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#### 1.0 INTRODUCTION

The Water Survey Division of Environment Canada has prepared annual construction reports since 1949. This report summarizes construction activity and financial details for projects undertaken during the April 01, 2005 to March 31, 2006 fiscal year.

Expenditure summaries for new station construction, site inspections, repairs, relocations, upgrades and remediation of discontinued sites are grouped by Federal (F), Federal-Provincial (FP) and Provincial (P) designations.

#### 2.0 COST-SHARING ARRANGEMENTS

The Alberta District construction and maintenance program is managed under a Memorandum of Agreement (MOA) for hydrometric surveys, signed by the government of Canada and province of Alberta on April 15, 1975. Annual construction budgets and priorities are established via a joint consultative process between Alberta Environment and Environment Canada.

Under the terms of the agreement each gauging station is designated as Federal (F), Federal – Provincial (FP) or Provincial (P) by a Coordinating Committee. Stations designated F are the cost responsibility of the Water Survey of Canada; stations designated FP are cost shared equally and stations designated P are the cost responsibility of the Province of Alberta.

Shareable costs are defined in schedule B of the MOA. Direct costs such as the salaries of construction personnel, field travel expenses, vehicle operating costs, materials and payments for contracts/services are summarized.

Exceptions relate to specialized equipment and/or instrumentation whereby, under the Article VII of the MOA, costs are paid by the party requiring the service.

# 3.0 THE 2005/06 CONSTRUCTION PROGRAM (

Projects this fiscal year were carried out at **71** gauging stations and involved over 125 individual station visits. This included the installation of 10 new provincial stations, the upgrading of 1 manual gauge at Wabamun Lake and the relocation of gauges at Waterton Park and Fallentimber Creek. Remediation work at 3 discontinued stations and an additional 2 magnetic particle inspections on suspended cableways. A major project involved the replacement of a cableway on the Red Deer River near Burnt Timber Creek – 05CA009 which will be concluded over a 2 fiscal year period. Cableway expenditures have been broken down into three categories, New Construction, Remediation and Repairs to existing installations. Other major project expenditures were related directly to mid-season flooding which resulted in several shoreline remediations, well repairs and the complete loss/replacement of two stations in the Rocky Mountain House area. Shoreline remediation work was completed by contract at Trout Creek near Granum – 05AB005.

Remainder of projects were related to on-going maintenance, repair and upgrading of existing infrastructure. Tasks were broken down into 5 major areas; Cableways, Network Expansion, Flood Damages, Site Repairs and Relocations as per Table 4.

### 4.0 DISTRIBUTION OF COSTS

Table 1: Summary of Fiscal Year Expenditures by Designation

2005/2006 CONS	TRUCTION	PROJECTS AND COSTS B	Y DESIGNATION
	COUNT	DESIGNATION	COST
	16	FEDERAL	\$ 24,772.04
	20	FEDERAL-PROVINCIAL	\$ 85,323.44
	35	PROVINCIAL	\$ 138,647.52
Totals:	71		\$ 248,743.00
Federal Portion:	\$ 67,433.7	76 (27%)	
Provincial Portion:	\$181,309.2	24 (73%)	

