

ELVD Updates 10/20/21

Water Main Replacement Project

Article 02, to replace water mains on streets, passed at the Annual Meeting (4/17/21). To see if the Village District will vote to raise and appropriate the sum of \$1,260,000 for the purpose of replacing water mains on streets, with \$315,000 (25%) to come from a Drinking Water Groundwater Trust Fund grant, and to authorize the issuance of not more than \$945,000 of bonds or notes in accordance with the provisions of the Municipal Finance Act (RSA 33); Further to authorize the municipal officials to issue and negotiate such bonds or notes and to determine the rate of interest thereon.

Goals of 2021 Water Main Replacement Project:

- Replace as much water main infrastructure as possible based on engineering and contractor input and funds.
- Gather a plan in place for water main infrastructure/roads not able to be replaced within this project limit, which is favorable for any upcoming grant opportunities.
- Within project limits, replace existing 2" plastic pipe & nylon fittings water main installed in 1966 that show extensive break history with a shallow installation and inadequate bedding with all-new 4" PVC pipe which will reduce leakage, cost for repairs and reduce stress on our wells.

Preliminary Project Timeline of Road Replacement Project:

May 2021

- Gather necessary information for grant & loan applications.
- Reviewed and selected Roads for Environmental Review: Autumn Rd (2,825 ft), Birch Tree Lane (675 ft), Bobolink Lane (925 ft), Deerpoint Dr (1,800 ft), Ellenbrook Rd (2,000 ft), Moccasin Trail (1,770 ft), Old Lantern Rd (1,200 ft), Racoon Alley (1,375 ft), Skyview Lane (900 ft), Turtle Bridge Crossing (875 ft), Winter Rd (3,235 ft).

Summer 2021

- Submitted New Hampshire Drinking Water & Groundwater Trust Fund (DWGTF).
- Submitted State Revolving Fund (DWSRF) Loan agreement.
- Aquamen to provide assistance with utility mark outs and design reviews for survey work to start
- Wright Pierce hired a registered New Hampshire Land Surveyor for Environmental Review.

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- Topographical and Utility surveys will aid in contract documents in the form of drawings and specifications. Once all necessary project data and field review is completed, the project will go out to bid.
- The environmental review for the Drinking water State Revolving fund completed.
- Drinking Water State Revolving Fund loan and Drinking Water Grant Trust Fund was approved at Governor council.

Fall 2021

- Two areas identified during survey are in close proximity to septic fields, service line relocation is recommended.
- Wright Pierce is working on design drawings for areas identified, draft drawings will be given to the Board of Commissioners for review.
- New Hampshire Department of Environmental Services typically requires a 4-week bid period with projects funded through their programs.
- Wright Pierce met with Aquaman on site for data review.
- Next steps include: working on Construction contract documents that comply with state and federal requirements.
- Wright Pierce will assist in the bidding process and advertisement of bids. Bids will be reviewed for qualifications and compliance with requirements.

Fall 2022

- Completion of water main replacement construction.

Eastman Well

Completed Actions:

- Sand & Gravel Exploration for Well Site - After extensive research and data, with the help of our engineering company (Wright-Pierce) Eastman Park was the best viable option for a well. An added bonus which saved funds is, we already owned the land.
- Gravel Packed Well drilled at Eastman Beach.
- Preliminary Well Application for Large Community Wells sent to NHDES & approved. 5-Day Pump Test completed and report completed.
- Final Approval submission to NHDES

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Continuing Actions:

- Awaiting review from NHDES on Final Approval (up to 45 day review time once submitted).
- Pilot Testing by Aquamen Water Solutions (ongoing on-site) to explore final design treatment options.
- Treatment Design by Aquamen Water Solutions has begun.

Upcoming Actions:

- Purchase Propane Fired Generator for Eastman Well (depending on Treatment design we have the option and decision to shut off Mary Rowe well, in which we could re-use the current Mary Rowe Generator, eliminating the cost to purchase one).
- Treatment Plan to be submitted to NHDES.
- Determine the Best Piping Route that is also cost effective, potentially aligning with any upcoming projects.

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Well Piloting Process

Aquamen has modified their 8.5'X18' enclosed trailer to set up the pilot system and installed treatment tanks, heat system etc. needed to complete the pilot testing on site (Eastman Beach). The pilot system consists of 5 filter banks for multiple configurations and multiple chemical feed systems for various chemical injections for treatment

Well Piloting Components Include:

- Creating a baseline of the effectiveness of treatment, with multiple samples of water to assess effectiveness and sent to Lab for analysis
- Jar testing with various polymers and coagulants
- Pilot testing various treatment processes with filtration aids identified and multi configurations of filtration media, filter sand and anthracite among them.
- Target for a scaled treatable flow rate of 5 GPM.
- Assessing operational capacities of the various configurations we will run to aid in determining viability of a given process.
- pH adjusted pilot trial ongoing
- Field and lab analysis of the process water of each treatment configuration.

Thank you, The ELVD Board Of Commissioners

Questions or Concerns? Email: info@elvdnh.com