

# Boulder County LID – Eldorado Springs Wastewater Plant

## Operations Report

### April/May 2022

Prepared by Gabby Begeman, ORC Water Professionals

### WWTP

- Please see the attached results for the samples and flows collected from the WWTF.
- The DO equipment is assisting in achieving a more consistent effluent.
- Effluent pump #2 will need to be removed and repaired/replaced. We have one ordered and will replace it as soon as it comes in. We will also be installing the more economical slide option as can be found here: <https://youtu.be/eLn1bBpSel0>

### Collections system

- The grinder at 102 Artesian was replaced and is on its 3<sup>rd</sup> replacement ever. The grinder taken out has been rebuilt 2 times.
- The grinder at 11 Cheesbrough was replaced for the first time on May 9, 2022.
- The grinder at 91 Eldorado Springs was replaced for the 7<sup>th</sup> time, although the last time it was replaced was in 2018. The grinder taken out has been installed in 4 different locations.
- I have yet to meet with the contractor to discuss valves, locations or the option for moving the valves into the vaults on either side of the creek. Steve with Ambient indicated that they normally see full port ball valves get installed on this type of system. I would recommend that we abandon the current in earth valves and install plastic true union ball valves in each pit on either side of the creek.

#### ELDORADO SPRINGS WWTP

PERMIT# CO 0047651

Permitted Flow 0.032 (MGD)

Permitted Loading 73#/day

(cells highlighted contain formulas)

(to be completed by operator)

Parameter	22-Jun	22-May	22-Apr	22-Mar	22-Feb	22-Jan	21-Dec	21-Nov	21-Oct	21-Sep	21-Aug	21-Jul
<b>INFLUENT - MONTHLY</b>												
Average Influent/Effluent Flow (MGD)		0.019	0.019	0.016	0.019	0.020738	0.0169	0.017547	0.015314	0.01677	0.0178	0.0204
Maximum Influent/Effluent flow (MGD)		0.021	0.023	0.019	0.022	0.0234	0.0218	0.019627	0.02397	0.0171	0.02	0.0182
Influent BOD (mg/L)	402	441	411	112	287	321	203	180	782	259	220	280
Influent BOD (#5/d)	0.00	69.03	59.64	15.88	52.66	50.87	27.33	25.48	122.09	34.93	36.70	39.96
Influent TSS (mg/L)	518	412	325	215	584	332	197	316	1305	494	174	369
Influent TKN (mg/L)	52.10	59.10	62.20	59.60	68.50	49.30	47.90	59.00	82.40	83.20	64.30	84.80
* Plant Capacity Hydraulic P (%)	0.00%	59.38%	59.38%	50.00%	58.67%	64.81%	52.81%	54.83%	47.86%	52.41%	55.63%	63.75%
* Plant Capacity Organic Q (%)	0.00%	94.57%	81.70%	21.75%	72.14%	69.68%	37.43%	34.91%	167.25%	47.85%	50.27%	54.73%
Day of sample Influent/Effluent Flow (MGD)		0.019	0.017	0.017	0.022	0.019	0.016	0.017	0.019	0.016	0.020	0.017
<b>EFFLUENT - MONTHLY</b>												
Ammonia Nitrogen (mg/L)	0.36	0.37	0.58	0.2	<0.03	0.17	0.71	0.03	0.56	0.05	0.12	0.63
Ammonia Nitrogen RA - See Tab		5.29	11.615	0.195	0.235	0.295	0.8	0.185	1.205	1.74	0.12	3.33
TIN(mg/L) 10 max	0.57	0.84	5.42	10.38	11.45	8.64	13.46	11.52	12.32	24.5	20.78	1.76
TIN RA	10.898	11.006	11.041	11.555	12.712	11.876	11.757	10.937	10.680	10.895	9.237	8.336
NO2+NO3 (mg/L)	0.21	0.47	4.84	10.17	11.45	8.47	12.74	11.52	11.76	24.45	20.66	1.14
Ecoli (876 ml) Geomean Use actual on DMR	1	1	1	1	4	1	1	1	1	1	1	1
* Ecoli RA 127	1.27	1.27	1.27	1.27	158.73	158.45	158.45	158.45	158.45	158.45	158.45	158.45
pH (Minimum) 6.5		6.72	6.75	6.82	6.93	7.10	6.79	6.90	6.94	6.55	6.80	7.10
pH (Maximum) 9.0		7.54	7.70	7.71	8.15	7.57	7.26	7.11	7.72	7.88	7.20	8.06
Effluent TKN	1.10		2.20	2.00	0.10	1.00	0.10	0.10	0.60	0.10	4.50	
* Average #'s Nitrate	0.00	0.07	0.70	1.44	2.10	1.34	1.71	1.63	1.84	3.30	3.45	0.16