

REPORT ON
PHASE 1
OF THE PROCESS
LEADING TO A

N I C O L A
Water Use Management Plan

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Report on PHASE 1 of the Process Leading to a NICOLA Water Use Management Plan



Executive Summary

In the fall of 2004, the Nicola Watershed Community Round Table held a workshop in Merritt entitled *Charting Our Water Future* (October 14-15, 2004). This workshop came about as a result of a number of events and developments over the previous ten months that provided a catalyst for a large group of people from different backgrounds and sectors, but with a vested interest in the management of water, to begin a dialogue about a water use management plan for the Nicola watershed. The workshop concluded with a strong endorsement of a need for a water use management plan for the Nicola basin; and the setting of a meeting date for the start of a planning process.

At the inaugural meeting on November 15, 2004, those who were present agreed that the development of the water use management plan for the Nicola watershed would be done in stages and that what had to happen first was the laying of the foundation for the planning process. This soon became known as Phase 1 of WUMP, the acronym for water use management plan.

Participation during this first phase in the planning process to develop a water use management plan for the Nicola watershed has been multi-faceted. The process in place allows for any individual, group, non-government agency and government that are interested in a healthy, sustainable WATER USE MANAGEMENT PLAN to be involved. In other words, the only criterion for inclusion in the process is a willingness to abide by the principles set out in the terms of reference.

A structure consisting of a Planning Team, a multi-stakeholder committee and sub-committees with administrative and other support provided by the Nicola Watershed Community Round Table has been adopted for the planning process. The structure that evolved was in response to suggestions from participants, volunteers coming forward, and in answer to how best to address matters and issues that arose over time. From the onset, there were three precepts for the structure:

- a) that the local community would take the lead role, with government representatives playing an important but subordinate role;
- b) flexibility in order to accommodate the needs of volunteers as many who participate in the process are trying to fit this in with their other commitments; and
- c) the structure could and would be amended as necessary to meet changing circumstances and situations.

During Phase 1, there was broad participation by government, the community and interest groups. First Nations were also represented. A large number of individuals (between 30 and 50) attended the Multi-Stakeholder Committee meetings. Just over 100 individuals received the minutes of these meetings.

Over the months that followed the first meeting, the multi-stakeholder committee met seven (7) times. There were also two public meetings; and the planning team met twelve (12) times. Recognizing the importance of continued education about water and the watershed as this process evolves and also to provide a variety to the meetings, three guest speakers were invited to address the larger group: Jon O’Riordan, Paul Blackett and Henry Klassen.

By the end of Phase 1, the following had been accomplished:

- a) terms of reference for the process and all committees
- b) a vision statement
- c) a mission statement
- d) an organization structure
- e) funding obtained for Phase 1
- f) a communication strategy for the process and to build awareness about WUMP
- g) a strategy to promote wise water conservation including the implementation of a number of suggested action items
- h) an outline for a drought strategy
- i) an outline (table of contents) for the Nicola water use management plan document
- j) identification of key knowledge gaps and estimated costs to fill those gaps
- k) increased awareness and knowledge about current community issues
- l) socio-economic and environmental goals for the plan
- m) a better understanding of groundwater
- n) a feasibility study for completing the Nicola Dam was begun with a October 2005 completion date
- o) a timeline for completion of project (plan)
- p) a preliminary long-term budget (Phase 2 through completion of plan)
- q) a work plan for *Phase II – Issue Identification and Information Gathering*

Phase II will build on the work done in Phase I. This phase will begin in September 2005 and continue for the next twelve months. Phase II will consist of information gathering to address key knowledge gaps and in-depth issue identification, discussion of those issues in order to gain a complete understanding from all perspectives, and proposing of solutions. In the fall of 2005, there will be a series of day-long workshops looking at the issues that have been identified. The purpose of these workshops will be to provide an opportunity to describe and explain concerns, problems and interests in depth in order to gain an understanding of why these issues are important. Out of these discussions may come some solutions for some or all of the issues.

Phase II will also see a number of studies undertaken to fill information gaps that have been identified. This information will be critical to making decisions on how to manage the sustainable use of water. There will also be four multi-stakeholder committee meetings in order to address emerging issues and provide progress reports. The various sub-committees, new and ongoing, will meet as necessary and the Planning Team will continue to plan and organize meetings and provide support to the multi-stakeholder committee and the process. Securing funding for this stage of the planning process and for the entire plan will be a priority. The second phase is projected to cost between \$1.2 and \$1.3million. The majority of this funding will be for the studies that will need to be done to fill the key knowledge gaps.

Phase III is scheduled to begin in September 2006 and is entitled *WUMP Report Production*. The first draft of the plan document is scheduled to be completed by March 2007.

1.0 Introduction

1.1 Background

In 2004, a number of events and developments¹ provided a catalyst for a large group of people from different backgrounds and sectors but with a vested interest in the management of water, to begin a dialogue about a water use management plan for the Nicola watershed. Without water there can be no life. Furthermore, its quantity, accessibility and quality have a direct bearing on the health, well-being, prosperity and sustainability of a region's human, animal and plant populations. As the number of people who call the Nicola watershed home for some or all of the year continues to grow, and as the local economy expands to meet the needs of that growing population, there will be increased pressures on the water resource. Increased competition for this scarce natural resource may lead to conflict between various water users if sustainable and equitable 'rules of the game' are not developed by local stakeholders and government.² It was with that concern in mind that in the spring of 2004, the Nicola Stock Breeders Association launched a multi-phase water management plan/water supply project. The goal of the project is to provide a means (water management plan) whereby all water users in the watershed will be provided with a safe, reliable, sustainable and equitable supply of water for generations to come.

Phase 1 (completed in January 2005) of the Stock Breeders' project consisted of collecting all available information about the watershed and summarizing it into a usable and useful format. The Phase 1 Study, also called the Scoping Study, described the role played by water in each facet of the natural, ecological, social, economic, and other components of the broader community. The Study also identified water management related issues.

Early in the Nicola Stock Breeders' project, it was recognized that there needed to be widespread involvement by residents of the watershed from the beginning. To that end, in the fall of 2004, all residents of the watershed, government, First Nations and groups with a vested interest in water were invited to a two-day workshop in Merritt. The workshop concluded with a strong endorsement of the need for a water management plan for the Nicola basin.

The workshop report entitled, *Charting Our Water Future*, and the Scoping Study Report provide the background and the context for the Nicola watershed water use management plan, known as WUMP in its abbreviated form. At the WUMP inaugural meeting in November 2004, those who were present agreed that the development of a Plan would be done in stages, and that what had to happen first, was the laying of the foundation for the process. This stage soon began to be referred to as Phase 1.

¹ A list of these developments and events has already been recorded in several other documents. This information is available from the Nicola Watershed Community Round Table.

² *Nicola River Basin Management Strategy – Phase 1: Scoping Study* – Urban Systems Ltd., January 2005 - page 3.

1.2 Overview of Phase I, II and III

At the inaugural meeting, those present and they numbered fifty-two individuals from various backgrounds and sectors, began to lay the foundation for the bigger and more difficult work that would follow. They drafted a number of deliverables to be accomplished within six months and discussed in general terms what they would like to see in a water use plan. The group reviewed a proposed organization chart with committees for the planning process, discussed where funding would come from, and provided comments on a six-month budget that was put before them.

As with any undertaking of this type, there needed to be leadership and a process to move things forward. For that first meeting, the Nicola Watershed Community Round Table (NWCRT) developed the agenda, the budget and other information for the participants. The role of the NWCRT had yet to be fully defined and agreed to by all participants, but there had been no objections raised when the NWCRT proposed to organize the first meeting.

The discussion, suggestions and decisions made at that first meeting provided the overall work plan for the next six months. This period was a time to build understanding and trust, to come up with a vision to guide the water use management plan as it takes shape, to find funding for the short term, and to get a sense of how much money would be required to complete the plan. Terms of reference for the process itself and the committees were developed and a structure for the planning process put in place. A study to look at the feasibility of completing the Nicola Dam was initiated. It is the intention to incorporate the findings from this feasibility study into the final water use management plan.

Over the months that followed the first meeting, the multi-stakeholder committee met seven (7) times. There were also two public meetings; and the planning team met twelve (12) times. Recognizing the importance of continued education about water and the watershed as this process evolves and also to provide a variety to the meetings, three guest speakers were invited to address the larger group: Jon O’Riordan, Paul Blackett and Henry Klassen.

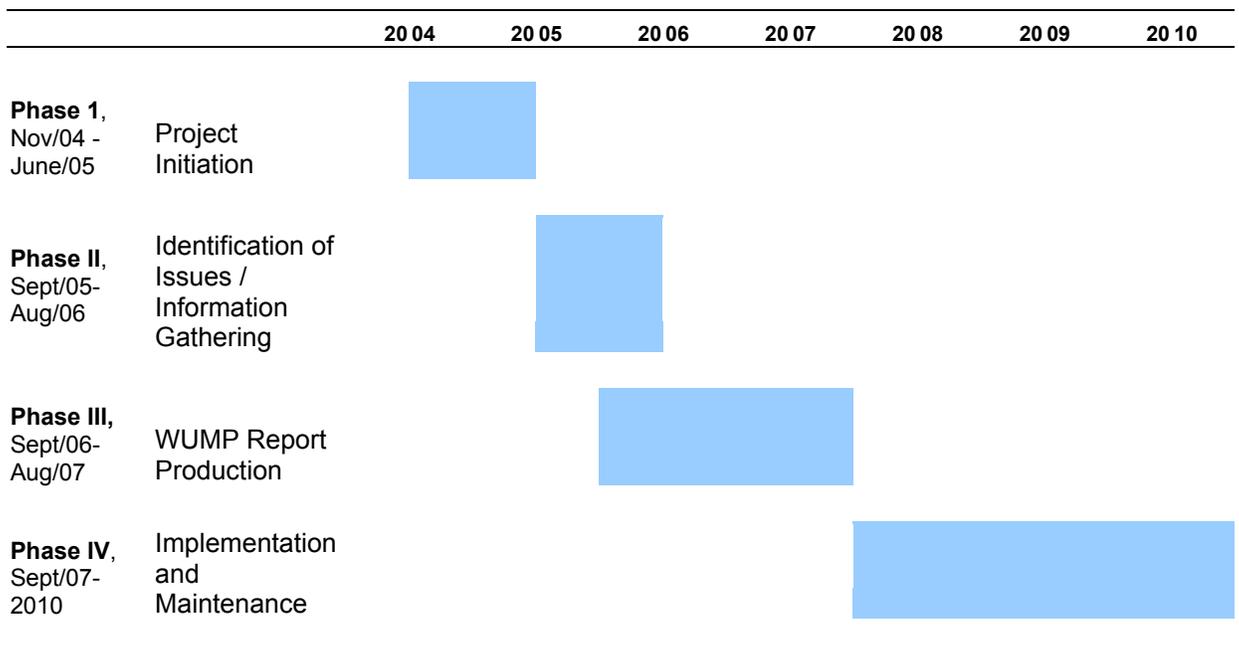
Phase I was officially concluded at the June 15 multi-stakeholder committee meeting.

