

Group and Organized Recreation Activities in the Upper Arrow Reservoir Drawdown Zone

March 2002



Photo courtesy of Wendy Beauchamp

Prepared by: Michael W. McPhee, Quadra Planning Consultants Ltd.

Prepared for: BC Hydro Strategic Environmental Initiatives Program
Evaluation of the Ancillary Benefits of Upper Arrow
Reservoir Drawdown Zone Revegetation Project

**Evaluation of Ancillary Benefits of Reservoir Shoreline
Revegetation Project**

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in the
Upper Arrow Reservoir Drawdown Zone**

**Prepared for
Strategic Environmental Initiatives Program
BC Hydro**

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1.0 Introduction

In 1998, BC Hydro through its Strategic Environmental Initiatives Program (SEIP) initiated a three-year project to examine ancillary benefits that have accrued due to revegetation efforts in the Upper Arrow Reservoir drawdown zone, south of Revelstoke dam. The goals of this project are:

- To document and quantify (where possible) the benefits of reservoir shoreline revegetation to fish, wildlife and recreational users.
- To provide recommendations on designing a revegetation strategy that will provide maximum benefits to fish, wildlife and recreational users.

Several component studies have been undertaken as part of the overall project including an analysis of vegetation growth and soils in the revegetated areas of the Upper Arrow reservoir, plant colonization mapping, fish utilization and benthic invertebrate production and bird use of the revegetated areas. This report examines recreation activities in the Upper Arrow Reservoir by recreation clubs in Revelstoke and how these activities may be affected by revegetation efforts. A related report analysed the responses from a 400 persons telephone survey that was directed towards understanding the recreational activities of Revelstoke residents in the Upper Arrow Reservoir as well as their awareness of and attitudes toward the seeding program (BC Hydro Research Services, 2001). Both these reports have been used to prepare a section on recreation use and aesthetic benefits as part of the project overview report on revegetation benefits in the Upper Arrow Reservoir Drawdown Zone.

2.0 Methodology

Personal and telephone interviews were conducted by the author in June 2001 with representatives of 12 recreation clubs in Revelstoke (Appendix A). Clubs were identified through a published list of Recreation Clubs by the City of Revelstoke and by several knowledgeable local residents. The majority of interviews were conducted in person while several were done via telephone. The interviews followed an interview guide (Appendix B). Where appropriate, interviewees were also asked to map areas of the Upper Arrow Reservoir that they used for their particular recreation activities. If a particular group did not have organized recreation activities the interview guide was not used and a more informal discussion usually followed. Representatives of a few groups did not return phone calls and therefore were not interviewed.

3.0 Findings

Organized recreation activities in the Upper Arrow Reservoir include jogging, bird watching, all terrain vehicles riding (ATV), canoeing, kayaking, camping, fishing, hunting, horseback riding and model airplane flying. The majority of organized recreation use in the Upper Arrow

Reservoir is not directly related to revegetation efforts. However, most interviewees stated that the revegetation had resulted in less dust and the area was more pleasant to use as a result of the vegetation growth. For some recreation activities (i.e., bird watching, jogging and waterfowl hunting), those interviewed felt that revegetation had improved these recreation opportunities. Recreation activities are also seasonal and influenced by water levels in the reservoir. As water levels rise, many areas do not become accessible. For some activities, such as paddling and fishing, the rate of participation tends to increase as the water level rises. Key organized activities are discussed below. Figures 1, 2, and 3 show the generalized locations of these activities in the drawdown zone of the Upper Arrow Reservoir.

3.1 Jogging

Members of the Revelstoke Alpine Runners Society use the reservoir on a regular basis (at low water levels) for jogging. There are approximately 26 members in the society and active members run five times a week between April and November. There is often a slush run in December. The areas most often used include the Big Eddy, the area below the ball diamonds and recreation centre, hooking up with the Greenbelt trail system along the Illecillewaet River (Figure 1). According to the President of the club, jogging use of the reservoir area has increased because of the revegetation, mainly due to the general pleasantness of the area and the reduced dust levels.

