



Cowichan Basin Water Management Plan

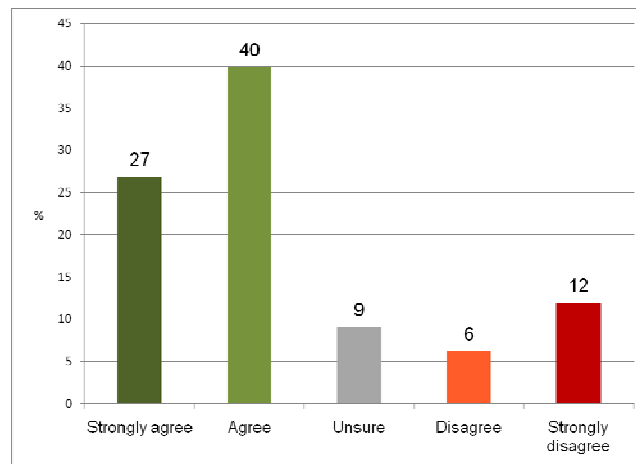
Results of Public Consultation on Proposed Actions January 2007

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Executive Summary

This report summarizes the results of the January 2007 public consultations on the proposed Cowichan Basin Water Management Plan. It includes comments made by the public at meetings, through response forms, and through other forms of written response. More than 320 people attended public meetings, and 384 people provided comments on the response form. In addition, 182 lakeshore owners provided comments on a special response form.

Overall, there was considerable support for the proposed Water Management Plan, with 67% of respondents saying they 'agree' or 'strongly agree' with the proposed actions, and 18% who 'disagree' or 'strongly disagree' (see figure).



There are, however, many lakeshore owners and others who expressed concerns about the proposal to raise the weir. Of the waterfront owners who provided input, 49% 'agree' or 'strongly agree' with the proposals, while 35% 'disagree' or strongly disagree'.

People provided many suggestions and noted many concerns throughout the process. Some of the main concerns are as follows.

- ♦ There are fears that a higher weir will result in higher in increased flooding.
- ♦ While some felt the 'Preferred Supply Alternative' (raising the weir 30 cm and installing pumps) was a reasonable balance, there were concerns about loss of beaches in summer with higher lake levels, and loss of access to docks and swimming areas if pumping reduced lake levels below current levels.
- ♦ There were suggestions for improving weir management, perhaps avoiding the need for weir raising or pumping.
- ♦ Several people requested that some of the 'rejected' options be reconsidered.
- ♦ There were concerns that the proposed compensation package needs to be made clearer and needs to treat lakeshore owners as a group.
- ♦ People felt that the Plan does not adequately account for or address the impacts of logging in the upper watershed.
- ♦ There were concerns that 'treated effluent' is entering the river, and suggestions that sewage treatment systems be upgraded.

- ♦ Some people did not like the idea of licensing and monitoring well water.
- ♦ There were concerns that metering implied privatization of water.
- ♦ People encouraged Catalyst to find ways to further reduce water use, or to have a planned shutdown in the early fall. There were concerns about the long-term viability of the mill, and questions about the effects of mill closure on water supplies.
- ♦ Several people suggested that development be stopped or better controlled.
- ♦ There were concerns about the use of the 200-year floodplain and the restrictions that it places on building around the lakeshore.
- ♦ There were concerns that existing laws and bylaws are not being enforced, notably forestry regulations, the Riparian Areas Regulation, and other bylaws controlling development.
- ♦ Some people felt that there was insufficient information presented to make good decisions. Lack of information on who the licensee would be, and the overall costs of the Plan, were cited.
- ♦ The Plan was criticized for having too short a timeframe, suggesting that it should look 100 years or more into the future.
- ♦ There were criticisms of the consultation process.
- ♦ People expressed their appreciation of the volunteer Forum's efforts.

More details are provided in the body of this report, and in the Appendices which provide a complete record of comments made by the public during this process.

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1. Introduction

The Cowichan Basin Water Management Forum has been working to develop a basin-wide Water Management Plan. This Plan is designed to ensure that there is enough water—for people and for ecosystems—now and into the future.

This report summarizes the results of public consultations in January 2007 about the proposed Cowichan Basin Water Management Plan. A wide range of viewpoints (many strongly held) were expressed. In reviewing the comments below, it is important to remember that **this type of input does NOT provide a statistically valid public opinion survey**. Rather, it serves to identify the **range** of viewpoints held by those who chose to participate in the public consultation, either by filling out a response form, providing other written submissions, or making verbal comments at the public meetings. When reviewing statistics in this report, it is important to remember that these are comments from those who felt strongly enough about this subject to attend meetings or fill out response forms.

This report provides a summary of the many comments received. The Appendices with notes from the meetings and the response form comments should also be read to get the full flavour of public input. Note that throughout this report it is the **opinions** of the participating individuals that have been recorded. These opinions may or may not be consistent with the technical studies conducted throughout the water management planning process.

1.1. The Public Consultation Process, Early Stages

During the development of the Water Management Plan, the public has been given an opportunity to comment and provide input in a variety of ways.

- ♦ The Water Management Forum includes people from a diversity of backgrounds and locations around the Basin. Forum members have been active in talking to their organizations, communities and colleagues about the Water Management Plan process, and applying those views to the development of the Plan.
- ♦ Information updates, reports, newspaper articles and other information about the process has been posted on the Water Management Plan website (http://www.cvr.bc.ca/water_cowichan/index.htm).
- ♦ Media releases were sent to local newspaper, television and radio stations at various times throughout the process, resulting in a number of newspaper articles as well as television segments on Shaw's The Daily.
- ♦ A newsletter describing the importance of water in the Cowichan Basin was circulated to all households in the Cowichan Basin in June 2005 (as an insert to the Cowichan Valley Citizen newspaper). The newsletter included a response form asking people to identify the water issues of importance to them. The newsletter was followed by a series of three public open houses (Honeymoon Bay, Youbou and Duncan), where people dropped by to ask questions, make comments, and review information. A summary of the comments made through the response forms and open houses is available on the CVRD website.
- ♦ A second newsletter was distributed in January 2006, also through the Citizen newspaper. This newsletter outlined the water issues facing the Basin, including the potential for future water shortages.

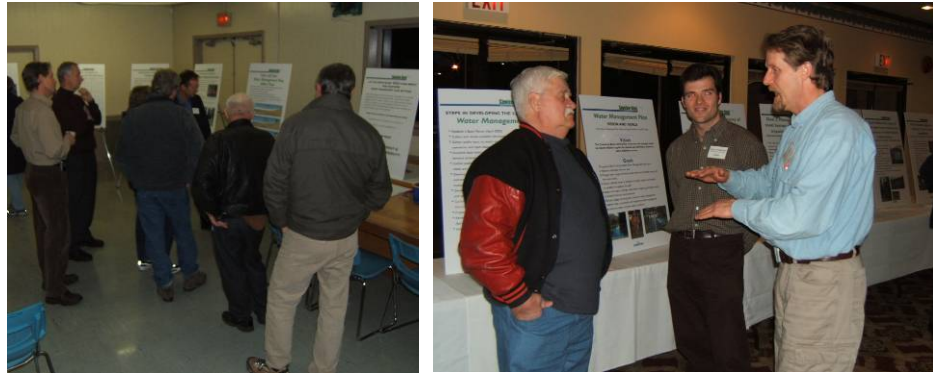


Forum members at Lake Cowichan
Lake Days, June 2005

An accompanying response form asked for public input on a proposed vision and six goals for the Water Management Plan. The response forms revealed strong support for the Plan's vision and goals.

- ♦ A third round of public consultation took place in January 2007, and this report outlines the results of that consultation process.

Images from January
2007 open houses



1.2. Public Consultation, January 2007

A third newsletter was circulated to all households in the Cowichan Basin in early January 2007. This newsletter outlined the objectives and proposed actions under each of the six Plan goals, discussed the water supply alternatives that had been considered, and provided information on the impacts of the 'Preferred Supply Alternative'. As before, this newsletter contained a response form (Appendix A) encouraging people to provide their comments on the proposed actions and the proposed Plan as a whole. The newsletter also included notice on the public meetings that were held in late January.

Advertisements were placed in all three local newspapers (Lake Cowichan Gazette, Cowichan News Leader/Pictorial and the Citizen) to advertise the meetings. Several television, radio, and newspapers ran stories on the upcoming meetings.

Three public meetings were held (Lake Cowichan, Duncan, and Youbou). These meetings included an open house where people had the opportunity to view display boards and ask questions of Forum members and the consultant team. A presentation on the Water Management Plan was provided by project leader David Harper of Westland Resource Group, and was followed by an opportunity for people to make comments on the draft plan. Section 2 outlines the comments made at the three public meetings. Comments received on the response form are presented in Section 3. Some people chose to write letters or longer submissions, which are summarized in Section 4.

In addition, special efforts were made to reach owners of property around Cowichan Lake, as the Forum was aware of concerns being expressed by this group. A letter with copies of the newsletter and response form, as well as a special lakeshore owners' response form (Appendix B), were mailed to registered owners of properties on Cowichan Lake. The results from this response form are discussed in Section 5.

Section 6 provides a summary of the major concerns that affect the Water Management Plan.

2. Results of Public Meetings

A total of 320 people signed in at the open houses and public meetings (Table 1). Participants came from locations throughout the Cowichan Basin and beyond. More than half the participants were from Youbou and Lake Cowichan (Table 2).

Table 1: Number of Participants at Meetings

<i>Meeting</i>	<i># participants</i>
Lake Cowichan	94
Duncan	105
Youbou	121
Total	320

Table 2: Place of Residence, Meeting Participants

<i>Participants' place of residence</i>	<i>Lk. Cowichan meeting</i>	<i>Duncan meeting</i>	<i>Youbou meeting</i>	<i>Total</i>
Youbou	9	8	87	104
Lake Cowichan	48	13	12	73
Duncan	0	19	7	26
Honeymoon Bay/Area F	18	3	2	23
N. Cowichan/Chemainus	0	18	0	18
Skutz Falls/Sahtlam	4	9	0	13
Cowichan Bay	0	7	1	8
Mesachie/Bear Lake	7	0	1	8
Nanaimo	0	5	2	7
Maple Bay	1	5	0	6
Cobble Hill/Victoria	0	4	2	6
Meades Creek	3	0	3	6
Other/not given	4	14	4	22
Totals	94	105	121	320

Note that some of the part-time residents listed their Cowichan Basin residence, and some listed their main residence.

A complete summary of notes from the public meetings is included in Appendix C. Key points made by participants are provided below.

2.1. Lake Cowichan Meeting

More than¹ 94 people attended the Lake Cowichan meeting, predominantly from the Town of Lake Cowichan and Honeymoon Bay.

Participants provided the following comments and concerns.

¹ Not everyone signed in at the meetings and open houses.

Winter flooding

- ♦ Raising the weir will increase winter lake levels and create new flooding problems.
- ♦ Lakeshore flooding pre-dates the weir, and the problems are related to locations of houses.
- ♦ Higher water levels will impact where people are allowed to build, and increase flooding of septic fields.

Proposal to raise the weir

Several people spoke against raising the weir. Some people brought a “no weir raising” petition to the open houses.

- ♦ The weir should never have been built, and should be removed entirely.
- ♦ The weir structure is unable to cope with additional height, and is gradually rotting.
- ♦ Is the weir earthquake proof?
- ♦ Only downriver users will benefit from weir raising, specifically Catalyst and DFO.
- ♦ Silt has built up around the weir.

Pumps

Some spoke in favour of raising the weir, but disagreed with pumps.

- ♦ Water pulses will cause downstream erosion.

Compensation

- ♦ Considerable areas of lakeshore could be lost. Lakeshore owners will not be adequately compensated. Property taxes have soared in recent years.
- ♦ Compensation cannot address the permanent loss of lakeshore.

Other storage options

- ♦ Create a storage area around Skutz Falls.
- ♦ Help Lake Cowichan and Honeymoon Bay to obtain water from mountain streams.
- ♦ Introduce introducing beavers to create small dams on creeks.

Impacts of forestry and logging

- ♦ More attention needs to be given to the impacts of logging.
- ♦ Logging has resulted in more flash flooding, with rainwater reaching the streams and lake more quickly than in the past.
- ♦ Shallow creeks are now dry in the summer.

Impacts on fish

- ♦ There were more fish in the past, before the weir was erected. It was noted that current declines in fish populations are the result of more than just the weir.
- ♦ Gravel in the lower reaches is making it harder for fish to migrate upstream.
- ♦ Pulses could encourage fish to start their upstream migration, inviting them into dry streams.

Economic impacts

- ♦ The Plan should look at the impacts of flooding in the Town of Lake Cowichan, and ways to help businesses (including the tourism business).

Costs

- ♦ Who will pay for the weir raising and the proposed Cowichan Basin Water Advisory Council?
- ♦ This will lead to further increases in property taxes.



Forum members at boat lock

Catalyst use of water

- ♦ Crofton Mill is doing a good job of conserving water, but there is a fear that they will come back for more water.
- ♦ What will happen if Catalyst shuts down?

Process and lack of trust

- ♦ We do not trust the process or players. Catalyst will not manage the weir any better, they will come back again for an even higher weir in future.
- ♦ The process is flawed. Many property owners were only notified one week before, too little time to properly respond. This proposal needs to be reviewed by a neutral party.
- ♦ Is enough consideration being given to part-time owners?
- ♦ With the other options presented, of course Option C (Preferred Alternative) was selected.
- ♦ Concern that part-time owners were being seen as less important than full-time residents.

