A red and white striped aerial lift bucket is positioned in a forest. The bucket is suspended by a cable and has a platform with a metal mesh floor. A ladder is attached to the side of the bucket. The background consists of tall, thin trees with bare branches, suggesting a late autumn or winter setting. The sky is blue with some light clouds.

**ALBERTA
CONSTRUCTION AND MAINTENANCE
ANNUAL REPORT
2003/04**

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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, 2003 to March 31, 2004 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 2003/04 CONSTRUCTION PROGRAM

Projects this fiscal year were carried out at 74 gauging stations. This included Cableway maintenance, upgrades and repair at 46 sites, remediation work at 3 discontinued stations, automation of 2 manual gauge sites and the reconnaissance for 6 new provincial stations in the Cypress Hills area. The remainder of projects were repairs to gauge shelters, stilling wells and station infrastructure such as the installation of bench marks, minor maintenance/repairs and mouse proofing.

Major projects undertaken during the year included the rebuilding of a flood damaged cableway at the Clear River/Bear Canyon and replacing a broken far bank mass anchor on the Waskahigan River. On-going inspections included magnetic particle testing of cableway anchor bars and the installation of safety lanyards at 42 sites.

4.0 DISTRIBUTION OF COSTS

TABLE 1: Summary of fiscal year expenditures by designation

2003/2004 CONSTRUCTION PROJECTS AND COSTS BY DESIGNATION

	COUNT	DESIGNATION	COST
	13	FEDERAL	\$ 19,833.82
	33	FEDERAL-PROVINCIAL	\$ 83,305.89
	30	PROVINCIAL	\$ 39,494.02
Totals:	76		\$ 142,633.74

Federal Portion: \$61,486.77 (43%)

Provincial Portion: \$81,146.97 (57%)

TABLE 2: Distribution of Federal Maintenance Costs

2003/04		FED MAINTENANCE COST				
Station Name	Station ID	DESIG	Total Expense	Fed Share	Prov Share	
BOW RIVER AT BANFF	05BB001	F	\$1,159.59	\$1,159.59	\$0.00	
BOW RIVER AT LAKE LOUISE	05BA001	F	\$1,157.09	\$1,157.09	\$0.00	
PIPESTONE RIVER NEAR LAKE LOUISE	05BA002	F	\$1,157.09	\$1,157.09	\$0.00	
CANADIAN ST. MARY CANAL NEAR SPRING COULEE	05AE026	F	\$1,045.77	\$1,045.77	\$0.00	
CROWFOOT CREEK NEAR CLUNY	05BM008	F	\$2,473.58	\$2,473.58	\$0.00	
EID MAIN BRANCH CANAL NEAR HEADGATE	05BM020	F	\$833.71	\$833.71	\$0.00	
LITTLE BOW CANAL AT HIGH RIVER	05BL015	F	\$2,198.38	\$2,198.38	\$0.00	
MATZHIWIN CREEK BELOW WARE COULEE	05CJ012	F	\$1,469.76	\$1,469.76	\$0.00	
RED DEER RIVER NEAR BINDLOSS	05CK004	F	\$4,104.85	\$4,104.85	\$0.00	
ROSEBUD RIVER AT REDLAND	05CE005	F	\$349.47	\$349.47	\$0.00	
SOUTH SASKATCHEWAN RIVER AT HWY # 41	05AK001	F	\$1,776.84	\$1,776.84	\$0.00	
MILK RIVER AT W. CROSSING OF INT'L BOUNDARY	11AA025	F	\$1,045.77	\$1,045.77	\$0.00	
NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY	11AA001	F	\$1,061.95	\$1,061.95	\$0.00	
TOTAL	FED	MAINTENANCE COST	\$19,833.82	\$19,833.82	\$0.00	

Table 3: Distribution of Federal-Provincial Maintenance Costs**2003/04 FED-PROV MAINTENANCE COST**

Station Name	Station ID	DESIG	Total Expense	Fed Share	Prov Share
BEAVER RIVER ABOVE SYNCRUDE	07DA018	FP	\$2,652.01	\$1,326.01	\$1,326.01
CLEARWATER RIVER AT DRAPER	07CD001	FP	\$2,810.01	\$1,405.01	\$1,405.01
FIREBAG RIVER NEAR THE MOUTH	07DC001	FP	\$2,681.01	\$1,340.51	\$1,340.51
MACKAY RIVER NEAR FORT MACKAY	07DB001	FP	\$2,652.01	\$1,326.01	\$1,326.01
MUSKEG RIVER NEAR FORT MACKAY	07DA008	FP	\$2,652.01	\$1,326.01	\$1,326.01
STEEP BANK RIVER NEAR FORT MCMURRAY	07DA006	FP	\$2,681.01	\$1,340.51	\$1,340.51
WESTERN IRRIGATION DISTRICT CANAL NEAR HEADGATES	05BM015	FP	\$776.94	\$388.47	\$388.47
BOW RIVER BELOW BASSANO DAM	05BM004	FP	\$833.71	\$416.86	\$416.86
BOW RIVER BELOW CARSELAND DAM	05BM002	FP	\$833.71	\$416.86	\$416.86
SMOKY RIVER ABOVE HELLS CREEK	07GA001	FP	\$1,464.83	\$732.41	\$732.41
ALKALI CREEK NEAR THE MOUTH	05CK005	FP	\$1,505.76	\$752.88	\$752.88
CASTLE RIVER AT RANGER STATION	05AA028	FP	\$1,241.99	\$620.99	\$620.99
CATARACT CREEK NEAR FORESTRY ROAD	05BL022	FP	\$740.94	\$370.47	\$370.47
CHRISTMAS CREEK NEAR BLUE RIDGE	07AH002	FP	\$538.70	\$269.35	\$269.35
CLEAR RIVER NEAR BEAR CANYON	07FD009	FP	\$22,699.09	\$11,349.54	\$11,349.54
CROWSNEST RIVER AT FRANK	05AA008	FP	\$1,047.99	\$523.99	\$523.99
CUTBANK RIVER NEAR GRANDE PRAIRIE	07GB001	FP	\$1,500.83	\$750.41	\$750.41
ELBOW RIVER AT BRAGG CREEK	05BJ004	FP	\$982.15	\$491.07	\$491.07
GRANDE PRAIRIE CREEK NEAR SEXSMITH	07GE003	FP	\$1,500.83	\$750.41	\$750.41
MACKAY CREEK AT WALSH	05AH002	FP	\$58.35	\$29.17	\$29.17
MANYBERRIES CREEK AT BRODIN'S FARM	05AF010	FP	\$3,435.56	\$1,717.78	\$1,717.78
MUSKEG RIVER NEAR GRANDE CACHE	07GA002	FP	\$1,658.83	\$829.41	\$829.41
OLDMAN RIVER NEAR WALDRON'S CORNER	05AA023	FP	\$570.49	\$285.24	\$285.24
PADDLE RIVER NEAR ANSELMO	07BB011	FP	\$4,537.34	\$2,268.67	\$2,268.67
PEIGAN CREEK NEAR PAKOWKI ROAD	05AH041	FP	\$4,077.68	\$2,038.84	\$2,038.84
RACEHORSE CREEK NEAR THE MOUTH	05AA027	FP	\$1,128.99	\$564.49	\$564.49
RENWICK CREEK NEAR THREE HILLS	05CE011	FP	\$164.08	\$82.04	\$82.04
SADDLE RIVER NEAR WOKING	07FD006	FP	\$1,500.83	\$750.41	\$750.41
TOMAHAWK CREEK NEAR TOMAHAWK	05DE009	FP	\$1,229.22	\$614.61	\$614.61
WANDERING RIVER NEAR WANDERING RIVER	07CA006	FP	\$1,244.63	\$622.32	\$622.32
WASKAHIGAN RIVER NEAR THE MOUTH	07GG001	FP	\$9,174.35	\$4,587.18	\$4,587.18
WILDHAY RIVER NEAR HINTON	07AC001	FP	\$1,500.83	\$750.41	\$750.41
WOLF CREEK AT HIGHWAY NO. 16A	07AG003	FP	\$1,229.22	\$614.61	\$614.61
TOTAL FED-PROV MAINTENANCE COST			\$83,305.89	\$41,652.95	\$41,652.95