Phase II will build on the work done in Phase I. This phase will begin in September 2005 and continue for the next twelve months. Phase II will consist of information gathering to address key knowledge gaps and in-depth issue identification, discussion of those issues in order to gain a complete understanding from all perspectives, and proposing of solutions. In the fall of 2005, there will be a series of day-long workshops looking at the issues that have been identified. The purpose of these workshops will be to provide an opportunity to describe and explain concerns, problems and interests in depth in order to gain an understanding of why these issues are important. Out of these discussions may come some solutions for some or all of the issues.

Phase II will also see a number of studies undertaken to fill information gaps that have been identified. (See Water Technical Committee report, Section 4.4, page 31). This information will

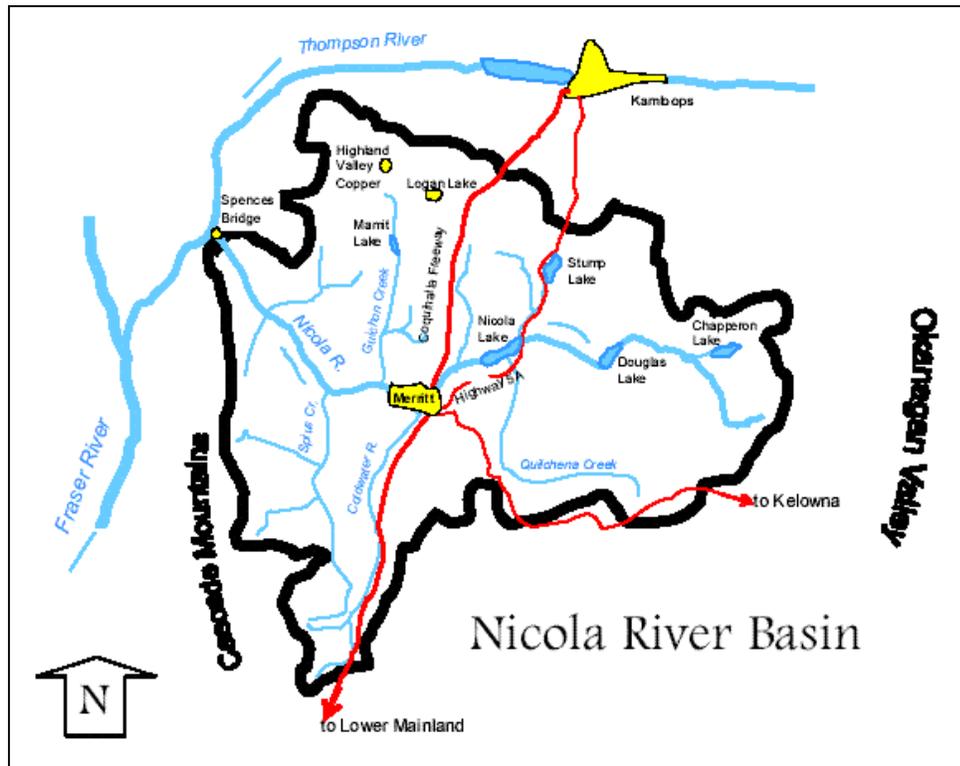
be critical to making decisions on how to manage the sustainable use of water. There will also be four multi-stakeholder committee meetings in order to address emerging issues and provide progress reports. The various sub-committees, new and ongoing, will meet as necessary and the Planning Team will continue to plan and organize meetings and provide support to the multi-stakeholder committee and the process. Securing funding for this stage of the planning process and for the entire plan will be a priority.

Phase III is scheduled to begin in September 2006 and is entitled *WUMP Report Production*. The first draft of the plan document is scheduled to be completed by March 2007.



1.3 Map of Watershed

The Nicola River basin covers an area of approximately 7,280 square kilometres (1.8 million acres) in the South Central Interior of British Columbia. The Nicola River is one of the biggest tributaries of the Thompson River that in turn flows into the Fraser River. The Nicola stream length is approximately 193 kilometres from its source on the plateau west of Okanagan Lake to where it joins the Thompson River at Spences Bridge.



Source: Nicola River Basin Management Strategy – Phase 1: Scoping Study – Urban Systems Ltd. January, 2005 page 5.

2.0 Phase 1 (2005) Overview

2.1 Terms of Reference

Early in Phase I, the Multi-Stakeholder Committee, which is the decision-making body in the water use management planning process, developed and adopted terms of reference. They describe the principles, boundaries, process rules and expected products. They also provide a common starting point from which all participants can begin the work that will lead to a plan.

The terms of reference begin with the vision statement to guide the development of a water use management plan.

Vision Statement – A sustainable supply of quality water that ensures a balance of social, economic, traditional and ecological values.

Area of Interest – Defines the geographic area (Nicola watershed) that will be encompassed by the final plan.

Principles – The planning process will adopt the following principles:

- Consensus-based decision making.
- Value-based rather than interest-based perspectives.
- Inclusive of all who are interested in a healthy, sustainable WATER USE MANAGEMENT PLAN.
- The process will have a committee structure.
- Participants have the following responsibilities:
 - To articulate their interests in water;
 - To listen and learn about others' interests in water;
 - To develop an information base for discussion and review;
 - To explore the implications of a range of management alternatives;
 - To follow the principles of consensus-based decision making as agreed to during the early stages of the process.
- The WATER USE MANAGEMENT PLAN will be dynamic and adapt to changing circumstances over time.

Structure – A committee structure that will include the following committees:

PLANNING TEAM

Composition: the composition will be such as to ensure that this process remains locally driven. The size of the Planning Team will be limited to a workable size.

- 2-4 members from the Board of Directors of the NWCRT³
- a First Nations representative
- a representative from Fisheries and Oceans Canada
- a representative from a provincial ministry dealing with water or water related issues
- up to 2 individuals from the community at large (Nicola watershed) who are able and committed to attend a large number of meetings
- from time to time, any other person who is considered a resource person by the Planning Team.

Role: provides support to the multi-stakeholder group and the water use management plan process

- plans multi-stakeholder and public meetings including communication, logistics, agenda, facilitation and chairing of these meetings;
- co-ordinates information flow, the work of all the sub-committees and activities in a fair and objective manner
- identifies preliminary issues for the planning process/development of the plan
- liaises with the NWCRT

³ NWCRT – Nicola Watershed Community Round Table

- provides progress reports on the process to the multi-stakeholder committee, the public, government, funders, etc.
- media relations
- develops the initial budget and schedule for the process and submits them to the MSC⁴ for review, amendments and adoption

MULTI-STAKEHOLDER COMMITTEE (MSC)

Composition: any individual who has an interest in a healthy sustainable WATER USE MANAGEMENT PLAN

Role:

- *the decision-making body with respect to the recommendations that will be included in the WATER USE MANAGEMENT PLAN document*
- reviews recommendations of sub-committees
- may adopt recommendations of sub-committees
- provides direction to the Planning Team and sub-committees
- assesses the suitability of the planning process to address their (members of the MSC) needs and confirm their desire to engage in the process
- refines and expands the issues identified by the Planning Team.

SUB-COMMITTEES

Committees will be struck as necessary.

Composition: committed individuals who are representative of the multi-water interests; size to be workable to achieve objective; each committee will have a chair.

Role:

- roles will vary depending on the nature of the committee
- to make recommendations for discussion and possible adoption by the multi-stakeholder committee

END PRODUCT

- for the short term (May, 2005), a solid framework for the water use management plan (a document)
- by the end of May, 2005 the following will have been accomplished:
 - A further refinement of the water planning model
 - Prioritization of additional work and studies that will be required
 - Formalize membership of the Planning Team
 - A feasibility study on the completion of the Nicola Dam
 - A mission statement that will be used to guide the development of the plan
 - An inventory of what is happening presently in the watershed
 - Securing funding for the short term
 - Confirmation of demand (water) requirements for the watershed
 - A Drought Strategy
 - An outline of the Water Use Plan and terms of reference for working committees
 - Identification of sensitive areas that might require a higher measure of protection outline the concerns
 - Develop terms of reference
 - Monitor water quality
 - A communications strategy

⁴ MSC – Multi-Stakeholder Committee

- for the longer term, define/detail the plan including how it will be implemented and monitored over time and adjusted, and who will be the partners in these activities.

Principles for Information Gathering and Studies

- data and information collection precedes the start of the development of the actual plan
 - focus is on critical information deficiencies and filling those gaps
 - focus on what is necessary rather than on what it would be nice to have
 - set priorities for gathering information
- information should be mapped or formatted in a standard manner that allows a clear understanding of the subject and readily permits comparison and analysis
- re-evaluation of information needs should occur throughout the process

2.2 Standardized Procedures

The participants in this process adopted decision-making by consensus. Consensus means no substantial disagreement on a topic/decision/recommendation, etc. and no public expression of dissent. At first, consensus based decision-making may take longer and cost more, but in the end it is worth it because there is ownership of the decision by all. In the long run, consensus based decision-making costs less because it eliminates going back over topics.