Metering

- ♦ Some people noted that they do not want to see metering of water. We do not want privatization of water.
- ♦ Education is better than water metering.

Other comments

- ♦ We appreciate the Forum's efforts.
- ♦ It is unclear who is applying for the water licence.

2.2. Duncan Meeting

More than 105 people attended the Duncan meeting. Several people from outside the Cowichan Basin (including part-time residents) attended this meeting.

Participants provided the following comments and concerns.

Winter flooding

- ♦ High and low lake levels are of more importance than 'average' water levels
- ♦ Need better weir management to avoid winter flooding. Some flooding is preventable.

- ♦ Winter flooding is not a new problem.

Plan and 'Preferred Alternative'

Several people spoke against the proposed raising of the weir, citing concerns for property damage and flooding. There was concern that landowner views are not being taken seriously.

- ♦ How do we know that the weir won't be raised again in future?
- ♦ Plan should take a longer term view (beyond 25 years). The plan should support the growth for this area for the next 100-200 years.
- ♦ It is a Class 1 dam, not a weir. It cannot take the additional weight of water, would need to be rebuilt.
- ♦ Raising the water will mean some people need to relocate beaches and access.
- ♦ If there are two extreme years in a row how far will the lake be drawn down? If there is a drought, pumps will not be turned off.
- ♦ Review should be presented as a specific task of the implementation plan for the Water Management Plan.

Costs

- ♦ Resent paying for weir and pumps that we do not want.
- ♦ What is the cost of the entire Plan? Who will pay? (Differing views expressed over whether taxpayer should or should not pay.)

Consider other options

- ♦ Look again at upland reservoirs as part of the long term picture.
- ♦ Catalyst should use a desalinization plant.
- ♦ Dredge the channel [below the weir], bury a pipe into the lake and draw cold water into the river instead of pumps.

Compensation

- ♦ The proposed compensation package is complex and has no guarantees.
- ♦ Treat lakeshore owners as a group rather than as individuals.
- ♦ Look at options to reduce property taxes in compensation for lost land.

Process

- ♦ Many people did not receive the information, we had very little time to prepare. Deadline should be deferred, why the rush? Need to make a better effort to reach part-time owners.
- ♦ Documents are biased towards committee's agenda. Concern that this is the same group as had previously proposed raising the weir.
- ♦ Presentation answered most of questions.

Water conservation

- ♦ Several people spoke about the importance of water conservation measures and water wastage they had seen.
 - ♦ Look at cisterns as used in Australia;

- ◇ Significant fines and retribution to organizations, industry, households, golf courses if their use is excessive;
- ◇ Look at water reuse;
- ◇ Go back to nature, allow lawns to turn brown in the summer.
- ◆ Conservation, volume-based pricing and monitoring are the only way to make a difference.
- ◆ Put a stop to development.
- ◆ Do not use glossy education leaflets with motherhood statements.

Other comments and questions

- ◆ Most of the water is being used by Catalyst. The process needs to have more frank discussion about what the costs and tradeoffs are between industry and domestic use. Focusing on domestic water use only will not solve the problem.
- ◆ Crofton Mill should shut down during September and October instead of April.
- ◆ Is licensing planned for all wells, including private? Licensing private wells will be a problem.
- ◆ Need for systematic review of the adequacy of bylaws and recommendations for additional bylaws.
- ◆ Concerned about contamination of aquifer; bylaws regarding water purity are not adequate.
- ◆ Lakeshore residents will launch a class action lawsuit if the Plan goes ahead.
- ◆ What difference does it make if we are full or part time lakeshore owners?
- ◆ Improve fisheries by lowering the water temperature in upper river (this would also discourage tubers!)
- ◆ Would like to see one group in charge of the water instead of multiple governments.
- ◆ Is this a scientific document? Study was started in 2004, is this enough time?
- ◆ Lots of great suggestions about how to conserve. Congratulations on the work.
- ◆ Happy to see report. Glad to see an awareness of water use. Impressive research.

2.3. Youbou Meeting

More than 121 people attended the Lake Cowichan meeting, predominantly from Youbou and the surrounding area.

Participants provided the following comments and concerns.

Plan and 'Preferred Alternative'

Several people spoke against raising the weir, and offered alternative supply options (below). Some people spoke in favour of raising the weir, as the cheapest and reasonable way.

- ◆ Agree that we need a Water Management Plan, but having trouble with proposed raising of weir.
- ◆ Glad to see some improvements, but still against what you are proposing.
- ◆ Many concerns about the plan, you have fallen short of where you should be.
- ◆ If the plan is for the public good then I would be okay with it; but seems as though it is for corporate benefit and I do not support that.
- ◆ Lakeshore owners do not benefit from the plan. The general public enjoys the lake and is concerned that their lifestyle will be affected.
- ◆ Concern that raising the weir will not benefit the fish, and has not since the weir first went in.

- ♦ Take a holistic, longer term approach. 25 year horizon is too short, not sufficient future thinking. Cost should not be an excuse, water is too important.
- ♦ Concerns about who gives the plan the final approval.
- ♦ Some suggested a phased approach, focusing on water conservation first. Others said it was important to implement all parts of the plan from the start.
- ♦ Thanks for the effort.



Cowichan River, low water

Winter flooding

- ♦ Several people found it hard to believe that raising the weir would not influence winter water levels. Some felt that there was less flooding before the weir was first built.
- ♦ Flooding from natural causes is one thing, but additional flooding from human causes is more than we can take.
- ♦ The 200-year floodplain level is unrealistic. What happens if we need to re-build an existing home below the 200-year level? Some felt that building anything below or near this level was 'nuts'.
- ♦ The Plan needs to address maximum and minimum water levels rather than the 'average'.

Weir and weir management

- ♦ Weir management needs to improve, for example to cope with a 'Pineapple Express' rainstorm by letting water through the weir before it arrives.
- ♦ There needs to be consultation around weir management.
- ♦ There is siltation downstream of the weir, which is suffocating fish eggs.

Alternatives to raising the weir

- ♦ Suggestions included:
 - ◇ Building upland reservoirs and piping it down to the city (as with the Capital Regional District's Sooke Lake);
 - ◇ Lowering the river below the weir;
 - ◇ Damming below the weir, e.g., at Skutz Falls;
 - ◇ Damming other creeks around the lake;
 - ◇ Taking water from the river just before it flows into the ocean; and
 - ◇ Shutting the mill down in the summer/early fall.

Compensation

- ♦ There has been too little information on proposed compensation, and people should be contacted directly (has not happened so far).
- ♦ There should be significant compensation for storing water on our properties.
- ♦ The Plan must include compensation costs.
- ♦ The licensee must make offers to the property owners, be committed and be funded with sufficient money.

Logging and forestry practices

- ♦ Logging is affecting our watershed substantially, and the problem is getting worse.
- ♦ Focus on the source of the lake rather than source of the river. Forest companies are causing problems, and need to be involved in, and pay for, damage caused.
- ♦ Provincial government needs to stop the logging on the slopes.

Use of water

- ♦ Downstream users must practice better water conservation.
- ♦ Concern that Catalyst would be able to sell the water they do not need.

Basin Thinking

- ♦ We all have to be responsible for water management.
- ♦ The whole valley relies on this water.
- ♦ Basin thinking gives us more power.
- ♦ There are major changes happening in our world; we need to think big.
- ♦ Seems to be an attitude of people in the lower valley that people in the upper valley do not matter.

Process and lack of trust

- ♦ Concern that people did not received the mail out (or not much lead time). Some noted seeing advertisements in the paper.
- ♦ Concern that this is the same proposal that was voted down in previous years. You have not been open with who the players are.
- ♦ Response forms will not provide you with a true picture.
- ♦ People do not trust the program; without the trust and the credibility you will get nowhere.
- ♦ There should be a regional vote on this.
- ♦ Impressed with the presentation and amount of material that came out.

Monitoring of water use

- ♦ People around here are water conscious.
- ♦ How can we calculate how much water we are using if we are not monitoring it?
- ♦ Metering could lead to compromising the control of our water resources.
- ♦ Concern that once the weir is raised there will be no interest in implementing conservation measures.

Other

- ♦ We should not be putting treated effluent into the river.
- ♦ Municipalities and cottage owners with septic systems should clean up their sewage.
- ♦ Upper Cowichan Valley has been trying to attract development into the area; this Plan seems to be contrary to that development.
- ♦ The lake did not start out as a reservoir. What we need is a reservoir where there are no residences.

3. Comments from Response Forms

Response Form #3 (Appendix A) asked people to indicate their support or otherwise for proposed actions under each of the six goals. The choices were “agree”, “disagree”, and “neutral or don’t know”. Space was provide for comments under each of the six goals, and people were also asked to indicate their overall level of support (“strongly agree”, “agree”, “unsure”, “disagree”, and “strongly disagree”) for the proposed Water Management Plan approach. Detailed comments are provided in Appendix C.

3.1. Respondents

A total of 384 response forms were received. Of these, 156 respondents (41%) identified themselves as waterfront property owners (Table 3). Most respondents came from the District of North Cowichan, Youbou area, Lake Cowichan and Duncan (Table 4).

Table 3: Respondents (by interest)

<i>Respondent</i>	<i># people</i>	<i>%</i>
Concerned water user	245	64
Waterfront property owner	156	41
Seasonal resident	41	11
Member of local organization	30	8
Government	4	1
Other	38	10

Numbers add to more than 100% as many people checked off more than one category.

Table 4: Respondents (by residence)

<i>Respondents' place of residence</i>	<i>#</i>	<i>%</i>
N Cowichan/Chemainus/Crofton	91	24
Youbou	74	19
Lake Cowichan	55	14
Duncan	44	11
Honeymoon Bay	22	6
Sahtlam/Skutz/mid-river	19	5
Maple Bay	17	4
Mesachie Lake	12	3
Meades Creek/north shore	10	3
Victoria/south island	10	3
Marble Bay	8	2
Cowichan Bay	7	2
Other	6	2
Not provided	9	2
Total	384	100

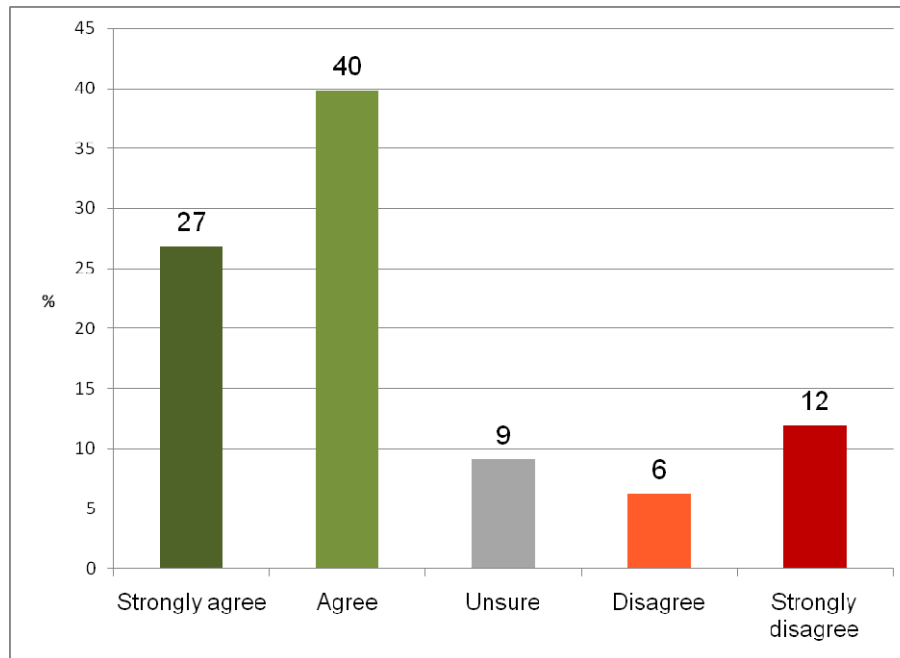


Filling out response forms

3.2. Overall Support for the Proposed Water Management Plan

About two-thirds (67%) of the respondents noted that they “agree” or “strongly agree” with the proposed Water Management Plan approach (Figure 1). Eighteen percent indicated that they “disagree” or “strongly disagree” with the proposed approach.

Figure 1: Overall support for the proposed Water Management Plan



Respondents provided the following comments on the overall Water Management Plan approach.

Concerns

- ♦ Disagreement with the proposal to raise the weir, concerns for impacts on lakeshore owners.
- ♦ A need for more research, better information on costs (and who will pay), more detail.
- ♦ Greater focus on water conservation, better use of existing water supply and weir management, controls on growth and development.
- ♦ Concerns about the impacts of pumping.

Support

- ♦ A good plan, get started immediately.
- ♦ An excellent compromise; a proactive approach.
- ♦ A step in the right direction.
- ♦ Citizens of the valley need to take ownership.

Raise the weir higher

- ♦ Raise the weir by to 48 or 88 cm, for a longer-term solution without the need for pumps.

Look at other supply options

- ♦ Suggestions for increased supply included large upland reservoirs and dredging the river below the dam.
- ♦ Suggestions for alternative water sources included use of cisterns, use of desalinization plants (for Catalyst).

