

Boulder County LID – Eldorado Springs Wastewater Plant
Operations Report
July 2021

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WWTP

- Please see the attached results for the samples and flows collected from the WWTF.
- One of the 2 effluent pumps has failed. We will look into pricing options or a new pump or to rebuild the old pump.
- The mixing pump also needs to be replaced. It failed last month and we are awaiting pricing on a new one as the old one could not be rebuilt.
- We have installed a lock on the new gate going to the WWTF.

Collections system

- No grinders to report in July. There was a false alarm where the users were producing more water than the pit and pump had capacity to remove. However, by the time we arrived the alarm turned off and the pump was pumping normally.

Permitted Loading 73#/day												
(cells highlighted contain formulas)												
Parameter	21-Jul	21-Jun	21-May	21-Apr	21-Mar	21-Feb	21-Jan	20-Dec	20-Nov	20-Oct	20-Sep	20-Aug
INFLUENT - MONTHLY												
Average Influent/Effluent Flow (MGD)	0.01627	0.01618	0.0183	0.0148	0.018371	0.018914	0.017811	0.018146	0.0202	0.017167	0.016911	0.018469
Maximum Influent/Effluent flow (MGD)	0.01828	0.01828	0.0216	0.020006	0.02275	0.021802	0.01886	0.02229	0.0209	0.022265	0.020842	0.01974
Influent BOD (mg/L)	280	185	214	354	528	394	311	259	229	343	347	354
Influent BOD (#s/d)	39.97	27.22	34.80	51.05	80.95	55.33	48.76	38.77	35.16	49.26	54.12	55.05
Influent TSS (mg/L)	369	294	79	488	409	494	338	374	218	294	747	337
Influent TKN (mg/L)	84.80	28.30	44.80	68.60	97.20	84.80	87.30	109.60	63.10	90.62	112.00	109.40
* Plant Capacity Hydraulic P (%)	50.84%	50.56%	57.19%	46.25%	57.41%	59.11%	55.66%	56.71%	63.13%	53.65%	52.85%	57.72%
* Plant Capacity Organic Q (%)	54.75%	37.28%	47.68%	69.93%	110.90%	75.79%	66.80%	53.11%	48.16%	67.48%	74.13%	75.41%
Day of sample Influent/Effluent Flow (MGD)	0.017	0.018	0.020	0.017	0.018	0.017	0.019	0.018	0.018	0.017	0.019	0.019
EFFLUENT - MONTHLY												
Temperature (Nov-Apr)												
Ammonia Nitrogen (mg/L)	0.63	0.66	10.21	22.65	0.19	0.44	0.42	0.89	0.34	1.85	3.43	9.3
Ammonia Nitrogen RA - See Tab		5.42	5.2	11.3825	0.32	0.485	0.28	0.515	0.37	2.41	11.6	9.24
TIN(mg/L) 10 max	1.76	1.22	11.07	33.11	2.26	7.33	4.44	8.69	14.69	9.36	6.13	8.975
TIN RA 1.5 Beginning 1/1/22	8.187	8.934	9.248	8.657	7.256	7.177	6.787	6.835	6.635	6.310	5.982	7.119
NO2+NO3 (mg/L)	1.14	0.56	0.86	0.46	2.07	6.88	4.02	7.8	14.34	7.52	2.69	0.67
Ecoli (876 ml) use actual result on DMR		1	1	1733	1	1	1	1	1	1	1	3
* Ecoli RA 127	174.20	158.64	158.64	158.64	404.25	404.25	404.25	404.33	404.33	404.33	404.33	404.33
pH (Minimum) 6.5	7.10	6.97	6.95	7.20	6.94	6.81	6.86	6.85	6.90	6.75	6.78	6.82
pH (Maximum) 9.0	8.06	7.40	7.51	7.78	7.42	7.13	7.30	7.08	7.49	7.16	7.03	7.02
Effluent TKN	4.50	5.90	16.10	23.60	3.10	3.80	2.90	1.00	1.10	1.90	4.80	13.70
* Average #'s Nitrate	0.16	0.08	0.14	0.07	0.32	0.97	0.63	1.17	2.20	1.08	0.42	0.10
Effluent Arsenic (ug/L)							6.00					
2YR Arsenic (ug/L)							4.28					
Effluent Copper (ug/L)							9.50					
2YR Copper (ug/L)							11.35					
EFFLUENT - QUARTERLY												
Effluent BOD (mg/L) 30/45 mg/L	8	23	15	5	9	2	6	6	2	2	6	5
Highest BOD		23			9							
Effluent TSS (mg/L) 30/45 mg/L	21	26	30	16	21	5	16	7	6	8	14	12
Highest TSS		30			21							
* BOD % Removal	97.14%	87.57%	92.99%	98.59%	98.30%	99.49%	98.07%	97.68%	99.13%	99.42%	98.27%	98.59%
Lowest BOD %		87.57%			98.07%							
* TSS % Removal	94.31%	91.16%	62.03%	96.72%	94.87%	98.99%	95.27%	98.13%	97.25%	97.28%	98.13%	96.44%
Lowest TSS %		62.03%			94.87%							