Reconnaissance (1:20 000) Fish and Fish Habitat Inventory (Phase 4-6) of The Middle Flathead River Watershed

WSC: 330-956600-77600

Prepared for:

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Approved by:

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Trisha Merriman, R.P.Bio.

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PROJECT REFERENCE INFORMATION

MELP Project Number	KBM02103
FRBC Activity Number	723273B
FDIS Project Codes	1500
FRBC Region	Kootenay/Boundary
MELP Region	04, Nelson
MELP District	Kootenay
FW Management Unit	4-1
Fisheries Planning Unit	N/a
DFO Sub-District	Southern Interior
Forest Region	Nelson
Forest District	Cranbrook
Forest Licensee and Tenure #	Tembec Industries Ltd.
First Nations Claim Area	N/a

WATERSHED INFORMATION

Watershed Group	ELKR
Watershed Name and Code	Flathead River: 330-956600-77600
UTM at mouth	11.679964.5453693
Watershed Area	332.07 km^2
Total of All Stream Lengths	802.16 km
Stream Order	5^{th}
NTS Map	82G2, 7, 8
TRIM Map	82G.027, 028, 037, 038, 047
BEC Zone	ICH and ESSF
Air Photos	79082: 68-98; 146-147; 219-224 79083: 23-28; 38-39; 208-209

SAMPLING DESIGN SUMMARY

Total Number of Reaches	1606
Random Sampling Sites	42
Discretionary Sites	25
Total Sample Sites	67
Field Sampling Dates	August 23 to Sept. 14, 2001

CONTRACTOR INFORMATION

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DISCLAIMER

This product has been accepted as being in accordance with approved standards within the limits of Ministry quality assurance procedures. Users are cautioned that interpreted information on this product developed for the purposes of the Forest Practices Code Act and Regulations, for example stream classifications, is subject to review by a statutory decision maker for the purposes of determining whether or not to approve an operational plan.

ACKNOWLEDGEMENTS

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Special thanks are due to Leigh Mercer of Tembec Industries Ltd., Jock Mackay of Bighorn Helicopters, Albert Chirico of MSRM, and Sylvie Masse for completing the Quality Assurance.

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1 INTRODUCTION

1.1 Project Scope and Objectives

On behalf of Tembec Industries Ltd., Kokanee Forests Consulting Ltd. (Kokanee) was commissioned to conduct Phases 4-6 of a reconnaissance level stream inventory of the Middle Flathead River study area. Fieldwork was conducted from August 23rd to September 14th, 2001. Field assessments were based upon the recommendations and conclusions provided in the Pre-Field Project Plan provided by Kokanee (2001). These assessments were carried out in accordance with the standards outlined in the Resource Inventory Committee Manual (Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures).

The objectives of the Reconnaissance Fish and Fish Habitat Inventory are to:

- provide Licensees, Ministries, Private Land Owners, and others with baseline data and a reference tool;
- provide a description of fish presence in specific stream reaches adjacent to planned forest harvesting activities;
- describe watershed-wide fish distributions and habitat characteristics throughout the selected watersheds; and
- assist forest licensees in meeting their fisheries obligations as per the Forest Practices Code.

Phases 1-3 of the Inventory Project were also completed by Kokanee in August, 2001. Streams requiring sampling for fish presence were identified based on the Five Year Forest Development plan produced by Tembec and reaches selected by the Fisheries Database Information System (FDIS). Several biased sites were added in the watershed based on recommendations made by the Ministry Representative and Tembec.

1.2 Study Area and Location

The study area encompasses 332 km^2 south east of Fernie, BC (Figure 1). The drainage is located in the southeast corner of the province along the Alberta border with the lower reaches of the Flathead River extending into the United States.

The majority of drainages are located in the Interior Cedar Hemlock and Englemann Spruce/sub-alpine fir biogeoclimatic zones. Drainages are found within the Border Ranges of the Rocky Mountains and elevations range from 1300 to 2000 m.

