Unnamed Lake
(480-697200-25400-53200-01)
01529BABL

SECONDARY LAKE INVENTORY
1997 STUDIES

Ministry of Environment, Lands and Parks
Project No. IVBVS622 (FRBC)

Prepared for:

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APRIL 1998

COVER PAGE

Lake Name:	**Unnamed Lake**
Alias:	**-**
Watershed Code:	**480-697200-25400-53200-01**
Waterbody Identifier:	**01529BABL**
Survey Date:	**September 24, 1997**
Project Code:	**lVBVS622**
Survey Objectives:	**to conduct secondary lake inventories in the southern portions of the Morice and Lakes Forest Districts (Prince Rupert Forest Region)**
Survey Type:	**Secondary Lakes Inventory**
Survey Agency:	**CO60**
Proponent:	**MELP**
Inventory Program:	**FRBC**

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APPENDICES

1.0 LAKE INVENTORY DATA

1.1 WATERBODY

Type:	Small lake (<400 ha)
Lake Name:	Unnamed Lake
Watershed Code:	480-697200-25400-53200-01
Waterbody Identifier:	01529BABL
Map Reference:	093L.078 (1993)
Air photo Reference:	30BCC 93054 No.170
Surface Area: 47 ha	Source: MELP
Elevation: 1001 m	Source: TRIM
Biogeoclimatic Zone:	Sub-Boreal Spruce (SBS)

The lake is shown in Plates 1 and 2.

1.2 ACCESS

The lake was accessed by helicopter from Burns Lake. Flying time was approximately 20 minutes northwest of Burns Lake.

1.3 TERRAIN

The lake appears to be a glacial lake (GL), with an east aspect. It is situated on the valley floor (VF), and exhibits no signs of hillside coupling (DC). Land in the immediate vicinity of the lake is in a natural state with no evidence of recent use. Forest Development Plan Maps do not show proposed logging within 1000 m of the lake.

1.4 SHORELINE

The shoreline is comprised of 65% rocky substrate and 35% marsh. Large and small cobbles were observed throughout the shoreline, with gravel present intermittently. Shoreline gravel was observed in greater abundance on the southwest shore as well as at the head of the outlet channel, and may provide potential spawning habitat. Shoreline vegetative cover is sparse and consists

Plate 1 View looking east from lake outlet.

Plate 2 View from north end of lake looking southwest.

primarily of grass. No recreational features (i.e. resorts, campsites, boat launches) were identified.

1.5 BATHYMETRY

An E-line survey was completed along the long axis of the lake using a Lowrance X-16 unit (equipped with continuous paper trace sounder rolls). The maximum recorded depth was 5.5 m. Based on the E-line survey, the littoral area (% lake < 6 m) was estimated to be 100%. The maximum high water mark was observed at 0.1 m.

1.6 INLETS/OUTLETS

Two ephemeral inlets and one outlet have been identified for this lake. Both inlets were previously mapped on the 1:20,000 TRIM map. Neither inlet had an existing watershed code; interim locational points (ILP) were used to identify each inlet.

Inlet (ephemeral)
ILP # 86

Water was present intermittently approximately 20-30 m upstream of the lake. The channel was indistinct, with moist pockets along the forest floor. Water was not flowing near the lake. The substrate was comprised of sand, silt and forest debris. Suitable fish habitat was not observed.

Inlet (ephemeral)
ILP # 87

Water was present intermittently approximately 20-30 m upstream of the lake. The channel was indistinct, with moist pockets evident along the forest floor. Water was not flowing near the lake. The substrate was comprised of sand, silt and forest debris. Suitable fish habitat was not observed.

Outlet
w/s code: 480-697200-25400-53200-01

The outlet passes through a marsh area and has a channel width of approximately 2.0 m at the lake. Water was not flowing at the time of observation. The substrate consists primarily of sand and silt; areas of gravel and small cobble were covered by silt. Gravel was present in very small amounts and was not suitable spawning habitat. Potential rearing habitat exists in the outlet.

1.7 AQUATIC FLORA

The lake contains moderate amounts of submergent vegetation (15%). No emergent vegetation was observed. Submergent vegetation included *Potamogeton perfoliatus* and *Potamogeton spp..* Floating algae were not observed.

1.8 WILDLIFE

No signs of wildlife were observed during the survey.

1.9 LIMNOLOGICAL SAMPLING

The limnological sampling site was located at the deepest recorded point (5.5 m). Dissolved oxygen (mg/l) and temperature (C) were measured with a YSI meter (model 85). A thermocline was not evident. Oxygen levels were between 5 and 8 mg/l from surface to bottom (for profile results, refer to Appendix D). The Secchi disc was visible at 1.25 m; water was clear and colourless. pH was measured using a hand held Hanna pH meter. Surface and bottom pH values were the same (7.8). No H_2S was detected.

1.10 SURVEY COMMENTS

1.10.1 Problems

No field problems were encountered.

1.10.2 Fish Comments

Nine cutthroat trout (*Oncorhynchus clarki*) were captured during gillnetting. One floating gillnet was set parallel to shore for approximately 2.0 hours. Fish ranged between 20.0 and 27.3 cm in length.

1.10.3 Habitat Comments

No inlet spawning habitat was observed. Gravel was identified along the southwest shore of the lake as well as at the head of the outlet, and may be potential lake spawning habitat. Small amounts of gravel were also observed within the outlet channel, but were covered by silt and did not appear to be suitable spawning habitat. Rearing habitat occurs at the outlet, consisting of a large open marsh close to the lake. Potential rearing habitat was not identified at either of the ephemeral inlets. Shoreline grasses around the lake may provide fish cover.

