

Boulder County LID – Eldorado Springs Wastewater Plant

Operations Report

February 2022

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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 has been consulted to provide assistance.
- ORC has ordered additional equipment, reagents, standards and supplies to evaluate the field testing methods and procedures utilized to make process changes.
- ORC has added a number of parameters to the field testing methods in an attempt to gain a better picture of what is happening within the process.
- Effluent pump #2 will need to be removed, repaired or replaced. It would be beneficial to install the slide rail system to enable a more expedient approach to maintenance of the facilities pumps. This is yet to be scheduled.
- A new radio card has been installed at the WWTF to ensure a seamless transition away from the 3G network. This allows us to receive real time alarms and monitoring of the status of the system.

Collections system

- The grinder panel at 52 Artesian has been replaced. All factors were troubleshooted in an attempt to find the fault in this grinder pit, the power cable, the check valve, the control panel. The last resort is to excavate the check valve and discharge piping to evaluate the condition of the pipe and appurtenances.

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-Mar	22-Feb	22-Jan	21-Dec	21-Nov	21-Oct	21-Sep	21-Aug	21-Jul	21-Jun	21-May	21-Apr
INFLUENT - MONTHLY												
Average Influent/Effluent Flow (MGD)		0.018657	0.020738	0.0169	0.017547	0.015314	0.01677	0.0178	0.0204	0.01618	0.0183	0.0148
Maximum Influent/Effluent flow (MGD)		0.22394	0.0234	0.0218	0.019627	0.02397	0.0171	0.02	0.0182	0.01828	0.0216	0.020006
Influent BOD (mg/L)		287	321	203	180	782	259	220	280	185	214	354
Influent BOD (#s/d)	0.00	38.06	50.87	27.33	25.48	122.09	34.93	36.70	39.96	27.22	34.80	51.05
Influent TSS (mg/L)		584	332	197	316	1305	494	174	369	294	79	488
Influent TKN (mg/L)		68.50	49.30	47.90	59.00	82.40	83.20	64.30	84.90	28.30	44.80	68.60
* Plant Capacity Hydraulic P (%)	0.00%	58.30%	64.81%	52.81%	54.83%	47.86%	52.41%	55.63%	63.75%	50.56%	57.19%	46.25%
* Plant Capacity Organic Q (%)	0.00%	52.13%	69.68%	37.43%	34.91%	167.25%	47.85%	50.27%	54.73%	37.28%	47.68%	69.93%
Day of sample Influent/Effluent Flow (MGD)		0.016	0.019	0.016	0.017	0.019	0.016	0.020	0.017	0.018	0.020	0.017
EFFLUENT - MONTHLY												
Ammonia Nitrogen (mg/L)	0.2	0	0.17	0.71	0.03	0.56	0.05	0.12	0.63	0.66	10.21	22.65
Ammonia Nitrogen RA - See Tab	0.195	0.22	0.295	0.8	0.185	1.205	1.74	0.12	3.33	5.42	5.2	11.3825
TIN(mg/L) 10 max	10.38	11.45	8.64	13.46	11.52	12.32	24.5	20.78	1.76	1.22	11.07	23.11
TIN RA	11.555	12.712	11.876	11.757	10.937	10.680	10.895	9.237	8.336	8.579	8.858	8.221
NO2+NO3 (mg/L)	10.17	11.45	8.47	12.74	11.52	11.76	24.45	20.66	1.14	0.56	0.86	0.46
Ecoli (876 ml) Geomean Use actual on DMR	4	1	1	1	1	1	1	1	1	1	1	1733
* Ecoli RA 127	1.30	158.73	158.45	158.45	158.45	158.45	158.45	158.45	158.45	158.64	158.64	158.64
pH (Minimum) 6.5		6.93	7.10	6.79	6.90	6.94	6.55	6.80	7.10	6.97	6.95	7.20
pH (Maximum) 9.0		8.15	7.57	7.26	7.11	7.72	7.88	7.20	8.06	7.40	7.51	7.78
Effluent TKN	2.00	0.10	1.00	0.10	0.10	0.60			4.50	5.90	16.10	23.60
* Average #'s Nitrate	0.00	1.52	1.34	1.71	1.63	1.84	3.30	3.45	0.16	0.08	0.14	0.07
EFFLUENT - 2X/YEAR												
Effluent Arsenic (ug/L)			5.20				3.70					
2YR Arsenic (ug/L)			4.83				4.53					
Effluent Copper (ug/L)			11.40				24.70					
2YR Copper (ug/L)			12.65				16.15					
EFFLUENT - QUARTERLY												
Effluent BOD (mg/L) 30/45 mg/L	4	10	8	4	0	2	2	4	8	23	15	5
Highest BOD	10	10	6	4			6			23		
Effluent TSS (mg/L) 30/45 mg/L	8	11	9	7	0	0	12	9	21	26	30	16
Highest TSS	11		7	7			21			30		
* BOD % Removal	#DIV/0!	96.52%	97.51%	98.03%	100.00%	99.74%	99.23%	98.18%	97.14%	87.57%	92.99%	98.59%
Lowest BOD %	#DIV/0!			98.03%			97.14%			87.57%		
* TSS % Removal	#DIV/0!	98.12%	97.29%	96.45%	100.00%	100.00%	97.57%	94.83%	94.31%	91.16%	62.03%	96.72%
Lowest TSS %	#DIV/0!			96.45%			94.31%			62.03%		