

MONTHLY ENGINEER'S REPORT

DATE OF MEETING: SEPTEMBER 18, 2024
CLIENT: BACA GRANGE WATER & SANITATION DISTRICT (BGWSD)
SUBJECT: MONTHLY ENGINEER'S REPORT **NEW ITEMS IN BOLD**

GENERAL ENGINEERING (PROJECT NO. 0001)

The district's discharge permit expires on November 30, 2024. A discharge permit application must be filed six months prior to the termination of the permit. Therefore, the permit application is due on May 30, 2024. Element will assist the district with the discharge permit application. Currently the district has an individual permit. If it is possible, Element recommends the district apply for a general permit as there are several benefits of a general over an individual. We are currently reviewing if the district is eligible for a general permit.

We are currently working on the general permit renewal application and plan to have that sent to the district for review by the end of February.

Element is assisting the district with an application for the FY2024 Water Smart grant. This application will be written in support of a project to replace outdated water meters and install meters and meter pits where meters are located in homes. The grant is due by February 22nd.

The Water Smart grant application for meter replacements was submitted. Element continues to work with the district on compiling the discharge permit renewal application and associated documentation.

No items to report.

WATER AND WASTEWATER MASTER PLAN UPDATE (PROJECT NO. 0009)

The Water and Wastewater Master Plan Update document has been finalized in draft format and provided to the BGWSD staff and board for review.

The master plan was approved by the district board in September 2022. The district approved Water and Wastewater Master Plan culminated in recommendations for water and wastewater system improvements. These recommendations are being included in the Wastewater Treatment Plant Improvements (Project No. 0010) and Water Treatment Plant Improvements (Project No. 0011) projects. Status reports on these projects are presented under their respective project numbers.

The master plan also included recommendations for water loss reduction. Reporting on progress for this item is listed under General Engineering (Project No. 0001). As the master plan document itself has been approved, and action is being taken on the master plan recommendations, no additional updates will be included on this project number.

No items to report.



WASTEWATER TREATMENT PLANT IMPROVEMENTS (PROJECT NO. 0010)

A draft of the alternatives analysis was submitted to district staff and a meeting held to review and discuss. The updated alternatives analysis memorandum has been completed and submitted to district staff. This document was reviewed with the district at the board retreat. It was recommended that the WWTP should be put on hold based on the most recent influent loading data.

Element is conducting a search for a contractor/consultant to provide a structural and environmental analysis of the wastewater treatment plant building. It was determined that the facility may need structural and/or environmental (mold) remediation and an inspection and report should be generated.

Element has solicited a proposal from our subconsultant for a mechanical, electrical, and structural review of the existing WWTP building. This proposal was forwarded to district staff for review.

WATER TREATMENT SYSTEM IMPROVEMENTS (PROJECT NO. 0011)

The Water and Wastewater Master Plan Update recommended a water project be completed including the following:

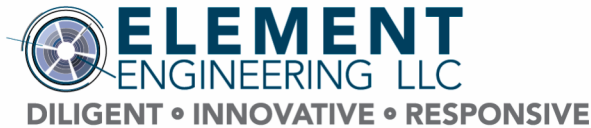
- Integrate the Motel Well and Booster Pump Station into the large BGWSD system.
- Increase Water Treatment Plant (WTP) Pumping Capacity
- Add Administrative Building for district.

It is recommended that these projects be funded through the Colorado Department of Health and Environment (CDPHE) State Revolving Fund (SRF) Loan Program. Upon completion of the WWTP PER and ER the funding process for the water system improvement project should begin. A preliminary schedule for the proposed project is shown below. Note that this schedule may vary widely based on review time by CDPHE.

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|---|----------------------------|
| • Compile and submit pre-qualification form (CDPHE funding) | December 2022 |
| • Compile and submit Project Needs Assessment | April 2023 |
| • CDPHE review and design and engineering grant execution | July 2023 |
| • Design, CDPHE permitting | August 2023 – March 2024 |
| • CDPHE funding coordination and loan execution | February 2024 – April 2024 |
| • Bidding | April 2024 |
| • Construction | June 2024 – December 2024 |

The pre-qualification form was submitted in December of 2022. A pre-qualification meeting has been scheduled with CDPHE, DOLA, BGWSD, and Element staff on Tuesday January 31st at 10:00. The pre-qualification meeting is the next step in the CDPHE funding process where all entities discuss the proposed project and review the steps in the funding process.

The prequalification meeting was held to discuss the CDPHE funding process specific to the BGWSD water project. The district qualifies for a planning grant of \$10,000 to support compilation of the Project Needs Assessment. The planning grant requires a local match of \$2,500, for total funding of \$12,500 for the Project Needs Assessment. The Project Needs Assessment (PNA) is an engineering planning document



similar to the PER but compiled in a format and form acceptable to CDPHE. Element has compiled a proposal to complete the PNA on behalf of the district.

The draft PNA is nearly complete with an internal (Element) review by the middle of April. We are on target to provide the draft to district staff by the end of April.

CDPHE has provided a pre-qualification review letter after our January pre-qualification meeting. The review letter (dated April 19, 2023) is attached to this report. This letter clarifies that the district is eligible for a planning grant (already obtained), a design and engineering grant, and Bipartisan Infrastructure Law (BIL) funding.

Element finalized a draft of the PNA and transmitted it to district staff on May 9, 2023. It is recommended the district board schedule a work session or special meeting to review the final PNA during the month of June. In the meantime, Element and district staff will work to resolve any initial questions and/or comments.