1.10.4 Rehabilitation/Enhancement Comments

No rehabilitation/enhancement efforts are recommended.

1.10.5 Follow-up Sampling

No follow-up sampling is recommended.

1.10.6 Other Concerns/Interest Points

None.

2.0 PROJECT- SPECIFIC RESULTS DISCUSSION

Fish sampling results show that cutthroat trout are present in this lake. Suitable spawning habitat was not observed in inlets or the outlet but may be present in the lake near the outlet. Potential rearing habitat was observed at the outlet. Neither of the inlets provided potential rearing habitat. Dissolved oxygen levels were between 5 and 8 mg/l from surface to bottom (5.5 m). There were no signs of recent visitors to the lake; nor were any recreational features observed.

3.0 REFERENCES

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McPhail, J.D., and R. Carveth. 1994. Field Key to the Freshwater Fishes of British Columbia. BC Ministry of Environment, Lands and Parks. Fisheries Branch. (Resources Inventory Committee Manual)

Scott, W.B., and E.J. Crossman. 1973. Freshwater Fishes of Canada. Fisheries Research Board of Canada, Ottawa. 966 p.

Plates

Plate 1 View looking east from lake outlet.

Plate 2 View from north end of lake looking southwest.

Appendices

Appendix A

Bathymetry (E-line Trace)

Appendix B

Lake Outline Map

Appendix C

Air Photo Plate

Appendix D

Lake Survey Form

Appendix E

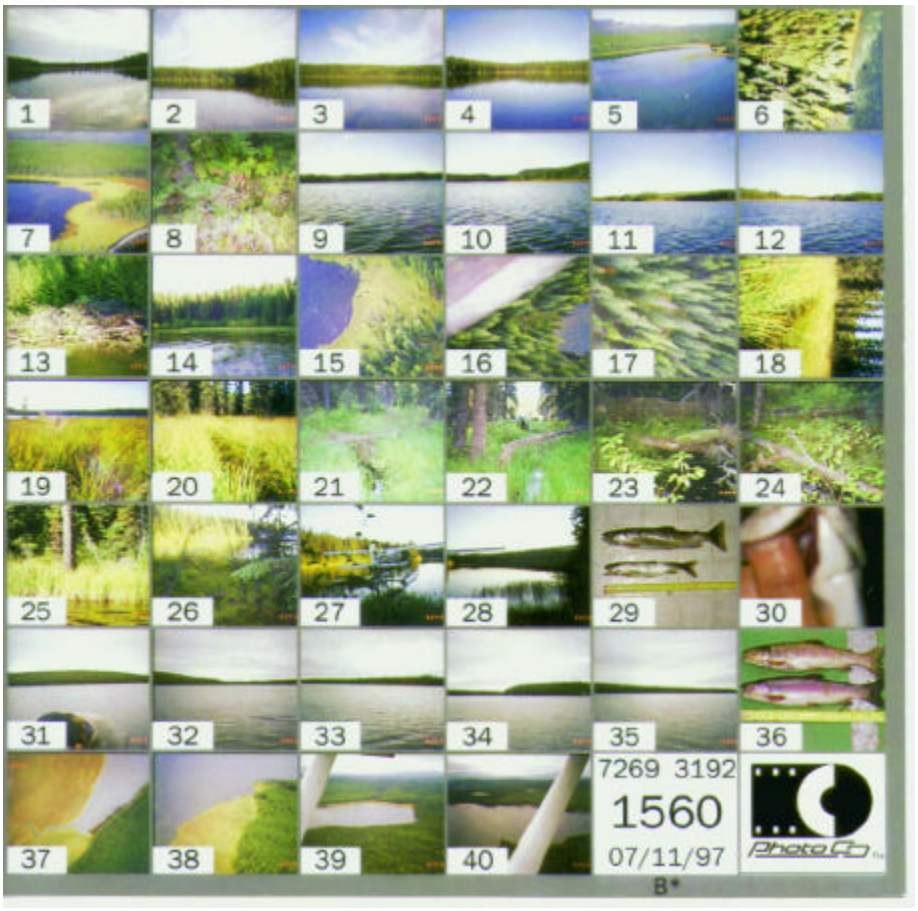
Fish Collection Form

Appendix F

Photograph Contact Sheets

Photographic index for southern lakes secondary lake survey 1997.

Lake	Watershed Code	Roll	Pic#	CD	Image	Neg	Dir.	Comment
M47	480-697200-25400-53200-01	11	18	0820	118	9368	N	Aerial view of inlet ILP 87
M47	480-697200-25400-53200-01	11	19	0820	119	9368	E	Aerial view of outlet
M47	480-697200-25400-53200-01	11	20	0820	120	9368	N	Aerial overview of lake
M47	480-697200-25400-53200-01	11	21	0820	121	9368	Dn	Inlet ILP 86
M47	480-697200-25400-53200-01	11	22	0820	122	9368	Up	Inlet ILP 86
M47	480-697200-25400-53200-01	11	23	0820	123	9368	Up	Outlet
M47	480-697200-25400-53200-01	11	24	0820	124	9368	Dn	Inlet ILP 87
M47	480-697200-25400-53200-01	11	25	0820	125	9368	SE	HWM=8cm
M47	480-697200-25400-53200-01	12	1	1560	26	9369	Dn	Side channel of inlet ILP 86
M47	480-697200-25400-53200-01	12	2	1560	27	9369	S	Panoramic view of lake at inlet ILP 86
M47	480-697200-25400-53200-01	12	3	1560	28	9369	SW	Panoramic view of lake at inlet ILP 86
M47	480-697200-25400-53200-01	12	4	1560	29	9369	N/A	Fish 1 and 2, CT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