

MEMORANDUM

Sampling Dates: March 28, 2011
To: *Bear Creek Watershed Association*
From: Russell N. Clayshulte, Manager
Re: 2011 Bear Creek Reservoir Summary Data



Table 1 Reservoir Profile 3/28/2011

Date 3/28/2011							
Site	Time	SC	DO	Temp	pH		
TCIn; 16a	9:24	0.99	11.99	4.6	7.69		
BCIn; 15a	9:45	0.38	13.3	2.1	7.99		
LBCout; 45	10:10	0.579	9.12	6.4	7.86		
BCReservoir	Site 40 (CP)					Secchi m	T Depth m
1/2m	12:08	0.577	8.36	8.5	8.15	1.12	10.72
1m		0.578	8.29	8	8.08		
1 1/2m		0.577	9.29	7.4	8.01	Temp 1/2-2m	7.8
2m		0.577	9.42	7.3	8.05	Temp 1/2-10m	7.5
2 1/2m		0.578	9.46	7.3	8.06		
3m		0.578	9.59	7.3	8.01	DO 1/2-10m	9.60
3 1/2m		0.578	9.7	7.3	7.99	DO 1/2-2m	8.84
4m		0.578	9.9	7.3	8.03		
5m		0.578	10.03	7.3	8	pH 1/2-10m	8.02
6m		0.578	10.07	7.3	7.99	SC 1/2-10m	0.580
7m		0.578	10.10	7.3	7.96		
8m		0.578	10.17	7.3	7.99		
9m		0.58	10.17	7.3	8		
10m		0.585	10.15	7.3	8.01		
11m		0.608	9.3	7	7.93		

Notes MT, RNC 45 degrees, PC, 5 mph wind; gust 10 mph; open water
 fishing fair Trout

