



TOWN OF ELIZABETH

MICHAEL DEVOL, PUBLIC WORKS DIRECTOR

TO: Honorable Mayor, Mayor Pro-Tem and Town Board of Trustees
FROM: Mike DeVol, Public Works Director
DATE: August 27, 2024
SUBJECT: Public Works Monitoring Report

***Town Street Paving Improvements Project:**

1. Projects have begun in Hillside Subdivision.
2. Repairs/Warranty work has been concluded on Pearl St., Mobile St., and Chestnut.

***Town Main St. Decorations:**

1. Summer Flower Pots will be removed by the first week of September.

***Town Wells, Tanks and Effluent:**

1. See Packet. Upgrade Arapahoe 1 and Lower Dawson 1 Well Pumps. Perform maintenance of well casing screens using brushing and chlorine treatment to remove excess scaling/blockage to ensure maximum performance.
2. Piping for Dawson Well (500 feet) to be replaced due to cracks and pinholes.
3. Dawson Well has been flushed and passed Bac-T sampling and is in service.
4. Arapahoe Well Pump is scheduled to arrive 6-15-24 at which time installation will take place.
5. The two smaller tanks have been repaired and the new equipment added. PW will begin filling and testing during June. The two tanks have passed Bac-T testing and are in service for the last two weeks.

*** Town Water Line (NON) Emergency Repair:**

1. N/A

***Town Hall/ Repairs/ Landscaping Plan**

***Town Walkway Repairs:**

1. PW has completed several repairs to sidewalks at storm drain inlets and removed tripping hazards.
2. Public Works was notified on 6-5-24 of a sidewalk heaving at 680 Avena Dr. Upon inspection PW explained to the neighbors that this happened in numerous other areas throughout town during spring thaw and extremely warm days. PW will monitor and make repairs as needed. This anomaly happens up and down the front range every year. I spoke with Castle Rock and Parker Public Works and they have the same problem whether it is old or new neighborhoods. Public Works continues to repair areas around town.

***Town Street Maintenance/Striping Projects:**

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1. Public Works continues mowing for the season in Parks, Right of Ways, and Drainages.
2. Street Striping will begin in the month of September.

* Town Snow Plowing and Street Sweeping: SNOW ROUTE SEASON IS COMPLETED until November.

1. The Town Newsletter included Town Plowing Code and Snow Route "NO PARKING" information.
2. PW has been installing New snow route signs in Gold Creek Valley and Legacy Village as time allows.
3. Asphalt repairs within Hillside subdivision will continue until completed.

*Town New Wells at Ritoro/Gold Creek Valley:

1. The new Wells building is complete and PW is planning an Open House Grand Opening once the land Issue has been completed.
2. Landscaping will take place in 2024 depending on item #1. PW will work with the 4 adjacent property owners for their approval of the landscape sketch to ensure that we conceal as much of the building as possible from their views.
3. The Back-up Generator is installed and tested for normal operations.

*Town Trail Project:

1. PW has completed a walk-through inspection with our reporting Agency Stantec Engineering for Guidance after the flooding and the loss of previously planted vegetation, bushes and trees.
2. 2023 Reporting has been sent to CDOT and other agencies. PW is awaiting a decision on course of Action(s) that will be required to fulfill our Trail obligations. (#9 below on upcoming projects).
3. Due to the flooding in 2023 it appears that PW will need to fulfill one more year of habitat remediation, With possibly a full 3 years.
4. PW has planted 500 Willow Cuttings for placement along the creek to help recover those lost to floods.
5. Seeding and reclamation have taken place along the trail.
6. The Mural Graffiti has been removed/repainted by our local talented MS. MOLLIE PAINTIN!!! She did a She did a great job and it looks as good as new.
7. Graffiti has taken place adjacent to the Mural but not on the Mural. PW has painted over the new graffiti With a protective covering.
8. PD and PW are intalks of having cameras in the location, that use infrared flash so it does not disturb the Preble's Natural movements at night.

*Gold Creek Lift Station Improvements:

1. Completion of project has begun warranty period and filing completion with CDPHE Permitting.

*Eligibility Surveys for Water and Wastewater Capitol projects have been completed for 2024 and accepted by Colorado Department of Public Health and Environment (CDPHE). The eligibility surveys allow for the town to be in line for any funding that may be available for future projects.



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*Gold Creek Wastewater Treatment Plant (GCWWTP)

The state sampling of the plant after maintenance all came back at 98% removal of all constituents that are required. It was an excellent slow start up of Train 2 and the plant is back at 100% capacity.

Maintenance has been concluded on Train 2 of the plant. PW did a slow 2 week plant start up on Train 2 of the plant to allow bugs/bacteria to acclimate and begin their life cycle. The combination of Bug population, Dissolved Oxygen and liquid temperature are the biggest contributors to a happy healthy working bug population as they work chemical free to complete the process of naturally treating the water.

