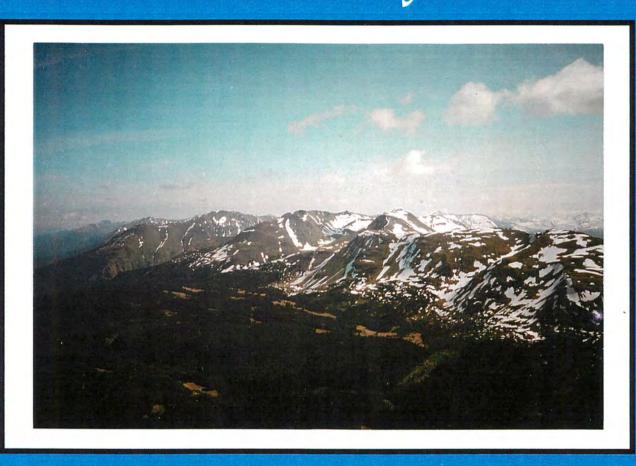
# 1:5,000 Fish and Fish Habitat Inventory



In the Kispiox Watershed



# 1:5,000 Fish and Fish Habitat Inventory in the KISPIOX WATERSHED

Project: 06-KISP-430000001-1998

Final Report

#### Prepared for:

Skeena Cellulose Inc. (Carnaby Operations) #10 North Boundary Road South Hazelton, BC V0J 2R0

February 1999

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#### PROJECT REFERENCE INFORMATION

FRBC Project Number 000102

**FDIS Project Number** 06-KISP-430000001-1998

MELP Project NumberSCI-C172-001-1999MELP RegionSkeena Region (6)

MELP DistrictBulkleyFW Management Unit6-30

Fisheries Planning Unit North Coast

**DFO Sub District** #4C

Forest Region Prince Rupert

Forest District Kispiox Forest District Forest Licensee Skeena Cellulose Inc.

#### WATERSHED INFORMATION

Watershed Group
Watershed Name
Kispiox River
Watershed Codes
470-000000-

UTM at Mouth 9.582864.6133681

Fish Species CM, PK,CH, CO, SK, ST, RB, CT, DV, MW, KO,

LT, LW

Project Area ±63,000 ha
Biogeoclimatic Zone ICHmc2
Kispiox River Length 125 Km
Stream Order 7th order

NTS mapsheets 103P/9, 103M/12, 93M.05, 103P16, 103P.10 and

103P.15

**TRIM Mapsheets** 103P.059, 103P.060, 103P.068, 103P.069, 103P.070, 103P.071,

103P.078, 103P.079, 103P.080, 103P.088, 103P.089,103P.090,

103P.099,103P.100, 93M.041, 93M.051, 93M.061

#### SAMPLING DESIGN SUMMARY

Total Number of Reaches 27 Sample Sites 27

Survey Dates September 16 - September 25, 1998

## Disclaimer

This product has been accepted as being in accordance with approval 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

Triton Environmental Consultant's team for this inventory project included Mr. Dave Gordon, Project Manager, Mr. Bryan Williams, Crew Leader and author, Ms. Michelle Prins, Field Crew member, Mr. Dave Warburton, GIS Manager, Ms. Kay Kennes, GIS Technician, and Ms. Heather Draper, support staff.

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# List of Attachments

(to be submitted with final reports)

(available from Regional Fisheries Inventory Specialist, Ministry of Environment, Lands and Parks Regional Office in Smithers, BC)

- 1. Fisheries Inventory Maps, 1:20,000 Scale TRIM based.
- 2. Photo Summary Report, slide binders and Photo Cds for all project photos.
- 3. Digital Files (8 watershed reports, FDIS data file, ArcInfo Map files and plot files).
- 4. Hard copy FISS update forms with 1:50,000 maps

# LIST OF ABBREVIATIONS

Abbreviation	Definition
CM	chum salmon (Oncorhynchus keta)
СН	chinook salmon (Oncorhynchus tshawytscha)
СО	coho salmon (Oncorhynchus kisutch)
PK	pink salmon (Oncorhynchus gorbuscha)
SK	sockeye salmon (Oncorhynchus nerka)
DV	Dolly Varden char (Salvelinus malma)
RB or ST	rainbow or steelhead trout (Oncorhynchus mykiss)
CT	cutthroat trout (Oncorhynchus clarki clarki)
SP	unknown species
( )	Assumed fish presence, seasonally or year round based on
	access, gradient or habitat capabilities, i.e. (DV) =
	assumed Dolly Varden.
NF	No fish
U/S	Upstream
D/S	Downstream
FISS	Fisheries Information Summary System (DFO/MoE)
E/F	Electrofishing
VO	Visual observation
FPC	Forest Practices Code
S1 - S6	Stream classifications S1 to S6 based on Ministry of
	Forests, Forest Practices Code, Riparian Management Area
	Guidebook.
FSZ	Fisheries Sensitive Zone
EFU	End of Fish Use
NVC	No Visible Channel
RMA	Riparian Management Area
M/L	Mainline (road)

#### 1. Introduction

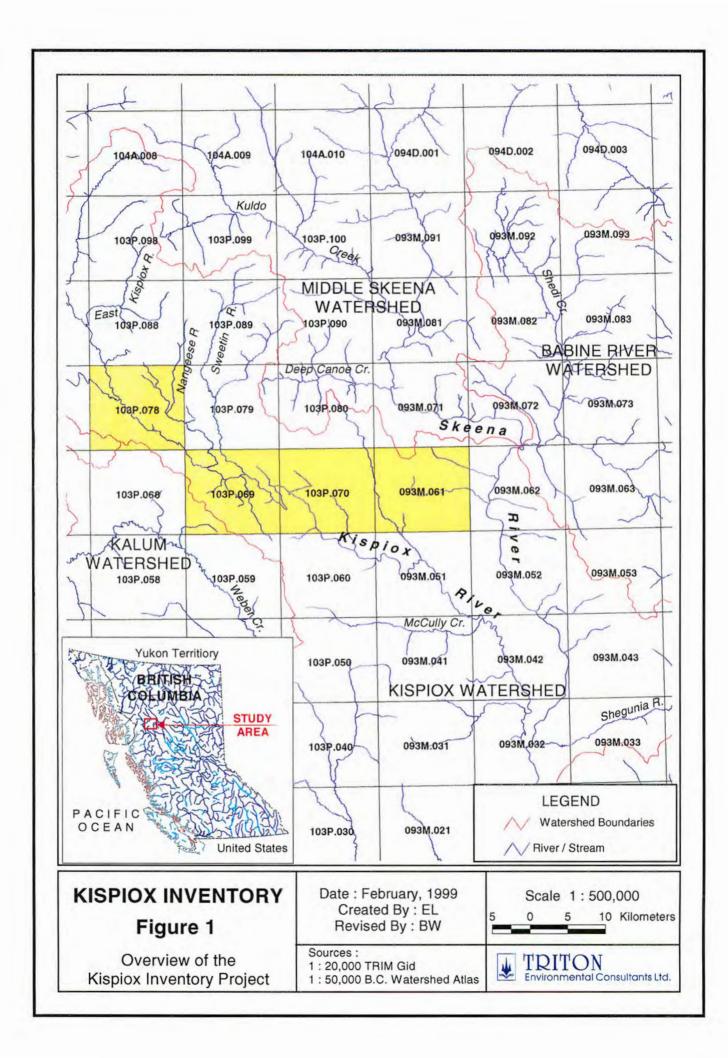
Triton Environmental Consultants Ltd. was retained by Skeena Cellulose Inc., Carnaby, to conduct a reconnaissance 1:20,000 fish and fish habitat inventory within the Kispiox Watershed between Cullon Creek (inclusive) and Stephens Creek (exclusive). Typically 1:20,000 stream inventories precede block level (1:5,000 level) fisheries assessments. In order to accommodate immediate management plans, preliminary block level (1:5,000) assessments were made on 12 cutblocks during the 1998 season. This report describes the results of field surveys conducted on September 16th -25th, 1998 and provides stream classifications for the cutting areas surveyed. The phase 1-3 1:20,000 stream inventory planning was completed in the fall of 1998 (Triton, 1998) with the field work to commence in the 1999 season.

This report is organised by working area and cutblock number. Within each cutblock, streams have been assigned unique ILP (Interim Locational Point) numbers, and sample sites a unique NID (Numeric Identifier) number. All relevant information for each block assessed can be found in the section of the report devoted to that block. The information in each section can be found in the following order: stream specific text, site specific photographs and a stream summary table. FDIS site card hardcopy, FDIS fish form hardcopy, FDIS reach card hardcopy and annotated TRIM maps can be found in the appendix section of this report.

#### 1.1 Location and Study Area

The Kispiox River originates in the Skeena Mountains between the Nass and the Skeena Rivers. It flows south east for approximately 125 km and is joined by the Nangeese and Sweetin Rivers along with numerous creeks before entering the Skeena River (Figure 1). Numerous fish species are found in the Kispiox watershed including all five pacific salmon species including kokanee, steelhead, rainbow and cutthroat trout, lake trout and Dolly Varden char and rocky mountain and lake whitefish (SIS, 1991). The Kispiox River is well known by anglers for its autumn steelhead fishing and is popular destination for anglers from around the world.

The Kispiox Valley is located within the Interior Cedar-Hemlock cold zone (ICHmc2) and is typified by cool wet winters and warm dry summers (Meidinger and Pojar, 1991). The terrain surrounding the river is typically rolling sidehills with a forest dominated by western hemlock and western red cedar with smaller lodgepole pine and sub alpine fir components. The climax forests are commonly blanketed with a thick *sphagnum* spp moss layer and few shrubs.



The project area covers four working areas (assigned by Triton) between Cullon Creek (inclusive) and Stephens Creek (exclusive) (Table 1). The Cullon Stream Sampling Area includes the Cullon Creek Watershed and one cutblock from the lower Ironside Watershed; the Ironside Stream Sampling Area includes the Ironside and Corral Creek Watersheds; and the Nangeese Stream Sampling Area includes the Nangeese and Sweetin River Watersheds. The Beaverlodge or Mitten stream sampling area is located along the Mitten Mainline on the south side of the Kispiox River. One of the cutblocks is located in the Beaverlodge Creek Watershed and the three other cutblocks are located in small, unnamed watersheds along the south side of the Kispiox River (Figure 1).

Table 1: List of cutblocks in each sampling area

Stream Sampling Area	Cutblocks	TRIM maps
Cullon	Block 78, 79, 80 and 81	103P.070, 93M.061
Ironside	Block 72, 73 and 74	103P.070
Nangeese	Block 1	103P.078
Beaverlodge (Mitten)	Blocks 94, 95, 96 and 97	103P.069, 103P.070

# 1.2 Study Objectives

The objectives of this study were to conduct fish and fish habitat inventories, using 1:20,000 scale maps, to classify stream reaches within or adjacent to proposed timber harvesting areas as per Forest Practises Code regulations. The proposed Cutting Permits lie within the Skeena Cellulose chart area within the Kispiox Forest District. Key components of the fish and fish habitat inventory were to determine fish presence and the End-of-Fish Use (EFU) for fish-bearing stream reaches and to collect channel width and channel morphology information to determine stream classification.

One key objective in this study was to identify fish bearing reaches within cutblock boundaries. The location of each cutblock was annotated on a 1:20,000 Forest Development Plan map which often proved to be limiting in accurately determining the exact location of the boundaries in the field. Also there were no field markers to tie our field measurements into as the majority of the cutblocks had yet to be engineered (layed out with ribboning). Subsequently, field measurements have been made with a hipchain and are subject to revision as block boundaries are engineered. End of Fish Use (EFU) and reach breaks have been marked in the field and engineering crews have been alerted of this in order that the marked points may be included on future 1:5,000 block maps.

#### 1.3 Background Data Review

Background information on the watersheds is generally restricted to the larger mainstem rivers and creeks (e.g. Kispiox, Cullon, Ironside etc.). The smaller streams and headwater stream reaches (first and second order) that were examined in this inventory had little or no existing fisheries information.

#### 2. METHODS

The field survey and subsequent classifications are based on the following publications:

- FPC Regulations (MoF, 1995)
- Riparian Management Area Guidebook (MoF, 1995)
- Fish Stream Identification Guidebook (MoF, 1995)
- Fish Stream Identification Guidebook, 2nd edition (MoF, 1998)

Stream assessments were conducted as outlined in the *Fish Stream Identification Guidebook*, which follows the procedures outlined in the *Stream Inventory Manual* (MELP, 1998).

#### 2.1 Fish sampling

Fish sampling was conducted by electrofishing, Gee (minnow) trapping and visual observations. Electrofishing was conducted using Smith - Root type 12B electroshockers. Gee-traps were used as a second fish sampling method where required. The traps were baited with commercial salmon roe and left overnight.

To maximize efficiency, determining fish presence and finding the end of fish use for the most downstream reaches of streams adjacent to or within cutblocks was focused upon. For each stream reach fish sampling was conducted if fish habitat existed. The stream was then walked upstream and/or downstream to determine fish presence or the point of end of fish use.

As described in the Fish Stream Identification Guidebook (MoF, 1995), once fish were confirmed as being present in a stream, no further sampling was conducted. Establishing no fish presence in a stream was more difficult. Once it was decided that sufficient electrofisher sampling (and possibly second method sampling depending on the stream) was conducted, and no fish were captured, the possibilities of seasonal fish presence were explored. If a reason existed that no fish were caught (e.g. poor habitat quality/quantity or a downstream barrier) then "no fish present" was established and the stream was classified S5 or S6 (depending on channel width). "No fish streams" are recorded in the non-fish bearing status report at the end of this report. Streams where no fish were

captured yet contained suitable habitat and were easily accessed from a known fish bearing stream were assumed to contain fish as they may provide seasonal habitat.

Electroshocking conditions were not ideal as often is the case in high level upper watershed streams. Water temperature, clarity and conductivity are three parameters which have significant effect on electroshocking efficiency. Each of these parameters in discussed below.

- 1) As the survey was conducted in September, water temperatures were moderate to high ranging from 7.5 to 12 degrees Celsius. Vincent (1971), through Cowx and Lamarque (1990) suggest 5-10 degrees Celsius is ideal for salmonid electroshocking. The temperatures encountered in the field were typically close to or within the optimal range.
- 2) The water was clear in every stream visited in the Kispiox Watershed. Seeing fish that were electroshocked was never limited by water clarity.
- 3) The conductivity of the streams were typically low, ranging from 20 to 180 microSiemens/cm, which is commonly the case in higher elevation, low magnitude streams. As suggested by Cowx and Lamarque (1990), lower conductivity streams can be effectively fished using increased voltage levels. Most of the electroshocking conducted in this study was done with a voltage setting of 400 V. This had proven adequate on streams in other areas of the watershed with similar conductivity. Also higher settings were tried periodically throughout the survey with no apparent increased success.

#### 2.2 Stream Measurements

Stream widths were determined by measuring the channel width with an Eslon tape or meter stick. Multiple measurements (minimum of 6) were made for each site, each measurement at least one channel width distance apart. These measurements were averaged to determine the average stream width for classification purposes. Stream gradients were determined from 1:20,000 maps and field surveys using a clinometer or ground estimate. Streams that are greater than 20% gradient are generally assumed to be non-fish bearing (MoF, 1995).

#### 2.3 Stream Identification and RMA Classification

Streams were marked by Triton at the classification boundary of each stream with red and white striped 'creek' flagging tape; a tree was blazed and painted with blue spray paint and stream information was imprinted on steel tags and nailed to the blaze (i.e.: *Triton*,

Stream #, Site #, Date, S5 / S6 boundary). RMA classification is determined through the process outlined in the RMA guidebook (MoF, 1995).

ILPs were issued to streams as the streams were surveyed with only one ILP issued to each stream. Tributaries were assigned unique ILPs if they flowed into streams which had existing ILPs. Sample sites and special features (barriers, cascades) were given a NID number in ascending order as the sites or features were visited.

#### 2.4 Photographs

Photographs of sites, streams, fish and channel features were taken with a 35 mm camera fixed with a 38 - 90 mm zoom lens. Representative photographs are presented in the Results section. Additional photos that were taken but are not presented in the Results section can be found on the accompanying Photo CD(s). A photo documentation form is presented at the back of this report which can be used to cross-reference the site number, roll and frame number with the image file name located on the Photo CD. Digital photos can be viewed with appropriate graphical software (Corel DRAW, Power Point, etc.)

#### 2.5 Mapping

Stream classifications and classification boundaries are shown on 1:20,000 maps included in the Appendix. Fish bearing streams (S1-S4) are coloured in red, non - fish streams (S5 and S6) are shown in blue and fish sensitive zones are in yellow. Several unmapped or incorrectly mapped streams were found within the study area; these streams were classified and added or amended on the maps provided. Several watercourses that are technically not streams as defined by the FPC (i.e. they have no continuous, definable banks, no bed scouring has occurred or there is no alluvial substrate deposits) were noted in the study area. These appear on the maps provided as stream lines but have no fisheries potential, are not coloured and are classified as "no visible channel" (NVC).

The TRIM maps in this report do not show the proposed cutblocks. While Skeena Cellulose Inc. has mapped these blocks, we were unable to transfer them to these fish inventory maps because SCI's maps are NAD 27 based while RIC standard maps are NAD 83. SCI is currently in the process of updating to NAD 83 but they do not expect to complete this process until mid 1999 (Randy Hall, SCI GIS dept., pers. com).

### 2.6 Follow-up Sampling

Follow-up sampling is often required in areas where fish bearing status cannot be determined at the time of initial sampling. Situations like this typically occur when fish habitat exists in the stream yet the stream is dry (no fish sampling can be conducted) and seasonal fish use is possible. Also distance and ease of access from the nearest fish bearing body of water located downstream are key factors. In order for follow-up or second sampling to be applicable:

- fish access into the reach must be possible,
- the closest fish bearing body of water downstream must be within reasonable distance (distances fish may migrate seasonally for purposes such as spawning),
- fish habitat must exist and
- the stream must be <20% gradient.

Reaches of streams that are close or adjacent to fish bearing waters, are accessible to fish, contain fish habitat and are dry and cannot be sampled are typically inferred fish bearing.

#### 3. RESULTS

#### 3.1 Cullon Study Area

Cullon Creek is the most easterly major watershed flowing into the north bank of the Kispiox River (found on TRIM mapsheet 103P.070). It is a fourth order stream that contains major tributaries such as Tahtlum, Kuitan and Mooluck Creeks. The mainstem contains populations of coho, pink and chinook salmon along with steelhead, rainbow and cutthroat trout, rocky mountain whitefish and Dolly Varden char (SIS, 1991). Most of these species have been observed in the lower 2 km of the stream, however, coho and Dolly Varden have been observed 20 km upstream of the mouth (SIS, 1991).

The Cullon stream sampling area consists of 3 cutblocks within the Cullon Creek watershed (Blocks 78, 79 and 81) and one cutblock in the lower end of the Ironside Watershed (Block 80).

#### 3.1.1 Block 78

Blocks 78 and 79 are adjacent to two small lakes at the head of a long unnamed tributary to Cullon Creek (assumed to be a tributary to Cullon Creek as the creek disappears on TRIM map 93M.051). These lakes are at ~600 m elevation and are approximately 9 km upstream of Cullon Creek. The blocks were accessed by turning north off of the Trail Main onto the Cancel Main at the 49 km post. They are located approximately 14 km from the Trail Main on the Bridge Main.

Block 78 contains two streams within its boundaries identified on TRIM mapsheet 103P.070 (ILP 1016 and 1015). Both streams are first order streams, one (ILP 1016) flowing into a small lake to the south and the other (ILP 1015) flowing into the outflow of the small lake.

ILP 1016 (Photo 1) had moderate rearing values and cover, yet did not provide any spawning or overwintering habitat for fish. The average channel width was 0.72 m and the average gradient was 3.5%. The end of fish use (EFU) was established 200 m upstream of the lake where the stream deteriorated and there was no suitable fish habitat (S4/S6 break). According to preliminary development plan maps the end of fish use (S4 stream) extends into the cutblock ~100 m.

ILP 1015 (Photo 5 and 6) is a low gradient (0.5% average) stream with an average channel width of 0.73 m. Spawning habitat was limited although the stream did provide

some rearing habitat. The S4/S6 break is located 150 m from the confluence with ILP 1016. Upstream of this there was no suitable fish habitat found. The EFU is located ~900 m downstream of the Block 78 boundary. ILP 1015 flows along the Block 79 boundary for approximately 400 m.

#### 3.1.2 Block 79

Block 79 contains three streams within the block boundaries identified on TRIM mapsheet 103P.070 (ILP 1013,1014 and 1015). ILP 1014 is a second order mainstem stream which flows from the largest of the three lakes. ILP 1013 is a first order stream which is indicated on TRIM maps to flow from a third small lake to ILP 1014. ILP 1015 (discussed above in association with Block 78), is a first order stream flowing into the larger central lake.

ILP 1014 (Photo 3 and 4) is a low gradient stream (average 0.75%) with an average channel width of 2.7 m. Rearing habitat was abundant with cover consisting mainly of overstream vegetation and woody debris (LWD/SWD). Spawning habitat was limited as the stream substrate was made up of mainly cobble. Overwintering habitat was not present in the stream, however, the adjacent lake would provide good overwinter habitat for fish. A 83 mm cutthroat trout was captured by electrofishing approximately 40 m downstream of the lake. ILP 1014 is a S3 stream within the cutblock area.

ILP 1013 did not exist and was classified as "no visible channel".

ILP 1015 (Photo 5 and 6) flows for approximately 400m along the northern boundary of Block 79. As mentioned above, the stream provides suitable fish habitat for 150 m upstream from the lake and is classified as S4. Upstream of the 150 m point the stream does not contain fish habitat and is classified S6.

#### 3.1.3 Block 80

Block 80 is adjacent to a small lake situated in the lower Ironside Creek watershed approximately 2.5 km east of Ironside Creek. This block was accessed by turning north off of the Trail Main onto the Cancel Main at the 49 km post. It was then accessed by turning left on the Bailey Main (located approximately 7 km from the Trail Main).

Block 80 contains two streams within its boundaries identified on TRIM mapsheet 103P.070 (ILP 1021 and 251). ILP 1021 is a third order stream which flows into Ironside Creek, and ILP 251 is a first order stream which, indicated by TRIM mapping, joins with another first order stream and flows into ILP 1021.

ILP 1021 (Photo 7, 8 and 9) is a small (average channel width is 0.87 m), low gradient stream (average 1.5%) flowing south through the centre of Block 80. Spawning and rearing values were good throughout the sampled area. A 45 mm cutthroat trout was captured upstream of the road within the block. The stream through Block 80 is classified as S4.

ILP 251 did not exist and was classified as "no visible channel".

#### 3.1.4 Block 81

Block 81 is situated east of Cullon Creek approximately 3 km at an elevation of 650 m in an unnamed tributary watershed to Cullon Creek. Block 81 is accessed by turning off of the Trail Main onto the Kuldo FSR at the 45.5 km post, turning right on the Bush Main, and again on the Mill Main (located approximately 10 km from the Trail Main).

Block 81 has four streams within or in the vicinity of the block boundary identified on TRIM mapsheet 93M.061 (ILP 1017, 1018, 1019 and 1020). ILP 1019 is a second order stream flowing in a south-west direction through the centre of the block. ILP 1017, 1018 and 1020 are short, first order streams. ILP 1018 and 1020 flow into ILP 1019.

ILP 1019 (Photo 10 and 11) is a moderate gradient (average 4.5%) stream with an average channel width of 1.05 m. Moderate rearing habitat exists, yet, due to many small barriers/obstructions it is not accessible by fish. The obstructions were made up of organic materials located throughout the sampled area (limiting upstream migrations by juveniles). Cover was abundant and was composed of mainly overstream vegetation and instream LWD. Spawning and overwintering habitat did not exist. The stream was dry at the time of survey except for a few wetted pools. These pools were electroshocked and

no fish were captured. Sections of one to five metres existed of subterranean flow. Many of the barriers/obstructions would constitute barriers to adult fish migrations. This stream was classified as S6.

ILP 1017 did not exist and was classified as "no visible channel".

ILP 1018 did not exist and was classified as "no visible channel".

ILP 1020 (Photo 12) did not exist and was classified as "no visible channel".



Photo 1 - ILP 1016 is a low gradient stream with limited fisheries values. Rearing values were moderate due in part to the ample cover shown above (S4/S6 break located 200 m from mouth).



Photo 2 - ILP 1014 flows from a small lake and provides habitat for cutthroat trout (classified S3).



Photo 3 - ILP 1014 looking downstream (classified S3).



Photo 4 - ILP 1014 looking upstream towards the lake (classified S3).



Photo 5 - ILP 1015 is a low gradient stream with limited fisheries values. This is a view of a fish accessible section of stream (S4/S6 break located 150 m from mouth).



Photo 6 - ILP 1015 showing the end of fish use (S4/S6 break located 200 m from mouth).



Photo 7 - ILP 1021 is a low gradient stream with good fisheries values. This is a view looking upstream from the sample site (classified S4).



Photo 8 - ILP 1021 showing the road crossing. A cutthroat trout was caught in the foreground (S4).



Photo 9 - The cutthroat trout which was caught in ILP 1021.



Photo 10 - A view of ILP 1019 looking downstream from the road (classified S6).



Photo 11 -A view of ILP 1019 looking upstream from the sample site showing the poor habitat values (S6)



Photo 12 - A view of ILP 1020 where a defined channel did not exist (no visible channel).

Table 2: Summary of Stream Assessments for the Cullon Stream Sampling Area

Block	TRIM	Stream	Stream	Avg	RMA	Grad.	Location of	Fish	Photo	Habitat Comments
Ī	Map No.	ILP	NID	Chan	Class.	(%)	End of Fish	Present	Numbers	
		(Reach)		Width		<u> </u>	Use			
				(m)						
78	103P.070	1015	2015	.73	S4/S6	0.5	150 m u/s from mouth	[CT]	5,6	Low gradient swampy stream.
78	103P.070	1016	2016	.72	S4/S6	3.5	200 m u/s from mouth	[CT]	1	Low gradient with moderate rearing values.
79	103P.070	1013	2013	n/a	NVC	-	n/a			No visible channel.
79	103P.070	1014	2014	.27	S3	1	n/a	СТ	2,3,4	Moderate rearing but poor spawning values.
80	103P.070	1021	2012	.87	S4	1.5	u/s of the cutblock	СТ	7,8,9	Good spawning and rearing values.
80	103P.070	251	2251	n/a	NVC	-	n/a			No visible channel.
81	93M.061	1017	2017	n/a	NVC	-	n/a			No visible channel.
81	93M.061	1018	2018	n/a	NVC	-	n/a			No visible channel.
81	93M.061	1019	2019	1.05	S6	4.5	Downstream of the cutblock	None	10,11	Fish habitat does not exist.
81	93M.061	1020	2020	n/a	NVC	-	n/a			No visible channel.

#### 3.2 Ironside Study Area (CP 385)

Ironside Creek flows south-east into the north bank of the Kispiox River approximately 5 km upstream of Cullon Creek (found on TRIM mapsheet 103P.070). It is a fourth order stream with numerous first and second order tributaries. The mainstem contains populations of coho and pink salmon along with steelhead, rainbow and cutthroat trout, rocky mountain whitefish and Dolly Varden char (SIS, 1991). Coho have been observed spawning 11 km from the mouth and pink have been observed spawning 5 km from the mouth (SIS, 1991).

Corral Creek flows south into the north bank of the Kispiox River approximately 10 km upstream of Ironside Creek. It is a third order stream with numerous first and second order tributaries. The mainstem contains populations of coho and pink salmon up to a rock falls 250 m upstream of the mouth, which is the upstream limit for anadromous fish (SIS, 1991). Resident populations of cutthroat trout and bull trout exist upstream of the falls (Nortec, 1997).

The Ironside stream sampling area contains Blocks 72, 73 and 74. Blocks 72 and a portion of Block 73 are within the Ironside Creek Watershed and Block 74 along with the remainder of Block 73 is within the Corral Creek Watershed. All three cutblocks are located within a 2 km radius on a gradual southern exposed slope at approximately 600 m in elevation. The area was accessed by turning north off of the Trail Main at approximately the 65 km point and travelling for approximately 7 km on the Corral Main.

#### 3.2.1 Block 72

Block 72 is the eastern-most of the three cutblocks and is the lowest in elevation. The surrounding area is relatively flat and swampy with some deciduous content to the coniferous forest. The block was accessed via a deactivated spur road from the Corral Main.

Block 72 is bordered by three streams; Ironside Creek to the east, ILP 11010 to the south and ILP 11013 to the west (TRIM 103P.070). ILP 11010 is a second order stream flowing south east into Ironside Creek and ILP 11013 is shown on the TRIM map as a first order stream which flows into ILP 11010.

