

Camp Lake

Recreational Fishery Stock Assessment

2004 Final Report

Project Tracking Number

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EXECUTIVE SUMMARY

A stocking assessment was completed on Camp Lake in Eskers Provincial Park in 2003. The purpose of this assessment was to 1) document the status of this fishery, including changes in fish growth, and 2) to confirm and investigate the level of naturalized recruitment from the descendants of eastern brook trout (EB) stocked before 1997. Camp Lake currently contains both rainbow and eastern brook trout. Standard BC, Resource Inventory and Standards Committee methods were used to complete the surveys. Naturalized brook trout recruits were captured in a gill net and large numbers of spawning and mature brook trout were observed during the course of the survey. Growth rates and body condition of brook trout in Camp Lake were found to be comparable to eastern brook trout sampled in other Omineca Lakes and have remained stable since 1999. However a high catch per unit of effort in 2003 and a decrease in the proportion of the catch greater than 350 mm since the 1999 survey may be indicative of a population that is growing. Similar populations of naturalized eastern brook trout in Kathie and Butterfly lakes in Eskers Park have grown to a point where resources have become limiting and average fish size has declined with associated decreases in sport fishery quality.

Rainbow trout were not captured in Camp Lake in 2003. Rainbow trout stocking in Camp Lake was suspended in 2000 following two surveys with poor net catches of rainbows. After a re-evaluation of this decision based on an opportunistic creel survey and the results of a stock assessment on Kathie Lake, brood requests for rainbows were made to the BC Freshwater Fisheries Society in 2003 and stocking was scheduled for 2004.

Based on the results of the 2003 survey, it is recommended that 1) Camp Lake continue to be stocked with rainbow trout until after it has been re-assessed in fall 2006 or spring 2007, and 2) Camp Lake should be assessed through annual opportunistic creel surveys and periodic stock assessments (3-5 year interval) in an effort to monitor the population of eastern brook trout as well as to monitor the performance of the rainbow fishery.

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INTRODUCTION 1.0

This report presents the results of a recreational fishery stock assessment of Camp Lake in 2003 with comparison to a stock assessments completed in 1991 (Van Schubert, 1991), 1999 and 2000 (Zimmerman, 2000). This assessment was completed on October 2, 2003 by the Ministry of Water Land and Air Protection (M.W.L.A.P.) with funding obtained through the Small Lakes Management and Conservation Initiative (SLMCI). Analysis and reporting of the field results were conducted by the author. Peer review of this report was completed by regional fisheries staff. Inquiries pertaining to this report should be directed to the M.W.L.A.P. in Prince George.

Camp Lake is a closed drainage system (Table 1, Figure 1, Photo 1) located 32 km northwest of Prince George in Eskers Provincial Park. The lake was initially surveyed in 1985 and was determined to be barren of fish based on gill net and minnow trap surveys. The lake was subsequently stocked with rainbow trout (*Oncorhynchus mykiss*) in 1986, 1988 and 1989 and eastern brook trout (*Salvelinus fontinalis*) in 1988-1989 (Appendix 1). The original fishery management objective for Camp Lake was to provide a high use put and take fishery for rainbow trout and brook trout from one to two pounds. (MWLAP Lakes Files). Stocking was suspended at the request of the Parks Branch after 1989 as the result of concerns by Parks staff regarding uncontrolled angler access to the lakes in Eskers Park, which was occurring in response to the stocking program but in advance of the completion of adequate trail infrastructure to support the increased angler use.

After the stocking program ceased, unconfirmed reports were submitted to Fisheries and Parks staff that some of the lakes were continuing to produce brook trout, presumably through natural recruitment. Reports were also received that indicated that fish may have been transferred between lakes, a situation which, if true, would have a direct bearing on the management objectives for each of the lakes initially stocked. In 1993, stocking of Camp Lake was re-initiated and Parks Branch later requested that the stocking program be re-invoked in the rest of Eskers Park, as it was felt that angler use could now be controlled given the state of the park's infrastructure. Stocking of RB was reinitiated in Camp Lake in 1993 on an alternate year basis at a rate of 96 yearlings/ha (Appendix 2. Table 1). This stocking rate was reduced to 58 yearlings/ha in 1995. In 1999 the stocking of Camp Lake was suspended due to concerns that these fish were not surviving (Zimmerman 2000) (Appendix 2. Table 1). Stocking of RB was reinitiated on Camp Lake in 2004 on an alternate year basis at a rate of 96 yearlings/ha (Appendix 2. Table 1) following a re-evaluation of this decision.

Camp Lake was assigned status as a high priority lake for stock assessment in 1999 as only one survey had been completed since the lake had been initially stocked and this survey was completed in 1991, only three years after EB stocking was initiated and five years after RB had been first stocked. A third assessment was completed in 2000 to address quality assurance problems from the 1999 survey (Zimmerman 2000) as well as to confirm the low net catch of RB. The assessment reported here was completed opportunistically in October 2003 to visually assess the extent of spawning by eastern brook trout and to assess the relative abundance and growth of Camp Lake EB and RB.

BACKGROUND 2.0

Camp Lake is one of five stocked lakes that are managed within Eskers Provincial Park, located 32 km northwest of Prince George. Access to all of the lakes in Eskers Park is by foot or by canoe portage through a developed trail system. Fish stocking in Eskers Park coincided with the initial park development in 1987 and was meant to provide a variety of angling opportunities utilizing “put and take” fisheries (BC Parks 1990). Currently within Eskers Park, there are five lakes that are intentionally stocked with sterile, all female triploid (AF3N) eastern brook trout and two that are also stocked with all female (AF) rainbow trout. These lakes include Bow, Butterfly, Byers, Camp and Kathie. The stocking of reproductively capable eastern brook trout prior to 1998 has resulted in several populations of brook trout that successfully shore-spawn within the park.

Eskers Provincial Park currently supports a regionally important recreational fishery during both summer and winter months and Camp Lake supports an important component of that fishery. However, stocking errors and possible illegal transfer of reproductively capable brook trout between the lakes in Eskers Park have compromised future recreational fishing quality and opportunities, as well as conservation of biodiversity objectives in adjacent unstocked lakes in the Park.

METHODS 3.0

A 91.4 m long, 2.4 m deep floating monofilament gill net with experimental mesh sizes was set in the north end of the main body of Camp Lake (Figure 1) on October 3, 2003 at 14:30 hrs and retrieved on October 3 at 18:10 hrs for a total soak time of four hours. The net was extended south-east on the surface from the shore near the first constriction in the lake along the three meter contour (Figure 2). An angling sample was also collected while the net was soaking; total angling effort by two people was approximately 6 hours. All trout collected were sampled for fork length (mm), weight (g), sex, and maturity. Weights were measured to the nearest 10 g and lengths were measured to the nearest 1 mm. Otoliths were collected from all brook trout for age structure analyses by Birkenhead Scale Analyses (Lone Butte, BC). A qualitative visual assessment of potential spawning habitat was also completed during this survey.

RESULTS 4.0

Catch summary 4.1

Only brook trout (EB) were captured in the gillnet sampling and angling events in 2003 (Table 2, Table 3, Figure 3, Figure 4) and the raw assessment data for all sample years can be found in Appendix 3. Angling catch per unit effort for EB in 2003 was high at 8.0 EB/rod-hour.

The EB gillnet catch was strongly biased towards males with 26% females and 51% males, and 23% unknown. At the time of sampling, 61% of the fish were in a late

maturity state near or past spawning with 21% of sample being ready to spawn (Figure 5). Thirty percent of the EB sample was immature. In the 2003 catch 65.5% of the two-year-old, 91% of the three-year-old and 100% of the four-year-old EB were mature (Table 3). Eighty percent of the mature two-year-old EB were male.

Length Frequency, Condition and Growth 4.2

The EB gillnet catch ranged in length from 104 mm to 373 mm ($\bar{x} = 266$ mm) (Table 3, Figure 3) and the EB angling catch ranged in length from 201 mm to 360 mm ($\bar{x} = 294$ mm).