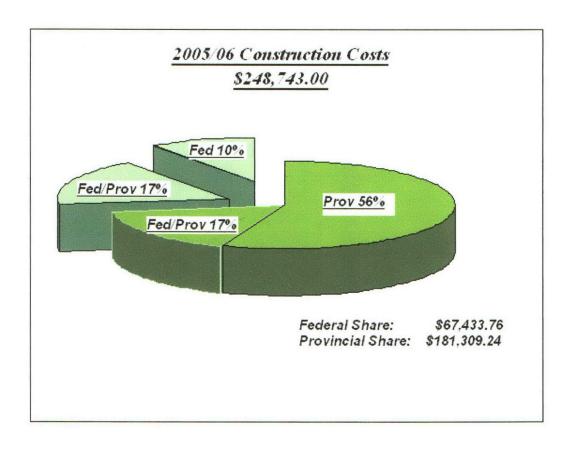


Table 2: Distribution of 2005/06 Construction and Maintenance Costs

Station Name	Station	Desig	Total Expense	Fed Share	e Prov Share
BOW RIVER AT BANFF	05BB001	F-1	\$1,617.33	\$1,617.33	\$0.00
PEKISKO CREEK NEAR LONGVIEW	05BL023	F-1	\$1,790.60	\$1,790.60	\$0.00
SILVERHORN CREEK NEAR THE MOUTH	05DA010	F-1	\$585.69	\$585.69	\$0.00
MISTAYA R. NEAR SASKATCHEWAN CROSSING	05DA007	F-1	\$1,758.40	\$1,758.40	\$0.00
PIPESTONE RIVER NEAR LAKE LOUISE	05BA002	F-1	\$6,105.21	\$6,105.21	\$0.00
BOW RIVER AT LAKE LOUISE	05BA001	F-1	\$680.77	\$680.77	\$0.00
NORTH SASK, R. AT WHIRLPOOL POINT	05DA009	F-1	\$696.61	\$696.61	\$0.00
WATERTON LAKE AT WATERTON PARK	05AD025	F-1	\$3,483.68	\$3,483.68	\$0.00
NORTH SASK, R. NEAR DEER CREEK	05EF001	F-2	\$3,605.25	\$3,605.25	\$0.00
OLDMAN RIVER NEAR LETHBRIDGE	05AD007	F-2	\$37.81	\$37.81	\$0.00
LITTLE BOW RIVER NEAR THE MOUTH	05AC023	F-2	\$570.72	\$570.72	\$0.00
ONETREE CREEK NEAR PATRICIA	05CJ006	F-2	\$412.50	\$412.50	\$0.00
LETHBRIDGE NORTHERN IRRIGATION DISTRICT	05AB019	F-2	\$1,181.62	\$1,181.62	\$0.00
MATZHIWIN CREEK BELOW WARE COULEE	05CJ012	F-2	\$1,127.50	\$1,127.50	\$0.00
LITTLE BOW CANAL AT HIGH RIVER	05BL015	F-2	\$37.81	\$37.81	\$0.00
BEAVER RIVER AT COLD LAKE RESERVE	06AD006	F-2	\$1,080.56	\$1,080.56	\$0.00
NORTH SASKATCHEWAN RIVER AT EDMONTON	05DF001	FP-2	\$965.69	\$482.84	\$482.84
ALKALI CREEK NEAR THE MOUTH	05CK005	FP-3	\$2,741.18	\$1,370.59	\$1,370.59
LITTLE RED DEER R. NEAR WATER VALLEY	05CB002	FP-3	\$173.15	\$86.57	\$86.57
RED DEER R. BELOW BURNT TIMBER CREEK	05CA009	FP-3	\$48,769.77	\$24,384.89	\$24,384.89
JAMES RIVER NEAR SUNDRE	05CA002	FP-3	\$2,595.38	\$1,297.69	\$1,297.69
SHEEP RIVER AT BLACK DIAMOND	05BL014	FP-3	\$532.83	\$266.41	\$266.41
FISH CREEK NEAR PRIDDIS	05BK001	FP-3	\$9,946.90	\$4,973.45	\$4,973.45
ELBOW RIVER AT BRAGG CREEK	05BJ004	FP-3	\$494.71	\$247.35	\$247.35
WAIPAROUS CREEK NEAR THE MOUTH	05BG006	FP-3	\$929.40	\$464.70	\$464.70
GROS VENTRE CREEK NEAR DUNMORE	05AH037	FP-3	\$1,148.16	\$574.08	\$574.08
THREEPOINT CREEK NEAR MILLARVILLE	05BL013	FP-3	\$101.54	\$50.77	\$50.77
ATIMOSWE CREEK NEAR ELK POINT	05ED002	FP-3	\$1,180.49	\$590.24	\$590.24
PRAIRIE CREEK BELOW LICK CREEK	05DB005	FP-3	\$4,109.31	\$2,054.65	\$2,054.65
WEST PRAIRIE RIVER NEAR HIGH PRAIRIE	07BF002	FP-3	\$3,221.38	\$1,610.69	\$1,610.69
SUNDANCE CREEK NEAR BICKERDIKE	07AF010	FP-3	\$805.42	\$402.71	\$402.71
VERMILION RIVER TRIBUTARY NEAR BRUCE	05EE006	FP-3	\$795.69	\$397.84	\$397.84
RIBSTONE CREEK NEAR EDGERTON	05FD001	FP-3	\$1,585.77	\$792.88	\$792.88
WEST WHITEMUD CREEK NEAR IRETON	05DF007	FP-3	\$1,662.09	\$831.04	\$831.04
NOTIKEWIN RIVER AT MANNING	07HC001	FP-3	\$2,942.56	\$1,471.28	\$1,471.28
TOMAHAWK CREEK NEAR TOMAHAWK	05DE009	FP-3	\$622.03	\$311.02	\$311.02
PADDLE RIVER NEAR ROCHFORT BRIDGE	07BB004	P-1	\$372.05	\$0.00	\$372.05
GREGG RIVER NEAR THE MOUTH	07AF015	P-1	\$1,778.11	\$0.00	\$1,778.11
MILL CREEK NEAR THE MOUTH	05AA011	P-1	\$6,412.93	\$0.00	\$6,412.93
TODD CREEK NEAR HIGHWAY NO22	05AA909	P-1	\$362.42	\$0.00	\$362.42
FALLENTIMBER CREEK NEAR SUNDRE	05CA012	P-1	\$4,888.42	\$0.00	\$4888.42
GROAT CREEK NEAR WHITECOURT	07AG008	P-1	\$1,231.78	\$0.00	\$1,231.78
PEMBINA RIVER NEAR ENTWISTLE	07BB002	P-1	\$4,388.51	\$0.00	\$4,388.51
RUSH LAKE DRAIN NEAR NEW DAYTON	05AF031	P-1	\$1,236.25	\$0.00	\$1,236.25
MOSQUITO CREEK NEAR THE MOUTH	05AC031	P-1	\$432.86	\$0.00	\$432.86
WATERTON RIVER NEAR GLENWOOD	05AD028	P-1	\$2,223.89	\$0.00	\$2,223.89
WILLOW CREEK AT HIGHWAY NO. 811	05AB046	P-1	\$127.47	\$0.00	\$127.47
PEACE RIVER AT FORT VERMILLION	07HF001	P-1	\$7,983.63	\$0.00	\$7,983.63
TROUT CREEK NEAR GRANUM	05AB005	P-1	\$33,171.15	\$0.00	\$33,171.15
SPIRIT RIVER NEAR SPIRIT RIVER	07FD020	P-1	\$2,665.00	\$0.00	\$2,665.00

Table 2: Distribution of 2005/06 Construction and Maintenance Costs

Station Name	Station	Desig	Total Expense	Fed Share	Prov Share
MEADOW CREEK NEAR THE MOUTH	05AB029	P-1	\$617.24	\$0.00	\$617.24
ST. MARY RIVER NEAR LETHBRIDGE	05AE006	P-1	\$744.59	\$0.00	\$744.59
BATTLE RIVER AT DUHAMEL	05FA011	P-1	\$6,123.04	\$0.00	\$6,123.04
RAM RIVER NEAR THE MOUTH	05DC006	P-1	\$4,663.31	\$0.00	\$4,663.31
WABAMUN LAKE AT WABAMUN	05DE002	P-1	\$4,738.61	\$0.00	\$4,738.61
BLACKMUD CREEK NEAR ELLERSLIE	05DF003	P-1	\$2,064.22	\$0.00	\$2,064.22
LOON RIVER NEAR THE MOUTH	07JC003	P-1	\$7,974.78	\$0.00	\$7,974.78
WHITEMUD CREEK NEAR ELLERSLIE	05DF006	P-1	\$1,395.69	\$0.00	\$1,395.69
JENSEN RESERVOIR NEAR MAGRATH	800AA00	P-1	\$253.33	\$0.00	\$253.33
STURGEON R NEAR FORT SASKATCHEWAN	05EA001	P-1	\$696.61	\$0.00	\$696.61
BOW RIVER NEAR COCHRANE	05BH005	P-1	\$4,085.75	\$0.00	\$4,085.75
VERMILLION R. NR MORECAMBE STRUCTURE	05EE906	P-1	\$6,156.57	\$0.00	\$6,156.57
WAMPUS CREEK NEAR HINTON	07AF003	P-1	\$3,432.87	\$0.00	\$3,432.87
SHEEP RIVER AT OKOTOKS	05BL012	P-1	\$4,137.35	\$0.00	\$4,137.35
STIMSON CREEK NEAR PEKISKO	05BL007	P-1	\$469.92	\$0.00	\$469.92
HIGHWOOD RIVER BELOW LITTLE BOW CANAL	05BL004	P-1	\$1,507.67	\$0.00	\$1,507.67
CAMROSE CREEK NR CAMROSE	05FA025	P-1	\$4,020.79	\$0.00	\$4,020.79
ELBOW RIVER AT SARCEE BRIDGE	05BJ010	P-1	\$4,817.26	\$0.00	\$4,817.26
JUMPINGPOUND CREEK NEAR THE MOUTH	05BH009	P-1	\$531.65	\$0.00	\$531.65
LASTHILL CREEK AT RGE RD 41 NR ECKVILLE	05CC013	P-1	\$6,602.42	\$0.00	\$6,602.42
VERMILLION RIVER AT RANGE ROAD 105	05EE010	P-1	\$6,339.40	\$0.00	\$6,339.40

**Total:** \$248,743.00 \$67,433.76 \$181,309.24

Station Name: BOW RIVER AT BANFF 05BB001 F-1

Task: Cableway decommission. Removed discontinued cableway and completed partial site remediation.

