meetings--likely because that was to be one of the foci of the upcoming Falkland workshop. This last set of meetings was much more informal than the others. Neils Christiansen gave a slide show of the Roundtable's restoration projects, and then both Neils and Dorothy Argent gave an overview of where volunteers are needed in the near future, and encouraged people to sign-up for volunteer work. There was, as well, some informal discussion on the directions the Roundtable could take (with respect to organizing itself better) in the future. At the Mt. Ida meeting, Dorothy Argent outlined an idea of how

the Roundtable could operate after the Falkland workshop. She suggested that perhaps there could be a number of informal round tables operating in each of the four communities where groups had been meeting over the summer. There could be a coordinator for each community who would attend the monthly Roundtable meetings to report the views of the community and look for support on community initiatives. At both the Silver Creek and Westwold meetings, it was suggested by other participants that the Roundtable try to link into the community associations which are already operating in the local communities.

There are a few things worth noting about the community meeting series that cannot be attributed to any one set of the community meetings. In addition to the group exercises described above, there was always an array of visual displays for residents to look at or read during the break, or before or after the meeting. There was usually a topographic map of the watershed and a display showing some of the restoration work that has been done by the Roundtable. There would usually be a table displaying written material which people could pick-up and take home. Such material included information sheets that had been prepared by the Roundtable on a variety of subjects like "Do Pollutants Affect the Salmon River?", and "What is the Importance of Wetlands in the Salmon River Watershed?". There were also sheets prepared describing the Roundtable itself (e.g., a sheet summarizing the Salmon River Watershed Planning Guide, or copies of the 1995 SRWR Work Plan). Sometimes reference materials not directly related to the Salmon River Watershed would also be on display (e.g., an article called "Study Circles: Schools for Life", Andrews 199-). Often at the meetings there would be sign-up sheets for volunteer work with the Roundtable. Sometimes, the Roundtable's videos or T-shirts were available for purchase.

4. Falkland Workshop and Follow-Up

Once the community meeting series had been completed, the next step towards development of ecosystem objectives was the Falkland Workshop--more formally titled: **Creating and Celebrating our Watershed's Future**. This workshop--held on December 2 and 3, 1995 in Falkland--was intended to have several outcomes:

> "*Greater understanding, respect and cooperation between government and residents.
> *A common vision of the future of the watershed.
> *Long term ecosystem goals for developing indicators.
> *Working task forces committed to resolution of some of the blocks to sustainable living (economic, social and environmental) in the watershed.
> *A greater sense of community." (letter from Neils Christiansen, Chair of SRWR Planning Committee to agencies with an interest in the watershed, November 23, 1995).

The workshop included both "fun" elements (such as a pancake breakfast, a potluck dinner and dance, performance of a watershed theme song, and an awards/acknowledgement

ceremony), and formal planning activities facilitated by the Institute of Cultural Affairs (Dorthea Jewell and Jim Weigel from Seattle).

The event was advertised to local residents through posters at prominent places in the watershed, notices in the Shuswap Market News, flyers mailed to all households in the watershed, radio announcements on two local radio stations (CKXR in Salmon Arm, and CJIB in Vernon), a television announcement on a local cable television company (Sun Cable Television) and announcements at the community Roundtable meetings (personal observations and SRWR 1996). Local residents were encouraged to come with the offer of free child-care and transportation provided at a minimal cost of $2 per person. Government agency representatives were invited to attend through letters sent directly to them from the SRWR planning committee. The workshop itself was free for all participants.

The main planning activities facilitated by ICA generated:
"* A twenty year vision for the watershed
* Obstacles standing in the way of that vision
* Strategic directions to deal with the obstacles and
* A set of implementation activities for the next several years." (SRWR 1996).