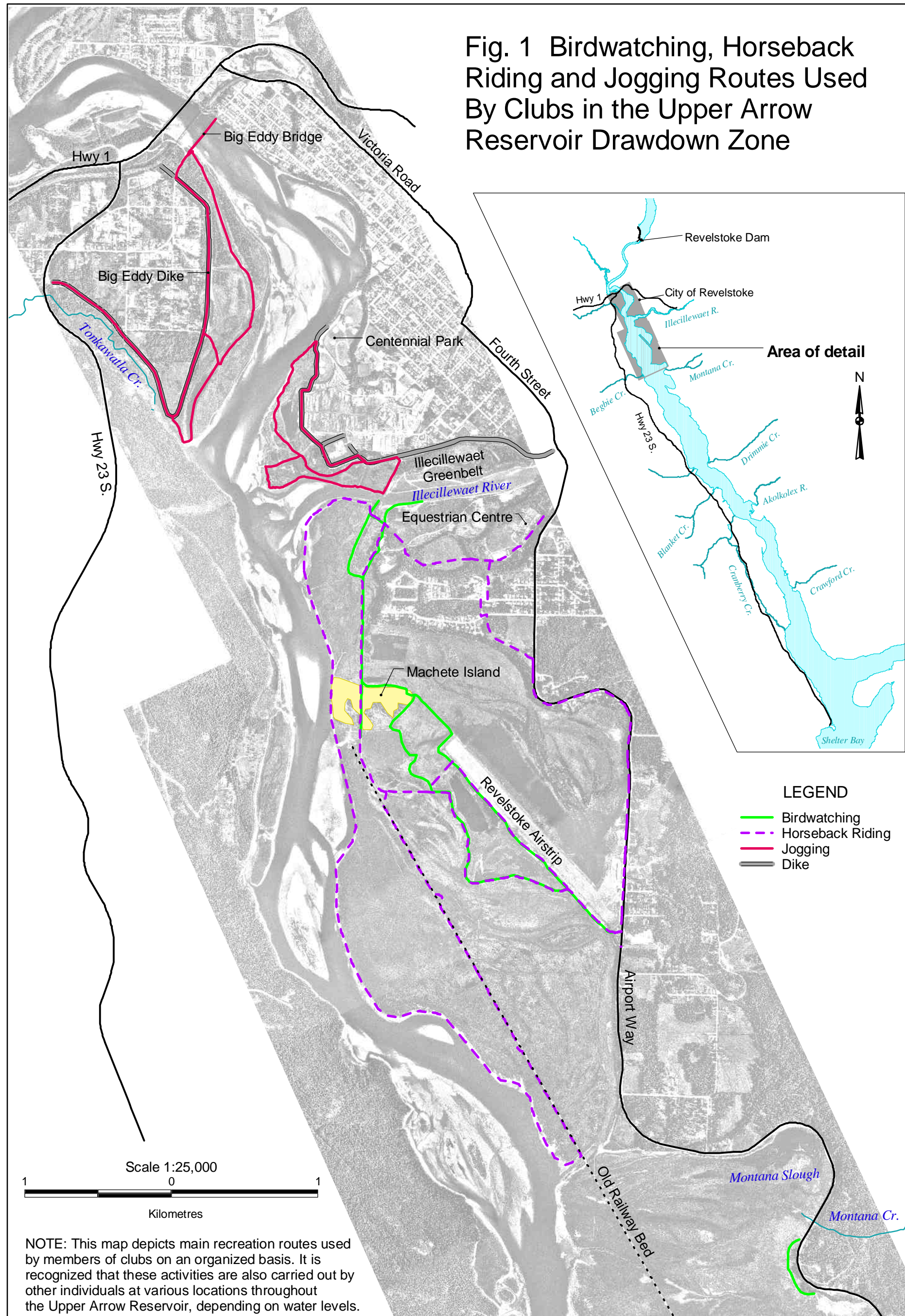
3.2 Bird Watching

The Friends of Mt. Revelstoke and Glacier organize bird watching events in the Upper Arrow Reservoir. The group organizes about two or three bird watching trips per year for its members and the general public (Spring, Summer and Fall). They also run two open houses per year to demonstrate bird banding. The main areas for bird watching are south of the Illecillewaet River to the airport, with Machete Island (north of the airport) being a key area. The Montana Creek area south of the airport is another popular area for bird watching (Figure 1). Those interviewed believe that revegetation has led, in general, to more bird use of the area, which in turn has led to more bird watching overall. Of the 225 members of the Friends of Mt. Revelstoke and Glacier, approximately 20 are serious birders. Those interviewed also commented on the fact there is less dust and a more pleasant environment for viewing birds. Opportunities for bird watching are lessened as the reservoir water level rises, as there are fewer habitats available to birds and access to the popular birding areas is limited.