1.2.1 Access

Directions to the Flathead River from Fernie are as follows:

- Travel south of Fernie for 8 km on Highway 3 to Morrisey Road. Continue on Morrisey Road until the junction with Lodgepole Road. The Lodgepole Forest Service Road (FSR) enters into the top of the Harvey Creek drainage that drains east into the Flathead River. Total distance from the Highway 3 turnoff to the Flathead valley is 57 km.

Figure 1. Overview map of the Middle Flathead River study area.

2 RESOURCE INFORMATION

There are a variety of resources available within the study area:

i.) There are no known First Nations interests within these drainages.

ii.) The primary resource use within all drainages is forest management for timber extraction. Old mining trails exist but there are no known current mining operations within the study area. The area is also used for recreational guiding and Packhorse Creek Outfitters operates a guiding camp located at 62 km on the Lodgepole FSR.

iii.) There are several non-developed campsites within these drainages with several ATV roads and hunting opportunities. This watershed is a very popular fishing destination as large bull trout have been observed within the mainstem of the Flathead River.

iv.) There is no available information found regarding water quality data.

v.) There were numerous wildlife sightings throughout the study area. The most prevalent of these were whitetail and mule deer, cougar, moose, and bear.

vi.) Historical information regarding fish presence was collected and presented in the planning report (Kokanee, 2001) (Table 1).

Table 1. Historical information on fish presence within the selected drainages.

Stream Name	**Fish Species**	**Dates ***
Cate Creek	westslope cutthroat trout (*Oncorhynchus clarki lewisi)* and bull trout (*Salvelinus confluentus*).	FISS
Harvey Creek	bull trout and westslope cutthroat trout	FISS
McLatchie Creek	mountain whitefish (*Prosopium williamsoni*), westslope cutthroat trout	FISS
Squaw Creek	bull trout	FISS

* FISS = Fisheries Information Summary System

3 METHODS

3.1 Project Plan & Alterations

Initial work, such as review of all existing information, preparation of fisheries information maps, location of stream features and selection of sample sites was completed under a previous contract by Kokanee (August, 2001).

A total of 67 sample sites were selected, including 25 biased sites. Upon completion of Phase 4, the number of sample sites was 67, including one secondary site that was added to provide further fish distribution information. Only one site was not fully completed due to cold stream temperatures (see Logistics, page 7).

A complete overflight of the entire study area was conducted in Phase 2 prior to field sampling. Six sites were observed during the overflight and were deemed to be either a dry channel or no visible channel (NVC). Site cards were completed for these sites.

3.2 Reconnaissance Standards

Field sampling was carried out in accordance with the methodology presented in the 1999 "Reconnaissance (1:20,000) Fish and Fish Habitat Inventory: Standards and Procedures". Two sampling methods, electrofishing along with minnow traps or angling were used throughout the study. Electrofishing was carried out using a Dirigo battery powered electrofisher. Two to four minnow traps were placed in strategic locations within the site and retrieved the following day. For the hike-in and helicopter sites, electrofishing was the most suitable sampling method.

Photographs were taken of each sample site and significant features and were recorded on the Photodocumentation form (Appendix 1). Due to a failure of the camera lens that was not discovered until after the sampling was completed, no photographs were developed. Negatives that were developed were completely white. The Ministry Representative and the Licensee were contacted and the contract with Kokanee was adjusted accordingly. A copy of each stream reach/site summary form is presented in Appendix 2.

In addition to fish and fish habitat data, voucher specimens were collected and stored in accordance with the 1997 "Fish Sampling Manual". When possible, five juvenile specimens of each species sampled were collected. Specimens were also collected when diseased, unidentifiable, or non-suspected specimens were sampled. These were forwarded to Warehousing & Asset Investment Recovery in Victoria, BC for identification.