 WorkCompleted:
 02-Mar-06

 Salary
 \$811.61

 Vehicle
 \$230.53

 Travel
 \$525.18

 Materials
 \$50.00

Contracts \$0.00 **TOTAL**: \$1,617.33

Station Name: BOW RIVER AT LAKE LOUISE

05BA001

F-1

Task: Site Repair; Site inspection to assess side window (Plexiglas) replacement, shelter repairs, measure up custom fall arrest and measure up cableway platform for railings.

VorkCompleted:	04-Apr-05	
Salary		\$349.12
Vehicle		\$86.40
Travel		\$215.25
Materials		\$30.00
Contracts		\$0.00
TOTAL:		\$680.77

Station Name: MISTAYA RIVER NEAR SASKATCHEWAN CROSSING 05DA007 F-1

Task: Cableway Remediation: Attempt to remediate discontinued cableway

by snowmobile.

 WorkCompleted:
 01-Mar-06

 Salary
 \$583.88

 Vehicle
 \$159.50

 Travel
 \$372.52

 Materials
 \$0.00

 Contracts
 \$642.50

 TOTAL:
 \$1,758.40

Station Name: NORTH SASKATCHEWAN RIVER AT WHIRLPOOL POINT 05DA009
F-1

Task: Cableway Construction: Recon trip to look at Cableway.

 WorkCompleted:
 23-Mar-06

 Salary
 \$344.81

 Vehicle
 \$108.00

 Travel
 \$243.80

 Materials
 \$0.00

 Contracts
 \$0.00

 TOTAL:
 \$696.61

**Station Name:** PEKISKO CREEK NEAR LONGVIEW

05BL023

F-1

Task: Flood Repair: Repairs to well intake pipes following storm event and

assessment of shoreline erosion.

WorkCompleted:

12-Apr-05

Salary	\$1,254.15
Vehicle	\$266.92
Travel	\$70.69
Materials	\$198.83
Contracts	\$0.00
TOTAL ·	\$1 790 60

Station Name: PIPESTONE RIVER NEAR LAKE LOUISE

05BA002

F-1

Task: Cableway Decommission, Site Repairs: Remove cableway and remediate site. Upgraded shelter for electrical service, installed meter base, service mast and wired shelter.

WorkCompleted:	17-Nov-05	
Salary		\$2,544.99
Vehicle		\$639.40
Travel		\$1,430.10
Materials		\$848.22
Contracts		\$642.50
TOTAL:		\$6,105.21

Station Name:

SILVERHORN CREEK NEAR THE MOUTH

05DA010

F-1

Task: Site Repair: Looked at site to assess removal of unsafe metering bridge, installation of shelter stairs and fall arrest system for well.

WorkCompleted:	05-Apr-05	
Salary		\$314.21
Vehicle		\$77.76
Travel		\$193.72
Materials		\$0.00
Contracts		\$0.00
TOTAL:		\$585.69

Station Name:

WATERTON LAKE AT WATERTON PARK

05AD025

F-1

Task: Relocation: Upgraded culvert well to a pressure system with real-time capability. Installed and wired dessert box at Waterton Marina, Installed pressure system and orifice line. Contract was for electrical work and phone connection.

WorkCompleted:	12-Aug-05	
Salary		\$862.02
Vehicle		\$320.00
Travel		\$352.32
Materials		\$1,669.75
Contracts		\$279.59
TOTAL:		\$3,483,68

Station Name: BEAVER RIVER AT COLD LAKE RESERVE 06AD006 F-2

Task: Cableway Repairs: Magnetic Particle inspection of cableway anchor points

WorkCompleted: 12-May-05 Salary \$301.68 Vehicle \$103.94 Travel \$174.93 Materials \$0.00 Contracts \$500.00 TOTAL: \$1,080.56

Station Name: 05AB019 LETHBRIDGE NORTHERN IRRIGATION DISTRICT CANAL ABOVE F-2

Task: Site Repair: Removed old Styrofoam insulation, caulked shelter and installed fall arrest bar. Installed 2 new back boards, 3 riser stairway, and cabinet door trim. Re-enforced platform ramp and railing.

WorkCompleted:	28-Jul-05	
Salary		\$624.13
Vehicle		\$239.93
Travel		\$257.56
Materials		\$60.00
Contracts		\$0.00
TOTAL:		\$1,181.62

Station Name: LITTLE BOW CANAL AT HIGH RIVER 05BL015

F-2

Task: Flood damage: Assess flood damage to new d/box, photos of high water mark on outside cabinet.

WorkCompleted: 07-Jul-05 Salary \$25.41 Vehicle \$5.30 Travel \$7.1Ó . **Materials** \$0.00 Contracts \$0.00 TOTAL: \$37.81

Station Name: LITTLE BOW RIVER NEAR THE MOUTH

05AC023

F-2

Task: Site Repair: Repaired upper/lower shut off handles and flushed intakes.

