

# Boulder County LID – Eldorado Springs Wastewater Plant

## Operations Report

### December 2021

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### 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, however proving increasingly difficult to meet the standard below 10. Fluidyne will again be consulted to provide assistance.

### Collections system

- The grinder at 52 Artesian continues to go into alarm. A new control panel has been ordered and will be installed asap.

#### 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	21-Dec	21-Nov	21-Oct	21-Sep	21-Aug	21-Jul	21-Jun	21-May	21-Apr	21-Mar	21-Feb	21-Jan
<b>INFLUENT - MONTHLY</b>												
Average Influent/Effluent Flow (MGD)	0.0169	0.017547	0.015314	0.01677	0.0178	0.0204	0.01618	0.0183	0.0148	0.018371	0.018914	0.017811
Maximum Influent/Effluent flow (MGD)	0.0218	0.019627	0.02397	0.0171	0.02	0.0182	0.01828	0.0216	0.020006	0.02275	0.021802	0.01886
Influent BOD (mg/L)	203	180	782	259	220	280	185	214	354	528	394	311
Influent BOD (#s/d)	27.33	25.48	122.09	34.93	36.70	39.96	27.22	34.80	51.05	80.95	55.33	48.76
Influent TSS (mg/L)	197	316	1305	494	174	369	294	79	488	409	494	338
Influent TKN (mg/L)	47.90	59.00	82.40	83.20	64.30	84.80	28.30	44.80	68.60	97.20	84.80	87.30
* Plant Capacity Hydraulic P (%)	52.81%	54.83%	47.86%	52.41%	55.63%	63.75%	50.56%	57.19%	46.25%	57.41%	59.11%	55.66%
* Plant Capacity Organic Q (%)	37.43%	34.91%	167.25%	47.85%	50.27%	54.73%	37.28%	47.68%	69.93%	110.90%	75.79%	66.80%
Day of sample Influent/Effluent Flow (MGD)	0.016	0.017	0.019	0.016	0.020	0.017	0.018	0.020	0.017	0.018	0.017	0.019
<b>EFFLUENT - MONTHLY</b>												
Ammonia Nitrogen (mg/L)	0.71	0.03	0.56	0.05	0.12	0.63	0.66	10.21	22.65	0.19	0.44	0.42
Ammonia Nitrogen RA - See Tab	0.8	0.185	1.205	1.74	0.12	3.33	5.42	5.2	11.3825	0.32	0.485	0.28
TIN(mg/L) 10 max	13.46	11.52	12.32	24.5	20.78	1.76	1.22	11.07	23.11	2.26	7.33	4.44
TIN RA 1.5	11.757	10.937	10.680	10.895	9.237	8.336	6.579	6.858	6.221	7.256	7.177	6.787
NO2+NO3 (mg/L)	12.74	11.52	11.76	24.45	20.66	1.14	0.56	0.86	0.46	2.07	6.88	4.02
Ecoli (876 ml) Geomean Use actual on DMR	1	1	1	1	1	1	1	1	1733	1	1	1
* Ecoli RA 127	158.45	158.45	158.45	158.45	158.45	158.45	158.64	158.64	158.64	404.25	404.25	404.25
pH (Minimum) 6.5	6.79	6.90	6.94	6.55	6.80	7.10	6.97	6.95	7.20	6.94	6.81	6.86
pH (Maximum) 9.0	7.26	7.11	7.72	7.88	7.20	8.06	7.40	7.51	7.78	7.42	7.13	7.30
Effluent TKN	0.10	0.10	0.60			4.50	5.90	16.10	23.60	3.10	3.80	2.90
* Average #'s Nitrate	1.71	1.63	1.84	3.30	3.45	0.16	0.08	0.14	0.07	0.32	0.97	0.63
<b>EFFLUENT - 2X/YEAR</b>												
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	4	0	2	2	4	8	23	15	5	9	2	6
Highest BOD	4			6			23			9		
Effluent TSS (mg/L) 30/45 mg/L	7	0	0	12	9	21	26	30	16	21	5	16
Highest TSS	7			21			30			21		
* BOD % Removal	98.03%	100.00%	99.74%	99.23%	98.18%	97.14%	87.57%	92.99%	98.59%	98.30%	99.49%	98.07%
Lowest BOD %	98.03%			97.14%			87.57%			98.07%		
* TSS % Removal	96.45%	100.00%	100.00%	97.57%	94.83%	94.31%	91.16%	62.03%	96.72%	94.87%	98.99%	95.27%
Lowest TSS %	96.45%			94.31%			62.03%			94.87%		