3.3 Horseback Riding

Horseback riding in the reservoir occurs by members of the Selkirk Saddle Club. From the Club's stables on the south shore of the Illecillewaet River members ride in groups of three or four following road and rail beds south to Montana Slough (Figure 1). They ride three or four times a week in spring, summer and fall and in some winters. As reservoir levels rise, they alter their ride routes. Those interviewed stated that their use of the reservoir has gone up since the

Fig. 1 Birdwatching, Horseback Riding and Jogging Routes Used By Clubs in the Upper Arrow Reservoir Drawdown Zone



revegetation program started, mainly because of reduced dust levels. They often observe wildlife in the reservoir on their rides (birds and deer).

3.4 Fishing

Members of the Revelstoke Fly Fishers and the Revelstoke Rod and Gun Club organize fishing trips in the Upper Arrow Reservoir. Flyfishing is generally done from boat, drifting with the current. Flyfishers prefer full pool, typically from the end of June to late September and the 12 very active members fish an average of two or three times per week, depending upon wind conditions. Popular boat launching sites include "6 mile", "9 mile" and "12 mile" south of the airport and the reservoir from Montana Slough south to Tank Creek is the primary flyfishing area (Figure 2). Shore fishing occurs at a variety of sites along the reservoir, many of which have been targeted for seeding with fall rye by BC Hydro. Shore fishing tends to occur at lower water levels. Those interviewed believe there are more fish available, however, they are uncertain as to whether this is due to revegetation efforts or fertilization of the reservoir.