The mean body condition of EB in 2003 (1.21) was slightly higher compared with fish sampled from previous surveys in 1999 and 2000 (1.12 and 1.19). For the three of the four sample years EB weight increased as power of length according to the following equations (Figure 6):

$$\begin{aligned} 2003 \ W &= .000007L^{3.111} \quad (\mathbf{R^2=0.99}) \\ 2000 \ W &= .0004L^{2.6484} \quad (\mathbf{R^2=0.92}) \\ 1999 \ W &= .00004L^{2.7579} \quad (\mathbf{R^2=0.67}) \end{aligned}$$

The exponent value in the growth equation can be used as a relative measure of fish condition. A value of three indicates isometric growth (growth without change in body shape). Values less than three indicate a drop in mass relative length as the fish grows (negative allometric growth).

Visual Spawner and Spawning Habitat Survey 4.2.3

The 2003 stocking assessment was completed in early October 2003 during the time period when EB spawning activity would likely have been at its highest intensity. Extensive schools of mature EB exhibiting spawning colour and morphology were observed cruising the littoral zone of the lake, frequently in less than one meter of water. Redd locations as well as sites where digging had occurred were also observed in the near shore areas throughout the lake (Figure 1). In one area located near the southern end of Camp Lake an extensive congregation of two to three hundred spawning EB was observed. The spawning area was located in about three meters of water and was estimated to cover an area of about 120 m². With the exception of the immediate spawning area, the substrate was covered with a thick layer of aquatic macrophytes (0.5 to 1m depth). Most of the fish caught in the angling sample were captured in the vicinity of this site.

DISCUSSION 5.0

Eastern Brook Trout 5.1

The stocking of reproductively viable brook trout in Camp Lake from 1991-1997 has resulted in a naturalized brook trout population. Growth rates and body condition have remained relatively stable between sample years however, and the average size in the gillnet catch has declined.

Catch per unit effort (CPUE) data for EB in Camp Lake increased between gillnet sampling events, ranging from 0.98-15.41 fish per net hour (Table 2), which may indicate a growing population of EB. This variability is however difficult to interpret as the result of inconsistencies in the timing of sampling events. Typically gillnet catch success is dependant upon a variety of factors related to seasonal variation in preferred habitat at the time of the surveys. The 2003 net set (Figure 2) was located in a different area than the previous two surveys and this along with the seasonal timing of the survey, may have resulted in a higher net catch.

Maximum size of EB in the gill net catch has declined since 1999 (Figure 3) and the percentage of fish larger than 350 mm was only 3.7% in 2003 compared to 37% in 1999 and 70% 2000. Samples sizes in the 1999 (n=27) and 2000 (n=10) catch were much smaller than in 2003 (n=57), which may have biased the results as age-two or younger fish were not captured. Camp Lake is also popular winter fishery and the apparent decline in the number of larger fish in the sample may also be evidence of increased angling effort since the surveys in 1999-2000. Increased angling effort and exploitation would normally result in fewer, older fish in the population. Additional gillnet as well as creel surveys would be required in future to determine if this is the case.

The mean length of three-year-old Camp Lake EB ranged from 271-334 mm across sample years (Table 3, Figure 9) and has apparently increased since 1991. Interpretation of the 1991 results is however confounded by a much higher stocking rate for both rainbow and eastern trout during that period. An equivalent of 770 fish/ha was stocked into Camp Lake in 1989 (Appendix 2 Table 1) versus a range of 135-154 fish/ha in the late 1990's. The higher stocking rate in the late 1980's likely resulted in a substantial decrease in the growth rates of the fish that were captured in 1991 survey.

Body condition of Camp Lake EB has remained relatively stable between sample years (Table 4) suggesting that intraspecific competition for food resources is not resulting in poor growth. In fact, the exponent for the EB length-weight relationship was 3.11 in 2003 and was comparable to fish sampled from two other EB lakes in the Omineca Region that are consistently excellent performers. For comparison, samples of EB from Shere and Ferguson lakes from two stock assessments in 1998-99, exhibited slightly positive allometric growth, with exponent values of 3.128 and 3.097 respectively (Zimmerman 1999a, 1999b). In contrast EB samples from Kathie and Butterfly lakes in 2003 exhibited negative allometric growth and fish populations resident in both of those lakes appear to be expanding (Williamson 2004a, 2004b).

Based on the visual surveys for spawning habitat, it is likely that recruitment in Camp Lake is not limited by the availability of spawning habitat. Most of the shoreline in Camp Lake is composed of a loose mixture of gravels and sands overlain with a thin layer of organic material (Photo 2). There are few areas of overland drainage in Eskers Park and Camp Lake has no tributary or outlet streams. As a result the drainage of precipitation from Camp Lake is subsurface which, in combination with the porous shoreline substrate, provides for extensive, high-quality shore-spawning habitat. It is however unclear how much of this shore habitat allows for successful egg and larval incubation.

Despite the satisfactory performance of the fishery in Camp Lake in terms of fish growth, the presence of naturalized brook trout populations in Camp Lake presents hazards in terms of conservation of biodiversity and sport fishing quality if fish are illegally transferred between lakes within the Park. At present, the risk of fish transfer from Camp Lake is lower than for other lakes in Eskers Park such as Butterfly or Kathie lakes (Williamson 2004a, 2004 b). Within Eskers Park, the most probable location for illegal fish transfer would be along the established trail system. Considering ease of access, two small lakes and are accessible by trail and are within 300 m of Camp Lake. The lake at the south end of Camp Lake is small and shallow and likely would not support a fish population through winter. The highest probability for successful transfer would be to Redstart Lake which is located at the north end of Camp Lake. Redstart Lake is not presently stocked, although it was not fishless in 2003; one mature female EB was captured during the course of the 2003 surveys (Williamson 2004c). Compared with the trails between other lakes in Eskers Park, the trail to Redstart Lake is more challenging to traverse; the hike involves an immediate climb greater than twenty meters in elevation over a large esker, a 300 meter walk and then a similar descent to Redstart Lake. The probability that anglers would move a substantial number of fish from Camp Lake to Restart Lake is considered low due to the considerable effort required to capture and carry fish between lakes.

Although the risk of fish transfer from Camp Lake is considered low, options to reduce the hazards to biodiversity and fishing quality in the park could include

- 1) Increase in brook trout quotas to reduce wild naturalized population sizes;
- 2) Eradication of EB through the use of gillnets or trapnets in the smaller lakes (ex Butterfly, Redstart and Kinglet);
- 3) Park signage explaining the risks and hazards.

At a minimum a communication plan including signage should be established to inform anglers in the park of the hazards of fish transfer to biodiversity and sport fishing quality as well as the legal consequences of transferring fish.

At present EB population levels, Camp Lake appears to be capable of providing a high yield brook trout fishery, consistent with the original management objective established

in 1997 (BC Parks, 1997). However the increases in net catch per unit of effort and the declines in the proportion of the catch greater than 350 mm in 2003 may be of concern and these observations are consistent with observation from Kathie and Butterfly lakes where the populations appear to be growing (Williamson 2004a, 2004b). Monitoring of this fishery will be therefore be required to maintain the fishing quality as well as to explain patterns of angling effort so that staff can adequately plan for and manage park use.

Rainbow Trout 5.2

In 1999 and 2000 only one rainbow trout was captured in Camp Lake. Due to concerns over stock performance, the stocking of rainbow trout was temporarily suspended (Zimmerman, 2000). At the time of the 1999 and 2000 gillnet sampling events, water temperatures in the Camp Lake were near 20 Celsius, as a result, rainbow trout may have been occupying different areas of habitat than were sampled. A variety of other factors including, differential habitat selection, interspecific competition by direct predation, resource competition or interference competition with EB may be responsible for the low catch of rainbows in 1999 and 2000. In spring of 2001 it was later determined through an angling sample that rainbow trout were performing adequately in Camp Lake and were contributing to the sport fishery (Photo 3). Anecdotal reports from anglers and Parks staff also suggested that the rainbow fishery was attracting anglers to Camp Lake.

