

*Perceptions and Expectations of Lakeside Property
Owners in Northeastern Alberta*

Summary Report

Prepared for:

The Vincent Lake Working Group
(See Over)

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The Vincent Lake Working Group is a partnership of non-government, government, and funding partners. The Group's purpose is work with community watershed stakeholders (i.e., agriculture and cottagers) in the area of riparian awareness, education, and tool building. Our expectations are that we can make a difference and contribute to the health and proper function of riparian areas and the watershed.

Members include: County of St. Paul, Summer Village of Horseshoe Bay, Cows and Fish Program, Department of Fisheries and Oceans, Agriculture Food and Rural Development, Alberta Environment, Alberta Environmentally Sustainable Agriculture Program, Alberta Conservation Association, and the Riparian Wetlands and Research Program.

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Introduction

This study was undertaken at the request of a consortium of agencies that share the aim of improving environmental management of riparian areas¹. It was undertaken to provide a basis for community education programs aimed at improving the management of riparian (shoreline) habitat at recreational lakes. By learning more about the preferences and expectations of lakeside property owners, the sponsoring agencies hoped to design more effective community education programs.

Methodology

The study addressed five lakes in Northeastern Alberta---Laurier, Vincent, Lac Sante, Garner and Upper Mann lake. A list of property owners was provided for each lake. Based upon these lists, a random telephone survey was undertaken. The survey was completed in a period of 7 days (March 2 to 8, 2000). Questions used in the telephone survey are listed in Appendix 1. Overall results of the survey are accurate to within $\pm 5\%$, 19 times out of 20. Distribution of respondents, by lake, is shown in Figure 1.

During the telephone survey, interviewers recruited participants for two focus groups. One focus group (13 participants) was held in Edmonton (where more than 60% of property owners resided), and one (12 participants) was held in St. Paul (a town near to one of the lakes being sampled). At the focus groups, participants were shown the results of the telephone survey and elaborated about their expectations. Focus group participants also commented on various words that could be part of an education program, and reviewed various means of communicating educational messages. Focus group participants were given honoraria to encourage attendance at the focus group, and to reduce the potential for a bias towards keen participants.

In the second focus group, participants used OptionFinder®, an electronic decision support system, to indicate their preferences. This system was used to ensure that individual participant observations were not being generalized inaccurately to the group. The system also provided an immediate record of the focus group session. Distribution of focus group participants, by lake, is shown in Figure 1.

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Figure 1: Distribution of Participants in Telephone Survey and Focus Groups

Lake	Telephone Survey (% of total)	Focus Groups (% of total)
Garner Lake	13%	21%
Upper Mann Lake	26%	21%
Lac Sante	12%	17%
Vincent Lake	23%	21%
Laurier Lake	26%	21%

Overview of Survey Results

Property owners were very interested in the condition of the lake. The great majority felt their lake had deteriorated noticeably in the time they had owned property on the lake. They often were concerned about reduced clarity in the lake. Most felt that reduced water depth (“lake level”) was a very significant factor in the changes they had observed (lake levels had dropped significantly in all of the study lakes in the past decade). Surprisingly, only a minority of property owners engaged in lake activities (boating, swimming, fishing). Many property owners noted that the presence of birds and wildlife in the area was an important part of their enjoyment of the area. They also noted that yard work was a pleasurable way to pass the time at lakeside.

Focus group respondents expressed a strong desire to maintain the lake environment, but some frustration at the limitations placed on their lakeside properties through regulations. They expressed an understanding of the importance of habitat and a general understanding of ecological relationships, but had difficulty describing specific relationships, species or trends present in their lake. Many noted the need for improved education about environmental influences on the lake.

Major Findings

Characteristics of the Lake Setting that are Most Important

Telephone survey respondents rated eight characteristics of the lake setting according to their importance, using a scale from 1=very unimportant to 5=very important. The most important characteristics were water level, clarity of the water, safety for users of the shore areas, and opportunities to observe wildlife. Results are described in the following table:

Lake Characteristic	% Who Rated This 4 or 5	Mean (standard deviation)
Water level	88%	4.50 (1.0)
Clarity of the lake water	73%	4.46 (0.9)
Personal safety	84%	4.54 (.86)
Waterfowl and wildlife	81%	4.30 (0.9)
Natural woods on owned property	77%	**
Lawn, landscaping and trees	66%	3.86 (1.2)
Opportunity to visit natural areas	63%	3.79 (1.3)
Access to boat (dock)	62%	3.70 (1.3)
Access to beach or swimming area	62%	3.80 (1.3)
Unimpeded view of lake	56%	3.66 (1.4)
Quality of Fishing	56%	3.59 (1.4)
Lack of aquatic plants	44%	3.22 (1.4)

Participants in both focus groups noted the importance of water level. They were troubled by significant drops in water level over the past decade, and strongly perceived that weeds, algae and general loss of water clarity were associated with lower water level.

