

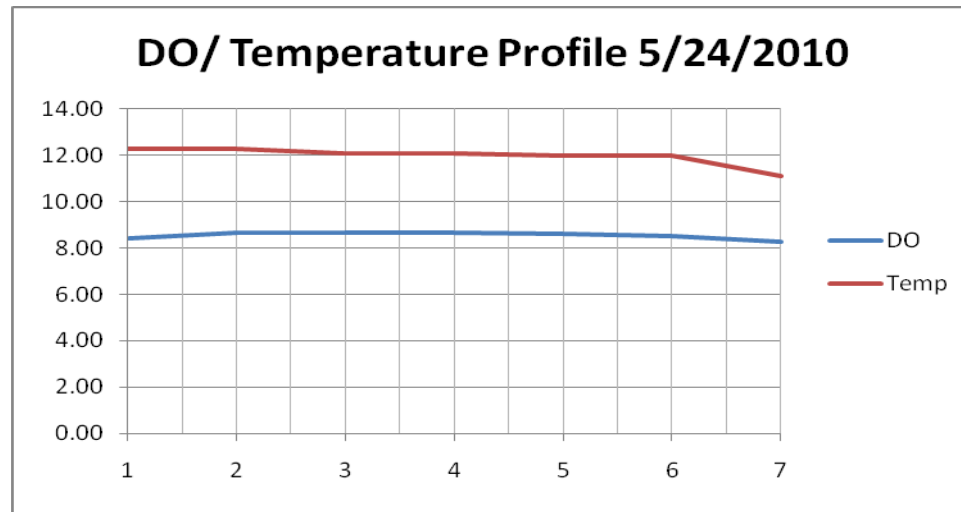
MEMORANDUM

Sampling Date: April 26, 2010  
 To: *Bear Creek Watershed Association*  
 From: Russell N. Clayshulte, Manager  
 Re: 2010 Bear Creek Reservoir Summary Data



**Table 1 Reservoir Profile 4/26/2010**

Site	Time	SC	DO	Temp	pH	Rel NO3		
TCIn; 16a	10:00	0.34	9.71	9.40	8.00	0.80		
BCIn; 15a	10:20	0.17	9.16	10.60	7.89	0.68		
LBCOut; 45	10:45	0.29	8.59	13.70	8.18	0.96		
<b>BCReservoir</b>	<b>40a/40c</b>					<b>Rel NO3</b>	<b>Secchi m</b>	<b>T Depth m</b>
1m	11:52	0.282	8.40	12.30	8.58	2.28	1.2	7
2m		0.277	8.64	12.30	8.34	1.83		
3m		0.278	8.67	12.10	8.21	1.85		
4m		0.277	8.67	12.10	8.00	1.33		
5m		0.277	8.59	12.00	7.99	1.2		
6m		0.278	8.51	12.00	7.96	1.12		
7m		0.278	8.29	11.10	7.88	1.01		



**Figure 1 DO and Temperature Profile for 5/24/2010**

**Table 2 Coyote Gulch Field Data 5/24/10**

	Time	SC	DO	Temp	pH	Flow	
Upper Coyote	11:00	1.31	9.53	11.8	8.19	0.85	0.8 cfs
Lower Coyote	11:10	1.27	9.19	14.1	8.53	0.88	0.8 cfs

**Table 3 Bear Creek Laboratory Monitoring Data**

Site	Parameter (ug/l)	1/25/10	2/22/10	3/29/10	4/26/10
Bear Creek Inflow, Site 15a	Nitrate/Nitrite as N, dissolved	1,453	1467	1084	554
	Phosphorus, total	45	41	32	39
	Total Dissolved Phosphorus	41	29	9	11
	Residue, Non-Filterable (TSS)	5.2		9.8	58.4
Turkey Creek Inflow, Site 16a	Nitrate/Nitrite as N, dissolved	695	789	784	465
	Phosphorus, total	11	16	46	81
	Total Dissolved Phosphorus	5	2	5	19
	Residue, Non-Filterable (TSS)	5.6	17.2	29.8	58.6
Bear Creek Reservoir Top, Site 40a	Chlorophyll a	2.1	14	1.8	0.9
	Nitrate/Nitrite as N, dissolved	791	1019	593	456
	Total Nitrogen				
	Phosphorus, total	15	26	16	39
	Total Dissolved Phosphorus	16	12	8	15
	Residue, Non-Filterable (TSS)			5.4	14.2
Bear Creek Reservoir Bottom, Site 40c	Nitrate/Nitrite as N, dissolved	393	547	348	487
	Total Nitrogen				
	Phosphorus, total	15	13	15	38
	Total Dissolved Phosphorus	8	9	6	14
	Residue, Non-Filterable (TSS)	13.3		4.6	17.8
Lower Bear Creek Outflow, Site 45	Nitrate/Nitrite as N, dissolved	693	973	579	464
	Phosphorus, total	17	28	16	39
	Total Dissolved Phosphorus	11	14	6	13
	Residue, Non-Filterable (TSS)				17.2