Results of the 2000 Kathie Lake assessment were similar to Camp Lake in that only one rainbow was captured. It was later determined during the 2003 stock assessment on Kathie Lake that the stocked rainbow trout were surviving and growing well (Williamson 2004b). The 2003 sample as well as preliminary unpublished creel data from the winter 2003/2004 indicate that there are sufficient numbers of rainbow trout in Kathie Lake to provide a fishery attractive to anglers. As a result of Kathie Lake surveys as well as the angling assessment in 2002, brood requests for 2500 yearling rainbow trout were made in 2003 and 2004 for Camp Lake (Appendix Table 2). These fish were scheduled for stocking in 2004 and 2005.

In summary, for the rainbow fishery in Camp Lake it is recommended that:

- 1) A stocking assessment at Camp should be completed in fall 2006 or spring 2007 and then at a three to five-year interval to assess the relative growth and survival of the rainbow stocked in 2004 and subsequent years; and
- 2) Opportunistic creel surveys should be completed to assess the contribution of these fish to the fishery.

RECOMMENDATIONS FOR FUTURE MANAGEMENT 6.0

1. Complete a stock assessment in fall 2006 or spring 2007 to evaluate the relative growth and performance of stocked rainbow trout.
2. Continue monitoring the EB fishery and population levels through annual opportunistic creel surveys and stocking assessments at a three year interval.
3. Change the brood stock requests for RB to include a preference for 20 g yearlings to reduce the likelihood that predation by brook trout is reducing post stocking survival of RB.
4. Complete an updated angling management and stocking plan for all Eskers Lakes that reflects the presence of naturalized brook trout in Eskers Park and balances the need for conservation while providing for quality recreational opportunities.
5. Establish a communication plan to reduce the incidence of fish transfer in the park.
6. If populations of naturalized EB increase in Camp Lake with a resulting decrease in fishing quality, management options such as: 1) increases to EB quotas, and/or 2) eradication methods (ex. removal by gill nets or trap-nets) could be considered to protect biodiversity and fishery values.

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TABLES 8.0

Table 1. Attributes of Camp Lake.*

Attributes	
UTM Coordinates	10.488204.5990808
Nearest Center	33 km NW of Prince George
Waterbody identifier	01286STUR
Watershed Code	182-209700-95100
Water surface area	26 Ha
Littoral area (above 6 m contour)	13.2 Ha
Shoreline perimeter	5040 m
Maximum depth	24 m
Volume	1,911,000 m ³
Mean depth	7 m
Elevation	755 m
T.D.S.	116 mg/L
Morphoedaphic index	16

*from Philip (1985)

Table 2. Catch Summary for the years 1991-2003; CPUE- Catch per unit effort; AF3N- all female triploid.

Gillnet Year	Brook Trout		Rainbow Trout		Set Time	
	Catch	Net CPUE	Catch	Net CPUE	(Hours)	Set Date
2003	57	15.41	0	0.00	3.7	03-Oct-03
2000	10	5.00	1	0.50	2	10-Aug-00
1999	27	0.98	0	0.00	27.5	10-Aug-99
1991	8	2.00	15	3.75	4	24-May-91

Angling Year	Brook Trout		Rainbow Trout		Angling	
	Catch	Rod CPUE	Catch	Rod CPUE	(Hours)	Date
2003	48	8.00	0	0.00	6	03-Oct-03

Table 3. Mean length, weight and condition for EB captured in all sample years.

Brook Trout (Gill Net)		Length (mm)				Weight (g)				Condition (k)				
Sample Year	Sample	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
	Size													
2003	54	266	104	373	81.1	289	12	560	167.1	1.21	0.87	1.43	0.13	0.02
2000	10	381	321	425	30.3	666	400	880	136.0	1.19	1.08	1.35	0.08	0.01
1999	27	337	240	383	34.4	434	80	600	100.6	1.12	0.51	1.74	0.22	0.05
1991	8	271	250	300	19.6	265	180	360	69.7	1.30	1.12	1.59	0.15	0.02
Brook trout (Angling)		Length (mm)				Weight (g)				Condition (k)				
Sample Year	Sample	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
	Size													
2003	48	294	201	360	39.8	339	129	606	122.1	1.28	0.99	1.63	0.13	0.02

Table 4. Physical attributes of brook trout and rainbow trout sampled in Camp Lake 1991-2003 listed by age class. Note: sample year “2003” data includes all fish captured; “2003GN” only included fish sampled in the gillnet set.

Brook Trout		Length (mm)				Weight (g)				Condition (k)					
Sample Year	Age	Sample Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
	2003														
2003	2	29	258	201	295	21.3	226	129	320	50.6	1.29	1.15	1.63	0.1	0.01
1999	2	2	245	240	250	7.1	160	80	240	113.1	1.12	0.51	1.74	0.9	0.75
2003	3	44	319	287	360	14.9	404	264	556	54.0	1.2	0.9	1.6	0.1	0.02
2000	3	2	334	321	346	17.7	450	400	500	70.7	1.21	1.21	1.21	0.0	0.00
1999	3	11	330	305	363	17.7	425	350	505	46.2	1.18	1.06	1.34	0.1	0.01
1991	3	8	271	250	300	19.6	265	180	360	69.7	1.30	1.12	1.59	0.1	0.02
2003	4	8	344	320	373	16.9	498	402	606	68.6	1.2	1.0	1.4	0.1	0.02
2000	4	7	394	370	425	19.6	724	640	880	85.4	1.19	1.08	1.35	0.1	0.01
	4	12	354	320	383	20.9	475	340	600	64.8	1.08	0.86	1.40	0.2	0.03
2000	5	1	385				690				1.21				
1999	6	1	355				500				1.12				
2003GN	1	7	122	104	165	20.9	21	12	40	9.4	1.1	0.9	1.2	0.1	0.01
2003GN	2	9	261	245	278	10.1	232	199	290	32.5	1.3	1.2	1.4	0.1	0.01
2003GN	3	22	317	287	350	14.1	392	264	459	48.2	1.2	0.9	1.4	0.1	0.01
2003GN	4	6	343	320	373	19.3	483	402	560	62.4	1.2	1.0	1.4	0.1	0.02
Rainbow Trout		Length (mm)				Weight (g)				Condition (k)					
Sample Year	Age	Sample Size	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Mean	Min	Max	StdDev	Var
	1991														
1991	3	11	275	230	350	40.8	212	110	420	102.5	1.0	0.7	1.1	0.1	0.01
2000	3	1	410				700				1.0				
1991	4	3	290	270	320	26.5	237	200	300	55.1	1.0	0.9	1.0	0.1	0.00