These results were very similar in format to the work-plan workshops of January 1994 and January 1995. As in the January 1995 work-plan workshop, I had people expressing to me their frustrations: "Didn't we already do this? We already have a vision--our mission statement!". The people expressing these sentiments were those who had been involved in the Roundtable over the last couple of years, not the newly recruited local residents. On the whole, although a significant proportion of the workshop was comprised of local residents (85 residents out of a total of 120 participants, reported by Dorothy Argent at the close of the workshop), the non-local participants (government agencies and interested citizens from outside the watershed) and the local participants from Salmon Arm were much more vocal during the meetings than the rural residents.

After the Falkland workshop, there was **a special meeting held on February 2, 1996** to draft ecosystem goals and objectives based on the results of the Falkland Workshop. Participants included members of the planning and executive committees and a few others. These draft goals and objectives were presented for review at the February 8, 1996 planning committee meeting, at which point they had consensus on all but four of the 13 objectives (note that each of the 13 objectives had consisted of 2-4 sub-objectives). It was decided that a few revisions were needed on the following objectives before sending them to the Roundtable for approval:

3.3 Encouraging diverse, local control of economic resources.
7.1 Resource management based on watershed boundaries.
10.1 Community members participating in shared land use and resource management decision-making. And,

11.2 Recognition, empowerment, and continuity of technical and financial support of community groups in watershed management and resource use. (examples: zoning and allowable cut)

It was decided that Neils Christiansen and Gerry Wellburn (Riverside Forest Products Ltd.) would confer to revise these objectives (SRWR mail-out, March 3, 1996).[10]

Shortly following this meeting, the executive committee held a planning workshop on Thursday, February 15, 1996 to develop a 1996 Roundtable work-plan (SRWR minutes, February 15, 1996). The 1996 work plan workshop was on a much smaller scale than the 1994 and 1995 workshops (i.e., it only involved eight people and was completed in one day). During the workshop, the executive committee reviewed the 1995 work plan and the results of the Falkland workshop, and then developed (based on the Falkland workshop) a set of action arenas for the next 2-3 years. The committee noted a number of implications from the Falkland workshop:

"(1) There is general support for the direction the Roundtable is taking.
(2) Linkages have been established between the Roundtable and local communities in the watershed,
(3) There is general awareness in the watershed of the Roundtable and its activities.
(4) The Falkland Workshop established the agenda and the marching orders for the Roundtable.
(5) There is still a tendency toward insularity among some stakeholders.
(6) We need to focus on a few high priority, catalytic and do-able activities at any one time.
(7) We need to consider our ability to deliver before undertaking commitments." (SRWR minutes, February 15, 1996).

The actions suggested by the executive committee were then expanded upon in a larger workshop that all members of the Roundtable were invited to attend on March 19, 1996 (Memorandum to Roundtable Members from SRWR Chair, March 6, 1996). The day after this workshop, the Roundtable held its regular monthly meeting at which time it was decided that the draft strategic plan (from these two workshops) should be presented to the watershed communities for approval (i.e., to ensure that it meets with their expectations from the Falkland workshop) (SRWR Minutes, March 20, 1996). Earlier that same day, the SRWR planning committee approved interim goals and objectives for the Salmon River Watershed (SRWR minutes, March 20, 1996). These goals and objectives (depicted in Box 6.2) were also presented to the local watershed communities. These community meetings are described under the section on "Structuring and Outcomes".

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[10]Of these four objectives, only 7.1 and 11.2 were changed before the Roundtable officially adopted the "Interim Goals and Objectives" on March 20, 1996. (See Box 5.1.)

E. STRUCTURING AND OUTCOMES

This section reviews some of the actions the Roundtable has taken to formalize the agreement, build support for it, and explore avenues for getting the vision implemented. At the time of writing, this collaboration is still in the midst of the "structuring" stage of collaboration, though a few outcomes have already been realized.