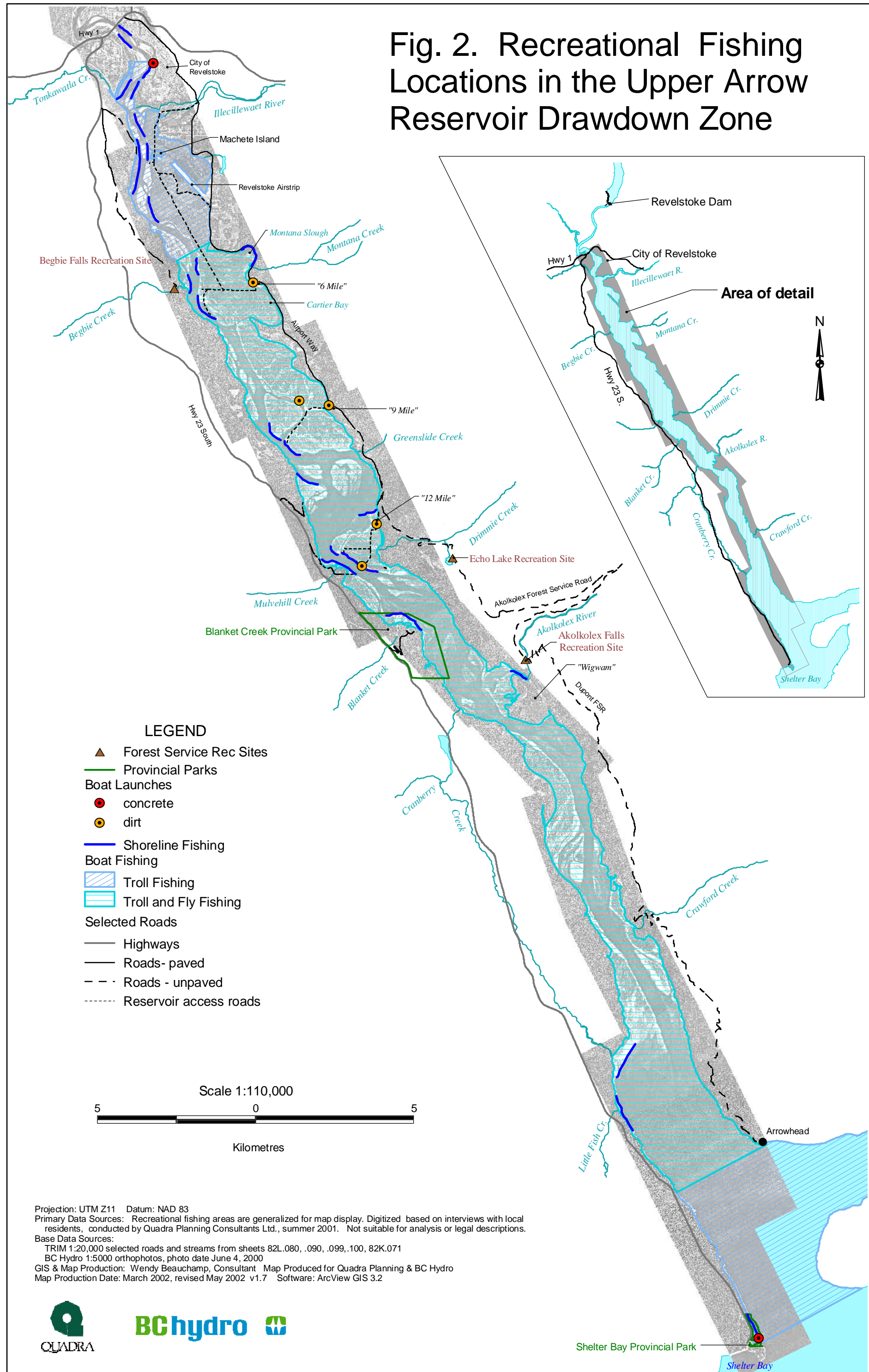
3.5 All Terrain Vehicles

Members of the Revelstoke ATV Club use the Upper Arrow Reservoir when water levels are low. Approximately 6-8 of their 45 members rides on a regular basis (two times per month) during low water levels. The riders follow old road and rail beds in the reservoir and logging roads outside the reservoir between Revelstoke and Arrowhead to the south. According to a member of the local club, ATV use has not increased because of the revegetation program in the reservoir. This is due to the fact that ATV users tend to ride along established roads and trails in the reservoir and not the revegetated areas. Those interviewed stated that they tend to avoid greened up areas and said that riding is much more pleasant because of the revegetation. They said that there is more wildlife throughout the area and less dust. ATV use is increasing province-wide. Many ATV users ride snowmobiles in the winter, but not too often in the reservoir.

3.6 Canoeing and Kayaking

Canoeing and kayaking trips in the Upper Arrow Reservoir are carried out regularly by several groups including Friends of Mt. Revelstoke and Glacier and the Beavers, Cubs and Scouts. The Friends organize an annual canoe/kayak trip down the reservoir on the Victoria Day long weekend. The Beavers, Cubs and Scouts organize a paddle to Blanket Creek Provincial Park each year as well. While the revegetation program has not led to an increase in this activity, it was noted by those interviewed that the vegetation growth has added to the aesthetic enjoyment of using the reservoir.

Fig. 2. Recreational Fishing Locations in the Upper Arrow Reservoir Drawdown Zone



3.7 Hunting

Hunting for waterfowl and larger game (deer, elk, moose and bear) is carried out by members of the Revelstoke Rod and Gun Club. During the fall, hunters hunt two to three times per week. As the reservoir fills, there are fewer opportunities to access popular hunting areas. Montana Slough and Cartier Bay are popular areas for hunting waterfowl while larger game hunting occurs further south in the upper reservoir. Those interviewed believe that the revegetation program has resulted in more game being available and more hunting opportunities. They also stated that there is less dust and a more pleasant environment.

3.8 Model Airplane Flying

The Aero Modellers use a field south of the Airport for flying model airplanes. There are about four or five active members. The members meet on Sundays. The field must be mowed and when the reservoir is at full pool, the field is unavailable for use. Another site outside of the reservoir is being considered for this activity. This activity is not really dependent upon the revegetation in the reservoir except that there is less dust as a result of the seeding program.

3.9 Other Recreation Activities

There are many other recreation activities carried out in the Upper Arrow Reservoir. However, these activities are carried out mainly by individuals on a casual basis as opposed to organized events. Several other recreation organizations were contacted during this study to determine to what extent, if any, there were organized activities in the Upper Arrow reservoir. These included the Revelstoke Cycling Association and the Nordic Ski Club. The Revelstoke Cycling Association is primarily a mountain biking club and while individual members do ride in the reservoir, there are no organized events. The same is true of the Nordic Ski Club, a cross-country skiing group in Revelstoke. People do cross country ski, but according to representatives of the Nordic Ski Club there is no effort to maintain ski trails in the reservoir. Representatives of the Motocross Club (dirt bikers) and Snowmobile Club were not available for an interview.