WorkCompleted: 19-Apr-05 Salary \$303.43 Vehicle \$70.40 Travel \$176.89 Materials \$20.00 Contracts \$0.00 TOTAL: \$570.72

MATZHIWIN CREEK BELOW WARE COULEE **Station Name:** 05CJ012 F-2 Task: Cableway remediation: Removed discontinued cableway and disposed of debris. WorkCompleted: 12-Jul-05 Salary \$646.51 Vehicle \$180.00 Travel \$260.99 Materials \$40.00 Contracts \$0.00 TOTAL: \$1,127.50 Station Name: 05EF001 NORTH SASKATCHEWAN RIVER NEAR DEER CREEK F-2 Task: Site repair: Painted shelter, installed safety railings on bridge catwalk, installed 2 benchmarks. 13-May-05 WorkCompleted: Salary \$1,313.05 Vehicle \$452.41 Travel \$761.39 Materials \$1,078.40 Contracts \$0.00 TOTAL: \$3,605.25 Station Name: **OLDMAN RIVER NEAR LETHBRIDGE** 05AD007 F-2 Task: Flood damage: Assess flood damage, Water came up high enough to remove sediment locker, no damage to sediment boom. Installed new door signage. WorkCompleted: 07-Jul-05 Salary \$25.41 Vehicle \$5.30 Travel \$7.10 Materials \$0.00 Contracts \$0.00 **TOTAL:** \$37.81 **Station Name: ONETREE CREEK NEAR PATRICIA** 05CJ006 F-2 Task: Site repair: Installed shelter stairway and new door signage. WorkCompleted: 13-Jul-05 Salary \$215.50 Vehicle \$60.00 Travel \$87.00 **Materials** \$50.00 Contracts \$0.00 TOTAL: \$412.50

Station Name: NORTH SASKATCHEWAN RIVER AT EDMONTON 05DF001 FP-2

Task: Site repair: Repairs to door hinges, and roof. Painted front of shelter interior and installed lock bar.

installed lock bal.

WorkCompleted: 30-Jun-05

 Salary
 \$430.87

 Vehicle
 \$147.84

 Travel
 \$216.97

 Materials
 \$170.00

 Contracts
 \$0.00

 TOTAL:
 \$965.69

Station Name: ALKALI CREEK NEAR THE MOUTH

05CK005

FP-3

Task: Cableway Decommission: Remove and dispose of old wooden cableway.

WorkCompleted: 18-May-05

 Salary
 \$1,485.66

 Vehicle
 \$414.12

 Travel
 \$716.96

 Materials
 \$70.00

 Contracts
 \$54.44

 TOTAL:
 \$2,741.18

Station Name: ATIMOSWE CREEK NEAR ELK POINT

05ED002

FP-3

Task: Cableway repairs: Magnetic Particle inspection of cableway anchor points.

WorkCompleted: 12-May-05

 Salary
 \$353.61

 Vehicle
 \$121.84

 Travel
 \$205.04

 Materials
 \$0.00

 Contracts
 \$500.00

 TOTAL:
 \$1,180.49

Station Name: ELBOW RIVER AT BRAGG CREEK

05BJ004

FP-3

Task: Flood damage: Repair damaged intake pipes.

WorkCompleted: 13-Oct-05

 Salary
 \$431.01

 Vehicle
 \$40.00

 Travel
 \$23.70

 Materials
 \$0.00

 Contracts
 \$0.00

 TOTAL:
 \$494.71

duplical 05ED002 Station Name: ATIMOSWE CREEK'NEAR ELK POINT FP-3 Task: Cableway repairs: Magnetic Particle inspection of cableway anchor points. WorkCompleted: 12-May-05 Salary \$353.61 Vehicle \$121:84 Travel \$205.04 **Materials** \$0.00 Contracts \$500.00 TOTAL: \$1,180,49 **Station Name: ELBOW RIVER AT BRAGG CREEK** 05BJ004 FP-3 Task: Flood damage: Repair damaged intake pipes. WorkCompleted: 13-Oct-05 \$431.Ó1 Salary Vehicle \$40.00 Travel \$23.70 Materials \$0.00 Contracts \$0.00 **TOTAL:** \$494.71 Station Name: FISH CREEK NEAR PRIDDIS 05BK001 FP-3

Task: Flood damage: Shoreline and well/shelter were severely damaged. Charges are for emergency restoration of power line and temp repairs. Contract costs for environmental assessment shared with community of Priddis. Restoration work was not completed, relocated shelter to a concrete pad further upstream and transferred utilities. Removed and disposed of old wood stave well.

WorkCompleted:	20-Jun-05	
Salary		\$2,017.13
Vehicle		\$195.73
Travel		\$109.90
Materials		\$1,420.96
Contracts		\$6,203.19
TOTAL:		\$9,946.90

Station Name: GROS VENTRE CREEK NEAR DUNMORE 05AH037

Task: Site repair: Removed existing shelter ramp and installed stairway.

(Completed:	18-May-05	
Salary		\$595.10
Vehicle		\$165.88
Travel		\$287.18
Materials		\$100.00
Contracts		\$0.00
TOTAL:		\$1,148.16

Station Name: JAMES RIVER NEAR SUNDRE

05CA002

FP-3

Task: Cableway remediation: Contract work was underway to replace existing cableway when flooding destroyed infrastructure. Removed and disposed of cableway debris. Contract costs are for cross section survey and soils analysis.

WorkCompleted:	25-Aug-05	:
Salary		\$114.62
Vehicle		\$45.70
Travel		\$84.44
Materials		\$15.00
Contracts		\$2,335.61
TOTAL:		\$2,595.38

Station Name: LITTLE RED DEER RIVER NEAR WATER VALLEY

05CB002

FP-3

Task: Flood damage: Inspected flood damage, well had 20" water and 8" of silt.

De-silting not required.

WorkCompleted:	08-Aug-05	
Salary		\$87.24
Vehicle		\$36.91
Travel		\$49.00
Materials		\$0.00
Contracts		\$0.00
TOTAL:		\$173.15

Station Name: NOTIKEWIN RIVER AT MANNING

07HC001 FP-3

Task: Cableway repair: Main cable had been partially cut by vandals. Removed and disposed of old cable, installed new ¾" galvanized main cable, replaced lanyards and hardware, set sag reference Clean-up and disposal of debris.

WorkCompleted:	19-Jul-05	
Salary		\$1,281.03
Vehicle		\$304.00
Travel		\$538.52
Materials		\$819.01
Contracts		\$0.00
TOTAL:		\$2,942.56

Station Name: PRAIRIE CREEK BELOW LICK CREEK

05DB005

FP-3

Task: Flood damage: Station was lost in flood. Installation of temporary (now permanent) shelter, orifice line and pressure system.

WorkCompleted:	11-Aug-05	
Salary		\$581.58
Vehicle		\$246.08
Travel		\$326.64
Materials		\$2,955.00
Contracts		\$0.00
TOTAL:		\$4,109.31

Station Name: RED DEER RIVER BELOW BURNT TIMBER CREEK 05CA009
FP-3

Task: Cableway Construction: On-going re-construction of Burnt Timber cableway. Includes remediation of old cableway and contracts for component fabrication, materials, rentals and installation of new mass anchors and tower footings etc. Project carried over to 06/07 fiscal for completion.