Table 4: Distribution of Provincial Maintenance Costs

2003/04 PROV MAINTENANCE COST						
Station Name	Station ID	DESIG	Total Expense	Fed Share	Prov Share	
ATHABASCA RIVER AT ATHABASCA	07BE001	P	\$5,058.34	\$0.00	\$5,058.34	
BAPTISTE LAKE NEAR ATHABASCA	07BE002	P	\$4,131.61	\$0.00	\$4,131.61	
BEAVER CREEK NEAR BROCKET	05AB013	P	\$2,435.10	\$0.00	\$2,435.10	
BEAVERLODGE RIVER NEAR BEAVERLODGE	07GD001	P	\$1,500.83	\$0.00	\$1,500.83	
BELLY-ST. MARY DIVERSION CANAL	05AD021	P	\$341.38	\$0.00	\$341.38	
BERRY CREEK NEAR THE MOUTH	05CH007	P	\$1,505.76	\$0.00	\$1,505.76	
BLACKMUD CREEK NEAR ELLERSLIE	05DF003	P	\$550.20	\$0.00	\$550.20	
BLINDMAN RIVER NEAR BLACKFALDS	05CC001	P	\$453.15	\$0.00	\$453.15	
BOW RIVER DEVELOPMENT CANAL BELOW HEADGATES	05BM021	P	\$1,505.76	\$0.00	\$1,505.76	
BULLSHEAD RESERVOIR near ELKWATER	05AH057	P	\$58.35	\$0.00	\$58.35	
CASTLE RIVER NEAR BEAVER MINES	05AA022	P	\$1,100.17	\$0.00	\$1,100.17	
CAVAN LAKE DIVERSION NEAR DUNMORE	05AH048	P	\$1,174.56	\$0.00	\$1,174.56	
CHIP LAKE NEAR NORTHVILLE	07BB008	P	\$4,827.73	\$0.00	\$4,827.73	
CYPRESS VIEW RESERVOIR NR ELKWATER	05AH054	P	\$58.35	\$0.00	\$58.35	
FORSTER RESERVOIR NEAR CESSFORD	05CH013	P	\$1,160.03	\$0.00	\$1,160.03	
HAYNES CREEK NEAR HAYNES	05CD006	P	\$239.47	\$0.00	\$239.47	
ISLE LAKE AT EUREKA BEACH	05EA008	P	\$344.56	\$0.00	\$344.56	
KLESKUN HILLS MAIN DRAIN NEAR GRANDE PRAIRIE	07GE002	P	\$1,658.83	\$0.00	\$1,658.83	
KNEEHILLS CREEK NEAR DRUMHELLER	05CE002	P	\$453.15	\$0.00	\$453.15	
McALPINE CREEK RESERVOIR NR ELWATER	05AH055	P	\$58.35	\$0.00	\$58.35	
OLDMAN RIVER NEAR THE MOUTH	05AG006	P	\$1,595.31	\$0.00	\$1,595.31	
PADDLE RIVER NEAR ROCHFORD BRIDGE	07BB004	P	\$535.00	\$0.00	\$535.00	
PEMBINA RIVER BELOW PADDY CREEK	07BA001	P	\$682.63	\$0.00	\$682.63	
PONY CREEK NEAR CHARD	07CE003	P	\$2,652.01	\$0.00	\$2,652.01	
RED DEER RIVER AT DRUMHELLER	05CE001	P	\$1,469.76	\$0.00	\$1,469.76	
SOUNDING CREEK NEAR OYEN	05GA008	P	\$202.01	\$0.00	\$202.01	
SPRUCE COULEE RESERVOIR near ELKWATER	05AH058	P	\$58.35	\$0.00	\$58.35	
THREEHILLS CREEK NEAR CARBON	05CE007	P	\$1,433.77	\$0.00	\$1,433.77	
WATERTON RIVER NEAR GLENWOOD	05AD028	P	\$1,045.77	\$0.00	\$1,045.77	
WILLOW CREEK AT OXLY RANCH	05AB041	P	\$1,203.77	\$0.00	\$1,203.77	
TOTAL PROV MAINTENANCE COST			\$39,494.02	\$0.00	\$39,494.02	

Table 5: Detailed Annual Station Cost Breakdown

2003/04 Annual Station Cost Breakdown

Station Name: BOW RIVER AT BANFF			05BB001
Task: Mpi Inspections			F-1
Work Completed:	03-Jun-03		
Salary		\$423.68	
Vehicle		\$82.40	
Travel		\$143.00	
Materials		\$74.50	
Contracts		\$436.00	
TOTAL:		\$1,159.59	
Station Name: BOW RIVER AT LAKE LOUISE			05BA001
Task: Mpi Inspections			F-1
Work Completed:	03-Jun-03		
Salary		\$423.68	
Vehicle		\$82.40	
Travel		\$143.00	
Materials		\$72.00	
Contracts		\$436.00	
TOTAL:		\$1,157.09	
Station Name: PIPESTONE RIVER NEAR LAKE LOUISE			05BA002
Task: Mpi Inspection			F-1
Work Completed:	03-Jun-03		
Salary		\$423.68	
Vehicle		\$82.40	
Travel		\$143.00	
Materials		\$72.00	
Contracts		\$436.00	
TOTAL:		\$1,157.09	
Station Name: CANADIAN ST. MARY CANAL NEAR SPRING COULEE			05AE026
Task: Mpi inspections			F-2
Work Completed:	23-Apr-03		
Salary		\$434.34	
Vehicle		\$93.22	
Travel		\$125.21	
Materials		\$72.00	
Contracts		\$321.00	
TOTAL:		\$1,045.77	

2003/04 Annual Station Cost Breakdown

Station Name: CROWFOOT CREEK NEAR CLUNY 05BM008

Task:	Site inspection		F-2
Work Completed:	31-Oct-03		
	Salary	\$1,096.86	
	Vehicle	\$303.45	
	Travel	\$431.27	
	Materials	\$642.00	
	Contracts	\$0.00	
	TOTAL:	\$2,473.58	

Station Name: EASTERN IRRIGATION DISTRICT MAIN BRANCH CANAL NEAR HEADGATE 05BM020

Task:	Mpi Inspection		F-2
Work Completed:	18-Jun-03		
	Salary	\$291.11	
	Vehicle	\$52.40	
	Travel	\$19.95	
	Materials	\$0.00	
	Contracts	\$470.25	
	TOTAL:	\$833.71	

Station Name: LITTLE BOW CANAL AT HIGH RIVER 05BL015

Task:	Remediate (Shelter)		F-2
Work Completed:	24-Nov-03		
	Salary	\$495.48	
	Vehicle	\$92.00	
	Travel	\$33.40	
	Materials	\$1,577.50	
	Contracts	\$0.00	
	TOTAL:	\$2,198.38	

Station Name: MATZHIWIN CREEK BELOW WARE COULEE 05CJ012

Task:	Mpi Inspection		F-2
Work Completed:	10-Mar-04		
	Salary	\$359.99	
	Vehicle	\$93.33	
	Travel	\$129.23	
	Materials	\$36.00	
	Contracts	\$851.21	
	TOTAL:	\$1,469.76	

2003/04 Annual Station Cost Breakdown

Station Name: RED DEER RIVER NEAR BINDLOSS 05CK004

Task:	Site repair		F-2
Work Completed:	10-Sep-03		
	Salary	\$1,713.08	
	Vehicle	\$410.38	
	Travel	\$659.39	
	Materials	\$222.00	
	Contracts	\$1,100.00	
	TOTAL:	\$4,104.85	

Station Name: ROSEBUD RIVER AT REDLAND 05CE005

Task:	Site repair		F-2
Work Completed:	08-Dec-03		
	Salary	\$110.44	
	Vehicle	\$67.20	
	Travel	\$46.83	
	Materials	\$125.00	
	Contracts	\$0.00	
	TOTAL:	\$349.47	

Station Name: SOUTH SASKATCHEWAN RIVER AT HWY # 41 05AK001

Task:	Site remediation		F-2
Work Completed:	13-Jan-04		
	Salary	\$1,095.33	
	Vehicle	\$265.05	
	Travel	\$416.46	
	Materials	\$0.00	
	Contracts	\$0.00	
	TOTAL:	\$1,776.84	

Station Name: MILK RIVER AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY 11AA025

Task:	Mpi Inspections		F-3
Work Completed:	23-Apr-03		
	Salary	\$434.34	
	Vehicle	\$93.22	
	Travel	\$125.21	
	Materials	\$72.00	
	Contracts	\$321.00	
	TOTAL:	\$1,045.77	

2003/04 Annual Station Cost Breakdown

Station Name: NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY 11AA001

Task: Mpi inspections F-3
Work Completed: 23-Apr-03

Salary	\$434.34
Vehicle	\$93.22
Travel	\$125.21
Materials	\$88.18
Contracts	\$321.00
TOTAL:	\$1,061.95

Station Name: BEAVER RIVER ABOVE SYNCRUDE 07DA018

Task: Mpi inspection FP-1
Work Completed: 03-Mar-04

Salary	\$411.35
Vehicle	\$92.82
Travel	\$212.19
Materials	\$72.00
Contracts	\$1,863.65
TOTAL:	\$2,652.01

Station Name: CLEARWATER RIVER AT DRAPER 07CD001

Task: Mpi inspection FP-1
Work Completed: 03-Mar-04

Salary	\$411.35
Vehicle	\$92.82
Travel	\$212.19
Materials	\$230.00
Contracts	\$1,863.65
TOTAL:	\$2,810.01