3.3 Sampling Equipment

All sampling equipment specifications are listed below:

Dirigo Battery Powered Electroshocker
Gee minnow traps baited with dry cat food
Kodak S Series 35 mm camera
Hanna Ph 3 meter
Oakion TDSTestr Conductivity Probe
Handheld Garmin GPS
Fishing rod with flies
Handheld thermometer

4 RESULTS AND DISCUSSION

4.1 Logistics

There were some minor access problems encountered during this project. Three sites, which were designated as ATV and foot access, were changed to helicopter access. Some road sites were only accessible by ATV, as the road conditions had deteriorated. Foot access was improved by the presence of horse trails established by Packhorse Creek Outfitters. For the majority of the sites, access was accurately described in the planning report.

Warm temperatures and dry summer conditions were dominant throughout the sampling season. No days were lost due to rain and water levels were found to be low to moderate. Several dry sites and NVC's were encountered and several would not provide fish habitat had water been present. One site will require follow-up sampling due to stream temperatures of less than 3 degrees.

Conductivity levels were found to be moderate (up to 240 microseimens/cm) throughout the sampling area. Salt blocks were not required to increase conductivity.

4.2 Habitat and Fish Distribution

The Flathead River is known to provide habitat for bull trout, mountain whitefish, sculpins, and westslope cutthroat trout. As a result of this survey that did not include the mainstem reaches of the Flathead, only bull trout and westslope cutthroat trout were sampled. Some of the headwater lakes located in the larger drainages have been stocked with westslope cutthroat trout (FISS). Although downstream reaches are considered fish bearing, several dewatered sections have occurred since the flood in 1995. These sections may be limiting their distribution. Many tributaries are avalanche chutes and are too steep to provide adequate fish habitat.

The most abundant species sampled was westslope cutthroat trout. The greatest numbers were sampled in Reach 5 of Packhorse Creek. This reach is located directly downstream of the stocked lake. The stream characteristics of this reach include low gradients, moderate cover dominated by overstream vegetation, riffle-pool morphology and little LWD. The dominant substrate is gravel making this reach good spawning habitat. All life stages were sampled in this reach. The overall habitat within the reach is moderate but due to its close proximity to a stocked lake, this would explain the higher number of fish sampled.

Bull trout were also sampled in tributaries to the Flathead River. These reaches provide some undercut banks, cobble-gravel substrate, riffle-pool morphology, low gradients, and low water levels. These stream characteristics are more suited for bull trout spawning than rearing and overwintering. Rearing habitat would have more complex stream characteristics including more boulder and LWD cover, higher gradients and higher water levels. Only adults were sampled in these reaches so it is likely that they are utilized for spawning. Dewatering of some of these reaches may occur after the spring frehet and during low summer water levels. It is possible that these reaches have groundwater sources that enable these reaches to maintain certain water levels and create favourable spawning habitat for bull trout (Remain and McIntyre, 1993).

The greatest limiting factor to fish distribution within the Flathead River watershed is the presence of several barriers (Table 2). Waterfalls can be found in several tributaries. Culverts are also acting as temporary barriers within this system. Several other smaller tributaries have steep upper reaches that provide gradient barriers to fish migration.

Another limiting factor to fish distribution is the presence of dewatered stream sections. The larger tributaries including Packhorse, Cate, St. Eloi, Pincher and Squaw Creeks have several reaches that are almost dry. These sections may prevent the upstream and downstream migration of bull trout and westslope cutthroat trout. Although this was a dry year and water levels were low, the flood in 1995 appears to have overwiden several channels and raised the streambed to create these conditions. For example, Reach 2 of Cate Creek had a wetted width of 2.9 m but the average channel width was 33 m.

Table 2. Summary of historic and new barriers to fish migration in the Middle Flathead River study area.