A study for the Illecillewaet Greenbelt Society (Waters, 2000) also identified a number of recreation uses in the Upper Arrow Reservoir. The most frequently ranked recreation uses included: dog walking, walking/hiking, nature viewing/bird watching, mountain biking, canoeing/kayaking, skiing, and fishing. These are primarily individual, unorganized activities.

A study prepared for the Revelstoke Community Futures Development Corporation (Future Legacy Consulting Group, 2000) examined recreation activities within the Columbia Forest District. Recreation activities identified by the study as occurring in the Upper Arrow Reservoir included: camping (Blanket Creek Provincial Park), canoeing/kayaking (early April-October; with 80-90% of participation by local residents), fishing (flyfishing and spinning/casting from boats and shore; March-April; 80-90% locals), horseback riding (Airport flats; local residents),

hunting (local residents), mountain biking (80% local riders), and power boating (May-October with higher use during summer months; 80-90% are locals; lack of a marina facility in Revelstoke identified as limiting use).

4.0 Conclusions

The Upper Arrow Reservoir is a popular destination for a variety of recreational pursuits. While the majority of recreation use in the Upper Arrow Reservoir is unorganized, several clubs in Revelstoke provide organized events for their members and the public. These include bird watching, jogging, ATV use, fishing, hunting, horseback riding, canoeing/kayaking and model airplane flying.

According to many of those interviewed, the revegetation program has resulted in a more pleasant recreation experience (less dust, more green areas) and some of those interviewed claim that the vegetation growth in the reservoir has led to an increase in birds, fish and other wildlife. In turn, this has led to an increase in recreation opportunities. People are more inclined to use the area for recreation because of these conditions. There is a general perception that the area is more desirable for recreation because of the vegetation growth. It should also be noted that many recreation activities are dependent upon water levels within the reservoir. When at low pool, a number of wildlife habitats are provided as well as trails and roadways. As the reservoir fills, these features are not available for use. However, for some recreation activities such as flyfishing, canoeing and kayaking, opportunities are enhanced.

5.0 References

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Future Legacy Consulting Group. 2000. *Revelstoke Area Recreation Inventory - Columbia Forest District*. Revelstoke Community Futures Development Corporation. Revelstoke, B.C.

R.L.&L. Environmental Services Ltd. et. al. 2000. *Environmental Information Review and Data Gap Analysis. Volume I: Upper Columbia, Mica and Revelstoke Projects. Draft Report*. Prepared for BC Hydro, Water Use Planning. Burnaby. B.C.

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Appendix A: Interview List of Revelstoke Recreation Organizations Representatives

Robyn Abear
Revelstoke Alpine Runners Society

Neil Hodgson
Revelstoke Flyfishers Society

Janice Jarvis
Friends of Mt. Revelstoke and Glacier

Ron LaRoy
Revelstoke ATV Club

Tracy Ludwig
Selkirk Saddle Club

Craig Madlung
Aero Modellers

Clara Maltby
Beavers, Cubs and Scouts

Doreen McGillis
North Columbia Environmental Society

Keith McNab
Revelstoke Cycling Association

Lee Taylor and Brian Gadbois
Revelstoke Rod and Gun Club

Norm Tennant
Nordic Ski Club

Maureen Waddell
Illecillewaet Greenbelt Society

Appendix B: Interview Guide

Upper Arrow Revegetation Benefits Project - Recreation Use Survey - Recreation Organizations

Name:
Organization:
Contact Information:

Questions:

1. What recreational activities do you pursue in the Upper Arrow Reservoir? Please list.
2. What areas of the Upper Arrow Reservoir do you use for your particular recreational activities? (Show on map)
3. How often do you participate in this particular activity (intensity of use; e.g., daily, weekly, etc)?
4. Are you limited in undertaking recreational activities by reservoir levels?
5. How many are in your particular group?
6. Do you believe that the reseeding/revegetation has led to more or less increase (or no change) in your recreational activities or intensity? Why or why not?
7. Has the reseeding affected your quality of life in any way? (e.g., nice views, aesthetics, less dust, etc.)
8. From your perspective, what are the best features about the Upper Arrow reservoir?