



**BEAR VALLEY  
WATER DISTRICT**  
P.O. Box 5027  
Bear Valley, CA 95223  
(209) 753-2112

**BOARD OF DIRECTORS:**  
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**28 February 2011**

**Mary Boyd**  
CVRWQCB  
11020 Sun Center Drive #200  
Rancho Cordova, CA 95670-6114

Subject: Order 5-01-208, Discharge Monitoring Report (DMR), January 2011

Dear Ms. Boyd:

**Monthly Report, Waste Discharge Requirements, Order 5-01-208**

Enclosed please find tabular summaries of monitoring data from the Bear Valley Wastewater Treatment Facility for the month of January 2011. No effluent was discharged to Bloods Creek during this reporting period. In addition to the standard data tables, we enclose an updated summary of influent metals data and results from the latest Polishing Reservoir sampling.

For your convenience, we discuss each of the attachment pages separately.

**Page 3**

The daily and total influent and Bloods Creek discharge flow totals and routine influent monitoring results from the influent composite sampler are presented, as well as routine Treatment Pond monitoring results. We have added columns to report routine monitoring of Bloods Creek for pH and dissolved oxygen, although our NPDES permit only requires such testing during periods when discharge actually occurs. The presence of snow and ice prevented access for monitoring the Treatment Pond surface so beginning in December we began using the submerged outlet for the weekly DO and pH testing as we did last year.

Beginning last month we included columns to report daily precipitation and daily snow water content. This month we have added columns to report influent pounds per day for BOD and TSS.

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4.529 MG of Treatment Pond effluent was transferred to the Polishing Reservoir during January. Total volume transferred this season totals 12.649 MG. That volume represents 11.93% of total reservoir volume. As of 31 January, based on reservoir elevation however, our capacity chart showed that there was about 42 MG in the reservoir, which would constitute 39.6% of reservoir volume. As mentioned last month, and in the Annual Report, we are going to verify reservoir dimensions after irrigation season when it is empty.

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Bear Valley Water District  
DMR January 2011  
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**Page 5**

Page 5 presents results from quarterly influent samples for metals.

**Page 6**

Samples were collected from the Polishing Reservoir sample tap on 19 January and analyzed for Aluminum, Boron, Total and Dissolved Copper, Iron, and Manganese, Sodium, Chloride, BOD, TSS, TKN, NO<sub>3</sub>-N, NH<sub>3</sub>-N, Specific Conductance, Total and Fecal Coliform, Turbidity, and TDS. Page 6 presents a summary of this data.

**Page 7**

Page 7 is provided pursuant correspondence received 18 February 2011 from RWQCB NPDES compliance staff. We have reviewed the record of influent data and calculated lbs/day values for influent BOD and TSS as requested. In the course of doing so, we found and corrected some data entry errors for December 2009 and November 2010. Please accept this page as transmitting the correct data for those two reporting periods.

Please do not hesitate to contact me at (209) 753-2112 if there are any questions.