The draft PNA is scheduled to be reviewed by the district at an August 23rd meeting. A handout summarizing the PNA has been transmitted to district staff for board distribution.

The district approved submittal of the PNA at the August 23rd meeting. Element has coordinated with district staff and the PNA has been submitted to CDPHE. We are awaiting CDPHE review of the document. Element will respond to any questions or CDPHE comments.

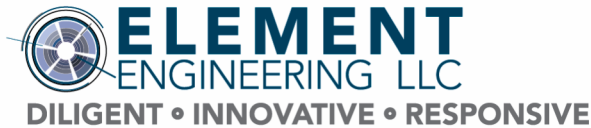
The PNA has been approved. See the attached approval letter.

We have been exchanging email correspondence with CDPHE regarding the district's potential Design and Engineering grant (D/E grant) for the drinking water project. The proposed budget from the US Congress is significantly cutting the EPA capitalization grants to the various state SRF programs. Therefore, CDPHE is unsure if they will have D/E grants available and may not know the available amount until September of 2024.

CDPHE will, however, allow the district to recoup funds spent on design and engineering costs from the construction loan, when it is issued to build the project. This would mean funding the design of the project upfront and recouping the costs at the time of construction. The district may apply for a DOLA grant to fund up to half of the design related costs. Therefore, the two options moving forward are as follows:

1. Self-fund the design of the water project and reimburse yourself with funds from the construction loan when the project design is completed and goes to construction. In this case we could potentially apply to DOLA for a 50/50 match grant for design.
2. Wait to see if D/E grant funds become available later in the year and proceed accordingly if one is awarded. If those funds are not available, re-consider item number 1 above.

The design and engineering costs associated with the water system project is \$108,370.00. Therefore, the district could apply for a DOLA grant in the amount of \$54,185.00, which would be a Tier II grant. The upcoming DOLA cycle begins accepting applications on March 1 and closes on April 1. Awards are



estimated to be made by July of 2024. Note that if the district intends to use this grant, no work can begin until the grant contract is executed.

The district has selected to apply for a DOLA grant during the March 1 – April 1 application period to support design. Element will assist the district in completing the grant application. This application has been submitted by the project team.

CDPHE has reached out to Element and indicated that funding for a design and engineering grant in the necessary amount is available. CDPHE is currently working on this grant paperwork with the district.

2023 WATER LOSS PREVENTION PROJECT (PROJECT NO. 0013)

Element staff are periodically working with district staff in developing a water loss prevention program. It is likely that this prevention program will take several months to collaboratively develop prior to presentation by district staff and Element to the board. Element is assisting the district in assembling cost estimates for PRV vault and water main replacement program. Our initial meeting has identified the following items to focus on:

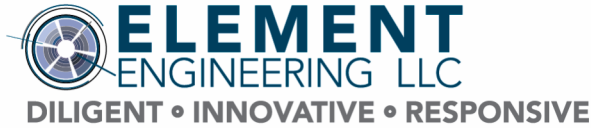
- PRV Vault Cost Estimate
- Metering Vault Cost Estimate
- Cost Estimate 1,000 Feet of Main (General)
- Meter Inventory (Ages, Visual Inspection)
- Unmetered Service Survey
- Testing Meters
- Leak/Break Fix Map
- Water Main Replacement Program

District staff is interested in applying for Saguache County grant funds to potentially pay for relocation of PRVs and installation of flow meter vaults to study. Potential uses for this grant money is installation of metering vaults, PRVs, and water shutoff valves to better isolate for breaks. Also, money could be used for leak detection equipment. A cost estimate of a PRV and metering vault has been provided to district staff for review.

Element has been released on design services of the PRV relocation, new PRV installation, and two new meter vaults. Element is completing design and bidding documents so the project can be publicly bid. We are currently waiting for the field survey work to be completed in order to finalize our draft documents for internal review.

We have received the survey and are finalizing the water loss prevention project deliverable design documents for review by district staff.

We created a cost estimate for replacement of the receiving manhole of the Wagon Wheel Lift Station with a polymer manhole that is corrosion resistant.



We have finalized the water loss prevention plans and met with district staff to review. Upon approval of the drawings the next step is project bidding. The project may be advertised and bid in early 2024 if desired by the district.

The project plans have been finalized and approved by the district. The following bid schedule for this project is as follows:

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|-----------------------------------|---------------------------------------|
| • Advertisement Published | Week of January 22 nd |
| • Plans/Specifications Available | January 26 th at 4:00 PM |
| • Bids Due (via email to Element) | February 19 th at 4:00 PM |
| • Review Bids at Board Meeting | February 21 st |
| • Notice of Award | February 23 rd (estimated) |

Bids for the project will be presented at the district's February 21st board meeting.

Element and district staff requested that Cooley and Sons revise their bid to only include the two meter installations and the required mobilization. The revised bid table is attached to this report. This will allow the project to fall within the district's budget and gain valuable data to dial in water loss by geographic area.

Element is currently working with Cooley and Sons to nail down a delivery date for the equipment, specifically the water meters and determine a final installation date.

A pre-construction meeting was held Monday May 13th at 9:00 AM.

The vault and piping installation has been completed. We are currently awaiting delivery and installation of the flow meters.

Flow meters have been installed and a punch list provided to the contractor. This project has been closed out and the advertisement for final payment has been provided to the district.