WorkCompleted:	01-Nov-05	
Salary		\$10,434.50
Vehicle		\$2,416.88
Travel		\$4,387.60
Materials		\$2,837.00
Contracts		\$28,693.79
TOTAL:		\$48,769.77

Station Name: RIBSTONE CREEK NEAR EDGERTON 05FD001 FP-3

Task: Site repair: Installed fall arrest, re-mounted electrical, modified cabinet, re-secured outer wood stave ring.

WorkCompleted:	13-May-05	
Salary		\$504.45
Vehicle		\$173.81
Travel		\$292.51
Materials		\$615.00
Contracts		\$0.00
TOTAL:		\$1,585.77

Station Name: SHEEP RIVER AT BLACK DIAMOND 05BL014
FP-3

Task: Flood damage: De-silt stilling well WorkCompleted: 26-Oct-05

 Salary
 \$258.61

 Vehicle
 \$20.00

 Travel
 \$14.22

 Materials
 \$0.00

 Contracts
 \$240.00

 TOTAL:
 \$532.83

Station Name: SUNDANCE CREEK NEAR BICKERDIKE 07AF010
FP-3

Task: Site repair: Installed shelter stairway.

WorkCompleted:	07-Jun-05	
Salary		\$338.27
Vehicle		\$169.81
Travel		\$215.67
Materials		\$81.68
Contracts		\$0.00
TOTAL:		\$805.42

Station Name: THREEPOINT CREEK NEAR MILLARVILLE

05BL013

FP-3

Task: Flood damage: High water mark was .4m above floor, most damage restricted to upstream bridge abutment that will be repaired by Alta transportation.

Completed:	07-Jul-05	
Salary		\$68.24
Vehicle		\$14.23
Travel		\$19.07
Materials	-	\$0.00
Contracts		\$0.00
TOTAL:		\$101.54

Station Name: TOMAHAWK CREEK NEAR TOMAHAWK

05DE009

FP-3

Task: Site repair: Repaired gate and barb wire fence.

WorkCompleted:	26-May-05	
Salary	•	\$272.26
Vehicle		\$165.42
Travel		\$165.78
Materials		\$18.57
Contracts		\$0.00
TOTAL:		\$622.03

Station Name: VERMILION RIVER TRIBUTARY NEAR BRUCE

05EE006

FP-3

Task: Site repair: De-moused shelter and removed old Styrofoam insulation.

WorkCompleted:	29-Jun-05	
Salary		\$430.87
Vehicle		\$147.84
Travel		\$216.97
Materials		\$0.00
Contracts		\$0.00
TOTAL:		\$795.69

Station Name: WAIPAROUS CREEK NEAR THE MOUTH

05BG006

FP-3

Task: Cableway repair: Installed platform extension and patched hole in well.

WorkCompleted:	06-Арг-05	
Salary		\$349.12
Vehicle		\$86.40
Travel		\$215.25
Materials		\$278.63
Contracts		\$0.00
TOTAL:		\$929.40

Station Name: WEST PRAIRIE RIVER NEAR HIGH PRAIRIE

07BF002 FP-3

Task: Cableway/Site repair: Completed magnetic particle inspection on L & R bank anchors, inspected cableway, replaced rusted LB backstay cable, installed LB safety lanyard aligned and plumbed RB tower, adjusted sag. Also replaced shelter base caulking, installed signage and tied in station bench marks with site operator.

WorkCompleted	:	19-Jul-05

Salary	\$1,281.03
Vehicle	\$304.00
Travel	\$538.52
Materials	\$101.87 <sub>°</sub>
Contracts	\$995.96
TOTAL:	\$3,221.38

Station Name: WEST WHITEMUD CREEK NEAR IRETON

05DF007

FP-3

Task: Site Repair: Installed fall arrest

WorkCompleted: 14-Jun-05

 Salary
 \$439.27

 Vehicle
 \$226.08

 Travel
 \$396.74

 Materials
 \$600.00

 Contracts
 \$0.00

 TOTAL:
 \$1,662.09

Station Name: FALLENTIMBER CREEK NEAR SUNDRE

05CA012

P-1

Task: Relocation; Upgraded from bank culvert and float system to full walk-in Shelter on a concrete pad along township R of Way. Installed pad, shelter, mast,

\$362.42

Photovoltaics, pressure system, power bar and orifice line.

WorkCompleted:	09-Feb-06
• •	

TOTAL:

TOTAL:	\$4,888.42
Contracts	\$120.00
Materials	\$3,053.00
Travel	\$546.48
Vehicle	\$217.83
Salary	\$951.10

Station Name: TODD CREEK NEAR HIGHWAY NO.22

05AA909

P-1

Task: Site Repair; Repaired platform and installed safety railings.

WorkCompleted:	26-Jul-05	
Salary		\$187.48
Vehicle		\$72.07
Travel		\$77.37
Materials		\$25.50
Contracts		\$0.00

16

Station Name: BATTLE RIVER AT DUHAMEL

05FA011

P-1

Task: Expansion station: Installation of concrete pad, insulated and paneled shelter.

Installed mast assy, photovoltaics, goes antenna, power bar, pressure system and orifice line.

 WorkCompleted:
 15-Feb-06

 Salary
 \$1,557.21

 Vehicle
 \$399.91

 Travel
 \$937.62

 Materials
 \$3,098.90

 Contracts
 \$129.40

TOTAL: \$6,123.04

Station Name: BLACKMUD CREEK NEAR ELLERSLIE

05DF003

P-1

Task: Site Repair: Installed fall arrest and shelter stairway.

WorkCompleted: 28-Jun-05

 Salary
 \$599.68

 Vehicle
 \$290.40

 Travel
 \$499.14

 Materials
 \$675.00

 Contracts
 \$0.00

 TOTAL:
 \$2,064.22

Station Name: BOW RIVER NEAR COCHRANE

05BH005

P-1

Task: Expansion station: Recon, installation of temp gauge shelter, photovoltaics, goes system, pressure system and orifice line. Shelter to be relocated to a concrete pad in 06/07 when adjacent excavation project is completed.

WorkCompleted:

13-Feb-06

 Salary
 \$732.85

 Vehicle
 \$375.00

 Travel
 \$47.40

 Materials
 \$2,930.50

 Contracts
 \$0.00

 TOTAL:
 \$4,085.75

Station Name:

CAMROSE CREEK NR CAMROSE

05FA025

P-1

Task: Expansion station: Recon and installation of dessert box and custom stand on bridge abutment. Installation of mast assy, photovoltaics, pressure system and orifice line.