Role of government

- ♦ Concern for apparent increase in bureaucracy and the need for funding.
- ♦ Concern for level of commitment by governments and their willingness to enforce laws and bylaws.

Role of Catalyst, logging and development

- ♦ Catalyst should close for 2-3 weeks every year during low water periods; they should do a better job of using less water. What would happen if the mill were to close?
- ♦ Catalyst should practice good stewardship, recycle water; install a desalinization plant.
- ♦ The mill is the 'elephant in the room' and yet little or no mention of this significant stakeholder.
- ♦ Have the provincial government remove the unused portion of the Catalyst licence, so that this water cannot be sold.
- ♦ Encourage Catalyst to continue its water conservation program, which deserves commendation.
- ♦ Plan must address the problems caused by logging and clearcutting.
- ♦ No new development until an independent study on short- and long-term effects on water sustainability has been conducted.
- ♦ Developers should be closely monitored to ensure compliance.
- ♦ Make sure developers pay the full costs.

Process

- ♦ Anger that there was insufficient time for people to review and respond, concern that decision has already been made.
- ♦ Lack of trust in the process and the people making decisions, lack of meaningful public consultation.

Other comments

- ♦ Two ways to go – control population or create water.
- ♦ Just don't leave us with a plan that benefits mostly downstream users.
- ♦ Raise the weir but this is about controlling every drop of water for use – strongly disagree with proposed Plan.
- ♦ Slow down the process. Stop! Enough already!
- ♦ Whose water management – the one that hasn't worked?
- ♦ A Water Management Plan is only effective if all those involved take it seriously and follow the regulations.
- ♦ Water management has to be taken past being politically correct and to the implementation stage.
- ♦ Important to adopt a far-sighted, comprehensive plan now, to avoid dire water shortages
- ♦ This is more complicated than it has to be (make-work project for bureaucrats and consultants?). Fix the sewage plants, stop the clear-cutting.

Figure 2: Support for Proposed Water Management Plan, by Residence

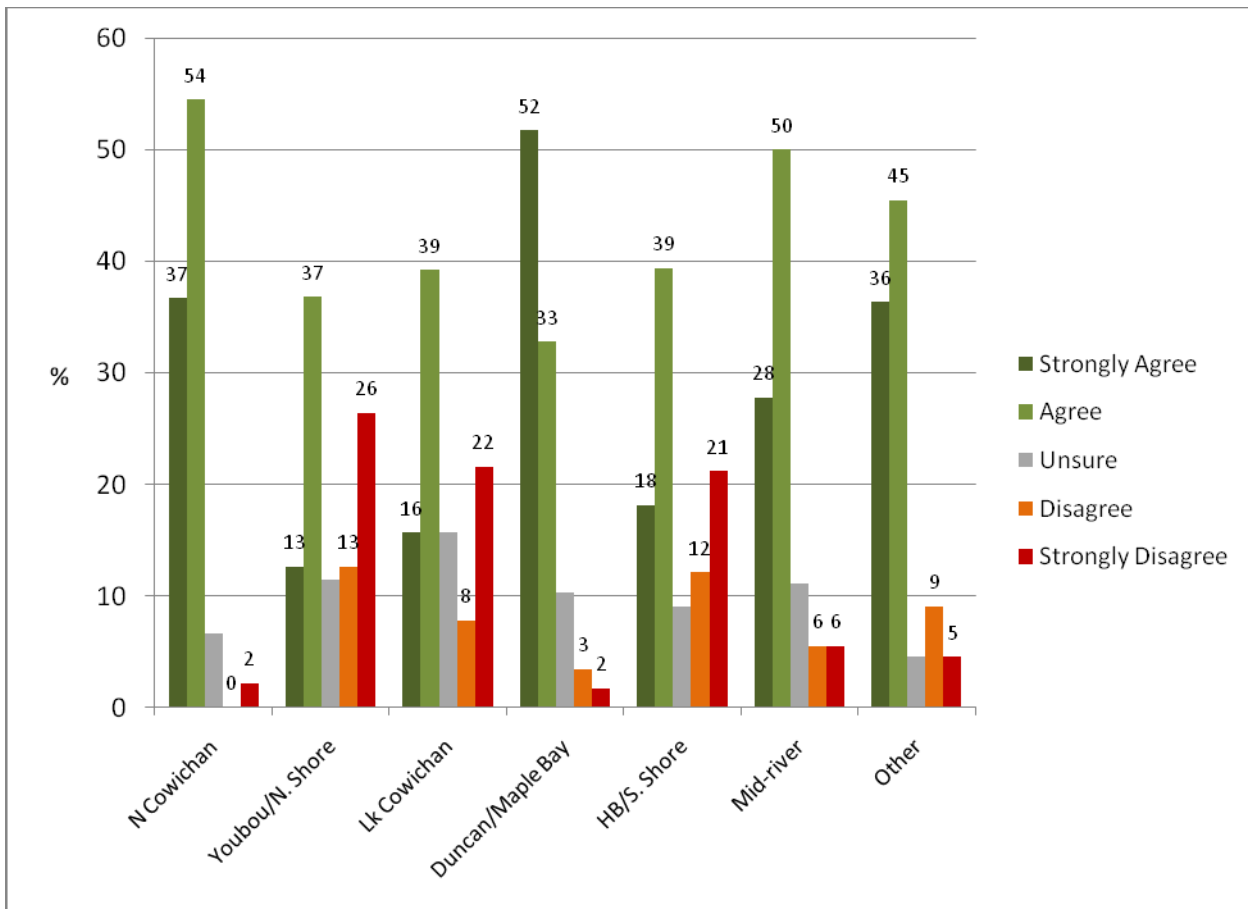
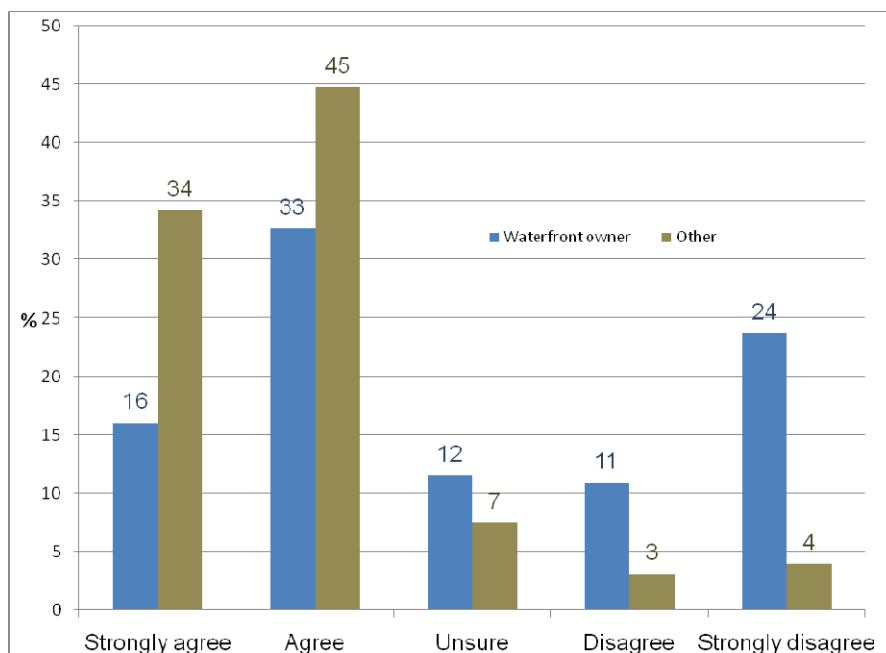


Figure 3: Support for Proposed Water Management Plan, Waterfront Property Owners



3.3. Support for the Plan Based on Place of Residence

Although there was a high overall support for the proposed Plan, the level of support varies across the Basin (Figure 2). Respondents who live outside the lake area were overwhelmingly in favour of the proposal. Respondents living in places such as Youbou, Lake Cowichan and Honeymoon Bay were split, with some in favour and some opposed.

Waterfront property owners are more likely to oppose the proposed Plan (Figure 3). Of respondents who do not own waterfront property, 79% “agree” or “strongly agree” with the proposed Plan. For waterfront owners, this support drops to 49%. Of respondents who do not own waterfront, only 7% “disagree” or “strongly disagree” with the proposed Plan, while 35% of waterfront property owners are in these categories.

These results are not surprising, given that it is waterfront owners who will be most directly affected by changes to lake levels. It is interesting to note that even among lakeshore owners, more support the proposed Plan than oppose it.

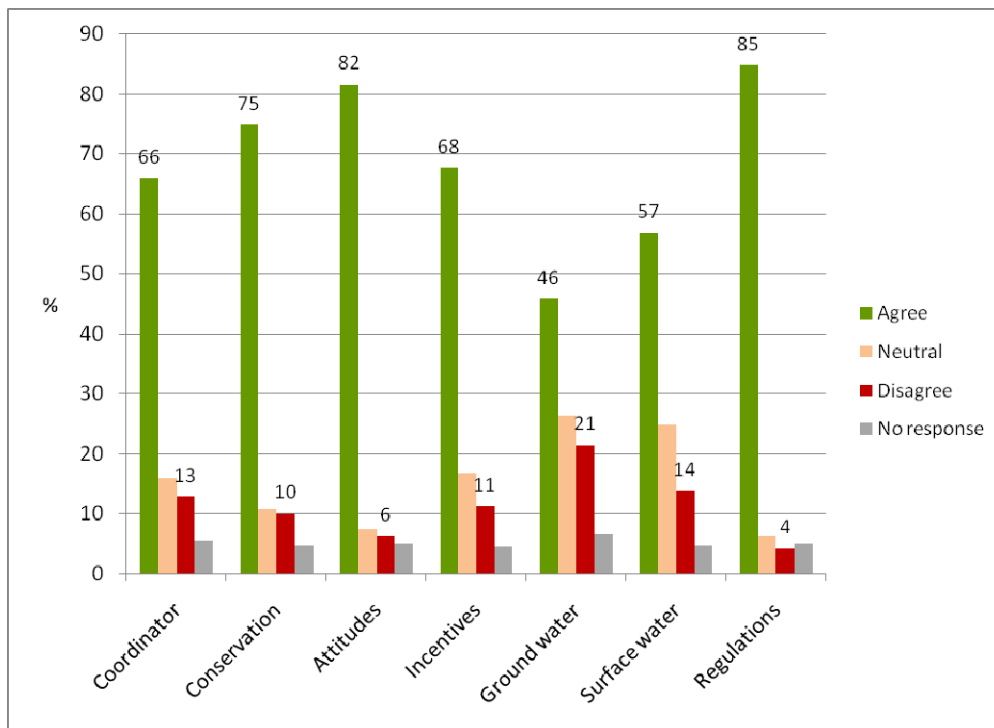
3.4. Goal 1: Efficient Use of Water

Goal 1 is to “Make efficient use of water, to reduce water consumption.” Proposed actions were to:

- 1a) Designate a regional coordinator to help develop and implement water conservation programs;
- 1b) Improve water delivery and use, including leak detection and repair, metering, water efficient fixtures, water audits, ‘greywater’ reuse, rainwater harvesting, and drought-tolerant landscaping;
- 1c) Change attitudes and behaviour about the use of water through information, education, and adopting and supporting regulations;
- 1d) Provide monetary incentives for using water efficiently (rebates, tax credits, and pricing based on quantities used);
- 1e) License, monitor, and report ground water use;
- 1f) Improve monitoring and reporting of licensed surface water use; and
- 1g) Revise municipal and regional plans, policies, and regulations to encourage land use and development patterns that conserve water.

Respondents strongly support most of the proposed water conservation actions (Figure 4). The exceptions are the proposals to licence and monitor ground water and surface water use (46% and 57% agree respectively). Several well owners expressed concerns about monitoring well use, fearing more bureaucracy and control, and increased costs.

Figure 4: Support for Proposed Water Conservation Actions



Some of the comments made in response to the proposed water conservation actions are as follows (see Appendix C for the full set of comments).

Cost, bureaucracy

- ♦ Too much government already, empire building.
- ♦ Costs need to be made known.

Water usage

- ♦ Control development so that it does not outstrip ability to supply and treat water.
- ♦ Concerned about increased demand for water from new developments.
- ♦ If Catalyst uses 90% of the water, they have to conserve and re-use more. Focus on the biggest users.

Enforcement

- ♦ Should be 'sticks' as well as 'carrots', i.e. heavy fines.
- ♦ Regulations already exist – enforce them!

Water conservation measures

- ♦ Look at conservation measures in other places (e.g., California).
- ♦ Water conservation should be priority before dams and pumps.
- ♦ Designate times for lawn watering. Get used to brown lawns.
- ♦ Make low-flow fixtures (e.g., toilets, washing machines) mandatory.

- ♦ Collect rainwater in cisterns and barrels, re-use greywater, use drought-tolerant plants in landscaping.
- ♦ Use of greywater should be allowed for garden and toilet-flushing.
- ♦ Farmers should build and use irrigation ponds.
- ♦ Introduce beavers to help retain water in small creeks.

Regional water management coordinator

- ♦ The coordinator should be from existing staff, no extra people hired, keep costs down.
- ♦ Person should be qualified and knowledgeable.
- ♦ Must have region-wide thinking.