Stream Name	Watershed Code/ILP	Mapsheet	Reach	NID	Type*	Height	Comment
Squaw Creek Tributary	330-956600-77600-93100-5230-	082G.047	3	3501	F	7.5	
Squaw Creek Tributary	330-956600-77600-93100-5230-	082G.047	3	3502	F	15	
Unnamed	330-956600-77600-92500-	082G.037	1	3503	CV	0.9	Boulder blocking culvert
Unnamed	31	082G.037	1	3504	CV	1.6	Length 0.70m Culvert
Unnamed	45	082G.037	1	3505	F	2.1	Falls overgrown with vegetation
Unnamed	45	082G.037	1	3506	FSB		Subsurface flow
Unnamed	330-956600-77600-92900	082G.037	2	3508	CV	0.5	Culvert at road crossing 0.5m above stream, caught BT in pool FL154
Unnamed	330-956600-77600-93000-	082G.037	5	3509	CV	0.9	Culvert covered by eroding road
Cate Creek	330-956600-77600-88600-	082G.028	2	3550	FSB		Flow becomes subsurface
Harvey Creek Tributary	330-956600-77600-88400-8000-	082G.027	1	3514	FLD		Dry channel at mouth

* F = falls, CV = culvert, FSB = subsurface flow, FLD = water diversion

4.3 Fish Stage, Size and Life History

Fork length and maturity level of all fish sampled was recorded on the individual fish data forms. The life stage (fry, juvenile, or adult) for each individual was determined from its length measurements and physical characteristics.

Within the Middle Flathead River study area, a total of 103 westslope cutthroat trout were sampled. A length-frequency histogram was created and all life stages were present (Figure 2). Within the sample group, the majority of fish were juveniles. The average lengths of juveniles and adults were 98.56 and 177.9 mm respectively (Table 3). Based on the small size of the adults captured, it is possible that they are part of resident populations that are present in the larger tributaries. Since the mainstem of Flathead River was not sampled, no large adults were sampled.

A total of 15 bull trout were sampled in tributaries such as Pincher and Cate Creeks. No fry or juveniles were captured and the average size of the adults was 162.02 mm. The low number of fish sampled, and the lack of fry and juveniles makes it difficult to ascertain the status of this population and to create a length-frequency histogram. Large fluvial adults have been angled in the mainstem of the Flathead River but no mainstem reaches were sampled during this inventory.

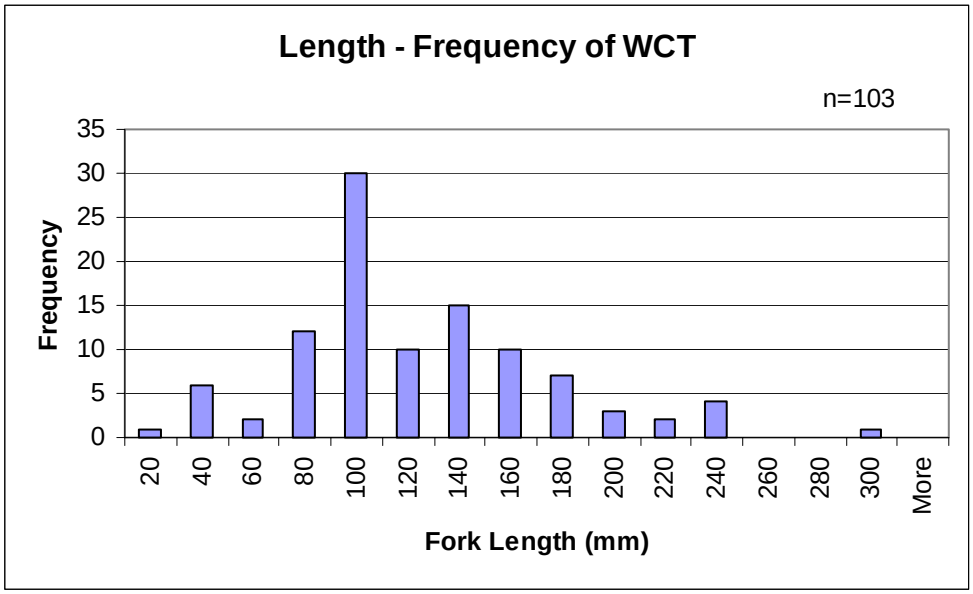

Figure 2. Length-frequency histogram of sampled westslope cutthroat trout in the Middle Flathead River study area, 23 August to 14 September, 2001.

Table 3. Summary of life stage and length data from fish sampled within the Middle Flathead River study area, 23 August to 14 September, 2001.

