

Boulder County LID – Eldorado Springs Wastewater Plant
Operations Report
November 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. This pump and wiring will be addressed during the panel revamp.
- The electrical panel work has been placed on the electricians schedule.

Collections system

- I have yet to dig up the vaults and assess the valves within. This will likely be done in the Summer.
- The Ballroom project is underway and they will need to install a service line into the main. Their excavator is looking into the connections. We may have to drain the system down to facilitate a new tap.

Compliance

- ORC has been working on compliance per the States inspection letter.
- We have received a letter from Ambient H2O in regards to the lift stations and rating them at a capacity under the limit of the state to require permitting.
- The grinder at 3450 ELDO had to be replaced. This was the third replacement for this address. The pump taken out and repaired 3x over its life.
- There are currently 2 pumps that need a complete replacement.

Permitted Loading 73#/day
(cells highlighted contain formulas)
(to be completed by operator)

FLOWES FROM ANALOG NOT PROCESS SHEETS

Parameter	22-Nov	22-Oct	22-Sep	22-Aug	22-Jul	22-Jun	22-May	22-Apr	22-Mar	22-Feb	22-Jan	21-Dec
INFLUENT - MONTHLY												
Average Influent/Effluent Flow (MGD)	0.016	0.015	0.014	0.020	0.019	0.020	0.019	0.019	0.016	0.019	0.021	0.0169
Maximum Influent/Effluent flow (MGD)	0.020	0.020	0.017	0.024	0.022	0.023	0.021	0.023	0.019	0.022	0.023	0.0218
Influent BOD (mg/L)	265	382	319	206	344	402	441	411	112	287	321	203
Influent BOD (#s/d)	29.76	47.79	45.23	34.34	50.05	56.81	69.03	59.64	15.88	52.66	50.87	27.33
Influent TSS (mg/L)	374	331	409	247	369	518	412	325	215	584	332	197
Influent TKN (mg/L)	63.00	64.80	51.00	56.40	71.70	52.10	59.10	62.20	59.60	68.50	49.30	47.90
* Plant Capacity Hydraulic P (%) 80% min	50.00%	46.88%	43.75%	63.35%	58.43%	61.73%	59.38%	59.38%	50.00%	58.67%	64.81%	52.81%
* Plant Capacity Organic Q (%)	40.76%	65.46%	61.96%	47.03%	68.56%	77.82%	94.57%	81.70%	21.75%	72.14%	69.68%	37.43%
Day of sample Influent/Effluent Flow (MGD)	0.013	0.015	0.017	0.020	0.017	0.017	0.019	0.017	0.017	0.022	0.019	0.016
EFFLUENT - MONTHLY												
Ammonia Nitrogen (mg/L) - enter onto Tab	0.19	0.04	0.52	0.71	0.68	0.36	0.37	0.58	0.2	<0.03	0.17	0.71
Ammonia Nitrogen RA - See Ammonia RA Tab												
TIN(mg/L) 10 max	3.86	2.42	11.33	3.71	2.98	0.57	0.84	5.42	10.38	11.45	8.64	13.46
TIN RA	8.503	8.954	9.243	9.026	9.287	9.358	9.524	9.632	9.887	9.509	9.142	8.991
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
Ecoli (876 ml) Geomean Use actual on DMR	184	1	1	2	1	1	1	1	1	4	1	1
* Ecoli RA 127	84.43	76.48	76.48	76.48	76.52	76.52	76.52	79.50	79.50	79.50	79.37	79.42
pH (Minimum) 6.5	6.87	6.79	6.81	6.84	6.87	6.71	6.72	6.75	6.82	6.93	7.10	6.79
pH (Maximum) 9.0	7.70	7.08	7.26	7.28	7.57	7.31	7.54	7.70	7.71	8.15	7.57	7.26
Effluent TKN	1.10	1.00	1.20	2.60	2.50	1.10	1.90	2.20	2.00	0.10	1.00	0.10
* Average #'s Nitrate	0.00	0.30	1.53	0.50	0.34	0.03	0.07	0.70	1.44	2.10	1.34	1.71
EFFLUENT - 2X/YEAR												
Effluent Arsenic (ug/L)					6.20						5.20	
2YR Arsenic (ug/L)					5.28						4.83	
Effluent Copper (ug/L)					17.50						11.40	
2YR Copper (ug/L)					15.78						12.65	
EFFLUENT - QUARTERLY												
Effluent BOD (mg/L) 30/45 mg/L	9	0	8	2	10	6	5	8	4	10	8	4
Highest BOD			10			8			10			4
Effluent TSS (mg/L) 30/45 mg/L	8	5	24	12	10	14	6	10	8	11	9	7
Highest TSS			24			14			11			7
* BOD % Removal	96.60%	100.00%	97.49%	99.03%	97.09%	98.51%	98.87%	98.05%	96.43%	96.52%	97.51%	98.03%
Lowest BOD % 85% min			97.09%			98.05%			96.43%			98.03%
* TSS % Removal	97.86%	98.49%	94.13%	95.14%	97.29%	97.30%	98.54%	96.92%	96.28%	98.12%	97.29%	96.45%
Lowest TSS % 85% min			94.13%			96.92%			96.28%			96.45%