Station Name: FIREBAG RIVER NEAR THE MOUTH 07DC001

Task: Mpi inspection FP-1
Work Completed: 02-Mar-04

Salary	\$411.35
Vehicle	\$92.82
Travel	\$212.19
Materials	\$101.00
Contracts	\$1,863.65
TOTAL:	\$2,681.01

2003/04 Annual Station Cost Breakdown

Station Name: MACKAY RIVER NEAR FORT MACKAY 07DB001

Task:	Mpi inspection		FP-1
Work Completed:	02-Mar-04		
	Salary	\$411.35	
	Vehicle	\$92.82	
	Travel	\$212.19	
	Materials	\$72.00	
	Contracts	\$1,863.65	
	TOTAL:	\$2,652.01	

Station Name: MUSKEG RIVER NEAR FORT MACKAY 07DA008

Task:	Mpi inspection		FP-1
Work Completed:	02-Mar-04		
	Salary	\$411.35	
	Vehicle	\$92.82	
	Travel	\$212.19	
	Materials	\$72.00	
	Contracts	\$1,863.65	
	TOTAL:	\$2,652.01	

Station Name: STEEPBANK RIVER NEAR FORT MCMURRAY 07DA006

Task:	Mpi inspection		FP-1
Work Completed:	03-Mar-04		
	Salary	\$411.35	
	Vehicle	\$92.82	
	Travel	\$212.19	
	Materials	\$101.00	
	Contracts	\$1,863.65	
	TOTAL:	\$2,681.01	

Station Name: WESTERN IRRIGATION DISTRICT CANAL NEAR HEADGATES 05BM015

Task:	Mpi Inspection		FP-1
Work Completed:	05-Jun-03		
	Salary	\$238.08	
	Vehicle	\$75.24	
	Travel	\$42.76	
	Materials	\$108.00	
	Contracts	\$312.86	
	TOTAL:	\$776.94	

2003/04 Annual Station Cost Breakdown

Station Name: BOW RIVER BELOW BASSANO DAM 05BM004

Task:	Mpi Inspection		FP-2
Work Completed:	19-Jun-03		
	Salary	\$291.11	
	Vehicle	\$52.40	
	Travel	\$19.95	
	Materials	\$0.00	
	Contracts	\$470.25	
	TOTAL:	\$833.71	

Station Name: BOW RIVER BELOW CARSELAND DAM 05BM002

Task:	Mpi Inspection		FP-2
Work Completed:	19-Jun-03		
	Salary	\$291.11	
	Vehicle	\$52.40	
	Travel	\$19.95	
	Materials	\$0.00	
	Contracts	\$470.25	
	TOTAL:	\$833.71	

Station Name: SMOKY RIVER ABOVE HELLS CREEK 07GA001

Task:	Mpi Inspection		FP-2
Work Completed:	02-Apr-03		
	Salary	\$546.92	
	Vehicle	\$134.17	
	Travel	\$188.58	
	Materials	\$36.00	
	Contracts	\$559.16	
	TOTAL:	\$1,464.83	

Station Name: ALKALI CREEK NEAR THE MOUTH 05CK005

Task:	Mpi Inspection		FP-3
Work Completed:	11-Mar-04		
	Salary	\$359.99	
	Vehicle	\$93.33	
	Travel	\$129.23	
	Materials	\$72.00	
	Contracts	\$851.21	
	TOTAL:	\$1,505.76	

2003/04 Annual Station Cost Breakdown

Station Name: CASTLE RIVER AT RANGER STATION 05AA028

Task:	Site Insp, repair		FP-3
Work Completed:	28-May-03		
	Salary	\$511.59	
	Vehicle	\$72.57	
	Travel	\$114.97	
	Materials	\$230.00	
	Contracts	\$312.86	
	TOTAL:	\$1,241.99	

Station Name: CATARACT CREEK NEAR FORESTRY ROAD 05BL022

Task:	Mpi Inspection		FP-3
Work Completed:	05-Jun-03		
	Salary	\$238.08	
	Vehicle	\$75.24	
	Travel	\$42.76	
	Materials	\$72.00	
	Contracts	\$312.86	
	TOTAL:	\$740.94	

Station Name: CHRISTMAS CREEK NEAR BLUE RIDGE 07AH002

Task:	Site repair		FP-3
Work Completed:	09-Dec-03		
	Salary	\$227.52	
	Vehicle	\$112.31	
	Travel	\$70.37	
	Materials	\$128.50	
	Contracts	\$0.00	
	TOTAL:	\$538.70	

Station Name: CLEAR RIVER NEAR BEAR CANYON 07FD009

Task:	Cableway Installation (flood Damage)		FP-3
Work Completed:	08-Oct-03		
	Salary	\$6,450.82	
	Vehicle	\$2,526.57	
	Travel	\$2,980.66	
	Materials	\$10,036.04	
	Contracts	\$705.00	
	TOTAL:	\$22,699.09	

2003/04 Annual Station Cost Breakdown

Station Name: CROWSNEST RIVER AT FRANK 05AA008

Task:	Mpi Inspection		FP-3
Work Completed:	05-Jun-03		
	Salary	\$511.59	
	Vehicle	\$72.57	
	Travel	\$114.97	
	Materials	\$36.00	
	Contracts	\$312.86	
	TOTAL:	\$1,047.99	

Station Name: CUTBANK RIVER NEAR GRANDE PRAIRIE 07GB001

Task:	Mpi Inspection		FP-3
Work Completed:	02-Apr-03		
	Salary	\$546.92	
	Vehicle	\$134.17	
	Travel	\$188.58	
	Materials	\$72.00	
	Contracts	\$559.16	
	TOTAL:	\$1,500.83	

Station Name: ELBOW RIVER AT BRAGG CREEK 05BJ004

Task:	Site Maintenance		FP-3
Work Completed:	22-May-03		
	Salary	\$356.88	
	Vehicle	\$99.07	
	Travel	\$19.95	
	Materials	\$36.00	
	Contracts	\$470.25	
	TOTAL:	\$982.15	

Station Name: GRANDE PRAIRIE CREEK NEAR SEXSMITH 07GE003

Task:	Mpi Inspection		FP-3
Work Completed:	01-Apr-03		
	Salary	\$546.92	
	Vehicle	\$134.17	
	Travel	\$188.58	
	Materials	\$72.00	
	Contracts	\$559.16	
	TOTAL:	\$1,500.83	

2003/04 Annual Station Cost Breakdown

Station Name: MACKAY CREEK AT WALSH 05AH002

Task:	Site Recon		FP-3
Work Completed:	14-Jan-04		
	Salary	\$56.46	
	Vehicle	\$0.00	
	Travel	\$1.88	
	Materials	\$0.00	
	Contracts	\$0.00	
	TOTAL:	\$58.35	

Station Name: MANYBERRIES CREEK AT BRODIN'S FARM 05AF010

Task:	Cableway, site repair		FP-3
Work Completed:	30-Oct-03		
	Salary	\$1,405.61	
	Vehicle	\$608.80	
	Travel	\$707.16	
	Materials	\$713.99	
	Contracts	\$0.00	
	TOTAL:	\$3,435.56	

Station Name: MUSKEG RIVER NEAR GRANDE CACHE 07GA002

Task:	Mpi Inspection		FP-3
Work Completed:	03-Apr-03		
	Salary	\$546.92	
	Vehicle	\$134.17	
	Travel	\$188.58	
	Materials	\$230.00	
	Contracts	\$559.16	
	TOTAL:	\$1,658.83	

Station Name: OLDMAN RIVER NEAR WALDRON'S CORNER 05AA023

Task:	Site Insp, repair		FP-3
Work Completed:	27-May-03		
	Salary	\$339.28	
	Vehicle	\$44.00	
	Travel	\$72.21	
	Materials	\$115.00	
	Contracts	\$0.00	
	TOTAL:	\$570.49	

2003/04 Annual Station Cost Breakdown

Station Name: PADDLE RIVER NEAR ANSELMO 07BB011

Task:	Cableway repair		FP-3
Work Completed:	10-Oct-03		
	Salary	\$1,125.33	
	Vehicle	\$452.96	
	Travel	\$486.10	
	Materials	\$1,265.12	
	Contracts	\$1,207.83	
	TOTAL:	\$4,537.34	

Station Name: PEIGAN CREEK NEAR PAKOWKI ROAD 05AH041

Task:	Cableway repair		FP-3
Work Completed:	30-Oct-03		
	Salary	\$1,112.69	
	Vehicle	\$430.00	
	Travel	\$488.97	
	Materials	\$2,046.02	
	Contracts	\$0.00	
	TOTAL:	\$4,077.68	

Station Name: RACEHORSE CREEK NEAR THE MOUTH 05AA027

Task:	Site Insp, repair		FP-3
Work Completed:	28-May-03		
	Salary	\$511.59	
	Vehicle	\$72.57	
	Travel	\$114.97	
	Materials	\$117.00	
	Contracts	\$312.86	
	TOTAL:	\$1,128.99	

