ATTACHMENT 1

Attachment 1

Little Goose Five-Minute GDACS data

Date and Time	Project Name	Forebay (feet)	Generation Flow (kcfs)	Spill Flow (kcfs)	Total Flow (kcfs)	
04/03/2007 10:00:00	LGS	633.25	28.83	11.02	39.85	
04/03/2007 10:05:00	LGS	633.25	27.58	11.02	38.60	
04/03/2007 10:10:00	LGS	633.25	29.17	11.02	40.18	
04/03/2007 10:15:00	LGS	633.25	28.34	11.02	39.35	
04/03/2007 10:20:00	LGS	633.25	25.31	11.02	36.33	
04/03/2007 10:25:00	LGS	633.25	25.26	11.02	36.28	
04/03/2007 10:30:00	LGS	633.25	25.96	11.02	36.98	
04/03/2007 10:35:00	LGS	632.50	25.95	10.95	36.89	At 1035, the operator at Little Goose Dam began to enter the forebay elevation by hand
04/03/2007 10:40:00	LGS	632.50	25.71	10.95	36.65	
04/03/2007 10:45:00	LGS	632.60	25.60	10.95	36.56	
04/03/2007 10:50:00	LGS	632.60	25.61	10.95	36.56	
04/03/2007 10:55:00	LGS	632.60	17.34	7.27	24.61	One generating unit was turned off and spill was reduced
04/03/2007 11:00:00	LGS	632.60	16.51	7.32	23.83	
04/03/2007 11:05:00	LGS	632.60	16.68	7.32	24.00	
04/03/2007 11:10:00	LGS	632.60	12.16	5.48	17.64	
04/03/2007 11:15:00	LGS	632.60	11.52	3.66	15.18	The generating unit was reduced to minimum generation while remained 30% of total river flow
04/03/2007 11:20:00	LGS	632.60	12.48	5.48	17.95	
04/03/2007 11:25:00	LGS	632.60	11.65	5.48	17.13	
04/03/2007 11:30:00	LGS	632.60	12.06	5.48	17.54	
04/03/2007 11:35:00	LGS	632.65	12.35	5.48	17.83	
04/03/2007 11:40:00	LGS	632.65	12.13	5.48	17.61	
04/03/2007 11:45:00	LGS	632.66	11.71	5.48	17.19	
04/03/2007 11:50:00	LGS	632.66	12.03	5.48	17.51	
04/03/2007 11:55:00	LGS	632.66	12.27	5.48	17.75	
04/03/2007 12:00:00	LGS	632.67	12.07	5.48	17.56	

04/03/2007 12:05:00	LGS	632.67	12.06	5.48	17.54	
04/03/2007 12:10:00	LGS	632.67	12.01	5.48	17.49	
04/03/2007 12:15:00	LGS	632.70	11.94	5.49	17.42	
04/03/2007 12:20:00	LGS	632.70	11.92	5.49	17.40	
04/03/2007 12:25:00	LGS	632.70	11.90	5.49	17.39	
04/03/2007 12:30:00	LGS	632.75	11.90	5.49	17.39	
04/03/2007 12:35:00	LGS	632.80	11.88	5.49	17.37	
04/03/2007 12:40:00	LGS	632.90	11.81	5.50	17.31	
04/03/2007 12:45:00	LGS	632.90	11.87	5.50	17.37	
04/03/2007 12:50:00	LGS	632.90	11.94	5.50	17.43	
04/03/2007 12:55:00	LGS	632.90	12.05	5.50	17.54	
04/03/2007 13:00:00	LGS	632.90	12.06	5.50	17.56	
04/03/2007 13:05:00	LGS	632.90	12.12	5.50	17.61	
04/03/2007 13:10:00	LGS	633.00	12.10	5.50	17.60	The Little Goose pool was restored to normal minimum operating level
04/03/2007 13:15:00	LGS	633.00	12.09	5.50	17.59	
04/03/2007 13:20:00	LGS	633.00	12.17	5.50	17.67	
04/03/2007 13:25:00	LGS	633.00	12.17	5.50	17.67	
04/03/2007 13:30:00	LGS	633.00	12.13	5.50	17.63	
04/03/2007 13:35:00	LGS	633.00	12.13	5.50	17.64	
04/03/2007 13:40:00	LGS	633.01	12.18	5.50	17.69	
04/03/2007 13:45:00	LGS	633.01	12.18	5.50	17.68	
04/03/2007 13:50:00	LGS	633.01	12.13	5.50	17.63	
04/03/2007 13:55:00	LGS	633.01	12.11	5.50	17.62	
04/03/2007 14:00:00	LGS	633.01	12.05	5.50	17.55	