From April 29 to May 7, 1996, the SRWR held another set of community meetings at Mt. Ida, Silver Creek, Falkland and Westwold. I attended the meeting held in Silver Creek on May 6, 1996. This meeting was facilitated by Neils Christiansen, and attended by 12 men and 2 women, all of whom were local residents except for myself and one visitor from Chelsea, Quebec. Over the course of the meeting, Neils Christiansen gave an overview of the community meeting series and Falkland workshop which had taken place the previous year, and told how the results of the Falkland workshop had been used, (by the Roundtable's executive committee) to develop a 1996 work-plan. This work-plan and a list of draft ecosystem objectives were distributed to the people in attendance. The rest of the meeting consisted of reviewing the work-plan in small groups, and suggesting actions that could take place locally to support the work-plan. There were several questions raised by residents in relation to the work-plan, such as:

* With whom should landowners get in touch regarding bank stabilization?[11]
* What can landowners do about beavers taking down trees near the river?
* Are there any specific plans related to the hiking trail mentioned on the work-plan? (This landowner was concerned because he had heard talk in the past of building a cycle path along the river from Salmon Arm to Silver Creek--something that he, having river front property, did not support.)
* What does "amend water rights" (on work-plan) mean?
* What is DFO's overall mandate or goal? And,
* Has the Roundtable collected all the available studies about the watershed?

There was also some discussion about different ways that water could be stored in the watershed (through good tree cover, healthy riparian zones, storage dams and wetlands), and one landowner's problems in acquiring a permit to string a power line over the river.

Over the summer months of 1996, there was a lapse in activity directly related to the ecosystem objectives project. It was noted in a SRWR planning committee report that there were no current actions with respect to "community establishment of ecosystem objectives", but that an indicator workshop in September would finish the project (SRWR minutes, June

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[11]This was especially topical considering that 1996 was a bad flood year. At the time of this meeting, many landowners in the lower valley were experiencing land-loss as a result of erosion from high water.

13, 1996). This workshop has now been post-poned until later in the fall. There were a number of other activities ongoing which relate, in a broad sort of way, to the future implementation of the watershed vision. There are two large scale projects with which the Roundtable has become involved: The Okanagan-Shuswap Land Resources Management Plan (LRMP) and Forest Renewal B.C. (FRBC).

1. Okanagan-Shuswap LRMP:

In July of 1995, an LRMP process was announced for the Okanagan-Shuswap area. As part of the Salmon River Watershed was contained within the proposed boundaries of the plan, the Roundtable was "highly desirous of assisting to make that process as effective as possible" (Letter from SRWR Chair, Dorothy Argent to John Thompson, Chair of the Interagency Management Committee, IAMC, July 17, 1995). Over the fall of 1995, the Roundtable, through the executive committee, continued to correspond with the LRMP, asking the LRMP process to consider changing its boundaries to reflect natural watershed boundaries (SRWR minutes December 14, 1995). The Roundtable had also lobbied for, and received support from other groups for their position on using watershed boundaries:

> "[T]he Roundtable has lobbied to have the boundaries of the LRMP include the entire Salmon River watershed to reflect the genuine relevance of the watershed as the basis for sustainability planning by the community. We take a strong position on this and, to that end, have the unanimous support of the Columbia Shuswap Regional District, the District of Salmon Arm, the Thompson Nicola Regional District and the Upper Nicola Indian Band. Copies of some of their letters of support are enclosed." (Letter from SRWR Chair, Dorothy Argent to Phil Whitfield, IAMC, MOELP, January 2, 1996).

In the end, the Roundtable was not successful in their attempt to have the boundaries of the LRMP changed; the Merritt Timber Supply Area (TSA) would be used for the LRMP (SRWR executive committee minutes, February 7, 1996). However, revisions were made to the LRMP terms of reference for "planning area", which included the recognition of "the important principles of watershed integrity and cross-boundary community interests" and the involvement of stakeholders or representatives of complete watersheds cut by the plan boundary (proposed revisions to draft terms of reference, Okanagan-Shuswap LRMP, draft 3 faxed from MOELP, Kamloops to Dorothy Argent, SRWR Chair, February 6, 1996).
On February 8, 1996, Phil Whitfield attended a SRWR meeting and gave an overview of how the Roundtable might participate in the LRMP process. Following this, the Roundtable called a special meeting to make a decision on how they wanted to participate in the LRMP process. At this meeting it was decided that the Roundtable would officially ask the LRMP for a seat at the table, and that Neils Christiansen would be the representative, supported by Dennis LaPierre, and a few other alternates if required (SRWR minutes, February 19, 1996). A seat was granted to the Roundtable (Letter to Roundtable from John Thompson, IAMC Chair, February 21, 1996) and both Neils Christiansen and Dennis LaPierre began attending

LRMP functions (SRWR minutes, March 20, 1996).