Station Name: RENWICK CREEK NEAR THREE HILLS 05CE011

Task:	Site inspection		FP-3
Work Completed:	12-Dec-03		
	Salary	\$91.01	
	Vehicle	\$44.92	
	Travel	\$28.15	
	Materials	\$0.00	
	Contracts	\$0.00	
	TOTAL:	\$164.08	

2003/04 Annual Station Cost Breakdown

Station Name: SADDLE RIVER NEAR WOKING	07FD006
Task: Mpi Inspection	FP-3
Work Completed: 01-Apr-03	
Salary	\$546.92
Vehicle	\$134.17
Travel	\$188.58
Materials	\$72.00
Contracts	\$559.16
TOTAL:	\$1,500.83
Station Name: TOMAHAWK CREEK NEAR TOMAHAWK	05DE009
Task: Mpi Inspection	FP-3
Work Completed: 26-Jun-03	
Salary	\$319.73
Vehicle	\$82.96
Travel	\$188.70
Materials	\$72.00
Contracts	\$565.83
TOTAL:	\$1,229.22
Station Name: WANDERING RIVER NEAR WANDERING RIVER	07CA006
Task: Cableway and MPI Inspection	FP-3
Work Completed: 19-Sep-03	
Salary	\$344.00
Vehicle	\$121.20
Travel	\$204.59
Materials	\$134.00
Contracts	\$440.84
TOTAL:	\$1,244.63
Station Name: WASKAHIGAN RIVER NEAR THE MOUTH	07GG001
Task: Cableway repair	FP-3
Work Completed: 10-Oct-03	
Salary	\$2,687.80
Vehicle	\$685.60
Travel	\$1,396.58
Materials	\$3,107.87
Contracts	\$1,296.50
TOTAL:	\$9,174.35

2003/04 Annual Station Cost Breakdown

Station Name: WILDHAY RIVER NEAR HINTON	07AC001
Task: Mpi Inspection	FP-3
Work Completed: 03-Apr-03	
Salary	\$546.92
Vehicle	\$134.17
Travel	\$188.58
Materials	\$72.00
Contracts	\$559.16
TOTAL:	\$1,500.83
Station Name: WOLF CREEK AT HIGHWAY NO. 16A	07AG003
Task: Mpi Inspection	FP-3
Work Completed: 26-Jun-03	
Salary	\$319.73
Vehicle	\$82.96
Travel	\$188.70
Materials	\$72.00
Contracts	\$565.83
TOTAL:	\$1,229.22
Station Name: ATHABASCA RIVER AT ATHABASCA	07BE001
Task: Manual Gauge Upgrade	P-1
Work Completed: 18-Sep-03	
Salary	\$1,376.00
Vehicle	\$484.00
Travel	\$818.34
Materials	\$2,190.00
Contracts	\$190.00
TOTAL:	\$5,058.34
Station Name: BAPTISTE LAKE NEAR ATHABASCA	07BE002
Task: Manual Gauge Upgrade	P-1
Work Completed: 16-Sep-03	
Salary	\$946.00
Vehicle	\$326.00
Travel	\$550.81
Materials	\$2,308.80
Contracts	\$0.00
TOTAL:	\$4,131.61

2003/04 Annual Station Cost Breakdown

Station Name: BEAVER CREEK NEAR BROCKET 05AB013

Task: Repair estimate, lower intake P-1
Work Completed: 24-Apr-03

Salary	\$1,114.36
Vehicle	\$506.90
Travel	\$501.83
Materials	\$312.00
Contracts	\$0.00
TOTAL:	\$2,435.10

Station Name: BEAVERLODGE RIVER NEAR BEAVERLODGE 07GD001

Task: Mpi inspection P-1
Work Completed: 02-Apr-03

Salary	\$546.92
Vehicle	\$134.17
Travel	\$188.58
Materials	\$72.00
Contracts	\$559.16
TOTAL:	\$1,500.83

Station Name: BELLY-ST. MARY DIVERSION CANAL 05AD021

Task: Intake repair P-1
Work Completed: 24-Apr-03

Salary	\$217.17
Vehicle	\$46.61
Travel	\$62.61
Materials	\$15.00
Contracts	\$0.00
TOTAL:	\$341.38

Station Name: BERRY CREEK NEAR THE MOUTH 05CH007

Task: Mpi Inspections P-1
Work Completed: 11-Mar-04

Salary	\$359.99
Vehicle	\$93.33
Travel	\$129.23
Materials	\$72.00
Contracts	\$851.21
TOTAL:	\$1,505.76

2003/04 Annual Station Cost Breakdown

Station Name: BLACKMUD CREEK NEAR ELLERSLIE 05DF003

Task:	Site repair		P-1
Work Completed:	10-Dec-03		
	Salary	\$227.52	
	Vehicle	\$112.31	
	Travel	\$70.37	
	Materials	\$140.00	
	Contracts	\$0.00	
	TOTAL:	\$550.20	

Station Name: BLINDMAN RIVER NEAR BLACKFALDS 05CC001

Task:	Site repair		P-1
Work Completed:	12-Dec-03		
	Salary	\$182.01	
	Vehicle	\$89.85	
	Travel	\$56.29	
	Materials	\$125.00	
	Contracts	\$0.00	
	TOTAL:	\$453.15	

Station Name: BOW RIVER DEVELOPMENT CANAL BELOW HEADGATES 05BM021

Task:	Mpi Inspections		P-1
Work Completed:	09-Mar-04		
	Salary	\$359.99	
	Vehicle	\$93.33	
	Travel	\$129.23	
	Materials	\$72.00	
	Contracts	\$851.21	
	TOTAL:	\$1,505.76	

Station Name: BULLSHEAD RESERVOIR near ELKWATER 05AH057

Task:	Site Reconn		P-1
Work Completed:	14-Jan-04		
	Salary	\$56.46	
	Vehicle	\$0.00	
	Travel	\$1.88	
	Materials	\$0.00	
	Contracts	\$0.00	
	TOTAL:	\$58.35	

2003/04 Annual Station Cost Breakdown

Station Name: CASTLE RIVER NEAR BEAVER MINES 05AA022

Task: Mpi Inspection P-1
Work Completed: 05-Jun-03

Salary	\$511.59
Vehicle	\$72.57
Travel	\$114.97
Materials	\$88.18
Contracts	\$312.86
TOTAL:	\$1,100.17

Station Name: CAVAN LAKE DIVERSION NEAR DUNMORE 05AH048

Task: Site Reconn P-1
Work Completed: 14-Jan-04

Salary	\$714.36
Vehicle	\$162.00
Travel	\$263.19
Materials	\$35.00
Contracts	\$0.00
TOTAL:	\$1,174.56

Station Name: CHIP LAKE NEAR NORTHVILLE 07BB008

Task: Shelter Upgrade P-1
Work Completed: 24-Jun-03

Salary	\$1,199.00
Vehicle	\$311.11
Travel	\$707.61
Materials	\$2,610.00
Contracts	\$0.00
TOTAL:	\$4,827.73

Station Name: CYPRESS VIEW RESERVOIR NR ELKWATER 05AH054

Task: Site Reconn P-1
Work Completed: 14-Jan-04

Salary	\$56.46
Vehicle	\$0.00
Travel	\$1.88
Materials	\$0.00
Contracts	\$0.00
TOTAL:	\$58.35

2003/04 Annual Station Cost Breakdown

Station Name: FORSTER RESERVOIR NEAR CESSFORD 05CH013

Task: Station Relocation P-1
Work Completed: 19-Mar-04

Salary	\$394.63
Vehicle	\$380.00
Travel	\$22.40
Materials	\$363.00
Contracts	\$0.00
TOTAL:	\$1,160.03

Station Name: HAYNES CREEK NEAR HAYNES 05CD006

Task: Site repair P-1
Work Completed: 12-Dec-03

Salary	\$110.44
Vehicle	\$67.20
Travel	\$46.83
Materials	\$15.00
Contracts	\$0.00
TOTAL:	\$239.47

Station Name: ISLE LAKE AT EUREKA BEACH 05EA008

Task: Site repair P-1
Work Completed: 04-Mar-04

Salary	\$169.14
Vehicle	\$38.17
Travel	\$87.25
Materials	\$50.00
Contracts	\$0.00
TOTAL:	\$344.56

Station Name: KLESKUN HILLS MAIN DRAIN NEAR GRANDE PRAIRIE 07GE002

Task: Mpi Inspection P-1
Work Completed: 01-Apr-03

Salary	\$546.92
Vehicle	\$134.17
Travel	\$188.58
Materials	\$230.00
Contracts	\$559.16
TOTAL:	\$1,658.83

2003/04 Annual Station Cost Breakdown

Station Name: KNEEHILLS CREEK NEAR DRUMHELLER 05CE002

Task: Site repair P-1
Work Completed: 08-Dec-03

Salary	\$182.01
Vehicle	\$89.85
Travel	\$56.29
Materials	\$125.00
Contracts	\$0.00
TOTAL:	\$453.15