 WorkCompleted:
 28-Sep-05

 Salary
 \$987.11

 Vehicle
 \$427.74

 Travel
 \$682.11

 Materials
 \$1,923.84

 Contracts
 \$0.00

TOTAL: \$4,020.79

**Station Name:** 

**ELBOW RIVER AT SARCEE BRIDGE** 

05BJ010

P-1

Task: Expansion station: Recon and installation of insulated and paneled shelter on a concrete pad. Installed mast assy, photovoltaics, goes system, pressure system and orifice line.

WorkCompleted:

03-Nov-05

Salary	\$931.23
Vehicle	\$45.00
Travel	\$94.23
Materials	\$3,746.80
Contracts	\$0.00
TOTAL:	\$4.817.26

Station Name:

**GREGG RIVER NEAR THE MOUTH** 

07AF015

P-1

Task: Site repair: Repaired shut-off handle, repaired valve, dug out intake pipes, patched holes in shelter and installed lock bar.

WorkCompleted:

27-Apr-05

Salary	\$827.94
Vehicle	\$267.84
Travel	\$522.33
Materials	\$160.00
Contracts	\$0.00
TOTAL:	\$1,778,11

Station Name: GROAT CREEK NEAR WHITECOURT

07AG008

P-1

Task: Site repair: De-moused shelter, removed insulation, patched shelter holes, replaced signage, installed wall panels, installed lock bar, Installed WSC brass cap on RB downstream wing wall of bridge abutment (A-05-01), painted shelter floor.

WorkCompleted:

21-Jul-05

•	
Salary	\$640.52
Vehicle	\$152.00
Travel	\$269.26
Materials	\$170.00
Contracts	\$0.00
TOTAL:	\$1,231,78

Station Name:

HIGHWOOD RIVER BELOW LITTLE BOW CANAL

05BL004

P-1

Task: Food damage: De-silted stilling well with vac truck, removed .5 cu m silt and 2 cu m water.

WorkCompleted: 13-Apr-05

\$368.29 Salary Vehicle \$85.00 Travel \$29.38 Materials \$650.00 Contracts \$375.00 TOTAL: \$1,507.67

**Station Name:** JENSEN RESERVOIR NEAR MAGRATH 800AA00

P-1

Task: Expansion station: Recon for proposed monitoring on reservoir, subsequently cancelled.

WorkCompleted: 21-Jun-05

Salary \$181.50 Vehicle \$25.00 Travel \$46.83 Materials \$0.00 Contracts \$0.00 TOTAL: \$253.33

Station Name: JUMPINGPOUND CREEK NEAR THE MOUTH 05BH009

Task: Cableway remediation/Flood damage: Cableway torn down during flood event.

Removed and disposed of cableway debris and some cement anchors.

WorkCompleted: 22-Aug-05 Salary \$230.24 Vehicle \$91.80 Travel \$169.61 Materials \$40.00

> Contracts \$0.00 TOTAL: \$531.65

Station Name: LASTHILL CREEK AT RGE RD 41 NEAR ECKVILLE 05CC013

P-1

P-1

Task: Expansion station: Installation of concrete pan, insulated & paneled shelter,

mast, photovoltaics and goes system, pressure system and orifice line.

WorkCompleted: 06-Feb-06 Salary \$1621.32 Vehicle \$484.17 Travel \$975.76 Materials \$3314.66 Contracts \$206.51

> **TOTAL:** \$6602.42

Station Name: LOON RIVER NEAR THE MOUTH 07JC003 P-1

Task: Expansion station: Installation of insulated and paneled shelter on a

wooden base, installed mast, photovoltaics, goes system, pressure system and orifice line.

WorkCompleted: 22-Nov-05

> Salary \$2,169.02 Vehicle \$1,044.00 Travel \$1,541.77 Materials \$3,220.00 Contracts \$0.00 TOTAL: \$7,974.78

**Station Name:** MEADOW CREEK NEAR THE MOUTH 05AB029 P-1 Task: Flood damage/Site repair: De-silted well with vac truck. Removed 400 gallons of silt and water. Installed door signage, lockbar and replaced door knob. WorkCompleted: 18-Aug-05 Salary \$112.43 Vehicle \$56.70 Travel \$56.56 Materials \$155.00 Contracts \$236.56 TOTAL: \$617.24 05AA011 Station Name: MILL CREEK NEAR THE MOUTH P-1 Task: Expansion station: Recon, installation of concrete pad, insulated and paneled shelter, photovoltaics, goes system, pressure system and orifice line. WorkCompleted: 21-Jun-05 Salary \$1,543.19 Vehicle \$701.08 Travel \$702.92 Materials \$3,465.74 Contracts \$0.00 TOTAL: \$6,412.93 Station Name: MOSQUITO CREEK NEAR THE MOUTH 05AC031 P-1 Task: Flood damage: De-silt well with vac truck, removed 400 gallons water, Installed door signage. WorkCompleted: 18-Aug-05 Salary \$56.39 Vehicle \$28.44 Travel \$28.37 **Materials** \$0.00 Contracts \$319.66 TOTAL: \$432.86 **Station Name:** PADDLE RIVER NEAR ROCHFORT BRIDGE, 07BB004 P-1 Task: Site repair: Replaced door knob and shelter signage. Caulked shelter. WorkCompleted: 06-Jun-05 Salary \$166.88 Vehicle \$83.77 Travel \$106.39 **Materials** \$15.00 Contracts \$0.00 TOTAL: \$372.05

Station Name: PEACE RIVER AT FORT VERMILLION

07HF001 P-1

Task: Expansion station: Prepared old shelter foundation and stick built shelter as per development officer request. Mounted photovoltaics, mast assy, pressure system and 50m (160') orifice line.

WorkCompleted:	25-Nov-05	
Salary		\$2,600.03
Vehicle		\$1,276.00
Travel		\$1,904.57
Materials		\$2,203.03
Contracts		\$0.00

Station Name: PEMBINA RIVER NEAR ENTWISTLE

TOTAL:

07BB002

P-1

Task: Cableway remediation, Site repair: Removed cableway and disposed of debris. Installed fall arrest, installed lock bar, repaired access door at base of well. Additional repair work resulted from vandals damaged railing on shelter walkway.