Improve water use and delivery

- ♦ People must pay for what they use.
- ♦ Metering should include industrial users. Concern that metering means privatization of water.

Change attitudes through information

- ♦ Agree.
- ♦ Enforcement and monitoring are key.

Provide incentives

- ♦ Water conservation should be the norm, not achieved through bribery.
- ♦ Raise water rates; especially for use above a certain level.
- ♦ Give incentives for low-flow fixtures.

Metering

- ♦ No metering! Education instead.
- ♦ Keep the water system public.
- ♦ Install water meters everywhere! Make people more conscious of water usage.
- ♦ If we have meters, we will no longer have gardens. (There are many heritage gardens in the valley.)



Licence, monitor and report ground water use

- ♦ Concern that this will lead to permits for wells, and paying new tax. Water is a right and should not be a commodity.
- ♦ Not cost-effective for now, hard to monitor and enforce.
- ♦ For irrigation and major users only.
- ♦ Strongly agree, long overdue.

Licence, monitor and report surface water use

- ♦ Who would monitor, who would we report to?
- ♦ This is controlled by province not the CVRD.
- ♦ Agree!

Land use and development patterns

- ♦ Enforce existing policies.
- ♦ Control developers, no further development.
- ♦ How? Can the politicians agree?

3.5. Goal 2: Water Storage

Goal 2 is to “Store water for use in summer, to increase the reliability of water supplies and protect surface and ground water from contamination”. Proposed actions were to:

- 2a) Raise the weir by 30 cm (1 ft) and install pumps that can draw out additional lake water in very dry summers;
- 2b) Improve management of existing water supply by revising weir operation guidelines;
- 2c) Provide compensation to people adversely affected by any new or revised water licence; and
- 2d) Maintain and improve water quality in the Cowichan River through improved management of sewage, stormwater runoff, and pesticide use, and by ensuring sufficient water flows for dilution of treated effluent.

The proposal to raise the weir by 30 cm and install pumps for use in dry years was known as the ‘Preferred Supply Alternative’. This was the proposal in the Plan that received the most attention and the most number of comments in opposition (50% agree, 33% disagree) (Figure 5). There was strong support for improved weir management (73% agree), and also for improvements to water quality by ensuring sufficient water supply (85% agree). The proposal for compensation received mixed reaction (54% agree). Some waterfront property owners did not support the compensation proposed, because they felt that no compensation would be adequate for the loss of beach area. (About a quarter of respondents responded “neutral or don’t know” to this question.)

Figure 6 shows the percentages of waterfront and non-waterfront property owners who agree or disagree with the Preferred Supply Alternative. Almost two-thirds (63%) of non-waterfront property owners support this alternative, while less than a third (30%) of waterfront property owners agree with this approach.

Some of the comments made in response to the proposed water supply actions are as follows (see Appendix C for the full set of comments).

Plan and Preferred Supply Alternative

- ♦ Need a plan – can’t keep doing this every time we have water shortages.
- ♦ Who determines whose interests take priority?
- ♦ Raise weir and pump as a last resort; give people information so that they can see what ‘preferred’ levels will be.
- ♦ Develop plans that will preserve natural beauty and encourage tourism.
- ♦ Does not make sense to raise weir and then create \$4 million pumping system.
- ♦ This Plan is a band-aid approach, there are better alternatives available.

Figure 5: Support for Proposed Water Supply Actions

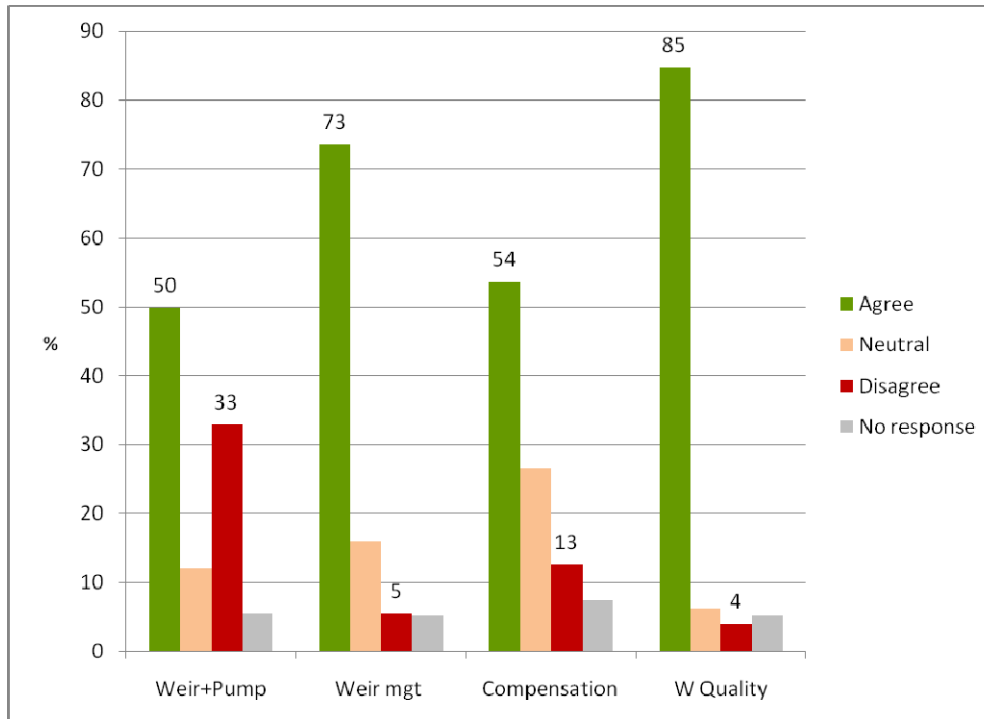
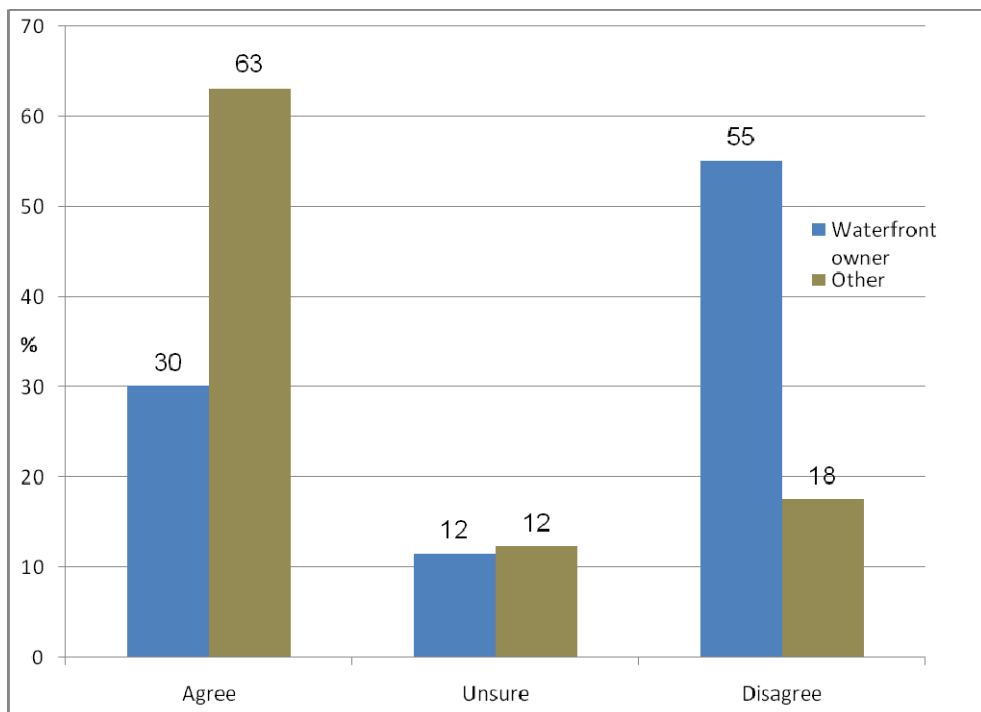


Figure 6: Support for Preferred Supply Alternative (Percentages of Waterfront Owners and Others)



(Numbers do not add up to 100% because several people did not respond to this question.)

Weir

- ♦ Will weir need to be upgraded before raising?
- ♦ Get rid of the weir.
- ♦ Weir should be controlled by CVRD, not private interest.
- ♦ Raise the weir by more than 30 cm. [*Comment was made by about 30 respondents, with suggestions ranging from 48 cm to 1 m.*] This action would avoid using pumps; cater to future needs; better provide for fish and ecosystems.
- ♦ Do not raise the weir or install pumps. [*Comment made by at least 10 respondents.*] Concerns included impacts on lakeshore properties, too many impacts on ecosystems.
- ♦ Raise the weir 30 cm, but no pumps. [*Comment made by about 16 respondents.*] Concerns include damage to fish and vegetation from pumping, lower lake levels making waterfront unusable.

Pumps

- ♦ Raise the weir and implement water conservation before installing pumps.
- ♦ Install pumps but do not raise the weir. [*Comment made by about 5 respondents.*] Concerns included flooding from weir raising, advantage of unlimited supply for drought years.
- ♦ Concern that reducing lake levels will affect ground water and cause settling of houses.
- ♦ Concern about impacts of consecutive dry years if pumping used for pulses.
- ♦ Concern about lowering lake levels, exposure of mud beaches; impacts on aquatic and riparian habitats.
- ♦ Waterfront property already affected by low lake levels, pumping would make beach unusable.
- ♦ Fish will be injured or killed by the pumps.

Lakeshore impacts

- ♦ Concern that weir raising will increase flooding in lakeshore homes, especially during winter.

Cost

- ♦ Who pays for weir raising, pumps, operation?
- ♦ Need costs revealed before plan can be supported (otherwise a 'blank cheque').



Weir gates

Improved weir operation

- ♦ Of course, agree.
- ♦ Need to do a better job than at present.
- ♦ Consider electrical generation at weir.

Other supply options

- ♦ Focus on better weir control.
- ♦ Implement water conservation measures instead of raising weir.

Compensation

- ♦ Impossible to provide adequate compensation.
- ♦ Buy up lakeshore properties.
- ♦ Who is paying for compensation?
- ♦ Compensation is essential.
- ♦ Suggestions for compensation included: reduced taxes from property re-assessment; direct payment (that does not pass liabilities onto future generations of taxpayers).
- ♦ CVRD should buy the lakeshore areas and fully compensate the landowners.

Water quality

- ♦ Raising the weir will flood some septic systems.
- ♦ All sewage should be treated, ban sewage discharges into river, water supply should be kept pure. Upgrade sewage treatment systems in Basin.
- ♦ Stop any pesticide and herbicide use in the Basin, including hydro, logging companies.
- ♦ Keep the water clean!
- ♦ Cannot control stormwater without controlling logging.
- ♦ Find alternatives to chlorinating water.
- ♦ Restore estuaries by reducing heavy industrial uses.
- ♦ Water supply must be sufficient for effluent dilution; health is very important.
- ♦ Large-scale development around this water reservoir is compromising water quality.

Other comments

- ♦ Concern about amounts of water that can be taken and whether water can be sold.
- ♦ Crofton Mill should use less water.
- ♦ Logging around watershed has led to problems with water supply; forestry companies should pay for restoration; logging should be stopped (or better controlled).
- ♦ Take no action until this is better thought-through.
- ♦ Take impacts of logging and developments into account.

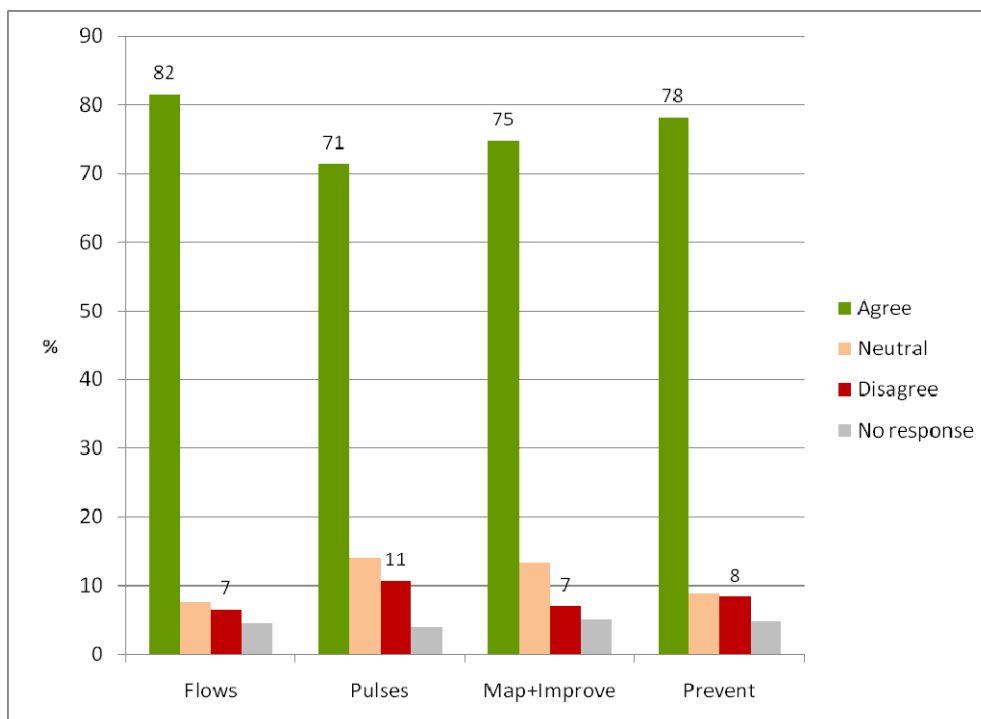
Goal 3: Ecosystem Protection

Goal 3 is to “Protect aquatic and riparian ecosystems by providing sufficient water year-round”. Proposed actions were to:

- 3a) Maintain sufficient flows in Cowichan River to sustain fish through low water periods during summer and early fall;
- 3b) Use the weir to release two ‘pulses’ of water in the fall to help fish migrate up the Cowichan River to spawn;
- 3c) Identify and map aquatic and riparian (shoreline) habitats, and continue and expand habitat improvement projects; and
- 3d) Prevent degradation of riparian habitat by adopting or amending tree protection bylaws, applying Riparian Areas Regulation setbacks to development, and enforcing forestry regulations and guidelines.