Station Name: McALPINE CREEK RESERVOIR NR ELWATER 05AH055

Task: Site Reconn P-1
Work Completed: 14-Jan-04

Salary	\$56.46
Vehicle	\$0.00
Travel	\$1.88
Materials	\$0.00
Contracts	\$0.00
TOTAL:	\$58.35

Station Name: OLDMAN RIVER NEAR THE MOUTH 05AG006

Task: Benchmark installation, Site inspection P-1
Work Completed: 23-Oct-03

Salary	\$731.51
Vehicle	\$351.60
Travel	\$342.20
Materials	\$170.00
Contracts	\$0.00
TOTAL:	\$1,595.31

Station Name: PADDLE RIVER NEAR ROCHFORD BRIDGE 07BB004

Task: Contract P-1
Work Completed: 23-Jun-03

Salary	\$0.00
Vehicle	\$0.00
Travel	\$0.00
Materials	\$0.00
Contracts	\$535.00
TOTAL:	\$535.00

2003/04 Annual Station Cost Breakdown

Station Name: PEMBINA RIVER BELOW PADDY CREEK 07BA001

Task: Well repair P-1
Work Completed: 05-Aug-03

Salary	\$395.60
Vehicle	\$77.20
Travel	\$153.93
Materials	\$55.90
Contracts	\$0.00
TOTAL:	\$682.63

Station Name: PONY CREEK NEAR CHARD 07CE003

Task: Mpi inspections P-1
Work Completed: 03-Mar-04

Salary	\$411.35
Vehicle	\$92.82
Travel	\$212.19
Materials	\$72.00
Contracts	\$1,863.65
TOTAL:	\$2,652.01

Station Name: RED DEER RIVER AT DRUMHELLER 05CE001

Task: Mpi inspection P-1
Work Completed: 09-Mar-04

Salary	\$359.99
Vehicle	\$93.33
Travel	\$129.23
Materials	\$36.00
Contracts	\$851.21
TOTAL:	\$1,469.76

Station Name: SOUNDING CREEK NEAR OYEN 05GA008

Task: Site Inspection P-1
Work Completed: 13-Jan-04

Salary	\$134.40
Vehicle	\$26.47
Travel	\$41.14
Materials	\$0.00
Contracts	\$0.00
TOTAL:	\$202.01

2003/04 Annual Station Cost Breakdown

Station Name: SPRUCE COULEE RESERVOIR near ELKWATER 05AH058

Task:	Site Recon		P-1
Work Completed:	14-Jan-04		
	Salary	\$56.46	
	Vehicle	\$0.00	
	Travel	\$1.88	
	Materials	\$0.00	
	Contracts	\$0.00	
	TOTAL:	\$58.35	

Station Name: THREEHILLS CREEK NEAR CARBON 05CE007

Task:	Mpi Inspection		P-1
Work Completed:	10-Mar-04		
	Salary	\$359.99	
	Vehicle	\$93.33	
	Travel	\$129.23	
	Materials	\$0.00	
	Contracts	\$851.22	
	TOTAL:	\$1,433.77	

Station Name: WATERTON RIVER NEAR GLENWOOD 05AD028

Task:	Mpi Inspection		P-1
Work Completed:	23-Apr-03		
	Salary	\$434.34	
	Vehicle	\$93.22	
	Travel	\$125.21	
	Materials	\$72.00	
	Contracts	\$321.00	
	TOTAL:	\$1,045.77	

Station Name: WILLOW CREEK AT OXLY RANCH 05AB041

Task:	Mpi inspection		P-1
Work Completed:	23-Apr-03		
	Salary	\$434.34	
	Vehicle	\$93.22	
	Travel	\$125.21	
	Materials	\$230.00	
	Contracts	\$321.00	
	TOTAL:	\$1,203.77	

2003/04 Annual Station Cost Breakdown

SUMMARY OF ANNUAL STATION EXPENSES

Salary	\$43,921.39
Vehicle	\$13,093.04
Travel	\$17,639.62
Materials	\$32,075.60
Contracts	\$35,904.09
Grand Total	\$142,633.74

ΑΠΠΕΝΔΙΞ ΎΔΑ Ξονστρυχιον Δεταιλ

Work Ended	StationName	Station ID	DESIG	Remarks
11/03/2004	ALKALI CREEK NEAR THE MOUTH	05CK005	FP-3	Mpi inspection on L&R bank anchor points. Several flaws, LB main failed. Installed L&R bank safety lanyards, no cones remaining on ac cable, removed same.
18/09/2003	ATHABASCA RIVER AT ATHABASCA	07BE001	P-1	Install Dessert box inside water treatment plant. Installed armored orifice cable. Installed AC electric service and telephone.
16/09/2003	BAPTISTE LAKE NEAR ATHABASCA	07BE002	P-1	Install dessert box , pressure system and solar power supply.
23/10/2003	BEAVER CREEK NEAR BROCKET	05AB013	P-1	Excavate lower intake and install 10' section with flex coupling, re-install heat tape and backfill. Install step-up transformer with pilot switch, replaced broken duplex and all broken cover plates. Installed lock bar, adjusted door, caulked outside holes and cleaned up inside/outside debris.
24/04/2003	BEAVER CREEK NEAR BROCKET	05AB013	P-1	Site inspection to scope lower intake problem. Ref site photos
03/03/2004	BEAVER RIVER ABOVE SYNCRUDE	07DA018	FP-1	MPI inspection on L&R banks anchors, 3 rebar on both L&R banks passed. Installed safety lanyards L&R banks, installed 28" sag ref and ck'd sag.
02/04/2003	BEAVERLODGE RIVER NEAR BEAVERLODGE	07GD001	P-1	Mpi inspections on 4 anchor points, no defects noted. Installed safety lanyards and set sag ref 24".
24/04/2003	BELLY-ST. MARY DIVERSION CANAL	05AD021	P-1	RB reported lower intake damage. Well and canal are dry. Dug out lower intake and found a break in the 3" line approx 8' back from the end. Repaired same with a fernco and re-buried the line. Reset instrumentation to 0.523, suspended float fm inst table.
11/03/2004	BERRY CREEK NEAR THE MOUTH	05CH007	P-1	Mpi inspection on (6) anchor points, Installed L&R bank safety lanyards. Old wooden cableway, est span 80', requires new towers, footings and railings. Fence is down and cablecar is a disaster. Ref 25 photos

10/12/2003	BLACKMUD CREEK NEAR ELLERSLIE	05DF003	P-1	Site inspection, check out low resistance heat tape (237 ohms). Installed primed back board and step up transformer. Replaced burned out light bulb. Work to be done: Shelter is in good condition, requires signage and access fm road is a bit difficult. Should install steep pitch ladder on breakwater and repair fence (remove rope), or install a short step over on fence post.
12/12/2003	BLINDMAN RIVER NEAR BLACKFALDS	05CC001	P-1	Site inspection and ck out heat tape. (303 ohms/1.3 watts/ft). Installed step-up transformer.
03/06/2003	BOW RIVER AT BANFF	05BB001	F-1	Mpi inspection on L&R bank anchor points. Had to dig out LB mass anchor for inspection and backfill along trail. Located flaw in RB anchor point, tried grinding it out but it is fairly deep and still shows. Not acceptable to code. Installed L&R bank lanyards, installed LB thimble on main. Installed sag ref mark at 68.6" on LB tower, chk'd sag & OK.
03/06/2003	BOW RIVER AT LAKE LOUISE	05BA001	F-1	Mpi inspections (6) anchor points. Located 2 cracks in DS rebar spare anchor point, main and all others ok. Installed safety lanyards L&R banks Cablecar found in middle of river. Inspected shelter and estimated repairs.
19/06/2003	BOW RIVER BELOW BASSANO DAM	05BM004	FP-2	Mpi Inspection on (6) anchor points, no indications. Lanyards installed prev week. Site needs some work, tower questionable, ie fwd legs & intermediate rails, fence is rotted out, LBMA overgrown, Cablecar is rotten. 142" sag has to be set fm LB
19/06/2003	BOW RIVER BELOW CARSELAND DAM	05BM002	FP-2	Mpi inspection (8) anchor points, no indications, all ok. Installed 126" sag ref and ck'd ok. Note* 1" cable span.
09/03/2004	BOW RIVER DEVELOPMENT CANAL BELOW HEADGATES	05BM021	P-1	Mpi inspection on L&R bank anchor points. 1" rebar on each side, Installed safety lanyards, Installed BS thimbles. Canal open water, flow over ice, significant inflow fm culvert below spillway. Installed 31.5" sag ref mark and ck'd ok. Ref: 19 photos on file.