Focus group participants also felt the clarity of the water in lakes was a good indicator of the condition of the lake. Large amounts of submergent vegetation and algae were perceived as indicators that the lake is polluted or that its condition is poor.

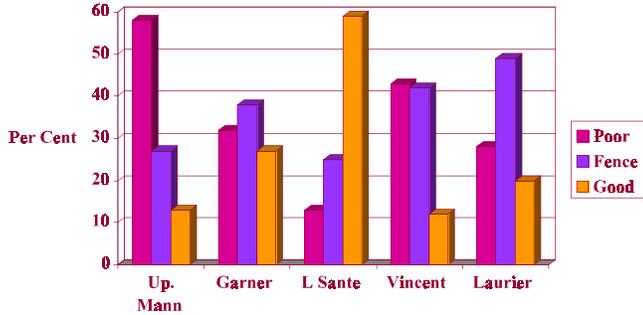
When asked directly, focus group participants noted submergent vegetation is likely associated with animal life in the lake. However, there were differences of opinion about this relationship. Some obviously felt that the kinds of animals that would use these weeds as a home were not very desirable (e.g., leeches and snails). Some participants also noted that hives (i.e., swimmer's itch) is associated with areas where there is vegetation growing in the water.

The response to the question about "aquatic plants" may have been misleading, because many focus group participants called submergent vegetation "weeds." Some noted, however, that emergent vegetation like cattails and bulrushes are reeds, not weeds.

Perceptions About Lake Condition

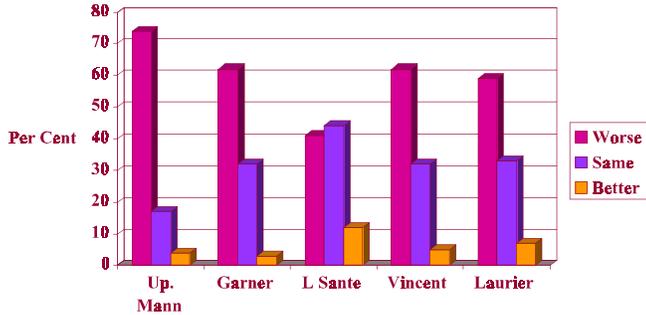
There was variation among telephone respondents regarding the current condition of their lake. A majority of residents at Upper Mann Lake felt the lake was in poor condition. Responses from owners on Garner, Vincent and Laurier were mixed. A majority at Lac Sante felt the lake was in good shape. Results are shown in Figure 2.

Figure 2: Perceptions about lake condition



A majority of respondents at four of the five lakes felt that the lake condition has become worse in the time that they have owned property on the lake. The exception was Lac Sante, where only 40% of the owners felt the lake condition had worsened. Results are shown in Figure 3.

Figure 3: How has lake condition changed?



Factors That Have Contributed to Changes in the Lake

When asked to respond to eight possible contributors to the changes they had observed in their lake, the highest number of property owners selected climate, natural cycles that affect the lake, and land use in areas near the lake. However, many other factors were also recognized by a majority of owners as being contributors to changes.