Table 2 Coyote Gulch Field Data 1/24/11

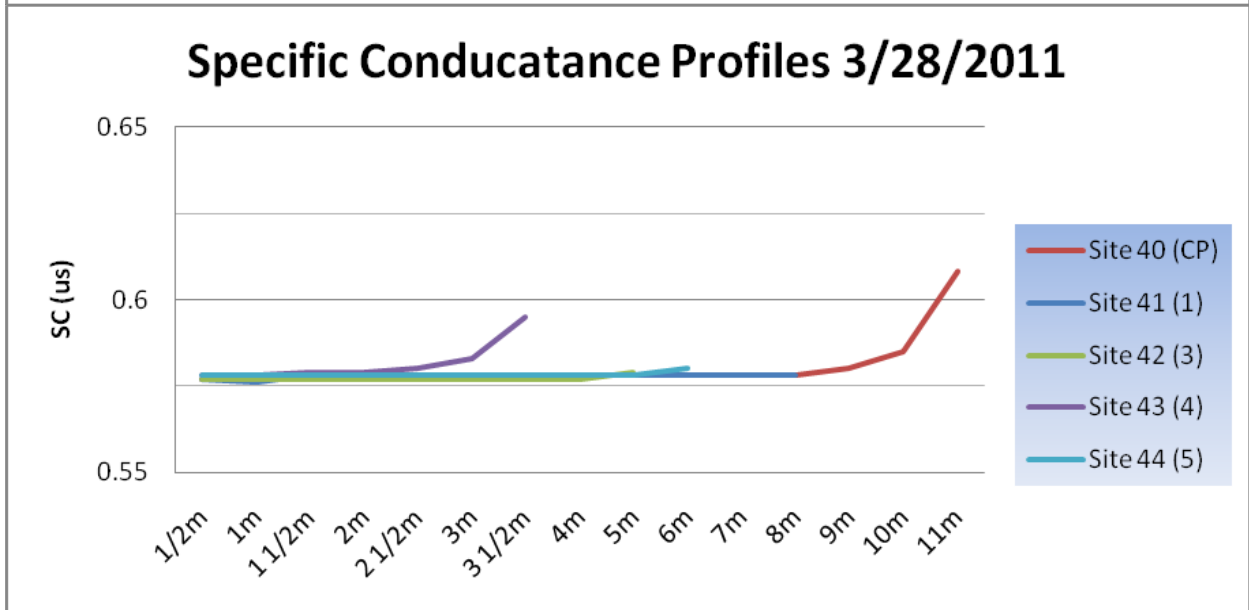
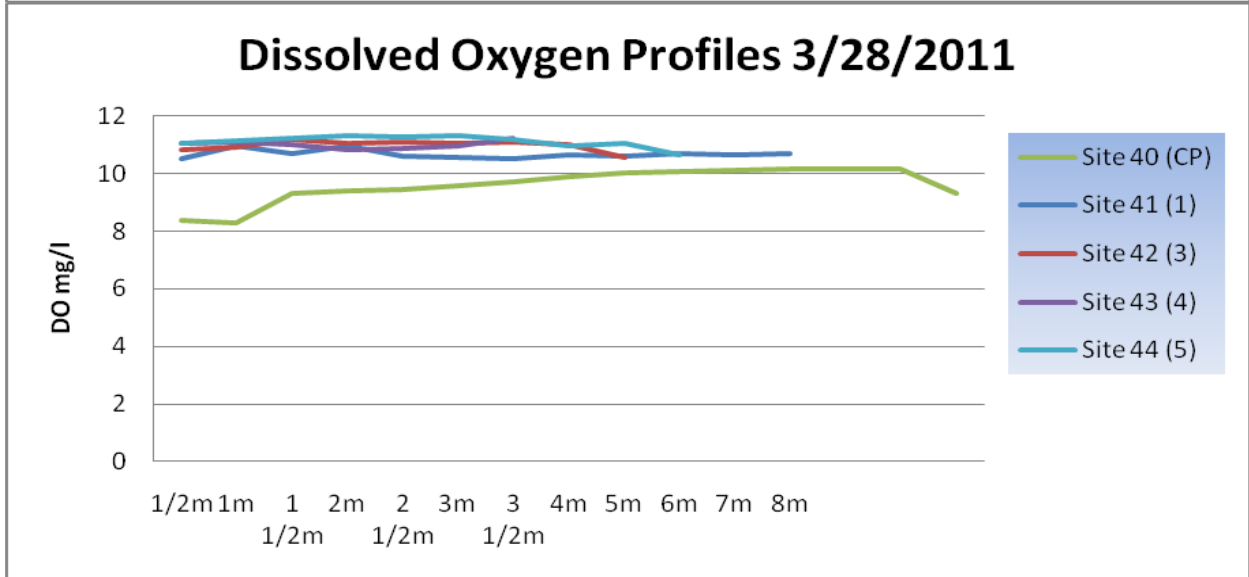
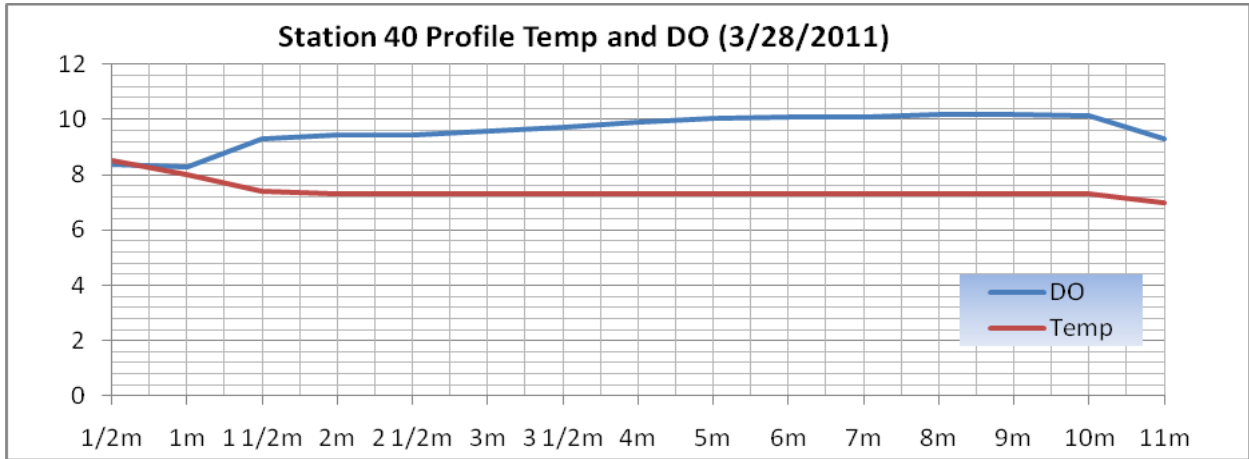
	Time	SC	DO	Temp	pH	Flow
Upper Coyote	10:29	1.43	12.93	0.5	8.2	0.29 cfs
Lower Coyote	10:40	1.41	13.5	2.3	8.31	0.32 cfs

