

Boulder County LID – Eldorado Springs Wastewater Plant

Operations Report

June 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.
- Effluent pump #2 has been removed and replaced. The slide rail system has also been installed.
- Effluent pump #1 needs to be removed and replaced as it is not operational. A new pump has been ordered and will be installed when it comes in.
- Effluent pump #1 tripped and caused a big upset during the end of June resulting in many hours of cleanup. It is important that we have redundant pumps and the ability to remove and replace quickly without having to enter the confined space.
- The electrical panel needs to be gone through by an electrician. There are many burned wires, defunct terminal blocks and a general servicing is due. ORC performed some of this work as a preventative measure to keep the pumps working, however we request that a competent electrician put eyes on it.

Collections system

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

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 |
|--|--------|--------|--------|--------|--------|----------|--------|----------|----------|---------|--------|--------|
| INFLUENT - MONTHLY | | | | | | | | | | | | |
| Average Influent/Effluent Flow (MGD) | 0.020 | 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) | 0.023 | 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 (#/d) | 56.81 | 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 (%) | 61.73% | 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 (%) | 77.82% | 94.57% | 81.70% | 21.75% | 72.14% | 69.68% | 37.43% | 34.91% | 167.25% | 47.85% | 30.27% | 54.73% |
| Day of sample Influent/Effluent Flow (MGD) | 0.017 | 0.019 | 0.017 | 0.017 | 0.022 | 0.019 | 0.016 | 0.017 | 0.019 | 0.016 | 0.020 | 0.017 |
| EFFLUENT - MONTHLY | | | | | | | | | | | | |
| 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 | 2.693 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| * Ecoli RA 127 | 73.38 | 73.38 | 274.92 | 274.92 | 274.92 | 274.79 | 274.83 | 274.83 | 274.83 | 274.83 | 274.83 | 274.83 |
| pH (Minimum) 6.5 | 6.71 | 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 | 7.31 | 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 | 2.00 | 1.00 | 1.00 | 0.10 | 0.10 | 0.60 | 0.60 | 4.50 | 4.50 |
| * Average #'s Nitrate | 0.03 | 0.07 | 0.70 | 1.44 | 2.10 | 1.34 | 1.71 | 1.63 | 1.84 | 3.30 | 3.45 | 0.16 |