**I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.**

Respectfully,



Julio S. Guerra  
General Manager

cc: Board of Directors  
Gary Ghio, District Engineer

**BEAR VALLEY WASTE WATER TREATMENT FACILITY**

Monitoring and Reporting Program No. 5-01-208 & R5-2005-0139  
Alpine County

Month: **January**  
Year: **2011**

INFLUENT MONITORING										NPDES BLOODS CREEK			TREATMENT POND		
Day	Daily Flow (MGD)	BOD <sub>5</sub> (mg/L)	pH (SU)	Electrical Conductivity (umhos/cm)	Total Suspended Solids (mg/L)	BOD <sub>5</sub> (lbs/day)	Total Suspended Solids (lbs/day)	Daily Precipitation (Inches)	Snow Water Content (Inches)	Discharge to Bloods Creek (MGD)	Dissolved Oxygen (mg/L)	pH (SU)	Dissolved Oxygen (mg/L)	pH (SU)	Freeboard (0.1 ft)
1	0.148		8.6					1.05	24.11	0.000					
2	0.090		8.7					0.23	24.95	0.000					
3	0.064		8.6					0.00	25.79	0.000					
4	0.055	670	8.7	477	683	307	313	0.01	25.91	0.000					
5	0.053		7.7					1.18	25.91	0.000			2.6	7.0	2.2
6	0.058		7.2					0.00	25.91	0.000	10.6	6.1			
7	0.062		7.4					0.00	26.03	0.000		6.3			
8	0.076		7.6					0.00	26.03	0.000		6.1			
9	0.058		7.9					0.00	26.03	0.000		6.2			
10	0.053		7.8					0.02	26.03	0.000					
11	0.049	350	7.8		222	143	91	0.35	26.03	0.000					
12	0.039		7.3					0.00	26.03	0.000					2.3
13	0.042		7.2					0.17	26.15	0.000		6.8	5.6	6.7	
14	0.057		7.2					0.00	25.91	0.000		6.2			
15	0.105		7.4					0.00	25.91	0.000		6.3			
16	0.138		7.9					0.00	26.03	0.000		6.2			
17	0.094		7.6					0.00	25.91	0.000		6.5			
18	0.066	30	7.3		62	17	34	0.00	25.91	0.000					
19	0.058		6.6					0.00	25.91	0.000					2.5
20	0.061		7.3					0.00	25.91	0.000	10.1	7.0	5.0	7.3	
21	0.071		7.7					0.00	26.03	0.000	10.4	7.1			
22	0.115		7.6					0.00	26.03	0.000	10.4	7.2			
23	0.085		7.5					0.00	26.15	0.000	10.9	7.3			
24	0.065		7.6					0.00	26.15	0.000	7.5	7.2			
25	0.061	495	6.8		474	252	241	0.00	26.15	0.000	10.3	7.0			
26	0.067		7.2					0.00	26.15	0.000			6.0	7.4	2.8
27	0.066		7.7					0.00	26.15	0.000					
28	0.071		7.3					0.00	26.15	0.000					
29	0.083		7.8					0.00	26.15	0.000			6.9	6.3	
30	0.078		8.1					0.94	26.15	0.000					
31	0.052		7.8					0.00	26.39	0.000					
Total	2.239							3.95		0.000					
Max	0.148	670	8.7	477	683	307	313	1.18	26.39	0.000	10.9	7.33	6.9	7.4	2.8
Min	0.039	30	6.6	477	62	17	34	0.00	24.11	0.000	7.5	6.11	2.6	6.3	2.2
Avg	0.072	386	7.6	477	360	180	170	0.13	25.94	0.000	10.0	6.66	5.2	7.0	2.4

## BEAR VALLEY WASTEWATER TREATMENT FACILITY

Monitoring and Reporting Program No. 5-01-208 & R5-2005-0139

Alpine County

Month: **January**

Year: **2011**

Treatment Pond Effluent Monitoring												Polishing Reservoir										
Day	Flow (MGD)	BOD (mg/L)	Settleable Solids (ml/L/hr)	TSS (mg/L)	Total Coliform Organisms (MPN/100 ml)	Total Kjeldahl Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Nitrate-Nitrogen (mg/L)	TDS (mg/L)	Total Chlorine Residual (mg/L)	Contact Time (mg/minutes)	Dissolved Oxygen (mg/L)	pH (SU)	BOD (mg/L)	TSS (mg/L)	Ammonia-Nitrogen (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Nitrate-Nitrogen (mg/L)	Total Nitrogen (mg/L)	Total Dissolved Solids (mg/L)	Freeboard (Feet) Total Depth: 23.5 ft	
1	0.255									5.1	342											
2	0.233									5.2	382											
3	0.232									3.4	254											
4	0.174			<5.0	2	18.5	16	0.33	151	4.1	403											
5	0.174	18								7.9	782	1.7	5.89									17.5
6	0.181									7.9	755											
7	0.184									7.7	725											
8	0.140									8.4	1038											
9	0.175									8.4	828											
10	0.170									8.4	854											
11	0.000																					
12	0.188									8.3	759											16.8
13	0.186		<0.5							7.6	707	5.2	6.69									
14	0.186									7.3	680											
15	0.184									5.8	543											
16	0.000																					
17	0.000																					
18	0.000																					
19	0.170	9.1		5	<2					5.6	564			2.2	<5.0	9	9.5	0.55	10.05	111		16.5
20	0.149									6.4	738	2.7	7.2									
21	0.155									6.3	698											
22	0.144									6.1	736											
23	0.140									6.1	753											
24	0.142									5.8	710											
25	0.146									5.8	687											
26	0.139		<0.5							5.2	646	2.7	7.0									16.0
27	0.138									2.0	250											
28	0.119									1.6	230											
29	0.148									4.5	521											
30	0.138									6.1	767											
31	0.143									5.5	663											
<b>Total</b>	<b>4.529</b>																					
<b>Max</b>	<b>0.255</b>	<b>18.0</b>	<b>&lt;0.5</b>	<b>5.0</b>	<b>2</b>	<b>18.5</b>	<b>16.0</b>	<b>0.330</b>	<b>151</b>	<b>8.4</b>	<b>1038</b>	<b>5.2</b>	<b>7.2</b>	<b>2.2</b>	<b>&lt;5.0</b>	<b>9.0</b>	<b>9.5</b>	<b>0.55</b>	<b>10.1</b>	<b>111</b>		<b>17.5</b>
<b>Min</b>	<b>0.000</b>	<b>9.1</b>	<b>&lt;0.5</b>	<b>&lt;5.0</b>	<b>&lt;2</b>	<b>18.5</b>	<b>16.0</b>	<b>0.330</b>	<b>151</b>	<b>1.6</b>	<b>230</b>	<b>1.7</b>	<b>5.9</b>	<b>2.2</b>	<b>&lt;5.0</b>	<b>9.0</b>	<b>9.5</b>	<b>0.55</b>	<b>10.1</b>	<b>111</b>		<b>16</b>
<b>Avg</b>	<b>0.146</b>	<b>13.6</b>	<b>&lt;0.5</b>	<b>5.0</b>	<b>2</b>	<b>18.5</b>	<b>16.0</b>	<b>0.330</b>	<b>151</b>	<b>6.0</b>	<b>630</b>	<b>3.0</b>	<b>6.7</b>	<b>2.2</b>	<b>&lt;5.0</b>	<b>9.0</b>	<b>9.5</b>	<b>0.55</b>	<b>10.1</b>	<b>111</b>		<b>16.7</b>