Listening attentively is paramount to the consensus based decision-making process. Everyone is encouraged to express their opinion. Opinions are value-based, not interest-based.

2.3 Process

Participation in the planning process to develop a water use management plan for the Nicola watershed is multi-faceted. The process allows for any individual, group, non-government agency, First Nations and government that are interested in a healthy, sustainable WATER USE MANAGEMENT PLAN to be involved. In other words, the only criteria for inclusion in the process is a willingness to abide by the principles set out in the terms of reference.

To date there has been broad participation by government, the community and interest groups. First Nations are also represented. A large number of individuals (between 30 and 50) attend the Multi-Stakeholder Committee meetings. Just over 100 individuals receive the minutes of these meetings. The purpose of these meetings is to build trust and understanding, to make decisions that will move the process along, to provide technical information in order to build the knowledge base, and to receive and discuss information and progress reports from sub-committees and from other sources.

The Multi-Stakeholder Committee meetings are generally not advertised through the media. This is not because the process does not welcome 'late' comers, but rather it is due to limited resources and because any advertising that was done, received a poor response.

The public has an opportunity to become involved if they come to a public meeting which is advertised. To date, there have been two public meetings and both received significant press

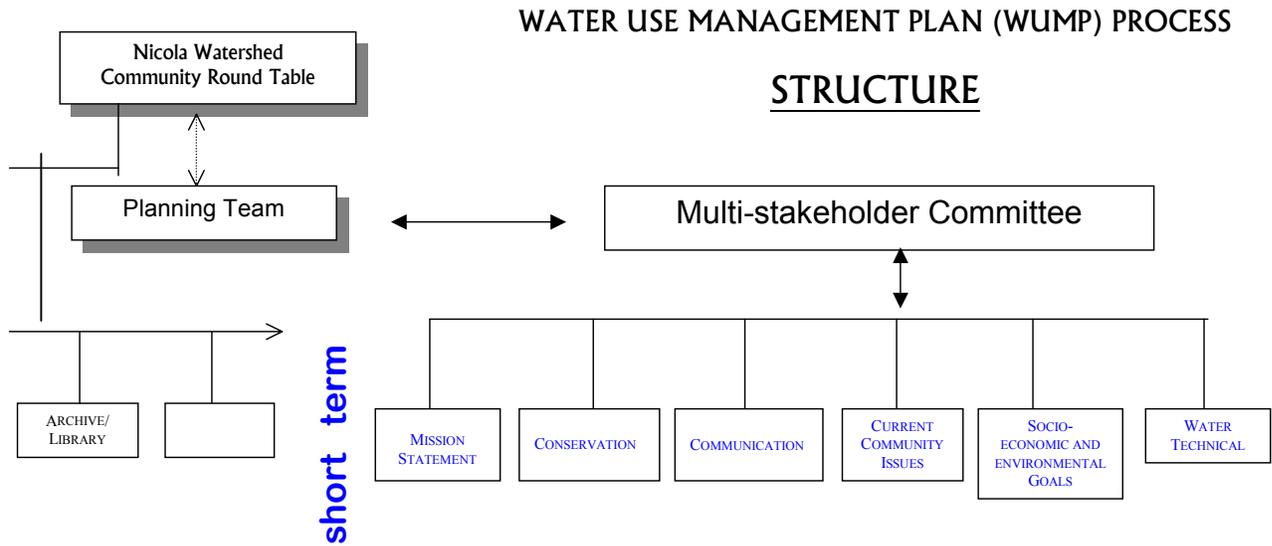
and media coverage. Both public meetings had guest speakers with the rest of the agenda devoted to progress reports and an opportunity to ask questions. The format of both the public and the multi-stakeholder meetings follows a format adopted by the Nicola Watershed Community Round Table. The meeting begins with an opening circle and ends with a closing circle. The closing circle, more so than the opening circle, provides a first-time participant with an opportunity to ask questions, to comment on the process, and to make it known that he/she would like to become more involved. As attendance is taken at all meetings, all first time comers are given an opportunity to indicate whether they wish to receive notices of future meetings and meeting minutes.

The organization of the multi-stakeholder and public meetings is the responsibility of the Planning Team. There are eight members of which six are residents of the watershed. The two remaining members are representatives of Fisheries and Oceans and the Ministry of Water, Land and Air Protection, now known as the Ministry of Environment. The Planning Team is not a decision-making body except in regards to the logistics of the multi-stakeholder and public meetings. It does draft up the agenda for those meetings but this agenda must be approved/accepted at the start of the meeting. The agenda can always be amended. Over the term of Phase I, the Planning Team dealt with other matters either as a result of a decision of the Multi-Stakeholder Committee or information that had come from an outside agency in between meetings of the Multi-Stakeholder Committee. From time to time, the Multi-Stakeholder Committee will direct the Planning Team to carry out an activity. On emerging issues and matters, the Planning Team took these back to the larger group for a decision.

As with any number of planning processes that are lengthy and deal with complex matters affecting large numbers of people and many aspects of everyday life, the process could not proceed very far without some structure. Any number of models could have been used but for the first phase of the Nicola watershed water use management planning process, no particular template was followed. Instead, the structure that evolved was in response to suggestions from participants, volunteers coming forward, and in answer to how best to address matters and issues that arose over time. From the onset, there were three precepts for the structure:

- d) that the local community would take the lead role, with government representatives playing an important but subordinate role;
- e) flexibility in order to accommodate the needs of volunteers as many who participate in the process are trying to fit this in with their other commitments; and
- f) the structure could and would be amended as necessary to meet changing circumstances and situations.

This then was the structure that came into being:



The diagram above shows the reporting relationship between the Planning Team and the Multi-Stakeholder Committee. In addition, there are sub-committees. These were established about three months into the process. Their mandates and activities are discussed later in this report. Since no local organization was created with a mandate to carry out this process, and since the Multi-Stakeholder Committee is only a loosely formed group with no capacity to provide support to the process, this need had to be filled from somewhere. The Nicola Watershed Community Round Table⁵ stepped forward to provide capacity and support to the multi-stakeholder group. Hence the Round Table's location on the organization chart above. This organization provides the administrative support for the process. Tasks include distribution of notices of meetings, booking meeting room, preparing meeting packages, taking minutes of all meetings, photocopying, correspondence, storing of information and reports related to this project, acting as a contact for information and for the WUMP process, media relations, advertising, managing the funding, funding applications and reports. Other tasks are added from time to time depending on the particular need, for example developing a preliminary long-term budget for review by the Planning Team.

⁵ The Nicola Watershed Community Round Table is a non-profit society that was formed in 1994 in order to provide a means whereby residents of the watershed could learn about issues that affected them and ensure that they lead the way in determining the long-term sustainability of the region.

2.4 Budget for Phase 1

A \$39,400 budget was approved by the Multi-Stakeholder Committee for Phase 1.

Line Item	Amount	Comment
Planning Team Expenses/Speakers /etc.	\$ 20,000	Per diems, speakers, consulting fees, and discretionary funds (e.g. travel expenses)
Administration	\$ 6,000	20 days at \$300/day
Facilitator for Meetings	\$ 4,500	3 public meetings
Chairing of Meetings	\$ 1,800	3 public meetings
Multi-Sakeholder Meetings	\$ 0.00	3 meetings - In-kind donation of meeting room and refreshments
Meeting Room Rental and Refreshments	\$ 750	3 public meetings, assume a 4-hour meeting
Equipment Rental	\$ 400	Projectors, flip charts, lap top computer, etc.
Communications	\$ 5,000	May include the development of a web site, newsletters, distribution of meeting minutes, news releases, brochure, advertising of public meetings etc. - strategy to be developed
Photocopying	\$ 600	This amount will 'purchase' approximately 6,000 copies at 10 cents a copy
Postage	\$ 100	
Telephone/Fax	\$ 50	
Stationary/Supplies	\$ 200	Refers to the purchase of special items, for example, special paper or lamination, but does not include items such as 8 X 11½ multi-purpose paper or envelopes.
TOTAL	\$ 39,400	

Once the budget was approved by the Multi-Stakeholder Committee, support for the planning process came from a variety of sources. The City of Merritt gave \$1,800 in cash for the chairing of meetings and donated photocopying and postage. The Thompson-Nicola Regional District, through the elected representatives of Regions M and N, donated \$2,000. The Pacific Salmon Foundation donated \$20,000, the Ministry of Water, Land and Air Protection, \$10,000 and Highland Valley Copper, \$10,000. The BC Federation of Fly Fishers and the Steelhead Society each donated \$1,000. Individual donations came to \$1,000.

It is noteworthy that it was not difficult to raise these funds. With the exception of one formal funding application, the balance of the donations came from individuals or from private and public sources who recognized the importance of this project and had representatives at the table.

2.5 Summary of Activities

In this first phase of the planning process to develop a water use management plan for the Nicola watershed, the foundation has been laid with participation and involvement from ordinary citizens, elected officials, First Nations and government representatives. In the period between November 15 and the end of June 2005, there were over 60 hours of various meetings (Planning Team, Multi-Stakeholder Committee and Public Meeting), excluding meetings of the sub-committees. If

the latter were added to the former, the time spent on this community-led project, much of it volunteer time, would easily top 100 hours.

The result was a significant list of accomplishments, results and work to lay the foundation for the next stage.

The table below summarizes the work that was undertaken, the results and the accomplishments. It also provides a timeline of activities that were undertaken and their sequence.

