

Report on Arsenic Compliance Actions

October 9, 2019

Submitted by John Rowden, Interim General Manager

Arsenic Compliance Level.

The most recent reported sample results from the Compliance point were taken on September 5, 2019 and showed the arsenic level at 13 ppb. The 3rd Quarter 2019 average was 13 ppb. The Running Annual Average (RAA) is 9 ppb. There were also two non-reportable samples taken. One taken on September 17, 2019 had a level of 13 ppb; the other, taken on September 24, had a level of 9 ppb.

The September 5 result from Well 1B was 9 ppb. The two non-reportable results were 8. The 3rd Quarter 2019 average was 9 ppb., the RAA is 7 ppb.

The September 5 result from Well 2 was 18 ppb. The two non-reportable results were 16 and 19. The 3rd Quarter 2019 average was 18 ppb; the RAA is 13 ppb.

The Board will be updated if the October sampling results are available at the time of the Board meeting.

Remediation Project Development

Water System Operations Plan.

The staff continues to work with the SWRCB on refining the plan. The State has required the District to submit monthly reports that reflect a daily calculation of arsenic levels using values from each well from the previous month. The report includes the EPA blending calculation to determine an estimated daily level.

The estimated blended concentration is calculated based on concentration (C) and flow (Q) from each well with the following equation:

$$C_{Blended} = \frac{C_{W1B} \times Q_{W1B} + C_{W2} \times Q_{W2}}{Q_{TOTAL}}$$

The August 2019 report is attached.

ENTER MONTH: August 2019									
Plumas Eureka CSD #3210011, Well Flow Report									
Date	Well 1B (gpd)	Well 2 (gpd)	Total (gpd)	Estimated Daily Blended Arsenic Concentration (ug/L)	Percentage of Flow from Well 2	Est. Blended Arsenic Conc. based on Cumulative Pumping in the Month (ug/L)	Percentage of Cumulative Flow from Well 2	Notes and Observations	
Previous or current month Arsenic Conc. (ug/L)									
8/6/19	8	18	13	<i><-- Point of Compliance Arsenic Concentration</i>					
1	169,700	303,200	472,900	14.4	64%	14.4	64%		
2	163,700	256,200	419,900	14.1	61%	14.3	63%		
3	128,200	382,600	510,800	15.5	75%	14.7	67%		
4	167,600	276,100	443,700	14.2	62%	14.6	66%		
5	167,100	257,700	424,800	14.1	61%	14.5	65%		
6	182,200	304,900	487,100	14.3	63%	14.5	65%		
7	161,400	265,400	426,800	14.2	62%	14.4	64%		
8	157,300	260,600	417,900	14.2	62%	14.4	64%		
9	177,600	291,400	469,000	14.2	62%	14.4	64%		
10	150,300	259,300	409,600	14.3	63%	14.4	64%		
11	186,800	304,200	491,000	14.2	62%	14.4	64%		
12	129,200	198,800	328,000	14.1	61%	14.3	63%		
13	166,600	292,500	459,100	14.4	64%	14.3	63%		
14	175,400	293,900	469,300	14.3	63%	14.3	63%		
15	154,400	244,100	398,500	14.1	61%	14.3	63%		
16	180,200	315,900	496,100	14.4	64%	14.3	63%		
17	87,800	348,100	435,900	16.0	80%	14.4	64%		
18	172,900	312,400	485,300	14.4	64%	14.4	64%		
19	135,300	249,000	384,300	14.5	65%	14.4	64%		
20	155,000	290,100	445,100	14.5	65%	14.4	64%		
21	165,400	316,500	481,900	14.6	66%	14.4	64%		
22	151,200	282,000	433,200	14.5	65%	14.4	64%		
23	136,800	259,000	395,800	14.5	65%	14.4	64%		
24	169,700	326,300	496,000	14.6	66%	14.5	65%		
25	151,200	283,900	435,100	14.5	65%	14.5	65%		
26	157,200	280,400	437,600	14.4	64%	14.5	65%		
27	140,600	273,800	414,400	14.6	66%	14.5	65%		
28	147,200	267,200	414,400	14.4	64%	14.5	65%		
29	154,200	287,800	442,000	14.5	65%	14.5	65%		
30	152,500	281,100	433,600	14.5	65%	14.5	65%		
31	102,100	226,000	328,100	14.9	69%	14.5	65%		
Total	4,796,800	8,790,400	13,587,200	14.5	65%				
Avg	154,735	283,561	438,297	14.5	65%	14.4	64%		
Max	186,800	382,600	510,800	16.0	80%	14.7	67%		
Min	87,800	198,800	328,000	14.1	61%	14.3	63%		
	35%	65%	<i><--Percentage of Total Flow</i>						

The State is also encouraging the District to use Well 1B to produce 9 million gallons per month during the high demand season. In June and July of 2018 the Well had that level of production.

Determining the Future of the Water System

With the Compliance Order rescinded, the District staff has been working with its District engineer to determine how best to ensure the District Water System can meet demand and stay in compliance. Areas of investigation include:

- Reducing Demand
- Improving Well Performance
- Optimizing Blending
- Developing known sources of compliant water
- Identifying and developing new sources of compliant water