Potential Causes of Change	% Who Agreed It Is a Cause
Climate	86%
Natural cycles that affect lakes	67%
Land use in areas near the lake	47%
Casual recreational use of the lake	39%
Shoreline development	38%
Awareness and conservation programs	31%
Community initiated programs	27%
Industrial activities	11%

Top 4 examples given by telephone respondents for five possible causes*:

Climate	Natural cycles	Land use	Casual recreation	Shoreline development
Less precipitation (89%)	Less precipitation (50%)	Farmland near lake (45%)	Damage from motorboats and vehicles (62%)	Poor waste disposal (35%)
Water level changes (30%)	Water level cycles (37%)	Fertilizer run-off (43%)	Over-fishing (35%)	Over-development (29%)
Global warming (9%)	Fish spawning (5%)	Pumping water from lake (13%)	Increased activity (13%)	Vegetation clearing (15%)
Development affecting lake levels (5%)	Global warming (2%)	Vegetation clearing (12%)	Garbage (7%)	Development too close to shore (15%)

**These responses were unprompted. The percentages represent the proportion of people who chose to respond and mentioned each example.*

Focus group participants reiterated that the lakes were deteriorated and cited low water levels, obsolete sanitary systems in some cottages, agriculture (cows, fertilizer, pesticides and cow pies) and the removal of trees and other vegetation buffers as causes. They also mentioned cottage development close to the water and human withdrawal of water from the lake.

In both focus groups, participants discussed the possibility that lake level was the sole cause of the changes they had witnessed in their lakes. While not everyone accepted this belief, it was widely held among participants. Many participants felt that if the water level dropped, the weeds increased and if the water level rose, then the weeds would decrease.

There was also considerable discussion in the Edmonton group about the withdrawal of water by people (particularly from Upper Mann Lake), and about the problems caused by the removal of trees and buffer vegetation.

In the St. Paul focus group, participants made proposals about what they would change if they could change anything about their lake. All participants rated these proposals, using a five point scale (1=not very important, 5=very important). The proposals were generated spontaneously, and are listed below, along with the ratings.

What to change	Mean rating	% rating this "very important"
People lack respect for the lake and shoreline (garbage, fires, tree damage)	4.6	83%
Water quality (clarity)	4.4	67%
Grad parties and bush parties	4.2	67%
Water level return to level of 16 years ago	4.2	58%
Restrict the size of motorboats	4.1	50%
Clean out thistles around the lake	4.0	42%
Make the lake safe and pleasant (remove rocks, thistles, hazards)	3.6	17%
More birds and animals around the shoreline	3.5	36%
Change the shoreline: grass is too high	3.4	42%
All property owners care for their shoreline (keep the high grass down)	3.4	36%
Property owners keep their shoreline natural	3.1	33%
Get rid of seadoos	2.9	33%

Use of Lake Property

Just over 10% of the survey respondents reported that they live at the lake full time. The mean number of days reported "spent at the lake" was 44. Ninety-seven (97%) percent reported that they stay at the lake in summer, while approximately 60% reported that they stay at the lake during shoulder seasons (spring and fall). Forty percent (40%) noted that they stay at the lake at some point during the winter.

Participation in Activities at the Lake

Telephone survey respondents noted that they participate in land-based activities more than they participate in water-based activities. Relaxing at their lakeside home and yardwork were easily the most frequently reported activities. Fewer than one third of respondents reported that they participate often in boating, swimming or fishing. Respondents were asked to describe how often they participate in each of ten activities, using a five point scale (1=never, 5= very often). The pattern of responses is shown below.

Type of Activity	% who selected 4 or 5	Mean (standard deviation)
Relaxing (read, entertain, family)	80%	4.3 (1.1)
Yard work (gardening, mowing lawn)	61%	3.7 (1.3)
Nature walks around lake area	46%	3.2 (1.4)
Bird or wildlife watching	41%	3.1 (1.5)
Boating	29%	2.7 (1.5)
Swimming	26%	2.4 (1.5)
Fishing	21%	2.3 (1.4)
Wading, exploring the lakeshore	20%	2.4 (1.3)
ATV or snowmobile use	11%	1.7 (1.2)
Canoeing, kayaking, sailing	9%	1.7 (1.1)

Considerations for Lake Education Programs

One consideration in a lake education program is the use of language. In the focus groups, some specific terms were tested. In Edmonton, the group noted that the word “riparian” not only meant nothing to them, it was a word that would make any discussion uninteresting. By comparison, the word “habitat” was widely understood and was liked.

These words, and others, were tested more quantitatively in the St. Paul meeting, with similar results. At that meeting, the participants rated several technical terms, noting whether they understood them. The results:

- 92% did not understand the term “eutrophic;”
- 75% did not understand the term “riparian;”
- 42% did not understand the term “environmental reserve;” and
- 17% did not understand the term “habitat.”