TABLE 1

Month	Activity/Result	Accomplishments
November 2004	<ul style="list-style-type: none"> - first meeting of the Multi-Stakeholder Committee (MSC) - general discussion about the contents of a water use management plan - discussion of a structure for the planning process - review and adoption of a 6-month budget - discussion of possible sources of funding for this process - setting some short and longer term goals - volunteers came forward to form a committee to draft a mission statement - composition of Interim Planning Team approved 	<ul style="list-style-type: none"> - support in the form of cash - commitments for the planning process comes from the City, TNRD and individuals.
December 2004	<ul style="list-style-type: none"> - second meeting of the MSC takes place on December 15 - introduction to consensus-based decision-making - review of draft mission statement - review and amendment of proposed terms of reference for the planning process 	<ul style="list-style-type: none"> - Pacific Salmon Foundation commits \$20,000 and a contract is signed - TNRD provides \$2,000 - City of Merritt donates \$2,600 (cash and inkind) - membership on Planning Team finalized
January 2005	<ul style="list-style-type: none"> - a public meeting is held on January 17, 2005 - review of revised terms of reference for the process - guest speaker was Henry Klassen from the Nechako Watershed Council - sub-committees are identified and participants invited to sign up - review of second draft of vision and mission statements. - Planning Team meets with Henry Klassen to ask questions about the Nechako project. - Planning Team meets with facilitator to obtain feedback and an objective assessment of how the planning process is unfolding. 	<ul style="list-style-type: none"> - adoption of the terms of reference - an organization structure for the process - principles to guide the planning process - announcement that provincial government will meet the budget shortfall and that the process will see more support in the future. - funding for short term secured. - vision and mission statements finalized and adopted

February 2005	<ul style="list-style-type: none"> - the third MSC meeting takes place on February 9, 2005 - review of deliverables that were suggested at the first meeting - review of draft terms of reference for each of the sub-committees 	<ul style="list-style-type: none"> - funding received from Highland Valley Copper (\$10,000) - sub-committee terms of reference finalized and work plans approved - copy of Scoping Study distributed to all who have attended one or more meetings to date
March 2005	<ul style="list-style-type: none"> - sub-committees working on their work plans - the MSC met twice in March - opportunity to listen to comments from the Upper Nicola Band about water and water issues - progress reports from each sub-committee 	
April 2005	<ul style="list-style-type: none"> - sub-committees working on their work plans - the sixth meeting of the MSC took place on April 13 - guest speaker was Jon O’Riordan who spoke about best practices in watershed management - announcement that additional funds (\$80,000) have been set aside for this process through the Living Rivers Trust - presentation of the communications strategy for WUMP to MSC - progress report from the Conservation and the Current Community Issues Sub-committees - information presented at MSC about the proposed landfill at Highland Valley Copper - presentation of draft of long term budget to MSC - MSC gets a glimpse of a preliminary work plan for the next two years 	<ul style="list-style-type: none"> - draft communication strategy completed and presented for adoption - further support for the process from the Living Rivers Trust - Water Conservation Sub-committee initiates stronger links with local communities with MSC approval
May 2005	<ul style="list-style-type: none"> - sub-committees working on their work plans - second public meeting takes place on May 26 - Paul Blackett from Kala Groundwater invited to speak about groundwater at the public meeting - update provided to MSC on landfill proposal for Highland Valley Copper - Final report from the Socio-economic and Environmental Goals Sub-Committee - Final report from the Conservation Sub-Committee 	<ul style="list-style-type: none"> - a better understanding of groundwater in the Nicola basin/watershed - water use management plan goals and preliminary strategies - a preliminary water conservation strategy for the watershed
June 2005	<ul style="list-style-type: none"> - the seventh meeting of the MSC takes place on June 15 - final reports presented to the MSC by the Water Technical and Current Community Issues Sub-committees - review of all reports by MSC – feedback provided - review of short term deliverables and their status by MSC - outline of next steps (Phase II and beyond) 	<ul style="list-style-type: none"> - an outline for the water use management plan - identification of key knowledge gaps - increased awareness and knowledge about current community issues - Nicola Dam feasibility study underway - multi-stakeholder and multi-interest involvement – attendance at meetings continues to be strong

3.0 Vision and Mission Statements

In order to guide the development of the water use management plan, the Multi-Stakeholder Committee agreed that one of its first tasks was to develop a mission statement. Several volunteers came forward to accomplish this with input from the larger group. A first draft was presented at the December 15, 2004 Multi-Stakeholder Committee meeting and a final version, for not only the mission statement but also for the vision statement, was adopted at the January 17, 2005 public meeting. In accepting the wording, it was made clear that this wording would be amended, if necessary, as the planning process proceeded through the various stages.

VISION STATEMENT:

A sustainable supply of water that ensures a balance of social, economic, traditional and ecological values.

MISSION STATEMENT:

To guide the sustainable use of the water resources of the Nicola watershed in order to support the social, economic and ecological well being of our communities in perpetuity.

The Multi-Stakeholder Committee requested that both statements be prominently displayed as well as a map of the watershed at every meeting.

4.0 Phase I Committee Reports

In order to meet the short term objectives and the deliverables promised in the contract with the Pacific Salmon Foundation, a number of sub-committees were struck and formalized by the February 9, 2005 Multi-Stakeholder Committee meeting. At this meeting, the terms of reference for five sub committees were finalized and another opportunity provided for participants to join a committee. Between that meeting and mid-June, the sub-committees went about their tasks and reported back to the Multi-Stakeholder Committee with their findings and recommendations.

Below are the final reports of each of the sub-committees preceded by their terms of reference and the names of the individuals who sat on them.

4.1 Current Community Issues Committee Report

DESCRIPTION/ROLE: To gather information that relates to water issues in the Nicola watershed and add it to the overall inventory.

DELIVERABLE: A current inventory of developments and issues that relate to water.

TIMELINE: by May 31, 2005

- TASKS:
- 1) ongoing monitoring of developments and issues (e.g. Juliet Creek proposed development, Merritt Mountain Music Festival, Stump Lake, etc.)
 - 2) sift through news stories and determine which meet the criteria
 - 3) report (written and/or oral) to Multi-Stakeholder Committee
 - 4) develop a log of contact names and phone numbers, web sites, government and other resources and media
 - 5) develop long term objectives (Phase 2), a budget and timelines

SIZE AND MEMBERSHIP: up to 5 members

The members of this committee were: *Katharine Shewchuk, Libby Petrie, Cyril George, Elmer O'Hanley, Arnie Oram, Joe Post, Dave Rice and Mike Rose.*

FINAL REPORT (as presented at the Multi-Stakeholder Committee Meeting on June 15, 2005)

Preamble to Current Community Issues Committee (CCI) Report

The job of the CCI Committee is to collect the issues around the Nicola Watershed that relate to water use. Most of these issues deal with resort or urban development, both of which require large amounts of water. The demands put on the water supply by the large numbers of people attracted to the Nicola watershed will have a dramatic effect on the water supply.

The following information was obtained from press reports, web sites and interviews. It is intended as a guideline only, and we would welcome any corrections or additions.

CURRENT AND PROPOSED DEVELOPMENT (OUTSIDE MERRITT CITY BOUNDARIES)

Nicola Lakeshore Estates - Nicola Lake, north of Monck Park – *Frank Rizzardo, et al*

Phase 1 - 33 waterfront lots; 32 view lots - each min. one-acre - all sold

Phase 2 – 51-unit condominium, commercial site to eventually house restaurant, pub, marine rentals, general store, etc., and additional building lots being developed

Phase 3 - 25 waterfront lots; 25 view lots (1 acre); and 10, 10-acre upland lots planned (recent info is that the entire Phase 3 has been sold in a block to a condo (?) developer.

Quilchena On The Lake - Nicola Lake, north of Quilchena Hotel – *Guy Rose*

40 building lots developed, all sold - construction to begin. Water to come from well near current hotel - as a result, existing trailer park has been closed (proximity to septic field).

Sagebrush Golf & Sporting Club - South of Quilchena Hotel – *Guy Rose, Richard Zokol et al*

31, 1-acre lots, 18-hole private golf course, club house, guest lodge, marina and float plane facility on Nicola Lake. Anticipated completion by 2006.

Active Mountain Resort - 1,000 acres southwest of Merritt – *Claude Lelievre & Diana Kelly*

48 townhouses in City limits, 7-acre man-made lake on rural property (fed from aquifer, not Merritt's main aquifer) to irrigate 18-hole golf course, plus potential Motor Sport facility, resort hotel, vineyards and winery.

Marshall Springs Resort – Brookmere – *Terry & Wendy Methot*

176 building lots, 100 units, plus other amenities - approvals in place.

Peter Hope Lake Resort Development Inc.

17 lakefront and 13 water view cottages constructed. All but 9 sold.
Developer applying to draw 7,500 Gal/Day from lake for domestic purposes.

Westscapes Development - Juliet Creek – Mel Wooley, Westscapes Development Inc, John Bones, Project Director

2,800 potential residences plus sports amenities - in early planning stages.

Corbett Lake – Peter McVey

30 summer cottages - ownership will be to “footprint” only, but private access to lake.
Early planning stages. (Entire property listed for sale at this time).

Patchett Road Development – Bill & Terry Strande

Up to 5 ten-acre residential parcels to be developed off Coldwater Road

CURRENT & PROPOSED DEVELOPMENT (INSIDE MERRITT CITY BOUNDARIES)

A local realtor indicated that as of June 1, 2005 there were 98 developed residential building lots for sale in Merritt, but there is potential for hundreds more. Areas of current and potential development show on Urban Systems map, prepared for the city of Merritt. They include:

Country Pines Estates (Irving Corbett)

Location: Collettsville side of Coldwater River - minimum 60 building lots and 10 light industrial sites

Crown Hills (Mr. Bremner)

On Bench above Nicola Inn - 37 lots from former crown land. Potential for 300 more on current crown land behind Castellou Drive

Grandview Heights (Frank Rizzardo/Dan Krausert)

On Bench above Dairy Queen - potential 100 lots plus additional apartment building(s).

Ponderosa (Jim Rabbitt/Art Macdonald)

West Bench - potential 50 additional building lots, several current lots still available.

RND Developments (Jim Rabbitt)

Armstrong St./Bann Ave. - approx. 20 additional building lots.

Coyote Bluffs (Sanders & Co., et al)

River Ranch Road (west of Canadian Tire) – ‘dozens’ of building lots, not all developed.

Riverdance Estates (Phone 1-250-374-1347)

Manufactured Home Gated Community up to 100 units off River Ranch Road.