ATTACHMENT 2

REPORT: WOPRINTL **DATE: 25-APR-2007 TIME: 11:58**

FACILITY AND EQUIPMENT MAINTENANCE SYSTEM **PAGE 1**
WORK ORDER PRINT OUT REPORT
WO NUMBER: 07-35881

Work Order:	07-35881	Forebay Level Indicator	
Status Code:	WAPPR	**Work Start Date:**	**Parent:**
Report Date:	03-APR-2007	**Work Completion Date:**	**Sequence:**
Reported By:	SIMPC5765	SIMPFENDERFER CLARK L	

Description: GDACS Forebay Level Indicator needs calibrating. Its reading about a foot low.

Location:	CENWW-LGO-DAM	LITTLE GOOSE Dam and Spillway
Equipment No:	G4-4DM00000	MISCELLANEOUS
Physical Location:		
Job Plan:		
Lead Craft:		
Crew:	G4-4ELREP	Little Goose Electrical J Grade
PM Number:		

Corp Work Type	Command Work Type	Local Work Type	Priority	Calc Priority	Charge Code
M	RM	TR	1	2	137335-DL64KF-071775

Date Completed _____ Completed By _____ Supervisor _____

ATTACHMENT 3

Attachment 3

Lower Monumental Five-Minute GDACS data

Date and Time	Project Name	Forebay (feet)	Generation Flow (kcfs)	Spill Flow (kcfs)	Total Flow (kcfs)	
04/03/2007 12:00:00	LMN	537.32	13.29	26.50	39.79	
04/03/2007 12:05:00	LMN	537.29	13.30	19.76	33.06	First spill reduction
04/03/2007 12:10:00	LMN	537.19	13.31	19.76	33.07	
04/03/2007 12:15:00	LMN	536.97	13.31	19.75	33.06	
04/03/2007 12:20:00	LMN	537.00	13.31	2.24	15.55	
04/03/2007 12:25:00	LMN	536.88	11.62	0.00	11.62	Spill at zero as the pool dropped slightly below it normal minimum operating pool
04/03/2007 12:30:00	LMN	536.84	11.35	0.00	11.35	
04/03/2007 12:35:00	LMN	536.74	11.31	0.00	11.31	Lowest elevation of pool
04/03/2007 12:40:00	LMN	536.79	11.37	0.00	11.37	
04/03/2007 12:45:00	LMN	536.78	11.27	0.00	11.27	
04/03/2007 12:50:00	LMN	536.75	11.34	0.00	11.34	
04/03/2007 12:55:00	LMN	536.87	11.37	0.00	11.37	
04/03/2007 13:00:00	LMN	536.96	11.37	0.00	11.37	
04/03/2007 13:05:00	LMN	537.00	11.37	0.00	11.37	Pool is restored to within its normal minimum operating level
04/03/2007 13:10:00	LMN	537.04	11.39	0.00	11.39	
04/03/2007 13:15:00	LMN	537.10	11.37	2.24	13.61	Spill began to resume
04/03/2007 13:20:00	LMN	537.20	11.33	10.29	21.61	
04/03/2007 13:25:00	LMN	537.20	11.45	10.29	21.74	
04/03/2007 13:30:00	LMN	537.25	11.37	10.29	21.66	
04/03/2007 13:35:00	LMN	537.30	11.39	10.29	21.67	
04/03/2007 13:40:00	LMN	537.35	11.37	10.29	21.65	
04/03/2007 13:45:00	LMN	537.34	11.45	12.99	24.44	
04/03/2007 13:50:00	LMN	537.38	11.36	12.99	24.35	
04/03/2007 13:55:00	LMN	537.37	11.32	16.43	27.75	
04/03/2007 14:00:00	LMN	537.31	11.40	14.75	26.15	
04/03/2007 14:05:00	LMN	537.29	11.39	14.75	26.13	