By the end of May 1996, the SRWR had prepared its statement of interests for the LRMP, based largely on the results of the watershed planning initiative's community meetings and Falkland workshop. These results were cited particularly in reference to the Roundtable's third interest, entitled "Salmon River Watershed":

> "An interest of the SRWR is that LRMP processes and decisions both respect and be coordinated with the goals and objectives, processes and plans of the SRWR for the Salmon River Watershed.
>
> The SRWR is in the process of implementing the results of a watershed-wide strategic plan developed last year by its stakeholders. The plan includes a 20 year vision, blocks standing in the way of that vision, strategic directions for dealing with the blocks and a description of the actions to be implemented in the near term...Since these plans have been co-created through consensus by the watershed's stakeholders, the watershed is in effect involved in a landscape level planning process on both Crown and settlement land. Clearly the LRMP, as a higher level plan, takes precedence. However, the interests of the watershed's stakeholders need to be heard and respected at the LRMP table." (SRWR 1996b)

It appears, from the Roundtable's minutes, that the LRMP process has not yet moved beyond the stage of having all of the 40 different participants involved review one another's statements of interest.

2. Forest Renewal B.C.

In June 1995, the Roundtable began discussions with Riverside Forest Products Ltd. (one of the four large forest company license holders in the watershed) regarding a funding proposal for joint work (SRWR minutes, June 8, 1995). Over the next seven months, Riverside Forest Products Ltd. hired a consultant (Gerry MacDougal) to put together their application. Gerry MacDougal gave a presentation to the Roundtable on February 8, 1996 outlining this application (SRWR minutes and personal observations February 8, 1996). Although Riverside was taking the lead on this application, they had acquired several other partners including other forest companies, the SRWR and some Indian Bands. Even though Riverside only has forestry interests in certain areas of the watershed, the application was to cover work for the entire watershed. The proposal was for 3.2 million dollars in total with $500, 000 relating to work that would involve the SRWR. By mid-July 1996, Riverside had received approval in principle for the first stages of application (more detailed applications must now be prepared) (SRWR minutes July 11, 1996). Over the last couple of months, the partners in the application have been meeting to discuss their roles and responsibilities in a more detailed proposal (SRWR Project Coordinator's Report, July 10, 1996). The SRWR Project Coordinator, Mike Wallis reported that the final technical report from the knowledge base contract (see Chapter 6) would be very useful in identifying knowledge gaps which

could hopefully be filled through the Forest Renewal project (SRWR planning committee minutes, July 11, 1996).

In addition to the Roundtable's involvement with large projects such as the LRMP or FRBC, the Roundtable plans to continue its pilot run of the CCME WQGTG's framework for developing goals, objectives, and indicators of ecosystem health (see Chapter 2). There are plans for a workshop to occur in the fall of 1996 in which step 3 of the framework will be completed: indicators will be developed in order to monitor progress towards the previously developed ecosystem objectives. Details about this workshop are not yet available (at the time of writing, September 1996). As well, the Roundtable is already well on it's way to tackling step 4 of the framework (targeted research and monitoring). The Roundtable has been training volunteers to conduct basic water quality sampling, and has plans to conduct more formal training under a citizen's monitoring program that has been developed for the watershed by Environment Canada (NHRI, Saskatoon). This project will likely take on a greater role once the indicators workshop has been held and a monitoring program must be put in place to finish the pilot project.