When asked what kinds of words they used to describe their perceptions of their lake, participants in St. Paul suggested the following:

Perceptions	% Agreed
Weedy	100%
Algae Blooms	100%
Family Time	91%
In Trouble	82%
Peaceful	83%
Receding	75%
Nature	75%
Beauty	75%
Gift from the Creator	67%
Smelly	67%
Recreation	67%
Drought	67%

When asked to describe what “weeds” meant in terms of their lake experience, Edmonton participants noted there were two kinds of weeds; those around the shore (they mentioned thistles predominantly, but also referred to high grass) and those in the lake (they described submergent vegetation). It was noteworthy that participants would use long descriptive statements like “the ropey one with the long leaves that lies on top of the water.” When asked whether they had any specific names for these plants, they all indicated they did not know any names for them.

In the St. Paul focus group, participants described what they meant by “weeds.” Participants then rated each suggestion (1=strongly disagree, 5=strongly agree). Results are noted below:

Description: what is a weed?	% that agreed
Shoreline weeds	92%
Plants below the surface that get stuck on your fish hook	84%
Weeds are located in the lake	75%
Plants support animal life	75%
My kids hate the gross stuff in the water	75%

Description: what is a weed?	% that agreed
Shallow bays are covered with weeds	67%
From weeds you get hives	67%
Stepping on slimy grassy things	67%
If you lose plants in the water, you lose animals too	58%
Weeds are coming out of the water	58%

People often described their personal interaction with aquatic plants as a substitute for any direct description. There was some suggestion of the role that aquatic plants play as habitat for animals, but this was only partially accepted as a concept. Several participants wondered what kind of animals would be attracted to these weeds---leeches?

In the Edmonton focus group, participants strongly agreed that a lake education program was needed and would be valuable. They were then asked how they would like to receive information about their lake and about the management of the shore and adjacent areas. Several had received a brochure sent out by the County of St. Paul with tax notices and thought this was an excellent way to get information to people. Others felt someone should come out and talk to property owners at a community meeting, using pamphlets and booths. One person indicated a strong need to be able to talk to an expert about what she should do.

In St. Paul, participants were encouraged to propose educational methods and then to rate them on a scale of 1 to 5 (1=very ineffective, 5=very effective). Results are noted below:

Educational method	Effectiveness (5=very effective)
Give lakeside property owners input into the rules	4.8
Hold annual beach meetings	4.7
Hold a meeting at each lake in the summertime	4.6
Explain to the people why the rules exist and what you are allowed to do	4.3
Give us a contact number: someone we can call for information	4.3
Send a brochure out with our tax notices	3.9
Put information articles in the local paper	3.2

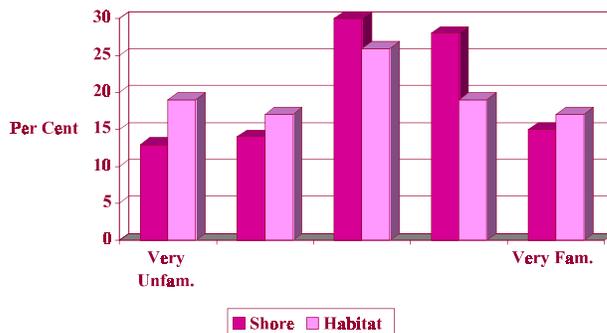
The St. Paul group was less confident of the “brochure with tax notices” strategy. They warned that people are not positively disposed to any correspondence that comes with a tax notice. They perceived that they pay high taxes with no democratic input into the local government.

At the end of the focus group, in both cases, participants noted that “this kind” of meeting was very enjoyable and informative, and would be helpful in the future. They demonstrated during the discussion that they are interested in learning from each other.

Perceptions of Regulations

Respondents to the telephone survey reported a range of familiarity with regulations. This range approximates a bell curve (see Figure 4). However, 90% agreed that these regulations are necessary and helpful.

Figure 4: How familiar are you with regulations?



Respondents provided reasons why regulations were necessary. The main reasons respondents supported regulations are listed below:

- Need rules to prevent abuse by people (39%)*
- Need rules to protect habitat (41%)
- Need better enforcement (7%)
- Need to educate people (6%)

**Percentages refer to the respondents who chose to answer this question and raised this reason.*

Approximately 58% of focus group participants reported that they knew what an Environmental Reserve was.