\$7,983.63

vorkCompleted:	21-Mar-06	
Salary		\$1,677.70
Vehicle		\$580.49
Travel		\$1,205.31
Materials		\$925.00
Contracts		\$0.00
TOTAL:		\$4,388.51

Station Name: RAM RIVER NEAR THE MOUTH

05DC006

P-1

Task: Flood repair: Installed temporary shelter (now permanent) to replace flood loss. Installed mast, photovoltaics, lockbar, instrument table and pressure system. Plugged holes in roof.

Work Completed:	11-Aug-05	
Salary		\$785.13
Vehicle		\$332.21
Travel		\$440.97
Materials		\$3,105.00
Contracts		\$0.00
TOTAL:		\$4,663.31

Station Name: RUSH LAKE DRAIN NEAR NEW DAYTON

05AF031

P-1

Task: Site repair: Built a new back board for the electrical panel, repaired conduit and the panel.

WorkCompleted:	04-Oct-05	
Salary		\$646.51
Vehicle		\$277.50
Travel		\$282.24
Materials		\$30.00
Contracts		\$0.00
TOTAL:		\$1,236,25

SHEEP RIVER AT OKOTOKS **Station Name:** 05BL012 Task: Expansion station. Reconn, planning & Installation of dessert box, mast, photovoltaics Pressure system and orifice line. Installed platform for servicing instrumentation. P-1 WorkCompleted: 30-Aug-05 Salary \$1,928.59 Vehicle \$159.32 Travel \$170.44 **Materials** \$1.879.00 Contracts \$0.00 TOTAL: \$4,137.35 07FD020 Station Name: SPIRIT RIVER NEAR SPIRIT RIVER P-1 Task: Site repair: Contract to install a 3' platform extension on the South Spirit culvert. WorkCompleted: 15-Jul-05 Salary \$0.00 Vehicle \$0.00 Travel \$0.00 Materials \$0.00 Contracts \$2,665.00 TOTAL: \$2,665.00 **Station Name:** ST. MARY RIVER NEAR LETHBRIDGE 05AE006 P-1 Task: Cableway repair: Replaced 4 sets of aircraft cone hardware. WorkCompleted: 19-Apr-05 Salary \$355.15 Vehicle \$82.40 Travel \$207.04 Materials \$100.00 Contracts \$0.00 TOTAL: \$744.59 **Station Name:** STIMSON CREEK NEAR PEKISKO 05BL007 P-1 Task: Flood damage: Recon & assessment of flood damage, temp intake repairs. WorkCompleted: 08-Sep-05 Salary \$364.13 Vehicle \$57.08 Travel \$18.71 **Materials** \$30.00 Contracts \$0.00 TOTAL: \$469.92

Station Name: STURGEON RIVER NEAR FORT SASKATCHEWAN.

05EA001

P-1

Task: Relocation: Recon for station relocation.

WorkCompleted:	22-Mar-06	
Salary		\$344.81
Vehicle		\$108.00
Travel		\$243.80
Materials		\$0.00
Contracts		\$0.00
TOTAL:		\$696.61

Station Name: TROUT CREEK NEAR GRANUM

05AB005

P-1

Task: Flood damage: Recon, assessment of flood damages. Includes de-silting of well with vac truck, temp repairs to upper/lower intake pipes, installation of fall arrest, etc. Shoreline remediation 10m above and below shelter completed by contract.

WorkCompleted:	31-Mar-06	
Salary		\$1,387.76
Vehicle		\$605.61
Travel		\$410.50
Materials		\$730.00
Contracts		\$30,037.28
TOTAL:		\$33,171.15

Station Name: VERMILLION RIVER AT RANGE ROAD 105

05EE010

P-1

Task: Expansion station: Installation of concrete pad, insulated and paneled shelter, mast, photovoltaics, goes system, pressure system and orifice line.

WorkCompleted:	07-Feb-06	
Salary		\$1,524.52
Vehicle		\$454.17
Travel		\$919.72
Materials		\$3,258.15
Contracts		\$0.00
TOTAL:		\$6,156.57

Station Name: VERMILLION RIVER NR MORECAMBE STRUCTURE

05EE906

P-1

Task: Expansion station: Installation of concrete pad, insulated and paneled shelter, mast, photovoltaics, goes system, pressure system and orifice line.

WorkCompleted:	08-Feb-06	
Salary		\$1,911.70
Vehicle		\$574.17
Travel		\$1,143.89
Materials		\$3,213.15
Contracts		\$0.00
TOTAL:		\$6,842.91

**Station Name:** WABAMUN LAKE AT WABAMUN 05DE002

P-1

Task: Relocation. Recon and installation of dessert box, outside gauge, pressure system and orifice line at the Wabamun Lake marina. AC power supply provided by marina, phone line install by contract.

WorkCompleted:

07-Jun-05

Salary	\$1,338.22
Vehicle	\$714.99
Travel	\$841.47
Materials	\$1,843.92
Contracts	\$0.00
TOTAL ·	\$4 738 61

Station Name: WAMPUS CREEK NEAR HINTON

07AF003

P-1

Task: Site Repair: Installation of fall arrest, construct cabinet doors, trim, floor hatch, caulked shelter exterior, paint interior, repaired door & installed cabinet hardware.

WorkCompleted:	27-Apr-05
Salary	

Salary	\$1,397.71
Vehicle	\$452.16
Travel	\$881.77
Materials	\$701.22
Contracts	\$0.00
TOTAL:	\$3,432.87

Station Name:

WATERTON RIVER NEAR GLENWOOD

05AD028

P-1

Task: Flood damage/Site repair: Assessed flood damage for shoreline remediation. Completed install of fall arrest, replaced 4 sets aircraft cone hardware. Site requires add'I work carried over to 06/07.

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Salary	\$1,193.23
Vehicle	\$273.85
Travel	\$656.82
Materials	\$100.00
Contracts	\$0.00
TOTAL:	\$2,223.89

Station Name: WHITEMUD CREEK NEAR ELLERSLIE

05DF006

P-1

Task: Site repair: Installed fall arrest.

WorkCompleted: 29-Jun-05

TOTAL:	\$1,395.69
Contracts	\$0.00
Materials	\$600.00
Travel	\$216.97
Vehicle	\$147.84
Salary	\$430.87

Station Name: WILLOW CREEK AT HIGHWAY NO. 811

05AB046

P-1

Task: Flood damage: Assessment of flood damage. Orifice line previously pulled out and replaced, no shelter damage, Stand alone shelter 66' from water's edge.