There was strong support (over 70% agreement) for all of the proposed actions under this goal (Figure 7).

Figure 7: Support for Proposed Ecosystems Actions



Some of the comments made in response to the proposed ecosystem actions are as follows (see Appendix C for the full set of comments).

Fish

- ♦ Most important is maintenance of water flows for fish; above human needs.
- ♦ Major restoration is needed to mitigate past impacts on this heritage river; fish stocks are a shadow of what they once were.
- ♦ Use existing weir to hold back water for fish; get Crofton to close in late summer.
- ♦ Look at ways to reduce weir outflow temperature.
- ♦ Pumps will degrade fish habitat and riparian vegetation.

Ecosystem protection

- ♦ Need better protection for riparian ecosystems than we have now; including for small creeks that enter the lake.
- ♦ Need to clean up waterways, e.g., removal of garbage.
- ♦ Weir has already caused some damage to riparian areas; raising weir will further damage shoreline.
- ♦ No one is against environment, but economy is what feeds people. Where is the balance?

Sufficient water flows

- ♦ Of course, but how?
- ♦ Agree, or CVRD could be charged for causing loss of fish habitat under *Fisheries Act*.
- ♦ Low water not a problem if mill use cut back.
- ♦ River has sufficient flow – there were more fish before weir built.
- ♦ Dredge, and create ponds to hold water in.

Pulses of water

- ♦ Concern that pulses will encourage fish to come upriver where there is insufficient water.
- ♦ Concern that pulses are for the mill, not for fish. Water for fish pulses should come from better weir management and should not take precedence over interests of waterfront owners.
- ♦ Pump water over the weir for fish pulses.
- ♦ Let nature control the flow of the river; return the river to the way it used to be (before the weir).
- ♦ Pulses do not work unless caused by natural water flow (rain).
- ♦ Concern that pulses would increase shoreline damage, increase silt collection below weir.
- ♦ Two pulses are: enough; not enough; too many.



Identify and map habitats, habitat improvements

- ♦ We should not have destroyed habitats in the first place!
- ♦ No mapping or improvements on private property.
- ♦ Money better spent installing spawning channels and fish hatcheries.
- ♦ Need incentives to replant native vegetation along shoreline to reduce winter erosion.
- ♦ Look at historical habitats (before 1950).

Development

- ♦ Too much development without enforcement.
- ♦ Increase setbacks for new developments.
- ♦ Stop shoreline and creek-side development; developers do not adhere to riparian regulations; developers are clear-cutting areas.
- ♦ There have been problems with damage from land clearing for docks and buildings.

Riparian Areas Regulation

- ♦ Riparian Areas Regulation should be overhauled or scrapped; setback should be at least 30 m, and larger for forestry.
- ♦ Riparian Areas Regulation needs teeth and needs to be enforced. It is too easy for developers to get changes.
- ♦ Shorelines should be protected, not built upon. Too much development! There should be huge restrictions on any further development, no waterfront development.
- ♦ Developments can affect water even if not waterfront – e.g., if wet areas are filled in.
- ♦ What happens to homes already in the riparian area?
- ♦ Riparian Areas Regulation will stop enjoyment of my property. Let existing lakefront owners have a nice modified shoreline. Increased setbacks have made properties worthless.

Logging and forestry regulations

- ♦ Stop the logging; logging has caused changes in water patterns. Water no longer is retained by trees on the slopes.
- ♦ Do not allow logging near watercourses, maintain wide vegetated buffers.
- ♦ Enforce forestry regulations. Forest companies are not more important than citizens.
- ♦ Logging is important to economy but we need to selectively harvest.

Enforcement

- ♦ Not happening.
- ♦ Enforce bylaws; fines for non-compliance.
- ♦ Enforcement essential.



Logging in the Cowichan Valley

Other comments

- ♦ Restore the forests, fisheries, justice for First Peoples.
- ♦ Yes, yes, yes to all! Most important; urgent; get going now.
- ♦ Monitoring and enforcement is critical and lacking.

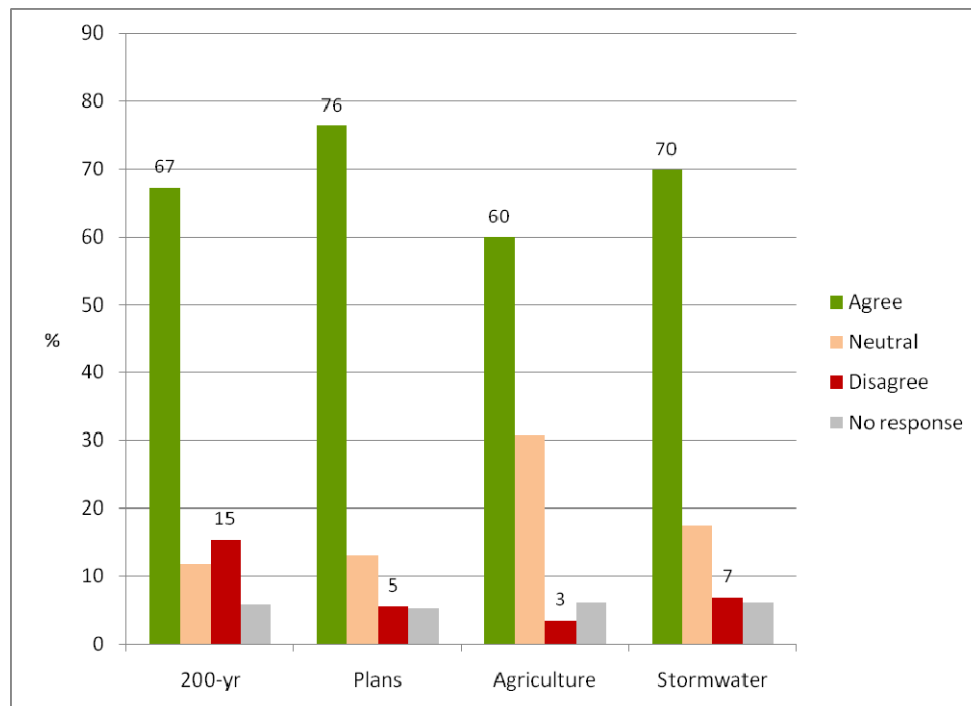
3.6. Goal 4: High Water and Flooding

Goal 4 is to “Reduce the impacts of runoff, flooding and high water levels”. Proposed actions were to:

- 4a) Enforce bylaws that prohibit new development or filling below the 200-year flood level, and flood-proof existing structures where practical;
- 4b) Prepare and implement flood and drainage management plans for all parts of the Basin;
- 4c) In the Somenos and Quamichan sub-basins:
 - improve drainage, and plant crops appropriate for the soil and hydrologic conditions; and
 - allow winter and spring water levels to inundate low-lying areas to protect organic soils and maintain ecological functions; and
- 4d) Reduce stormwater runoff by increasing on-site rainwater infiltration and adopting stormwater management bylaws and policies.

There is broad support (more than 60% agreement) for most of the actions under this goal (Figure 8). Some concerns were expressed about the 200-year flood level being unrealistic and too high. Several people felt unqualified to comment on the proposals for the Somenos and Quamichan sub-basins.

Figure 8: Support for Proposed High Water Actions



Some of the comments made in response to the proposed high water actions are as follows (see Appendix C for the full set of comments).

Impacts from development

- ♦ Rampant development will defeat most of these proposals. No further waterfront development.
- ♦ These proposed actions should be part of a Community Development Plan, holding developers to a higher standard of operation.

Impacts from forest practices

- ♦ Stop the destructive logging practices to minimize flooding. Plan needs to address this fundamental problem, work with provincial regulators. *[About 15 similar comments on this subject.]*
- ♦ Concern for side creeks that now dry up in summer.

Development below 200-year flood level

- ♦ If people want to build in floodplains that is their problem.
- ♦ 200-year flood level is artificially high; is just an imaginary level; not realistic today. Need to develop a proper level.
- ♦ Major impact on lakeshore owners.
- ♦ Many existing houses below this level (e.g., half of Town of Lake Cowichan, all of Duncan and Koksilah Industrial Park), need to flood-proof with this in mind. Help existing homeowners to do something.
- ♦ Relocate any floodable septic fields/tanks.
- ♦ “Where practical” is critical *[six similar comments]*.
- ♦ Agree with enforcing bylaws, but not flood proofing.

Flood and drainage management plans

- ♦ Need to draw down the lake in fall so that there is adequate capacity when rains come.
- ♦ Floods cause the lake to fill with silt and gravel and more flooding in future; what about side channels to alleviate this?
- ♦ Don’t we have these already?
- ♦ Prepare plans for all parts of the Basin; recognize each part of Basin is different.
- ♦ Plans are okay, but are not the end product.
- ♦ Flooding is a concern near the estuary, with predictions of sea-level rise.

Somenos and Quamichan sub-basins

- ♦ Many farms were formerly wetlands; farming should be eliminated and these areas returned to more natural conditions.
- ♦ Somenos and Quamichan are in danger from over-development and should be restored immediately.
- ♦ Already this way, no need to improve.
- ♦ Maintain adequate water levels for Somenos Marsh Conservation Area.
- ♦ Stop farmers from spreading manure on fields with high runoff.

Reduce stormwater runoff

- ♦ Developments above the 200 year flood level are contributing to rapid, uncontrolled runoff.
- ♦ Reduce road widths as in Europe; look at Smart Growth.
- ♦ Give stormwater a place to filter into the ground; plant more trees.
- ♦ Make developers responsible for this, not taxpayers.
- ♦ How can this be done? You cannot regulate stormwater.



Other comments

- ♦ These seem to be reasonable and practical actions; sounds great. A big task, but must be tackled. Good thinking and awareness of real needs.
- ♦ Absolutely necessary – consider each application on its own merit.
- ♦ Not necessary, not required.
- ♦ No actions discussed regarding removal of gravel and dyke repair below Silver Bridge. Gravel removal is supposed to happen every year (but does not).
- ♦ Allow property owners to protect river banks from erosion.
- ♦ What is this going to cost?
- ♦ Bylaws and policies need to be fair to all and carefully written.
- ♦ Enforce these laws.
- ♦ Not enough information in 4 a to d for public to comment and agree on—actions are loose and open to political abuse.

3.7. Goal 5: Good Water Management Decisions

Goal 5 is to “Help people to make good water management decisions”. Proposed actions were to:

5a) Educate and inform Basin residents by teaching about water management in schools, holding regional water management conferences and adopting best management practices;

5b) Form partnerships with non-governmental organizations and involve volunteers in the implementation of the *Water Management Plan*;

5c) Monitor the use of water in the Basin, including wells, licences, and community sources;

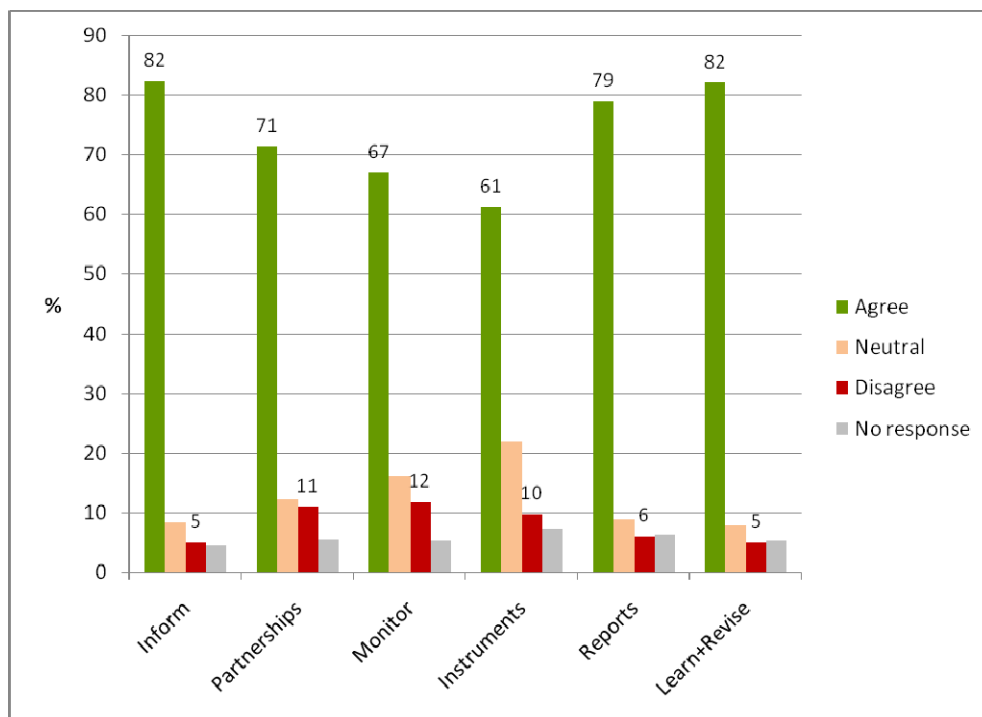
5d) Implement state-of-the-art climatic and hydrologic instrumentation and monitoring of streams, lakes, and aquifers;

5e) Publish annual reports on water conditions in the Basin and report publicly through the media; and

5f) Learn from experience, and revise the *Water Management Plan* if necessary.