Table 3 January Recreation Uses

Recreational Uses	1/24/2011
Archery	4
Walking/ Running	27
dog leash	5
dog no leash	8
Bicycle	31
Horseback Riding	1
Fishing	42

Table 4 Reservoir Profiles 3/28/2011

Reservoir Profiles		date: 3/28/2011					
Site 41 (1)	Time	SC	DO	Temp	pH	Secchi m	T Depth m
1/2m	12:25	0.577	10.5	8.3	8.26	1.2	7.95
1m		0.576	10.97	7.5	8.09		
1 1/2m		0.578	10.7	7.4	8.08		Temp 1/2-2m 7.7
2m		0.578	10.95	7.4	8.09		Temp 1/2-11m 7.4
2 1/2m		0.577	10.59	7.3	8.07		
3m		0.578	10.55	7.3	8.03		DO 1/2-11m 10.67
3 1/2m		0.578	10.5	7.2	8.02		DO 1/2-2m 10.78
4m		0.578	10.65	7.3	8		
5m		0.578	10.6	7.2	7.95		
6m		0.578	10.7	7.2	7.94		
7m		0.578	10.67	7.2	7.94		
8m		0.578	10.7	7.2	7.93		
Site 42 (3)	Time	SC	DO	Temp	pH	Secchi m	T Depth m
1/2m	12:38	0.577	10.82	8.4	7.94	1.22	5.15
1m		0.577	10.92	8	7.9		
1 1/2m		0.577	11.2	7.4	7.95		Temp 1/2-2m 7.8
2m		0.577	11.05	7.4	7.99		Temp 1/2-11m 7.5
2 1/2m		0.577	11.09	7.3	7.98		
3m		0.577	11.05	7.3	8.01		DO 1/2-11m 10.98
3 1/2m		0.577	11.1	7.3	7.94		DO 1/2-2m 11.00
4m		0.577	11.02	7.3	7.98		
5m		0.579	10.56	7.2	7.96		
Site 43 (4)	Time	SC	DO	Temp	pH	Secchi m	T Depth m
1/2m	12:48	0.578	11.06	8.3	8.1	1.18	3.38
1m		0.578	11.1	8.3	8.06		
1 1/2m		0.579	11.02	8.3	8.03		Temp 1/2-2m 8.3
2m		0.579	10.82	8.3	8.05		Temp 1/2-11m 8.2
2 1/2m		0.58	10.88	8.3	7.98		
3m		0.583	10.95	8.1	8.03		DO 1/2-11m 11.04
3 1/2m		0.595	11.21	7.7	7.98		DO 1/2-2m 11.06
4m							
5m							
Site 44 (5)	Time	SC	DO	Temp	pH	Secchi m	T Depth m
1/2m	12:55	0.578	11.03	8.0	8.07	1.22	5.85
1m		0.578	11.12	8.0	8.07		
1 1/2m		0.578	11.21	7.8	8.05		Temp 1/2-2m 7.9
2m		0.578	11.31	7.6	8.02		Temp 1/2-11m 7.5
2 1/2m		0.578	11.29	7.5	8.02		
3m		0.578	11.33	7.3	7.95		DO 1/2-11m 11.12
3 1/2m		0.578	11.18	7.2	7.98		DO 1/2-2m 11.17
4m		0.578	10.96	7.2	7.99		
5m		0.578	11.06	7.0	7.95		
6m		0.58	10.66	6.9	7.91		