04/03/2007 14:10:00	LMN	537.21	11.38	10.21	21.59	
04/03/2007 14:15:00	LMN	537.20	11.37	10.21	21.58	
04/03/2007 14:20:00	LMN	537.10	11.38	6.72	18.10	Spill is reduced as the forebay drops
04/03/2007 14:25:00	LMN	537.08	11.42	5.60	17.02	
04/03/2007 14:30:00	LMN	537.09	11.34	5.60	16.94	
04/03/2007 14:35:00	LMN	537.08	11.39	5.60	16.99	
04/03/2007 14:40:00	LMN	537.03	11.32	5.60	16.92	
04/03/2007 14:45:00	LMN	536.99	11.34	2.80	14.14	
04/03/2007 14:50:00	LMN	537.02	11.33	2.80	14.13	
04/03/2007 14:55:00	LMN	536.95	11.30	2.80	14.10	Forebay drops below minimum operating level
04/03/2007 15:00:00	LMN	536.94	11.36	0.00	11.36	Spill goes to zero to restore pool to normal level
04/03/2007 15:05:00	LMN	537.04	11.34	0.00	11.34	Pool is restored to normal level
04/03/2007 15:10:00	LMN	537.06	11.32	0.00	11.32	
04/03/2007 15:15:00	LMN	537.07	11.44	2.24	13.68	Some spill is resumed
04/03/2007 15:20:00	LMN	537.07	11.33	2.24	13.57	
04/03/2007 15:25:00	LMN	537.16	11.34	2.24	13.57	
04/03/2007 15:30:00	LMN	537.17	11.37	3.92	15.28	
04/03/2007 15:35:00	LMN	537.19	11.29	3.92	15.21	
04/03/2007 15:40:00	LMN	537.24	11.43	5.60	17.03	
04/03/2007 15:45:00	LMN	537.24	11.42	5.60	17.02	
04/03/2007 15:50:00	LMN	537.27	11.41	5.60	17.01	
04/03/2007 15:55:00	LMN	537.27	11.36	5.60	16.96	
04/03/2007 16:00:00	LMN	537.29	11.47	7.30	18.77	
04/03/2007 16:05:00	LMN	537.30	11.39	7.30	18.69	
04/03/2007 16:10:00	LMN	537.28	11.37	7.30	18.67	
04/03/2007 16:15:00	LMN	537.27	11.39	7.30	18.69	
04/03/2007 16:20:00	LMN	537.25	11.32	7.30	18.62	
04/03/2007 16:25:00	LMN	537.23	11.44	7.30	18.74	
04/03/2007 16:30:00	LMN	537.19	11.38	7.30	18.68	
04/03/2007 16:35:00	LMN	537.16	11.55	7.30	18.85	
04/03/2007 16:40:00	LMN	537.17	11.45	7.30	18.75	

04/03/2007 16:45:00	LMN	537.13	11.58	7.30	18.88	
04/03/2007 16:50:00	LMN	537.12	11.52	7.30	18.82	
04/03/2007 16:55:00	LMN	537.11	11.51	7.30	18.81	
04/03/2007 17:00:00	LMN	537.12	11.43	7.30	18.73	
04/03/2007 17:05:00	LMN	537.09	11.49	7.30	18.79	
04/03/2007 17:10:00	LMN	537.11	11.44	7.30	18.74	
04/03/2007 17:15:00	LMN	537.18	11.55	7.30	18.85	
04/03/2007 17:20:00	LMN	537.21	11.53	7.30	18.83	
04/03/2007 17:25:00	LMN	537.36	11.62	7.30	18.92	
04/03/2007 17:30:00	LMN	537.53	11.55	7.31	18.85	
04/03/2007 17:35:00	LMN	537.55	11.51	21.40	32.91	
04/03/2007 17:40:00	LMN	537.59	11.29	26.06	37.35	Spill is restored to nearly 26.5 kcfs
04/03/2007 17:45:00	LMN	537.64	11.31	26.07	37.38	
04/03/2007 17:50:00	LMN	537.71	11.35	26.09	37.44	
04/03/2007 17:55:00	LMN	537.68	13.05	26.08	39.13	Generation flow begins to increase slightly
04/03/2007 18:00:00	LMN	537.67	14.68	26.08	40.76	