Ironside Creek (Photos 13 and 14) has been previously sampled with documented coho salmon located as high upstream as the cutting areas (SIS, 1991). The section of stream alongside the cutblock contains excellent spawning and rearing values. The average

channel width at the downstream edge of the cutblock (sample site # 22012) was 6.66 m. Ironside Creek is classified as S2.

ILP 11010 (Photos 15, 16 and 17) is a moderate gradient stream (average 4.5%) with moderate to good rearing values yet does not provide much spawning and overwintering habitat. The cover is abundant, dominated by overstream vegetation and some LWD and SWD. A 70 mm cutthroat juvenile was electroshocked approximately 2.2 km upstream of the confluence of stream ILP 11010 and Ironside Creek. ILP 11010 has an average channel width 1.23 m and is subsequently classified as S4 to upstream of Block 73.

ILP 11013 did not exist and was classified as "no visible channel".

#### 3.2.2 Block 73

Block 73 is located between Blocks 72 and 74 on the lower portion of the south facing slope. Within or in the vicinity of the block are four streams identified on TRIM mapsheet 103P.070 (ILP 11010, 11011, 1007 and 1008). Two streams join and flow south east into Ironside Creek (ILP 11010 discussed as part of Block 72 and ILP 11011), and two which join and flow south west into Corral Creek (ILP 1007 and 1008). ILP 1007 is a second order, ~4.5 km long stream which flows through Block 74, and is joined by ILP 1008 before flowing south along the west boundary of Block 73 and into Corral Creek. ILP 11010 is joined by ILP 11011 and flows along the east boundary of Block 73.

ILP 11011 is a low gradient stream (avg. 2%) with an average channel width of 0.87 m. The spawning and rearing values are poor throughout the stream yet juvenile fish may rear in the stream during periods of high water. The EFU (S4/S6 break) is located 150 m upstream of the confluence within the cutblock boundary where the stream emerges from a swampy area.

ILP 11010 is classified as S4 (discussed above as part of Block 72).

ILP 1007 (Photos 18, 19, 20 and 21) is a moderate to high gradient stream (avg. 7.5% in Reach 1 increasing to 16% in Reach 2) which has an average channel width of 2.07 m. There is a cascade barrier (barrier to fish migrations) 10 m in height and 15 m long located approximately 200 m upstream of Corral Creek. Extensive electroshocker sampling confirmed that there are no resident populations of fish upstream of the barrier. ILP 1007 and ILP 1008 (trib to 1007) are classified as S6. There was no sampling done downstream of the barrier.

ILP 1008-classified as S6 (see ILP 1007 above).

#### 3.2.3 Block 74

Block 74 is situated higher on the south facing slope than Block 72 and 73 at an elevation of 760 m. Block 74 contains three streams (TRIM 103P.070); one which flows through Block 73 (ILP 1007), a tributary to it (ILP 1009) and a third that flows directly into Corral Creek (ILP 1006). ILP 1007 is a first order stream in the portion flowing along the upper west side of the block. ILP 1009 flows from within the block and joins ILP 1007 before it reaches Block 73. ILP 1006 is a second order stream that flows along the east boundary of the block.

ILP 1007 (Reach 2) has an average gradient of 16 % (the upper stream adjacent to Block 74) and an average channel width of 1.07 m. Potential spawning and rearing values are poor. ILP 1007, as mentioned above in Block 73, contains a fish barrier on the lower end of the creek. There is no resident population of fish in the stream system. ILP 1007 and ILP 1009 are classified as S6.

ILP 1009 (Photo 22) is a moderate to high gradient stream (average 12%) with an average channel width of 0.72 m. The channel was dry at the time of survey. ILP 1009 is a tributary to the S6 section of ILP 1007 and therefore classified as S6 (see ILP 1007 above).

ILP 1006 (Photos 23 and 24) flows at a moderate to low gradient (~5%) for approximately 800 m along the west boundary of Block 74, and then drops down into Corral Creek at gradients averaging 25% for 500 m. There are many small falls throughout this high gradient stretch that constitute barriers to migrating fish. The low gradient section of stream along the edge of the block has an average channel width of 1.3 m. Extensive electroshocker sampling confirmed that there are no resident populations of fish upstream of the barriers. ILP 1006 is classified as S6.



Photo 13 -Ironside Creek looking upstream from the sample site at the excellent fish habitat (S2).

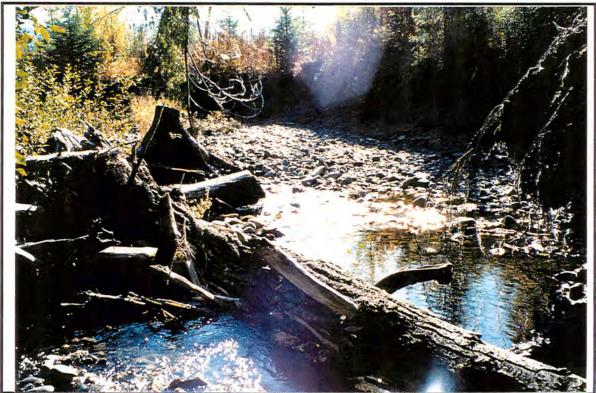


Photo 14 - A view of a log jam and an eroding bank downstream of the sample site in Ironside Creek (S2)



Photo 15 - A view of the downstream end of the culvert on stream 11010. This stream was classified as S4.



Photo 16 - A view of ILP 11010 looking downstream at the area where the cutthroat trout was caught (S4).

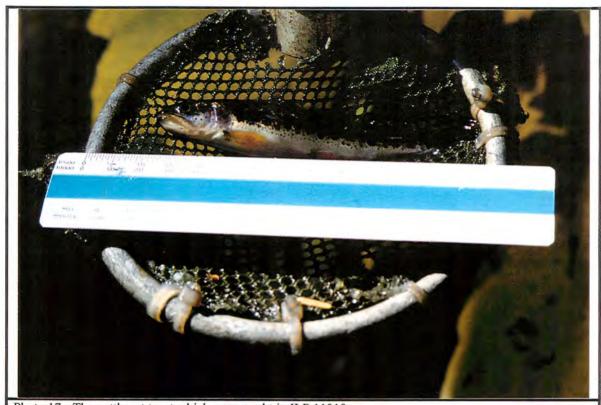






Photo 18 - A view of ILP 1007 looking downstream from a spur road crossing (classified S6).



Photo 19 - Sections of ILP 1007 were dry or contained little water during the time of the survey (S6).



Photo 20 - A view of the 10 m high and 15 m long cascade located on ILP 1007 ~200 m upstream from the mouth.



Photo 21 - A view of upper ILP 1007 looking upstream (classified S6).

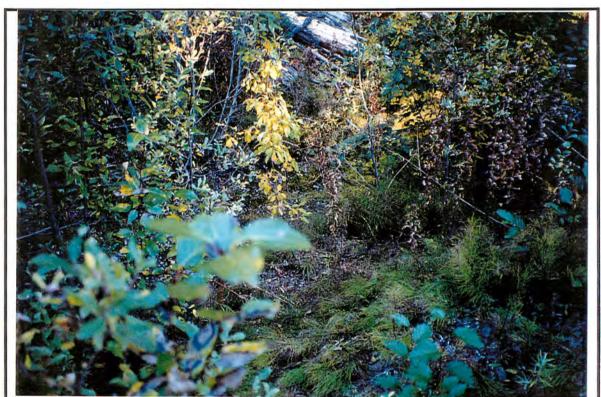


Photo 22 - A view of ILP 1009 from the road within the proposed cutblock. This stream was classified as S6.



Photo 23 - A view of ILP 1006 looking upstream (classified S6).



Photo 24 - A view of ILP 1006 looking downstream from the road (classified S6).

Table 3: Summary of Stream Assessments for the Ironside Stream Sampling Area

Block	TRIM Map No.	Stream ILP (Reach)	Stream NID	Avg Chan Width (m)	RMA Class.	Grad. (%)	Location of End of Fish Use	1	Photo Numbers	Habitat Comments
72	103P.070	Ironside	22012	6.60	S2	1.5	Unknown	CO CT DV RB	13,14	Excellent spawning and rearing values.
72	103P.070	11010	22010	1.23	S4	4.5	U/s of the cutblocks.	СТ	15,16,17	Poor spawning yet good rearing values.
72	103P.070	11013	22013	n/a	NVC	-	n/a			No visible channel.
73	103P.070	11011	22111	.88	S4/S6	2	150 m u/s of mouth	[CT]		Poor spawning and rearing values.
73	103P.070	1007	2007	2.07	S6	7.5	~200 m u/s of mouth	None	18,19,20	Moderate potential fisheries values.
73	103P.070	1007 (2)	22007	1.1	S6	16	~200 m u/s of mouth	None	21	Poor potential fisheries values.
73	103P.070	1008	2008	<3m	S6	-	n/a	None		
74	103P.070	1006	2006	1.3	S6	5	At the mouth.	None	23,24	Good potential fisheries values.
74	103P.070	1009	2009	.72	S6	12	~200 m u/s of mouth on ILP 1007	None	22	Poor potential fisheries values. The stream was dry at time of survey.

#### 3.3 Beaverlodge Study Area (Mitten Area - CP 379)

CP 379, the Beaverlodge stream sampling area contains Blocks 94, 95, 96 and 97. Blocks 94, 95 and 97 are located within the drainages of small first and second order streams which flow directly into the Kispiox River (found on TRIM mapsheets 103P.069 and 103P.070). Block 96 is located along the south bank of Beaverlodge Creek, a larger third order stream. The blocks were accessed by crossing the Kispiox River from the Trail Main to the Mitten Main. Each block is located in close proximity to the Mitten Main and easily reached by spur roads.

#### 3.3.1 Block 94

Block 94 is located on a gradual north facing slope at an elevation of approximately 650 m. The south-east corner of the block angles towards the south and is approximately 600 m from Hilltop Lake. The Mitten Main crosses along the north boundary of the block between it and a previously harvested block.

Block 94 has three streams identified within or in the vicinity of its boundaries on TRIM mapsheet 103P.069 (ILP 1011, 1010 and 1145). ILP 1011 is a first order stream which flows along the north east edge of the block and is joined by another first order stream (ILP 1010) which flows from within the block. ILP 1145 is also a first order stream which flows south from close to the block boundary into Hilltop Lake.

ILP 1010 (Photos 25 and 26) is a low gradient (avg. 2%) stream with an average channel width of 0.54 m. There is a rock falls 6 m in height located approximately 300 m downstream of the cutblock which is a barrier to upstream fish migrations. Extensive electroshocker sampling confirmed that there are no resident populations of fish upstream of the barrier. ILP 1010 and ILP 1011 are classified as S6. There was no sampling done downstream of the barrier.

ILP 1011 (Photo 27) is a moderate gradient (avg. 3.5%) stream with an average channel width of 0.86 m. It flows from within the cutblock into ILP 1010 at the northern corner of the block. There were no fish caught in ILP 1011 and due to a downstream barrier no fish can access this section of the stream. Stream ILP 1011 is classified as S6.

ILP 1145 was mapped as flowing from the cutblock yet after ground assessing the stream it was determined that the stream did not exist within the cutblock and was therefore classified as 'no visible channel'.

#### 3.3.2 Block 95

Block 95 is located south of the Mitten Main on a north exposed slope at an elevation of 600 m between Beaverlodge and Brown Paint Creeks. It is bordered by four separate streams which flow along the boundaries of the block (TRIM 103P.069). ILP 1003 and 1004 are first order streams which flow into Beaverlodge Creek (ILP 1004 enters ILP 1005 before flowing into Beaverlodge). ILP 1005 is joined by ILP 1004 and flows along the north east edge of the block and into Beaverlodge Creek, a third order stream containing populations of cutthroat trout and Dolly Varden char (Biolith, 1996)

ILP 1003 (Photo 28) flows for approximately 250 m along the block boundary at a low gradient (~2%), down a steep ~30 m pitch (~23%) and crosses under the road. It continues to flow along the block boundary at a low gradient (~3%) for ~60 m and into Beaverlodge Creek. The ~30 m slope is a barrier to fish upstream migration. Upstream of the barrier there is no suitable fish habitat. The EFU is the steep section alongside the road 60 m from Beaverlodge Creek where the stream classification changes from S4 to S6 (average channel width of 0.8 m).

ILP 1004 (Photos 29 and 30) flows from a swampy area along the south east edge of the block at a gradient of 2% for approximately 120 m before entering ILP 1005. There was no spawning habitat observed and the rearing values were moderate. Electroshocking caught two Dolly Varden juveniles downstream of the road crossing. The average channel width is 0.9 m. ILP 1004 is classified as S4 up to the swampy area 120 m from the mouth, and "not a stream" as there was no visible channel upstream of the swampy area.

ILP 1005 (Photos 31 and 32) is joined by ILP 1004 and flows along the north eastern edge of the cutblock for approximately 400 m and into Beaverlodge Creek. ILP 1005 flows at a gradient of ~2% and has an average channel width of 1.28 m. The stream provides limited habitat for spawning but rearing habitat is abundant. ILP 1005 is a fish bearing stream, classified as S4, as there were Dolly Varden caught upstream in ILP 1004.

Beaverlodge Creek was sampled in 1996 by Biolith Scientific Consultants Inc. (1996) and classified as S2.

#### 3.3.3 Block 96

Block 96 is located on a north facing slope along the Mitten Main at an elevation of 480 m. The Kispiox River is located 200 m from the block boundary at an average gradient of 25%. Block 96 has two streams identified within or in the vicinity of its boundaries on TRIM mapsheets 103P.069 and 103P.070 (ILP 1001 and 1002). Both streams are mapped as first order drainages that flow directly into the Kispiox River. ILP 1001 followed outside of the west boundary, and ILP 1002 was mapped as flowing through the block exiting at the south east corner.

ILP 1001 (Photo 33) was dry at the time of survey and contained limited fisheries values. There were no spawning gravels and fish cover was limited. Access into the stream was obstructed by a steep gradient section downstream of the road (>20% for 5 m). Due to the limited habitat and the obstruction this stream was classified as S6.

ILP 1002 did not exist and was classified as "no visible channel".

### 3.3.4 Block 97

Block 97 is the most eastern block within the Beaverlodge (Mitten) stream sampling area. It is located south west of a small lake, running over a steep ridgeline at an elevation of approximately 500 m. It is bordered by a stream to the north (TRIM 103P.070). ILP 1000 (Photo 34) is a first order stream which flows into the small lake and then from the lake directly into the Kispiox River. It is a low gradient (average 1%) stream with an average channel width of 1.1 m. The stream had limited spawning values and moderate rearing values. There were no obstructions to fish migrations between the lake and the sample site (located adjacent to the cutblock). Fish (species unknown) were observed in the lake and even though the stream was dry at the time of survey fish likely utilise the stream seasonally. ILP 1000 is classified as S4.



Photo 33 - A view of ILP 1001 looking downstream from the road. There were poor fisheries values throughout this section of stream (classified S6).



Photo 34 - A view of ILP 1000 looking downstream from the road (classified S4)

Table 4: Summary of Stream Assessments for the Beaverlodge Stream Sampling Area

Block	TRIM	Stream	Stream	Avg Chan	RMA		Location of	1	Photo Numbers	Habitat Comments
	Map No.	ILP (Reach)	NID	Width (m)	Class.	(%)	End of Fish Use	Present	Numbers	
94	103P.069	1010	2010	.53	S6	2	300m d/s of the block	None	25, 26	Limited potential spawning and rearing values.
94	103P.069	1011	2011	.86	S6	3.5	300m d/s of the block	None	27	Limited potential spawning and rearing values.
94	103P.069	1145	2145	0	NVC	-	n/a	None		No stream within the block.
95	103P.069	1003	2003	.78	S4/S6	5	60m u/s of Beaverlodge	[CT]	28	Moderate to poor fisheries values in the lower end of the stream and poor potential values upstream of the barrier.
95	103P.069	1004	2004	.8	S4	2	120m from the mouth	DV	29, 30	Moderate rearing values and poor spawning values.
95	103P.069	1005	2005	1.28	S4	2	n/a	DV	31, 32	Moderate spawning and rearing values.
95	103P.069	Beaver- lodge		>5m	S2	-	n/a	CT, DV		Good fisheries values.
96	103P.069	1001	2001	.57	S6	2	n/a	None	33	No fish habitat.
96	103P.070	1002	2002	n/a	NVC	-	n/a	None		No stream within the block.
97	103P.070	1000	2000	1.1	S4	1	Upstream of the cutblock.	[SP]	34	Moderate fisheries values.

### 3.4 Nangeese Study Area

The Nangeese stream sampling area contains Block 1, 75 and 76 (Block 75 and 76 are part of CP 385). Block 1 is split by the watershed boundaries of Nangeese Creek and Swordgrass Creek (found on TRIM mapsheet 103P.078). Block 75 is within the Nangeese Watershed and Block 76 is split by the Sweetin River and the Nangeese Watersheds. Due to time and budget limitations only Block 1 of this sampling area was surveyed.

### 3.4.1 Block 1

Block 1 is located at approximately 90 km on the Trail Main at the north end of Swordgrass Lake. The terrain surrounding the cutblock is relatively flat and marshy. Numerous lakes are located in the general vicinity including Hodder and Footsore Lakes. A small unnamed lake is located on the north-east side of the block, which is known to contain Dolly Varden, coho salmon and cutthroat trout (FISS, 1990). Swordgrass Lake contains populations of Dolly Varden, coho salmon, rocky mountain whitefish and rainbow trout (FISS, 1990).

There was one stream located within the boundaries of Block 1 (TRIM 103P.078). ILP 1030 is a first order stream which flows into Swordgrass Lake. The outlet of Swordgrass Lake flows for approximately 700 m into the Kispiox River. ILP 1030 is a low gradient (average 2%) stream with an average channel width of 0.60 m. The stream provides limited spawning and overwinter habitat yet has moderate rearing values. The stream was sampled with an electroshocker for 100 seconds and no fish were caught. Fish (species unknown) were observed in Swordgrass Lake which may utilise ILP 1030 seasonally. The end of fish use on the stream is located 300 m upstream from the lake where the stream channel disappears marking the end of the S4 stream (EFU).

Table 5: Summary of Stream Assessments for the Nangeese Stream Sampling Area

Block	TRIM Map No.	Stream ILP (Reach)	Stream NID	Avg Chan Width (m)	RMA Class.		Location of End of Fish Use		Photo Numbers	Habitat Comments
1	103P.078	1030	2030	.60	S4	2	300m u/s of the lake	[SP]		Poor to moderate fisheries values.

## 4. FOLLOW-UP SAMPLING

No reaches were identified during the study that required second sampling.

## 5. Non-Fish Bearing Reaches

Non-fish bearing reach reports are provided for relevant reaches including intermittent streams (Table 6). The most downstream reach of a stream which was determined to be non-fish bearing is identified in the report. All subsequent reaches upstream are non-fish bearing by default and are not identified separately. No reports are provided for the TRIM anomaly of a 'no visible channel' - a channel that appears on a TRIM map but was not found in the field.

Table 6: Non-Fish Bearing Status Report for Select Streams in the Kispiox Forest District

Initial Sampling Date	Follow- up Sampling Date	Watershed Code or ILP number	Reach Number	Site Number	Map Sheet Number		Area covered (sq. m)	Effort		Water Temp. (deg. Celsius)		Turbidity (VO)	Known Fish Presence (u/s- d/s)	Obstructions to Fish Migration		Seasonal Fish Use
98/09/16	None	1001	1	2001	103P.069	none	-	-	-	-	Dry	-	Kispiox R.	Steep, channel disappears near road crossing	Downstream of Block	None
98/09/16	None	1003	ľ	2003	103P.069	none	1	-		-	Low	-	CT,DV-d/s	>30% slope for ~5m	At road crossing	None
98/09/16	None	1004	1	2004	103P.069	EF-500/80/5	100	53	001	8	Mod	С	Beaverlodge Creek - CT-d/s	*Fish habitat decreases to "not suitable for fish"	~120m upstream of mouth	None
98/09/17	None	1006	. I	2006	103P.070	EF-500/70/5	1600	303	30	8	Mod	С	Corral Creek- probable fish presence d/s	30% slope for 40m at the mouth	At the mouth	None
98/09/17	None	1007	1	2007	103P.070	EF-400/70/6	800	319	20	8	Mod	С	Corral Creek- probable fish presence d/s	Cascade 10m high and 15m long	~200m from mouth	None
98/09/17	None	1009	ı	2009	103P.070						Dry		Trib to ILP 1007	see ILP 1007	-	None
98/09/18	None	1010	1	2010	103P.069	EF-400/60/5	180	247	-	8	Low	L	Kispiox R.	Cascade 6m high and 6m long	~300m d/s from block	None
98/09/18	None	1011	1	2011	103P.069	EF-400/60/6					Mod	C	Trib to ILP 1010		~300m d/s from block	None
98/09/22	None	11011	1	22011	103P.069	-	-	•	140	9	Low	L	CT d/s in ILP 11010	*Fish habitat decreases to "not suitable for fish"	~150m u/s of mouth	None
v98/09/23	None	1015	-	2015	103P.070	-	-	-	40	8	Low	L	Trib to ILP 1014	*Fish habitat decreases to "not suitable for fish"	~150m u/s of mouth	None
98/09/23	None	1016	l	2016	103P.070	-	-	-			Dry	-	Trib to ILP 1014	*Fish habitat decreases to "not suitable for fish"	~200m u/s of mouth	None

<sup>\* &</sup>quot;not suitable for fish" refers to a stream with no fish habitat (eg. fine substrate, low water levels and no cover) and is explained fully in the stream description.

Table 6: Non-Fish Bearing Status Report for Select Streams in the Kispiox Forest District (Continued)

Initial Sampling Date	Follow- up Sampling Date			Site Number	Map Sheet Number		covered	Effort		Water Temp. (deg. Celsius)		Turbidity (VO)	Known Fish Presence (u/s- d/s)	Obstructions to Fish Migration		Seasonal Fish Use
98/09/24	None	1019	2	2019	93M.061	EF-400/60/5	250	200	40	8	Low	М	Cullon Creek- d/s	*Fish habitat is "not suitable for fish"		None
98/09/25	None	1030	3	2030	103P.078	EF-400/70/5	50	100	40	7.5	Low	L		*Fish habitat decreases to "not suitable for fish"	~300m u/s of mouth	None

<sup>\* &</sup>quot;not suitable for fish" refers to a stream with no fish habitat (eg. fine substrate, low water levels and no cover) and is explained fully in the stream description.

## 6. REFERENCES

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Appendix I: TRIM Maps 103P.070, 103P.069, 103P. 078 and 93M.061.

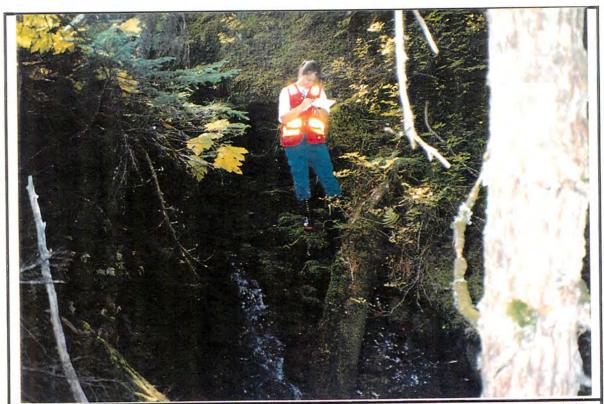


Photo 25 - A view of the 6m high and 6m long cascade located on ILP 1010 approximately 300 m below the Mitten Mainline.



Photo 26 -Lower section of previous photo.



Photo 27 - A view of ILP 1011 looking downstream from the road crossing (classified S6).



Photo 28 - A view of ILP 1003 looking upstream from the road at the fish barrier (S4 d/s-S6 u/s).



Photo 29 - A view of ILP 1004 looking downstream at where two Dolly Varden were caught (S4).



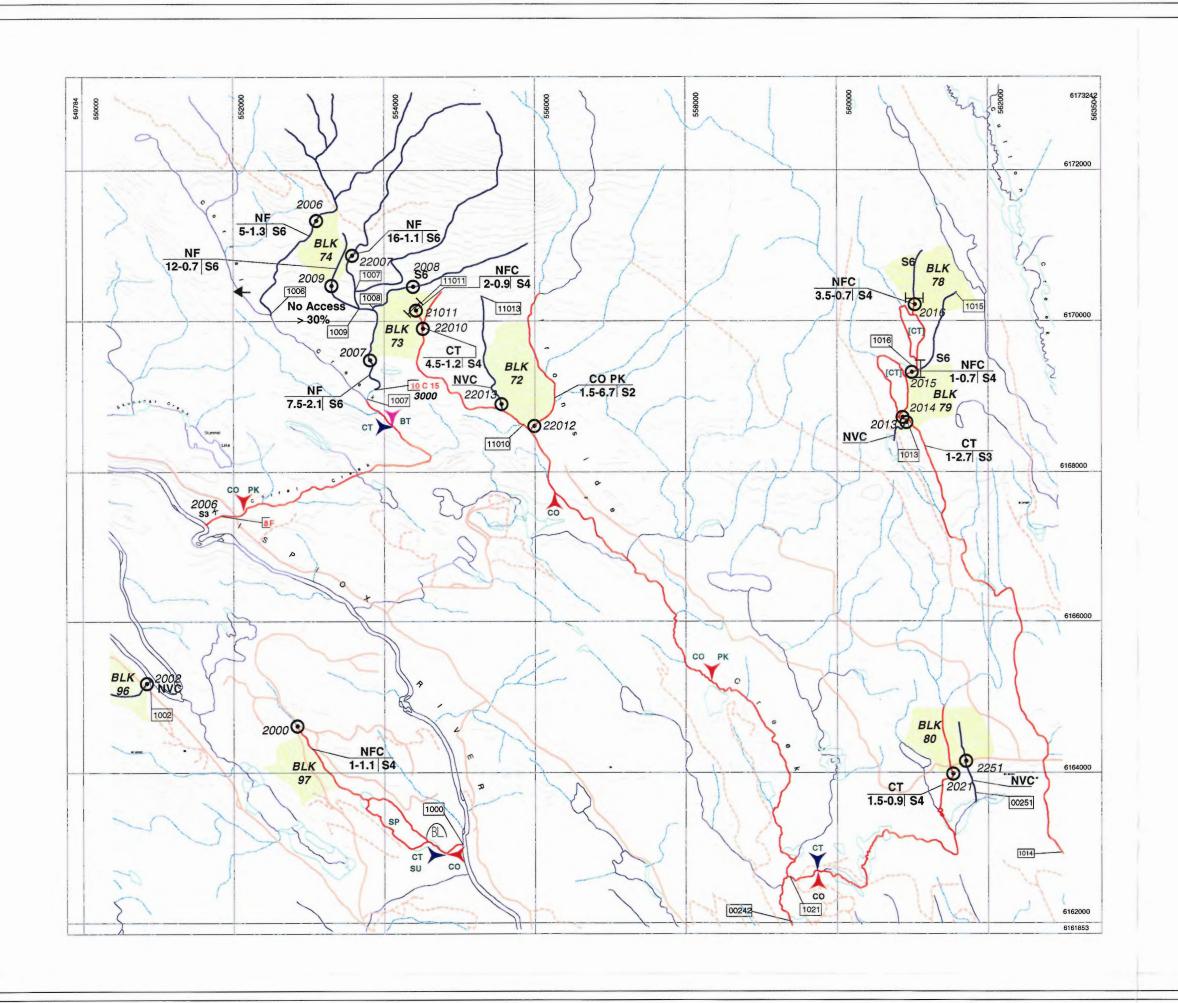
Photo 30 - A view of ILP 1004 looking downstream (classified S4).



Photo 31 - A view of ILP 1005 looking downstream (classified S4).

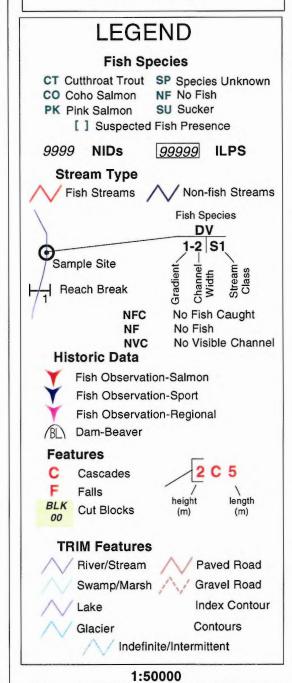


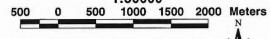
Photo 32 - A view of ILP 1005 looking upstream. Overstream vegetation and LWD make up most of the cover (classified S4).