Wastewater &
Water Treatment
Specialists

December 14, 2022

Gabrielle Begeman, Operations Manager
ORC Water Professionals
11919 W. I-70 Frontage Rd, Ste. 116A
Wheat Ridge, CO. 80033

Subject: Sizing Certification for Eldorado Pool and Ballroom Grinder Pump Stations, Eldorado Springs, CO

Dear Gabrielle,

I am pleased to confirm that the EONE Duplex Grinder Pump stations serving the Pool Area and the Ballroom facility have been sized for influent flows of up to 1,999 gallons per day. The stations are designed to meet this requirement with one (1) duty pump and one (1) back-up pump to ensure proper operation in both normal and peak conditions and when one (1) pump is out for service. It should also be noted that a shelf spare pump has also been provided with each station so that when a primary pump is serviced and/or repaired it can immediately be exchanged with the spare.

If you have any questions or require additional information, please do not hesitate to contact Ambiente H2O Inc.

Respectfully,

Steve Hansen

Steven G. Hansen, PE
Ambiente H2O Inc.
303.433.0364
shansen@ambienteh2o.com



Date: 12/14/2022
To: Gabrielle Begeman
Where: Eldorado Springs
From: Keri Snook

Ambiente H₂O Inc. is pleased to offer the following equipment for the subject project. If you have any questions, comments and/or concerns, please do not hesitate to call.

ITEMS BY E/ONE C/O AMBIENTE H2O INC.
TAG [Serial Numbers: DH312788 & DH313707]

Option A **240 Volt Model Wired Pressure Switch Level Sensing 7' Core Cable Candy Cane Discharge**
Qty 2 D200A01A01AA

Total Option A: \$3,770.00

Option B **Rebuilt Cores (Manufacturer dates 2008)**
Qty 2

Total Option B: \$3,600.00

Estimated Freight: WILL CALL

Sincerely,

Keri Snook



Colorado/Corporate Headquarters
1500 W. Hampden Ave., Ste. 5-D
Sheridan, CO 80110
Phone: 303-433-0364
Fax: 303-380-0664

Terms & Conditions

- I. Item Installation
 - A. Price terms are to include the item as it stands, and will not include services or equipment such as, but not limited to; (1) item installation, (2) anchor bolts, (3) miscellaneous valves and fittings, (4) gauges, (5) field wiring, (6) controls, (7) VFDs, unless specifically included otherwise.
- II. Services Rendered
 - A. Item installation, certification, start-up, and training are determined per proposal.
 - B. Additional services are available at \$950.00 per day plus expenses, not to exceed \$1,250.00 per day by Ambiente H2O Inc. Sheridan, CO.
 - C. Submittal Drawings may be available upon 2-3 weeks after receipt of purchase order.
- III. Shipment
 - A. Shipment of equipment will be 1-2 weeks after submittal approval and/or written notice to release equipment for fabrication.
- IV. Freight Costs
 - A. Freight is FOB (free on board) factory that is prepaid and added to jobsite;
Freight is estimated at \$450
- V. Customer Duty of Inspection
 - A. CUSTOMER IS RESPONSIBLE FOR INSPECTING ALL EQUIPMENT UPON DELIVERY.
 - B. UPON RECEIPT ANY DAMAGE MUST BE IMMEDIATELY REPORTED TO FREIGHT COMPANY AND AMBIENTE H2O INC.
 - C. Any claims for missing parts or equipment must be made within 30 days of delivery. Failure to make such claim will absolve Ambiente H2O Inc. from providing such missing parts or equipment past the 30 days, unless additional costs are assumed and tendered by Customer.
- VI. Sales Taxes
 - A. Applicable sales taxes are not included in the cost.
 - 1. Ambiente H2O Inc. will collect upon applicable sales tax in Colorado.
 - B. If sales tax exempt, please send a Tax Exempt Certificate to sales@ambienteh2o.com.
- VII. Price Terms
 - A. Prices configured will be valid for 30 days.
 - B. Any outstanding balance, if applicable, will be due within 30 days of delivery.
 - C. Alternate terms may be available upon written notice to and approval by Ambiente H2O Inc.
- VIII. Payment Schedule
 - A. Ambiente H2O Inc. will receive 100% of purchase price, due on shipment.
- IX. Method of Payment
 - A. ACH, Cash, Check, VISA, MasterCard, Discover and American Express are acceptable forms of payment. A 3% charge will be added to all credit card payments.
- X. Promise of Good Faith and Fair Dealing
 - A. Upon Buyer's signature below, Buyer agrees to the terms and conditions listed herein. Buyer promises to honor the terms of this agreement and will abide by the payment conditions stated. Lack of payment for equipment delivered or for any additional services rendered will cause Buyer to be in default of this agreement. Interest will begin to accrue upon Buyer's default of this agreement at 12% per annum. Ambiente H2O Inc. may demand immediate payment upon default, and will be entitled to such demand until payment is received in full.

Date: _____

Signature: _____

Printed Name: _____

Buyer: _____