**Table 4 2010 Flows, cfs**

SITE	25- Jan	22- Feb	29 Mar	26 Apr	24 May
Turkey Creek Inflow	3.2	1.8	13.5	164	46
Bear Creek Inflow	8.7	5.3	35.3	263	140
Lower Bear Creek	7.8	7.9	58.7	150	148

**Table 5 Kerr/Swede Gulch Sampling on 5/25/10 (See below for new site Descriptions)**

BCWA Site	Time	Temp	pH	SC	DO	Rel NO3	E. Coli #/100ml
52	12:46	12.5	8.35	0.82	8.57	1.31	10
53	13:01	14.6	8.31	0.82	8.12	2.01	6
54	13:15	14.9	8.24	0.80	7.74	.96	5
55	13:10	15.2	8.09	0.88	7.64	.94	12

BCWA Site 52 - Kerr Gulch E-Coli Sample Point #1 from confluence to Bear Creek. Sample point is at a point directly below the home located at 25409 State Highway 74. Sample can be anywhere between the home and the Highway bridge. Approximately 100 feet above the confluence to Bear Creek.

Latitude: 39°39'34.10"N  
Longitude: 105°17'13.26"W  
Elevation: 6775

BCWA Site 53 - Kerr Gulch E-Coli Sample point #2 from the confluence to Bear Creek. Sample Point is across the road from the David Riefenberg home at 2830 Jefferson County Road 23. Sample is taken from creek at a point just upstream of the stable building. Approximately 4000 feet upstream of the confluence to Bear Creek.

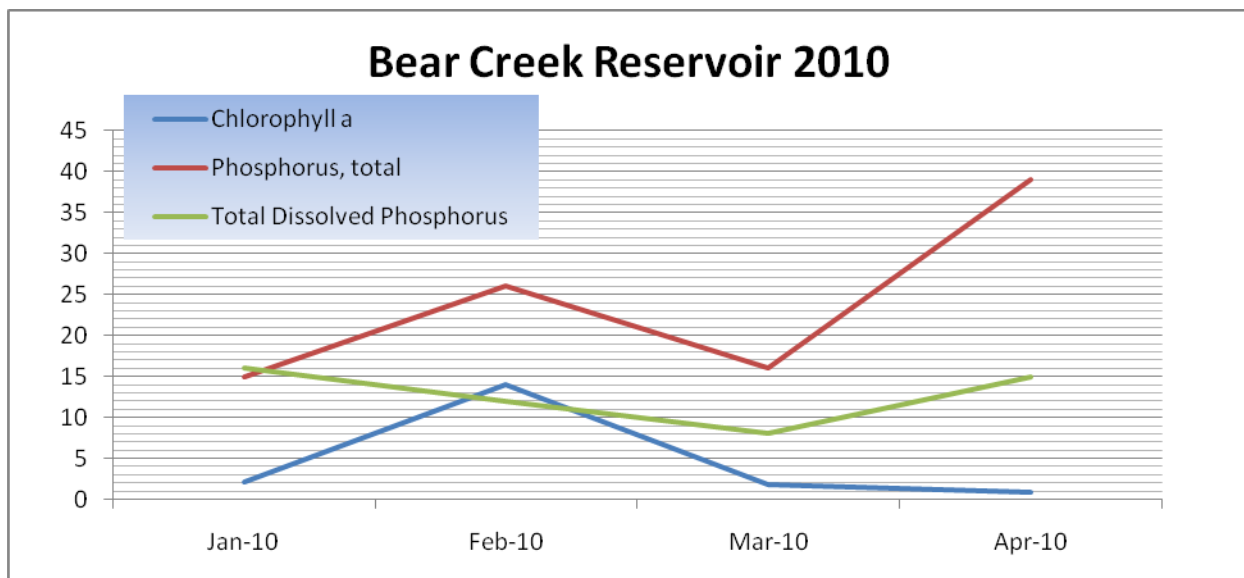
Latitude: 39°39'52.81"N  
Longitude: 105°17'51.38"W  
Elevation: 6900

BCWA Site 54 - Kerr Gulch E-Coli Sample Point #3 from the confluence to Bear Creek. The sample point is approximately 100 feet above the confluence to Swede Gulch at an open pipe in the stream channel. Approximately 7600 feet upstream from the confluence to Bear Creek. And approximately 100 feet above the confluence of Swede Gulch.

Latitude: 39°40'17.73"N  
Longitude: 105°18'18.47"W  
Elevation: 7020

BCWA Site 54 - Swede Gulch E-Coli Sample Point is located on the north side of the road at a drainage culvert prior to crossing the road. Approximately 385 feet above the confluence to Kerr Gulch.

Latitude: 39°40'20.12"N  
Longitude: 105°18'16.20"W  
Elevation: 7026



**Figure 2 Bear Creek Reservoir Trends**



**Figure 3 Outflow from Kerr/Swede Gulches (Site**



**Figure 4 Swede Gulch**