

**Boulder County LID – Eldorado Springs Wastewater Plant**  
Operations Report  
September 2021

Prepared by Gabby Begeman, ORC Water Professionals

**WWTP**

- Please see the attached results for the samples and flows collected from the WWTF.
- A new effluent pump has been installed. We are awaiting information on the old to see if it can be rebuilt.
- The new mixing pump has also been received and installed.
- The DO equipment has been received, fully installed and is operational. We are seeing improvements in field sampling after 1 week of operation.
- Fluidyne has also installed the new programming integrated into the

**Collections system**

- A grinder was replaced in August at 4 Barber Ln (I had the wrong address listed in the previous report) This is only the 2<sup>nd</sup> grinder replacement for this address.
- There were no grinders replaced in September.

**ELDORADO SPRINGS WWTP**

PERMIT# CO 0047651

Permitted Flow 0.032 (MGD)

Permitted Loading 73#/day

(cells highlighted contain formulas)

Parameter	21-Sep	21-Aug	21-Jul	21-Jun	21-May	21-Apr	21-Mar	21-Feb	21-Jan	20-Dec	20-Nov	20-Oct
<b>INFLUENT - MONTHLY</b>												
Average Influent/Effluent Flow (MGD)	0.01677	0.0178	0.0204	0.01618	0.0183	0.0148	0.018371	0.018914	0.017811	0.018146	0.0202	0.017167
Maximum Influent/Effluent flow (MGD)	0.0171	0.02	0.0182	0.01828	0.0216	0.020006	0.02275	0.021802	0.01886	0.02229	0.0209	0.022265
Influent BOD (mg/L)	259	220	280	185	214	354	528	394	311	259	229	343
Influent BOD (#s/d)	34.93	36.70	39.96	27.22	34.80	51.05	80.95	55.33	48.76	38.77	35.16	49.26
Influent TSS (mg/L)	494	174	369	294	79	488	294	494	338	374	218	294
Influent TKN (mg/L)	83.20	64.30	84.80	28.30	44.80	68.60	97.20	84.80	87.30	109.60	63.10	90.62
* Plant Capacity Hydraulic P. (%)	52.41%	55.63%	63.75%	50.56%	57.19%	46.25%	57.41%	59.11%	55.66%	56.71%	63.13%	53.65%
* Plant Capacity Organic Q (%)	47.85%	50.27%	54.73%	37.28%	47.68%	59.93%	110.90%	75.79%	66.80%	53.11%	48.16%	67.48%
Day of sample Influent/Effluent Flow (MGD)	0.016	0.020	0.017	0.018	0.020	0.017	0.018	0.017	0.019	0.018	0.018	0.017
<b>EFFLUENT - MONTHLY</b>												
Temperature (Nov-Apr)												
Ammonia Nitrogen (mg/L)	0.05	0.12	0.63	0.66	10.21	22.65	0.19	0.44	0.42	0.89	0.34	1.85
Ammonia Nitrogen RA - See Tab	1.74	0.12	3.33	5.42	5.2	11.3825	0.32	0.485	0.28	0.515	0.37	2.41
TIN(mg/L) 10 max	24.5	20.78	1.76	1.22	11.07	23.11	2.26	7.33	4.44	8.69	14.69	9.36
TIN RA 1.5 Beginning 1/1/22	10.895	9.519	6.187	6.934	9.248	6.657	7.256	7.177	6.787	6.835	6.635	6.310
NO2+NO3 (mg/L)	24.45	20.66	1.14	0.56	0.86	0.46	2.07	6.88	4.02	7.8	14.34	7.52
Ecoli (876 ml) Geomean use actual on DMR	1	1	1	1	1	1733	1	1	1	1	1	1
* Ecoli RA 127	158.45	158.45	158.45	158.64	158.64	158.64	404.25	404.25	404.25	404.33	404.33	404.33
pH (Minimum) 6.5		6.80	7.10	6.97	6.95	7.20	6.94	6.81	6.86	6.85	6.90	6.75
pH (Maximum) 9.0		7.20	8.06	7.40	7.51	7.78	7.42	7.13	7.30	7.08	7.49	7.16
Effluent TKN			4.50	5.90	16.10	23.60	3.10	3.80	2.90	1.00	1.10	1.90
* Average #'s Nitrate	3.30	3.45	0.16	0.08	0.14	0.07	0.32	0.97	0.63	1.17	2.20	1.08
Effluent Arsenic (ug/L)	3.70								6.00			
2YR Arsenic (ug/L)	4.53								4.28			
Effluent Copper (ug/L)	24.70								9.50			
2YR Copper (ug/L)	16.15								11.35			
<b>EFFLUENT - QUARTERLY</b>												
Effluent BOD (mg/L) 30/45 mg/L	2	4	8	23	15	5	9	2	6	6	2	2
Highest BOD	6			23			9					
Effluent TSS (mg/L) 30/45 mg/L	12	9	21	26	30	16	21	5	16	7	6	8
Highest TSS	21			30			21					
* BOD % Removal	99.23%	98.18%	97.14%	87.57%	92.99%	98.59%	98.30%	99.49%	98.07%	97.68%	99.13%	99.42%
Lowest BOD %	97.14%			87.57%			98.07%					
* TSS % Removal	97.57%	94.83%	94.31%	91.16%	62.03%	96.72%	94.87%	98.99%	95.27%	98.13%	97.25%	97.28%
Lowest TSS %	94.31%			62.03%			94.87%					