**BEAR VALLEY WATER DISTRICT  
INFLUENT METALS and NITROGEN  
2009-2011**

<b>Parameter</b>	<b>1/7/09</b>	<b>2/4/09</b>	<b>3/4/09</b>	<b>9/30/09</b>	<b>12/22/09</b>	<b>2/15/10</b>	<b>4/1/10</b>	<b>5/4/10</b>	<b>6/2/10</b>	<b>7/7/10</b>	<b>8/3/10</b>	<b>11/2/10</b>
Aluminum (mg/L)	NA	NA	NA	0.62	0.519	0.28	0.22	0.12	0.095	0.77	2.6	0.6
Copper (mg/L)	0.03	0.019	0.017	0.059	0.055	0.038	0.026	0.0076	0.010	0.038	0.099	0.016
Copper, Dissolved (mg/L)	0.02	0.01	0.0056	NA	0.015	0.021	0.0073	0.0046	0.003	0.021	0.017	0.0081
Fluoride mg/L	NA	NA	NA	<0.10	2.5*	<0.10	<0.10	<0.10	0.1	<0.10	0.17	<0.10
Hardness as CaCO3 (mg/L)	45	51	39	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hardness, Dissolved (mg/L)	45	64	32	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron (mg/L)	0.385	0.307	0.535	0.634	0.843	0.367	0.438	0.07	0.25	1.3	3.0	0.2
Iron, Dissolved (mg/L)	0.173	0.142	0.091	NA	0.098	0.130	0.073	<0.05	<0.05	0.210	0.260	0.068
Manganese (mg/L)	0.033	0.025	0.02	0.047	0.049	0.038	0.029	0.02	0.02	0.054	0.088	0.029
Manganese, Dissolved (mg/L)	0.017	0.019	0.012	NA	0.01	0.015	0.013	<0.005	<0.02	0.031	0.026	0.022
Nitrate+Nitrite (N)	NA	NA	NA	NA	NA	NA	0.37	NA	NA	NA	NA	NA
Ammonia (N)	NA	NA	NA	NA	NA	NA	14	NA	NA	NA	NA	NA
TKN	NA	NA	NA	NA	NA	NA	23	NA	NA	NA	NA	NA

NA: Not Analyzed

\* Matrix Interference

<b>Parameter</b>	<b>1/25/11</b>	<b>Average</b>
Aluminum (mg/L)	0.98	0.680
Copper (mg/L)	0.057	0.036
Copper, Dissolved (mg/L)	NA	0.012
Fluoride mg/L	<0.5	<0.137
Hardness as CaCO3 (mg/L)	NA	45
Hardness, Dissolved (mg/L)	NA	47
Iron (mg/L)	2.2	0.810
Iron, Dissolved (mg/L)	NA	0.122
Lead (mg/L)	0.0092	0.0092
Manganese (mg/L)	0.11	0.043
Manganese, Dissolved (mg/L)	NA	0.018
Nitrate+Nitrite (N)	NA	0.370
Ammonia (N)	NA	14.0
TKN	NA	23.0