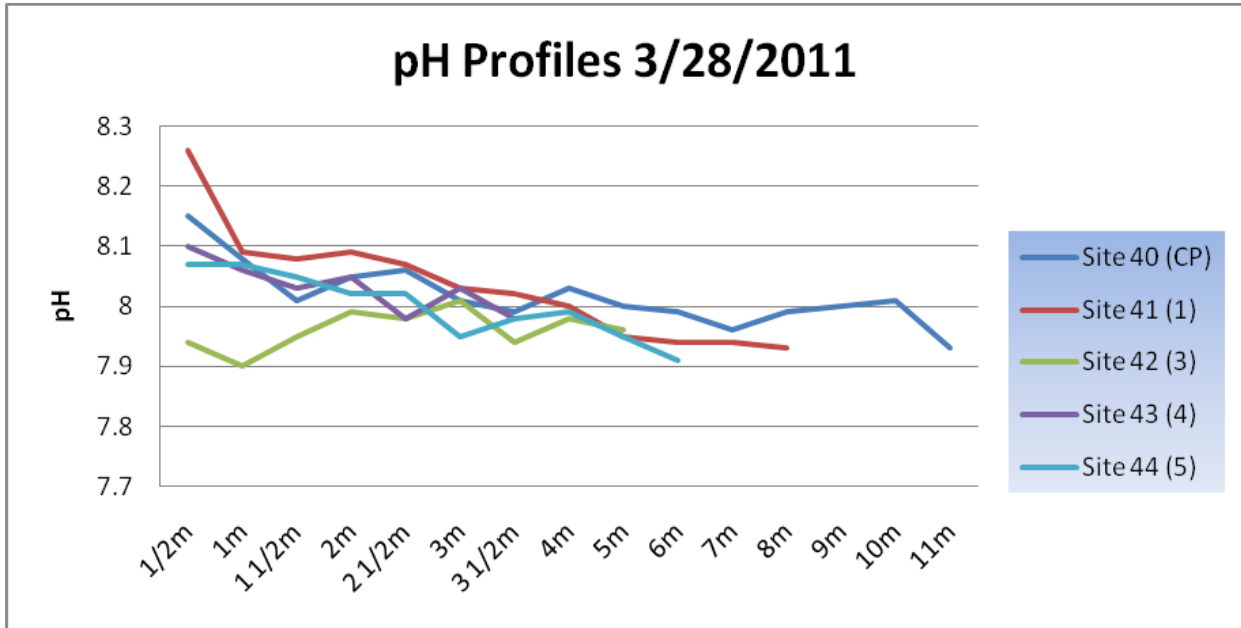
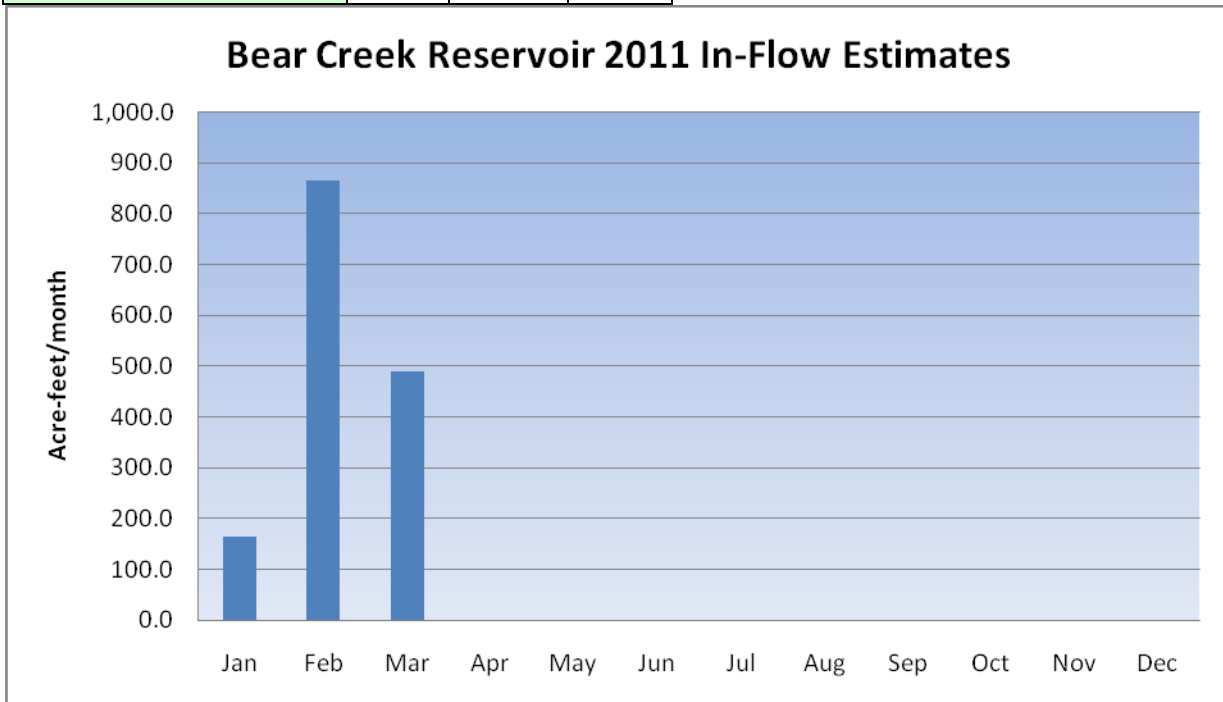