Nicola Meadows (Vince Smoluk)

Garcia Street by Nicola River - 81 studio, one- and two-bedroom Assisted Living Units. Occupancy to be phased in starting mid June, 2005.

NON-RESIDENTIAL DEVELOPMENT

Ross Chocolate Factory near Tolko Sawmill & Country Pines Estates

Construction to begin summer 2005, pending final City approvals.

Commercial Development on Highway 5A by Truck Stop

Wal-Mart store & distribution centre, Payless Shoes, Reitman's Ladies Wear. Construction to start June 2005.

Puttz Golf Park - Wayne Fulcher

9-hole Pitch and Putt course with grass greens, to open summer 2005, SE corner of Thorpe Ave., Merritt.

Stoyoma Mountain - Snow Cat Skiing and Lodge

Coalbed Methane - Forum Development Corp., CEO Rick Mazur, VP Gary Zak
Drilling exploration holes May to July 2005 on Coal Gully Hill (Active Mountain).

Highland Valley Copper landfill site

On Nicola Valley watershed side of Divide Lake. Studies underway.

OTHER ISSUES**Industrial Pollution**

Existing industries in or near Merritt town boundaries over years have spilled toxic substances in close proximity to aquifers.

Air Quality Monitoring - Urban dust, ATV use – Rural.

Biosolids

To be used at Nicola Ranch - impact investigation underway.

Random Well Drilling in Rural Areas

Scope & frequency to be investigated.

Mining

No current plans to develop new mines in watershed. Very active exploration. Highland Valley Copper has about 10 years' reserves (tailings currently flow to Ashcroft side of divide). Nearest new active mine - extracting coal at Tulameen.

Contacts

Holly Suggitt – Greater Vancouver Regional District
Terry Pratt, Area Manager, All Seasons Resorts Division, Land & Water BC Inc.

FURTHER THOUGHTS

In addition to the issues our Committee has presented, there is the matter of emerging issues and situations requiring a response from WUMP. We have no mechanism yet in place for situations that require someone to speak on behalf of WUMP. So far, there are no designated representatives of WUMP who can speak to government or attend meetings to provide the WUMP perspective. Soon, situations will arise where it won't be possible to bring them before the multi-stakeholder group for guidance. One or two people may need to take on the role of spokesperson(s) in a broader sense. Two of our recent guest speakers stressed the importance of getting our message out to the decision-makers.

This topic will need direction from the group and we invite your thoughts on the subject.

4.2 Socio-Economic and Environmental Goals Committee Report

DESCRIPTION/ROLE: To develop specific goals that will guide the water use management plan (WUMP) process and which will be included in the final plan.

SIZE AND MEMBERSHIP: up to 12 members, sectoral representation

The members of this sub-committee were: Katherine Gizikoff, Alan Caverly, David Coutlee, Bob Hamaguchi, Barb Jackson, Alan Kenney, Jens Larsen

DELIVERABLE: Socio-economic and environmental goals.

TIMELINE: by May 31, 2005

TASKS:

- 1) Compile a comprehensive list of goals
- 2) Organize list by category/elements
- 3) Identify which are quantifiable and which are qualifiable
- 4) Identify which are short term and which are long term goals

METHODOLOGY: TO START: Review specific and measurable goals found in other planning frameworks in and around the Nicola Basin. Identify any values that are not represented by listed goals, e.g. traditional values. Review sustainability models such as the Fraser Basin, LRMP, TNRD Regional Growth Strategy Nechako Watershed Council, etc. Decisions on the wording will be made by consensus.

Additional Comments: *The group felt that it would be a good idea to liaise with other committees and perhaps even attend their meetings over the next three months so that any new information would be reflected in the final goals to be recommended to the MSC. The group also felt that as this exercise will not take a lot of time, members of the Committee could also sit on another committee.*

FINAL REPORT (presented at the May 26, 2005 Public Meeting)

WATER QUANTITY

#	Concern	Goal	Issues*	Examples of Strategies
1	Water Supply	Ensure an adequate supply of water for our current and future needs.	There is a growing demand for water within the basin and we suspect an inadequate supply.	Use water modeling for flexibility to allow sustainable development that is consistent with the basin's socio- economic goals.
2	Growth within the Basin	Ensure new developments' impacts on water quantity are thoroughly evaluated and can be accommodated within the basin.	There is development within the basin that may be impacting water supply.	Assess impacts of groundwater use and water discharge from new proposals prior to development.

3	Lack of Information for Decision Making	Ensure water planning decisions are based on sound data.	Technical information on supply and demand has not been previously compiled and there are information gaps.	Determine how much water is available for water users and how much is needed to protect natural systems.
			We lack the information and modeling tool to make informed decisions.	Develop a water model for the basin to allow for informed decision-making.
			We are uncertain of the impact of climate change on water availability over time (years as well as seasons).	Explore climate change scenarios and their potential impacts on water supply. Formulate drought contingency plans to be put in place to mitigate the climate change projections of severe reductions in available water during the next century.
			Inter-basin diversions resulting in a reduction of water supply in our watershed.	Identify the impacts and risks of inter-basin diversions to our watershed (and to ensure appropriate management).
4	Water Allocation	Understand in-stream flow requirements and off-stream uses (demand). <i>What if there is an 'imbalance', what is our goal?</i> <i>Is it to balance the water allocation to meet the requirements for the natural ecosystem, fish production, agricultural operations, and development?</i>	There are conflicts between in stream and off-stream uses due to an (perceived) imbalance in the allocation of water.	Investigate incentive programs for all land and water users to support water levels for fish production/ natural ecosystem requirements. Require an official inventory of water use allocations/licenses that can be used to accurately assess the water balance in the Nicola River Basin. Require an accurate assessment of actual water used that can be used to make sound water management decisions. Compile existing information on actual use, current needs, and future requirements (for entire watershed, including IRs). Identify balancing needs by modeling to improve management. Explore all options for meeting water needs including water conservation, storage opportunities and improvements, groundwater supplies and even water markets (prioritizing, buying, leasing, trading water in times of shortages)

5	Degradation of Riparian Resource	Maintain or improve the protection of the aquatic/riparian resource.	There is inadequate protection of the aquatic/riparian resource.	Maintain an adequate supply of water for natural systems by recommending in-stream flows and levels for priority areas.
6	Water Storage	Improve our understanding of groundwater supply and recharge in the Nicola Basin.	There is a lack of groundwater information on groundwater supply, quality and recharge for us to determine if groundwater can be identified as storage.	Produce a geological map showing location of aquifers; potential water yields; status of current abstractions (removal); recharge rates. Use groundwater information in water model.

**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase 1: Scoping Study. Issues to be further refined/ discussed in fall 2005 workshops.*

WATER QUALITY

#	Concern	Goal	Issue*	Examples of Strategies
7	Human and Environmental Health	Maintain or improve water quality in the basin.	We desire clean, high quality water.	
8	Limited Supply of Quality Water	Assure water quality is appropriate for its use.		Match the quality of water for its use. (i.e. highest quality for drinking, in stream flows for fish; different standards lesser quality for agriculture, domestic and industrial purposes.)
9	Aquatic Life	Ensure water temperatures are appropriate for indigenous aquatic life.	We suspect rising water temperatures.	Reduce summer water temperatures through riparian restoration Conduct instream and riparian restoration and protection. Maximize storage and/or manage volumes and flows to moderate water temperatures
10	Development in the Basin	Ensure new developments' impacts on water quality are thoroughly evaluated and can be accommodated within the basin. Ensure water values are foremost in developers' minds.	We are concerned about impacts from development, including landfills.	Expect new developments to design/include natural infiltration plans to reduce the amount of impervious surfaces. Encourage recycling to reduce the impact of landfills on water quality. Educate and provide economic incentives for the public, consumers and producers to reduce landfill volumes. Locate and design landfills to ensure no leachate impact on water quality.

11	Contamination	Minimize ground water contamination by improving our knowledge of groundwater quality so we can monitor impacts and assess risks of contamination in the Nicola Basin.	We are concerned about groundwater contamination and lack the ability to understand risks or monitor impacts.	
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**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase I: Scoping Study. Issues to be further refined/discussed in fall 2005 workshops.*

INFORMATION NEEDS

#	Concern	Goal	Issue*	Examples of Strategies
12	Access to existing data	Develop and maintain access to the best current information about legislation, regulation, policies, by-laws, best management practices and guidelines regarding water in the Nicola Basin.	Existing data is not compiled.	Find out the current state of water supply and demand, and water quality on Reserve Lands. Work with the Fraser Basin Council to develop and coordinate an information database. Develop a useable database.
13	Information gaps	Utilize traditional ecological knowledge.	Existing data is not compiled.	Confer with elders.
14	Lack of Monitoring	Secure funding for monitoring/collecting additional data required for decision-making.	There is a lack of funding for monitoring/gathering additional data.	
15	Education	Improve public awareness of the relationship between healthy natural systems and maintaining a clear, abundant supply of water.		Educate resource users on the relationship between ground and surface water sources. Improve awareness of the roles of all species in ecosystem function. Invite guest speakers on holistic ecosystem function. Develop a communication strategy. Develop a resource centre for public access to information.

**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase I: Scoping Study. Issues to be further refined/discussed in fall 2005 workshops.*

INSTITUTIONAL CAPACITY

#	Concern	Goal	Issue*	Examples of Strategies
16	Authority	Develop a governance model for the Nicola Basin water authority.	There is a desire for local control and empowerment for decision-making. Victoria support is required.	Establish an interim local management group with representation from all stakeholder, interest and First Nations groups.
17	Sustainability	Secure funding for the Nicola Basin water authority.		Identify what the water revenues are for the Nicola Basin.

**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase 1: Scoping Study. Issues to be further refined/discussed in fall 2005 workshops.*

NATURAL AND ECOLOGICAL PROCESSES

#	Concern	Goal	Issue*	Examples of Strategies
18	Habitat capacity for fisheries	Maintain and restore natural ecological function.	What fish populations are we aiming to achieve? How does income from these resident fisheries compare with other competing uses of water and how is this income measured with respect to First Nations traditional values and food fishery?	Build up indigenous fish stocks (maybe not to original numbers) in river basins where riparian habitat has been restored and a secure water supply created where climatically possible.
19		Recognize the Nicola Basin Watershed as a holistic ecosystem.		