14/01/2004	BULLSHEAD RESERVOIR near ELKWATER	05AH057	P-1	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Reconn Rpt.
23/04/2003	CANADIAN ST. MARY CANAL NEAR SPRING COULEE	05AE026	F-2	Mpi inspection of (2) anchor points, no visible indications. Installed L&R bank safety lanyards. Had to dig out mass anchors. Backstays are hooked to main turnbuckle. Site photos, installed a 34" sag ref and checked OK.
05/06/2003	CASTLE RIVER AT RANGER STATION	05AA028	FP-3	Mpi inspections on (6) anchor points, no visible flaws. Rough LB access trail. See previous visit May 28 03.
28/05/2003	CASTLE RIVER AT RANGER STATION	05AA028	FP-3	Located site, ck'd cable say 38", ok. Repaired LB cable turnback, cut it down to 26". Removed 1 7/8" clip for lanyard. Removed dead tree that had fallen up against LB tower.
05/06/2003	CASTLE RIVER NEAR BEAVER MINES	05AA022	P-1	Mpi inspection (4) anchor points, no visible flaws. LB has only one main anchor point. Lanyards installed prev visit, May 28 03. Installed jaw to eye turnbuckle.
28/05/2003	CASTLE RIVER NEAR BEAVER MINES	05AA022	P-1	Located site, found LB access to be a problem, Installed LB lanyard, found cable sag to be 92", not adjusted. LB needs 2 more anchor points, ac cable has light surface rust, 1 ac cone missing and need 3 sets hardware.
05/06/2003	CATARACT CREEK NEAR FORESTRY ROAD	05BL022	FP-3	Mpi inspection on (4) anchor points, no visible indications on main anchors. RB backstay not acceptable due to longitudinal cracks on rebar. Operator discretion. Installed L&R bank safety lanyards, installed 29" sag ref mk and ck'd ok. Inspected chipping on LBMA, not serious. Found small kink in 3/4" main cable 3.5' fm anchor. No backstay on left bank Good cablecar. Inspected shelter.
22/05/2003	CATARACT CREEK NEAR FORESTRY ROAD	05BL022	FP-3	Reconn safety lanyard for LB, non stnd arrangement.
11/09/2003	CAVAN LAKE DIVERSION NEAR DUNMORE	05AH048	P-1	Broke up concrete slab and assisted mercury clean up crew.
14/01/2004	CAVAN LAKE DIVERSION NEAR DUNMORE	05AH048	P-1	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Reconn Rpt.

24/06/2003	CHIP LAKE NEAR NORTHVILLE	07BB008	P-1	DC & Deb, remediate old shelter on private property and disposed of same. Installed new brytex, panelled and insulated on site, hooked up press system , data logger and power supply.
09/12/2003	CHRISTMAS CREEK NEAR BLUE RIDGE	07AH002	FP-3	Site inspection, check out low resistance heat tape. Grnd fault outlet on heat tape circuit was tripped and I was unable to reset. Replaced with a stnd duplex receptacle & galv cover plate. Pyro res 237 ohms on a 10m tape, installed step up transformer
01/04/2003	CLEAR RIVER NEAR BEAR CANYON	07FD009	FP-3	Was sheduled for mpi, had to be deferred due to weather and lack of an mpi guy. Darren & Andrew installed safety lanyards.
15/08/2003	CLEAR RIVER NEAR BEAR CANYON	07FD009	FP-3	Remove flood damaged cableway and debris. Excavate and pour concrete for mass anchors. Excavate and pour concrete for replacement 10 ft tower. Form and pour new pad for Brytex shelter.
08/10/2003	CLEAR RIVER NEAR BEAR CANYON	07FD009	FP-3	Install LB tower, 7/8" main cable, aircraft markers. Install saf ref mark and adjusted cable tension. Install 7/8 " safety lanyards. Install new Brytex shelter, insulated and paneled. Cleaned up site and removed flood debris.
03/03/2004	CLEARWATER RIVER AT DRAPER	07CD001	FP-1	MPI inspection on L&R bank anchors, no span data, determined by statia (490'). Installed 118" sag ref on LB tower & ck'd sag. Two anchor blocks on south LB 8 anchors inspected, all ok. Installed 7/8" safety lanyards both sides. 13 photos, difficult with snow cover to inspect mass anchors for movement, appear to be ok.
12/01/2004	CROWFOOT CREEK NEAR CLUNY	05BM008	F-2	Oct 31: Site inspection, lower intake freezes over winter. Inspected heat tape and found zero res at plug terminal (ht ta is shorted). Ordered replacement heat cable. Jan 12: Chopped out lower intake, steamed well, installed new pyro, lock bar, shelter steps repaired broken ladder rungs, repaired/replaced plumbing, removed broken standpipe.

31/10/2003	CROWFOOT CREEK NEAR CLUNY	05BM008	F-2	Site Inspection. Lower intake freezes over winter. Inspected heat tape and found zero res at plug terminal (ht tape is shorted). Ordered replacement ht cable.
05/06/2003	CROWSNEST RIVER AT FRANK	05AA008	FP-3	Mpi inspections on (3) anchor points, no indications found. Installed sag ref 34" and ck'd sag ok. RB anchor is stable,
28/05/2003	CROWSNEST RIVER AT FRANK	05AA008	FP-3	Located site, Too deep for wading, 1.9m and no sheave in shelter, Took photos of LB only, Installed 34" sag ref and ck's ok, turnbuckles and backstays are good.
02/04/2003	CUTBANK RIVER NEAR GRANDE PRAIRIE	07GB001	FP-3	Mpi inspection on (6) anchor points, no defects noted. Installed safety lanyards and set sag ref 55".
14/01/2004	CYPRESS VIEW RESERVOIR NR ELKWATER	05AH054	P-1	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Recon Rpt.
18/06/2003	EASTERN IRRIGATION DISTRICT MAIN BRANCH CANAL NEAR HEADGATE	05BM020	F-2	Mpi Inspection on (4) anchor points, 2 RB anchor points had minor indications that were ground out and re-inspected, ok.
22/05/2003	ELBOW RIVER AT BRAGG CREEK	05BJ004	FP-3	Installed RB lanyard
19/06/2003	ELBOW RIVER AT BRAGG CREEK	05BJ004	FP-3	Mpi Inspections on (2) anchor points, no indications found. Only one anchor point on each side, bs and ac cables tied to main. Installed 44" sag ref and ck'd ok. Access to LB is difficult through private property to water's edge.
02/03/2004	FIREBAG RIVER NEAR THE MOUTH	07DC001	FP-1	MPI inspection on L&R bank anchors, 3 rods on RB and 1 eyerod on LB, passed. Installed 20' 3/4" safety loop on RB (no tower) & safety lanyard on LB, repaired thimbles installed 79" sag ref mark & check'd sag.
19/03/2004	FORSTER RESERVOIR NEAR CESSFORD	05CH013	P-1	Contractor moved shelter & pad back 40' and placed on new concrete pad. DC insulated, panelled and caulked up shelter, installed orifice line and Tee orifice.
01/04/2003	GRANDE PRAIRIE CREEK NEAR SEXSMITH	07GE003	FP-3	Mpi inspection on (4) anchor points, no defects noted. Installed safety lanyards and set sag ref 23", Site photos

12/12/2003	HAYNES CREEK NEAR HAYNES	05CD006	P-1	Site inspection and ck out heat tape. Found pilot switch 'off' and neutral wire not connected. Fixed connection, low wattage (300 ohms) heat tape was not boosted. Installed primed back board for data logger
04/03/2004	ISLE LAKE AT EUREKA BEACH	05EA008	P-1	Investigate moisture problem with dessert box, found shelter weather tight & secure. Interior water damage fm severe rain storm at time of installation. Removed interior panels, dried out with propane lamp, re-panel'd shelter. Cln'd up rust streaks & WD 40'd hinges. Spoke with property owner & obtained signed access agreement.
01/04/2003	KLESKUN HILLS MAIN DRAIN NEAR GRANDE PRAIRIE	07GE002	P-1	Mpi inspection on (4) anchor points, no defects noted. Installed safety lanyards, set sag ref "51"
08/12/2003	KNEEHILLS CREEK NEAR DRUMHELLER	05CE002	P-1	Site inspection, check heat tape and install step-up transformer w/pilot switch
24/11/2003	LITTLE BOW CANAL AT HIGH RIVER	05BL015	F-2	Darren and Wilson dismantled and removed old brytex shelter from the construction yard in High River.
26/05/2003	LITTLE BOW CANAL AT HIGH RIVER	05BL015	F-2	Assembled and loaded up dessert box, 100' armored orifice line and 75lb orifice block plus mounting hardware for new installation. DC hauled everything out to High River and took care of mounting, orifice routing and installation of orifice block.
14/01/2004	MACKAY CREEK AT WALSH	05AH002	FP-3	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Reconn Rpt.
02/03/2004	MACKAY RIVER NEAR FORT MACKAY	07DB001	FP-1	MPI Inspection on L & R bank anchors, 3rods on RB & 3 rods on LB passed. Installed safety lanyards on L & R bank towers, installed 52" sag ref mark & ck'd sag.
30/10/2003	MANYBERRIES CREEK AT BRODIN'S FARM	05AF010	FP-3	Constructed & installed pressure treated wood cableway load platform. Installed signage on cablecar and stilling well. Replaced plastic ceiling light fixture & moved away from wood timber. Installed 3/4" plywood inst back board. Installed new 350 watt heat cable with pilot switch.