ATTACHMENT 4

Attachment 4

Ice Harbor Five-Minute GDACS data

Date and Time	Project Name	Forebay (feet)	Generation Flow (kcfs)	Spill Flow (kcfs)	Total Flow (kcfs)	
04/03/2007 12:00:00	IHR	437.34	9.36	45.35	54.70	
04/03/2007 12:05:00	IHR	437.39	9.84	45.39	55.23	
04/03/2007 12:10:00	IHR	437.33	10.11	45.34	55.45	
04/03/2007 12:15:00	IHR	437.32	10.50	45.34	55.84	
04/03/2007 12:20:00	IHR	437.30	10.44	45.34	55.78	
04/03/2007 12:25:00	IHR	437.32	10.36	45.35	55.71	
04/03/2007 12:30:00	IHR	437.23	10.36	45.30	55.66	
04/03/2007 12:35:00	IHR	437.25	10.43	31.57	42.00	Spill began to reduce
04/03/2007 12:40:00	IHR	437.38	10.35	24.77	35.12	
04/03/2007 12:45:00	IHR	437.34	10.36	24.95	35.31	
04/03/2007 12:50:00	IHR	437.27	10.27	24.93	35.20	
04/03/2007 12:55:00	IHR	437.25	10.30	24.92	35.22	
04/03/2007 13:00:00	IHR	437.29	10.29	24.93	35.22	
04/03/2007 13:05:00	IHR	437.25	10.30	24.92	35.22	
04/03/2007 13:10:00	IHR	437.13	9.37	24.88	34.25	Generation flow reduced somewhat
04/03/2007 13:15:00	IHR	437.19	9.30	24.90	34.20	
04/03/2007 13:20:00	IHR	437.26	9.29	24.92	34.20	
04/03/2007 13:25:00	IHR	437.14	9.27	24.89	34.16	
04/03/2007 13:30:00	IHR	437.03	9.21	24.86	34.07	
04/03/2007 13:35:00	IHR	437.05	9.34	17.58	26.91	Spill reduces more
04/03/2007 13:40:00	IHR	436.98	9.27	8.18	17.45	Pool elevation drops below normal minimum operating pool
04/03/2007 13:45:00	IHR	436.78	9.33	8.16	17.49	
04/03/2007 13:50:00	IHR	436.57	9.27	8.14	17.41	
04/03/2007 13:55:00	IHR	436.71	9.22	0.00	9.22	Spill goes to zero
04/03/2007 14:00:00	IHR	436.81	9.24	0.00	9.24	
04/03/2007 14:05:00	IHR	436.78	9.29	0.00	9.29	