APPENDIX D

Interview Materials

CONSENT FORM

Project Title: **An Evaluation of the Ecosystem Objective Setting Process in the Salmon River Watershed (Salmon Arm)**

This research is being undertaken as a Master's Thesis in the Department of Resource Management and Environmental Studies at the University of British Columbia (U.B.C.). The purpose of the research is twofold:

(1) To identify both successful elements of the ecosystem objective setting process and areas for improvement; and

(2) To suggest the future path of this process and its potential for application in other watersheds.

The research is being conducted by Ms. Kathy Grant under the supervision of Professor A.H.J. Dorcey of Westwater Research Centre at U.B.C. The results of this research will be available in the form of a Master's Thesis, and may be published in an academic journal. Funding for this research is being provided by Environment Canada, the B.C. Ministry of Environment, Lands, and Parks, and a scholarship to Ms. Grant from U.B.C.

As an individual involved in some way with the ecosystem objective setting process in the Salmon River Watershed, you are being requested to participate in a 45 minute to 1 hour long interview conducted by Ms. Grant. *Your participation is entirely voluntary*. You may refuse to participate, or withdraw your participation at any time. All information collected through interviews will be treated as strictly confidential.

Some quotations from interviews will be included in the Master's Thesis (and/or related academic publications), however, **your name will not be identified in the thesis or any related publications, nor will it be given out to anyone in conjunction with your comments.** For example, a quotation might be structured as follows, "...a local resident of the watershed stated that...".

With your consent, the interview will be tape recorded to ensure that quotations are as accurate as possible. The tapes

Part One: Demographic and Personal Information

CONFIDENTIAL

Participant #_____

Name_____ Sex: M F

Address_____

Telephone_____ Fax_____

Alternate #_____

Date, Time and Place of Interview:

---

1. **Which age category do you fit into?**
   <25 how old?_____
   25 - 30
   30 - 40
   40 - 50
   50 - 60
   60 - 70
   >70

2. **Do you live within the boundaries of the Salmon River Watershed?** *(show map)*

   yes no

3. **Do you own land within the watershed?**

   yes no

4. **Are you a member of the Salmon River Watershed Roundtable?**

   yes no

   If yes:

   4a. **Are you an individual member, or are you representing an agency or group?**
   individual group_____(which group?)

4b. When did you join the Roundtable?

1991 1992 1993 1994 1995

4c. Do you have a special role within the Roundtable? *(e.g. chair a committee)*

yes_____ no

5. Which of the following stakeholder groups do you most strongly identify yourself with?

____ farmer / rancher
____ other landowner
____ interested citizen
____ agency representative
____ business person
____ industry representative
____ environmental NGO (non-governmental organization)
____ other: _____

6. What is your primary source of income?

____ non-employment sources of income _____

____ employment sources of income _____

7. Is there any other demographic type of information which you feel strongly impacts you perceptions and opinions of the Roundtable and the project to develop community-based ecosystem objectives?

yes no

If yes,
what?_____

Part Two: Perceptions and Opinions on the Ecosystem Objective Setting Process

Participant # _____

Introduction:

- differentiation between the ecosystem objective setting process and the Round Table in general
- the process has now been going on for--- months, and you have been involved in it to some degree during this time
- reflect upon the process, and any materials (like pamphlets or write ups) that you may have looked over in preparing for your role in the ecosystem objective setting process
- just answer the questions to the best of your ability -- okay if can't answer, or don't want to answer

A. Traditional Approaches to Watershed Management

1. *(Before discussing the current process, I want to get your opinions on the "old" process. The current process, involving the community in the setting of ecosystem objectives, is a relatively new type of process. Traditionally, Environmental management has been undertaken by government agencies. Things like roundtables are a relatively new phenomenon. Etc.)*
What are your perceptions on how the traditional approach worked?