**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase 1: Scoping Study. Issues to be further refined/ discussed in fall 2005 workshops.*

HUMAN ACTIVITIES

#	Concern	Goal	Issue*	Examples of Strategies
21	Development and economic growth	Promote and encourage economic development that makes responsible use of water.	Strict control of water usage by new development so that existing users (including fish) are not negatively impacted. Development along shorelines, sensitive soils.	
22	Quality of Life	Ensure sufficient quantity and quality of water to support a high quality of life for the people of the Nicola Basin.	Need sufficient, quality water for a sustainable/ flourishing economy.	
23	Cultural/Heritage	Encourage the conservation of lands, structures, and artifacts that have cultural heritage value.	Lack of recognition of traditional values.	

**From Charting Our Water Future Workshop and Nicola River Basin Management Strategy Phase I: Scoping Study. Issues to be further refined/ discussed in fall 2005 workshops.*

4.3 Communications Committee Report

DESCRIPTION/ROLE: The Communication Committee's role is to assist Elizabeth and the Planning Team with keeping the Multi-Stakeholder Committee and the public informed about meetings and the WUMP process.

SIZE AND MEMBERSHIP: up to 5 members

The members of the committee were: Elizabeth Salomon-de-Friedberg, Jean Anderson, Laurie Kingston, Bob Lisle, Jill Sanford and Lise Mulridge

DELIVERABLE: A communications strategy that will have a strong educational component for the WUMP process.

TIMELINE: by May 31, 2005

TASKS:

- 1) define communications strategy – needs to include an external component as well as an internal component
- 2) develop goals and objectives incorporating communications and education
- 3) develop a sectoral list from attendance sheets and determine which sectors are not represented.
- 4) establish contacts to promote sectoral and multi-cultural representation at multi-stakeholder meetings

- 5) provide assistance to Elizabeth with advertising of public meetings
- 6) develop long term objectives (Phase 2), a budget and timelines

Suggestions for the Strategy from MSC Prior to the first meeting of the Sub-committee

- using media opportunities to provide information in small bites
- very important to educate the public about the WUMP that is underway – use a variety of methods to reach the public including investigating a pamphlet to go to every household with the tax notice.
- need a stable base of funding for the communications function - needs to be a budget line item
- important that government is kept informed and up-to-date about WUMP
- this function is crucial to the whole process

FINAL REPORT (presented at the April 13, 2005 Multi-Stakeholder Committee Meeting)

The Committee recommended to the Multi-Stakeholder Committee the following communications strategy:

<p style="text-align: center;">GOALS (A GOAL is an explicit statement that provides direction and derives from the vision)</p>	<p style="text-align: center;">OBJECTIVES (OBJECTIVES describe the key result to be achieved, a numerical measure of progress with a target date)</p>	<p style="text-align: center;">STRATEGY (STRATEGY consists of programs for or courses of action – a listing of methods, events, etc. that describe how an objective will be achieved)</p>
<p>1) To educate the people (residents) of the Nicola watershed about the WUMP process and the development of the plan.</p>	<p>a) To have a web site up and running by September 30, 2005.</p> <p>b) To provide news releases (every 2 months) with updates on WUMP.</p> <p>c) To write a newspaper column in one of the local papers.</p> <p>d) To make a video about the WUMP process.</p> <p>e) To make presentations to community groups.</p>	<p>i. to research costs of developing a web site</p> <p>ii. to research ideas for content of web site</p> <p>iii. news releases and newspaper articles</p> <p>iv. invite the media to all meetings</p> <p>v. place notices of meeting in community news section of local papers</p> <p>vi. volunteer to write a monthly newspaper column on some aspect of WUMP or related topic</p> <p>vii. contact Shaw Cable about doing a news feature about WUMP for viewing on the cable network</p> <p>viii. prepare a power point presentation</p> <p>ix. a group of volunteers to make presentations around the watershed</p> <p>ix. hire a communications consultant to work with the Communications Sub-committee</p>

<p>2) To build understanding among the members of the Multi-Stakeholder committee</p>	<p>a) To provide opportunities for the MSC to participate in fun activities.</p> <p>b) Regular reports by sub-committees at MSC meetings.</p> <p>c) Create fact sheets for each MSC meeting.</p>	<p>i. Planning Team will develop fun activities and include them as agenda items for the MSC meetings</p> <p>ii. MSC to provide direction to sub-committees as to the degree of detail of their reporting</p> <p>iii. sub-committees to record minutes of their meetings</p> <p>iv. sub-committees to prepare written and oral progress reports. Oral reports to be provided at MSC meetings. Written reports to be included as appendices to minutes of MSC meetings.</p> <p>v. fact sheets to contain a summary of the most recent MSC meeting and developments between meetings</p>
<p>3) To create awareness about and an identity for the WUMP</p>	<p>a) To develop a logo and a slogan by the end of 2005.</p> <p>b) To rename WUMP so that the acronym becomes more readily recognized and identified with this process.</p>	<p>i. ask for ideas for a logo and slogan at a MSC meeting</p> <p>ii. strike a sub-committee to develop a slogan and logo</p> <p>iii. to contract out the job of developing a logo</p> <p>iv. ask MSC to come up with a new name</p>
<p>4) To ensure broad participation in the development of the WUMP</p>	<p>a) To identify which interests and which groups are not currently represented by September 30, 2005.</p> <p>b) To have all water interests /stakeholders represented at the MSC by December 31, 2005.</p>	<p>i. review current list against profile of community.</p> <p>ii. ask all MSC members to suggest how this could be accomplished</p>
<p>5) To educate and inform elected officials (municipal, regional and provincial) about the WUMP process and the goal (plan).</p>	<p>a) To have better informed and knowledgeable elected officials about water issues and WUMP.</p>	<p>i. twice yearly presentations (updates) to municipal councils, the regional district, MLA and provincial ministers</p>

4.4 Water Technical Committee Report

DESCRIPTION/ROLE: This Committee collects, reviews and analyses data and information about water demand and supply; determines knowledge/information gaps and prioritizes them; recommends what studies and research will need to be done to fill the critical gaps. Committee may not be able to answer all questions but will outline what needs to be done.

SIZE AND MEMBERSHIP: between 10 and 20 people. May invite additional resource people as required. May create sub-groups to address water use/quantity (supply/storage/demand), water quality, etc.

The members of this sub-committee were: John Anderson, George Armstrong, Alan Caverly, Lou Cooke, Gene Huber, Ian McGregor, Ed Olney, Gerry Sanford, Dean Watts and Matt Williams.

DELIVERABLES: a) Identify sensitive areas that might require a higher level of protection.
b) Confirm water demand requirements for the entire watershed by type of activity and also by source of water (groundwater and surface).

TIMELINE: by May 31, 2005

TASKS: 1) determine process that will result in the identification of sensitive areas that might require a higher level of protection
2) identify what information is necessary for the water use management plan
3) compile a bibliography of existing information/completed studies
4) identify knowledge gaps and prioritize the knowledge gaps
5) provide cost estimates for filling the knowledge gaps
6) liaise with the Nicola Dam Feasibility Study Committee
7) confirm water demand requirements or outline what steps need to be taken to confirm water demand requirements (current)
8) establish future water (demand and supply) projections
9) develop a budget for the data gaps/technical information required to further the process
10) collect data/information on the relationship between groundwater and surface water and establish information needs

METHODOLOGY: TO START: Review existing data and information (e.g. Nicola River Basin Management Strategy, Scoping Study Final Report). Arrange to meet with Land and Water BC. Create smaller sub-groups of the Committee and delegate tasks to each. Contact consultant (Kala Groundwater) and inquire when their study will be completed. Schedule presentations to the Committee by various resource people and consultants. A list of these individuals will need to be compiled.

FINAL REPORT (presented at the June 15, 2005 Multi-Stakeholder Committee Meeting)

TASK LIST

1. Identify a process to determine sensitive areas
2. Identify template for Water Use Management Plan
3. Compile bibliography of existing studies
4. Identify knowledge gaps and prioritize
5. Provide cost estimates
6. Liaise with Dam Feasibility Committee

7. Confirm current water demand requirements
8. Establish future water demand projections
9. Collect data to determine relationships between ground and surface water.

TASK #1

Identify a process to determine sensitive areas:

Deferred: Question for the MSC
 Is this is still a priority under the WUMP process, and if yes, a committee/consultant will be required to assemble this information

TASK #2

Identify template for Water Use Management Plan:

Draft TABLE OF CONTENTS NICOLA WATER USE MANAGEMENT PLAN

- 1. INTRODUCTION**
- 2. DESCRIPTION OF THE NICOLA BASIN**
 - 2.1 Location
 - 2.2 History of Nicola storage facilities and early Strategic Plan
 - 2.3 Nicola Basin Hydrology
- 3. THE MULTI-STAKEHOLDER CONSULTATION PROCESS**
 - 3.1 Stakeholder Workshop and 2005 Scoping Study
 - 3.2 First Nations
 - 3.3 Committee Structure, Members and Process
 - 3.3.1 *Timelines and Milestones*
- 4. ISSUES, OBJECTIVES AND PERFORMANCE MEASURES**
 - 4.1 Water Use Management Plan Vision and Objectives
 - 4.2 Water Quantity
 - 4.2.1 *Demand*
 - 4.2.2 *Supply*
 - 4.3 Water Quality
 - 4.4 Groundwater
 - 4.5 Climate Change
 - 4.6 Nicola River Flooding and Erosion
 - 4.7 Nicola Lake Flooding and Erosion
 - 4.8 First Nations Heritage
 - 4.9 Fish and Fish Habitat Water Requirements
 - 4.9.1 *Nicola Basin Lakes*
 - 4.9.2 *Nicola Basin Rivers/Creeks*
 - 4.10 Wildlife and Wildlife Habitat
 - 4.11 Public Communications
 - 4.12 Other Water Use Issues Identified During Water Use Plan
 - 4.13 Summary of Information Collected and Reports Generated

5. **NICOLA DAM OPERATING ALTERNATIVES**
 - 5.1 Modeling
 - 5.2 Creating Water Use Plan Alternatives for Nicola Dam
 - 5.3 Governance
6. **WATER BALANCE TRADE-OFF ANALYSIS**
 - 6.1 Method
 - 6.2 Results of Trade-off Analysis
7. **SUMMARY OF DECISIONS AND OUTCOMES**
8. **RECOMMENDATIONS TO IMPLEMENT WATER USE PLAN**
9. **MONITORING RECOMMENDATIONS**
10. **SUMMARY OF RECOMMENDATIONS**
11. **REFERENCES**

TASK #3

Complete bibliography of existing studies:

- Completed - Summarized Scoping Study and Nicola Strategic Plan
- Appendix A of this report contains a listing all studies collected. Copies of these studies are available through the Nicola Watershed Community Round Table archives.