04/03/2007 14:10:00	IHR	436.79	9.32	0.00	9.32	
04/03/2007 14:15:00	IHR	436.99	9.27	0.00	9.27	
04/03/2007 14:20:00	IHR	437.05	9.18	0.00	9.18	
04/03/2007 14:25:00	IHR	436.86	9.21	0.00	9.21	
04/03/2007 14:30:00	IHR	436.83	9.16	0.00	9.16	
04/03/2007 14:35:00	IHR	437.10	9.21	0.00	9.21	The reservoir returns to within its normal operating elevation
04/03/2007 14:40:00	IHR	437.26	9.23	0.00	9.23	
04/03/2007 14:45:00	IHR	437.21	9.25	0.00	9.25	
04/03/2007 14:50:00	IHR	437.20	9.18	0.00	9.18	
04/03/2007 14:55:00	IHR	437.28	9.20	0.00	9.20	
04/03/2007 15:00:00	IHR	437.35	9.19	0.00	9.19	
04/03/2007 15:05:00	IHR	437.20	9.23	0.00	9.23	
04/03/2007 15:10:00	IHR	437.25	9.18	0.00	9.18	
04/03/2007 15:15:00	IHR	437.44	9.19	0.00	9.19	
04/03/2007 15:20:00	IHR	437.49	9.17	0.00	9.17	
04/03/2007 15:25:00	IHR	437.35	9.17	0.00	9.17	
04/03/2007 15:30:00	IHR	437.29	9.13	0.00	9.13	
04/03/2007 15:35:00	IHR	437.33	9.14	0.00	9.14	
04/03/2007 15:40:00	IHR	437.29	9.14	0.00	9.14	
04/03/2007 15:45:00	IHR	437.07	9.16	0.00	9.16	
04/03/2007 15:50:00	IHR	437.05	9.13	0.00	9.13	
04/03/2007 15:55:00	IHR	437.16	9.16	0.00	9.16	
04/03/2007 16:00:00	IHR	437.00	9.16	8.19	17.35	Spill resumes through the RSW
04/03/2007 16:05:00	IHR	436.82	9.19	8.17	17.36	
04/03/2007 16:10:00	IHR	436.80	9.20	8.17	17.37	
04/03/2007 16:15:00	IHR	437.00	9.17	0.00	9.17	Spill is stopped again as the reservoir goes below its normal minimum operating level
04/03/2007 16:20:00	IHR	436.93	9.15	0.00	9.15	
04/03/2007 16:25:00	IHR	436.77	9.17	0.00	9.17	
04/03/2007 16:30:00	IHR	436.84	9.17	0.00	9.17	
04/03/2007 16:35:00	IHR	437.02	9.19	0.00	9.19	
04/03/2007	IHR	436.96	9.18	0.00	9.18	

16:40:00 04/03/2007						
16:45:00 04/03/2007	IHR	436.91	9.19	0.00	9.19	
16:50:00 04/03/2007	IHR	437.08	9.20	0.00	9.20	The reservoir returns to within its normal operating elevation
16:55:00 04/03/2007	IHR	437.32	9.21	0.00	9.21	
17:00:00 04/03/2007	IHR	437.31	9.15	0.00	9.15	
17:05:00 04/03/2007	IHR	437.16	9.17	0.00	9.17	
17:10:00 04/03/2007	IHR	437.32	9.16	0.00	9.16	
17:15:00 04/03/2007	IHR	437.42	9.24	0.00	9.24	
17:20:00 04/03/2007	IHR	437.41	9.22	0.00	9.22	
17:25:00 04/03/2007	IHR	437.38	9.20	0.00	9.20	
17:30:00 04/03/2007	IHR	437.54	9.21	0.00	9.21	
17:35:00 04/03/2007	IHR	437.60	9.19	0.00	9.19	
17:40:00 04/03/2007	IHR	437.46	9.20	8.23	17.42	Spill resumes
17:45:00 04/03/2007	IHR	437.34	9.17	8.22	17.39	
17:50:00 04/03/2007	IHR	437.60	9.20	8.24	17.44	
17:55:00 04/03/2007	IHR	437.70	9.19	8.25	17.44	
18:00:00 04/03/2007	IHR	437.52	9.18	8.23	17.42	
18:05:00 04/03/2007	IHR	437.43	9.19	8.23	17.42	
18:10:00 04/03/2007	IHR	437.47	9.18	8.23	17.41	
18:15:00 04/03/2007	IHR	437.42	9.19	8.23	17.42	
18:20:00 04/03/2007	IHR	437.20	9.16	8.21	17.36	
18:25:00 04/03/2007	IHR	437.16	9.16	8.20	17.36	
18:30:00 04/03/2007	IHR	437.28	9.16	8.21	17.37	
18:35:00 04/03/2007	IHR	437.32	9.17	8.22	17.38	
18:40:00 04/03/2007	IHR	437.10	9.16	8.20	17.35	
18:45:00 04/03/2007	IHR	437.05	9.16	8.19	17.35	
18:50:00 04/03/2007	IHR	437.20	9.18	8.21	17.38	
18:55:00 04/03/2007	IHR	437.44	9.21	8.23	17.44	
19:00:00 04/03/2007	IHR	437.51	9.14	8.23	17.37	
19:05:00 04/03/2007	IHR	437.60	9.20	8.24	17.44	
19:10:00 04/03/2007	IHR	437.70	9.19	16.10	25.29	Spill begins to increase somewhat
	IHR	437.70	9.26	18.19	27.45	