# KISPIOX WATERSHED INVENTORY

MAP SHEET 103P.070 WSC 470-000000



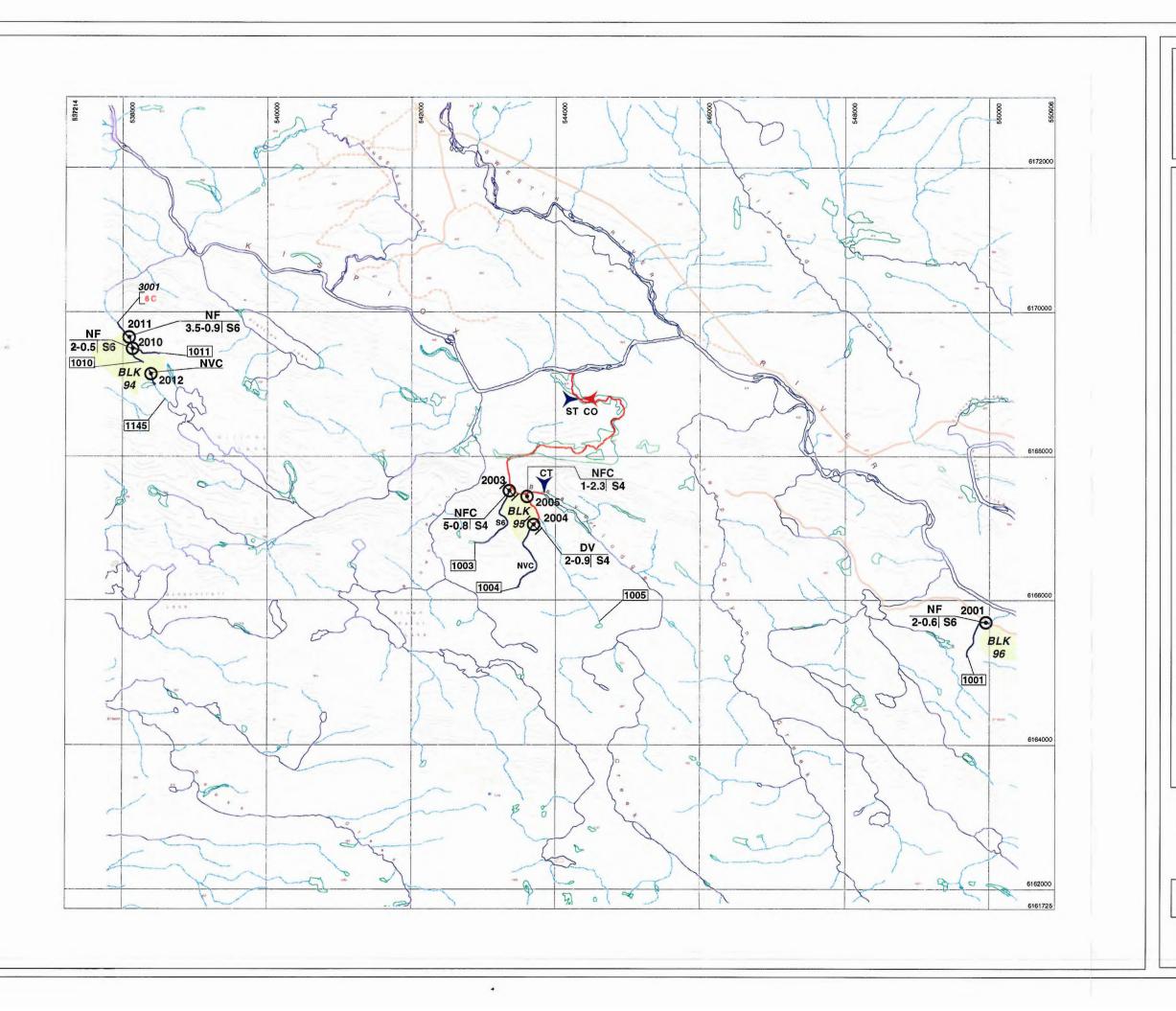


Source: 1:20 000 TRIM  $_{
m W}$  Projection: UTM

Date: December 11, 1998 Created by: KK Revised By: EL

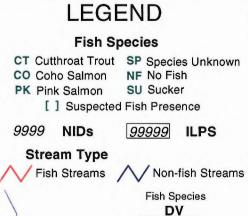


10000E000



# KISPIOX WATERSHED INVENTORY

MAP SHEET 103P.069 WSC 470-000000



Reach Break

NFC

NF

NF

NF

NF

NO

Fish

1-2 S1

No Visible Channel

**Historic Data** 

Sample Site

Fish Observation-Salmon
Fish Observation-Sport

Fish Observation-Regional

NVC

BL Dam-Beaver

Features

BLK

C Cascades
F Falls

2 C 5
height length (m)

**TRIM Features** 

**Cut Blocks** 

River/Stream Paved Road
Swamp/Marsh Gravel Road

Lake Index Contour

// Lake // Glacier

Contours

/// Indefinite/Intermittent

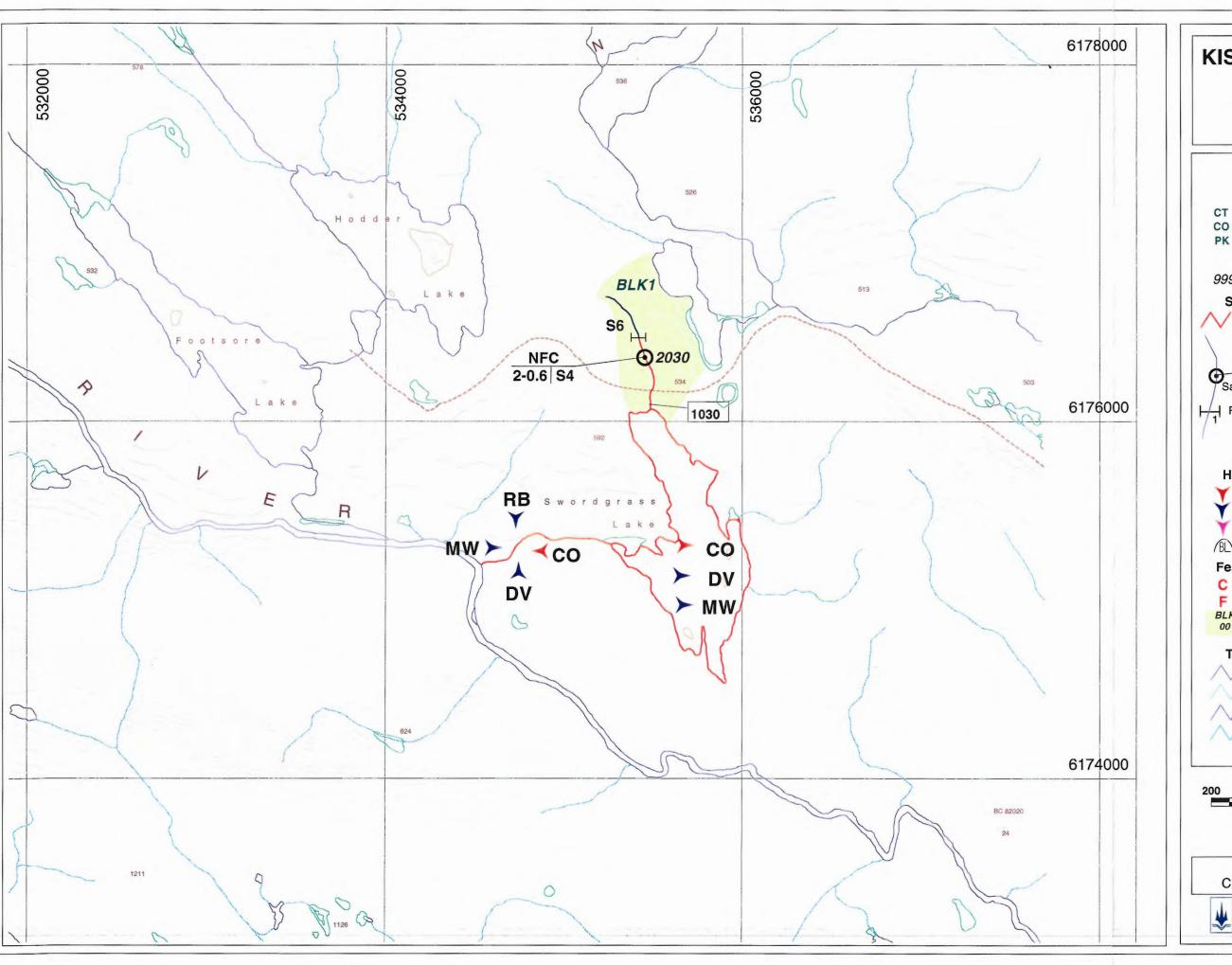
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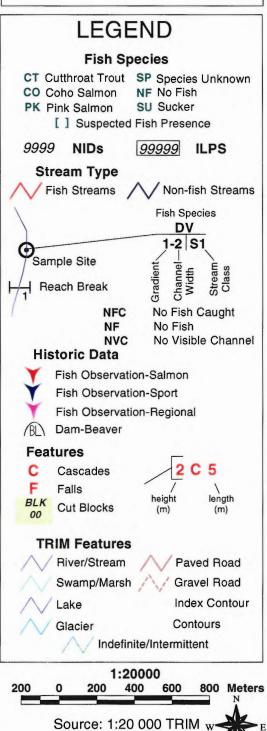


MAD SESTORAGE



# KISPIOX WATERSHED INVENTORY

MAP SHEET 103P.078 WSC 470-000000

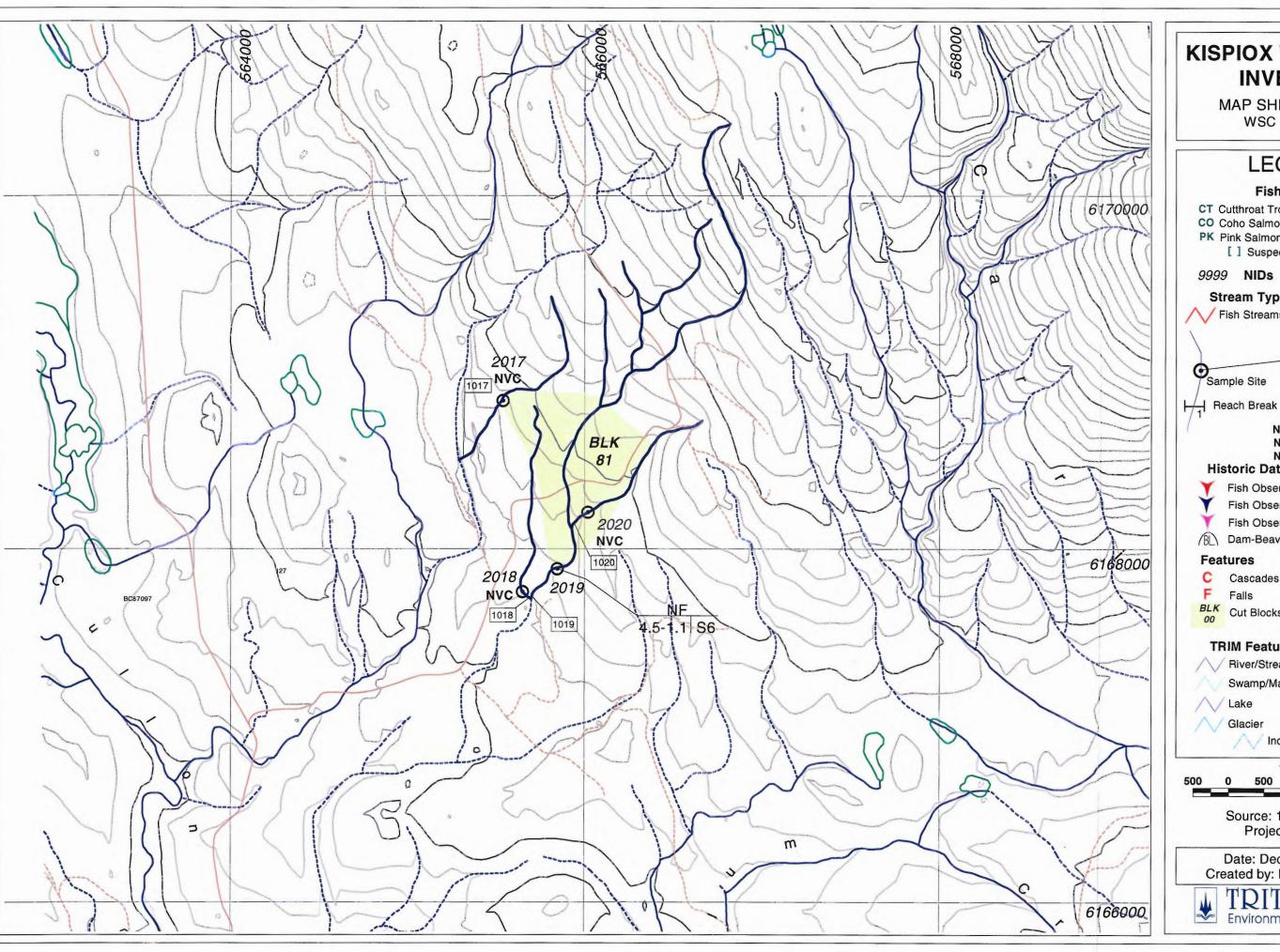


Date: December 11, 1998 Created by: KK Revised By: EL



Projection: UTM

MAP 268706304



## **KISPIOX WATERSHED INVENTORY**

MAP SHEET 103P.061 WSC 470-000000

## **LEGEND**

#### **Fish Species**

CT Cutthroat Trout SP Species Unknown

CO Coho Salmon NF No Fish

PK Pink Salmon SU Sucker

[ ] Suspected Fish Presence

9999 NIDs

99999 ILPS

## Stream Type

// Fish Streams // Non-fish Streams

Fish Species DV 1-2 51

Sample Site

Channel-Width Stream

NFC No Fish Caught

NF No Fish NVC No Visible Channel

#### **Historic Data**

Fish Observation-Salmon

Fish Observation-Sport

Fish Observation-Regional

BL Dam-Beaver

#### **Features**

Cascades

Falls BLK OUT Blocks

length

## **TRIM Features**

/ River/Stream

Paved Road

Swamp/Marsh Gravel Road Index Contour

// Lake / Glacier

Contours

Indefinite/Intermittent

1:50000 0 500 1000 1500 2000 Meters

Source: 1:20 000 TRIM w-Projection: UTM

Date: December 11, 1998 Created by: KK Revised By: EL



Appendix II: Stream Site data from FDIS and Fish Collection Data

Reach #

ILP Map # 103P.060 ILP Number 242 Site 22012

99/02/12

Watershed Code:

000-00000-00000-00000-0000-000-000-000-000-000-000

	10 PER 1	She		100	3 3 10	PROJE	CT	= =	015							
Project Na	ame k	(ipiox Fish	1					Proje	ct Code	06	-KISP-4	30000	001-1	998		
Stream Na	ame (gaz.)	KISP	IOX RIVE	ER												
100	atershed Co	ode 47	0-000000	0-00000-000		0 - 1000		00-00	0-000-0	00						
	100 mg 1	7	W = - 1	Marie E	W	ATERS	HED	60				259		900		
Gazetted N	Name					Local N	lame I	ronsid	le Creek	k					- 1	
Watershed		00-00000	0-00000-0	0000-0000			0-000-0									
ILP Map#					242				Reach #							
Site #	NID Map #		IID#	UTM	(Zone/	East/Nort	h/Metho	24	Site Lg		ethod	Acce	ess	Fish C	rd?	
22012	103P.070		2012						120	H		V4				
Date	1998/09/22	1	ime 14:	59 Ager	ncy C	and the state of t		BLW/N	<b>ALP</b>	-	ncompl	ete	Ц			
1052.03	E FAIE	SHOW	7	12		CHANI	NEL			scii()	-		-		-	-
		method	width	width	width	width	width	wid	th wic	dth v	vidth	width	n w	idth		
Channel V	Width (m)	Т	5.2	5.4	6.6	8.8	7.6	6.4								
Wetted W	PLACE SHOW	T	2.0	2.0	2.4	3.2	3.3	4.1								
Pool Dept	th (m)	MS	0.21	0.18	0.18	0.20	0.15	0.1	0							
4.56.15.5	grad		method		2702	1377	2102	200								
Method I	2.0	1.0	С			Wb Dept	th	2	.2		2	Meth	od M	IS		
Method II			С					M	□н				25.10			
						No Vis.C		]	Inte	ermitte	ent					
						Dw			Tri	bs.						
COVER			Total	М		CROWN	CLOSU	RE								
SWD LV	VD B	C	DP	OV IV		1	1-20%	6								
	D D	S	T	S N				-				_ ;	,			
LWD DIST	A E					RIP I	W VEG	×	]N [	] A	□ M					
LB SHP	S						s									
Texture		G MC	ПВ	□R □A		RIP I										
RB SHP	S L	le ⊠ c				STG N										
Texture		GMC	Пв	□R □A		0.0										
	1 4 4				NA SE	WAT	ER			00.1	115	W	v.t	-		
FLOOD SI	GNS					Req#										
	4.2	1	Method	GE		EMS										
Temp	7.5		Metho	Т3		Cond.	140					Meth	od:	S4		
рН	7.3		Method	FD		Turb.			Пг	D.C.		Meth		GE		
	47.7		-22			(V.29)831	П 1	1								
	46 16	200	Line	LESU H	M	ORPHO	MARKE DOC	Y	ياريو	18	-1	1015		231	=	
BED MATE			C Sub	dom: G		DISTUR			01	B1 B	2 B3	D1	D2	D3		
D95:		(cm): 1	7 Mo	rph: RP		and to the	2,,,0	C1			4 C5	_	S2	S3	S4	S
Pattern	IR								П	7 [	7 [					Г
Islands	N															
Bars []	SIDE	DIAG	<b>⊠</b> MID	SPAN	BF	?										
Coupling	DC															
Confineme																

Reach #

ILP Map # 103P.060

ILP Number 242 Site 22012

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

☐ FC ☐ SWP/SLG ☐ FL/BV ☐

HABITAT QUALITY

Name Comments

Cover Good cover.

OverWinter Habitat Year round stream with some deep pools.

Rearing Habitat Good cover and access up and downstream...

Spawning Habitat Medium sized rounded gravels.

TRIB

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 2 F 8 STD U Showing Block 72 on left bank.

R 2 F 9 STD D Showing channel entering cut block.

WILDLIFE

COMMENT

Section Comments

SITE CARD Fish sampling not conducted due to existing info (RB,CT,CO,DV)

CHANNEL Class: S2

Reach #

ILP Map # 103P.070

ILP Number 251 Site 2251

99/02/12

Confinement

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PROJECT		1	SIL	E Vici	2	11-3			
Project Name Kipiox Fish		Proje	ct Co	de	06-K	SP-4	300000	001-1	998	
Stream Name (gaz.) KISPIOX RIVER										
Project Watershed Code 470-000000-00000-00000-0	0000-0000-000-000	-000-00	00-000	-000						
	WATERSHED		THE .		VI.	NI.	1-	1		
Gazetted Name	Local Name	Cullor	n-Block	k 80						
Watershed Code 000-000000-00000-00000-0000		-000-00	00							
ILP Map# 103P.070 ILP # 2	251		Reach	#	1					
	ne/East/North/Meth	25.	Site L	g	Meth	od	Acce	ss F	ish C	rd?
2251 103P.070 2251			100		HC		V4	_		
Date 1998/09/24 Time 12:30 Agency		MLP/	BLW		Inco	omple	ete	Ц		
	CHANNEL	303	5951			100		200		
Channel Width (m)  Wetted Width (m)  Pool Depth (m)  grad grad method										
Method I	Wb Depth						Metho	d M	S	
Method II		-	□н							
	No Vis.Ch.	$\boxtimes$			ittent					
Links and the second	Dw		Т	ribs.						
COVER Total SWD LWD B C DP OV IV	CROWN CLOS	URE								
ALCOHOLOGY STORY										
LWD	INTREAM VEG	Г	N	ПА	Г	M	ΠV			
DIST	RIP			_			_			
LB SHP	STG									
Texture FGGCBBRA	RIP									
RB SHP	STG									
Texture FGGCBBRA										
	WATER	0 13	89 1		11		126	- 2		
FLOOD SIGNS	Req#									
Method	EMS									
Temp Metho	Cond.						Metho	od:		
pH Method	Turb.			- 🗆	С		Metho	od:	GE	
LIVE IN THE COURT	MORPHOLOG	180	ERIO.	lei!	115	امني	192 - 2			141
	DISTURBANCI	E	01	B1	B2	B3	D1	D2	D3	
BED MATERIAL Dominant: Subdom:							_	_		2.30
D) (cm): Morph:	INDICATORS	C1	C2	C3	C4	C5	S1	S2	S3	S4
	INDICATORS	C1	C2	C3	C4	C5	S1	S2	S3	S4

**FDIS Site Card** ILP Map # **ILP Number** Site Reach # 1 103P.070 251 2251 99/02/12 000-000000-00000-0000-0000-000-000-000-000-000-000 Watershed Code: FEATURE SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Comments Section CHANNEL The area that the stream should have been in was walked for approximately 250 m and no channel was found.

Reach #

ILP Map # 103P.070

ILP Number 1000 Site 2000

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

N LINE				PROJECT	To the	- to 1			Str. W.	
Project Na	me Kipid	ox Fish			Proje	ect Code	06-KISP	430000001	-1998	
Stream Na	me (gaz.)	KISPIOX RIVE	R							
Project Wa	tershed Code	470-000000	-00000-00000-000	00-0000-000-00	0-000-00	00-000-000				
161		THE PERSON	W	ATERSHE	D	180		5 10	III	
Gazetted N	ame			Local Name	Mitter	-Block 97				
Watershed	Code 000-0	0-00000-00000-0	0000-0000-0000-	000-000-000-00	0-000-00	00				
ILP Map#	103P.070		ILP# 100	0		Reach #	3			
Site #	NID Map #	NID#	UTM(Zone/	East/North/Me	thod)	Site Lg	Method	Access	Fish Crd	?
2000	103P.070	2000				100	HC	V4		
Date	1998/09/16	Time 10:3	O Agency C	172 Crew	MLP/	BLW	Incomp	olete	1	
112 "		AND ST	Here was the	CHANNEL		2111	I Fair			
			waste walks		2.2		1 2 62	NOUN		
21 1 - 1		ethod width	width width			lth width	width	width	width	
Channel W		T 0.9	1.1 1.6	0.8 1						
Wetted Wi		T 0.0	0.0 0.0	0.0	0 0.	0				
Pool Depti	h (m)	MS 0.00	0.00 0.00	0.00	0.0	00				
	grad gr									
Method I	1.0	C		Wb Depth	.2	.2	.2	Method	MS	
Method II		C		Stage XL	M	Пн		-		
				No Vis.Ch.			nittent			
001/50		-12.7		Dw		Tribs				
COVER SWD LW	D B	Total C DP	A OV IV	CROWN CLC						
S T		N N	D S	3 41	-70%					
LWD	F	9 99	9 8	INTREAM VE	G F	JN D	A M	MV		
DIST	E			RIP M						
LB SHP	S			STG MF						
Texture	⊠ F □ G	Пс Пв Г	R DA	RIP M						
RB SHP	S			STG MF						
Texture	⊠ F □ G	□c □B [	R A							
		132 - 10		WATER		1 5 3				in a
FLOOD SIG	SNS			Req#						
NONE		Method	GE	EMS						
Temp		Metho	Т3	Cond.				Method:	S4	
pH		Method	FD	Turb.	т пм	DIE	C	Method:	GE	
OF THE OWNER, WHEN										
DED MATE	PIAL Desi	onty 5 Out		ORPHOLO	-	O1 P1	D2 P3	DI C	2 02	11
BED MATE				INDICATORS		01 B1	B2 B3	D1 D		
	).1 D (cm	i): 0.1 Moi	ph: RP		C1	C2 C3	C4 C		The state of the state of	S4 S
	SI									
Islands	N									
Bars N	SIDE	DIAG MID	SPAN BE	₹						
Coupling	DC									
Confinemen	nt UN									

Reach #

ILP Map #

**ILP Number** 

Site 2000

99/02/12

Watershed Code:

3 103P.070 000-000000-00000-0000-0000-0000-000-000-000-000-000

1000

FEATURE

SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat

none

Rearing Habitat

very marginal quality

Spawning Habitat

none

PHOTO DOCUMENTATION

Foc Lg Dir Photo Comments

D 2 STD channel 3 STD U channel R 1

WILDLIFE

COMMENT

Section

Comments

CHANNEL

almost undistinguishable at the road crossing but walking downstream to

the block edge the channel became more defined (Dry the length though).

MORPHOLOGY

Airphoto and map analysis did not show barrier evidence between the lake

and the block. Barrier presence between lake and Kispiox River is

unknown but fish were observed in lake.

CHANNEL

Class: S4

Reach #

ILP Map # 103P.069

ILP Number 1001 Site 2001

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

	PROJECT
Project Name Kipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-0000	0-0000-0000-000-000-000-000-000
	WATERSHED
Gazetted Name	Local Name Mitten-Block 96
Watershed Code 000-000000-00000-00000-0000-0	The same state of the same sta
ILP Map# 103P.069 ILP #	
	Cone/East/North/Method) Site Lg Method Access Fish Crd?
2001 103P.069 2001	120 HC V4
Date 1998/11/16 Time 13:18 Agend	y C172 Crew MLP/BLW Incomplete L
EXTLEMENT THE TOTAL SHOPE	
method width width	ridth width width width width width width
Channel Width (m) T 0.6 0.4	0.7 0.4 0.7 0.5
Wetted Width (m) T 0.0 0.0	0.0 0.0 0.0
Pool Depth (m) MS 0.00 0.00	0.00 0.00 0.00 0.00
grad grad method	
Method I 2.0 C	Wb Depth .1 .1 Method MS
Method II C	Stage ⊠L ☐M ☐H
	No Vis.Ch. Intermittent
Anna	Dw Tribs.
COVER Total M SWD LWD B C DP OV IV	CROWN CLOSURE
SNNNNDN	3 41-70%
LWD N	INTREAM VEG N A M N V
DIST	RIP C
LB SHP V	STG MF
Texture F G C B R A	RIP C
RB SHP V	STG MF
Texture	HE WAS LIVE IN THE STATE OF THE
	WATER
FLOOD SIGNS	Req#
NONE Method GE	EMS
Temp Metho T3	Cond. Method: S4
pH Method FD	Turb. T M L C Method: GE
· 一个写着"是一种问题"	MORPHOLOGY
BED MATERIAL Dominant: G Subdom: C	DISTURBANCE O1 B1 B2 B3 D1 D2 D3
D95: 10 D (cm): 5 Morph: RP	INDICATORS
Pattern SI	C1 C2 C3 C4 C5 S1 S2 S3 S4 S
Islands N	
Bars N SIDE DIAG MID SPAN	∃BR
Coupling CO	-

Reach # 1

ILP Map # 103P.069

**ILP Number** 1001

Site 2001

99/02/12

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat

None

TRIB

Rearing Habitat

Poor

Spawning Habitat

None

PHOTO DOCUMENTATION

Photo

Dir Foc Lg

Comments

U

R 1 6 STD

Culvert at Mitten Mainline.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

Above the Mitten Mainline there is a barely discernable channel and

downstream of the road there is some fluvial material present. The defined channel disappears beyond that. In its present condition this is not a fish

stream.

MORPHOLOGY

There is no access to the Kispiox River, possibly due to road impacts.

CHANNEL

Class:S6-(bordering on "not a stream" status, but probably due to

anthropogenic impacts.

COVER

d/s of road is shrubby riparian veg.

Reach #

ILP Map # 103P.069 ILP Number 1002 Site 2002

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

A STOLY ON VERNIN	Watershed Cour	PROJECT	
Project Name K	ipiox Fish	Project Code 06-KISP-430000001-1998	
and the second second	KISPIOX RIVER	Project Code 00-Nisr-430000001-1990	
Stream Name (gaz.) Project Watershed Co		00-0000-0000-000-000-000-000-000	
Troject Watershed 60		WATERSHED	95
Gazetted Name		Local Name Mitten-Block 96	
Watershed Code 00	0-000000-00000-00000-0000-	0000-000-000-000-000-000	
ILP Map# 103P.069	ILP#	1002 Reach # 1	
Site # NID Map #	NID # UTM(	Zone/East/North/Method) Site Lg Method Access Fish Co	rd?
2002 103P.070	2002	100 HC V4	
Date 1998/09/16	Time 13:49 Agen	cy C172 Crew MLP/BLW Incomplete	
	S.S. MILLS XVIII.4K	CHANNEL	
Channel Width (m) Wetted Width (m) Pool Depth (m)		width width width width width width width	
	grad method		
Method I		Wb Depth Method MS	
Method II		Stage ☐L ☐M ☐H No Vis.Ch. ☒ Intermittent ☐	
		Dw	
COVER SWD LWD B	Total C DP OV IV	CROWN CLOSURE	
LWD		INTREAM VEG N A M V	
DIST		RIP	
LB SHP		STG	
	G C C B C R CA	RIP	
RB SHP		STG	
Texture F	G C B R A	IN WATER	
		WATER	
FLOOD SIGNS	Mathad	Req#	
Tomp	Method Metho	EMS Method:	
Temp pH	Method	Cond. Method: Turb. T T M T L T C Method: GE	
P	Wiethou	Turb. T M L C Method: GE	
		MORPHOLOGY	83.
BED MATERIAL Dom	inant: Subdom:	DISTURBANCE O1 B1 B2 B3 D1 D2 D3	
D95: D (d	cm): Morph:	C1 C2 C3 C4 C5 S1 S2 S3	S4 S5
Pattern			
slands			<u> </u>
Bars N SIDE	DIAG MID SPAN	BR	
Coupling			
Confinement			

**FDIS Site Card** ILP Map # **ILP Number** 1 103P.069 1002 2002 99/02/12 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 FEATURE TRIB \_ SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Comments Section

The location of the mapped stream was found yet there was no channel.