There was strong support (more than 70% agreement) for most of the proposed actions under this goal (Figure 9). Lower rates of support for monitoring (67% agreement) reflect a concern that wells would be monitored. Several people were unsure about this proposal. Lower rates of support for instrumentation (61% agreement) reflect a concern for the cost of these actions and uncertainty about what is involved.

Figure 9: Support for Proposed Education and Partnership Actions



Some of the comments made in response to the proposed education and partnerships actions are as follows (see Appendix C for the full set of comments).

Cost

- ♦ Taxpayers should not pay for monitoring, we already pay enough tax.
- ♦ Good ideas but extremely difficult and expensive to implement and enforce.
- ♦ Another tax grab? Who is paying for all this?
- ♦ This would need oceans, not rivers, of money – where is it coming from? Too much wasted money. Conference and meetings are not the answer, we need action.

Educate and inform

- ♦ Education is a must; and necessary today and in the future. Respect the environment and Mother Earth.
- ♦ Inculcate an environmental ethic for true water security.
- ♦ Make it felt in the pocket book. Education will not work as well as regulations and financial incentives. Bill for actual water usage.
- ♦ Make water-saving devices mandatory.
- ♦ Education is a slow process, behavioural management is more effective. It is difficult to educate people about water use.
- ♦ Do not spend too much on education and conferences.
- ♦ Support public education but wary of over-regulation and too much bureaucracy.
- ♦ Educate all Basin users, including tourists.

- ♦ Include biggest users, i.e. Catalyst.
- ♦ Education on front page of papers and on television.
- ♦ Agree!
- ♦ Waste of time and money.
- ♦ Do not allow vested interests to take over.
- ♦ Don't we adopt Best Management Practices already?

Partnerships and volunteers

- ♦ Involve professionals and accountable people only with implementation; not special interest groups who would sway a sound and logical plan.
- ♦ Special interest groups will take over, they are a loud minority!
- ♦ Need to specify which organizations are participating.
- ♦ Volunteers burn out; asking volunteers (many seniors) to do the heavy work is unreasonable.
- ♦ Include the public.
- ♦ And like this time, exclude 300-400 negatively impacted homeowners?

Monitor use

- ♦ Important to monitor quality as well as quantity.
- ♦ We should all be metered – but not by private companies. All water should be public (no public-private partnerships).
- ♦ Licences – absolutely.
- ♦ Use backcasting methodology.
- ♦ Strata developments can (should) be metered too.
- ♦ Monitoring wells is impractical, appears to be thin edge of the wedge to taxing them. Monitor city water not private wells. No monitoring of wells (more big brother).
- ♦ Ground water regulations are needed to prevent new developments from drying out existing wells.
- ♦ How? Water police?

State of the art instrumentation

- ♦ All this technology costs money.
- ♦ Improve and maintain water supply data, including aquifers.
- ♦ Instrumentation is essential.
- ♦ Should be done BEFORE plan is developed.

Reporting

- ♦ Publish information in the newspapers.
- ♦ Annual reports will hit the garbage; a waste of money. Provide on-line information for those who care.
- ♦ Mail out reports to non-residents and correspond with affected people.
- ♦ Reports must indicate where improvements are needed.

Learn from experience

- ♦ Yes! Of course. Strongly agree. Common sense.
- ♦ Whose experience? Whose benefits/needs take priority?

3.8. Goal 6: Improve Water Management Decision-making

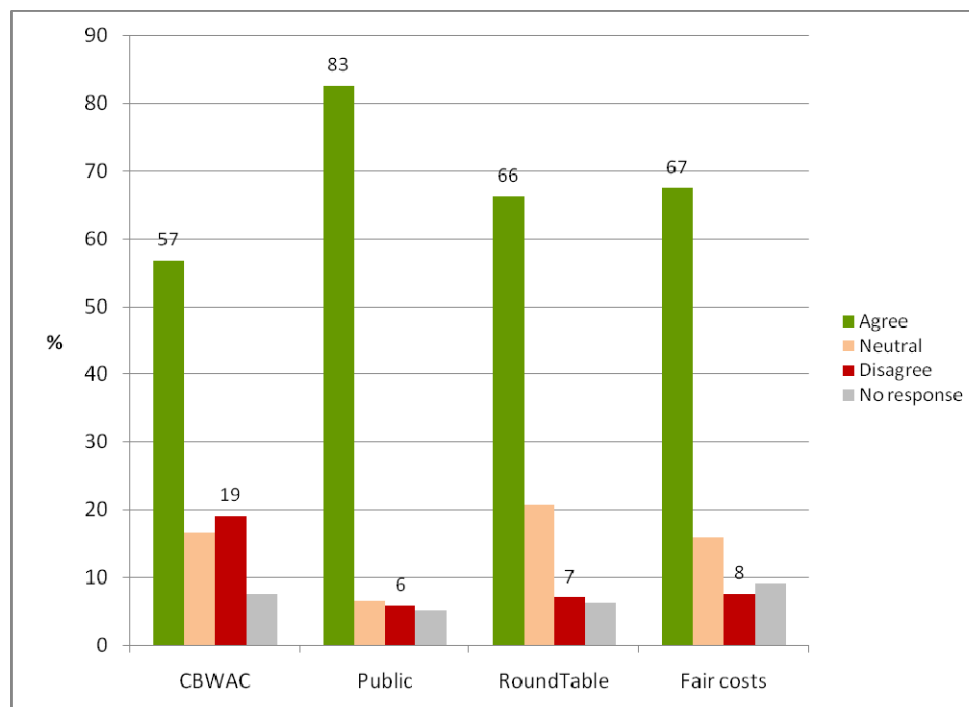
Goal 6 is to “Improve water management decision-making”. Proposed actions were to:

- 6a) Create, and provide funding for, a Cowichan Basin Water Advisory Council (CBWAC) to guide water management in the Basin;
- 6b) Involve landowners, business, developers, and the general public in water management decisions;
- 6c) Provide ongoing support for the work of the Cowichan Stewardship Round Table, which coordinates ecological restoration projects; and
- 6d) Assess water storage and demand decisions on the basis of fair distribution of costs and benefits, and emphasize cost effectiveness in water management decisions.

There was mixed reaction to the proposed actions under this goal (Figure 10). Although many people liked the idea of a water management body, there were concerns about the cost, additional bureaucracy and extent of its powers. Many people felt they did not know enough about the Cowichan Stewardship Round Table to support it, and there were concerns about the definitions of ‘fair distribution of costs’. There was strong support (83% agreement) for public involvement in water management decisions.

Some of the comments made in response to the proposed education and partnerships actions are as follows (see Appendix C for the full set of comments).

Figure 10: Support for Proposed Decision-making Actions



Costs

- ♦ Another layer of government? Huge bureaucracy. Waste of money. More taxes.
- ♦ Why another body? The CVRD can do it; existing staff can manage; let existing elected bodies make decisions.
- ♦ Needs to be clear who this is, and costs involved, before supporting.
- ♦ Provide funding.
- ♦ Are you going to sell our water to pay for this?
- ♦ If this was in place, lakefront owners would be hit with a cost for benefits they would not see.

Cowichan Basin Water Advisory Council

- ♦ Should be advisory only.
- ♦ Useless if advisory only.
- ♦ Imperative that it be formed, funded by all levels of government.
- ♦ They should do more than study.
- ♦ Activities must be reported and transparent.

Involve public in decisions

- ♦ Developers should not be involved.
- ♦ Important to include landowners.
- ♦ Include agriculture but not industry.
- ♦ Involve all of these interests in CBWAC as well.
- ♦ Important to include all stakeholders.
- ♦ The more groups that are involve, the harder it is to manage projects. Involving all these people will ensure nothing is done. Process could become cumbersome and unmanageable.
- ♦ Leave decision making to the scientists and those already involved.
- ♦ Poorly done to date; you have failed so far to involve homeowners. What a fresh idea, should have been done first.
- ♦ What does 'involve' mean?



Public at Water Management Plan meeting

Support for Cowichan Stewardship Round Table

- ♦ Insufficient information; who are they? Too vague.
- ♦ Sounds like a good thing, but sometimes better to let nature takes its course (e.g., Stolz slide).

Distribution of costs and benefits

- ♦ Who decides what is fair? What does this mean?
- ♦ Whoever benefits should pay the most!
- ♦ User pays, the more water you use the more you pay.
- ♦ This Plan does not look fair to me
- ♦ Does cost effectiveness mean a cheapening that defeats the aim?
- ♦ Disagree – do what is right, build a proper reservoir. The cost on per-person basis is insignificant.

4. Written Submissions

Several people took the time to write letters and e-mails to provide additional information on their views about the proposed Water Management Plan. These are included in full in Appendix E.

The main concerns and suggestions from this correspondence are summarized below.

Comments and concerns about Proposed Water Management Plan

- ♦ Landowner concerned about impacts of Preferred Alternative on ecosystems, increased likelihood of winter flooding, and impacts on docks and septic systems. Would like a site visit by qualified professional to discuss concerns.
- ♦ I DO NOT support the proposal to raise the weir and add pumps. Would support dredging the river.
- ♦ Plan does not take into account the extremely rapid Lake fluctuations. The group does not seem to understand how the lake functions.
- ♦ I vote NO to your preferred alternative. This is a short-term solution that causes a lot of damage. I support Alternative B (dredging the river). Consider reservoirs on streams that feed into the lake. Waterfront owners bear the brunt but do not benefit. There is not enough information on costs.
- ♦ The proposed weir raising poses fears of the unknown to waterfront owners. More information and modelling is needed to help residents understand the true impacts.
- ♦ I am absolutely opposed to raising the weir. I would support pumps.
- ♦ We DO NOT want the weir raised.
- ♦ Any and all plans to raise the level of the weir will have a negative effect on our property. It is neither necessary nor beneficial to implement this plan at this time. Dredging would be a better long-term solution.
- ♦ I believe Plan B is by far the more practical and most cost-effective solution.
- ♦ You are only trying to devise ways to best utilize the water that is left, instead of trying to manage the watershed. Logging needs to be part of the equation.
- ♦ Address the drainage in the Somenos so that farmers can plant earlier.
- ♦ I strongly disagree with your assumption that raising the weir will not have an impact on our properties. Alternative B (dredging) seems a better choice. Raising the weir will eventually backfire [because of increased winter water levels] – if this weir thing goes wrong, who will take responsibility?
- ♦ Use alternative B (dredging). This will save beaches, the cost of pumps and maintenance. You are just lowering the river to its original level, it should improve the flow.
- ♦ We are not in favour of alternative C (preferred alternative). We would like further environmental impact information on the resulting lake level. Have there been cost-benefit analyses comparing compensation costs to the other alternatives?
- ♦ Who pays for all this compensation, hiring additional staff, cost of raising weir and maintenance?
- ♦ Although we would rather not have elevated summer lake levels, we can also appreciate the range of benefits that would accrue.
- ♦ Overall, there is nothing in the response form that I disagree with. The design for raising the weir should allow for another 70 cm in future. CVRD should consider acquiring a shoreline right-of-way strip to

accommodate this and future weir raising, with compensation for landowners. Landowners should be given incentives to relocate septic fields above the high water mark.

- ♦ An effective Water Management Plan is necessary. The Plan needs to address both short- and long-term needs, climate change scenarios and opportunities for adapting to climate change. It needs to address the problems, and not just the symptoms.
- ♦ The Water Management Plan is an excellent concept. The concept seems clear, and based on solid facts. Some people are unable to think beyond what they may lose, they are blind to what can be gained as a whole. If we don't start changing our attitudes, there will be nothing left for our children to enjoy.
- ♦ I would like to salute the members of the Advisory Forum. Thank you for your citizenship.

More consideration of the impacts of logging and watershed management

- ♦ Forest practices should be looked at.
- ♦ Plan does not identify the main source of water flow problems – clearcutting.
- ♦ Plan needs to look at management of whole watershed. Watershed is heavily impacted by logging. Water levels now fluctuate rapidly without the tree cover.
- ♦ There is a need for action to regulate logging; it takes years for hillsides to re-grow.
- ♦ The report is comprehensive except for a mighty omission existing upper basin land use. Forest practices and land clearing for development is seriously compromising the natural cycle of water release.
- ♦ Demand a moratorium on logging for 20 years.