B. Underlying Issues

2. *(Moving onto the current process, I want to look first at some of the issues behind the process. This past summer, the Roundtable had a student staff member, Todd Romaine, conducting interviews with 52 residents of the watershed. As part of these interviews, Todd asked people to identify problems in the watershed. Here is a list of the types of problems people identified. Show list to participant.)*

2 a. Do you agree that these are the main problem areas in the watershed?
yes no
expand:

2b. Can you add to this list?

2c. What is the most important problem?

3. Do you think the Roundtable is promoting any sort of underlying philosophy behind this current project?

yes no

C. The Current Process

4. Overall, do you think this process is well organized? *(Clarify--referring to the community development of ecosystem objectives, not general Roundtable.)*

yes no neutral

5. Can you give any examples of things you think have been done well?

6. Do you have any examples of things you think could be done better?

7. Do you think this process is a fair and legitimate way to come up with a vision for the watershed?

yes no
expand:

8. What do you perceive to be the role of the Salmon River Watershed Roundtable in this process? *(may be several...)*

9. What is the role of government agencies?

10. What is the role of citizens?

D. Participation

11. Do you think the right people and organizations are being included in the ecosystem objective setting process?

yes no

If no:
11a. Who was missing? Any ideas why?

12. Does everyone who shows up at a particular meeting have an equal opportunity to contribute their ideas to that meeting?

yes no
Expand:

13. Why are you participating in this process?

14. Why do you think other people are participating?

E. Education / Preparation

15. Do you feel that you are being (or have been) adequately prepared--in terms of your knowledge about the Salmon River Watershed--to develop ecosystem objectives?

yes no
Expand:

16. What kinds of information, or training do you personally think you need to do the best job possible in this process?

17. What types of information/support/help are you able to contribute to the process?

F. Outcomes / Actions / Benefits

18. Do you think a consensus-decision will be reached regarding ecosystem objectives for the watershed?

yes no uncertain
Expand:

19. Who do you think has the authority or who should have the authority to enforce / implement / monitor the ecosystem objectives once they are developed?

20. Can you give me an example of an ecosystem objective?

21. How do you think ecosystem objectives will be used?

22. Who do you think will use them?

23. Who (if anyone) will benefit from ecosystem objectives for the Salmon River Watershed?

24. How will they benefit?

25. What affect do you think ecosystem objectives will have (if any) on people's activities within the watershed?

26. Do you feel that your input to this process will be reflected in the final product?

    yes no
    Expand.

27. Based on your experience with this process so far, what would you change or do differently if the process were to be repeated?

28. What are your expectations for this process? Will it work or not? Are you sceptical or optimistic?

29. Reflecting back on this interview, do you have any other comments about the ecosystem objective setting process which were not covered in another question?

30. Would you be willing to complete a follow-up survey if I sent one to you by mail?

    yes no

APPENDIX E

Description of Participants Attending Community Meetings

Mt. Ida Community Hall

	May 30/95	August 1/95	November 14/95	Average
Interested Citizens	10	4	2	5.3
Agency Representatives	0	3	0	1
SRWR Staff or Facilitators	5	3	2	3.3
Other Guests (e.g., me, camera crew)	1	3	1	1.7
Total	**16**	**13**	**5**	**11.3**
Estimated Ages < 30	2	3	1	2
30-40	2	2	0	1.3
41-50	6	3	2	3.7
51-60	6	5	2	4.3
61-75	0	0	0	0
Sex Women	5	3	3	3.7
Men	11	10	2	7.6

Silver Creek Community Hall

	July 10/95	Sep 25/95	Oct 23/95	Nov 20/95	Average
Interested Citizens	5	11	14	6	9
Agency Representatives	0	5	0	0	1.3
SRWR Staff or Facilitators	5	2	2	3	4
Other Guests (e.g., me, camera crew)	1	2	2	1	1.5
Total	**11**	**20**	**18**	**10**	**14.8**
Estimated Ages < 30	3	3	2	2	2.5
30-40	0	5	0	0	1.3
41-50	1	7	1	1	2.5
51-60	5	2	15	6	7
61-75	2	3	0	1	1.5
Sex Women	3	8	6	3	5
Men	8	12	12	7	9.8