CHANNEL

Reach #

Site

99/02/12

Watershed Code:

Reach # ILP Map #

103P.069

 $000\hbox{-}000000\hbox{-}00000\hbox{-}00000\hbox{-}0000\hbox{-}0000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000$ 

**ILP Number** 1003

Site

2003

POLECT	THE PERSON NAMED IN

PROJECT	
Project Name Kipiox Fish Pr	roject Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-0000-0000-0000-0000-00	0-000-000-000
WATERSHED	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Gazetted Name Local Name Mit	tten-Block 95
Watershed Code 000-000000-00000-0000-0000-0000-000-00	0-000
ILP Map# 103P.069 ILP # 1003	Reach # 1
Site # NID Map # NID # UTM(Zone/East/North/Method)	
2003 103P.069 2003	100 HC V4
	P/BLW Incomplete
CHANNEL	
method width width width width width	width width width width
Channel Width (m) T 0.6 0.4 0.7 0.9 1.1	1.0
Wetted Width (m) T 0.4 0.1 0.6 0.4 0.5	0.4
Pool Depth (m) MS 0.02 0.08 0.06 0.02 0.03	0.06
grad grad method	
Method I 5.0 23.0 C Wb Depth .1	,1 Method MS
Method II C Stage L 🖂	м 🔲 н
No Vis.Ch.	Intermittent
Dw ∐  COVER Total M CROWN CLOSURE	Tribs.
COVER Total M CROWN CLOSURE SWD LWD B C DP OV IV 1 1-20%	
D S N S N D N	
LWD F INTREAM VEG	N A M V
DIST E RIP C	
LB SHP S STG MF	
Texture F G C B R A RIP C	
RB SHP S STG MF	
「exture ☐ F ☑ G ☐ C ☐ B ☐ R ☐ A WATER	
FLOOD SIGNS Req # NONE Method GE EMS	
Temp 12 Metho T3 Cond. 180	Method: S4
	M □ L □ C Method: GE
летов 1 в 1 п.	
MORPHOLOGY	A Periodical Control
BED MATERIAL Dominant: G Subdom: C DISTURBANCE INDICATORS	O1 B1 B2 B3 D1 D2 D3
D95: 15 D (cm): 5 Morph: RP	C1 C2 C3 C4 C5 S1 S2 S3 S4 S
slands N	
Bars ☐N ⊠SIDE ☐DIAG ☐MID ☐SPAN ☐BR	
Coupling PC	

Reach #

ILP Map #

**ILP Number** 

Site 2003

99/02/12

Watershed Code:

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

Cover Moderate cover.

OverWinter Habitat No overwintering habitat yet the stream is adjacent to Beaverlodge Creek which has

overwintering habitat.

Rearing Habitat Moderate rearing habitat.

Spawning Habitat Poor quality. Limited gravels suitable for spawning.

PHOTO DOCUMENTATION

 Photo
 Foc Lg
 Dir
 Comments

 R 1
 F
 7
 STD
 D
 With Bryan.

 R 1
 F
 8
 STD
 U
 A >20% slope.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

The End of Fish Use is located at the road ~60m u/s from Beaverlodge Creek (S4/S6 boundary). The stream upstream of the road is >20% and there is a >30% barrier. No fisheries values exist upstream of the road.

Reach #

ILP Map # 103P.069 ILP Number 1004 Site 2004

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

	140		300 ON / - N	PROJECT				9154	75 3.5	300
Project Name Stream Name (gaz. Project Watershed		OX RIVER		000-0000-000-000	Project 0		06-KISP-4	130000001-	1998	
INCLUSION IN		10/2/2	- 1 B. V	VATERSHE	O .	THE STATE OF THE S	the ar			
Gazetted Name				Local Name	Mitten-Blo	ock 95				
Watershed Code ILP Map# 103P.069		-00000-00	000-0000-0000 ILP # 10	-000-000-000-000 04		ich#	1			*
Site # NID Map	# NI	D#	UTM(Zone	e/East/North/Met	hod) Site	Lg I	Method	Access	Fish Crd?	
2004 103P.069	20	04			120	H	HC	V4	$\boxtimes$	
Date 1998/09/	16 Tir	ne 15:20	Agency	C172 Crew	BLW/MLF		Incompl	ete 🗌		
	1-1.75			CHANNEL	2111		1000			7
	method	width	width width	h width wid	th width	width	width	width v	width	
Channel Width (m)	Т	0.8	0.9 0.4	1.0 1.2	0.8					
Wetted Width (m)	Т	8.0	1,9 0,4	1.0 1.2	0.8					
Pool Depth (m)	MS	0.08	0.06 0.04	0.04 0.0	2 0.04					
grad	grad m	nethod								
Method I 2.0	2.0	C		Wb Depth	.2	.2	.1	Method 1	MS	
Method II		C		Stage L	⊠w □	]H				
				No Vis.Ch.		Intermit	ttent			
COVER SWD LWD B	С	Total DP O		CROWN CLOS	SURE 90%	Tribs.		Ш		
12	S	N I	) N	NITPE LILLIE				- 0		
LWD N DIST NA				RIP M			⊠ m	U v		
LB SHP S				STG MF						
	¬ G □ C	пвг	R 🗆 A	RIP M						
RB SHP S	7- 0-	U- L	I. I.	STG MF						
	GC	ПвГ	R \ A							
				WATER	ar .					
FLOOD SIGNS				Req#						
NONE	M	ethod	GE	EMS						
Temp 8	M	etho	Т3	Cond. 1	00			Method:	S4	
pH 7.9	M	ethod	FD	Turb.	DMC	LNC	:	Method:	GE	
FALL BELL TERM	1 10 0000		18T = 11 V				10000	00000		
BED MATERIAL D	ominant: F	Subdo	REAL PROPERTY.	DISTURBANC		1 B1	B2 B3	D1 D2		3 0
	) (cm): 1	Morp		INDICATORS						
Pattern SI	1	ж			C1 C2	2 C3	C4 C5	S1 S2	2 S3 S4	4 5
slands N										1 [
	·	- Inc	Jensey (7)							
- F	□ DIAG [	TWID [	SPAN B	K						
Coupling DC										
onfinement LIM										

Reach #

ILP Map #

ILP Number

Site 2004

99/02/12

Watershed Code:

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat None. Too shallow.

Rearing Habitat Fair-abundant cover available.

Spawning Habitat None observed.

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 1 F 9 STD U Channel at spot where DV were captured.

R 1 F 10 STD U Channel at spot where DV were captured (w/spot af).

R 1 F 11 STD D Michelle on left bank writing.

WILDLIFE

Group Observations

Unidentified insects in water.

COMMENT

Section

INV

Comments

CHANNEL DV were caught downstream of the road. Upstream of the road the stream is 4 channels along the edge of the block before the end of fish use at

gradient break. A management zone upstream should protect the

downstream values.

FDIS Fish Form ILP# ILP Map # Reach # 1 103P.069 1004 99/02/16 000-00000-00000-00000-0000-0000-000-000-000-000-000 Watershed Code: WATERBODY Gazetted Name: Local: Mitten-Block 95 WS Code: Lake/Stream: S Waterbody ID: ILP Map #: 103P.069 1004 ILP#: Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Date: 1998/09/16 To: 1998/09/16 Agency C172 Crew: BLW/MLP Resample: SITE / METHOD Site# NID# UTM:Zone/East/North/Mthd MTD/NO Temp Cond Turbid Comment NID Map C 2004 103P 069 2004 EF 8.0 A. GEAR SETTINGS Site# MTD/NO H/P Date In Time In Date Out Time Out Comment 2004 EF 1998/09/16 15:20 1998/09/16 15:25 B. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# Length MTD/NO H/P Encl Sec Width Volt Pulse Model Freq Make 2004 0 53 100.0 1.0 500 85 5 SMITH ROOT 12B FISH SUMMARY MTD/NO H/P Stage Site# Species Total # Lgth (Min/Max) FishAct Comment Age 2004 J 2 40 R caught downstream of road 45 INDIVIDUAL FISH DATA Roll # Frame# Site# MTD/NO H/P Species Length Weight Sex Mat Vch# Genetic Comment Age Str/Smpl# Str/Smpl#/Age 2004 DV 40 U U EF U 2004 EF DV 45 U COMMENTS

Reach #

ILP Map # 103P.069

ILP Number 1005 Site 2005

99/02/12

Watershed Code:

			经产品		1. 79	ROJE	CT		13	1 3		-4.	002
Project Na	ame K	lipiox Fish					F	roject (	Code	06-KISP	43000000	1-1998	
Stream N	ame (gaz.)	KISP	OX RIVE	R									
Project W	atershed Co	de 470	0-000000-	00000-000	00-000	0-0000-0	00-000-00	0-000-0	00-000				
	2011	5	MON.	3-1-8	W	ATERS	HED	1- 1	3050	100 時	4. 三百角	A Pleas	
Gazetted I	Name					Local N	lame N	litten-Blo	ock 95				
Watershee		00-000000	-00000-00	0000-0000	-0000-0	00-000-0	00-000-00	00-000					
ILP Map#	103P.069			ILP #	1005	5		Rea	ich#	1			
Site #	NID Map #		ID#	UTM	(Zone/	East/Nort	h/Method		Lg	Method	Access	Fish Crd	?
2005	103P.069	20	005					100		HC	V4		
Date	1998/09/16	Ti	me 15:4	5 Ager	icy C			LW/MLF	9	Incomp	olete _	]	
			ASIE.		June 1	CHAN	NEL	<u>1</u>		13.1	(作物		
		method	width	width	width	width	width	width	width	width	width	width	
Channel V	Width (m)	Т	1.7	1.5	1.3	1.6	1.7	1.4	1.3	1.4	1.4	0.9	
Wetted W		Т	1.7	1.4	1.1	1.3	1.1	0.6	1.7	1.4	1.4	1.4	
Pool Dep		MS	0.38	0.21	0.17	0.20	0.30	0.24	1	1.7		,	
, our beh	grad		nethod	0.21	0.17	0.20	0.30	0.24					
Method I	2.0	2.0	C			Wh Don	th		1	.3	Method	MC	
Method II	2.0	2.0	C			Wb Dep Stage	-	4 ]M [	.4 ]H	,3	Wethod	IVIS	
motriou n						No Vis.		]		nittent	П		
						Dw	Ē	1	Tribs.				
COVER			Total	A			CLOSUF	RE					
SWD LV	WD B	C	DP (	ov IV		3	41-70%	6					
S	S T	N	N	S N									
LWD	A					INTREA		$\boxtimes_{N}$		, D w			
DIST	E						M						
LB SHP	V						ΛF						
Texture	⊠ F □	e ⊠ c		R			M						
RB SHP Texture	V	G DC	ПВГ	¬R □ A		STG N	ΛF						
TOXIOTE I	Δ. Γ			7,, [],	Wall I	WAT	FR	18118					
	CHC	20001100	11523			March Sale	- W						
FLOOD SI NONE	GNS		Method	GE		Req#							
Temp	8		fetho	T3		Cond.	100				Method	: S4	
pH	8.1		Method	FD		Turb.		- M -	- 1.	C	Method		
P.1.	9.0	, iv	150100	,,,		Turb.	□ 1	□ M □	] - 🖂		Mediod	J. J.	
	24.94	SITE S	WAS !		M	ORPHO	DLOGY	1		43 8		5.000	
BED MATE	ERIAL Dor	ninant:	C Subd	om: G		DISTUR		0		B2 B3		D2 D3	
D95:	25 D	(cm): 1	) Mor	ph: RP		INDICA	IORS	C1 C		C4 C		S2 S3 S	S4 S
Pattern	SI							C1 C	7 [				] [
Islands	N								1 11		1 11	[	
Bars 🖂 t	N SIDE	DIAG	MID	SPAN	BR								
Coupling	PC												
Confineme													

Reach #

ILP Map # 103P.069

ILP Number 1005 Site 2005

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat The stream is too small.

Rearing Habitat Nice cover.

Spawning Habitat Substrate is sharply angular.

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 1 F 12 STD D Showing channel with LWD across banks.

R 1 F 13 STD U Michelle on left bank writing.

WILDLIFE

COMMENT

Section Comments

SITE CARD Fish found at Site 2004 which is an upstream tributary to this creek.

CHANNEL The creek is S4 along the block boundary (close to an S3). Extra width

measurements-1.1, 1.0 and 0.8.

Reach #

ILP Map # 103P.070

ILP Number 1006 Site 2006

99/02/12

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

Project Name	Kipiox Fish					Project (	Code	06-KIS	P-43000	0001-1	998	
Stream Name (gaz.)		OX RIVER	,									
Project Watershed C				0-0000-000	0-000-000-	0-000-0	00-000					
FIE (8) The Color		5-10-10-1	DESCRIPTION OF		RSHED			100	124-231	745	3575	
Gazetted Name			12 2 2 1	-	LOCK SECTION AND THE PERSON	Ironside-E	Block 74		100,000	-		
	00-000000-	00000-000	000-0000-0				JIOCK 14					
ILP Map# 103P.070	00-000000	00000-000	ILP #		0-000-000-		ich#	1				
Site # NID Map #	t NII	D#		one/East/N	lorth/Meth	od) Site	e Lg	Metho	d Acc	ess F	Fish Crd	?
2006 103P.070	20					160		нс	V4		$\boxtimes$	
Date 1998/09/1	7 Tin	ne 12:00	Agenc	y C172	Crew	BLW/MLF	5	Incor	nplete	П		
	113731				NNEL		457	T)	167			
					and the largest							
	method	width	width w	idth wid	th width	width	width	width	widt	h wi	dth	
Channel Width (m)	T	1.2	1.7	2.0 0.	7 1.0	0.9						
Wetted Width (m)	T	1.0	1.0	1.8 0.	7 1.0	0.9						
Pool Depth (m)	MS	0.10	0.05	0.09 0.1	1 0.10	0.16						
grad	grad m	ethod										
	24.0	C		7247			.4	.4	Meth	od M	S	
Method I 5.0	24.0	0		Wb D	epth	.4	.4			iou ivi	7	
Method I 5.0 Method II 30.0	24.0	C		Stage		_M _				iou ivi		
	24.0			Stage	e 🗆 L [					lou ivi		
Method II 30.0	24.0			Stage	e ⊠L [ is.Ch. [	_M _	]н			iou ivi		
Method II 30.0		C Total	М	No V Dw CRO	e ⊠L [ is.Ch. [ [ WN CLOSU	M D	]H Interm			iou ivi		
Method II 30.0  COVER SWD LWD B	C I	C Total DP O	V IV	Stage No V Dw	g ⊠L [ is.Ch. [	M D	]H Interm			iou ivi		
Method II 30.0  COVER SWD LWD B S T N	C I	C Total	V IV	No V Dw CROV	e \\ L \\ \ is.Ch. \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	M D	]H Interm	ittent				
Method II 30.0  COVER SWD LWD B S T N LWD F	C I	C Total DP O	V IV	Stage No V Dw CRON 5	e ⊠L [ is.Ch. [ WN CLOSU >90°	M D	]H Interm	ittent				
Method II 30.0  COVER SWD LWD B S T N LWD F	C I	C Total DP O	V IV	No V Dw CROV	e \\ L \\ \ is.Ch. \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V	C I	C Total DP O' N D	V IV	Stage No V Dw CROV 5 INTRI	e ⊠L [ is.Ch. [ WN CLOSU >90° EAM VEG C	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V	C I	C Total DP O' N D	V IV	Stage No V Dw CROV 5 INTRI RIP STG	EAM VEG	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture   RB SHP V	C I	C Total DP O' N D	V IV	Stagg No V Dw CROV 5 INTRI RIP STG RIP	EAM VEG C MF	M D	]H Interm	ittent				
Method II 30.0  COVER SWD LWD B S T N LWD F DIST E LB SHP V  Texture SF RB SHP V  Texture SF	Je ⊠c∣	C Total DP O' N D	V IV	Stage No V Dw CROV 5 INTRI RIP STG RIP STG	EAM VEG C MF	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture   RB SHP V	Je ⊠c∣	C Total DP O' N D	V IV	Stage No V Dw CROV 5 INTRI RIP STG RIP STG	EAM VEG C MF C MF	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture  F CRB SHP V Texture  F	C   T ]G ⊠C	C Total DP O' N D	V IV	Stage No V Dw CROV 5 INTRI RIP STG RIP STG	EAM VEG C MF C MF	M D	]H Interm	ittent				
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF RB SHP V Texture F F	C I T ]G ⊠ C	C Total DP O'N D B	V IV	Stagg No V Dw CROV 5 INTR RIP STG RIP STG	EAM VEG C MF C MF	JRE %	]H Interm	ittent		V	S4	
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture S F Texture F FLOOD SIGNS GRAVEL DISPLACED	C I T ]G ⊠ C   ]G ⊠ C   Me	C Total DP O' N D	V IV ) N  R A  R A	Stage No V Dw CROV 5 INTRI RIP STG RIP STG	EAM VEG C MF C MF TER #	M D	H Interm Tribs.	ittent		v nod:		
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF RESHP V Texture F FLOOD SIGNS GRAVEL DISPLACED Temp 8	C I T ]G ⊠ C   ]G ⊠ C   Me	C Total DP O' N D B  B  B  ethod ethod	V IV ) N   R   A  R   A  GE T3	Stagg No V Dw CROU 5 INTR RIP STG RIP STG WA Req EMS	EAM VEG C MF C MF TER #	JRE %	H Interm Tribs.	ittent	Meth	v nod:	\$4	
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF RB SHP V Texture F FLOOD SIGNS GRAVEL DISPLACED Temp 8 pH 8.0	C I T ]G ⊠ C   Me Me	C Total DP O' N D B  B  B  B  B  B  B  B  B  C  B  C  C  C  C  C  C  C  C  C  C  C  C  C	V IV N N R A R A GE T3 FD	Stage No V Dw CROV 5 INTRI RIP STG RIP STG WA Req EMS Cone Turb	EAM VEG C MF C MF T HOLOG	JRE %	H Interm Tribs.	ittent	Meth Meth	v nod: nod:	S4 GE	
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF FLOOD SIGNS GRAVEL DISPLACED Temp 8 pH 8.0	C I T  G □ C □  G □ C □  Me  Me  Me	C Total DP O' N D B  B  ethod ethod ethod	V IV D N  R A  R A  GE T3 FD  m: G	Stagg No V Dw CROV 5 INTRI RIP STG RIP STG WA Req EMS Cond Turb	EAM VEG C MF C MF TER #	JRE %	Interm Tribs.	ittent	Metr Metr	v nod:	S4 GE	
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF RB SHP V Texture F FLOOD SIGNS GRAVEL DISPLACED Temp 8 DH 8.0  BED MATERIAL DOR D95: 45 D	C I T ]G ⊠ C   Me Me	C Total DP O' N D B  B  B  B  B  B  B  B  B  C  B  C  C  C  C  C  C  C  C  C  C  C  C  C	V IV D N  R A  R A  GE T3 FD  m: G	Stagg No V Dw CROV 5 INTRI RIP STG RIP STG WA Req EMS Cond Turb	EAM VEG C MF C MF T HOLOGURBANCE	M	H Interm Tribs.	ittent	Meth Meth	nod:	S4 GE	54
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF FLOOD SIGNS GRAVEL DISPLACED Temp 8 pH 8.0	C I T  G □ C □  G □ C □  Me  Me  Me	C Total DP O' N D B  B  ethod ethod ethod	V IV D N  R A  R A  GE T3 FD  m: G	Stagg No V Dw CROV 5 INTRI RIP STG RIP STG WA Req EMS Cond Turb	EAM VEG C MF C MF T HOLOGURBANCE	M	H Interm Tribs.	ittent	Metr Metr	v nod: nod:	S4 GE	
COVER SWD LWD B S T N LWD F DIST E LB SHP V Texture SF RB SHP V Texture F FLOOD SIGNS GRAVEL DISPLACED Temp 8 DH 8.0  BED MATERIAL DOR D95: 45 D	C I T  G □ C □  G □ C □  Me  Me  Me	C Total DP O' N D B  B  ethod ethod ethod	V IV D N  R A  R A  GE T3 FD  m: G	Stagg No V Dw CROV 5 INTRI RIP STG RIP STG WA Req EMS Cond Turb	EAM VEG C MF C MF T HOLOGURBANCE	M	H Interm Tribs.	c B2 E C4	Metr Metr Metr	nod:	S4 GE	54

Reach #

ILP Map # 103P.070

ILP Number 1006 Site

2006

99/02/12

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

NID Map NID 103P.070 9

9500 C

Hgt Method 40.0 HC Lg Method 40 HC Comments 40 m cascade

Photo

UTM (Zone/East/North)

Method

R I

TRIB

SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

OverWinter Habitat

Poor. Too shallow.

Rearing Habitat

Good quality habitat above the gradient.

Spawning Habitat

Poor. The substrate is very angular and mostly too large.

PHOTO DOCUMENTATION

Photo

Foc Lg Dir

Comments

R1 F 14 STD

U Ch

Channel at base of steep gradient section upstream of Corral confluence.

R 1

15

STD D

Immediately downstream of the road crossing.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

Nice, clearly defined stream alongside the block. D/S gradient is 30% and

no fish were caught.

CHANNEL

Class:S6

**FDIS Fish Form** Reach # ILP Map # ILP# 1 103P.070 1006 99/02/16 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 WATERBODY Gazetted Name: Local: Ironside-Block 74 WS Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 Lake/Stream: S Waterbody ID: ILP Map #: 103P.070 1006 ILP #: Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Agency C172 Crew: BLW/MLP Resample: Date: 1998/09/16 To: 1998/09/16 SITE / METHOD Turbid Comment Site# NID Map NID# UTM:Zone/East/North/Mthd MTD/NO Temp Cond 2006 103P.070 C 2006 EF 1 8.0 30 A. GEAR SETTINGS Site# MTD/NO Date In Time In Date Out Time Out Comment 2006 12:00 1998/09/16 1998/09/16 12:54 B. NET/TRAP SPECIFICATIONS

C. ELECTROFISHER SPECIFICATIONS

Site# MTD/NO H/P Encl Sec Length Width Volt Freq Pulse Make Model 2006 0 303 1600.0 1.0 500 70 5 SMITH ROOT 12B

FISH SUMMARY

Site# MTD/NO H/P Species Stage Age Total # Lgth (Min/Max) FishAct Comment

2006 EF 1 1 NFC 0

INDIVIDUAL FISH DATA

COMMENTS

ILP Map # 103P.070

Reach #

1

ILP Number 1007 Site

2007

99/02/12

Watershed Code:

000-000000-00000-0000-0000-0000-000-000-000-000-000

			ROJECT	MINIST	
Project Name	Kipiox Fish		Projec	t Code 06-KISP-	430000001-1998
Stream Name (gaz.)	KISPIOX RIVE	R			
Project Watershed	code 470-000000	00000-00000-000	0-000-000-000-000-000	-000-000	
250 W		W	ATERSHED	All the letter	
Gazetted Name			Local Name Ironside	e-Block 73	
			00-000-000-000-000		
ILP Map# 103P.070		ILP# 100		each# 1	A TOTAL MENTAL SERVICE
Site # NID Map		UTM(Zone/	The state of the state of the state of	ite Lg Method	Access Fish Crd?
2007 103P.070 Date 1998/09/		0 Amanau C			
Date 1998/09/	7 Time 13:3		72 Crew MLP/BL	W Incomp	lete 🔲
				2	120
	method width	width width	width width width	n width width	width width
Channel Width (m)	T 2.4	2.6 1.5	1.7 2.1 2.1		
Wetted Width (m)	T 1.2	1.3 1.5	1.7 1.9 1.9		
Pool Depth (m)	MS 0.21	0.31 0.09	0.15 0.20 0.15		
grad	grad method				
Method I 6.0	9.0 C		Wb Depth .3	.4 .3	Method MS
Method II	C			н	_
			No Vis.Ch.	Intermittent	
COVER	2.00		Dw 🗌	Tribs.	
COVER SWD LWD B	C DP (	A DV IV	CROWN CLOSURE		
s s s		D T	4 71-90%		
LWD A			INTREAM VEG	N D A D M	ΠV
DIST E			RIP C		_
LB SHP V			STG MF		
the state of the s	]e⊠c □ B □	R A	RIP S		
RB SHP V			STG SHR		
Texture X F	] G ⊠ C □ B □	R A	1111.000	man pump	
		The sale of the	WATER		
FLOOD SIGNS	11-0-3	CF.	Req#		
Tomo 0	Method	GE	EMS		Manual CA
Temp 8	Metho	T3	Cond. 20		Method: S4
pH 8.2	Method	FD	Turb.	□r⊠c	Method: GE
		M C	RPHOLOGY	100 85 105 10	
BED MATERIAL Do	minant: C Subde	om: G		O1 B1 B2 B3	D1 D2 D3
D95: 39 D	(cm): 10 Mor	oh: RP		C2 C3 C4 C5	S1 S2 S3 S4 S5
Pattern SI			Γ I		S1 S2 S3 S4 S5
Islands N			Ш		
Bars N SIDE	DIAG MID	SPAN BR			
Coupling PC					
Confinement FC					

Reach #

ILP Map # 103P.070

ILP Number 1007 Site 2007

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

	100			<b>全,股</b>	FEA	TURE		
NID Map N	IID	Туре	Hgt	Method	Lg	Method	Comments	
103P.070	3000	C	10.0	HC	15	HC	Barrier upstream from Corral confluence.	
Photo R F	U	TM (Zon	e/East/North	n) Me	ethod			
		TRIB 🗌	sc 🗆	FC 🗌	SWP/SLG	-		
	A COLE			H/	ABITAT	QUALIT	Year to the Walkington	
Name		Com	ments					
OverWinter Habit	tat	Too	shallow.					
Rearing Habitat						some shallo	w pools.	
Rearing Habitat Spawning Habitat	t		d quality. Nice			some shallo	w pools.	
	t Line			Gravel ob	served.	some shallo		
		Mode	erate quality.	Gravel ob	served.			
Spawning Habitat		Mode oc Lg	erate quality.	Gravel ob PHOT nments	oserved.	UMENTA		
Spawning Habitat	F 6	Mode oc Lg STD	erate quality  Dir Com  U Chute	Gravel ob PHOT nments	oserved.	UMENTA	TION	
Photo	F 6 :	Mode oc Lg STD	Dir Com U Chute	PHOT mments e barrier do habitat in c	oserved.  O D O C I  ownstream of	UMENTA	T I O N  /anode pole in left corner of frame.	
Photo R1 F 10	F 6 :	Mode oc Lg STD STD	Dir Com U Chute	PHOT mments e barrier do habitat in c	oserved.  O D O C I  ownstream o  channel.  undant over	UMENTA of Block 73 w	T I O N  /anode pole in left corner of frame.	

Section

Comments

CHANNEL

Creek runs along the west edge of the block. Stream is S6.

CHANNEL

200m from mouth is the NID 3000 barrier (based on map analysis).