Table 5 2011 Flow Estimates

Average cfs	Jan	Feb	Mar
Turkey Creek Inflow	0.39	4.49	4.4
Bear Creek Inflow	2.3	10.56	3.57
Lower Bear Creek	0.5	9	15
Average acre-ft/day	Jan	Feb	Mar
Turkey Creek Inflow	0.8	8.9	8.7
Bear Creek Inflow	4.6	20.9	7.1
Lower Bear Creek	1.0	17.8	29.7



**Table 6 Laboratory Data 2011
 Bear Creek Laboratory Monitoring Data**

Site	Parameter (ug/l)	24-Jan	21-Feb	28 Mar
Bear Creek Inflow, Site 15a	Total Nitrogen	2,248	1373	
	Nitrate/Nitrite as N, dissolved	1,958	1160	
	Phosphorus, total	38	29	
	Total Dissolved Phosphorus	25	26	
	Residue, Non-Filterable (TSS)	10.4	6.8	
Turkey Creek Inflow, Site 16a	Total Nitrogen	747	935	
	Nitrate/Nitrite as N, dissolved	603	671	
	Phosphorus, total	2	23	
	Total Dissolved Phosphorus	2	10	
	Residue, Non-Filterable (TSS)	0	15	
Bear Creek Reservoir Top, Site 40a	Chlorophyll a	7	2.75	
	Nitrate/Nitrite as N, dissolved	454	213	
	Total Nitrogen			
	Phosphorus, total	23	16	
	Total Dissolved Phosphorus	8	7	
	Residue, Non-Filterable (TSS)	0.0	0.0	
Bear Creek Reservoir Bottom, Site 40c	Nitrate/Nitrite as N, dissolved	303	431	
	Total Nitrogen			
	Phosphorus, total	21	102	
	Total Dissolved Phosphorus	5	8	
	Residue, Non-Filterable (TSS)	0	33.8	
Lower Bear Creek Outflow, Site 45	Total Nitrogen	1012	776	
	Nitrate/Nitrite as N, dissolved	494	385	
	Phosphorus, total	32	24	
	Total Dissolved Phosphorus	15	8	
	Residue, Non-Filterable (TSS)	4.4	9.2	