FIGURES 9.0

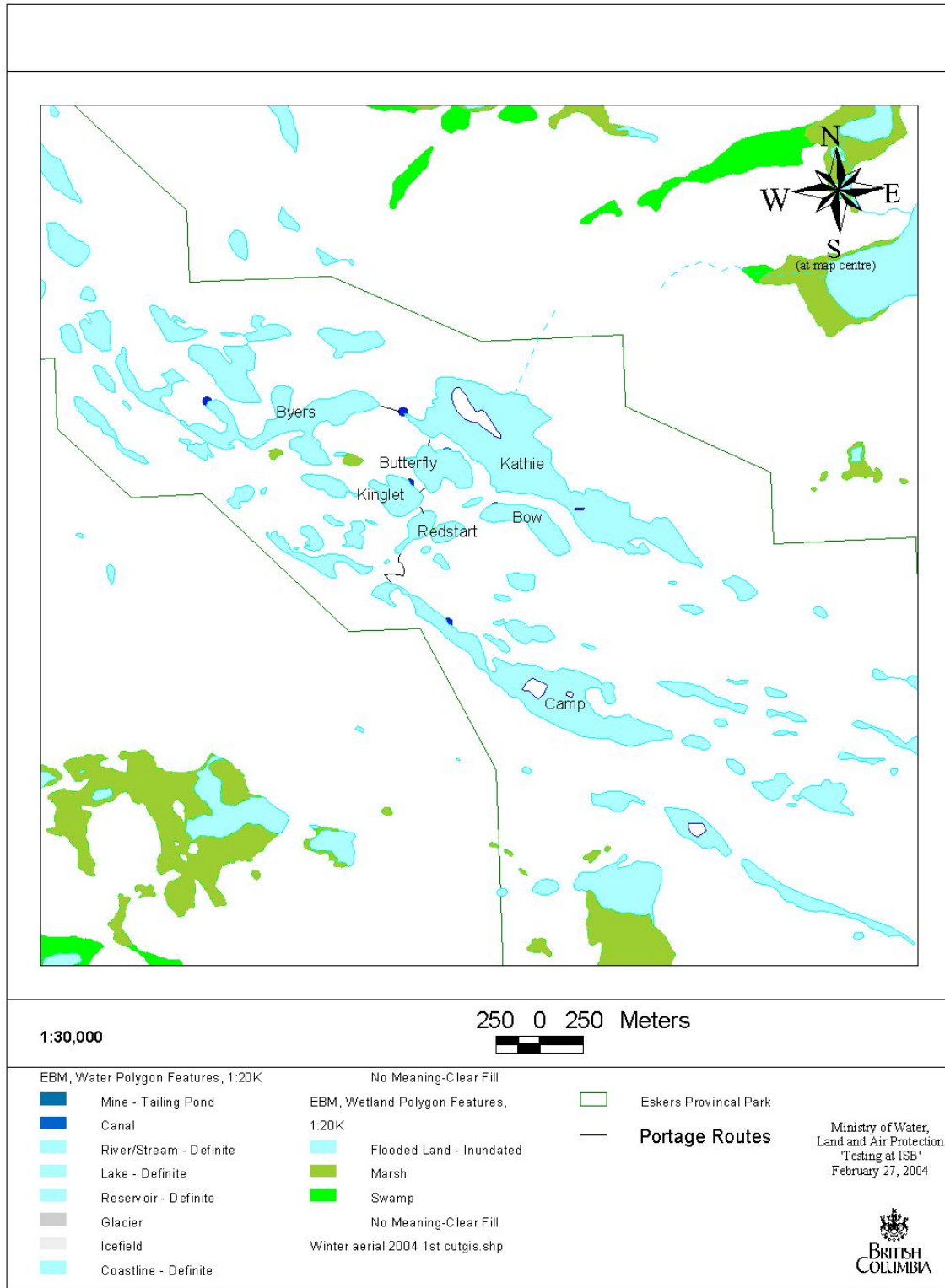


Figure 1. Map of Eskers Provincial Park showing lakes that were included in the 2003 survey (Note Byers Lake was not assessed in 2003).

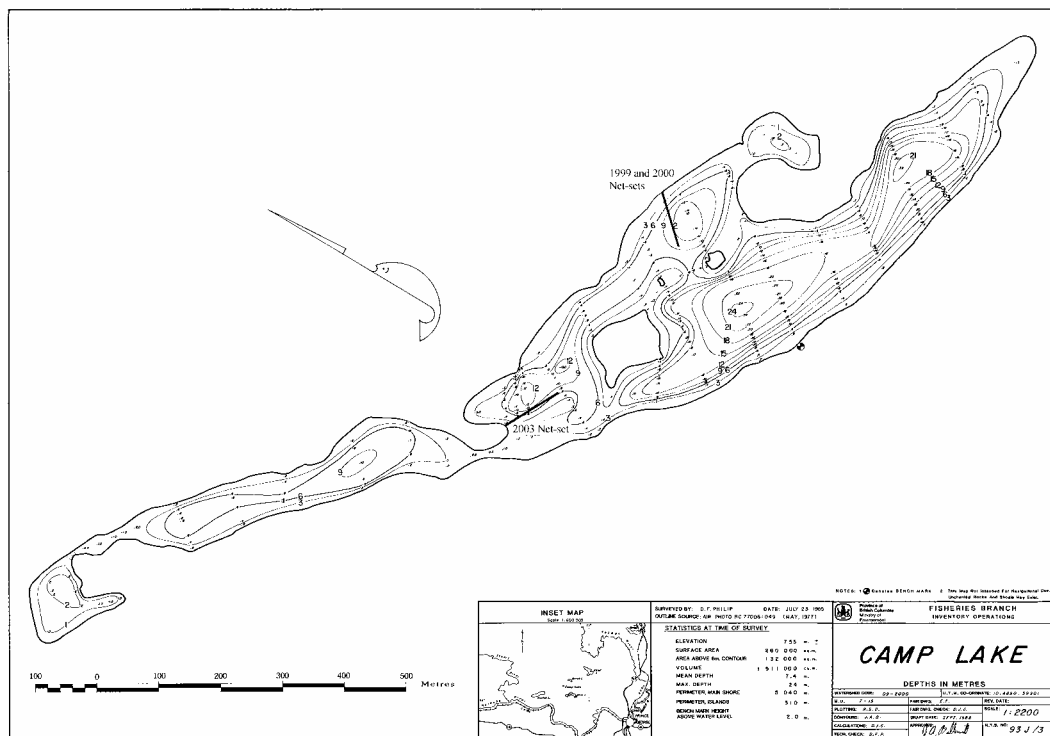


Figure 2. Bathymetric map of Camp Lake showing the sites used for gill net sets between 1999 and 2003. (see Appendix 1 Figure 1 for full size image).

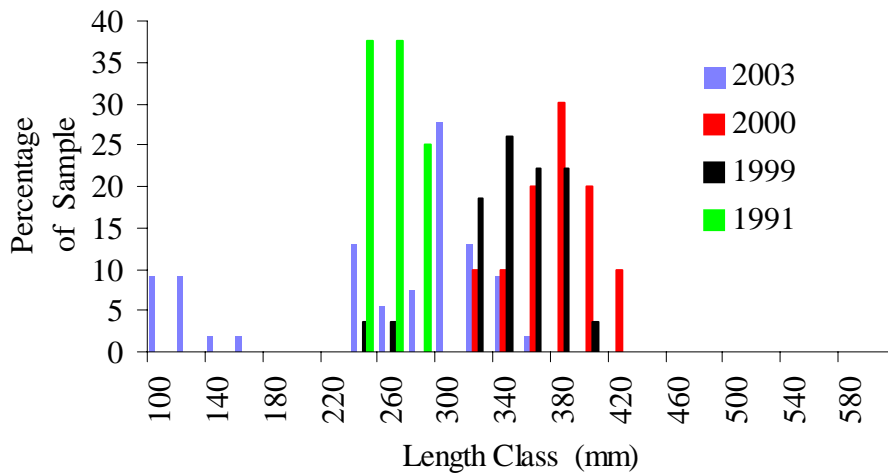


Figure 3. Length frequency distribution for the 1991-2003 gill net samples for Camp Lake Eastern Brook trout (EB). 2003, n=57; 2000, n=10; 1999, n=27; 1991, n=8.

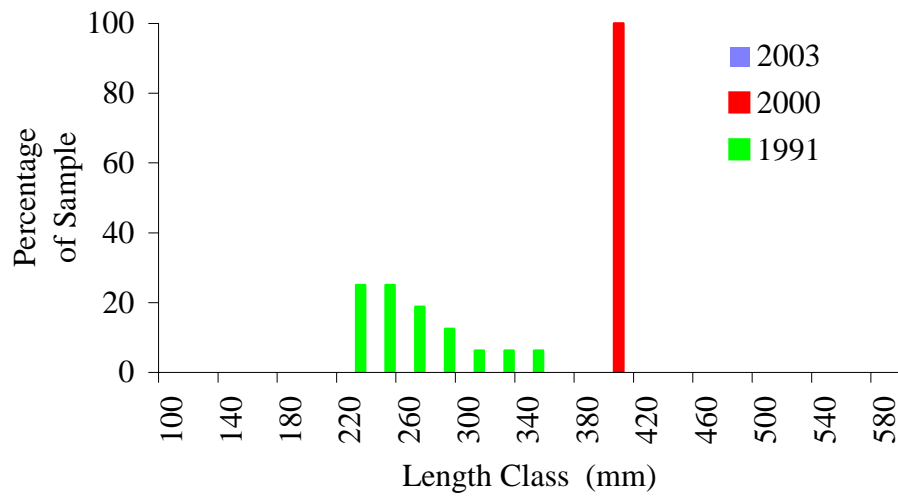


Figure 4. Length frequency distribution for the 1991-2003 gill net samples for Camp Lake Rainbow Trout (RB). 2000, n=1; 1991, n=15.