**FDIS Fish Form** ILP Map # ILP# Reach # 1 103P.070 1007 99/02/16 000-00000-0000-0000-0000-000-000-000-000-000-000-000 Watershed Code: WATERBODY Gazetted Name: Local: Ironside-Block 73 WS Code: 000-000000-00000-0000-0000-000-000-000-000-000-000 Lake/Stream: S Waterbody ID: ILP Map #: 103P.070 ILP #: 1007 Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Date: 1998/09/17 To: 1998/09/17 Agency C172 Crew: BLW/MLP Resample: SITE / METHOD Site# NID Map NID# UTM:Zone/East/North/Mthd MTD/NO Cond Turbid Comment Temp 2007 103P.070 2007 EF 8.0 C 1 20 A. GEAR SETTINGS Site# MTD/NO Date In Time In Date Out Time Out Comment 2007 EF 1998/09/17 14:22 1998/09/17 15:46 B. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# Encl Sec MTD/NO H/P Model Length Width Pulse Volt Freq Make 2007 0 319 400.0 2.0 400 70 6 SMITH ROOT 12B FISH SUMMARY MTD/NO H/P Site# Species Stage Total # Lgth (Min/Max) FishAct Comment Age 2007 NFC 0 1 1 INDIVIDUAL FISH DATA COMMENTS

99/02/12

Confinement

FC

Watershed Code:

Reach # ILP Map

2

ILP Map # 103P.070

ILP Number 1007 Site

22007

With the second of the second

000-000000-00000-00000-0000-0000-000-000-000-000-000

		PROJECT	
Project Name	Kipiox Fish	Project Code	06-KISP-430000001-1998
Stream Name (gaz.)	KISPIOX RIVER		
Project Watershed Co	ode 470-000000-00000-00000-00	00-0000-000-000-000-000-000	
THE WAY	was a second of the second of	ATERSHED	
Gazetted Name		Local Name Ironside-Block 74	ū
Watershed Code 00 ILP Map# 103P.070	00-000000-00000-00000-0000-0000- ILP# 100		2
Site # NID Map #	NID # UTM(Zone	/East/North/Method) Site Lg	Method Access Fish Crd?
22007 103P.070	22007	800	HC V4
Date 1998/09/17	Time 13:30 Agency C	C172 Crew BLW/MLP	Incomplete
TELEPLANE IN		CHANNEL	
	method width width width	width width width width	width width width
Channel Width (m)	T 0.8 1.2 1.3	1.3 1.0 0.9	
Wetted Width (m)	T 0.8 1.0 1.2	1.3 0.9 0.8	
Pool Depth (m)	MS 0.20 0.30 0.15	0.17 0.08 0.21	
grad	grad method		
Method I 16.0	C	Wb Depth 4 .4	4 Method MS
Method II	C	Stage L M H	
		No Vis.Ch. Interm	ittent
		Dw Tribs.	
COVER SWD LWD B	Total A C DP OV IV	CROWN CLOSURE 4 71-90%	
S S N	N N D N		
LWD A		INTREAM VEG N A	_ M _ V
DIST E		RIP C	
LB SHP V		STG MF	
	G ⊠ C □ B □ R □ A	RIP C	
RB SHP V	10 E 0 E 0 E 0 E 0	STG MF	
William Control of the last	G ⊠ C □ B □ R □ A	SWIFE -	
		WATER	
FLOOD SIGNS	10.000 40	Req #	
	Method GE	EMS	
Temp 8	Metho T3	Cond. 20	Method: S4
pH 7.3.	Method FD	Turb.	C Method: GE
		ORPHOLOGY	
	minant: C Subdom: G	DISTURBANCE O1 B1	B2 B3 D1 D2 D3
D95: 13 D	(cm): 13 Morph: RP	C1 C2 C3	C4 C5 S1 S2 S3 S4 S5
Pattern SI			
Islands N			
Bars □N ⊠ SIDE	DIAG MID SPAN B	R	
Coupling CO			

Reach #

ILP Map #

ILP Number -

Site

99/02/12

Watershed Code:

2 103P.070 1007 000-000000-00000-00000-0000-0000-000-000-000-000-000

22007

FEATURE

SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

TRIB

OverWinter Habitat

Poor habitat. Too shallow.

Rearing Habitat

Good quality habitat.

Spawning Habitat

Moderate habitat due to steep gradient.

PHOTO DOCUMENTATION

Foc Lg Dir Comments

U

F 18 STD

Channel from road crossing.

WILDLIFE

COMMENT

Section

Comments

SITE CARD

No fish form because all shocking was conducted downstream along Block

MORPHOLOGY

NID 3000 (see site 2007) = d/s barrier

CHANNEL

Class: S6

Reach #

ILP Map # 103P.070

ILP Number 1009 Site 2009

99/02/12

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

Water Arenda		PROJECT	
Project Name K	Cipiox Fish	Project Code	06-KISP-430000001-1998
Stream Name (gaz.)	KISPIOX RIVER		
Project Watershed Co	ode 470-000000-00000-00000-	0000-0000-000-000-000-000-000	
Mark III		WATERSHED	N I STATE OF THE S
Gazetted Name		Local Name Ironside-Block 74	4
Watershed Code 00 ILP Map# 103P.070	00-000000-00000-00000-0000-0000 ILP # 1		1
Site # NID Map #	NID# UTM(Zor	ne/East/North/Method) Site Lg	Method Access Fish Crd?
2009 103P.070	2009	800	HC V4 ☑
Date 1998/09/17	Time 17:00 Agency	C172 Crew BLW/MLP	Incomplete
		CHANNEL	
	method width width wid	th width width width width	width width width
Channel Width (m)			width width width
Channel Width (m) Wetted Width (m)	T 0.6 0.7 0.0		
	T 0.0 0.0 0.1		
Pool Depth (m)	MS 0.00 0.00 0.0	0 0.00 0.00 0.00	
	grad method		
	10.0 C	Wb Depth 1 .2	1 Method MS
Method II	С	Stage ⊠L ☐M ☐H No Vis.Ch. ☐ Intern	nittent
COVER	Total A	Dw Tribs. CROWN CLOSURE	
SWD LWD B	C DP OV IV	4 71-90%	
S T N	N N D T		
LWD F		INTREAM VEG	4 🗆 M 🖂 V
DIST E		RIP C	
LB SHP S		STG MF	
	G C B R A	RIP C	
RB SHP S		STG MF	
	G C B R A	with	
		WATER	
FLOOD SIGNS		Req#	
	Method GE	EMS	
Temp	Metho T3	Cond.	Method: S4
pН	Method FD	Turb.	C Method: GE
		MORPHOLOGY	
BED MATERIAL Dom	inant: F Subdom: C	DISTURBANCE O1 B1	B2 B3 D1 D2 D3
095: 10 D (d	cm): 10 Morph: RP	INDICATORS	
Pattern SI		C1 C2 C3	C4 C5 S1 S2 S3 S4 S
slands N			
	DIAG MID SPAN	BR.	
Coupling PC	П-же Папи П		
PU PU			

Reach #

ILP Map #

ILP Number 1009 Site 2009

99/02/12

Watershed Code:

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

OverWinter Habitat

None available.

Rearing Habitat

None available

Spawning Habitat

None available.

PHOTO DOCUMENTATION

Photo

Foc Lg Dir Comments

R1 F 17

STD U

Channel from the road crossing.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

There was little/no flowing water in the channel but the fine substrate is

moist in many places.

WATER

Some standing water is present. There is no fish habitat present.

CHANNEL

Nothing shockable present.

CHANNEL

Class: S6

99/02/12

Confinement

UN

Watershed Code:

ILP Map# ILP Number Reach #

1010 2010 1 103P.070 

Site

SWD LWD B C DP OV IV 4 71-90%  S S N N T D S  LWD F	N. S. Ive	THE	PROJECT	W
Project   Warshard   Code	Project Name K	Kipiox Fish	Project Code	06-KISP-430000001-1998
Sazetted Name	Stream Name (gaz.)	KISPIOX RIVER		
Material   Second	Project Watershed Co	ode 470-000000-00000-00000-00	000-0000-000-000-000-000-000	
Name		V	VATERSHED	41-941-23 Called
	Gazetted Name		Local Name Mitten-Block 94	
Site #				
Date   1998/09/18   Time   12:32   Agency   C172   Crew   BLW/MLP   Incomplete				
Date   1998/09/18				
Method   width   wid			The state of the s	
Method   Width   Wid	Date 1930/09/10		We have a second	incomplete
Channel Width (m) T				
Wetted Width (m)         T         0.4         0.5         0.0         0.3         0.5         0.0           Pool Depth (m)         MS         0.00         0.00         0.00         0.00         0.00         0.00           grad         grad         method         method         who Depth         1         1         1         Method MS           Method II         C         Stage         □L   M         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H         H	Channel Width (m)			width width width
Pool Depth (m)         MS         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00				
Method   2.0   2.0   C				
Method I	200000000000000000000000000000000000000		0.00 0.00 0.00	
Method			Wh Donth 1 1	1 Marked MC
No Vis.Ch.   Intermittent   Dw   Tribs.				i Wethod Wis
Dw				nittent
COVER				
S S N N T D S  LWD F	COVER	Total A	COSTA SANDA ASSE	
INTREAM VEG	SWD LWD B	C DP OV IV	4 71-90%	
DIST E		N T D S	Walanian W. Co.	e sala sala
STG MF				A M D V
Texture				
STG MF		IG II C II B II R II A		
WATER   STOOD SIGNS   Req #   NONE   Method   GE   EMS   Temp   8   Method   FD   Turb.   T   M   L   C   Method:   GE   MORPHOLOGY   SED MATERIAL   Dominant:   G   Subdom:   C   DISTURBANCE   O1   B1   B2   B3   D1   D2   D3   INDICATORS   O1   D2   O3   O3   O4   O5   S1   S2   S3   S4   S5   S4   S5   S5   S4   S5   S6   S6   S6   S6   S7   S7   S8   S8   S8   S8   S1   S9   S1   S1   S1   S1   S1   S1		1- 0- 0- 0-0-		
Req #   NONE   Method   GE   EMS   Method   S4   Method   S4   Method   S4   Method   S4   Method   S6   Method   GE   MORPHOLOGY   Method   GE   Method		G C B R A	12/5	
NONE	WAR WELL		WATER	
NONE	FLOOD SIGNS		Req#	
MORPHOLOGY   BED MATERIAL   Dominant:   G   Subdom:   C   DISTURBANCE   O1   B1   B2   B3   D1   D2   D3	NONE	Method GE		
MORPHOLOGY  BED MATERIAL Dominant: G Subdom: C DISTURBANCE O1 B1 B2 B3 D1 D2 D3  D95: 15 D (cm): 3 Morph: RP  C1 C2 C3 C4 C5 S1 S2 S3 S4 S5  Pattern SI  Islands N  Bars N SIDE DIAG MID SPAN BR	Temp 8	Metho T3	Cond.	Method: S4
BED MATERIAL Dominant: G Subdom: C DISTURBANCE O1 B1 B2 B3 D1 D2 D3  D95: 15 D (cm): 3 Morph: RP  Pattern SI  Islands N  Bars N SIDE DIAG MID SPAN BR	pH 0.0	Method FD	Turb.	C Method: GE
BED MATERIAL Dominant: G Subdom: C DISTURBANCE O1 B1 B2 B3 D1 D2 D3  D95: 15 D (cm): 3 Morph: RP  Pattern SI  Islands N  Bars N SIDE DIAG MID SPAN BR		A COMPANIAN M	IORPHOLOGY	
D95: 15 D (cm): 3 Morph: RP  C1 C2 C3 C4 C5 S1 S2 S3 S4 S5	BED MATERIAL Dom		DISTURBANCE O1 B1	
Pattern SI  Islands N  Bars N SIDE DIAG MID SPAN BR	D95: 15 D (	(cm): 3 Morph: RP		
SlandS N  Bars N SIDE DIAG MID SPAN BR	Pattern SI			
	Islands N			
	Bars N SIDE	DIAG MID SPAN B	R.	
	Coupling DC			

Reach #

ILP Map # 103P.070

ILP Number 1010 Site 2010

99/02/12

Watershed Code:

000-00000-00000-00000-0000-000-000-000-000-000-000

			E

NID Map NID 103P.069

3001 C

TRIB

Hgt

Method 6.0 GE Method

Comments

UTM (Zone/East/North)

6 GE

Barriea downstream on LP 1010 and 1011

Photo

R F

Method

Lg

FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Photo

Comments

Rearing Habitat

Moderate habitat due to abundant cover but little water.

Spawning Habitat

Poor habitat. Lots of algea.

### PHOTO DOCUMENTATION

R1 F 19

Foc Lg Dir STD U

STD

U

U

Comments
N3001-barrier cascade located 300m downstream of Block 94

R1 F 20 STD

N3001-barrier cascade located 300m downstream of Block 94.

R1 F 21

N3001-barrier cascade located 300m downstream of Block 94

#### WILDLIFE

#### COMMENT

Section

Comments

CHANNEL

The channel is minimal within the block (devils club-wet area).

WATER

Minimal flows-standing water present and dry sections. Outside of the block in an existing cutblock the channel is more defined and habitat value

increases.

MORPHOLOGY

Downstream from the block the channel is entrentched.

CHANNEL

Class: S6

FDIS Fish Form ILP# ILP Map # Reach # 1 103P.069 1010 99/02/16 Watershed Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 WATERBODY Gazetted Name: Local: Mitten-Block 94 WS Code: 000-00000-00000-0000-0000-000-000-000-000-000-000 Lake/Stream: S Waterbody ID: 1010 ILP Map #: 103P.069 ILP #: Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Agency C172 Date: 1998/09/18 To: 1998/09/18 Crew: BLW/MLP Resample: SITE / METHOD Site# NID Map NID# UTM:Zone/East/North/Mthd MTD/NO Comment Temp Cond Turbid 2010 103P.069 2010 EF 8.0 A. GEAR SETTINGS Site# Date In Time In Date Out Time Out Comment 2010 EF 1998/09/18 12:32 1998/09/18 13:05 В. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS

 Site#
 MTD/NO
 H/P
 Encl Sec
 Length
 Width
 Volt
 Freq
 Pulse
 Make
 Model

 2010
 EF
 1
 1
 O
 247
 300.0
 0.6
 400
 60
 5
 SMITH ROOT
 12B

FISH SUMMARY

Site# MTD/NO H/P Species Stage Age Total # Lgth (Min/Max) FishAct Comment

2010 EF 1 1 NFC 0

INDIVIDUAL FISH DATA

COMMENTS

Confinement

CO

Watershed Code:

Reach # ILP Map

103P.069

000-000000-00000-00000-0000-0000-000-000-000-000-000-000

ILP Map # ILP Number

Site

1011 2011

				anna.	Sec.	_
P	n	0	DOM:		~	
	ĸ		100	шы	(Marie	10.15

1

Project Name K	Cipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.)	KISPIOX RIVER	
Project Watershed Co	ode 470-00000-00000-00000-00	000-0000-000-000-000-000-000
	wan di Balan w	ATERSHED
Gazetted Name		Local Name Mitten-Block 94
Watershed Code 00	00-00000-00000-0000-0000-0000-	-000-000-000-000-000
ILP Map# 103P.069	ILP# 101	11 Reach # 1
Site # NID Map #	NID# UTM(Zone	/East/North/Method) Site Lg Method Access Fish Crd?
2011 103P.069	2011	100 HC V4
Date 1998/09/18	Time 13:30 Agency C	
		CHANNEL
	method width width width	n width width width width width
Channel Width (m)	T 0.5 0.7 1.4	0.7 1.2 0.6
Wetted Width (m)	T 0.5 0.7 1.4	
The state of the s		
Pool Depth (m)	MS 0.10 0,07 0.15	0.05
grad Method I 4.0	grad method 3.0 C	
		Wb Depth .2 .2 .2 Method MS Stage ⊠L □M □H
Method II	C	Stage \( \subseteq L \) \( \supseteq M \) \( \supseteq H \)  No Vis.Ch. \( \supseteq \subseteq Intermittent \) \( \supseteq \supseteq Intermittent \)
		Dw Tribs.
COVER	Total A	CROWN CLOSURE
SWD LWD B	C DP OV IV	3 41-70%
S S N	N N D N	
LWD F		INTREAM VEG N A M V
DIST E		RIP C
LB SHP V		STG MF
Texture F	G □ C □ B □ R □ A	RIP C
RB SHP V		STG MF
Texture X F	G ⊠ C □ B □ R □ A	
	A SERVICE AND RESERVED AND A SERVED A SERVED AND A SERVED A SERVED A SERVED AND A SERVED A SERVED A SERVED A SERVED A SERV	WATER
FLOOD SIGNS		Req#
	Method GE	EMS
Temp 8	Metho T3	Cond. Method: S4
	Method FD	Turb. T M L C Method: GE
рН		
		OPPHOLOCY
Cata III Ma		DISTURBANCE O1 B1 B2 B3 D1 D2 D3
BED MATERIAL Don	minant: C Subdom: G	Material Control of the Control of t
BED MATERIAL Don D95: 15 D (		DISTURBANCE O1 B1 B2 B3 D1 D2 D3 INDICATORS
BED MATERIAL Don	minant: C Subdom: G	DISTURBANCE O1 B1 B2 B3 D1 D2 D3 INDICATORS

Reach #

ILP Map # 103P.069

ILP Number 1011 Site 2011

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat Too shallow.

Rearing Habitat Good cover and moderate to low flow.

Spawning Habitat Poor habitat.

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 1 F 22 STD D Channel from road crossing with boulder in centre of frame.

WILDLIFE

COMMENT

Section Comments

CHANNEL This stream converges with ilp 1010 within the block. N3001 is a barrier

cascade which is located 300m downstream of the block on LP 1010.

WATER No electrofishing was conducted in LP 1011.

CHANNEL Class: S6

99/02/12

Confinement

Watershed Code:

Reach # ILP Map #

103P.070

ILP Number 1013 Site 2013

4
100
d?
24 6
S4 S

**FDIS Site Card** 103P.070 1013 2013 99/02/12 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 FEATURE SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Comments Section

ILP Map #

Reach #

**ILP Number** 

Site

CHANNEL The Bridge Main crosses the channel location along the edge of Block 79. No channel was present after searching 200 m of roadside.

DC

UN

Confinement

99/02/12

Watershed Code:

ILP Map # Reach # 4 103P.051 1014

ILP Number

Site 2014

000-000000-00000-00000-0000-000-000-000-000-000-000

ANA Landrell Income	PROJECT
Project Name Kipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-00000-000	00-0000-000-000-000-000-000
IN THE STATE OF TH	ATERSHED
Gazetted Name	Local Name Cullon-Block 79
Watershed Code 000-000000-00000-00000-0000-0000- ILP Map# 103P.051 ILP # 101	
Site # NID Map # NID # UTM(Zone/	East/North/Method) Site Lg Method Access Fish Crd?
2014 103P.070 2014	100 HC V4 🗵
Date 1998/09/23 Time 11:30 Agency C	172 Crew MLP/BLW Incomplete
	CHANNEL
method width width width	width width width width width
Channel Width (m) T 2.4 2.9 2.7	2.7 3.1 2.1
Wetted Width (m) T 2.0 1.8 2.1	2.0 2.0 1.7
Pool Depth (m) MS 0.10 0.12 0.08	0.07 0.06 0.05
grad grad method	
Method I 0.5 1.0 C	Wb Depth .2 .2 2 Method MS
Method II C	Stage \( \Bar{\text{L}} \Bar{\text{M}} \Bar{\text{H}} \\
	No Vis,Ch. Intermittent
	Dw Tribs.
COVER Total M SWD LWD B C DP OV IV	CROWN CLOSURE 1 1-20%
S S N N N D T	1
LWD A	INTREAM VEG N A M N V
DIST E	RIP M
LB SHP S	STG MF
Texture F G C B R A	RIP M
RB SHP S	STG MF
Texture F G C B R A	
	WATER
FLOOD SIGNS	Req#
NONE Method GE	EMS
Temp 9 Metho T3	Cond. 20 Method: S4
pH 8.9 Method FD	Turb. T M L C Method: GE
White Alexander Hilliam A M	ORPHOLOGY
BED MATERIAL Dominant: C Subdom: F	DISTURBANCE O1 B1 B2 B3 D1 D2 D3
D95: 17 D (cm): 5 Morph: RP	INDICATORS
Pattern SI	
Islands N	
Bars N SIDE DIAG MID SPAN BE	8
Coupling DC	

Reach # 4

ILP Map # 103P.051

**ILP Number** 1014

Site 2014

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

FEATURE

FC SWP/SLG FL/BV

HABITAT QUALITY

Name OverWinter Habitat Comments

TRIB

Poor-too shallow in channel-lake and beaver impoundment accessible.

Rearing Habitat

Good-low gradient with quality cover.

Spawning Habitat

Poor-no gravel.

PHOTO DOCUMENTATION

Photo Dir Foc Lg Comments

R2 STD NS CT captured at lake outlet. 10

R2 11 STD D Channel.

R2 12 STD U Head of creek.

WILDLIFE

COMMENT

Section

Comments

CHANNEL This stream is shown on FDP map as being in an uncut section of the

block. S3 classification

FDIS Fish Form ILP# Reach # ILP Map # 4 103P.070 1014 99/02/16 000-00000-00000-00000-0000-0000-000-000-000-000-000 Watershed Code: WATERBODY Gazetted Name: Local: Cullon-Block 79 000-00000-00000-00000-0000-0000-000-000-000-000-000 WS Code: Lake/Stream: S Waterbody ID: ILP Map #: 103P.070 ILP #: 1014 Project ID: 06-KISP-430000001-1998 Reach #: 4 Fish Permit #: 34770-20 Date: 1998/09/23 Agency C172 Crew: BLW/MLP Resample: To: 1998/09/23 SITE / METHOD UTM:Zone/East/North/Mthd Turbid Comment Site# NID Map NID# MTD/NO Temp Cond 2014 103P 070 2014 EF 1 9.0 20 L A. GEAR SETTINGS Site# MTD/NO Date In Time In Date Out Time Out 2014 EF 1998/09/23 11:30 1998/09/23 11:40 B. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# MTD/NO H/P Encl Sec Length Width Volt Pulse Model Freq Make 2014 0 114 60.0 2.0 400 70 6 SMITH ROOT 12B FISH SUMMARY Site# H/P Species Stage Total # Lgth (Min/Max) FishAct Comment MTD/NO Age 2014 CT J 1 83 83 R INDIVIDUAL FISH DATA

Site# MTD/NO H/P Species Length Weight Vch# Genetic Roll # Frame# Comment Sex Mat Age Str/Smpl# Str/Smpl#/Age 10

2014 EF 1 CT 83 UU 2

COMMENTS

Site 2015

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

	生力引		16	11/10	PROJE	CT	- 40	10119		1					9
Project N	ame k	(ipiox Fis	h				Project	Code	06-KI	SP-4	30000	001-1	998		
Stream N	ame (gaz.)	KISE	PIOX RIVE	R											
Project W	atershed Co	ode 47	70-000000-	00000-00000	-0000-0000-0	00-000-0	00-000-0	000-000							
11/1/2	and - (1) = (1)	UT FIRE	ALEX.	THE REAL PROPERTY.	WATERS	SHED	Tive Sa	Din							
Gazetted	Name				Local I	Name (	Cullon-B	lock 79						. 9	
Watershe	d Code 00	00-0000	0-00000-00	0000-0000-00	00-000-000-0	00-000-0	00-000								
ILP Map#	103P.070			ILP#				ach #	1						
Site #	NID Map #		NID#	UTM(Zo	ne/East/Nor	th/Metho	-	e Lg	Meth	od	Acce	ss F	ish C	rd?	
2015	103P.070		2015		2124 1		20		HC		V4				
Date	1998/09/23	1	ime 12:0	1 Agency	-		MLP/BL\	N	Inco	mple	ete	Ш			
					CHAN	NEL	-		-		L				
		method	d width	width wi	dth width	width	width	width	wid	th	width	wi	dth		
Channel	Width (m)	Т	0.8	0.5	.8 0.8	0.7	0.8								
Wetted V	Vidth (m)	Т	0.8		.0 0.7	0.7	0.7								
Pool Dep	oth (m)	MS	0.00	0.00 0.	00.00	0.00	0.00								
	grad		method		200		7.00								
Method I	0.5	0.5	C		Wb Dep	oth	1	11	.1		Metho	d M	S		
Method II			С		Stage			]н							
					No Vis.	-		Interm	nittent						
					Dw			Tribs.							
COVER			Total	Α	CROWN	CLOSU	RE								
	WD B	С		OV IV	3	41-70	%								
	S N	N	N	D S	INTREA	MVEC				M					
LWD DIST	E					M			, X		⊠ v				
LB SHP	S					MF									
Texture		IG TI	пв г	TR MA		M									
RB SHP	S	ь П.	П-Г	1,	STG I										
Texture	⊠ F □	G	ВВ	R A											
THE R			MAN I		WAT	ER		No.	V DE	20	y 9				
FLOOD S	IGNS				Req#										
			Method	GE	EMS										
Temp	8		Metho	Т3	Cond.	40					Meth	od:	S4		
рН	8.2		Method	FD	Turb.	ПТ	лм г	1-0	C		Meth	od:	GE		
								J [							
10.00	Mary In	Aless.	W	200	MORPH	S.Edward Street		4 64		-	-	P.C	-G1-		
BED MAT		ninant:	F Subd		INDICA	RBANCE TORS		01 B1	B2	B3	D1	D2	D3		
D95:		(cm):	2 Mor	ph: RP			-	C2 C3	C4	C5	S1	S2	S3	S4	S
Pattern	IR:														
Islands	N														
Bars 🖂	N SIDE	DIAC	MID	SPAN [	] BR										
Coupling	DC														
Confinem	ent UN														

Reach # 1

ILP Map #

**ILP Number** 1015

Site 2015

99/02/12

Watershed Code:

103P.070 

FC SWP/SLG FL/BV

HABITAT QUALITY

Name OverWinter Habitat Comments

Poor-too shallow.

Rearing Habitat

Poor-non-continuous of stagnant water.

Spawning Habitat

Poor-no gravel observed.

PHOTO DOCUMENTATION

Photo

Foc Lg Dir

Comments

R2 13

D STD

Skunk cabbage.

STD U R2 14

WILDLIFE

COMMENT

Section

Comments

CHANNEL

Very low gradient-swampy with little or no habitat quality but fish have

access for 150m from the beaver pond/lake.

CHANNEL

S4-NCD break was blazed on a small maple 150m u/s of the lake.

Watershed Code:

Bars N SIDE DIAG MID SPAN BR

DC UN

Coupling

Confinement

ILP Map # Reach #

103P.070

ILP Number

Site

1016 2016

99/02/12 000-000000-00000-00000-0000-0000-000-000-000-000-000 PROJECT Kipiox Fish Project Code 06-KISP-430000001-1998 Project Name KISPIOX RIVER Stream Name (gaz.) Project Watershed Code WATERSHED Gazetted Name Local Name Cullon-Block 78 Watershed Code 000-00000-00000-00000-0000-0000-000-000-000-000-000 ILP Map# 103P.070 ILP# 1016 Reach # Access Fish Crd? Site # NID Map # NID# UTM(Zone/East/North/Method) Site Lg Method 2016 103P.070 2016 200 1998/09/23 MLP/BLW Incomplete Date Time 13:42 Agency C172 Crew CHANNEL method width Channel Width (m) 0.8 1.0 0.6 0.5 0.7 0.7 T Wetted Width (m) 0.0 0.0 0.0 0.0 0.0 0.0 Pool Depth (m) MS 0.05 0.04 0.04 0.03 0.04 0.04 grad method grad Method I 4.0 3.0 C Wb Depth .1 .1 Method MS -1 Method II C Stage XL M No Vis.Ch. Intermittent Dw Tribs. COVER **CROWN CLOSURE** Total SWD DP 41-70% T D N **INTREAM VEG** LWD C DIST E RIP LB SHP STG MF C Texture MF G G C G B G R G A RIP **RB SHP** STG Texture □ F □ G □ C □ B □ R □ A WATER **FLOOD SIGNS** Reg # NONE GE **EMS** Method Method: **S4** Metho **T3** Cond. Temp pH Method FD U T UM U L U C Method: GE MORPHOLOGY DISTURBANCE **B3** D1 D2 D3 01 **B1** B2 BED MATERIAL Dominant: Subdom: C **INDICATORS** D95: 10 D (cm): Morph: S3 S2 \$5 SI Pattern Islands

Reach #

ILP Map # 103P.070

ILP Number 1016 Site 2016

99/02/12

Watershed Code:

000-00000-00000-0000-0000-000-000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

Cover

Moderate.

OverWinter Habitat

Poor.

Rearing Habitat

Moderate-small obstructions limiting rearing values.

Spawning Habitat

Poor-no spawning values.

PHOTO DOCUMENTATION

Photo

Foc Lg Dir Comments

U

R2 F 15

STD D

STD

R2 F 16

Small obstructions.

WILDLIFE

Group Observations

MAM Squirrel in tree.

COMMENT

Section

Comments

CHANNEL

Poor habitat quality. No spawning with some rearing. End of fish use

(S4/S6 break) is 200m upstream from lake.