10/03/2004	MATZHIWIN CREEK BELOW WARE COULEE	05CJ012	F-2	Mpi inspection of (3) L&R bank anchor points. LB anchor point has been welded and rotated ref: 27 site photos. LB requires thimbles, LB severely eroded. Extreme hazard driving in to this site due to steep slope and soft terrain, particularly when frost is coming out of the ground.
14/01/2004	McALPINE CREEK RESERVOIR NR ELWATER	05AH055	P-1	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Reconn Rpt.
23/04/2003	MILK RIVER AT WESTERN CROSSING OF INTERNATIONAL BOUNDARY	11AA025	F-3	Mpi inspection on (4) anchor points, no visible indications noted. Installed L&R bank safety lanyards. Inspected RBMA. Installed 40" sag ref and checked OK.
02/03/2004	MUSKEG RIVER NEAR FORT MACKAY	07DA008	FP-1	MPI inspection on L&R bank anchors, 3 rebar anchors on L&R banks, passed. Installed safety lanyards on L&R bank towers, install 24" sag ref mark & ck, d sag. LB has 2 conc pedestals tied together w/ 3/8" cable found strung across river on snowmobile tra
03/04/2003	MUSKEG RIVER NEAR GRANDE CACHE	07GA002	FP-3	Mpi inspection on 6 anchor points, no defects noted. Installed safety lanyards and set sag ref.
23/04/2003	NORTH MILK RIVER NEAR INTERNATIONAL BOUNDARY	11AA001	F-3	Mpi inspection on (2) anchor points on the right bank. Unable to reach far bank, flow is peaking at this time, 0.805 @ 1330 mst. Did a visual. Installed lanyard and 43" sag ref mk on RB only. Replaced damaged (welded) turnbuckle.
23/10/2003	OLDMAN RIVER NEAR THE MOUTH	05AG006	P-1	Met with LB landowner, installed 2 new threaded rod brass caps to a depth of 15', one at top of hill adjacent to shelter, other one at the bottom of the hill. Drove over to RB via Taber. Spoke with landowner regarding access and replacing RB tower with an A-frame. Repaired DS turnbuckle on RB and ran levels fm anchor to high water mk. Measured req'd tower ht and discussed moving mass anchor 30' toward river with landowner.

27/05/2003	OLDMAN RIVER NEAR WALDRON'S CORNER	05AA023	FP-3	Locate site, found stn disc needs update, Inspected cableway, found RB fist grips loose, cablecar sheaves cracked (photo) and cc footrest tied on with a plastic wire tie. LB has an I-beam tower. (3) ac cones all ok. Installed 7/8" lanyard with fist grips and torque to 225 lbs. Removed cc sheaves
26/06/2003	PADDLE RIVER NEAR ANSELMO	07BB011	FP-3	DC & Deb, Installed safety lanyards and preped site for Mpi. Inspected on Jun 26 (4) anchor points on L&R banks, no rejectable indications were found.
20/06/2003	PADDLE RIVER NEAR ANSELMO	07BB011	FP-3	Contract to fabricate and install a staircase over fence
10/10/2003	PADDLE RIVER NEAR ANSELMO	07BB011	FP-3	Main cable shot by vandals. Removed and disposed of old fibre core cable. Install sag ref mark and adjust cable tension.
23/06/2003	PADDLE RIVER NEAR ROCHFORD BRIDGE	07BB004	P-1	Contract to fabricate and install a shelter access ramp
30/10/2003	PEIGAN CREEK NEAR PAKOWKI ROAD	05AH041	FP-3	Drilled 16" anchor holes in L/R bank mass anchors, installed 4 3/4" anchor bars and epoxied into position. Removed old aircraft cable and markers, installed lock bar. Installed new 350' glav aircraft cable with new hardware & cones. Attached to new anchor bars & adj. sag. Installed new backstay lines to both L&R bank towers, installed new hardware & clips. Shot L to R bank stadia w/level, found tower-tower span 75.2m (247') Moved sag ref: to 59". Span on SD was 219'.
05/08/2003	PEMBINA RIVER BELOW PADDY CREEK	07BA001	P-1	Dug out lower intake by hand. Installed 10 ft extension to lower intake. Back filled with course rock and gravel. Power flushed intakes. Ran direct water levels. Established top of lower intakes at 0.55 m.

03/06/2003	PIPESTONE RIVER NEAR LAKE LOUISE	05BA002	F-1	Mpi inspections on (4) anchor points. LB main has major damage and not acceptable. LB side stay anchors completely gone. RB is ok. Installed L&R bank safety lanyards. Set 27 1/2" sag ref & ck'd Ok.
03/03/2004	PONY CREEK NEAR CHARD	07CE003	P-1	MPI inspection on L&R..4 bank anchors, OK. Installed L7R bank lanyards. Installed 16" sag ref & ck'd ok. No ac cable req'd. RB tower pedestal leaning upstream (sinking), should be repaired or replaced. Wood/alum cc in good condition. 7 photos. Shelter has 3 nitrogen cyl, none restrained.
05/06/2003	RACEHORSE CREEK NEAR THE MOUTH	05AA027	FP-3	Mpi inspection on (4) L&R bank anchor points, all passed. Installed safety lanyards on L&R bank. Installed 39" sag ref and ck'd ok. RB saddle bolts has a 1/2" gap. Wood frame cablecar. Gate was locked, cut chain and installed best lock. Found ccar pulley cracked and footrest tied on with a plastic wire tie. Replaced pulley
28/05/2003	RACEHORSE CREEK NEAR THE MOUTH	05AA027	FP-3	Located site, fnd new lock on gate, cut chain and installed a best lock. Shelter on LB (far). Installed L&R bank safety lanyards, ck'd sag ref at 39" ok.
09/03/2004	RED DEER RIVER AT DRUMHELLER	05CE001	P-1	Mpi inspections on RB anchor points. Flow over ice, LB not inspected with mpi, did a visual and took photos. (crack is larger). AC post on LB has rotted out. Ref 13 photos. Installed 94" sag ref anc chk'd ok. Installed RB safety lanyard.
13/01/2004	RED DEER RIVER NEAR BINDLOSS	05CK004	F-2	Borrowed a yard of fill from the Acadia municipal yard, filled in holes left by Merc clean-up crew and built up approach to shelter threshold.

10/09/2003	RED DEER RIVER NEAR BINDLOSS	05CK004	F-2	Sep 8-10/03: Removal of old electrical service, plugs & fixtures. Install new 30 amp service, plugs, fixtures & gnnds (contract). Assist with mercury crew clean up, excavation and removal of soils etc. Weatherproof shelter, replace exterior/interior caulking, panelling as req'd. Installed new plywood back board & counter top.
12/12/2003	RENWICK CREEK NEAR THREE HILLS	05CE011	FP-3	Site inspection and ck out ht tape. Pasture full of snow, had to hike in. Significant ht loss around base of shelter fm well. Creek is try, intakes open. Older install, looks like it is still working, no mention of steaming on visit sheet, assume it is OK. (300 ohms res). Found 2 wires connected to neutral on switch I added a jumper & marr connector, otherwise OK.
08/12/2003	ROSEBUD RIVER AT REDLAND	05CE005	F-2	Site inspection, check heat tape and install step-up transformer w/pilot switch.
01/04/2003	SADDLE RIVER NEAR WOKING	07FD006	FP-3	Mpi inspections on (4) anchor points, no defects noted. Installed safety lanyards and set sag ref 24", Site photos
02/04/2003	SMOKY RIVER ABOVE HELLS CREEK	07GA001	FP-2	Mpi inspections on LB anchor points only. No defects noted. Not able to access other bank due to flowing ice. Installed safety lanyard. Ck'd 93" sag by level.
13/01/2004	SOUNDING CREEK NEAR OYEN	05GA008	P-1	Found pyro burned out, zero resistance with no visible damages. Heat lamp is also burned out, well bottom frozen solid. Stream is dry, lower intake open, Site requires a major upgrade as follows.
10/09/2003	SOUTH SASKATCHEWAN RIVER AT HWY # 41	05AK001	F-2	Reconn site & contact land lease holder for authorization to remove shelter & pad removed ceilings panels & fibreglass insulation. Shelter is stick build (wood frame). Removed chain link fence. Assisted mercury clean-up with soil removal.