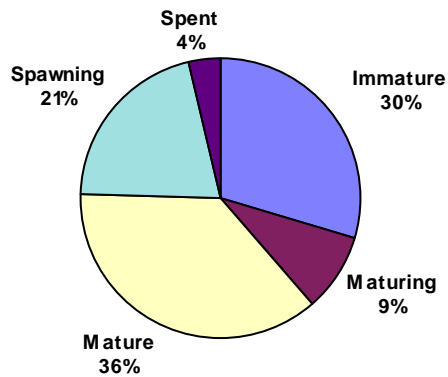


Figure 5. Maturity states of EB captured in 2003 listed by percent.

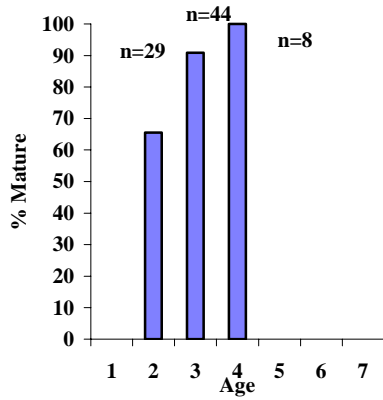


Figure 6. Percentage of mature EB in each age class for 2003.

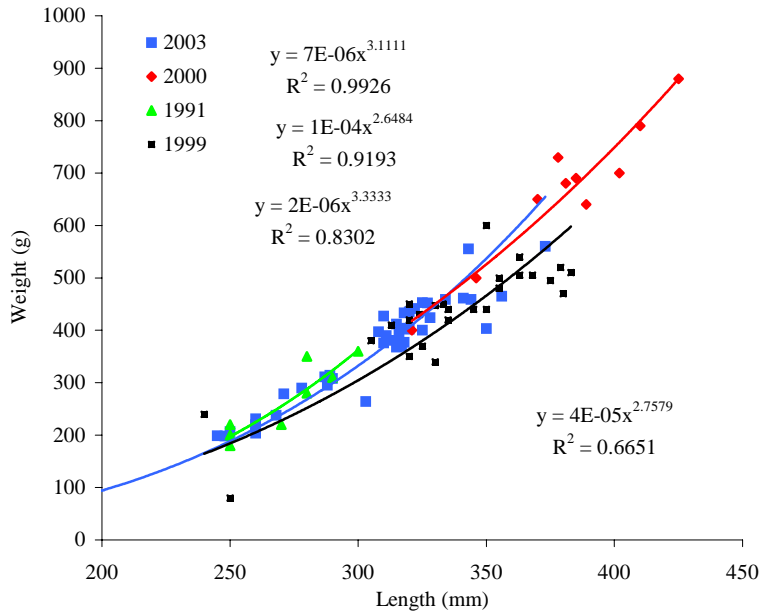


Figure 7. Length weight relationship for Camp Lake brook trout (EB) from 1991 to 2003.

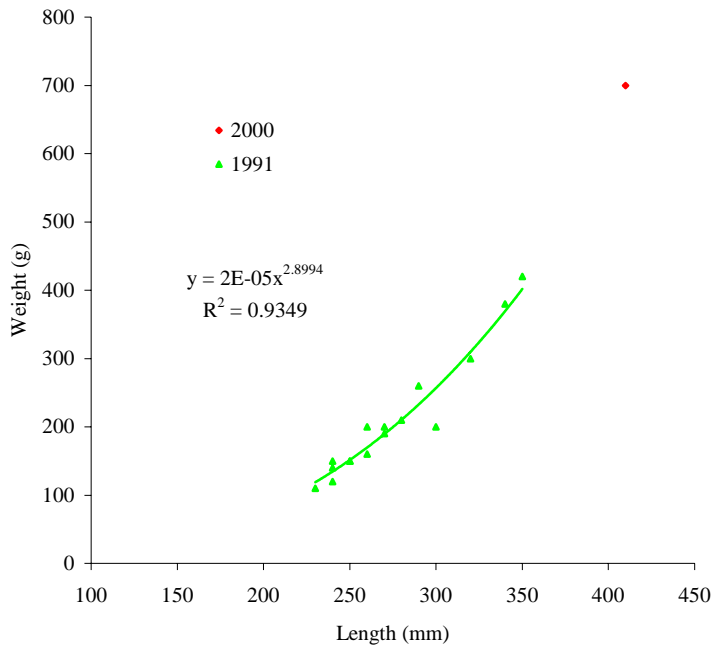


Figure 8. Length weight relationship for Camp Lake rainbow trout (RB) from 1991 and 2000.

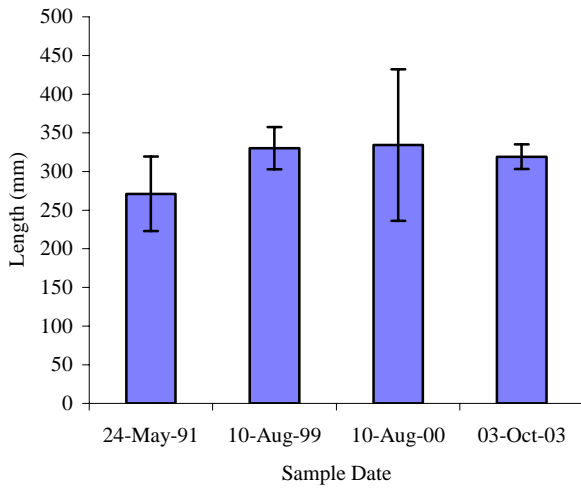


Figure 9. Mean length at age-three for EB, for all sample years with 95% confidence limits.

Photos 10.0



Photo 1. View of Camp Lake looking north-west (Phillip, 1985).



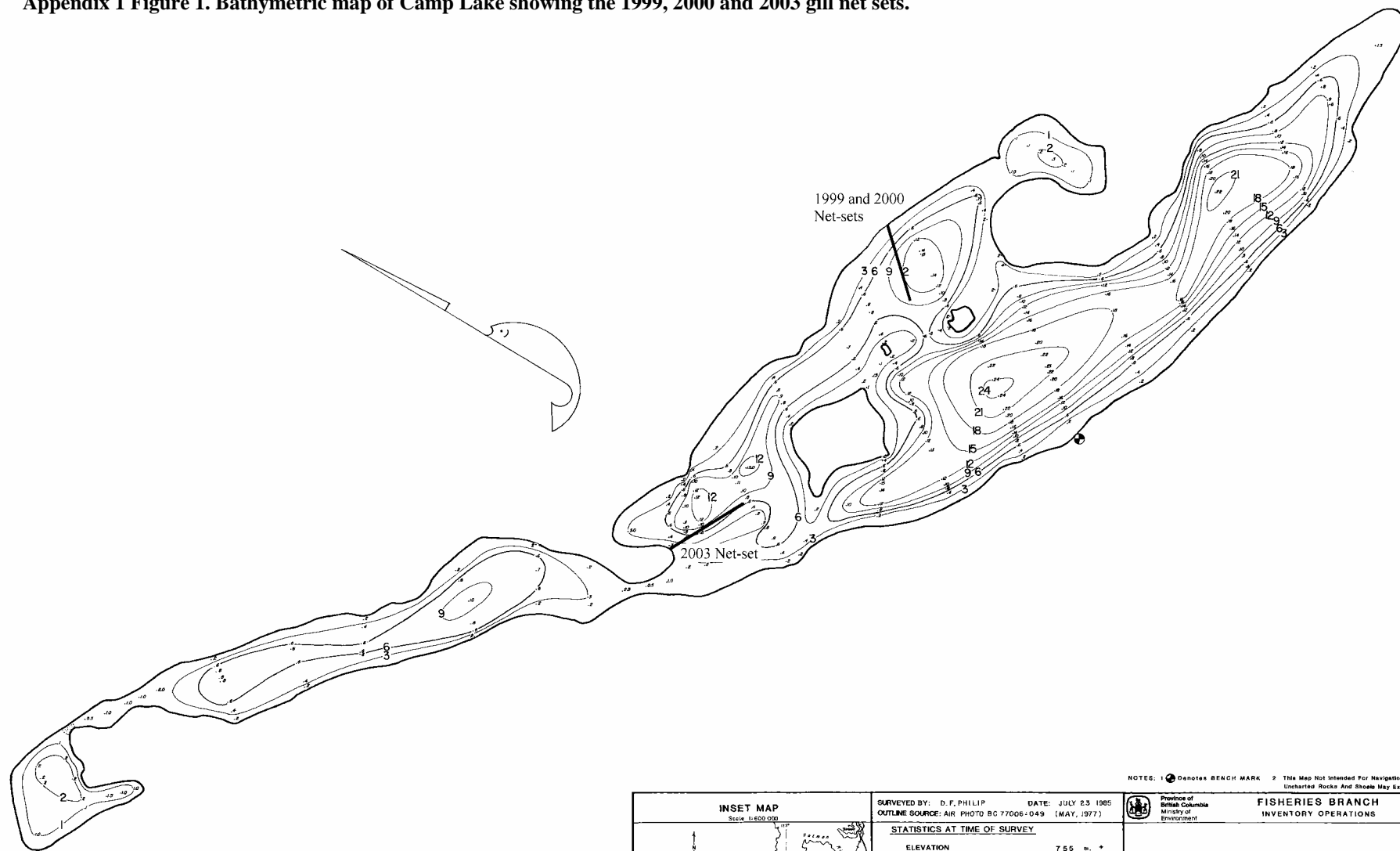
Photo 2. Typical shoreline observed in Camp Lake (Phillip, 1985).