TASK #4 & #5

Identify knowledge gaps (Cost Estimates):

- | | |
|---|-----------------|
| ▪ Monitoring – climate, surface and groundwater | |
| Set up | \$150K |
| Operations | \$ 50K per year |
| ▪ Current water use within the basin | \$ 85K |
| ▪ Water supply – both surface and groundwater | \$125K |
| ▪ Instream fish flow requirement | \$ 65K |
| ▪ Storage potential in the entire basin | \$ 50K |
| ▪ Recommend a process to try and determine actual vs. licensed demand | \$ 35K |
| ▪ The interaction of surface and groundwater | \$250K |
| ▪ Present and future demand based on growth estimates | <u>\$ 35K</u> |

TOTAL PROJECTED COST \$845K

TASK #6

Nicola Dam Feasibility

- The contracts between the Client, Consultant and Sub-consultants are now in place.
- Paul Doyle has progressed almost halfway in analyzing the water availability and the current operation of the Nicola Lake Dam. Has been working with Jep Ball (new LWBC operating rule).
- Bob Costerton has commenced work on technical options of completing dam.
- Have commenced interviews with key stakeholders (interesting historical findings re precipitation, drought and flood events expected).

- Looking for old photographs that depict scenes of the dam and Nicola River over the last century.
- Water use – to request a presentation from LWBC regarding the official water allocations that were determined during the Phase 1 Scoping Study.
- Utilizing existing instream flow requirements in the simulation of the operation of the dam. Pacific.
- Salmon Foundation to help refine the rule curve for fish.
- Structure of Feasibility Report set up and work on drafting the report has commenced.

TASK #7

Confirm current water demand requirements:

Currently adequate water is available for all licences but future surface water supply for additional licensing is questionable. Any additional surface water licensing depends on new storage. The above information is based on analysis by Nicola Stockbreeders and Bruce McFarlane (WLAP Hydrologist).

TASK #8

Establish future water (demand/supply) projection:

- | | |
|--------|---|
| DEMAND | <ul style="list-style-type: none"> - Merritt expected to grow from 20K → 40K residents by 2015; doubling Residential water use in 10 years. - Industrial/recreational water use – no idea of future demand. This is considered a gap. |
| SUPPLY | <ul style="list-style-type: none"> - Future surface water questionable. - Additional future water use is expected to come from groundwater. |

TASK #9

Collect data/information on relationship between groundwater and surface water and establish information needs:

- Case example by Nicola Stockbreeders and Bruce McFarlane
- Each watershed must be analyzed on a case by case basis.
- In the Coldwater River drainage there is a direct relationship between groundwater and surface water.

SUMMARY

- Monitoring snow pack, climate, surface and ground water are priorities to allow management of both water supply and demand.
- Ground water influences surface water flows.
- Each sub-basin, in the Nicola Valley, is unique and information must be obtained on a sub-basin by sub-basin basis.

4.5 Conservation Committee Report

DESCRIPTION/ROLE: The Conservation Committee identifies options for water use, water storage and water conservation and takes an active role in working with the City on their water conservation projects.

SIZE AND MEMBERSHIP: up to 10 members, sectoral representation

The members of the sub- committee were: Judy Guichon, Stephen Dick, Terry Frizzell, Ed Morris, Elmer Reimer and Wayne Schindler.

DELIVERABLE: A water conservation strategy.

TIMELINE: by May 31, 2005

TASKS:

- 1) brainstorm water conservation strategies
- 2) research existing water conservation strategies
- 3) recommend water conservations strategies for 2005 and the future
- 4) identify key players as conservation contacts
- 5) determine what information is required
- 6) identify triggers that will suggest timing for certain actions
- 7) look at methods of how to bring storage levels back up
- 8) identify costs of distribution water (dams, pumps, water lines)
- 9) identify paybacks of water conservation

METHODOLOGY: Examine how best to develop a framework for a water conservation strategy so that it addresses all water usage – city, industry, ranching, etc. Collect information about existing strategies from different groups; determine what made some strategies ineffective in the past in order to avoid these pitfalls; do a risk assessment re: supply and demand; look at the paybacks of a conservations strategy; take weather patterns into consideration; liaise closely with the City of Merritt and Fisheries and Oceans.

FINAL REPORT (presented at the May 26, 2005 Public Meeting)

Committee Membership

Who are we: The Conservation Committee is a sub committee of the Multi–Stakeholder Committee of the Nicola Water Use Management Planning Group (WUMP). The committee includes representatives from the city of Merritt, Water Resource Advisory Committee (WRAC), the ranching industry, First Nations, tourism industry, the Thompson Nicola Regional District, (TNRD), Ministry of Water Air and Land Protection (WLAP), Ministry of Agriculture, Food and Fisheries (MAFF) and Fisheries and Oceans Canada (DFO) and the community at large.

Committee Mandate

As a result of the Charting Our Water Future Workshop held in October 2004, the community, lead by the Nicola Watershed Community Round Table decided to embark on the development of a Water Use Management Plan. We will attempt to define the role of the Conservation Committee within this framework. In addition we will begin to outline the framework for a Drought Strategy.

We all believe that we live in one of the most beautiful parts of the world. We also recognize that this is a very arid, brittle and delicate landscape. The changes that we are presently seeing in our water cycle due to warming trends emphasizes the importance of learning more about conservation and adopting best management practices for water use. Water is a precious commodity and the promotion of Wise Water Use

is our mandate. With in the conservation strategy we will also address a Drought Strategy for those periods of extreme water shortages. But it is our philosophy that one of the best ways to cope with drought is by educating our community to practice Wise Water Use at all times and therefore be ready to cope with highs and lows in the water cycle. We believe that the tools to do this are many and varied but that Education and changing daily habits will be our biggest challenges.

We will have to work with many partners including The City of Merritt, The District of Logan Lake, the community of Spences Bridge, First Nations communities in the basin, the Thompson Nicola Regional District, the resource industries including ranching, mining, and forestry and the Tourist industry as well as many provincial ministries and Federal Fisheries.

Goal

TO PROMOTE WISE WATER USE IN THE NICOLA BASIN

Strategy

Education:

What	How	When
1. We plan to continuously monitor the latest technology available in low flow toilets, water efficient showerheads and appliances. Investigate the possibility of bulk buying in good technology.	Internet. Conservation workshops.	On going
2. Promote the use of the latest technology such as low flow toilets, showerheads, and improved washing machines etc throughout the whole Nicola Basin.	Letters to City of Merritt, District of Logan Lake and TNRD plus Upper Nicola, Lower Nicola, and Coldwater Indian Bands. Encourage the use of building bylaws for low flow toilets and water conservation construction.	April 18, 2005
3. Education on latest technology for best practices in irrigation for agriculture.	Organize an irrigation workshop for ranchers in cooperation with the Nicola Stock Breeders Association. Presenters Ted van der Gulik, MAFF, Peter Falsetta, MAFF, Stephanie Tam, MAFF, Lance Brown MAFF, Phil Hallinan, Fraser Basin Council	May 9, 2005, Lower Nicola Community Hall
4. Xeroscape landscape work shops and promotion of composting to retain moisture. Perhaps with City of Merritt and Logan Lake.	Communicate with the City WRAC group. Ruth Tolerton from the City will look after advertising for us. Gail Bloom will be very willing to help organize a workshop this fall. Talk to local mills to see about the possibility of making bark mulch available for gardeners. Investigate other possible mulches such as compost made from city sewage. Summerland Grasslands Nursery also does Xeroscape workshops and sells only native plants.	September 2005, February 2006

5. Learn from city education programs, which are part of their Conservation Strategy prepared by Urban Systems.	The City of Merritt will be sending out an education pamphlet with the tax notices. We will monitor the results of this promotion to see if there is a marked reduction in water consumption for the months immediately following the mail out and to see how long the new behavior continues.	Fall 2005
6. Investigate Education tools for use in elementary school curriculum. Meet with elementary schools to promote the use of these in our local school curriculum.	Carol Fisher will access two programs offered by Wild B.C., Project Wet and Water Stewardship. These are designed for use in the elementary curriculum.	Fall 2005
7. Investigate water conservation kits to sell or promote.	The City of Merritt WRAC is talking to the City of Vancouver about their water conservation Kits. They include Leak Detection, inflation unit for toilets and Shower and tap adjustment units. The City sells them for \$12.00 although they cost \$16.00.	Ongoing

Data Collection and Monitoring:

What	How	When
1. We will monitor the results of the education program launched by the City of Merritt this year to see if there are positive changes to water use and if those changes persist.	Liaise with the City of Merritt WRAC group.	Ongoing
2. Increased local information on weather including temperatures, evapotranspiration (ET) precipitation, rowing degree days and weather forecasts will allow irrigators to further refine their practices	The Fraser Basin Council, Thompson Regional Committee, Phil Hallinan and Jodi Vander Hoek are presently installing 4 weather stations in the basin. This will provide real time local weather data through the Farmwest.com. The suggested locations are Mamit Lake area, Nicola Lake Area, Spies Creek and Douglas Lake Area.	June 2005
3. The Water Use Technology Committee will be collecting information regarding water use in the Nicola Basin. We will encourage them to provide us with data so that we may monitor the changes.	There is a study being done of the feasibility of the completion of the Nicola Lake Dam project. We look forward to the results of this study and further plans for possible local control of the Dam.	Ongoing