Reach #

ILP Map # 93M.061

ILP Number 1017 Site 2017

99/02/12

Confinement

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

	PROJECT
Project Name Kipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-0	0000-0000-0000-000-000-000-000
	WATERSHED
Gazetted Name	Local Name Cullon-Block 81
Watershed Code 000-000000-00000-00000-0000	00-0000-000-000-000-000-000
LP Map# 93M.061 ILF	P# 1017 Reach # 1
Site # NID Map # NID # UT	M(Zone/East/North/Method) Site Lg Method Access Fish Crd?
2017 93M.061 2017	100 HC V4
Date 1998/09/24 Time 10:00 Ag	ency C172 Crew BLW/MLP Incomplete
erina a distribu	CHANNEL
method width width Channel Width (m) Wetted Width (m) Pool Depth (m)	width width width width width width
grad grad method	
Method I	Wb Depth Method MS
Method II	Stage L M H
	No Vis.Ch. Intermittent
	Dw Tribs.
COVER Total SWD LWD B C DP OV I	Dw
SWD LWD B C DP OV I	CROWN CLOSURE
	CROWN CLOSURE
SWD LWD B C DP OV I	CROWN CLOSURE
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V  RIP  STG
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V  RIP  STG
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V  RIP  STG  A RIP  STG
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V  RIP  STG  A RIP  STG
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V  RIP  STG  A RIP  STG  A
SWD LWD B C DP OV I	CROWN CLOSURE  INTREAM VEG N A M V RIP STG A RIP STG A WATER
SWD LWD B C DP OV I  WD  DIST  B SHP  Exture F G C B R	CROWN CLOSURE  INTREAM VEG N A M V RIP STG A RIP STG A WATER Req#
SWD LWD B C DP OV I  WD  DIST  B SHP  Exture F G C B R  EXTURE F G C B R	CROWN CLOSURE  IV  INTREAM VEG N A M V RIP STG A RIP STG A WATER  Req # EMS
SWD LWD B C DP OV  WD  DIST  B SHP  Exture F G C B R  Exture F G C B R  Exture Method  Method  Method	CROWN CLOSURE  INTREAM VEG N A M V RIP STG A RIP STG A  WATER  Req # EMS Cond. Method: Turb. T M L C Method: GE
SWD LWD B C DP OV I  WD  DIST  B SHP  Exture F G C B R  Method  Method	CROWN CLOSURE  INTREAM VEG N A M V RIP STG A RIP STG A  WATER  Req # EMS Cond. Method: Turb. T M L C Method: GE  MORPHOLOGY DISTURBANCE O1 B1 B2 B3 D1 D2 D3
SWD LWD B C DP OV  WD  DIST  B SHP  Exture F G C B R  EXTURE F G C B R  ELOOD SIGNS  Method  Method  H Method	CROWN CLOSURE  IV  INTREAM VEG
SWD LWD B C DP OV  WD  DIST  B SHP  Exture F G C B R  EXTURE F G C B R  ELOOD SIGNS  Method  Method  H Method  Method  Method	CROWN CLOSURE  INTREAM VEG N A M V RIP STG A RIP STG A  WATER  Req # EMS Cond. Method: Turb. T M L C Method: GE  MORPHOLOGY DISTURBANCE O1 B1 B2 B3 D1 D2 D3

**FDIS Site Card** Reach # ILP Map # **ILP Number** Site 1 93M.061 1017 2017 99/02/12 Watershed Code: 000-000000-00000-00000-0000-0000-0000-000-000-000-000-000-000FEATURE sc 🗌 FC SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT

Section CHANNEL Comments

The hillside was searched for over 300 m for the channel

Reach #

ILP Map # 93M.061

ILP Number 1018 Site 2018

99/02/12

Confinement

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

新生元 一、1995年		PROJECT	" - SAN	1 +4		
Project Name Kipiox Fis	h		Project Co	de 06-K	ISP-43000000	1-1998
Stream Name (gaz.) KISF	PIOX RIVER					
Project Watershed Code 47	70-000000-00000-00000-0	000-000-000-000-0	000-000-000	0-000		
	LA SAULT THE	WATERSHED		3//-		
Gazetted Name		Local Name	Cullon-Bloc	k 81		
Watershed Code 000-00000	00-00000-00000-0000	0-000-000-000-000-0	000-000			
ILP Map# 93M.061	ILP# 10	018	Reacl	h# 1		
Site # NID Map #	NID# UTM(Zor	ne/East/North/Metho	od) Site L	g Meth	nod Access	Fish Crd?
2018 93M.061 2	2018		100	HC	V4	
Date 1998/09/24 T	Time 10:30 Agency	C172 Crew	BLW/MLP	Inc	omplete [	
	glassia la	CHANNEL		19	3	500
method Channel Width (m) Wetted Width (m) Pool Depth (m)	d width width wid	th width width	width v	width wid	lth width	width
	method					
grad grad Method I	method	MIL Devil			Mattered	MC
Method II		Wb Depth Stage L [	пм пн		Method	IVIS
wethod h				ntermitten	П	
				ribs.	П	
COVER	Total	CROWN CLOSU				
SWD LWD B C	DP OV IV					
LWD		INTREAM VEG	$\square_{N}$		] M 🗆 V	
DIST		RIP				
LB SHP		STG				
	BORDA	RIP				
RBSHP Γexture ☐ F ☐ G ☐ C	BBRDA	STG				
Texture Tr Te Tr	,	WATER		CELLINO EL		
	HOUSE DE LA CONTRACTOR	C CONTROL OF THE PARTY OF THE	-30001		175	
FLOOD SIGNS	Time a	Req#				
	Method	EMS			***	
	Metho	Cond.	- 4	7.0	Method	
рН	Method	Turb.	$\square^{M}$	L D c	Method	: GE
	HURS DAY	MORPHOLOG	Y	1510	80 T 1	= 1
Earl Com Letter to		DISTURBANCE	010	B1 B2	B3 D1 D	D2 D3
BED MATERIAL Dominant:	Subdom:	44.4m				
BED MATERIAL Dominant: D95: D (cm):	Subdom: Morph:	INDICATORS				
		INDICATORS	C1 C2	C3 C4		S2 S3 S4
D95: D (cm):		INDICATORS				

**FDIS Site Card** Reach # ILP Map # ILP Number Site 93M.061 1018 2018 99/02/12 Watershed Code:  $000\hbox{-}000000\hbox{-}00000\hbox{-}00000\hbox{-}0000\hbox{-}0000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000\hbox{-}000$ FEATURE TRIB FC SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Comments Section CHANNEL The mapped location of the stream was found yet there was no channel present.

ILP Map #

93M.061

ILP Number 1019 Site 2019

99/02/12

Confinement

oc

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

The second of th	PROJECT
Project Name Kipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-00000-000	0-0000-000-000-000-000-000
The state of the s	ATERSHED
Sazetted Name	Local Name Cullon-Block 81
Vatershed Code 000-000000-00000-00000-0000-0000-0	00-000-000-000-000
LP Map# 93M.061 ILP # 1019	Reach # 1
Site # NID Map # NID # UTM(Zone/	East/North/Method) Site Lg Method Access Fish Crd?
019 93M.061 2019	140 HC V4
	172 Crew MLP/BLW Incomplete
	CHANNEL
method width width width	width width width width width width
Channel Width (m) T 1.4 0.8 0.6	1.1 1.3 1.1
Wetted Width (m) T 0.0 0.0 0.6	0.0 0.0 0.3
Pool Depth (m) MS 0.12 0.14 0.08	0.07 0.10 0.05
grad grad method	4034 404 4044
Method I 4.0 5.0 C	Wb Depth 1 2 1 Method MS
Method II C	Stage \L \Box H
	No Vis.Ch. Intermittent
	Dw Tribs.
COVER Total A	CROWN CLOSURE
SWD LWD B C DP OV IV	2 21-40%
T S N N N D T	AND THE RESERVE OF THE PARTY OF
WD A	INTREAM VEG N A M V
B SHP S	RIP C STG MF
	STG MF
exture FGGCBBRA	STG MF
exture FGGCBBRA	STS WII
	WATER
LOOD SIGNS	Req#
Method GE	EMS
Temp 8 Metho T3	Cond. 40 Method: S4
oH 8.9 Method FD	Turb. T M L C Method: GE
CONTRACTOR OF THE PROPERTY OF	ORPHOLOGY
SED MATERIAL Dominant: C Subdom: F	DISTURBANCE O1 B1 B2 B3 D1 D2 D3 INDICATORS
95: 15 D (cm): 5 Morph: RP	C1 C2 C3 C4 C5 S1 S2 S3 S4

Reach #

ILP Map #

**ILP Number** 

Site

99/02/12

Watershed Code:

93M.061 000-00000-0000-0000-0000-000-000-000-000-000-000-000

1019

2019

FEATURE

TRIB FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

OverWinter Habitat

Too shallow.

Rearing Habitat

Moderate-Minimal pool/holding type habitat present.

Downstream from road.

Spawning Habitat

No gravel observed.

PHOTO DOCUMENTATION

Photo Foc Lg

21

STD

Dir Comments

R2 22

STD

D

Showing small channel upstream of road.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

The channel is presently mostly dry except for a wide pool section present

downstream of the road. This pool habitat was shocked.

CHANNEL

The channel is discontinuous in sections. Stream class-S6.

CHANNEL

U/s of the road the habitat deteriorates even more.

**FDIS Fish Form** ILP Map # ILP# Reach # 1 93M.061 1019 99/02/16 000-00000-00000-00000-0000-0000-000-000-000-000-000 Watershed Code: WATERBODY Gazetted Name: Local: Cullon-Block 81 WS Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 Lake/Stream: S Waterbody ID: ILP Map #: 93M.061 ILP #: 1019 Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Date: 1998/09/24 To: 1998/09/24 Agency C172 Crew: BLW/MLP Resample: SITE / METHOD Site# NID Map UTM:Zone/East/North/Mthd Temp Cond Turbid Comment MTD/NO 2019 93M.061 2019 EF 1 8.0 20 M A. GEAR SETTINGS Site# MTD/NO H/P Date In Time In Date Out Time Out Comment 2019 1998/09/24 11:30 1998/09/24 11:49 B. NET/TRAP SPECIFICATIONS

### C. ELECTROFISHER SPECIFICATIONS

Model Site# MTD/NO H/P Encl Sec Length Width Volt Pulse Make Freq 2019 200 50.0 5.0 400 60 5 SMITH ROOT 12B

FISH SUMMARY

INDIVIDUAL FISH DATA

COMMENTS

99/02/12

Bars N SIDE DIAG MID SPAN BR

Coupling Confinement Reach # ILP Map #

93M.061

**ILP Number** 

Site

1020 2020

Watershed Code:	000-000000-00000-00000-0000-0000-000-000-000-000-000
	PROJECT
Project Name Kipiox Fish	Project Code 06-KISP-430000001-1998
Stream Name (gaz.) KISPIOX RIVER	
Project Watershed Code 470-000000-00000-00000-000	00-0000-000-000-000-000-000
A TO A TO SEE THE WAR OF THE WAR	ATERSHED
Gazetted Name	Local Name Cullon-Block 81
Watershed Code 000-000000-00000-00000-0000-0000-0	
ILP Map# 93M.061 ILP # 102	
	/East/North/Method) Site Lg Method Access Fish Crd?
2020 93M.061 2020	100 HC V4
Date 1998/09/24 Time 11:10 Agency C	C172 Crew MLP/BLW Incomplete  CHANNEL
100000000000000000000000000000000000000	CHARREL
Wetted Width (m)  Pool Depth (m)  grad grad method  Method I  Method II  COVER Total	Wb Depth Method MS  Stage L M H  No Vis.Ch. Intermittent Dw Tribs. CROWN CLOSURE
SWD LWD B C DP OV IV	
LWD	INTREAM VEG N N N N V
DIST	RIP
LB SHP	STG
Texture FGGCBBRA	RIP
RB SHP	STG
Texture FGGCBBRA	
WHEN THE WAR AND THE PARTY OF T	WATER
FLOOD SIGNS	Req#
Method	EMS
Temp Metho	Cond. Method:
pH Method	Turb. T M L C Method: GE
Mark and the same of the same	0.0000000000000000000000000000000000000
BED MATERIAL Dominant: Subdom:	ORPHOLOGY DISTURBANCE O1 B1 B2 B3 D1 D2 D3
D95: D (cm): Morph:	INDICATORS
Pattern	C1 C2 C3 C4 C5 S1 S2 S3 S4

Reach #

ILP Map #

**ILP Number** 

Site

99/02/12

Watershed Code:

93M.061

1020 2020

000-000000-00000-00000-0000-0000-000-000-000-000-000 FEATURE TRIB FC SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION Photo Foc Lg Dir Comments R2 STD U 19 STD D R2 20 Log and devils club. WILDLIFE COMMENT Comments Section CHANNEL

The mapped location of the stream was found yet there was no channel

present.

Reach # ILP Map # ILP Number 4 103P.070 1021 Site

2021 99/02/12 Watershed Code: 000-00000-00000-00000-0000-0000-000-000-000-000-000 PROJECT 06-KISP-430000001-1998 Kipiox Fish **Project Code Project Name** KISPIOX RIVER Stream Name (gaz.) **Project Watershed Code** WATERSHED Gazetted Name Local Name Cullon-Block 80 Watershed Code 000-000000-00000-0000-0000-0000-000-000-000-000-000 ILP Map# 103P.070 ILP# 1021 Reach # Site # UTM(Zone/East/North/Method) Site Lg Method Access Fish Crd? NID Map # NID# 2021 103P.070 2021 120 HC V4  $\times$ Incomplete Date 1998/09/24 Time 13:10 Agency C172 Crew BLW/MLP CHANNEL method width Channel Width (m) 0.8 0.9 0.8 T 1.1 0.8 8.0 Wetted Width (m) T 0.3 0.7 0.5 0.3 0.7 0.3 Pool Depth (m) 0.05 0.09 0.10 0.05 0.10 0.09 MS grad grad method C Method I 2.0 1.0 Wb Depth Method MS .1 .2 Method II C Stage L M No Vis.Ch. Intermittent Dw Tribs. COVER Total A **CROWN CLOSURE** SWD DP OV IV 21-40% 2 S S S N D N F **INTREAM VEG** LWD DIST E RIP C LB SHP MF STG C F G G C B G R A RIP Texture **RB SHP** STG MF Texture ☐ F ☐ G ☐ C ☐ B ☐ R ☐ A WATER **FLOOD SIGNS** Req# Method GE **EMS** S4 Method: Temp 8 Metho T3 Cond. pH 7.3 Method FD Turb. DI DW Dr Mc Method: GE MORPHOLOGY D2 D3 BED MATERIAL Dominant: G Subdom: DISTURBANCE B<sub>1</sub> B2 **B**3 D1 C 01 **INDICATORS** D95: 20 D (cm): Morph: RP S3 S2 C1 C2 C4 C5 SI **S4** \$5 Pattern SI Islands Bars N SIDE DIAG MID SPAN BR

Coupling CO
Confinement FC

Reach #

ILP Map # 103P.070

ILP Number 1021 Site 2021

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

OverWinter Habitat

Poor-too shallow.

Rearing Habitat

Good-nice cover present.

Spawning Habitat

Good-gravel present, flows marginal.

CT on anode.

PHOTO DOCUMENTATION

Foc Lg Dir Comments

D

R 2 F 23 STD U

Channel upstream from road.

R2 F 24

STD

Channel location where CT caught.

R2 F 222 STD NS

WILDLIFE

COMMENT

Section

Comments

CHANNEL

Stream class-S4.

**FDIS Fish Form** ILP# Reach # ILP Map # 4 93M.061 1021 99/02/16 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 WATERBODY Gazetted Name: Local: Cullon- Block 80 WS Code: 000-00000-0000-0000-0000-000-000-000-000-000-000 Lake/Stream: S Waterbody ID: ILP Map #: 93M.061 ILP #: 1021 Project ID: 06-KISP-430000001-1998 Reach #: 4 Fish Permit #: 34770-20 Date: 1998/09/24 Crew: BLW/MLP Resample: To: 1998/09/24 Agency C172 SITE / METHOD Site# **NID Map** NID# UTM:Zone/East/North/Mthd MTD/NO Temp Cond Turbid Comment 2021 93M.061 2021 EF C 1 8.0 80 A. GEAR SETTINGS Site# MTD/NO H/P Date In Time In Date Out Time Out Comment 2021 1998/09/24 13:05 1998/09/24 13:10 B. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# MTD/NO H/P Encl Sec Length Width Volt Pulse Model Freq Make 2021 0 5.0 400 60 5 SMITH ROOT 12B 1.0 FISH SUMMARY Site# Stage MTD/NO H/P Species Age Total # Lgth (Min/Max) FishAct Comment 2021 CT J 1 1 1 45 45 R INDIVIDUAL FISH DATA Species Length Weight Sex Mat Age Vch# Genetic Roll# Frame# Comment Str/Smpl#/Age Str/Smpl# 2021 EF CT UU 1 1 45 2 22 COMMENTS

Confinement

UN

Watershed Code:

Reach # ILP Map # 3 103P.078

ILP Number 1030 Site 2030

000-000000-00000-00000-0000-0000-000-000-000-000-000

Project   Name	PROJECT
Project   Value   V	Project Code 06-KISP-430000001-1998
Company   Com	:R
Cazetted Name	-00000-00000-0000-0000-000-000-000-000-000
Watershed Code	WATERSHED
NID Map # NID Map # NID # NID Map # NID # UTM(Zone/East/North/Method)   Site Lg Method   Access Fish Crd?	Local Name Nangeese-Block 1
Site # NID Map # NID #	0000-0000-0000-000-000-000-000-000
2030   103P.078   2030   300   HC   V4   \( \begin{array}{c c c c c c c c c c c c c c c c c c c	ILP # 1030 Reach # 3
Date	UTM(Zone/East/North/Method) Site Lg Method Access Fish Crd?
Method   Width   Wi	300 HC V4 ⊠
method         width         <	62 Agency C172 Crew BLW/MLP Incomplete
Channel Width (m)       T       0.6       0.5       0.6       0.6       0.9       0.4         Wetted Width (m)       T       0.4       0.5       0.4       0.2       0.5       0.3         Pool Depth (m)       MS       0.06       0.05       0.05       0.07       0.09       0.02         grad       grad       method       Method       MS         Method II       C       Wb Depth       .1       .1       .1       Method       MS         Method II       C       Stage       L M       M       H         No Vis.Ch.       Intermittent       Dw       Tribs.       C         COVER       Total       A       CROWN CLOSURE         SWD LWD       B       C       DP       OV       IV       2       21-40%         S       S       N       N       N       D       N       INTREAM VEG       N       A       M       V	CHANNEL
Channel Width (m)       T       0.6       0.5       0.6       0.6       0.9       0.4         Wetted Width (m)       T       0.4       0.5       0.4       0.2       0.5       0.3         Pool Depth (m)       MS       0.06       0.05       0.05       0.07       0.09       0.02         grad       grad       method       Method       MS         Method II       C       Wb Depth       .1       .1       .1       Method       MS         Method II       C       Stage       L M       M       H         No Vis.Ch.       Intermittent       Dw       Tribs.       C         COVER       Total       A       CROWN CLOSURE         SWD LWD       B       C       DP       OV       IV       2       21-40%         S       S       N       N       N       D       N       INTREAM VEG       N       A       M       V	width width width width width width width
Wetted Width (m)         T         0.4         0.5         0.4         0.2         0.5         0.3           Pool Depth (m)         MS         0.06         0.05         0.05         0.07         0.09         0.02           grad         grad         method         Method         Intermittent         Intermittent         Intermittent           Method II         C         Stage         Intermittent         Intermittent         Intermittent           Dw         Tribs.         Intermittent         Intermittent         Intermittent           COVER         Total         A         CROWN CLOSURE           SWD         LWD         B         C         DP         OV         IV         2         21-40%           S         S         N         N         N         D         N         INTREAM VEG         N         A         M         V	
Pool Depth (m)         MS         0.06         0.05         0.05         0.07         0.09         0.02           grad         grad         method         Wb Depth         .1         .1         .1         Method MS           Method II         C         Stage         □ L M         M         H           No Vis.Ch.         Intermittent         Dw         Tribs.           COVER         Total         A         CROWN CLOSURE           SWD         LWD         B         C         DP         OV         IV         2         21-40%           S         S         N         N         N         D         N         INTREAM VEG         N         A         M         V	
Grad   Grad   method	
Method I         2.0         C         Wb Depth         .1         .1         .1         .Method MS           Method II         C         Stage □ L □ M □ H <td< td=""><td>0.05 0.05 0.07 0.09 0.02</td></td<>	0.05 0.05 0.07 0.09 0.02
Method II         C         Stage	Market Market Mc
No Vis.Ch.	
DW	
COVER Total A CROWN CLOSURE SWD LWD B C DP OV IV 2 21-40%  S S N N N D N  LWD A INTREAM VEG N A M V	
SWD LWD B C DP OV IV 2 21-40% S S N N N D N LWD A INTREAM VEG N A M V	
LWD A INTREAM VEG N A M V	OV IV
	D N
DIST F RIP C	
	RIP C
LB SHP S STG MF	
Texture FGGCBRA RIP C	
RBSHP S STG MF Texture ☑ F ☐ G ☐ C ☐ B ☐ R ☐ A	
WATER	
	**** **** ****************************
FLOOD SIGNS Req #  Method GE EMS	
Temp 7.5 Metho T3 Cond. 40 Method: S4	
pH 7.2 Method FD Turb. T M L C Method: GE	Tailo.
MORPHOLOGY	MORPHOLOGY
BED MATERIAL Dominant: F Subdom: G DISTURBANCE O1 B1 B2 B3 D1 D2 D3 INDICATORS	
D95: 5 D (cm): 3 Morph: RP INDICATORS	rph: RP
Pattern SI	
Islands N	
Bars N SIDE DIAG MID SPAN BR	SPAN BR
Coupling DC	

Reach #

ILP Map #

ILP Number

Site

3

103P.078

1030

2030

99/02/12

Watershed Code:

000-00000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat Too shallow-lake downstream available.

Rearing Habitat Moderate-minimal habitat, discontinuous.

Spawning Habitat Substrate almost entirely fines.

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 3 F 1 STD U EFU (log accross centre of frame).

R3 F 2 STD D Channel.

WILDLIFE

COMMENT

Section Comments

WATER The stream flows into Swordgrass Lake and is beaver impacted at the

mouth. No fish were captured while shocking but they were visually

observed in the lake (no barriers exist).

SITE CARD FISS shows RB in Swordgrass lake outlet.

CHANNEL EFU blazed ~150m u/s of road where channel becomes an NCD.

CHANNEL Class: S4/S6 break located 150m u/s of road.

WATER The lake is in close proximity to the Kispiox River.

**FDIS Fish Form** ILP# ILP Map # Reach # 3 103P.078 1030 99/02/16 000-00000-00000-00000-0000-0000-000-000-000-000-000 Watershed Code: WATERBODY Gazetted Name: Local: Nangeese-Block 1 WS Code: Lake/Stream: S Waterbody ID: ILP Map #: 103P.078 1030 Project ID: 06-KISP-430000001-1998 Reach #: 3 Fish Permit #: 34770-20 Crew: BLW/MLP Date: 1998/09/25 To: 1998/09/25 Agency C172 SITE / METHOD Site# NID Map NID# UTM:Zone/East/North/Mthd Temp Cond Turbid Comment MTD/NO 2030 103P.078 2030 EF 7.5 40 L A. GEAR SETTINGS Site# MTD/NO Date In Time In Date Out Time Out Comment 2030 1998/09/25 09:30 1998/09/25 09:35 B. NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# Encl Sec Model MTD/NO Length Width Volt Freq Pulse Make

FISH SUMMARY

70

SMITH ROOT

12B

400

0

Site# MTD/NO H/P Species Stage Age Total # Lgth (Min/Max) FishAct Comment

1.0

50.0

2030 EF 1 1 NFC

100

2030

INDIVIDUAL FISH DATA

99/02/12

Coupling Confinement

Watershed Code:

Reach # ILP Map #

103P.069

3

ILP Number

Site

1145 2012

TIELS		7 18 3 NOV	PROJECT	-
Drainet A	Name Vinjey	Fish	The state of the s	000001 1009
Project N			Project Code 06-KISP-4300	000001-1990
		(ISPIOX RIVER	0.0000,0000,0000,000,000,000,000,000	
Project v	Watershed Code	470-000000-000	0-00000-0000-0000-000-000-000-000-000 WATERSHED	
Gazetted	Name		Local Name Mitten-Block 94	
Watershe		0000-00000-0000	0000-0000-000-000-000-000-000	1
	# 103P.069		ILP # 1145 Reach # 3	
Site #	NID Map #	NID#	UTM(Zone/East/North/Method) Site Lg Method Ad	ccess Fish Crd?
2012	103P.069	2012	100 HC V4	
Date	1998/09/18	Time 15:20	Agency C172 Crew BLW/MLP Incomplete	
		19/01/2011	CHANNEL	S1811 + 101
	l Width (m) Width (m) opth (m)			
	grad grad	method		
Method I				thod MS
Method II			Stage ☐L ☐M ☐H  No Vis.Ch. ☒ Intermittent ☐	1
			Dw Tribs.	1
COVER SWD L	LWD B C	Total DP OV	CROWN CLOSURE	
LWD			INTREAM VEG	V
DIST			RIP	
LB SHP			STG	
Texture	□ F □ G □	C B B R		
RB SHP Texture	ПЕПСЕ	лс Пв Пв	STG	
Texture .		]C   B   R	WATER	
FLOOD S	SIGNS		Req #	
		Method	EMS	
Temp		Metho	Cond. Me	ethod:
рН		Method	Turb. ПТ ПМ П L ПС Ме	ethod: GE
NIN PRO	JE 1 2 1 2 1 3 2 1 3 2 2 1	E - 1896	MORPHOLOGY DISTURBANCE O1 B1 B2 B3 D	1 D2 D3
BED MAT	FRIAL Dominan	t Subdom	טוטוטוטר טו טו טב טט ט	
BED MAT			INDICATORS	
D95:	D (cm):			

3 103P.069 1145 2012 99/02/12 000-00000-00000-00000-0000-000-000-000-000-000-000 Watershed Code: FEATURE TRIB SC | FC SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Section Comments

stream was found.

The block boundary was walked throughout the stream area (200m) and no

ILP Map #

Reach #

**ILP Number** 

Site

**FDIS Site Card** 

CHANNEL

FC

Confinement

99/02/12

Watershed Code:

Reach # ILP Map # ILP Number Site

		PROJECT	
Project Name K	Cipiox Fish	Project Code	06-KISP-430000001-1998
Stream Name (gaz.)	KISPIOX RIVER		
Project Watershed Co	ode 470-000000-00000-0000	00-0000-000-000-000-000-000	
111-2-12	w w	ATERSHED	
Gazetted Name		Local Name Ironside-Block 73	3
	00-00000-00000-00000-0000-0000-0		
ILP Map# 103P.070	ILP# 1101		4
Site # NID Map #		East/North/Method) Site Lg	Method Access Fish Crd?
22010 103P.070	22010	300	HC V4
Date 1998/09/22		172 Crew BLW/MLP CHANNEL	Incomplete
		CHANNEL	
	method width width width	width width width width	width width width
Channel Width (m)	T 1.2 1.8 0.9	0.7 1.3 1.5	
Wetted Width (m)	T 0.2 1.1 0.4	0.5 1.3 1.3	
Pool Depth (m)	MS 0.09 0.10 0.11	0.09 0.00 0.00	
grad	grad method		
Method I 4.0	5.0 C	Wb Depth .2 .3	.4 Method MS
Method II	C	Stage \( \Bar{\cappa} \cappa \Bar{\cappa} \B	
		No Vis.Ch. Interr	nittent
		Dw Tribs	. 🗆
COVER SWD LWD B	Total A C DP OV IV	CROWN CLOSURE	
S S T	N N D N	3 41-70%	
LWD A		INTREAM VEG	A M M V
DIST E		RIP M	
LB SHP V		STG MF	
Texture F	IG OC OB OR OA	RIP M	
RB SHP V		STG MF	
Texture F	G ⊠ C □ B □ R □ A		
	CHARLE HIL	WATER	
FLOOD SIGNS	82 W C C C C C C C C C C C C C C C C C C	Req#	
NONE	Method GE	EMS	
Temp 8	Metho T4	Cond. 100	Method: S4
pH 8.1	Method FD	Turb.	C Method: GE
OF INTERNATIONAL PROPERTY.	MINISTRAL MINIST	ORPHOLOGY	
Total Inc. of the Contract of	ninant: C Subdom: B	DISTURBANCE O1 B1	B2 B3 D1 D2 D3
D95: 31 D (	(cm): 10 Morph: RP	INDICATORS	
Pattern SI		C1 C2 C3	. 이 1일 시간
Islands N			
Bars   N   SIDE	DIAG MID SPAN BE	1	
Counting			

Reach # 1

ILP Map # 103P.070

**ILP Number** 11010

Site 22010

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

NID NID Map

Type

Method T

Method

Comments

103P.070

3001 CV

.3

HC

Photo R

UTM (Zone/East/North)

Hgt

Method

Lg

TRIB

SC [

FC SWP/SLG FL/BV

HABITAT QUALITY

Name

Comments

OverWinter Habitat

Poor. Too shallow.