Photo 3. Rainbow trout captured by Andrew Wilson (MWLAP, Fish Biologist) in Camp Lake in spring, 2002.

APPENDICES 10.0

Appendix 1 Figure 1. Bathymetric map of Camp Lake showing the 1999, 2000 and 2003 gill net sets.



NOTES: 1 Denotes BENCH MARK 2 This Map Not Intended For Navigational Use. Uncharted Rocks And Shoals May Exist.

INSET MAP Scale 1:600,000 	SURVEYED BY: D.F. PHILIP DATE: JULY 23 1985 OUTLINE SOURCE: AIR PHOTO BC 77006:049 (MAY, 1977)	Province of British Columbia Ministry of Environment	FISHERIES BRANCH INVENTORY OPERATIONS
	STATISTICS AT TIME OF SURVEY ELEVATION 7.55 m. ± SURFACE AREA 260 000 sq.m. AREA ABOVE 6m. CONTOUR 132 000 sq.m. VOLUME 1 911 000 cu.m. MEAN DEPTH 7.4 m. MAX. DEPTH 24 m. PERIMETER, MAIN SHORE 5 040 m. PERIMETER, ISLANDS 510 m. BENCH MARK HEIGHT ABOVE WATER LEVEL 2.0 m.	<h1>CAMP LAKE</h1> <p>DEPTHS IN METRES</p>	

Appendix 2 Table 1. Stocking history and recent brood requests for Camp Lake.

Release Date	Gazetted Name	Alias	Region	Species Name	Fish Count	Stocking Density (fish/Ha)	Stock	Mark	Average Size (g)	Life Cycle Stage	Watershed Code	Waterbody Identifier
Requested for												
2005	Camp Lake		7A	Rainbow Trout	2500	96	PENNASK BEAV AF		20 g (Req)	Yearling	182-209700-95100	01286STUR
Requested for												
2004	Camp Lake		7A	Rainbow Trout	2500	96	PENNASK BEAV AF			Yearling	182-209700-95100	01286STUR
5-Jun-99	Camp Lake		7A	Rainbow Trout	1500	58	PENNASK BEAV AF		15.16	Yearling	182-209700-95100	01286STUR
17-Jun-97	Camp Lake		7A	Rainbow Trout	1500	58	BADGER TUNKWA		8.33	Yearling	182-209700-95100	01286STUR
26-May-95	Camp Lake		7A	Rainbow Trout	1500	58	PENNASK AF		18.52	Yearling	182-209700-95100	01286STUR
1-Jun-93	Camp Lake		7A	Rainbow Trout	2500	96	PENNASK AF		20	Yearling	182-209700-95100	01286STUR
1-Jun-89	Camp Lake		7A	Rainbow Trout	10000	385	TUNKWA		10.3	Yearling	182-209700-95100	01286STUR
1-Aug-87	Camp Lake		7A	Rainbow Trout	5000	192	DRAGON		0.9	Unknown	182-209700-95100	01286STUR
1-Aug-86	Camp Lake		7A	Rainbow Trout	5000	192	TUNKWA		0.6	Unknown	182-209700-95100	01286STUR
Requested for												
2005	Camp Lake		7A	Brook Trout	1500	58	AYLMER AF3N	Adipose/Right Maxillary		Yearling	182-209700-95100	01286STUR
11-Jun-03	Camp Lake		7A	Brook Trout	2500	96	AYLMER AF3N		6.59	Yearling	182-209700-95100	01286STUR
4-Jun-01	Camp Lake		7A	Brook Trout	2500	96	AYLMER AF3N		7.84	Yearling	182-209700-95100	01286STUR
5-Jun-99	Camp Lake		7A	Brook Trout	2500	96	AYLMER AF3N		5.9	Yearling	182-209700-95100	01286STUR
17-Jun-97	Camp Lake		7A	Brook Trout	2000	77	AYLMER		3.01	Yearling	182-209700-95100	01286STUR
10-Jun-95	Camp Lake		7A	Brook Trout	2500	96	AYLMER		4.02	Yearling	182-209700-95100	01286STUR
12-Jun-93	Camp Lake		7A	Brook Trout	2500	96	AYLMER		4.2	Yearling	182-209700-95100	01286STUR
1-Jun-89	Camp Lake		7A	Brook Trout	10000	385	AYLMER		2.5	Fry	182-209700-95100	01286STUR
1-Jun-88	Camp Lake		7A	Brook Trout	10000	385	AYLMER		2.7	Unknown	182-209700-95100	01286STUR

Appendix 3 Table 1. Stock assessment data for Camp Lake eastern brook trout in 2003 (Gillnet sample).