Watershed	Watershed Code	Species	Stage *	Mean Length (mm)	Number of Fish	Range of Lengths (mm)
Unnamed	57	BT	A	152.5	2	151-154
Unnamed	57	WCT	J	100.9	7	82-141
Pincher Creek	330-956600-77600-92600	BT	A	226	4	190-254
Pincher Creek	330-956600-77600-92600	WCT	A	170	1	170
Pincher Creek	330-956600-77600-92600		J	118	6	88-140
Unnamed	330-956600-77600-88600-1060-6050	BT	A	142.7	3	138-149
Unnamed	330-956600-77600-88600-1060-6050	WCT	F	24.4	4	18-27
Cate Creek	330-956600-77600-88600-	BT	A	141	1	141
Cate Creek	330-956600-77600-88600-	WCT	A	200	1	200
Cate Creek	330-956600-77600-88600-	WCT	J	80	5	75-89
Morris Creek	330-956600-77600-88400-2710	BT	A	165.5	2	152-179
Pincher Creek	330-956600-77600-92600-1980	BT	A	152.5	2	151-154
Pincher Creek	330-956600-77600-92600-1980	WCT	J	100.85	7	82-141
Unnamed	330-956600-77600-92900	BT	A	154	1	154
Unnamed	1	WCT	J	83	2	82-84
Unnamed	151	WCT	J	87.9	10	71-111
Unnamed	51	WCT	A	154	1	154
Unnamed	51	WCT	J	89	1	89
Harvey Creek	330-956600-77600-88400-	WCT	A	210	1	210
McLatchie Creek	330-956600-77600-93900-6600-	WCT	A	148	1	148
McLatchie Creek	330-956600-77600-93900-6600-	WCT	J	70	2	69-71
McLatchie Creek	330-956600-77600-93900-6600-	WCT	F	25	1	25
McLatchie Creek	330-956600-77600-93900	WCT	A	178	2	176-180
McLatchie Creek	330-956600-77600-93900	WCT	J	130.6	5	118-145
Unnamed	330-956600-77600-87100-	WCT	J	97.5	4	89-123
Unnamed	330-956600-77600-90300-	WCT	A	187.6	5	172-225
Unnamed	330-956600-77600-90300-	WCT	J	138	3	132-144
Packhorse Creek	330-956600-77600-90000-4160	WCT	J	130	5	104-157
Packhorse Creek	330-956600-77600-90000-	WCT	A	211.63	8	154-287
Packhorse Creek	330-956600-77600-90000-	WCT	J	102	6	87-129
Packhorse Creek	330-956600-77600-90000-	WCT	F	47.3	3	39-56
Fuel Creek	330-956600-77600-88400-8000-	WCT	A	142	2	141-143
Fuel Creek	330-956600-77600-88400-8000-	WCT	J	98	4	74-120
Unnamed	330-956600-77600-86100-0170-	WCT	J	89.8	5	79-101
Unnamed	330-956600-77600-86100-0170-	WCT				

* A = adult, J = juvenile, F = fry

BT = bull trout, WCT = westslope cutthroat trout

4.4 Significant Features and Fisheries Observations

4.4.1 Fish and Fish Habitat

The lower reaches of several of the large tributaries to the Flathead River have spawning gravel suitable for both bull trout and westslope cutthroat trout. Due to the extreme fluctuations in stream flows from spring freshets, several middle reaches that could provide adequate habitat and spawning gravels have been dewatered. For example, several reaches within St. Eloi and Packhorse Creeks were found to have large gravel-cobble channels with long (up to 1 km) dewatered sections. It is likely that fish become trapped in isolated pools once the water levels recede after spring flows. Two deceased adult westslope cutthroat trout were seen in the reach below Packhorse Lake. It is likely they became trapped in the low water and were unable to obtain the necessary food to survive.