13/01/2004	SOUTH SASKATCHEWAN RIVER AT HWY # 41	05AK001	F-2	Remediate discontinued site, removed shelter debris, posts and metal fence, msc lumber etc. Broke apart part of pad with hammer drills, heavily re-enforced, cleaned up loose material and left remainder intact. Donated intact shelter to lease holder Gene Ehret.
14/01/2004	SPRUCE COULEE RESERVOIR near ELKWATER	05AH058	P-1	Reconn site with Bill Streeton & Rose Hall, Ref: May 17, 2004 Cypress Hills Reconn Rpt.
03/03/2004	STEEP BANK RIVER NEAR FORT MCMURRAY	07DA006	FP-1	MPI inspection on L&R bank anchors, 2 mass anchors on platform RB side. Main 3/4" rod cracked, moved to rebar anchor in second m/anchor. Install'd 28 "sag ref & ckd sag. LB pillar still in good condition, installed safety loop on LB and lanyard on RB. Stn out of nitrogen, swapped cylinders and purged line @ 1445 MST
10/03/2004	THREEHILLS CREEK NEAR CARBON	05CE007	P-1	Mpi inspection on (4) L&R bank anchor points. No visible defects. Installed L&R bank safety lanyards, Installed 94" sag ref mk and ck'd ok. Ref: 11 photos
26/06/2003	TOMAHAWK CREEK NEAR TOMAHAWK	05DE009	FP-3	DC & Deb installed safety lanyards and preped site for mpi. Mpi insp on Jun 26 noted transverse linear indications on both L&R anchor points. These were removed by grinding and re-inspected. All anchors were found to be acceptable to code.
19/09/2003	WANDERING RIVER NEAR WANDERING RIVER	07CA006	FP-3	Cableway anchor and MPI inspection. Installed L & R tower safety lanyards. Replaced damaged turnbuckle on RB backstay. Inspected pyrotenax (288 ohms) and replaced pilot switch, installed cover plate. Site maintenance. Knocked down weeds and tall grass around shelter. Set sag ref mark aat 55" on LB tower, no adjustment required.
07/08/2003	WASKAHIGAN RIVER NEAR THE MOUTH	07GG001	FP-3	Excavate pit for RB deadman. Install rebar and new galvanized auxillary anchor bars. Poured concrete from pumper truck out of Grande Prairie.

10/10/2003	WASKAHIGAN RIVER NEAR THE MOUTH	07GG001	FP-3	Installed new 7/8 " galvanized main cable and safety lanyards. Install new cable car. Sag ref mark and adjusted cable sag. Cleaned up and disposed of site debris.
23/04/2003	WATERTON RIVER NEAR GLENWOOD	05AD028	P-1	Mpi inspection(6) anchor points on L&R banks, no visible indications. Installed L&R bank safety lanyards, Brief site inspection, Right FA stanchion was dangling on floor fm earlier ice damage. Took site photos.
05/06/2003	WESTERN IRRIGATION DISTRICT CANAL NEAR HEADGATES	05BM015	FP-1	Mpi inspections on (4) anchor points. LB main flawed with underside crack. Installed L bank safety lanyard Installed 27 1/2" sag ref & ck'd ok.
22/05/2003	WESTERN IRRIGATION DISTRICT CANAL NEAR HEADGATES	05BM015	FP-1	Installed RB safety lanyard.
03/04/2003	WILDHAY RIVER NEAR HINTON	07AC001	FP-3	Mpi inspections on 6 anchor points, no defects noted. Installed safety lanyards and set sag ref . Stn desc isn't the greatest, 4 vehicles stuck for 3 hours. Good ice.
23/04/2003	WILLOW CREEK AT OXLY RANCH	05AB041	P-1	Mpi inspection (6) anchor points, no visible indications. Installed L&R bank safety lanyards, set sag ref at 38", took site photos and brief inspection. CC and platforms are OK.
26/06/2003	WOLF CREEK AT HIGHWAY NO. 16A	07AG003	FP-3	Installed L&R bank lanyards, preped site for MPI. Mpi insp on Jun 26 (5) anchor points. No rejectable indications were noted.

APPENDIX "B" Photographs



Figure 1: Clear River Bear Canyon Cableway

APPENDIX "B" Photographs



Figure 2: Waskahigan anchor failure

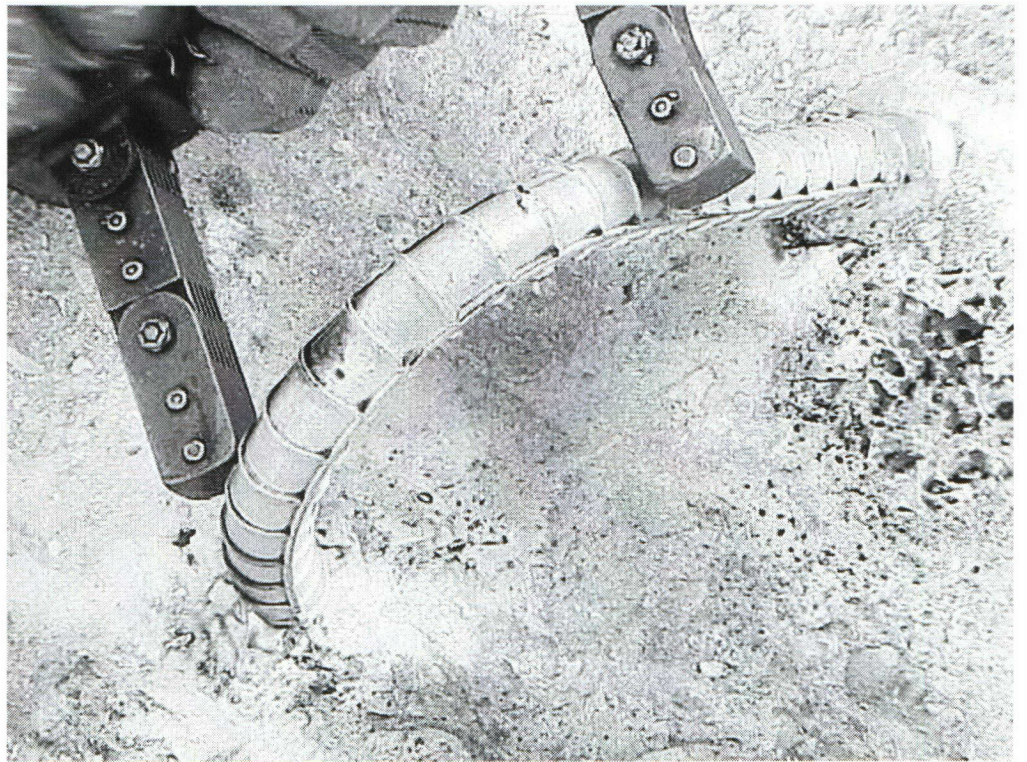


Figure 3: Magnetic Particle Inspections (Mpi)

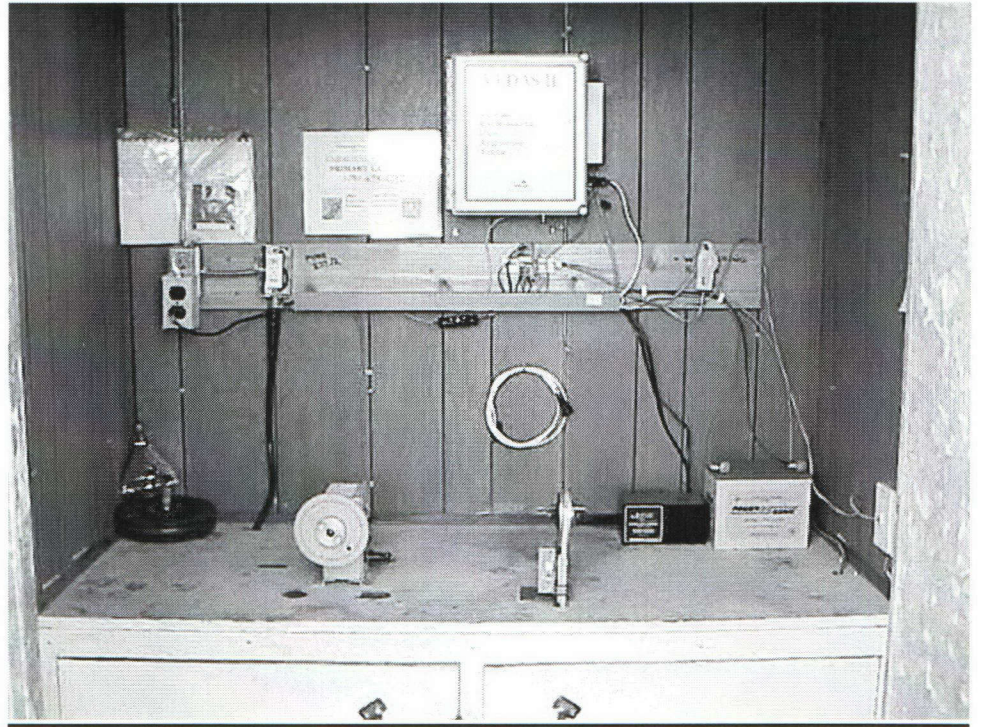


Figure 4: Wandering River upgrades



Figure 5: Isle Lake Manual gauge upgrade