Rearing Habitat

Good. Abundant cover.

Spawning Habitat

Poor. Infrequent patches of gravel observed.

PHOTO DOCUMENTATION

Photo

Foc Lg Dir Comments NS

STD R2 3

CT shocked immediately downstream of the road.

R2 6 STD

STD

U Showing perched culvert.

R 2

D Channel.

WILDLIFE

COMMENT

Section

Comments

CHANNEL

The site is blazed at top road crossing. The culvert at this crossing is

perched ~25cm and poses a barrier to juvenile migration.

CHANNEL

Class: S4

FDIS Fish Form ILP Map # ILP# Reach # 1 103P.070 11010 99/02/16 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 WATERBODY Gazetted Name: Local: Ironside-Block 73 WS Code: Lake/Stream: S Waterbody ID: ILP Map #: 103P.070 ILP#: 11010 Project ID: 06-KISP-430000001-1998 Reach #: 1 Fish Permit #: 34770-20 Date: 1998/09/22 Crew: BLW/MLP Resample: To: 1998/09/22 Agency C172 SITE / METHOD Site# **NID Map** NID# UTM:Zone/East/North/Mthd MTD/NO Temp Cond Turbid Comment 22010 103P.070 22010 EF 1 8.0 100 C A. GEAR SETTINGS Site# MTD/NO H/P Date In Time In Date Out Time Out Comment 1998/09/22 22010 1998/09/22 13:04 13:15 NET/TRAP SPECIFICATIONS C. ELECTROFISHER SPECIFICATIONS Site# MTD/NO H/P Width Volt Pulse Model Encl Sec Length Freq Make 22010 0 70.0 1.0 400 70 6 SMITH ROOT 12B FISH SUMMARY Stage Total # Lgth (Min/Max) FishAct Comment Site# Species 22010 CT J 1 85 85 R

INDIVIDUAL FISH DATA

Site# MTD/NO H/P Species Length Weight Sex Mat Age Vch# Genetic Roll# Frame# Comment

Str/Smpl#/Age Str/Smpl#

22010 EF 1 1 CT 85 U L

99/02/12

Watershed Code:

000-000000-00000-00000-0000-000-000-000-000-000-000

	2311-3	j - 1		PR	DJECT	200	39.0			113	5, 52	1	1		
Project Name	Kipiox Fish					Pi	roject	Code	06-KI	SP-4	30000	001-1	998		
Stream Name (gaz.	KISPI	OX RIVER	2												
Project Watershed	Code 470	0-000000-0	0000-0000	0-0000-00	00-000-0	00-000	0-000-0	000-000							
	7.50		Pry 12	WAT	ERSH	D	8.		1	31					
Gazetted Name				Lo	cal Nam	e Iro	nside-l	Block 73	3						
Watershed Code	000-000000	-00000-00	000-0000-0	000-000-0	00-000-0	00-00	0-000								
ILP Map# 103P.07	)		ILP#	11011			Rea	ach#	1						
Site # NID Map	# N	ID#	UTM(2	Zone/East	/North/M	ethod)	) Site	e Lg	Meth	od	Acce	ss F	ish C	rd?	
22011 103P.07	) 22	2011					150	)	HC		V4				
Date 1998/09	22 Ti	me 13:46	Agend	y C172	Crew		_W/MLI	P	Inco	omple	ete				
21-1-1		Male		СН	ANNE	L	16	15	115			100			
	method	width	width v	vidth w	idth w	dth	width	width	wid	th	width	wi	dth		
Channel Width (m)	Т	0.7	0.5			.0	0.9		,,,,						
Wetted Width (m)	т	0.0	0.5			.0	0.0								
Pool Depth (m)		0.00													
	MS	nethod	0.00	0.00	.00 0	.00	0.00								
grad Method I 3.0	grad r	C		14/1	Donth	2		2			Metho	d 11	c		
Method II	1.0	C			Depth ge	.2 - 🗆		.3 ]H	.2		wetho	a ivi	5		
metrica ii		J			Vis.Ch.	П			nittent						
				Dw				Tribs.							
COVER		Total	Α	CR	OWN CL	OSURI	E								
SWD LWD B	С	DP C	V 1V	4	7	1-90%									
S T T	T	N I	S												
LWD F					REAM V	EG			A	М	□ v				
DIST E				RIP											
LB SHP V		212		STO											
	□e □ c		]R 🗆 A	RIP											
RB SHP V Texture X F	]G ∏ C	Пвг		ST	6 MF										
Texture N			IV IV	V	ATER	8 7 1	- 10			= 7-2	3	-	5 -		
FI COD SIGNS	- 1 1	20.70			TI LIE SOIOMA		_ 18	33.55.5							
FLOOD SIGNS		Anthod	CE	EN	q#										
Toma 0		lethod letho	GE T3		nd.	140					Meth	od.	S4		
Temp 9											Meth		GE		
pH 8.3	IV	lethod	FD	Tu	J. []	1	]M [	1 - L	C		Metri	Ju.	OL		
	CONTRACTOR OF THE PARTY OF THE	11:56	-11C4.)	MOR	PHOL	OGY	-	I I							
BED MATERIAL D	ominant:	Subdo	m: F		TURBAN		0		B2	В3	D1	D2	D3		
D95: 0.3	D (cm): 8	Morp	h: RP	INL	ICATOR		-		CA	CF		52	C3	CA	0
Pattern SI								2 C3	C4	C5	S1	S2	S3	S4	S
Islands N						ı		1 []	П				Ш	П	
	E DIAG	MID I	SPAN [	BR											
Coupling PC															

Reach #

103P.070

ILP Number

Site 22011

99/02/12

Watershed Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

FEATURE

TRIB SC FC SWP/SLG FL/BV

HABITAT QUALITY

Name Comments

OverWinter Habitat Poor. Too shallow.

Rearing Habitat Moderate. Abundant cover.

Spawning Habitat Poor. No gravels.

PHOTO DOCUMENTATION

Photo Foc Lg Dir Comments

R 2 F 4 STD U Showing end of fish use.

R 2 F 5 STD D Showing channel with marginal habitat.

WILDLIFE

COMMENT

Section Comments

CHANNEL The stream is a trib to LP1010. The confluence occurs within the block

No barriers exist and the S4-S6 boundary occurs when a continuous

channel very marginal habitat. S4-S6 is located within the block.

CHANNEL The channel is dry except for standing water in the very low gradient

sections near the end of fish use.

SITE CARD 150 m upstream of the confluence is the end of fish use.

99/02/12

Confinement

Watershed Code:

Reach # ILP Map #

103P.070

1

ILP Number

Site

11013 22013 000-000000-00000-0000-0000-000-000-000-000-000-000

July 200	Mass and International Property	PROJECT	170,00			
Project Name Kipiox		P	roject Code	06-KISP-	430000001-1	1998
	KISPIOX RIVER					
The state of the s	470-000000-00000-00000		0-000-000-00	0		
		WATERSHED		10-		
Gazetted Name		Local Name Iro		72		
Watershed Code 000-00 ILP Map# 103P.070	00000-00000-00000-0000-00					
Site # NID Map #	ILP# 1 NID# UTM(Zo		Reach #  Site Lg	1 Mathad	Access	Eich Ced2
22013 103P.070	22013	one/East/North/Method	100	Method	V4	
Date 1998/09/22	Time 15:53 Agency	C172 Crew BL	W/MLP	Incomp	-	Ц
MILLS SETENCE	Annie 15.55 Agency	CHANNEL	A AVIAICI	псотр	icte 🗀	
Channel Width (m) Wetted Width (m) Pool Depth (m)						
grad grad Method I	d method					
Method II		Wb Depth Stage L	м Пн		Method M	15
nearon II.		No Vis.Ch.		mittent		
		Dw 🗆	Tribs			
COVER	Total	CROWN CLOSUR				
SWD LWD B C	DP OV IV					
WD		INTREAM VEC		A - M		
		INTREAM VEG	$\square$ <sup>N</sup> $\square$	A   M	□ v	
DIST			$\square^{N}$	A 🗆 M	□ v	
DIST B SHP	□C □B □R □A	RIP	□ <sup>N</sup> □	A   M	□ v	
DIST LB SHP Fexture F G [	C B R A	RIP STG	□ <sup>N</sup> □	A D M	□ v	
DIST .B SHP Texture	CBRA CBRA	RIP STG RIP	□ <sup>N</sup> □	A D M	□ v	
DIST _B SHP Texture		RIP STG RIP	□ <sup>N</sup> □	A _ M	□ v	
DIST  B SHP  Fexture F G  RB SHP  Fexture F G		RIP STG RIP STG	□ <sup>N</sup> □	A D M	□ v	
RB SHP  Texture F G G  FLOOD SIGNS	C B R A	RIP STG RIP STG WATER Req# EMS	□ <sup>N</sup> □	A D M		
DIST  B SHP  Fexture F G  RB SHP  Fexture F G  FLOOD SIGNS	C B R A  Method  Metho	RIP STG RIP STG WATER Req# EMS Cond.			Method:	
DIST  B SHP  exture F G  Exture F G  Exture F G  FLOOD SIGNS	C B R A	RIP STG RIP STG WATER Req# EMS Cond.	]M			GE
DIST  B SHP  Fexture F G  RB SHP  Fexture F G  FLOOD SIGNS	C B R A  Method  Metho	RIP STG RIP STG WATER Req# EMS Cond. Turb.			Method:	GE
EST  B SHP  Exture F G  Exture F G  Exture F G  Exture F G  FLOOD SIGNS  Femp  OH	C B R A  Method  Method  Method	RIP STG RIP STG WATER Req# EMS Cond. Turb.	] <sup>M</sup> □ <sup>L</sup> □	]¢	Method: Method:	D3
DIST B SHP Fexture F G RB SHP Fexture F G FLOOD SIGNS FEMP DH BED MATERIAL Dominar	Method Method Method Method Mthod	RIP STG RIP STG WATER Req# EMS Cond. Turb. T MORPHOLOGY DISTURBANCE INDICATORS	J <sup>M</sup> □ <sup>L</sup> □	C B2 B3	Method: Method:	D3
DIST  B SHP  Fexture F G  FEXTURE F G  FLOOD SIGNS  Temp  DH  BED MATERIAL Dominar	Method Method Method Method Mthod	RIP STG RIP STG WATER Req# EMS Cond. Turb. T MORPHOLOGY DISTURBANCE INDICATORS	] <sup>M</sup> □ <sup>L</sup> □	C B2 B3	Method: Method:	D3

1 103P.070 11013 22013 99/02/12 Watershed Code: 000-000000-00000-0000-0000-000-000-000-000-000-000 FEATURE TRIB FC SWP/SLG FL/BV HABITAT QUALITY PHOTO DOCUMENTATION WILDLIFE COMMENT Section Comments

Reach #

ILP Map #

**ILP Number** 

Site

Section CHANNEL

**FDIS Site Card** 

There is a draw evident at this site with a possible drainage during melt etc. But no true visible channel is present therefore no fish habitat is present.

Appendix III: Reach Cards

### 

Stream Name (gaz	z.) KISI	PIOX RIVER				
Project Watershe	d Code	470-000000	0-00000-000	000-0000-0000-000	0-000-000-000	
BY GENERAL	HARIN	MARTIN	WA	TERSHED	125ETE-11	
Reach Watershed	Code	000-000000	0-00000-000	000-0000-0000-000	0-000-000-000	
ILP Map # 103P.060	ILP # 242	Reach # 4.0	NID I 103P	Map # NID # 2.070 38	a i independent	st/North/Method)
Gazetted Name			Local Na Ironside C	and the same	le Туре В	Wetland
2017年7月4日			SU	RVEY INFO	55mm15111	Musika Mark
Date 1998	3/08/12	Agency	C172	Crew BLV	V/MLP	
<b>对新巴基</b>		he to the	АТ	TRIBUTES		ESTERNITE TO
Length (km)	2.10	US Elev	630	DISTURBANCE	O1 B1 B2 B3	D1 D2 D3
DS Elev.	500	Magnitude	7	C1 C2 C3	C4 C5 S1 S2	S3 S4 S5
Gradient 6.19	Order 3	BGC Zone	ICH			53 54 55 
Setting	w			Islands		
Open water	A			Bars N	SIDE DIAG	MID SPAN BR
Confinement	со			Mass Movement	L	
Coupling	DC			Riparian Veg.	С	
Valley Flat	N C	C/D		Exposed/Eroded	N	
Active Floodplain	Visible	Est. Width:		Landuse	NO	
Channel Pattern	SI					

	MAPS	Mashar	10.5	AIR PHOTOS	12.1
Map Type	Map #	Year	Line	Number	(CS)
TRIM	103P.070	1995	BCB92073	12-216	

### FEATURES

PHOTOS

#### **FDIS Reach Card** Reach # ILP Map # ILP# 103P.070 1 251 99/02/16 000-000000-00000-00000-0000-0000-000-000-000-000-000 Watershed Code: PROJECT 06-KISP-430000001-1998 Kipiox Fish **Project Code Project Name** KISPIOX RIVER Stream Name (gaz.) Project Watershed Code WATERSHED 000-000000-00000-0000-0000-000-000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID# UTM(Zone/East/North/Method) NID Map # Reach # 103P.070 251 103P.070 407 1.0 Gazetted Name Local Name Sample Type B Wetland 🖸 SURVEY INFO Date 1998/08/12 C172 Crew BLW/MLP Agency ATTRIBUTES DISTURBANCE B2 B3 **US Elev** Length (km) .30 417 **INDICATORS** DS Elev. 415 Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 0.67 Order **BGC Zone** ICH Setting VW Islands Open water Bars N SIDE DIAG MID SPAN BR A Confinement OC L Mass Movement Coupling DC Riparian Veg. C Valley Flat N C/D Exposed/Eroded Active Floodplain Visible Est. Width: Landuse NO Channel Pattern ST MAPS AIR PHOTOS Map Type Map # Number TRIM 103P.070 1995 BCB92093 05-108 FEATURES

PHOTOS COMMENTS

99/02/16

Reach #

ILP Map #

ILP#

Watershed Code:

3 103P.070 000-00000-00000-00000-0000-000-000-000-000-000-000

1000

1.3.3.6.2.	是一个管理的影响		3341 53	PROJEC			VICD 420000004 4000
Project Name	Kipiox Fi	sh			Project Co	ode 06-	KISP-430000001-1998
Stream Name	(gaz.) KIS	SPIOX RIVER					
Project Waters	shed Code	470-000000	-00000-00	000-0000-00	00-000-000-000-	-000-000-000	
143,14	<b>REHINN</b>	-VINEE	W	ATERSH	ED	3 3 6 6	HART TO THE
Reach Watersl	hed Code	000-000000	-00000-00	000-0000-00	00-000-000-000	-000-000-000	
ILP Map # 103P.070	ILP# 1000	Reach #		<b>Map #</b> P.070	NID # 552	UTM(Zone/E	ast/North/Method)
Gazetted Name			Local N	ame	Sample Ty	ре В	Wetland
	Will Bir	- 2世間監測	SI	JRVEY II	NFO		No sky and
Date 1	1998/08/12	Agency	C172	Crew	BLW/MLI	P	i Distriction -
			A	TTRIBUT	ES		
Length (km) DS Elev. Gradient 3. Setting Open water Confinement Coupling Valley Flat Active Floodp Channel Patte	VW A CO DC N lain Visible [	US Elev  Magnitude  BGC Zone  C/D  Est. Width:	450 ICH	Islands Bars Mass Mo	C2 C3 C4 C2 C3 C4 C3 C4 C4 C5 C	B1 B2 B3  C5 S1 S  N  DIAG  L  C  N  NO	
<b>建</b> 身份的	MAP	S	Maril		1.01645	AIR P	нотоѕ
Map Type TRIM	Map # 103P.070	19	ear 95		Line BCB92073	Number 99-102	Hartelane
	(1)	<b>电图160</b> 和	in talk a f	FEATUR	ES		HERE ALL SECTION
			E Hill	РНОТО	S	Marie Carlo	
		THE RESERVE AND DESCRIPTION OF THE PARTY.	W. IE STREET		The same of the sa		1181916 3-02

#### FDIS Reach Card Reach # ILP Map # ILP# 1 103P.069 1002 99/02/16 Watershed Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 PROJECT **Project Code** 06-KISP-430000001-1998 Kipiox Fish **Project Name** Stream Name (gaz.) KISPIOX RIVER **Project Watershed Code** WATERSHED 000-00000-00000-00000-0000-000-000-000-000-000-000 Reach Watershed Code ILP# ILP Map # NID Map # NID# UTM(Zone/East/North/Method) Reach # 103P.069 1002 103P.069 701 1.0 Wetland Gazetted Name Local Name Sample Type B SURVEY INFO Date 1998/08/12 C172 Agency Crew BLW/MLP ATTRIBUTES D1 D2 D3 DISTURBANCE B2 B3 Length (km) .70 **US Elev** 500 **INDICATORS** DS Elev. 415 Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 12.14 Order **BGC Zone** ICH Setting W Islands N Open water Bars N SIDE DIAG MID SPAN BR A Confinement CO Mass Movement L Coupling DC Riparian Veg. C Valley Flat N CID Exposed/Eroded Visible Est. Width: NO Active Floodplain Landuse Channel Pattern SI MAPS AIR PHOTOS Map Type Map # Number 103P.070 1995 TRIM BCB92073 04-106 FEATURES

PHOTOS

### FDIS Reach Card Reach # ILP Map # ILP# 103P.069 1003 99/02/16 000-000000-00000-0000-0000-000-000-000-000-000-000 Watershed Code: PROJECT **Project Code** 06-KISP-430000001-1998 **Project Name** Kipiox Fish Stream Name (gaz.) KISPIOX RIVER **Project Watershed Code** WATERSHED 000-000000-00000-00000-0000-000-000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID Map # NID# UTM(Zone/East/North/Method) Reach # 103P.069 1003 103P.069 2058 1.0 Wetland 🗵 Gazetted Name Local Name Sample Type B SURVEY INFO Date 1998/08/12 Crew Agency BLW/MLP ATTRIBUTES DISTURBANCE Length (km) 1.20 **US Elev** 640 **INDICATORS** 470 DS Elev. Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 14.17 Order **BGC Zone** ICH Setting VW Islands N Open water Bars N SIDE DIAG MID SPAN BR Confinement CO Mass Movement Coupling PC C Riparian Veg. Valley Flat C/D Exposed/Eroded Visible T Est. Width: Active Floodplain Landuse NO Channel Pattern SI MAPS AIR PHOTOS Line Number 103P.069 TRIM 1995 BCB92093 04-106 FEATURES PHOTOS

### FDIS Reach Card ILP Map # 1004 103P.069 99/02/16 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 PROJECT Kipiox Fish **Project Code** 06-KISP-430000001-1998 **Project Name** KISPIOX RIVER Stream Name (gaz.) Project Watershed Code WATERSHED 000-000000-00000-0000-0000-000-000-000-000-000-000 Reach Watershed Code ILP# ILP Map # Reach # NID Map # NID# UTM(Zone/East/North/Method) 103P.069 1004 103P.069 2059 1.0 Gazetted Name Local Name Wetland . Sample Type B SURVEY INFO Date 1998/08/12 C172 Agency Crew BLW/MLP ATTRIBUTES DISTURBANCE D2 D3 Length (km) 1.30 **US Elev** 720 **INDICATORS** 490 DS Elev. Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 17.69 Order **BGC Zone** ICH Setting VW Islands N Open water Bars N SIDE DIAG MID SPAN BR Confinement CO Mass Movement Coupling DC C Riparian Veg. Valley Flat N N Exposed/Eroded C/D Active Floodplain Visible Est. Width: Landuse NO Channel Pattern SI AIR PHOTOS Map Type Number TRIM 103P.069 1995 BCB92093 TO 102 FEATURES PHOTOS COMMENTS

ILP#

Reach #

99/02/16

Reach # ILP Map # ILP #

1 103P.069

1005

Watershed Code:

000-000000-00000-0000-0000-000-000-000-000-000-000

Total In the	A THE		PR	OJECT			
Project Name	Kipiox Fis	sh	PARTIES DE MOS	PRESIDENCE (FI	Project Coo	le 06	KISP-430000001-1998
Stream Name (ga:	z.) KIS	PIOX RIVER					
Project Watershe	d Code	470-000000	0-00000-00000	-0000-0000-00	00-000-000-0	00-000-000	
TO SHARE			WAT	ERSHED	THE PARTY OF		N
Reach Watershed	Code	000-000000	0-00000-00000	-0000-0000-00	0-000-000-0	00-000-000	
ILP <b>M</b> ap # 103P.069	ILP# 1005	Reach # 1.0	NID Map 103P.06		NID# L	JTM(Zone/E	East/North/Method)
Gazetted Name			Local Name	4	Sample Type	В	Wetland
		NEW STATE	SUR	VEY INFO		1807	alesta et
Date 1998	3/08/12	Agency	C172 Cr	ew	BLW/MLP		
			ATT	RIBUTES	DE VEHICLE	ATTACK.	
Length (km) DS Elev. Gradient 5 Setting	.40 470 Order 2	US Elev Magnitude BGC Zone	4 ICH	DISTURBANGINDICATORS C1 C2  □ □		B1 B2 B3 5 S1 S N	
Open water	Α			Bars N	SIDE	DIAG	MID SPAN BE
Confinement	CO			Mass Movem	ent	L.	
Coupling	PC			Riparian Veg		С	
Valley Flat	N	C/D		Exposed/Ero	ded	N	
Active Floodplain	Visible [	Est. Width:		Landuse		NO	
Channel Pattern	ST						
	MAP	S	ER BE	10200	15 10 15	AIR P	HOTOS
	Map # 03P.069	199	ear 95	Line	92093	Number 05-107	SH PRIMERLAN HALF CONTRACT
			FE.	ATURES			
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			EARLY STATE	MMENTS			

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Reach #

ILP Map #

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103P.070

1006

Watershed Code:

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		ALM BE	PI	ROJECT	A DAG	SALE-		
Project Name	Kipiox Fis	sh			Project C	ode	06-KISP-430000001-19	98
Stream Name (ga	z.) KIS	PIOX RIVER						
Project Watershe	d Code	470-000000	-0000-0000	0-0000-0000-0	000-000-000	-000-000-0	00	
THE RELIGIOUS		HE HELL	WA	TERSHED		EBSS.	Many and	
Reach Watershed	Code	000-000000	-0000-0000	0-0000-0000-0	000-000-000	-000-000-0	00	
ILP Map # 103P.070	ILP # 1006	Reach # 1.0	NID M: 103P.0		NID # 584	UTM(Zon	e/East/North/Method)	
Gazetted Name			Local Nam	ne	Sample Ty	ре В	Wetland	
		METERIAL	SUR	VEY INF	0	THE P.	TREE ST	
Date 199	8/08/12	Agency	C172 C	rew	BLW/ML	P	The same of	
	Wales a	ann sin	AT	TRIBUTES		AT THE	A and the second	
Length (km) DS Elev. Gradient 8.89 Setting Open water Confinement Coupling Valley Flat Active Floodplain Channel Pattern		US Elev Magnitude BGC Zone  C/D Est. Width:	820 4 ICH	DISTURBANINDICATOR:  C1 C:  Islands  Bars	S	B1 B2 C5 S1 N DIA L C N NO	B3 D1 D2 D3  S2 S3 S4 S5  MID SPAN	□BR
<b>发展的系统</b>	MAP			188	THE DUT		PHOTOS	
Map Type TRIM	Map # 103P.070	Y 199	ear 5	Lin	B92073	Numl 12-2		
			i i	EATURES PHOTOS				

### FDIS Reach Card ILP# Reach # ILP Map # 103P.070 1007 99/02/16 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000 PROJECT Project Code 06-KISP-430000001-1998 **Project Name** Kipiox Fish Stream Name (gaz.) KISPIOX RIVER **Project Watershed Code** WATERSHED 000-00000-00000-0000-0000-000-000-000-000-000-000 Reach Watershed Code ILP# ILP Map # NID Map # NID# UTM(Zone/East/North/Method) Reach # 103P.070 103P.070 579 1007 1.0 Wetland Gazetted Name Local Name Sample Type B SURVEY INFO Date 1998/08/12 C172 Crew BLW/MLP Agency ATTRIBUTES DISTURBANCE B2 B3 US Elev 640 Length (km) 1.70 **INDICATORS** 520 3 DS Elev. Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 Gradient 7.06 ICH Order **BGC Zone** Setting W Islands Open water Bars N SIDE DIAG MID SPAN BR A Confinement CO Mass Movement Coupling PC Riparian Veg. Valley Flat N Exposed/Eroded C/D NO Active Floodplain Visible T Est. Width: Landuse Channel Pattern SI MAPS AIR PHOTOS Map Type Number TRIM 103P.070 1995 BCB92973 12-213 FEATURES NID Map 103P.070 Type: Height: 10.0 Method: GE

Comments: Triton

Method: GE

Length:

Photo:

15

UTM (Zone/East/North)

99/02/16 Watershed Code:

Reach # ILP Map #

ILP#

1 103P.070

1007

99/02/16

Reach #

ILP Map #

ILP#

2

103P.070

1007

Watershed Code:

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<b>"以集员"</b>			PROJE	CT	
Project Name	Kipiox F	ish		Project Code	06-KISP-430000001-1998
Stream Name (ga	az.) Ki	ISPIOX RIVER			
Project Watersh	ed Code	470-00000	0-00000-00000-0000-0	0000-000-000-000-000	00-000
SANKE,		Helding T	WATERSI	HED	<b>原制的图像</b>
Reach Watershe	d Code	000-00000	0-00000-00000-0000-0	0000-000-000-000-000	00-000
ILP Map # 103P.070	ILP# 100	Reach # 7 2.0	NID Map # 103P.070	NID # UTM(2 580	Zone/East/North/Method)
Gazetted Name			Local Name	Sample Type B	Wetland
45100			SURVEY	INFO	
Date 199	98/08/12	Agency	C172 Crew	BLW/MLP	
A STATE OF			ATTRIBU	TES	
Length (km) DS Elev. Gradient 13.82 Setting Open water Confinement Coupling Valley Flat	3.40 640 Order VW A CO CO N	US Elev Magnitude 1 BGC Zone	INDICA ICH [ Islands Bars Mass M	ATORS	B2 B3 D1 D2 D3
Active Floodplai	n Visible	Est. Width:	Landu	se NO	
Channel Pattern	SI				
	MAF	100 May 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ALEMAN AND AND ADDRESS OF THE PARTY OF THE P	A	IR PHOTOS
Лар Туре	Map #		rear		umber
TRIM	103P.070	19	95	BCB92093 12	2-214
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			PHOTO	) S	据例是基金的联系。
2 2 W 1 7 LT 2		<b>新加州</b> (李章)	COMME	NTS	STATE OF STA

99/02/16

Reach #

ILP Map #

ILP#

1

103P.069

1011

Watershed Code:

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Project Name	Kipiox I	Fish		Proj	ect Code	06-KISP-430000001-1998
Stream Name (	gaz.) K	ISPIOX RIVER				
Project Waters	hed Code	470-000000	0-00000-000	00-0000-0000-000-00	0-000-000-000	0-000
Secretary Control	8-8-1000	T GUST-WE	WA	TERSHED	1119801	4610
Reach Watersh	ed Code	000-00000	-00000-000	00-0000-0000-000-00	0-000-000-000	0-000
ILP Map # 103P.069	ILP #	Reach # 1 1.0	NID N 103P		# UTM(Z	one/East/North/Method)
Gazetted Name			Local Na	me Samı	ole Type B	Wetland
	4X. 1 100	nist No. 1	SU	RVEY INFO	194	
Date 19	998/08/12	Agency	C172	Crew BL	W/MLP	
学规则等			АТ	TRIBUTES		
Length (km) DS Elev. Gradient 4 Setting	.50 560 Order VW	US Elev Magnitude 2 BGC Zone	580 6 JCH	DISTURBANCE INDICATORS  C1 C2 C3  □ □ □ □		2 B3 D1 D2 D3
Open water	Α			Bars 🛛 N 📗	SIDE D	IAG MID SPAN B
Confinement	СО			Mass Movement	L	
Coupling	со			Riparian Veg.	С	
Valley Flat	N	C/D		Exposed/Eroded	N	
Active Floodpla		Est. Width:		Landuse	NO	
Channel Patter						
Map Type TRIM	Map # 103P.069		ear 92	Line BCB9209	Nu	R PHOTOS mber 100
					30-	
有機關鍵			F	EATURES		
AND REAL PROPERTY.			12.24	PHOTOS		
W. 2 W. 19 W. 19	STATE OF THE PARTY	BATTER TO	C	OMMENTS	HARRING SHIP	data da

