

Boulder County LID – Eldorado Springs Wastewater Plant
Operations Report
October 2022

Prepared by Gabby Begeman, ORC Water Professionals

WWTP

- Please see the attached results for the samples and flows collected from the WWTF.
- Effluent pump #1 has been replaced with the new ez-pull fitting that allow us to pull the pump without having to enter the tank. However this pump is still not operational. We are needing to bring in an electrician to assess and address.
- The electrical panel has been looked at by an electrician. They believe that we should replace the corroded and dis-functional terminal strip. This will likely take 2 days and about \$2000. This will repair broken and potentially malfunctioning terminal connections but will not address anything else in the panel unless other things are determined to need attention.

Collections system

- I have yet to dig up the vaults and assess the valves within.

Compliance

- ORC facilitated a compliance inspection with the State where a number of issues were found. See the attachment and the response.

ELDORADO SPRINGS WWTP

PERMIT# CO 0047651

Permitted Flow 0.032 (MGD)

Permitted Loading 73#/day

(cells highlighted contain formulas)

(to be completed by operator)

FLOWS FROM ANALOG NOT PROCESS SHEETS

Parameter	22-Oct	22-Sep	22-Aug	22-Jul	22-Jun	22-May	22-Apr	22-Mar	22-Feb	22-Jan	21-Dec	21-Nov
INFLUENT - MONTHLY												
Average Influent/Effluent Flow (MGD)	0.015	0.014	0.020	0.019	0.020	0.019	0.019	0.016	0.019	0.021	0.0169	0.017547
Maximum Influent/Effluent flow (MGD)	0.020	0.017	0.024	0.022	0.023	0.021	0.023	0.019	0.022	0.023	0.0218	0.019627
Influent BOD (mg/L)	382	319	206	344	402	441	411	112	287	321	203	180
Influent BOD (#s/d)	0.00	45.23	34.34	50.05	56.81	69.03	59.64	15.88	52.66	50.87	27.33	25.48
Influent TSS (mg/L)	331	409	247	369	518	412	325	215	584	332	197	316
Influent TKN (mg/L)	64.80	51.00	56.40	71.70	52.10	59.10	62.20	59.60	68.50	49.30	47.90	59.00
* Plant Capacity Hydraulic P. (%) 80% min	46.88%	43.75%	63.35%	58.43%	61.73%	59.38%	59.38%	50.00%	58.67%	64.81%	52.81%	54.83%
* Plant Capacity Organic Q. (%)	0.00%	61.96%	47.03%	68.56%	77.82%	94.57%	81.70%	21.75%	72.14%	69.68%	37.43%	34.91%
Day of sample Influent/Effluent Flow (MGD)		0.017	0.020	0.017	0.017	0.019	0.017	0.017	0.022	0.019	0.016	0.017
EFFLUENT - MONTHLY												
Ammonia Nitrogen (mg/L) - enter onto Tab	0.04	0.52	0.71	0.68	0.36	0.37	0.58	0.2	<0.03	0.17	0.71	0.03
Ammonia Nitrogen RA - See Ammonia RA Tab												
TIN(mg/L) 10 max	2.42	11.33	3.71	2.98	0.57	0.84	5.42	10.38	11.45	8.64	13.46	11.52
TIN RA	8.954	9.243	9.026	9.287	9.358	9.524	9.632	9.887	9.509	9.142	8.991	8.692
NO2+NO3 (mg/L)	2.37	10.81	2.99	2.31	0.21	0.47	4.84	10.17	11.45	8.47	12.74	11.52
Ecoli (876 ml) Geomean Use actual on DMR	1	1	2	1	1	1	1	1	4	1	1	1
* Ecoli RA 127	76.48	76.48	76.48	76.52	76.52	76.52	79.50	79.50	79.50	79.37	79.42	79.42
pH (Minimum) 6.5	6.79	6.81	6.84	6.87	6.71	6.72	6.75	6.82	6.93	7.10	6.79	6.90
pH (Maximum) 9.0	7.08	7.26	7.28	7.57	7.31	7.54	7.70	7.71	8.15	7.57	7.26	7.11
Effluent TKN	1.00	1.20	2.60	2.50	1.10	1.90	2.20	2.00	0.10	1.00	0.10	0.10
* Average #'s Nitrate	0.00	1.53	0.50	0.34	0.03	0.07	0.70	1.44	2.10	1.34	1.71	1.63
EFFLUENT - 2X/YEAR												
Effluent Arsenic (ug/L)	6.20			6.20						5.20		
2YR Arsenic (ug/L)	1.55			5.28						4.83		
Effluent Copper (ug/L)	17.50			17.50						11.40		
2YR Copper (ug/L)	4.38			15.78						12.65		
EFFLUENT - QUARTERLY												
Effluent BOD (mg/L) 30/45 mg/L	0	8	2	10	6	5	8	4	10	8	4	0
Highest BOD		10			8			10			4	
Effluent TSS (mg/L) 30/45 mg/L	5	24	12	10	14	6	10	8	11	9	7	0
Highest TSS		24			14			11			7	
* BOD % Removal	100.00%	97.49%	99.03%	97.09%	98.51%	98.87%	98.05%	96.43%	96.52%	97.51%	98.03%	100.00%
Lowest BOD % 85% min		97.09%			98.05%			96.43%			98.03%	
* TSS % Removal	98.49%	94.13%	95.14%	97.29%	97.30%	98.54%	96.92%	96.28%	98.12%	97.29%	96.45%	100.00%
Lowest TSS % 85% min		94.13%			96.92%			96.28%			96.45%	