1. NO CHANGES AS OF THIS REPORT-On going Project/ The new fine screen replacement unit has been installed. The new screen has been in automated operations for three month's with no issues. Epoxy painting of replaced parts continues as weather allows before being placed back in service.

2. PW has been working on Plant maintenance by drawing down (treating in Train 1) all liquid levels of Train 2/South side of the treatment plant for inspection and repairs as necessary. The Clarifier for Train 2 has been completely emptied hosed and vacuumed out for a clean working area. The clarifier drive motor tested out fine as well as the gear reduction box. There is wear and damage to the Drive Shear Pin and Paddle arms that distribute settled sludge to the bottom of the clarifier for removal through pumping and sent to digestors for final degradation and trucked to farm fields as fertilizer. PW should have the Clarifier back up and fully operational by the end of September dependent on parts shipping.

3. Just a quick review of the Wastewater Plant: It is designed to treat 500,000 gallons of Raw Sewage per day. Train 1 and Train 2 share that equally. Train 1 currently is treating 190,000-200,000 gallons per day while maintaining our minimal 85% reduction constituent removals (currently 93%-99% removal) that are set by CDPHE in our Permit (excellent test for me as an operator and all equipment). Currently we are operating one Train at basically 80% capacity and operating very well. This is a test never completed before as our available capacity is 500,000 gallons. When the time comes that the wastewater Plant is treating at 80% (400,000 gallon) of the Total Capacity the Town must start to show Plant Expansion Plans to CDPHE. The current WTP upgrade Budget is currently in good shape for funding.

Reference of constituent removal: Please see attached Laboratory Sampling Analysis for actual numbers while completing maintenance of one train. Note all numbers/results are shown as milligrams per liter (mg/L) this equates from metric to Standard as parts per million (ppm). Plant is 100% Biological/Bacteria (Bugs) NO CHEMICALS

Bio-chemical Oxygen Demand (BOD) minimum 85% removal (current average 99% removal)

Total Suspended Solids (TSS) minimum 85% removal (current 93%-99% removal)

Nitrogen/Ammonia (NH₃) minimum 85% removal (current 99% removal)

E.Coli maximum 115 parts per million (ppm) (current <1 ppm) U.V. Light neuters bacterial for no reproduction and does not kill the bacterial which in turn means no chemicals and cost savings to the Town residents.



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*Town Clean Up Day/ Paint Round-Up/Arbor Day

1. Town Clean Up Day Results are as follows:

2. Electronics:

Batteries – 58 lbs.

Computer Materials – 374 lbs.

Display Materials – 2,144 lbs.

Mixed Electronics – 1,400 lbs. Total Cost - \$2,708.45

7 – Roll-Off Dumpsters (2 Metals) (5 Garbage) Total Cost - \$2,331.75

Flat Fee for 4 hours shredding of documents or paper. Total Cost - \$1,222.95

Grand Total - \$6,263.15

*Town Public Works News

1. Public Works has all empty positions filled and we are excited to welcome Jared Burris and Ryan Ehlert Who are local residents to the Public Works Water and Wastewater team.
2. Public Works has hired one new employee for the Streets and Parks position. His name is Caden Rocha.

*Town Farmers Market:

Event Park Name is Running Creek Park and the events have ended for the year.

*Town Parks and Right of Way (ROW):

1. Porta-Potty will remain at Bandt Park parking area for the Winter season.
2. Bandt Park restrooms are now Open for the summer season..
3. Town Parks staff have painted new lines at the Bandt Park Tennis and Basketball courts to allow for Pickle Ball enthusiasts to continue to use the park.
4. Concrete trail has been poured and stripped of forms, and the backfilling, seeding, and clean-up will begin. This connects Playground equipment, restrooms, pavilion all to the parking lot at Chestnut St.

Upcoming Projects:

1. PW has begun for 2024 the following Annual Reporting:
2. Annual Biosolids has been completed for 2023 and sent to CDPHE.
3. Regulation 85 Nutrient Monitoring/Accepted by CDPHE
4. PW has completed a round of PFAF's (radiation/radiological). Results have been reported to CDPHE.
5. Water Augmentation and Recording
6. Water Lead and Copper sampling
7. Water Constituents Metals Sampling
8. Annual DMR (Daily Monitoring Report) Gold Creek Wastewater Plant



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9. Tree City USA Application/ Accepted and approved by Tree City USA/Pending
10. Trail DOLA findings and Inspections/ Addition of Willow Cuttings Planted
11. PW has completed Highway User Tax Fund (HUTF) reporting and data processing.
12. PW is completing Lead and Copper testing per CDPHE guidelines for 2023/2024
13. Flushing of the entire towns water supply system completed every 6 months.

Mail Kiosk:

1. Public Works will be installing Solar Street Lights at Mail Kiosk in various locations to aid in nighttime safety and mail collections by residents. The solar lights will be removed the second week of September from Main St and relocated to Kiosk area to save money on purchases.
2. Public Works will enhance the recycled asphalt parking area at the Washington St Mail Kiosk

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