Picture of part of watershed, submitted by e-mail

Concerns about the consultation process

- ♦ Difficulty with accessing on-line response form.
- ♦ The response form was biased. It included desirable changes with undesirable ones. The process is flawed, we do not trust this consultant or process.
- ♦ Information was not provided in a timely fashion.
- ♦ There has been a lack of meaningful consultation. The package to landowners should have included the full 10 page goals, objectives and actions. I do not trust the process. Landowners should have been notified sooner. There was insufficient time to read long reports, and insufficient time for strata owners to notify residents.
- ♦ It does not matter if we are full-time or part-time residents, we pay the same taxes.
- ♦ Perhaps it should be called "question impaired" rather than a questionnaire.
- ♦ We should not have been asked to keep comments brief at the public meeting, it arbitrarily cut people off. How many of us non-bureaucrats understood what the presenter was saying?
- ♦ The response form is designed to get the answers you want.
- ♦ Response form questions are heavily slanted and misleading. There is a lack of will to inform the people who will be affected the most.

- ♦ We would have appreciated earlier notification.
- ♦ Timberwest should be a water management partner. Who are the Forum members, and who do they represent? Will there be further public meetings?

Weir and weir management

- ♦ There is heavy silting around the weir, seems to be caused by weir structure. The weir is rotting. Why not lower the lake an additional foot in summer instead?
- ♦ Plan does not address the earthquake hazard from the weir. Storing more water behind weir will increase danger to Lake Cowichan if it breaks.
- ♦ A higher weir will release water with more pressure, causing downstream erosion and flooding.
- ♦ Dredge to remove the sediment build-up.

Water conservation

- ♦ Provide secondary sewage treatment to reduce the use of water. The pulp mill could use desalinization.

Ecosystem impacts

- ♦ The riparian zone all the way around the lake is eroding, not just in people's front yards. Regulating front yards only will not work.
- ♦ Wood waste from logging is ending up in the lake.
- ♦ If the weir is raised it will have a negative impact on shoreline habitat.
- ♦ The sand bar downstream was caused by the weir, it should be removed to make it easier for fish to move upstream.

Water quality

- ♦ The Plan ignores the high coliform count from sewage discharges. Sewage treatment plants must be improved or rebuilt.
- ♦ Diluting sewage effluent does not remove e-coli. Existing sewage treatment plants should be upgraded.
- ♦ The Plan needs to address faulty sewage and drainage systems in floodplain.

Compensation

- ♦ Compensation should deal with waterfront owners as a group. Compensation package is complicated and without guarantees.
- ♦ How can you compensate for properties whose land is unavailable for over half of the year?
- ♦ Elevated lake levels will flood portions of our shoreline and reduce the area that can be used during the summer period. There should be compensation for the costs of works to ameliorate these impacts.
- ♦ If weir is raised, how would impacted waterfront landowners be compensated?

Other comments and suggestions

- ♦ Review and revise the 200-year floodplain level when making new bylaws.
- ♦ The lake and the river have been flooding naturally for thousands of years. People chose to locate their residences in an area obviously prone to flooding.
- ♦ Ban 2-stroke engine powered watercraft on the lake.

5. Comments on Lakeshore Owner Response Forms

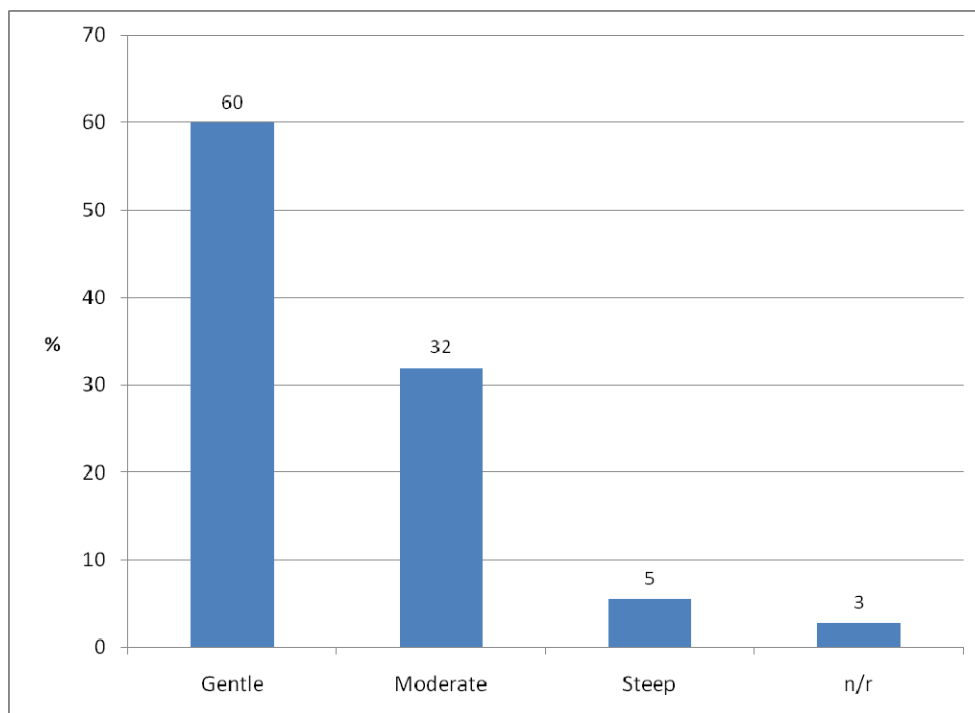
In addition to the response forms that were distributed throughout the Cowichan Basin, special response forms dealing with lakeshore issues were sent to owners of properties around Cowichan Lake (Appendix B). Mailing information was derived from the tax rolls. Information letters from the CVRD and the lakeshore response forms were sent along with the regular response forms and the newsletter, to ensure that lakeshore property owners were aware of, and had the opportunity to comment on, the proposed Water Management Plan.

5.1. Respondents

A total of 182 lakeshore owner response forms were received. Most (59%) noted that they were part-time residents, 30% noted that they were full-time residents.² Average length of ownership was 17 years, with some families owning property for more than 75 years. Almost all the respondents (88%) had a house on their property, and most also had a dock (85%).

People were asked about the shoreline on their property. Almost 60% of respondents described their shoreline slope as 'gentle', and another 32% described the slope as 'moderate' (Figure 11).

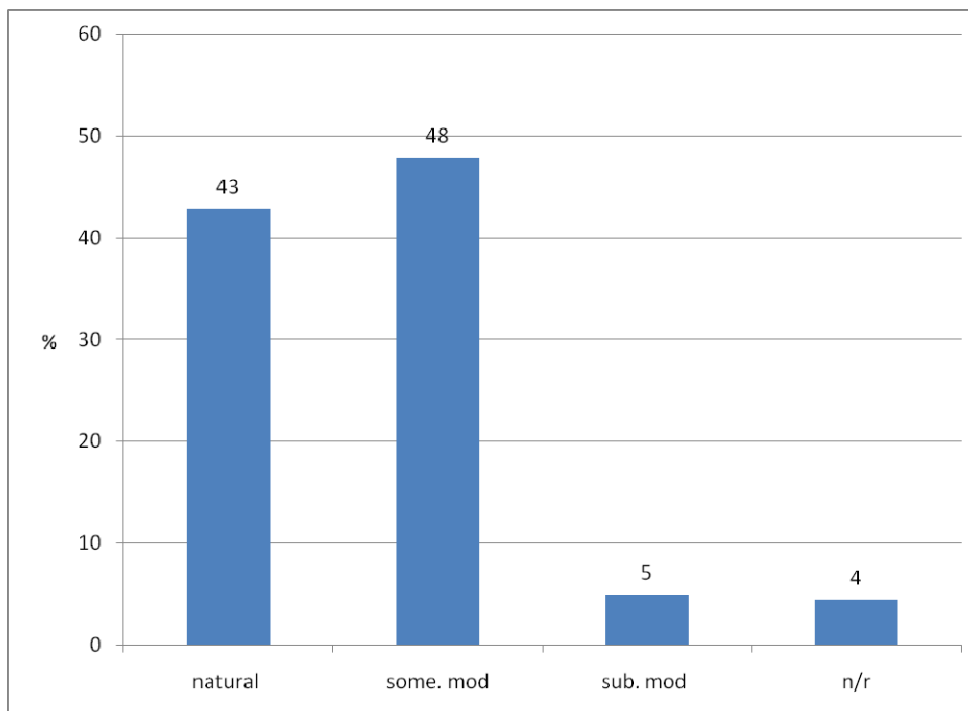
Figure 11: Shoreline Slope (Lakeshore Owners)



In response to a question about the degree of shoreline modification, most respondents described their shoreline as 'natural' (43%) or 'somewhat modified' (48%). Less than 5% described their shoreline as 'substantially modified' (Figure 12).

² Numbers do not add up to 100% in this section as several people chose not to respond to some of the questions.

Figure 12: Shoreline Modifications (Lakeshore Owners)



5.2. Impacts from High Water Levels

Lakeshore owners were asked if their properties were currently affected by high water levels in winter. Most respondents (71%) said that they were affected by high winter lake levels (Figure 13). Property owners with gentle slopes were more likely to report impacts from high winter water levels (Figure 14).

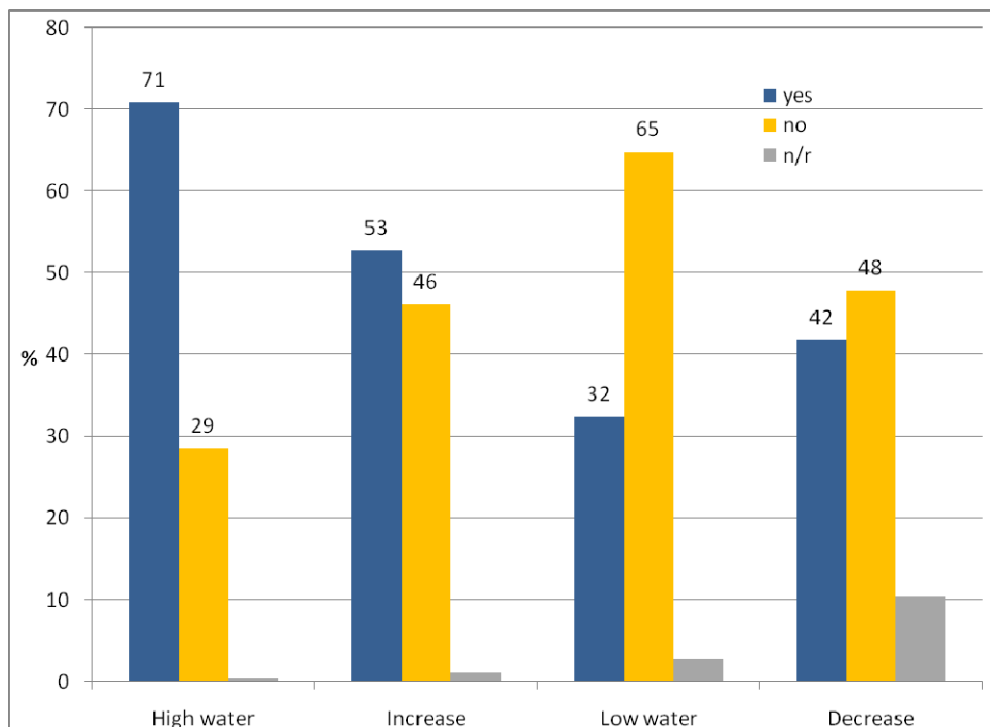
The major identified concerns were flooding and erosion. Respondents shared many stories about flooded basements, properties inundated with water, loss of access to beach and docks, and erosion of shorelines (see Appendix F for full comments).

5.3. Impacts from Low Summer Water Levels

Lakeshore owners were asked if they were currently affected by low summer water levels. Only 32% of respondents said low water levels were a concern (Figure 13), and 65% said they were not currently significantly affected. Owners of properties with gentle slopes were more likely to report impacts from low water levels (Figure 14).

Currently, the greatest impacts from low water levels are ability to use docks and wharves, and concerns about muddy beaches if the lake bottom is exposed. Many people noted the benefits of low water in that they gained beach area. Some cited concerns about the impacts if lake levels were to be lowered as a result of pumping.

Figure 13: Impacts from High and Low Water Levels (Lakeshore Owners)



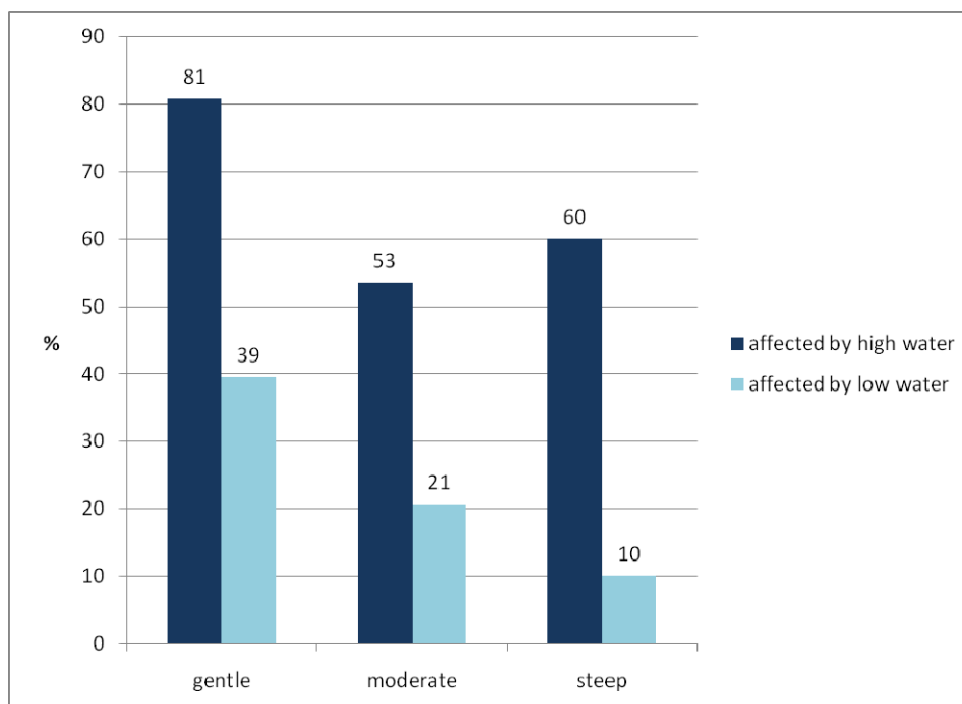
High water: Is your property significantly affected by high water levels?