Falkland Community Hall

	Jul 6/95	August 3/95	Oct 19/95	Average
Interested Citizens	6	6	6	6
Agency Representatives	0	3	0	1
SRWR Staff or Facilitators	5	3	2	3.3
Other Guests (e.g., me, camera crew)	1	4	1	2
Total	**12**	**16**	**9**	**12.3**
Estimated Ages < 30	3	3	1	2.3
30-40	0	4	0	1.3
41-50	1	7	1	3
51-60	5	1	5	3.7
61-75	3	1	2	2
Sex Women	6	8	4	6
Men	6	8	5	6.3

Westwold Community Hall

	Jun 7/95	Sep 27/95	Nov 22/95	Mean
Interested Citizens	8	9	5	7.3
Agency Representatives	0	2	0	0.7
SRWR Staff or Facilitators	6	2	2	3.3
Other Guests (e.g., me, camera crew)	1	2	1	1.3
Total	**15**	**15**	**8**	**12.6**
Estimated Ages < 30	3	5	1	3
30-40	2	2	0	1.3
41-50	1	4	2	2.3
51-60	9	4	2	5
61-75	0	0	3	1
Sex Women	7	7	5	7.3
Men	8	8	3	6.3

APPENDIX F

Survey Materials

LIST OF POSTAL ROUTES USED FOR MAIL SURVEY

Postal Route	Number of Surveys Distributed
Salmon Arm RR 1	491
Salmon Arm RR 2	860
Falkland RR 1	277
Falkland LB 0001	254
Westwold LB 0001	109

Note: on rural routes, homes, apartments and farms were included for delivery.

(b) Under what circumstances would you attend a meeting in your community?_____

_____

(c) What issues would you like to discuss at it?_____

7. For each of the problem categories below, check the appropriate box.

Problem Category	No Problems	Getting Better	Not Changing	Getting Worse	Most Important Problem (if any) *Please write answer.*
Social					
Economic					
Environmental					

8. Did you attend the workshop entitled "Celebrating and Creating our Watershed's Future" which was held in Falkland on December 2 & 3, 1995? yes___ no___ (If yes, entire workshop?___)

If "yes"

(a) Do you think the workshop achieved its goals of
(1) forming a collective vision and identifying blocks? yes___ no___ partially___
(2) choosing strategic directions? yes___ no___ partially___
(3) creating an implementation plan? yes___ no___ partially___

(b) Do you think the vision, obstacles and directions, which were developed at the workshop, will be useful for guiding future actions within the watershed? yes___ no___

9. Are meetings and workshops a good way to develop a vision for the watershed? yes___ no___ *Can you expand on your answer?*_____

10. Please indicate which of the following groups you think will use the information gathered in the community meetings and the workshop? Government Agencies___ The Watershed Roundtable___ Local People___ Schools___ Regional Districts ___ Don't know___others:_*(specify)*_____

12. Will you try to live in accordance with the vision developed through this process? yes___ no___

13. Do you think that the vision developed is realistic for your lifestyle? yes___ no___ don't know___

14. Will you attend any future meetings of the Salmon River Watershed Roundtable? yes___ no___

15. Comments:_____

_____

_____

_____

Thank-you for participating in this survey!

[This survey is part of a larger graduate research project entitled "Evaluating the Ecosystem Objective Setting Process in the Salmon River Watershed". The researcher acknowledges financial support from The Fraser River Action Plan (Environment Canada), the Ministry of Environment, Lands, and Parks, and a scholarship from U.B.C.]

PERSONAL INFORMATION:

Age_____ Sex_____

Occupation_____

Do you belong to the Salmon River Watershed Roundtable? yes___ no___

Do you own land in the Salmon River Watershed? yes___ no___

(Does your land border the river? yes___ no___) Do you own your home? ____ rent? ____ How long have you lived in the Salmon River Watershed?_____