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp	106	GN1	EB	1	125	21	1.1	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	107	GN1	EB	1	125	23	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	108	GN1	EB	1	165	40	0.9	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	109	GN1	EB					1+	o	1		Unk	im		length weight en	03-Oct-03
Camp	110	GN1	EB	1	118	20	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	111	GN1	EB	1	111	16.6	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	114	GN1	EB	1	105	13	1.1	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	119	GN1	EB	1	104	12	1.1	1+	o	2		Unk	im	broken	gillnet	03-Oct-03
Camp	71	GN1	EB	2	278	290	1.3	2+	o	1	n	M	sp		gillnet	03-Oct-03
Camp	75	GN1	EB	2	260	204	1.2	2+	o	1		M	m		gillnet	03-Oct-03
Camp	79	GN1	EB	2	260	218	1.2	2+	o	1		M	mt		gillnet	03-Oct-03
Camp	84	GN1	EB	2	245	199	1.4	2+	o	1		M	m		gillnet	03-Oct-03
Camp	87	GN1	EB	2	250	207	1.3	2+	o	1		M	mt		gillnet	03-Oct-03
Camp	88	GN1	EB	2	271	279	1.4	2+	o	1		M	m		gillnet	03-Oct-03
Camp	100	GN1	EB	2	268	238	1.2	2+	o	1		m	m		gillnet	03-Oct-03
Camp	104	GN1	EB	2	260	231	1.3	2+	o	1		f	mt		gillnet	03-Oct-03
Camp	115	GN1	EB	2	260	220	1.3	2+	o	1		m	m		gillnet	03-Oct-03
Camp	54	GN1	EB					3+	o	1	n	M	mt		length weight en	03-Oct-03
Camp	63	GN1	EB	3	310	376	1.3	3+	o	1	N	M	m		gillnet	03-Oct-03
Camp	64	GN1	EB	3	318	433	1.3	3+	o	1	n	M	m		gillnet	03-Oct-03
Camp	65	GN1	EB	3	350	403	0.9	3+	o	1	n	F	m		gillnet	03-Oct-03
Camp	67	GN1	EB	3	317	404	1.3	3+	o	2	n	F	sp	broken; age estimate	gillnet	03-Oct-03
Camp	68	GN1	EB	3	314	381	1.2	3+	o	2	n	F	m	broken	gillnet	03-Oct-03
Camp	70	GN1	EB	3	287	311	1.3	3+	o	1	N	M	im		gillnet	03-Oct-03
Camp	73	GN1	EB	3	308	397	1.4	3+	o	1		F	sp		gillnet	03-Oct-03
Camp	76	GN1	EB	3	316	396	1.3	3+	o	1		M	m		gillnet	03-Oct-03
Camp	77	GN1	EB	3	311	390	1.3	3+	o	1		F	sp		gillnet	03-Oct-03
Camp	80	GN1	EB	3	317	369	1.2	3+	o	1		M	st		gillnet	03-Oct-03
Camp	81	GN1	EB	3	315	368	1.2	3+	o	1		F	sp		gillnet	03-Oct-03
Camp	82	GN1	EB	3	318	377	1.2	3+	o	1		F	m		gillnet	03-Oct-03
Camp	83	GN1	EB	3	344	459	1.1	3+	o	1		M	im		gillnet	03-Oct-03
Camp	85	GN1	EB	3	320	435	1.3	3+	o	1		M	sp		gillnet	03-Oct-03
Camp	86	GN1	EB	3	325	453	1.3	3+	o	1		m	sp		gillnet	03-Oct-03
Camp	89	GN1	EB	3	325	400	1.2	3+	o	1		M	m		gillnet	03-Oct-03
Camp	93	GN1	EB	3	310	427	1.4	3+	o	1		M	m		gillnet	03-Oct-03
Camp	94	GN1	EB	3	290	308	1.3	3+	o	2		f	sp	opaque; age estimate	gillnet	03-Oct-03
Camp	95	GN1	EB	3	303	264	0.9	3+	o	2		f	sp	broken	gillnet	03-Oct-03
Camp	98	GN1	EB	3	328	424	1.2	3+	o	1		m	st		gillnet	03-Oct-03
Camp	101	GN1	EB	3	322	441	1.3	3+	o	1		M	m	length & weight changed	gillnet	03-Oct-03
Camp	103	GN1	EB	3	315	412	1.3	3+	o	1		M	m		gillnet	03-Oct-03
Camp	66	GN1	EB	4	373	560	1.1	4+	o	1	n	M	m		gillnet	03-Oct-03
Camp	72	GN1	EB	4	341	461	1.2	4+	o	1		F	m		gillnet	03-Oct-03
Camp	74	GN1	EB	4	320	402	1.2	4+	o	1		M	m		gillnet	03-Oct-03
Camp	78	GN1	EB	4	327	452	1.3	4+	o	1		F	m		gillnet	03-Oct-03
Camp	90	GN1	EB	4	343	555	1.4	4+	o	1		F	sp		gillnet	03-Oct-03
Camp	92	GN1	EB	4	356	465	1.0	4+	o	1		f	sp		gillnet	03-Oct-03
Camp	69	GN1	EB		289	314	1.3	n/a	o	8	N	M	im		gillnet	03-Oct-03
Camp	91	GN1	EB		288	295	1.2	n/a	o	8		M	m		gillnet	03-Oct-03
Camp	96	GN1	EB		248	198	1.3	n/a	o	7		M	mt	broken	gillnet	03-Oct-03
Camp	97	GN1	EB		322	441	1.3	n/a	o	7		F	sp	broken	gillnet	03-Oct-03
Camp	99	GN1	EB		334	459	1.2	n/a	o	8		M	im		gillnet	03-Oct-03
Camp	102	GN1	EB					n/a	o	7		M	m		length weight en	03-Oct-03
Camp	105	GN1	EB		148	42	1.3	n/a	o	8		Unk	im		gillnet	03-Oct-03
Camp	112	GN1	EB		130	25	1.1	n/a	o	8		Unk	im		gillnet	03-Oct-03
Camp	113	GN1	EB		124	21	1.1	n/a	o	8		Unk	im		gillnet	03-Oct-03
Camp	116	GN1	EB		132	20	0.9	n/a	o	8		Unk	im		gillnet	03-Oct-03
Camp	118	GN1	EB		118	16	1.0	n/a	o	8		Unk	im		gillnet	03-Oct-03

Appendix 3 Table 2. Stock assessment data for Camp Lake eastern brook trout in 2003 (Angling sample).

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp	15	ANG1	EB	2	235	166	1.3	2+	o	1	n	F	m		fishing	03-Oct-03
Camp	16	ANG1	EB	2	270	284	1.4	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	20	ANG1	EB	2	290	320	1.3	2+	o	2	n	M	m	broken	fishing	03-Oct-03
Camp	23	ANG1	EB	2	201	129	1.6	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	24	ANG1	EB	2	278	271	1.3	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	27	ANG1	EB	2	226	161	1.4	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	30	ANG1	EB	2	272	250	1.2	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	31	ANG1	EB	2	244	176	1.2	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	32b	ANG1	EB	2	248	178	1.2	2+	o	1	n		im		fishing	03-Oct-03
Camp	33	ANG1	EB	2	280	263	1.2	2+	o	2	n	M	m	broken	fishing	03-Oct-03
Camp	39	ANG1	EB	2	265	229	1.2	2+	o	1	n	F	m		fishing	03-Oct-03
Camp	51	ANG1	EB	2	260	221	1.3	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	53	ANG1	EB	2	235	158	1.2	2+	o	1	n	M	mt		fishing	03-Oct-03
Camp	55	ANG1	EB	2	278	270	1.3	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	56	ANG1	EB	2	215	134	1.3	2+	o	1	n		im	small 1st year growth	fishing	03-Oct-03
Camp	57	ANG1	EB	2	261	289	1.6	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	58	ANG1	EB	2	295	298	1.2	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	60	ANG1	EB	2	268	222	1.2	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	61	ANG1	EB	2	267	236	1.2	2+	o	1	n	M	m		fishing	03-Oct-03
Camp	62	ANG1	EB	2	253	209	1.3	2+	o	1	n	F	m		fishing	03-Oct-03
Camp	17	ANG1	EB	3	325	398	1.2	3+	o	1	n	F	m		fishing	03-Oct-03
Camp	19	ANG1	EB	3	324	513	1.5	3+	o	2	n	M	m	broken	fishing	03-Oct-03
Camp	21	ANG1	EB	3	360	556	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	22	ANG1	EB	3	329	443	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	25	ANG1	EB	3	300	380	1.4	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	26	ANG1	EB	3	332	411	1.1	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	28	ANG1	EB	3	318	400	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	29	ANG1	EB	3	315	399	1.3	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	34	ANG1	EB	3	300	364	1.3	3+	o	1	n	F	sp		fishing	03-Oct-03
Camp	36	ANG1	EB	3	337	426	1.1	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	37	ANG1	EB	3	322	416	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	38	ANG1	EB	3	340	480	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	40	ANG1	EB	3	301	428	1.6	3+	o	1	n	F	m		fishing	03-Oct-03
Camp	41	ANG1	EB	3	322	434	1.3	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	42	ANG1	EB	3	318	319	1.0	3+	o	1	n	M	mt		fishing	03-Oct-03
Camp	44	ANG1	EB	3	325	472	1.4	3+	o	1	n	F	m		fishing	03-Oct-03
Camp	45	ANG1	EB	3	295	301	1.2	3+	o	1	n	M	mt		fishing	03-Oct-03
Camp	46	ANG1	EB	3	308	384	1.3	3+	o	1	n	F	m		fishing	03-Oct-03
Camp	48	ANG1	EB	3	320	406	1.2	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	49	ANG1	EB	3	333	416	1.1	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	50	ANG1	EB	3	330	436	1.2	3+	o	1	n	F	sp		fishing	03-Oct-03
Camp	52	ANG1	EB	3	299	353	1.3	3+	o	1	n	M	m		fishing	03-Oct-03
Camp	35	ANG1	EB	4	339	479	1.2	4+	o	1	n	M	m		fishing	03-Oct-03
Camp	43	ANG1	EB	4	355	606	1.4	4+	o	1	n	F	r		fishing	03-Oct-03
Camp	18	ANG1	EB		335	488	1.3	n/a	o	8	n	M	m		fishing	03-Oct-03
Camp	32	ANG1	EB		315	399	1.3	n/a	o	8	n	M	m	No otolith envelope	fishing	03-Oct-03
Camp	47	ANG1	EB		345	505	1.2	n/a	o	8	n	M	m		fishing	03-Oct-03
Camp	59	ANG1	EB		230	175	1.4	n/a	o	7	n	M	mt		fishing	03-Oct-03
Camp	106	GN1	EB	1	125	21	1.1	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	107	GN1	EB	1	125	23	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	108	GN1	EB	1	165	40	0.9	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	109	GN1	EB					1+	o	1		Unk	im	length weight en		03-Oct-03
Camp	110	GN1	EB	1	118	20	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	111	GN1	EB	1	111	16.6	1.2	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	114	GN1	EB	1	105	13	1.1	1+	o	1		Unk	im		gillnet	03-Oct-03
Camp	119	GN1	EB	1	104	12	1.1	1+	o	2		Unk	im	broken	gillnet	03-Oct-03
Camp	71	GN1	EB	2	278	290	1.3	2+	o	1	n	M	r		gillnet	03-Oct-03
Camp	75	GN1	EB	2	260	204	1.2	2+	o	1		M	m		gillnet	03-Oct-03
Camp	79	GN1	EB	2	260	218	1.2	2+	o	1		M	M		gillnet	03-Oct-03
Camp	84	GN1	EB	2	245	199	1.4	2+	o	1		M	M		gillnet	03-Oct-03
Camp	87	GN1	EB	2	250	207	1.3	2+	o	1		M	mt		gillnet	03-Oct-03
Camp	88	GN1	EB	2	271	279	1.4	2+	o	1		M	M		gillnet	03-Oct-03
Camp	100	GN1	EB	2	268	238	1.2	2+	o	1		m	m		gillnet	03-Oct-03
Camp	104	GN1	EB	2	260	231	1.3	2+	o	1		f	mt		gillnet	03-Oct-03