VorkCompleted:	08-Jul-05	
Salary		\$85.66
Vehicle		\$17.87
Travel		\$23.94
Materials		\$0.00
Contracts		\$0.00
TOTAL ·		\$127 A7

#### **SUMMARY OF ANNUAL STATION EXPENSES**

Salary	\$63,820.09	X
Vehicle	\$19,319.80	
Travel	\$30,890.79	
Materials	\$59,535.33	
Contracts	\$75,176.99	

GRAND TOTAL: \$248,743.00

Table 4: Summary of Annual Station Activity by Task

Task	Expense	Percent of Activity
Cableways	\$69,648.04	28%
Network Expansion	\$64,673.18	26%
Flood Damages	\$64,673.18	26%
Site Repairs	\$34,824.02	28%
Relocations	\$14,924.58	6%
Total Expenditure	\$248,743.00	100%

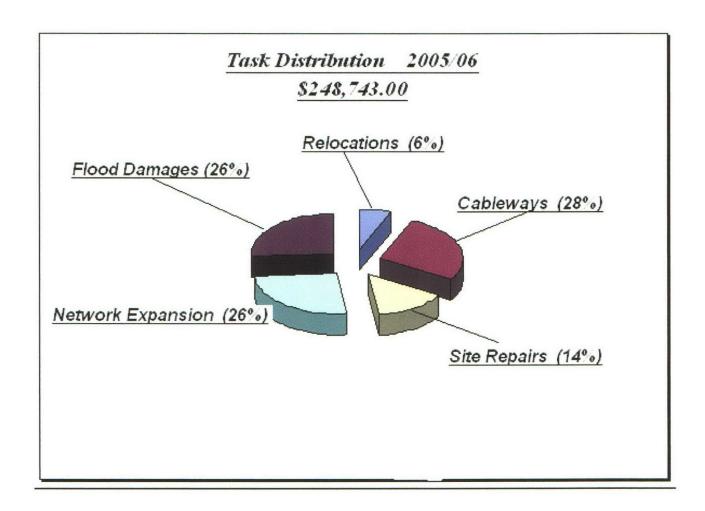
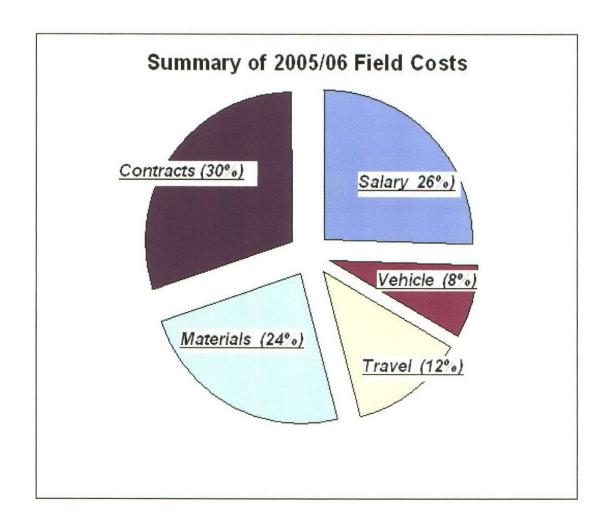


Table 5: Summary of 2005/06 Construction Activity Expense

Salary Vehicle	\$63,820.09	26%
Travel	\$19,319.80 \$30,890.79	8% 12%
Materials	\$59,535.33	24%
Contracts	\$75,176.99	30%
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Total Expense: \$248,743.00 100%



# **Appendix A: Construction Photos**

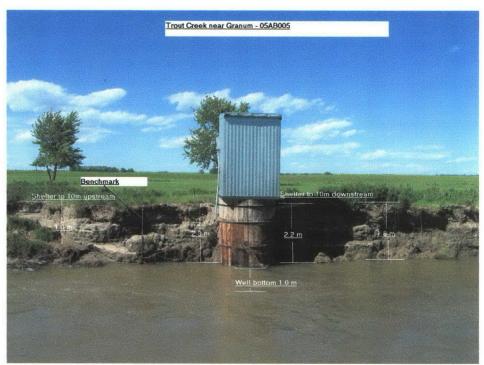


Figure 1: Trout Creek Granum – 05AB005 Flood Damage



Figure 2: Prairie at Lick Creek flood damage, June 2005

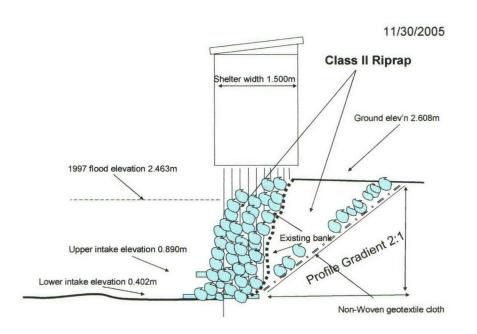


Figure 3: Trout Creek Shoreline remediation Plan Profile Sketch

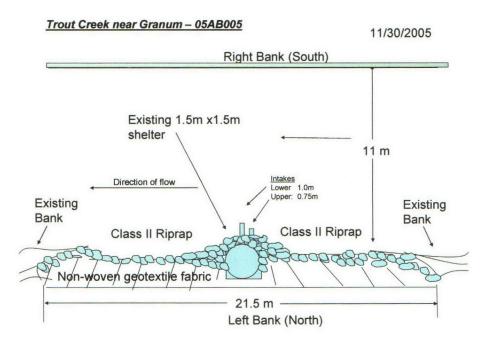


Figure 4: Trout Creek Shoreline remediation topo sketch



Figure 5: Ram River replacement shelter



Figure 6: Notikewin River/Manning, Vandalized LB main cable, Apr 2005



Figure 7: Old Fallentimber monitoring gauge and shelter.

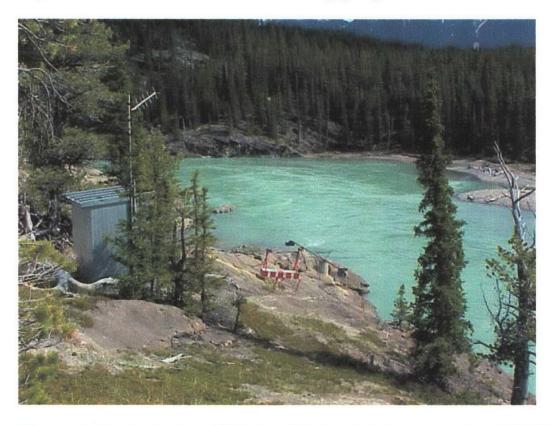


Figure 8: North Sask at Whirlpool Point Cableway project 2006/07