Bull trout and westslope cutthroat trout are known to be present throughout the study area. Both species are considered blue listed species. Few bull trout were sampled in the tributaries but it is known that the mainstem of the Flathead supports a large fluvial population of bull trout. Large fish have been captured throughout the mainstem and the local guide provides anglers with fishing opportunities. It is possible that few bull trout were captured because the majority had not yet reached the spawning areas. The fish that were sampled were located in reaches with adequate spawning habitat and less rearing and overwintering habitat.

4.4.2 Habitat Protection Concerns

4.4.2.1 Fisheries Sensitive Zones

No fisheries sensitive zones were identified within the study area.

4.4.2.2 Fish Above 20 % Gradients

There were no fish found in reaches above 20% gradient. The steepest fish bearing reach was 16% in Reach 1 of Packhorse Creek tributary 330-956600-77600-90000-4160. The average gradient of the fish bearing reaches is 3%.

4.4.2.3 Restoration and Rehabilitation Opportunities

Within the study area, some minor concerns regarding restoration and rehabilitation were identified. Due to the flood that occurred in 1995, several channels have been affected. Streams located close to the Flathead River that have low gradients, were no longer present distinguishable and had been infilled by heavy sediment loads. Severe flood signs were observed within the Pollack Creek drainage. A metal culvert was observed in the mainstem of Squaw Creek during the overflight. It appeared to have been blown out and transported by the water during a major flood event as it was not located near any current or proposed road crossings.

Several culverts are acting as temporary barriers and should be addressed for fish passage and sediment transport concerns. For example sites 28, 58, and 59 have culverts present that are restricting access from the mainstem into the tributaries. A fish-passage culvert inspection should be recommended due to the presence of two blue-listed species within this system.

Beaver activity is also prevalent within the system and has caused the formation of several channels and the creation of isolated pools and wetlands. While their creation may be advantageous for some species such as brook trout, they do not create suitable habitat for bull trout and westslope cutthroat trout (Ford et al, 1993). There have been no observations of brook trout within the Flathead River system.

The banks surrounding the road crossing on tributary 330-956600-77600-88400-8000 seem to be very unstable. Partial slumping of the bank has created a debris torrent into the creek depositing silt into the stream. It is recommended that this road be permanently deactivated as westslope cutthroat trout were sampled in this stream.

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4.5 Fish Bearing Status

Each reach containing a sample site has been classified as either fish (Table 4) or non-fish bearing (Table 5). The following tables summarize the results from the field study showing the sampling methods used, fish presence or absence and the designated stream riparian classification.

4.5.1 Fish Bearing Reaches

Table 4. Summary of data from surveyed fish bearing reaches in the Middle Flathead River study area, 23 August to 14 September, 2001.

Stream Name	WSC/ILP	Reach	Site	Species*	Channel		Proposed	Comments
					Width (m)	site gradient (%)	Riparian Class	
Unnamed	330-956600-77600-86100-9170	1	28	WCT	4.8	0	S3	Resident fish population does not have access to Flathead due to no culvert at road.
Parker Creek	330-956600-77600-87100	4	29	WCT	5.8	5	S2	Beavers have created side channel, excellent cover and overwintering habitat.
Harvey Creek	330-956600-77600-88400	4	32	WCT	6.9	0.5	S2	Multi channels with many dry. Excellent cover, spawning and overwintering habitat.
Harvey Creek Trib.	330-956600-77600-88400-8000	1	35	WCT	3	2.5	S3	Sections of stream at mouth dry, low flow, isolated pools, restricts fish.
Cate Creek	330-956600-77600-88600	2	36	BT,WCT	33.4	1.5	S1	Cut trees seen in stream. Stream is fed by trib, above is dry.
Cate Creek Trib.	330-956600-77600-88600-1060-6050	1	38	BT,WCT	5.8	2	S2	Cate Creek upstream from this site dry, this trib feeds Cate. Some slumping on left bank.
Morris Creek	330-956600-77600-88400-2710	1	34	BT	14.1	1	S2	At mouth two deep pools created by beaver activity, right bank starting to erode.

Table 4. Contd.