### **FDIS Reach Card** ILP# Reach # ILP Map # 103P.070 1013 99/02/16 Watershed Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 PROJECT **Project Code** 06-KISP-430000001-1998 Kipiox Fish **Project Name** KISPIOX RIVER Stream Name (gaz.) Project Watershed Code WATERSHED 000-00000-00000-00000-0000-000-000-000-000-000-000 Reach Watershed Code ILP# ILP Map # Reach # NID Map # NID# UTM(Zone/East/North/Method) 103P.070 103P.070 1013 296 1.0 **Gazetted Name** Wetland Local Name Sample Type B SURVEY INFO 1998/08/12 Date Agency C172 Crew BLW/MLP ATTRIBUTES **US Elev** 615 DISTURBANCE Length (km) 40 **INDICATORS** DS Elev. 590 Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 6.25 Order **BGC Zone** ICH Setting VW N Islands Open water Bars N SIDE DIAG MID SPAN BR A Confinement CO Mass Movement L Coupling DC Riparian Veg. C Valley Flat N C/D Exposed/Eroded Active Floodplain Visible Est. Width: Landuse NO **Channel Pattern** SI MAPS AIR PHOTOS

### FEATURES

BCB92073

1995

Number

12-215

Map Type

TRIM

Map #

103P.070

PHOTOS

#### FDIS Reach Card ILP Map # ILP# Reach # 1 103P.051 1014 99/02/16 Watershed Code: 000-000000-00000-00000-0000-000-000-000-000-000-000 PROJECT 06-KISP-430000001-1998 Kipiox Fish Project Code **Project Name** KISPIOX RIVER Stream Name (gaz.) **Project Watershed Code** WATERSHED 000-000000-00000-0000-0000-0000-000-000-000-000-000 Reach Watershed Code ILP# ILP Map # NID# UTM(Zone/East/North/Method) Reach # NID Map # 103P.051 93M.051 1014 1.0 274 Wetland 🔄 Gazetted Name Local Name Sample Type SURVEY INFO Date 1998/08/12 C172 Agency Crew BLW/MLP ATTRIBUTES **US Elev** 355 DISTURBANCE B2 B3 D1 D2 D3 Length (km) 1.40 **INDICATORS** DS Elev. 352 Magnitude 16 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 0.21 Order **BGC Zone** ICH Setting W Islands N Open water Bars N SIDE DIAG MID SPAN BR A Confinement CO Mass Movement Coupling DC Riparian Veg. Valley Flat N N C/D Exposed/Eroded Visible Est. Width: NO Active Floodplain Landuse Channel Pattern SI

FEATURES

PHOTOS

COMMENTS

BCB92073

AIR PHOTOS

Number

12-215

MAPS

1995

103P.070

Map Type

TRIM

#### **FDIS Reach Card** ILP Map # ILP# Reach # 1 103P.070 1015 99/02/16 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000 PROJECT 06-KISP-430000001-1998 **Project Code Project Name** Kipiox Fish KISPIOX RIVER Stream Name (gaz.) **Project Watershed Code** WATERSHED 000-000000-00000-00000-0000-0000-000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID Map # NID# UTM(Zone/East/North/Method) Reach # 103P.070 1015 1.0 103P.070 298 **Gazetted Name** Wetland Local Name Sample Type B SURVEY INFO BLW/MLP Date 1998/08/12 C172 Crew Agency ATTRIBUTES D1 D2 D3 DISTURBANCE B2 B3 **US Elev** 610 Length (km) 1.30 **INDICATORS** 595 DS Elev. Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 1.15 ICH Order **BGC Zone** Setting W N Islands Open water A Bars N SIDE DIAG MID SPAN BR Confinement CO Mass Movement Coupling DC C Riparian Veg. Valley Flat N N C/D Exposed/Eroded Active Floodplain Visible Est. Width: Landuse NO Channel Pattern SI MAPS AIR PHOTOS Map Type Map # Number 103P.070 1995 TRIM BCB92073 12-215 FEATURES PHOTOS

# **FDIS Reach Card** 99/02/16

ILP Map # Reach # 1 103P.070

ILP# 1016

Watershed Code:

			P	ROJECT	1	5.30	100 = 5	
Project Name	Kipiox Fis	sh			Project Co	de 06	6-KISP-43000000	1-1998
Stream Name (ga	iz.) KIS	PIOX RIVER						
Project Watershe	ed Code	470-000000	-00000-000	00-0000-0000-0	000-000-000-0	000-000-000		
			WA	TERSHED			17 July 18 1.7	
Reach Watershee	d Code	000-00000	-00000-000	00-0000-0000-0	000-000-000-0	000-000-000		
ILP Map # 103P.070			NID Map # 103P.070		NID # UTM(Zone/East/North/Met		East/North/Meth	od)
Gazetted Name			Local Nar	me	Sample Typ	е В	Wetland	
		HE WAS	SU	RVEY INF	0			
Date 199	8/08/12	Agency	C172	Crew	BLW/MLP			
			AT	TRIBUTE	S			
Length (km)  DS Elev.  Gradient 8  Setting  Open water  Confinement  Coupling  Valley Flat  Active Floodplain  Channel Pattern		US Elev Magnitude BGC Zone  C/D Est. Width:	670 ICH	DISTURBAI INDICATOR  C1 C  Islands  Bars   Mass Move Riparian Ve Exposed/Er Landuse	S	N C	3 D1 D2 D3 S2 S3 S4 S6 D D D D	] ;
Man Tillia	MAP			101	100	The US	нотоѕ	
Map Type TRIM	Map # 103P.070	199	ear 95	Lir BC	ne B92073	Numbe 12-215		
			F	EATURES				
		4年於唐		PHOTOS				
PARENT NO.	学 養婆 粉 色		С	OMMENTS	314 -			

FDIS Reach Card		9	Reach #	ILP Map #	ILP#
9/02/16			1	93M.061	1017
	Watershed Code:	000-000000-00000-0	0000-000	0-000-000-000-00	00-000-000-00
	PF	ROJECT	V 101		
Project Name Kipiox Fish		Project C	ode	06-KISP-4300000	001-1998
Stream Name (gaz.) KISF	IOX RIVER				
Project Watershed Code	470-000000-00000-00000	0-0000-0000-000-000	-000-000-0	000	
	WAT	ERSHED	Value of		
Reach Watershed Code	000-000000-00000-00000	0-0000-0000-000-000	-000-000-0	000	
LP Map # ILP #	Reach # NID Ma	p# NID#	UTM(Zoi	ne/East/North/Met	hod)
93M.061 1017	1.0 93M.06	2017			
Sazetted Name	Local Nam	e Sample Ty	ре В	Wetland	d 🗆
	S U R	VEY INFO	ES/S		
Date 1998/08/12	Agency C172 C	rew BLW/MLF	0	11	
	ATT	RIBUTES	ELIN.		
Length (km) 1.00	US Elev 760	DISTURBANCE 01	B1 B2	B3 D1 D2 D	03
DS Elev. 620	Magnitude	INDICATORS			
Gradient 14 Order 1	BGC Zone ICH		C5 S1		5
Setting		Islands	L L		]
Open water A		Bars N SIDE		G MID SF	AN DBR
Confinement UN		Mass Movement	L	10 [] WIID [] 31	WI DR
Coupling DC		Riparian Veg.	C		
V. 1. 200	/D	Exposed/Eroded	N		
Active Floodplain Visible	Est. Width:	Landuse	NO		
Channel Pattern SI	250.771407.	Landado	110		
MAPS		ISHMU NE	AIR	PHOTOS	
Map Type Map #	Year	Line	Num	ber	
TRIM 93M.061	1995	BCB92073	06-2	09	
	FE	ATURES			
學是表現	为是是一个一个	HOTOS			
	CO	MMENTS			

#### **FDIS Reach Card** ILP# ILP Map # Reach # 1 93M.061 1018 99/02/16 Watershed Code: 000-000000-00000-00000-0000-0000-000-000-000-000-000 PROJECT 06-KISP-430000001-1998 Kipiox Fish **Project Code Project Name** KISPIOX RIVER Stream Name (gaz.) **Project Watershed Code** WATERSHED 000-000000-00000-0000-0000-000-000-000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID# NID Map # UTM(Zone/East/North/Method) Reach # 93M.061 1018 71 1.0 93M.061 Wetland **Gazetted Name** Local Name Sample Type B SURVEY INFO Date 1998/08/12 C172 BLW/MLP Agency Crew ATTRIBUTES D1 D2 D3 DISTURBANCE B2 B3 Length (km) 1.10 US Elev 700 INDICATORS 620 DS Elev. Magnitude S1 S2 S3 S4 S5 C1 C2 C3 C4 C5 Gradient 7.27 Order **BGC Zone** ICH Setting VW Islands N Open water N SIDE DIAG MID SPAN BR A Bars Confinement CO Mass Movement Coupling DC C Riparian Veg. Valley Flat N Exposed/Eroded N C/D Active Floodplain Visible Est. Width: Landuse NO Channel Pattern SI MAPS AIR PHOTOS Map Type Map # Year Number 1995 93M.061 TRIM BCB92073 05-208

PHOTOS

99/02/16

Reach # ILP Map #

ILP#

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93M.061

1019

Watershed Code:

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14 m				ROJECT			4 <del>2</del>	
Project Name	Kipiox Fi	sh			Project Co	de 06-l	KISP-430000001-1998	
Stream Name (g	az.) KIS	SPIOX RIVER						
Project Watersh	ed Code	470-000000	0-0000-000	00-0000-0000-	000-000-000-0	000-000-000		
			WA	TERSHEE				
Reach Watershe	d Code	000-00000	-00000-000	00-0000-0000-	000-000-000-0	000-000-000		
ILP Map # ILP # Reach 93M.061 1019 1.0		Reach # 1.0	93M.0	20.0				
Sazetted Name			Local Na	me	Sample Typ	е В	Wetland	
			SU	RVEY INF	0	Wes		
Date 19	98/08/12	Agency	C172	Crew	BLW/MLP			
			AT	TRIBUTE	S		1-1-1	
Length (km) DS Elev. Gradient 4.29 Setting Open water Confinement Coupling Valley Flat	2.80 470 Order VW A CO PC	US Elev Magnitude BGC Zone	10 ICH	DISTURBAI INDICATOR  C1 C  Islands  Bars   Mass Move Riparian Ve	RS C2 C3 C4 C4 C5	B1 B2 B3  C5 S1 S2  N  DIAG  C  N		] BF
		C/D			roded			
Active Floodpla		Est. Width:		Landuse		NO		
Channel Pattern	n SI							
Map Type	MAP Map#	延生到 医三天天网	'ear		的對於		IOTOS	
TRIM	93M.061	19			ne CB92093	Number 05-108		
WOOD DAYS DO	W 1 4 2 5 1 1 1 1	N-14100 5 T-14100					t benevi comme	
				EATURES			1. 34	
2個素		1.01		PHOTOS		sa ili	166 年前	
<b>运搬移搬车</b>	4 5 3 A COST	2100分科科技	C. C.	OMMENTS	SHAPET	25	10000000000000000000000000000000000000	

99/02/16

Reach # ILP Map # ILP# 1020

93M.061

Watershed Code:

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Project Name	Kipiox Fis	h	S S S S S S S S S S S S S S S S S S S	As a serious in the	Project	Code	06-KISP-430000001-1998
Stream Name (ga	z.) KISI	PIOX RIVER					
Project Watershe	ed Code	470-000000	-00000-0000	0-0000-0000	-000-000-00	0-000-000	-000
	5 1 2 3 9 9		WA	TERSHE	D	151	Dall Control Vision
Reach Watershe	d Code	000-000000	-00000-0000	0-0000-0000	-000-000-00	0-000-000	-000
LP Map #	ILP#	Reach #	NID M	ap#	NID#	UTM(Z	one/East/North/Method)
93M.061	1020	1.0	93M.0	61	72		
Gazetted Name			Local Nan	ne	Sample 1	уре В	Wetland
OR BELLEVIOLE		THE P	SUF	RVEY IN	0	199111	HIERON IN
Date 199	8/08/12	Agency	C172	Crew	BLW/M	LP	
· 國際			AT	TRIBUTE	S		MARKET IN THE
Length (km) DS Elev. Gradient 8.75 Setting Open water Confinement Coupling	.80 650 Order 1 VW A CO	US Elev Magnitude BGC Zone	720	DISTURBA INDICATO  C1  Islands  Bars  Mass Move	RS C2 C3 C4 C4 C3 C4	C5 S	2 B3 D1 D2 D3
Valley Flat	N	C/D		Exposed/E	roded	N	
Active Floodplai Channel Pattern		Est. Width:		Landuse		NO	
Map Type TRIM	MAP: Map# 93M.061		ear 95		ine CB92093	Nui	R PHOTOS mber 108
<b>海通报</b>		The NE	F	EATURE	S		
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<b>国建筑</b> 群等型	THE STATE OF	<b>国制作编</b>	C	OMMENT	S	<b>阿斯斯</b>	THE REPORT OF THE

99/02/16

Reach #

ILP Map #

ILP#

4

103P.070

1021

Watershed Code:

Project Name Stream Name (gaz	Kipiox Fis	h		a that a later or take to	O'Brown Table H	Water Street Street		
					Project Co	de 06-k	(ISP-430000001-1	998
	) KIS	PIOX RIVER						
Project Watershed	d Code	470-000000	-00000-0000	0-0000-0000-0	00-000-000-0	000-000-000		
	100000	HURTS	WA	TERSHED		- Malaka		
Reach Watershed	Code	000-000000	-0000-0000	0-0000-0000-0	00-000-000-0	000-000-000		
LP Map # 103P.070	ILP # 1021	Reach #	NID Ma 103P.0		NID # 403	UTM(Zone/Ea	st/North/Method)	
Gazetted Name			Local Nam	ie	Sample Typ	в В	Wetland _	
			SUR	VEY INF	0		(010/07)	
Date 1998	3/08/12	Agency	C172 C	rew	BLW/MLP			
10 mm			ATI	RIBUTES			i "	
Length (km) DS Elev. Gradient 2.97 Setting Open water Confinement Coupling Valley Flat Active Floodplain Channel Pattern	1000	US Elev Magnitude BGC Zone	515 4 ICH	DISTURBAN INDICATOR  C1 C  Islands  Bars II  Mass Mover  Riparian Ve  Exposed/Er  Landuse	S	B1 B2 B3 C5 S1 S2 N DIAG C N N N N N N N N N N N N N N N N N N	D1 D2 D3	В
Chamiler Fattern			#111E##	isse				
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-230	03P.070	199	95		B92093	05-108		
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	11000			MMENTS				

# **FDIS Reach Card**

99/02/16

Reach # ILP Map # ILP #

3 103P.078

1030

Watershed Code:

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		DEAL	P	ROJEC			
Project Name	Kipiox Fis	h			Project (	Code	06-KISP-430000001-1998
Stream Name (gaz	z.) KISI	PIOX RIVER					
Project Watershe	d Code	470-000000	-00000-0000	00-0000-000	00-000-000-00	0-000-000	0-000
1111			WA	TERSHI	ΞD		
Reach Watershed	Code	000-00000	-00000-0000	00-0000-000	0-000-000-00	0-000-000	0-000
LP Map # 103P.078	ILP# 1030	Reach #	NID N 103P.		NID # 2451	UTM(Z	one/East/North/Method)
Gazetted Name			Local Nar	ne	Sample T	уре В	Wetland
P-E   1			SUI	RVEYIN	IFO.		( ) ( ) ( ) ( ) ( ) ( )
Date 1998	3/08/12	Agency	C172	Crew	BLW/MI	P	
			AT	TRIBUT	ES		
Length (km) DS Elev. Gradient 5.86 Setting Open water Confinement Coupling Valley Flat Active Floodplain Channel Pattern		US Elev  Magnitude  BGC Zone	560 1 ICH	Islands	C2 C3 C4  C2 C3 C4  SID  Vement  Veg.	C5 C5	32 B3 D1 D2 D3
	<b>MAPS</b> <b>Map #</b> 03P.078	Jan 198	ear 95		Line BCB92092	Nu	R PHOTOS
			F	EATURE	S		
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11111	A TAR	<b>以后数图题</b>	C	OMMEN	TS	ET F	

### **FDIS Reach Card** ILP Map # ILP# Reach # 3 103P.069 1145 99/02/16 Watershed Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 PROJECT 06-KISP-430000001-1998 Kipiox Fish Project Code **Project Name** Stream Name (gaz.) KISPIOX RIVER **Project Watershed Code** WATERSHED Reach Watershed Code 000-00000-00000-00000-0000-000-000-000-000-000-000 ILP Map # ILP# Reach # NID Map # NID# UTM(Zone/East/North/Method) 103P.069 103P.069 1145 2100 3.0 Gazetted Name Local Name Sample Type B Wetland 🔼 SURVEY INFO Date 1998/08/12 Agency Crew BLW/MLP ATTRIBUTES DISTURBANCE B2 B3 D1 D2 D3 **US Elev** 710 Length (km) .50 INDICATORS DS Elev. 681 Magnitude 1 C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 5.8 Order **BGC Zone** ICH Setting W Islands N Open water Bars N SIDE DIAG MID SPAN BR A Confinement UN Mass Movement Coupling DC Riparian Veg. C

THE REAL PROPERTY.	MAPS		INTERNATION S	AIR PHOTOS	Fari
Мар Туре	Map #	Year	Line	Number	
TRIM	103P.069	1995	BCB92093	16-218	

Landuse

Exposed/Eroded

N

NO

Valley Flat

Active Floodplain

Channel Pattern

N

ST

C/D

Visible Est. Width:

FEATURES

PHOTOS

COMMENTS

### FDIS Reach Card Reach # ILP Map # ILP# 1 103P.070 11010 99/02/16 Watershed Code: 000-000000-00000-0000-0000-000-000-000-000-000-000 PROJECT Kipiox Fish **Project Name Project Code** 06-KISP-430000001-1998 Stream Name (gaz.) KISPIOX RIVER **Project Watershed Code** WATERSHED 000-000000-00000-00000-0000-000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID Map # NID# Reach # UTM(Zone/East/North/Method) 103P.070 103P.070 11010 452 1.0 **Gazetted Name** Local Name Sample Type B Wetland SURVEY INFO Date 1998/08/12 C172 Agency Crew BLW/MLP ATTRIBUTES DISTURBANCE B2 B3 D1 D2 D3 **US Elev** Length (km) .70 510 **INDICATORS** DS Elev. 490 Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 2.86 Order **BGC Zone** ICH Setting W Islands Open water A Bars N SIDE DIAG MID SPAN BR Confinement CO Mass Movement Coupling CO Riparian Veg. Valley Flat N C/D Exposed/Eroded N Active Floodplain Visible Est. Width: Landuse NO Channel Pattern SI MAPS AIR PHOTOS Map Type Map # Year Number

FEATURES

BCB92073

12-214

1995

TRIM

103P.070

PHOTOS

COMMENTS

### FDIS Reach Card Reach # ILP Map # ILP# 103P.070 11011 99/02/16 Watershed Code: 000-00000-00000-00000-0000-000-000-000-000-000-000 PROJECT **Project Code** 06-KISP-430000001-1998 **Project Name** Kipiox Fish KISPIOX RIVER Stream Name (gaz.) Project Watershed Code WATERSHED 000-000000-00000-00000-0000-0000-000-000-000-000 Reach Watershed Code ILP Map # ILP# NID Map # NID# UTM(Zone/East/North/Method) Reach # 103P.070 11011 103P.070 453 1.0 Gazetted Name Local Name Sample Type B Wetland SURVEY INFO 1998/08/12 Date C172 Crew BLW/MLP Agency ATTRIBUTES D1 D2 D3 DISTURBANCE B2 B3 Length (km) 2.70 **US Elev** 630 INDICATORS DS Elev. 500 Magnitude C1 C2 C3 C4 C5 S1 S2 S3 S4 S5 Gradient 4.81 Order **BGC Zone** ICH Setting W Islands N Open water Bars N SIDE DIAG MID SPAN BR A Confinement CO Mass Movement L Coupling PC C Riparian Veg. Valley Flat N N C/D Exposed/Eroded Visible T Est. Width: Active Floodplain Landuse NO Channel Pattern SI MAPS AIR PHOTOS Map Type Мар# Number TRIM 103P.070 1995 BCB92073 12-214 FEATURES 103P.069 NID Map Height: Method: GE Type: 6.0 Length: Method:

Comments: Triton

Photo:

UTM (Zone/East/North)

**FDIS Reach Card** 

99/02/16 Watershed Code:

Reach # ILP Map #

ILP#

103P.070

11011

000-000000-00000-00000-0000-0000-000-000-000-000-000-000

COMMENTS

# FDIS Reach Card

99/02/16

Reach #

ILP Map #

ILP#

103P.070

11013

Watershed	Code:

000-000000-00000-00000-0000-0000-000-000-000-000-000

			P	ROJECT	Mist	BiVII	
Project Name	Kipiox Fis	h			Project Co	de 06	-KISP-430000001-1998
Stream Name (ga	z.) KIS	PIOX RIVER					
Project Watershe	d Code	470-000000	-00000-0000	0-0000-0000-0	00-000-000-0	000-000-000	
WHAT IN	1500000		WA	TERSHED	F-1-1		HELD TO SEE
Reach Watershed	Code	000-000000	-00000-0000	0-0000-0000-0	00-000-000-	000-000-000	
ILP Map # 103P.070	ILP# 11013	Reach # 1.0	NID M 103P.0		NID # 455	UTM(Zone/E	East/North/Method)
Gazetted Name			Local Nan	ne	Sample Typ	е В	Wetland
			SUF	EVEY INF	0		
Date 199	8/08/12	Agency	C172 (	Crew	BLW/MLP		
The state of the s	ALC: U		AT	TRIBUTES		7.77	WE CHIEF TO SE
Length (km) DS Elev. Gradient 8.44 Setting	1.60 515 Order 1	US Elev Magnitude BGC Zone	650 ICH	DISTURBAN INDICATOR: C1 C: Slands	S	N .	2 S3 S4 S5
Open water	Α			Bars 🛛	SIDE	DIAG	MID SPAN BF
Confinement	oc			Mass Mover	nent	L	
Coupling	DC			Riparian Ve	g.	C	
Valley Flat	N	C/D		Exposed/Er	oded	N	
Active Floodplain	n Visible	Est. Width:		Landuse		NO	
Channel Pattern	SI						
	MAP	S	ALUE-	180		AIR P	нотоѕ
Map Type TRIM	Map # 103P.070	199	ear 95	Lin BC	e B92073	Number 14-216	
<b>在</b> 東南西 (1888)	<b>医复数医</b>		F	EATURES			in National and a
				рнотоѕ			同樣便量是多年高度
dural Later State		E PER A TO		OMMENTS	ESSABALE.		

## Appendix IV: Photo Documentation

Kispiox St	ream I	nventor	y, 199	8				1	Project 2687 WP T-552	1			
		<u> </u>	i	İ	Report		Focal		-	i			
Date	ILP	Site				Project ID	Length		Comments	CD#	CD image		
98/09/18	242	22012			13	06-KISP-430000001-	STD	U	Showing Block 72 on left bank.	366	- 8		
	242	22012	2	9	14	06-KISP-430000001-	STD	Ď	Showing channel entering cut block.	366	9		
98/09/16	1		1	2	34	06-KISP-430000001-	STD	D	channel	366	27		
98/09/16	1000		1	3		06-KISP-430000001-	STD	U	channel	366	28		
98/09/16	1001		1	6		06-KISP-430000001-	STD	U	Culvert at Mitten Mainline.	366	32		
98/09/16	1003				33	1998	STD	D	With Bryan.	366	n/a		
98/09/16	1003		1		28	06-KISP-430000001-	STD	U	A >20% slope.	366	33		
98/09/16	1004	2004	ī	10		06-KISP-430000001-	STD	Ū	Channel at spot where DV were captured (w/spot	366	35		
98/09/16	1004				29	06-KISP-430000001-	STD	D	Michelle on left bank writing.	366	36		
98/09/16	1004	2004	1		30	06-KISP-430000001-	STD	U	Channel at spot where DV were captured.	366	34		
98/09/16	1005	2005	1	12	31	06-KISP-430000001-	STD	D	Showing channel with LWD across banks.	366	37		
98/09/16	1005	2005	1	: 13	32	06-KISP-430000001-	STD	U	Michelle on left bank writing.	366	38		
		•	•	,		06-KISP-430000001-			Channel at base of steep gradient section upstream				
98/09/17	1006	2006	1	, 14	23	1998	STD	U	of Corral confluence.	366	39		
98/09/17	1006	2006	1	15	24	06-KISP-430000001-	STD	D	Immediately downstream of the road crossing.	366	40		
98/09/17	1007	2007	2	1	19	06-KISP-430000001-	STD	D	Pool habitat in channel.	366	1		
			• •			06-KISP-430000001-		•	Chute barrier downstream of Block 73 w/anode pole	2			
98/09/17	1007	2007	1	16	20	1998	STD	Ü	in left corner of frame.	366	41		
98/09/17	1007	22007	1		18	06-KISP-430000001-	STD	U	Channel from road crossing.	366	43		
98/09/17	1007	2007	2	2	21	06-KISP-430000001-	STD	Ū	Channel with abundant overstream vegetation.	366	2 42		
98/09/17	1009	2009	1	17	22	06-KISP-430000001-	STD	U	Channel from the road crossing.	366	42		
ĺ					!	06-KISP-430000001-	!		N3001-barrier cascade located 300m downstream of	f	:		
98/09/18	1010	2010	1	:19	25	1998	STD	U	Block 74.	366	45		
		••••	•			06-KISP-430000001-			N3001-barrier cascade located 300m downstream of	f			
98/09/18	1010	2010	.1	20	26	1998	STD	U	Block 74.	366	46		
						06-KISP-430000001-			Channel from road crossing with boulder in centre				
98/09/18	1011	2011	1	22	27	1998	STD	D	of frame.	366	47		
98/09/23	1014	2014	2	10	2	06-KISP-430000001-	STD	NS	CT captured at lake outlet.	366	10		
98/09/23	1014	2014	2		3	06-KISP-430000001-	STD	D	Channel.	366	11		
98/09/23	1014	2014		12	4	06-KISP-430000001-	STD	U	Head of creek.	366	12		
98/09/23	1015	2015		13	6	06-KISP-430000001-	STD	D	Skunk cabbage	366	13		
98/09/23	1015	2015	2	14	5	06-KISP-430000001-	STD	U		366	14		
98/09/23	1016	2016	2	15	1	06-KISP-430000001-	STD	D	1	366	15		

					Report	:	Focal				
Date	ILP	Site	Roll	Frame	Photo #	Project ID	Length	Dir	Comments	CD#	:CD image
98/09/23	1016	2016	2	16		06-KISP-430000001-	STD	U	Small obstructions.	366	16
98/09/24	1019	2019	2	21	10	06-KISP-430000001-	STD	D	Downstream from road.	366	21
98/09/24	1019	2019	2	22	11	06-KISP-430000001-	STD	U	Showing small channel upstream of road.	366	22
98/09/24	1020	2020	2	19		06-KISP-430000001-	STD	Ü		366	19
98/09/24	1020	2020	2	20	12	06-KISP-430000001-	STD	D	Log and devils club.	366	20
98/09/24	1021	2021	2	37	9	06-KISP-430000001-	STD	NS	CT on anode.	366	23
98/09/24	1021	2021	2	23	7	06-KISP-430000001-	STD	U	Channel upstream from road.	366	24
98/09/24	1021	2021	2	24	8	06-KISP-430000001-	STD	D	Channel location where CT caught.	366	25
98/09/25	1030	2030	3	1		06-KISP-430000001-	STD	Ü	EFU (log accross centre of frame).	366	n/a
98/09/25	1030	2030	3	2		06-KISP-430000001-	STD	D	Channel.	366	n/a
98/09/22	####	22010	2	3	17	06-KISP-430000001-	STD	NS	CT shocked immediately downstream of the road.	366	3
98/09/22	####	22011	2	4		06-KISP-430000001-	STD	U	Showing end of fish use.	366	4
98/09/22	####	22010	2	6	15	06-KISP-430000001-	STD	U	Showing perched culvert.	366	6
98/09/22	####	22010	2	7	16	06-KISP-430000001-	STD	D	Channel.	366	7
98/09/22	####	22011	2	5		06-KISP-430000001-	STD	D	Showing channel with marginal habitat.	366	5
	1		!								
Triton En	vironm	ental Co	nsult	ants Ltd				:			









## Appendix V: Photo Survey Form 1

**Survey start date: 1998/09/16** 

Agency: C172

Survey end date: 1998/09/25

Crew:BLW/MLP

## Camera #1

Make & Model: Pentax Zoom90-WR	Lenses: A, B
Format: 135mm film	

### Lenses

Focal Length (mm)	Focal Length (mm)
A 38	D
В 90	E
С	F

## **Roll Details**

Roll#	Camera #	Output Medium	Film Type	ISO
1	1	neg	colour	200
2	1	neg	colour	200
3	1	neg	colour	200