Appendix 3 Table 3. Stock assessment data for Camp Lake eastern brook trout in 2000.

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp	7	1	eb	3	321	400	1.21	3+	o	1		F	mt			10-Aug-00
Camp	11	1	eb	3	346	500	1.21	3+	o	1		F	mt			10-Aug-00
Camp	2	1	eb	4	389	640	1.09	4+	o	1		F	mt			10-Aug-00
Camp	3	1	eb	4	402	700	1.08	4+	o	1		M	mt			10-Aug-00
Camp	4	1	eb	4	378	730	1.35	4+	o	1		F	mt			10-Aug-00
Camp	5	1	eb	4	381	680	1.23	4+	o	1		F	mt			10-Aug-00
Camp	8	1	eb	4	370	650	1.28	4+	o	1		M	mt			10-Aug-00
Camp	9	1	eb	4	425	880	1.15	4+	o	1		M	mt			10-Aug-00
Camp	10	1	eb	4	410	790	1.15	4+	o	4		F	mt	otolith broken, age estimate		10-Aug-00
Camp	6	1	eb	5	385	690	1.21	5+	o	1		F	im	Maturity shouldn't read Imm.		10-Aug-00

Appendix 3 Table 4. Stock assessment data for Camp Lake eastern brook trout in 1999.

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp	1	1	eb	4	375	495	0.94	4+	s			m	im			10-Aug-99
Camp	2	1	eb	3	320	420	1.28	3+	s			f	im	4?		10-Aug-99
Camp	3	1	eb	3	305	380	1.34	3+	s			f	st			10-Aug-99
Camp	4	1	eb	3	313	410	1.34	3+	s			f	im	4?		10-Aug-99
Camp	5	1	eb	4	320	450	1.37	4+	s			f	im			10-Aug-99
Camp	6	1	eb	2	250	80	0.51	2+	s			na	na	3?		10-Aug-99
Camp	7	1	eb	3	335	440	1.17	3+	s			m	mt			10-Aug-99
Camp	8	1	eb	4	350	600	1.40	4	s			f	im			10-Aug-99
Camp	9	1	eb	3	324	430	1.26	3+	s			na	na			10-Aug-99
Camp	10	1	eb	4	383	510	0.91	4	s			na	na			10-Aug-99
Camp	11	1	eb	4	333	450	1.22	4	s			f	im			10-Aug-99
Camp	12	1	eb		379	520	0.96		s			m	mt	regenerated		10-Aug-99
Camp	13	1	eb	3	330	447	1.24	3+	s			m	im	4?		10-Aug-99
Camp	14	1	eb	3	355	480	1.07	3+	s			na	na	4?		10-Aug-99
Camp	15	1	eb	6	355	500	1.12	6	s			f	mt	5?		10-Aug-99
Camp	16	1	eb	4	368	505	1.01	4	s			m	im			10-Aug-99
Camp	17	1	eb	4	380	470	0.86	4+	s			f	mt			10-Aug-99
Camp	18	1	eb	4	355	480	1.07	4+	s			f	im			10-Aug-99
Camp	19	1	eb	4	363	540	1.13	4+	s			f	mt			10-Aug-99
Camp	20	1	eb	4	350	440	1.03	4+	s			f	st			10-Aug-99
Camp	21	1	eb	4	330	340	0.95	4+	s			f	st	3+?		10-Aug-99
Camp	22	1	eb	4	335	420	1.12	4+	s			f	mt	3+?		10-Aug-99
Camp	23	1	eb	3	363	505	1.06	3+	s			f	st	4? 1st ann?		10-Aug-99
Camp	24	1	eb	3	325	370	1.08	3+	s			f	mt			10-Aug-99
Camp	25	1	eb	3	320	350	1.07	3+	s			m	st			10-Aug-99
Camp	26	1	eb	3	345	440	1.07	3+	s			f	im			10-Aug-99
Camp	27	1	eb	2	240	240	1.74	2+	s			f	im			10-Aug-99

Appendix 3 Table 5. Stock assessment data for Camp Lake rainbow trout in 2000.

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp	1	1	Rbt	3	410	700	1.0	3+	Scale	1		F	mt			

Appendix 3 Table 6. Stock assessment data for Camp Lake rainbow trout in 1991.

Lake	Sample#	Set #	Species Caught	Age	Length (mm)	Weight (grams)	Condition (k)	Scale Age	Structure	Cond. Code	Clip	Sex	Maturity	Ageing Comments	Comments	Date
Camp			RB	2	260	160	0.9	2.0	s			M				24-May-91
Camp			RB	3	350	420	1.0	3.0	s			F				24-May-91
Camp			RB	3	340	380	1.0	3.0	s							24-May-91
Camp			RB	3	300	200	0.7	3.0	s			M				24-May-91
Camp			RB	3	290	260	1.1	3.0	s							24-May-91
Camp			RB	3	270	190	1.0	3.0	s			M				24-May-91
Camp			RB	3	260	200	1.1	3.0	s			M				24-May-91
Camp			RB	3	250	150	1.0	3.0	s			F				24-May-91
Camp			RB	3	250	150	1.0	3.0	s			F				24-May-91
Camp			RB	3	240	150	1.1	3.0	s			F				24-May-91
Camp			RB	3	240	120	0.9	3.0	s			M				24-May-91
Camp			RB	3	230	110	0.9	3.0	s			M				24-May-91
Camp			RB	4	320	300	0.9	4.0	s							24-May-91
Camp			RB	4	280	210	1.0	4.0	s			F				24-May-91
Camp			RB	4	270	200	1.0	4.0	s			M				24-May-91
Camp			RB		240	140	1.0		s			M				24-May-91

PROJECT EVALUATION 11.0

Project Budget Summary:

Budget allocated: 5000

Budget spent: 5000

Cost savings: 0

The project was:

on budget

over budget Why? _____

under budget Why? _____

Was the project completed as planned?

Yes.

No. If not, describe problems that arose and changes made to address problems. We were unable to complete the Bow/ Butterfly Lake paired lake study as the result of a fish stocking error. A follow-up survey is planned for 2004.

Would the proponent recommend changes to similar projects in the future?

No.

Yes (Please provide details). _____

Contractor performance:

Not applicable. No contractor employed.

Acceptable. Would employ again.

Acceptable. But some concerns (please provide details): _____

Unacceptable. Would not recommend for future projects (please provide reasons): _____