# BEAR VALLEY WATER DISTRICT POLISHING RESERVOIR DATA FROM OUTFALL TAP/IRRIGATION PUMP 2011

	<b>RESERVOIR OUTFALL SAMPLE TAP GRAB</b>
<b>Parameter</b>	<b>1/19/11</b>
Aluminum (mg/L)	0.1
Aluminum, Dissolved (mg/L)	-
Aluminum, Acid Soluble (mg/L)	-
Boron (mg/L)	<0.10
Copper by ICP (mg/L)	-
Copper by ICP/MS (mg/L)	<0.005
Copper, Dissolved (mg/L)	-
Copper, Dissolved by ICP/MS (mg/L)	<0.005
Copper, Acid Soluble by Icp/MS (mg/L)	-
Iron (mg/L)	1.0
Iron, Dissolved (mg/L)	0.52
Iron, Acid Soluble, (mg/L)	-
Manganese (mg/L)	0.21
Manganese, Dissolved (mg/L)	0.2
Manganese, Acid Soluble (mg/L)	-
BOD (mg/L)	2.2
CBOD (mg/L)	-
TSS (mg/L)	<5.0
Na (mg/L)	15
Cl (mg/L)	17
Fl (mg/L)	<0.10
TKN (mg/L)	9.5
NO3-N (mg/L)	0.55
NH3-N (mg/L)	9
TDS (mg/L)	111
EC (umho/CM)	219
TC-15 (MPN/100 ml)	2
FC-15 (MPN/100 ml)	<2
Hardness (mg/L)	47
Alkalinity, Total (mg/L)	-
Turbidity (NTU)	5.5
pH (SU)	-

**BEAR VALLEY WASTE WATER TREATMENT FACILITY**

Monitoring and Reporting Program No. 5-01-208 & R5-2005-0139  
Alpine County

INFLUENT MONITORING					
Day	Daily Flow (MGD)	BOD <sub>5</sub> (mg/L)	BOD <sub>5</sub> (lbs/day)	Total Suspended Solids (mg/L)	Total Suspended Solids (lbs/day)
6/3/09	0.071	35	21	25	15
7/1/09	0.040	130	44	49	16
8/5/09	0.051	147	62	55	23
9/5/09	0.067	107	60	26	15
9/30/09	0.011	240	23	184	17
10/6/09	0.029	316	78	422	104
10/13/09	0.049	168	68	179	72
10/20/09	0.016	184	25	130	18
10/27/09	0.014	550	63	733	84
11/3/09	0.014	518	59	637	72
11/9/09	0.013	840	93	1190	132
11/17/09	0.014	223	26	350	42
11/24/09	0.021	76	13	111	19
12/1/09	0.015	530	65	763	94
12/8/09	0.023	780	151	818	158
12/15/09	0.021	260	46	280	50
12/22/09	0.040	353	118	395	132
12/29/09	0.090	1050	792	1230	928
1/5/10	0.030	915	231	1110	281
1/12/10	0.026	264	57	256	56
1/19/10	0.028	162	38	157	37
1/26/10	0.034	271	77	203	58
2/2/10	0.024	232	46	206	40
2/9/10	0.026	270	59	173	38
2/15/10	0.090	286	215	179	134
2/23/10	0.036	242	73	185	56
3/2/10	0.028	391	92	374	88
3/9/10	0.030	263	67	254	64
3/15/10	0.041	260	89	200	68
3/23/10	0.069	108	62	42	24
4/1/10	0.088	197	144	165	121
4/7/10	0.088	154	113	122	90
4/13/10	0.082	60	41	52	36
4/20/10	0.192	41	66	39	62
4/28/10	0.132	18	20	8.6	9
5/4/10	0.143	25	30	5	6
5/11/10	0.178	24	36	30	45
5/19/10	0.223	210	391	191	355
5/25/10	0.117	33	32	17	17
6/1/10	0.217	15	27	31	56
6/8/10	0.198	23	38	55	91
6/15/10	0.128	40	43	114	122
6/22/10	0.103	61	52	144	124
6/29/10	0.102	120	102	176	150
7/6/10	0.109	160	145	172	156
7/13/10	0.053	246	109	292	129
7/20/10	0.046	328	126	357	137
7/27/10	0.048	520	208	588	235
8/3/10	0.059	334	164	316	155
8/10/10	0.058	560	271	733	355
8/17/10	0.033	300	83	247	68
8/24/10	0.042	188	66	180	63
8/31/10	0.026	129	28	116	25
9/7/10	0.024	227	45	220	44
9/14/10	0.023	241	46	407	78
9/21/10	0.028	447	104	809	189
9/28/10	0.016	421	56	400	53
10/5/10	0.017	366	52	382	54
10/12/10	0.018	236	35	800	120
10/19/10	0.019	301	48	397	63
10/26/10	0.037	51	16	35	11
11/2/10	0.018	81	12	55	8
11/9/10	0.025	202	42	250	52
11/16/10	0.031	48	12	24	6
11/23/10	0.025	98	20	100	21
11/30/10	0.024	52	10	44	9
12/7/10	0.030	60	15	40	10
12/14/10	0.055	78	36	77	35
12/21/10	0.092	145	111	122	94
12/28/10	0.148	1460*	#VALUE!	1560*	#VALUE!

\* Autosampler  
Malfunction 12/28/10