Increase: Would your property be significantly affected by a lake level increase of up to 30 cm in the summer?

Low water: Is your property significantly affected by low summer water levels?

Decrease: Would your property be significantly affected by a lake level reduction of up to 50 cm in late September/October?

Figure 14: Impacts from High and Low Water Levels (Based on Slope of Property)



5.4. Impacts from Increased Lake Levels

When asked if their property would be affected by a lake level increase of up to 30 cm in summer, respondents were split, with 53% saying 'yes' and 46% saying 'no' (Figure 13).

Many people were concerned about loss of beach during the summer months, noting this was one of their reasons for purchasing the property. (There were about 66 comments to this effect.) Other concerns were loss of property value, increased erosion, and impacts to ecosystems. Some people (16 respondents) supported the idea of raising the weir, citing positive impacts if the summer lake level were to be raised. A few commented that they would be somewhat affected, but considered this tolerable.

Although people were reminded that winter water levels would not be affected by weir raising, many people are unconvinced and remain concerned that the weir could cause higher winter levels and increase impacts on their properties.

When asked for ideas on ways to reduce any adverse effects, the following suggestions were offered.

- ♦ Do not raise the weir (34 comments to this effect).
- ♦ Remove the weir (or lower it) (7 comments).
- ♦ Raise the weir (3 comments).
- ♦ Add fill to beaches, allow people to modify shorelines.
- ♦ Provide (adequate) compensation.
- ♦ Take an alternatives action to raising the weir (e.g., storage downriver, reduced consumption by Catalyst and other downstream users, better weir management).
- ♦ Education, a full survey of impacts, a new plan.



Lakeshore flooding

5.5. Impacts from Reduced Lake Levels

When asked if their property would be significantly affected by a lake level reduction of up to 50 cm in the fall, 42% said 'yes' and 48% said 'no' (Figure 13).

For most concerned respondents, the major issue is that lower lake levels would make it hard to use their docks, wharves, beaches and swimming areas (51 comments to this effect). Other concerns include loss of riparian habitat for fish and other wildlife, lowering of the water table and impacts to submersed water pumps. On the positive side, a few people commented that it would create more 'room' for winter floodwaters and perhaps reduce flooding.

Suggestions for reducing adverse effects of lowered lake levels included the following.

- ♦ Do not use pumps (*12 comments*).
- ♦ Raise the weir higher, and do not install pumps (*6 comments*).
- ♦ Manage the weir better so that there is water left in early fall (instead of having to use pumps).
- ♦ Allow owners to modify shorelines to compensate (e.g., by dredging swimming areas and around docks).
- ♦ Provide compensation, or help with adjustments (e.g., moving water intake pipes or docks further out into lake).
- ♦ Use alternative methods for water storage (e.g., dredging of river), reduce water use by Catalyst.

5.6. Additional Comments

Respondents provided several additional comments and suggestions.

Leave the weir and lake alone

- ♦ Leave things alone, do not change nature (*10 similar comments*).
- ♦ Do not agree with planned weir height increase (*6 similar comments*).

Raise the weir higher

- ♦ Raise the weir by more than 30 cm, reduce annual fluctuation in lake level.

Proposed Water Management Plan

- ♦ Plan is necessary, but this one is flawed. The Plan is too vague, biased, and does not consider all issues.
- ♦ Plan will not benefit lakeshore taxpayers.
- ♦ Agree with overall concept, but not with raising weir.
- ♦ Raising the weir is a great idea, support the Preferred Alternative.
- ♦ Probably the best proposal for this area at this time, seems reasonable.
- ♦ Misses the point, should address forestry, logging, development, getting Catalyst to reduce water use.
- ♦ Not clear what problem the Plan is fixing.

Improve weir management

- ♦ Current weir management poor.
- ♦ Weir operation rules need to be more clearly specified and followed.
- ♦ The weir should be controlled by CVRD, not private interests.

Pumping

- ♦ Pumping is wrong. It seems drastic.
- ♦ Very low water levels can be problematic.
- ♦ Raise weir higher rather than using pumps.
- ♦ If pumps are only used once every 20 years, it is cheaper to truck fish if river levels are too low.

Process

- ♦ The Plan was poorly communicated.

- ♦ The information was well presented and organized.
- ♦ Listen to the ideas of lakeshore owners, contact all lakeshore owners.
- ♦ Timing for public meetings lousy. The response form is misleading.
- ♦ Even if we disagree with your ultimate decision, we feel that we had the opportunity to be heard.
- ♦ Decision process needs to be fair, Duncan should not outvote us. Hold a referendum?

Compensation

- ♦ If you want to store water, you have to pay me.
- ♦ Owners should be compensated, and receive a property tax reduction.
- ♦ Compensation for damage over existing 70 year high water mark, not phoney 200-year line.

Alternative supply options

- ♦ Dam small creeks.
- ♦ Dam above Skutz Falls.
- ♦ Build large upland reservoirs.

Encourage water conservation

- ♦ Explore water conservation options before spoiling millions of dollars of waterfront property.
- ♦ Reduce Catalyst use of water (desalinization plant?).

Flooding

- ♦ Concern that raising the weir will increase winter flooding.

Costs, bureaucracy

- ♦ This is more bureaucracy, a waste of taxpayers dollars.
- ♦ I want to see effective use of taxpayer dollars.

Water quality

- ♦ Sewage effluent should not be dumped into the river.
- ♦ What about sewage discharge from boats?

Who will benefit?

- ♦ Who will benefit from raising the weir? Not the lakeshore owners!
- ♦ What is the reason for the increasing downstream need for water?

Other comments

- ♦ We can't be raising the lake level every few years!
- ♦ This is our home, our lake, our water – others down river are not affected. Just us!!!
- ♦ Understand our concern. We are concerned about losing beach and land.
- ♦ Have respect for property rights; lakefront owners should not be disenfranchised.

6. Major Concerns

Overall, there was a great deal of support for most of the proposed Water Management Plan actions. However, some concerns were repeatedly raised throughout the consultation process.

Lake levels and winter flooding

- ♦ Many people do not believe that raising the weir will not have an effect on winter flooding around the lake.
- ♦ Winter flooding is already a significant concern for lakeshore property owners, and there are fears that raising the weir will:
 - ◇ Raise already-high winter flood levels;
 - ◇ Cause additional flooding of septic fields; and
 - ◇ Cause additional shoreline erosion.
- ♦ Lakeshore residents are more concerned about the 'highs' and 'lows' of the lake, and did not feel that the information on 'typical' lake levels was helpful.

Preferred supply alternative

- ♦ The proposal to raise the weir by 30 cm generated many comments. Many lakeshore owners, among others, have concerns about the potential for impacts on the waterfront during summer and winter.
- ♦ Some people suggested raising the weir by more than 30 cm, others suggested removing the weir entirely.
- ♦ There is a fear that there will be future demands to raise the weir even higher.
- ♦ Concerns were expressed over who benefits versus who pays. Some lakeshore owners felt that they were paying the price (of lost waterfront), while downstream users benefited—and that those who benefit should pay the most. A 'fair distribution of costs and benefits' (Goal 6) was seen as important.

Weir management

- ♦ Some people felt that the weir is not well managed at present, and that they would like to see the water levels drawn down before (predicted) major rainstorms, to reduce flooding.
- ♦ Others suggested that better management of the weir could avoid the need for pumping, by leaving adequate water in the lake by the end of summer.
- ♦ Several people commented on siltation near the weir (above and below), and suggested various ways to dredge or flush this material away.
- ♦ Concerns were expressed that the weir is rotten (or rotting) and could not handle the additional weight of water if raised. There were also concerns regarding the effects of an earthquake.

Pumping and Pulses

- ♦ The proposal for pumping water received mixed reviews. Some people felt that it was a good solution that avoided (further) raising the weir. Others cited concern for impacts on shoreline properties and habitats if the lake were to be drawn down below its current low levels, concern that fish would be injured or killed in the pumps, and concern for the costs of installing and maintaining pumps.
- ♦ Some people felt that pulses of water would encourage fish to begin upstream migration while the river was still too dry, and that fish have coped with dry years in the past by waiting until the rains come.

Reconsideration of Alternatives

- ♦ There were suggestions that dredging the river below the weir (Alternative B) would be a cheaper and more effective option than raising the weir, with fewer impacts to lakeshore properties. There were several requests to reconsider this alternative.
- ♦ Some people suggested that the weir should be raised by more than the proposed 30 cm. This would eliminate the need for pumps, and provide a more reliable future water supply.
- ♦ There were suggestions for alternative storage areas: e.g., damming above Skutz Falls, and small or large upland reservoirs.

Compensation

- ♦ There was concern that the proposed compensation package is complicated and without guarantees. Lakeshore owners would prefer to be treated as a group rather than individually.
- ♦ Some people felt that no compensation could make up for a loss of waterfront.
- ♦ Suggested forms of compensation included reductions to property taxes, or helping landowners to adjust to higher water levels (e.g., allowing and providing more fill on beaches). Some people suggested that the CVRD should purchase lakeshore properties, or at least buy a right-of-way around the lakeshore.

Forestry in the Upper Basin

- ♦ The Plan does not take into account the impacts that logging is having on the flows into Cowichan Lake; nor does it adequately address ways to improve this situation.
- ♦ Suggestions included better enforcement of forest practices, leaving wider riparian vegetation buffers, and stopping all logging.

Water Conservation

- ♦ Proposed water conservation actions were generally well received, and several people suggested additional measures that could be taken.
- ♦ There were many suggestions to implement stringent water conservation measures before considering more 'drastic' actions such as raising the weir and installing pumps.

Sewage treatment

- ♦ Many people commented that 'treated effluent' should not be entering the river at all, and that sewage treatment systems should be upgraded.
- ♦ Some people suggested providing incentives or financial assistance to help lakeshore owners move septic fields above the flood line; or that regulations be better enforced.

Costs, bureaucracy

- ♦ The proposed Plan actions raised fears of an increased bureaucracy (and therefore increased taxes).
- ♦ Several people suggested that the regional water management coordinator position should be an existing staff person. Others felt it was very important to have a well-qualified and experienced person in this role.
- ♦ Some people felt that the proposed Cowichan Basin Water Advisory Committee (CBWAC) was 'just more government' and that existing staff and elected people could (and should) do the job. Others felt that an advisory body would be helpful.
- ♦ There were concerns about the costs of proposed actions including 'state of the art' instrumentation and 'publishing annual reports'.
- ♦ People would like to know the overall cost of the proposed Plan.

Monitoring and licensing of ground and surface water use

- ♦ While many people felt that it was important to monitor use, there were some concerns.
 - ◇ Some well users did not want to see monitoring or licensing of private wells, citing bureaucracy and cost concerns.
 - ◇ Some people did not want water metering, citing concerns that this would mean privatization of water or public-private partnerships.

Catalyst

- ♦ Several people felt that Catalyst should do more to reduce water use, or find alternative sources such as a desalinization plant. (A couple of people commended the company on the water use reductions they had already made.)
- ♦ There were suggestions that the mill should have a planned shutdown in the early fall, to reduce the need for water.
- ♦ Some commented that the future of the mill is uncertain, and felt that if the mill were to close there would no longer be a water shortage.

Development

- ♦ Many people suggested that there be tighter controls on development. Some would like to halt all development (unless there is adequate water supply); others commented that there should be better protection of the riparian areas along the lakeshore and creeks.

200 year floodplain

- ♦ Some people commented that the 200-year floodplain is artificially high and is limiting people's ability to build on their property. Others argued that if people want to build in floodplains, they cannot then complain about the consequences.

Enforcement

- ♦ There were concerns that existing laws and bylaws are not being enforced, notably forestry regulations, the Riparian Areas Regulation and other bylaws controlling development.

Lack of detail in Plan

- ♦ Some people felt that there was insufficient information presented to make good decisions. Lack of information on who the licensee would be, and the overall costs of the Plan, were cited.
- ♦ The Plan was criticized for having too short a timeframe, suggesting that it should look 100 years or more into the future.

Process

- ♦ Many people were angry that they only received notification shortly before the meeting, and that they were not aware of the previous newsletters or other information.
- ♦ There was concern that part-time residents were not aware of the proposals.
- ♦ People felt that they had not been adequately consulted.
- ♦ Some people felt that the documents were biased and that information was hard to understand. Others felt that the written and verbal information was informative and helpful.
- ♦ Several people expressed their appreciation of the Forum's efforts.