Stream Name	WSC/ILP	Reach	Site	Species*	Channel		Proposed Riparian Class	Comments
					Width (m)	site gradient (%)		
Packhorse Creek	330-956600-77600-90000	3	46	WCT	9.3	9.5	S2	Set of falls at beginning of reach 6m with step pool morph created by bedrock.
Packhorse Creek	330-956600-77600-90000	5	47	WCT	3.6	1	S3	Mouth of channel dry attached to Packhorse Creek isolating fish. Stagnant water with mortalities observed.
Packhorse Creek Trib.	330-956600-77600-90000-4160	1	48	WCT	2.6	16	S3	Good habitat, inverts, cover, spawning gravel. Water flows all year.
St. Eloi Brook	330-956600-77600-90300	1	49	(WCT)	4.3	1	S3	Although no fish sampled, it is likely they can migrate downstream during spring when more water present.
St. Eloi Brook	330-956600-77600-90300	3	50	WCT	4.1	4	S3	From confluence of trib to this site is dry, flow must become subsurface.
Pincher Creek	330-956600-77600-92600	2	56	BT,WCT	4.4	1	S3	Excellent habitat, road ditch acts as a side channel.
Pincher Creek Trib.	330-956600-77600-92600-1980	1	57	BT,WCT	2.1	0.5	S3	Stream in the middle of cutblock. Excellent habitat with variety of cover and spawning gravel.
Pincher Creek Trib.	151	1	9	WCT	1.2	3	S4	Excellent habitat for a small stream.

Table 4. Contd.

Stream Name	WSC/ILP	Reach	Site	Species*	Channel		Proposed	Comments
					Width (m)	site gradient (%)	Riparian Class	
Flathead River Trib.	330-956600-77600-92900	2	58	BT	7.2	9	S2	BT caught in pool below hanging culvert.
McLatchie Creek	330-956600-77600-93900	2	65	WCT	5.1	3	S2	Excellent habitat with cover, inverts and spawning gravel. Lots of beaver activity around stream.
McLatchie Creek Trib.	51	1	4	WCT	0.7	0.5	S4	Stream has been re-directed with organic bed material, old channel is dry.
McLatchie Creek Trib.	330-956600-77600-93900-6600	1	66	WCT	2.1	0	S3	At mouth dry channel from wetland, 10m upstream isolated pools. Overwintering poses a problem.
Flathead River Trib.	1	1	1	WCT	21	0	n/a	This site is a wetland with lots of beaver activity.

* BT = bull trout, WCT = westslope cutthroat trout

4.5.2 Non-Fish Bearing Reaches

Some sites were dry and did not have enough water in the channel to be adequately sampled. If these sites did not have adequate fish habitat potential, they were given a non-fish bearing designation (Table 5). Some sites, which had the potential to be fish bearing but were not sampled this year, have been identified as sites requiring follow-up sampling (Table 6).

4.5.3 Follow-up Sampling Required

Five sample sites will require follow-up sampling to determine fish presence/absence and the correct stream riparian classification (Table 6).

Table 5. Summary of data from surveyed non -fish bearing reaches in the Middle Flathead River study area, 23 August to 14 September, 2001.

Table 6. Follow-up sampling required for classification of non-fish bearing reaches in the study area.

Stream Name	WSC/ILP	Reach(es)	Timing	Methods*	Comments
Shepp Creek	330-956600-77600-89700	2	Early August	EF, MT, AG	Could not EF due to water temperature of 3 degrees, did not trap due to heli access.
Sumao Creek	330-956600-77600-87100-1040	1	Early August	EF, MT, AG	Dry at time of sampling.
Flathead River Trib.	507	1	Early August	EF, MT, AG	Dry at time of sampling.
Unnamed	330-956600-77600-92000	1	Early August	EF, MT, AG	Dry at time of sampling.
Unnamed	330-956600-77600-92500	1	Early August	EF, MT, AG	Dry at time of sampling.

* EF = electrofishing, MT = minnow traps, AG = angling

5 REFERENCES

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APPENDIX 1
Photodocumentation

APPENDIX 2
FDIS Summary

APPENDIX 3
Hardcopy Maps