4. Local weather statistics will soon be available with the instillation of weather stations in the Nicola Basin. Snow pack and precipitation records, temperature and evapotranspiration.	Some way must be found to house this information locally and have it available for reference throughout the year. This would provide scientific data on which to base drought planning.	Future
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Communication:

What	How	When
1. Promote conservation initiatives in all areas of the basin	Write to city, TNRD, and First Nations Communities re their conservation initiatives.	April 2005
2. Recruit representation from all areas of the watershed on conservation committee.	Contact Aspen Planers. District of Logan Lake All Bands to solicit participation	Ongoing
3. Public awareness program.	Use radio – Al Clark to communicate conservation message. Develop statement of purpose and use for communication purposes. Link with communication committee to help get message to community.	Any time a speaker or a function is planned approach Radio and do interviews. Get the conservation message broadly published.
4. Photo display showing changes in water cycle.	Scott Fisher to do photo display of lakes present and past water levels. Could be an Art Gallery display, fall fair or other venue.	Ongoing

Demonstration:

What	How	When
1. To demonstrate the effectiveness of closely monitored irrigation.	Cooperate with MAFF and Nicola Stock Breeders on a tour of some places in the Salmon River area where they are using tensiometers and farmwest.com weather stations.	July 2005
	2. The ministry of agriculture will do some pilot projects this summer in the Nicola Basin to test out the effectiveness of tensiometers in guiding irrigation application. We will work with MAFF to organize tensiometer trials this year in three or four locations. We will monitor these projects to see if the technology is applicable in our area.	June 2005

Incentives Rewards for Champions:

What	How	When
1. Create public awareness by rewarding Wise Water Users	1. Prize for the best Xeroscape garden. Contact Communities in Bloom to see if they have a category that would promote water conservation.	2006
	2 Poster and essay contest in elementary schools.	Fall 2005
	3. Scott Fisher has offered to do a Photo display of Lakes showing levels now and in the past. This could be featured at the art gallery or fall fair.	2006
	4. Challenge business community to come up with most creative water recycling.	
	5. Award for the best water smart new development.	

Drought Strategy

There are many important considerations in preparing a drought strategy. Who will be the main participants and how do we coordinate and communicate? In the past the Department of Fisheries and Oceans Canada has taken a leadership role in drought planning. We would like to see implementation of a local strategy. The organizations and government ministries/departments that would need to participate are:

- City of Merritt, TNRD,
- Nicola Tribal Council,
- Nicola Stock Breeders,
- B.C. Agriculture, Food and Fisheries,
- Fraser Basin Council,
- B.C. Water Land and Air Protection,
- The Ministry of Land and Water BC

all lead by the Nicola Basin Water Use Management Planning Team.

One of the key questions is what triggers a Drought Strategy. Is it the snow pack reports, the temperature and weather patterns, or the water temperature in the Nicola River? Only experience will provide the answers. We would like to suggest that a local committee with the new data that will be available as the weather stations come on line meet in February, April and May to assess the data and decide how the outlook for the spring is shaping up. At that time a plan can be laid out to reconvene the committee as needed. At what point are water restrictions required. The City of Merritt has decided this year to go to the shorter watering periods early in the season. Certainly this conservative approach gives them greater flexibility should we continue to have hot dry weather. It will be very interesting to see what their usage numbers look like as the season progresses. Is our community learning to conserve?

We realize that control of the Dam is a very tricky business. Timing of the spring freshette and spring rains can cause the situation to go from drought to flood in a very short time. We do feel however that a group closer to the lake could monitor the local conditions more closely and at time close the dam and store more water. The study on Nicola Lake when completed will give us some further direction regarding water control. In addition we hope that the Technical group will look at other storage possibilities, which would increase our ability to protect ourselves from flood and provide more water availability for the droughts. But first and foremost we believe that the best Drought Strategy is promoting Wise Water Use for the Nicola Basin at all times.

5.0 Nicola Water Use Management Plan (WUMP) Draft Outline

One of the tasks of the Water Technical Committee was to come up with an outline or template for the document that would be called the water use management plan for the Nicola watershed.

The Committee recommended the following table of contents when it gave its report at the June Multi-Stakeholder Committee meeting. This table of contents was accepted by the MSC.

Draft TABLE OF CONTENTS NICOLA WATER USE MANAGEMENT PLAN

- 1. INTRODUCTION**
- 2. DESCRIPTION OF THE NICOLA BASIN**
 - 2.4 Location
 - 2.5 History of Nicola storage facilities and early Strategic Plan
 - 2.6 Nicola Basin Hydrology
- 3. THE MULTI-STAKEHOLDER CONSULTATION PROCESS**
 - 3.1 Stakeholder Workshop and 2005 Scoping Study
 - 3.2 First Nations
 - 3.3 Committee Structure, Members and Process
 - 3.3.1 *Timelines and Milestones*
- 4. ISSUES, OBJECTIVES AND PERFORMANCE MEASURES**
 - 4.14 Water Use Management Plan Vision and Objectives
 - 4.15 Water Quantity
 - 4.2.1 *Demand*
 - 4.2.2 *Supply*
 - 4.16 Water Quality
 - 4.17 Groundwater
 - 4.18 Climate Change
 - 4.19 Nicola River Flooding and Erosion
 - 4.20 Nicola Lake Flooding and Erosion
 - 4.21 First Nations Heritage
 - 4.22 Fish and Fish Habitat Water Requirements
 - 4.22.1 *Nicola Basin Lakes*
 - 4.22.2 *Nicola Basin Rivers/Creeks*
 - 4.23 Wildlife and Wildlife Habitat
 - 4.24 Public Communications
 - 4.25 Other Water Use Issues Identified During Water Use Plan
 - 4.26 Summary of Information Collected and Reports Generated
- 5. NICOLA DAM OPERATING ALTERNATIVES**
 - 5.1 Modeling
 - 5.2 Creating Water Use Plan Alternatives for Nicola Dam
 - 5.3 Governance

- 6. WATER BALANCE TRADE-OFF ANALYSIS**
 - 6.1 Method
 - 6.2 Results of Trade-off Analysis
- 7. SUMMARY OF DECISIONS AND OUTCOMES**
- 8. RECOMMENDATIONS TO IMPLEMENT WATER USE PLAN**
- 9. MONITORING RECOMMENDATIONS**
- 10. SUMMARY OF RECOMMENDATIONS**
- 12. REFERENCES**

6.0 Summary

6.1 Status of Deliverables

- COMPLETED - A further refinement of the water planning model
- ONGOING - Prioritization of additional work and studies that will be required
- COMPLETED - Formalize membership of the Planning Team
- ONGOING - A feasibility study on the completion of the Nicola Dam
- COMPLETED - A mission statement that will be used to guide the development of the plan
- COMPLETED - An inventory of what is happening presently in the watershed
- COMPLETED - Securing funding for the short term
- INITIATED - Confirmation of demand (water) requirements for the watershed
- INITIATED - A Drought Strategy
- COMPLETED - An outline of the Water Use Plan and terms of reference for working committees
- DEFERRED - Identification of sensitive areas that might require a higher measure of protection
 - outline the concerns
 - develop terms of reference
 - monitor water quality
- COMPLETED - A communications strategy

6.2 Phase II Overview

6.2.1 Timeline and Tasks

This phase of the planning process is scheduled to begin in September 2005 and last approximately twelve months. The focus will be on information gathering to fill the knowledge gaps identified in Phase I. This work will be undertaken by independent consultants with the help of knowledgeable resource people. The main work for the Multi-stakeholder Committee in Phase II will be to thoroughly examine and gain an understanding of all the issues that the water use management plan needs to address. This work will be done through a series of day-long workshops scheduled for the fall of 2005.

Other tasks during this phase of the planning process will include setting up a web site, periodic news releases (every two months), and developing a logo and a power point presentation. In addition, finding the necessary resources for the studies and to further the planning process will also be a top priority.

The following timeline for Phase II summarizes the activities in chart form.

Phase II Tasks and Activities

	Sep 2005	Oct 2005	Nov 2005	Dec 2005	Jan 2006	Feb 2006	Mar 2006	Apr 2006	May 2006	June 2006	Jul 2006	Aug 2006
<i>Administration</i>												
<i>Communications</i>												
- Communications Consultant												
- News Releases												
- Power Point Presentation												
- Web Site												
- Logo												
<i>Planning Team Meetings</i>												
<i>Multi-Stakeholder Meetings</i>												
<i>Sub-Committee Meetings</i>												
Issues Workshops		2 X	2X									
<i>Information gathering Studies</i>												

6.2.2 Cost

It is estimated that the planning process for Phase II will cost approximately \$125,000. This figure does not include the cost of the studies. These are projected to cost in the neighbourhood of \$1.1 million. A preliminary listing of topics for research and information gathering was developed in Phase I and includes the following:

- Monitoring – climate, surface and groundwater \$150,000
- Current water use in the Nicola Basin \$ 85,000
- Water Supply (surface and groundwater) \$125,000
- Instream Fish Flow Requirement \$ 65,000
- Storage Potential in the entire Basin \$ 50,000
- Process to determine actual versus licensed demand \$ 35,000
- The interaction of surface and groundwater \$250,000

▪ Present and Future Demand for Water	\$ 35,000
▪ Technical Ecological Knowledge from First Nations	\$ 40,000
▪ Identification of Sensitive Areas	\$ 40,000
▪ Determine Groundwater Supply Current Use and Recommend Guidelines for Sustainable Groundwater Extraction	\$ 65,000
▪ Analysis of Water Use Practices and Implementation of water conservation pilot project to provide data for Water Conservation Strategy	\$ 50,000
▪ Development of a Drought Strategy	\$ 25,000
▪ Other related but not yet identified	\$175,000

APPENDIX A

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