19:15:00 04/03/2007						
19:20:00 04/03/2007	IHR	437.64	9.28	18.18	27.46	
19:25:00 04/03/2007	IHR	437.70	9.25	18.19	27.44	
19:30:00 04/03/2007	IHR	437.87	9.27	18.23	27.49	
19:35:00 04/03/2007	IHR	437.97	9.18	25.76	34.94	Spill reaches about 28 kcfs
19:40:00 04/03/2007	IHR	437.94	9.18	28.24	37.42	
19:45:00 04/03/2007	IHR	437.89	9.17	28.23	37.40	
19:50:00 04/03/2007	IHR	437.93	9.20	28.24	37.45	
19:55:00 04/03/2007	IHR	437.90	9.42	28.23	37.65	
20:00:00 04/03/2007	IHR	437.91	9.30	28.23	37.53	
20:05:00 04/03/2007	IHR	437.95	9.33	28.24	37.57	
20:10:00 04/03/2007	IHR	438.04	9.21	28.27	37.47	
20:15:00 04/03/2007	IHR	437.97	9.27	28.25	37.52	
20:20:00 04/03/2007	IHR	437.87	9.33	32.84	42.17	Spill is near 38 kcfs
20:25:00 04/03/2007	IHR	437.84	9.34	38.23	47.57	
20:30:00 04/03/2007	IHR	437.84	9.46	38.23	47.69	
20:35:00 04/03/2007	IHR	437.87	9.53	38.25	47.79	
20:40:00 04/03/2007	IHR	437.78	9.53	38.22	47.75	
20:45:00 04/03/2007	IHR	437.77	9.61	38.22	47.83	
20:50:00 04/03/2007	IHR	437.68	9.58	38.18	47.76	
20:55:00 04/03/2007	IHR	437.73	9.55	38.20	47.75	
21:00:00 04/03/2007	IHR	437.68	9.60	38.18	47.78	
21:05:00 04/03/2007	IHR	437.68	9.59	38.18	47.77	
21:10:00 04/03/2007	IHR	437.61	9.50	38.16	47.65	
21:15:00 04/03/2007	IHR	437.76	9.45	38.21	47.66	
21:20:00 04/03/2007	IHR	437.74	9.43	38.20	47.63	
21:25:00 04/03/2007	IHR	437.78	9.64	38.22	47.86	
21:30:00 04/03/2007	IHR	437.85	9.64	38.24	47.88	
21:35:00 04/03/2007	IHR	438.00	9.61	38.29	47.90	
21:40:00 04/03/2007	IHR	438.09	9.56	38.89	48.45	Spill exceeds the target of 45 kcfs
21:45:00 04/03/2007	IHR	437.97	9.59	48.18	57.77	
	IHR	438.07	9.57	48.22	57.79	The pool goes somewhat above its

21:50:00						one foot operating range from elevation 437 to 438 feet
04/03/2007 21:55:00	IHR	438.18	9.60	48.27	57.87	
04/03/2007 22:00:00	IHR	438.26	9.54	48.28	57.82	
04/03/2007 22:05:00	IHR	438.16	9.44	51.31	60.75	
04/03/2007 22:10:00	IHR	438.19	9.61	53.38	63.00	
04/03/2007 22:15:00	IHR	438.20	9.61	53.39	63.00	
04/03/2007 22:20:00	IHR	438.17	9.55	53.37	62.92	
04/03/2007 22:25:00	IHR	437.98	9.63	53.26	62.89	
04/03/2007 22:30:00	IHR	437.92	9.65	53.24	62.88	
04/03/2007 22:35:00	IHR	437.92	9.57	53.23	62.80	
04/03/2007 22:40:00	IHR	437.80	9.57	53.17	62.75	
04/03/2007 22:45:00	IHR	437.54	9.71	47.97	57.68	
04/03/2007 22:50:00	IHR	437.55	9.73	43.05	52.79	
04/03/2007 22:55:00	IHR	437.66	9.61	43.11	52.72	
04/03/2007 23:00:00	IHR	437.52	9.58	43.06	52.64	