# **Eastman Well Project History**

# Written by Commissioner Auger

In December 2019, Wright-Pierce started the Phase I Hydrogeologic Assessment of existing sources and potential development of a new groundwater well source. Our Water System was found to be deficient by 20-40 gallons per minute (gpm). Potential preliminary locations were located for a new sand and gravel well site or bedrock well site.

Annual Meeting Year 2020 Article & Meeting Minutes on Eastman Well Article Four: To see if the Village District will vote to raise and appropriate the sum of \$350,000 for the purpose of researching and obtaining a new water source and water infrastructure upgrades, and to authorize the issuance of not more than \$275,000 of bonds or notes in accordance with the provisions of the Municipal Finance Act (RSA 33) and to authorize the municipal officials to issue and negotiate such bonds or notes and to determine the rate of interest thereon. The remaining sum of \$75,000 would be withdrawn from the ELVD Water Capital Reserve Fund (913). (2/3 ballot vote required.)

Commissioner Taber made the motion to proceed. Commissioner Auger seconded the motion. Commissioner Auger spoke stating that it is important that we find a new water source/s and having the appropriate water source capacity especially going into the Summer months, as this seems to be the districts' most challenging time and has been for many years. There are a couple of things we could do with this money, if approved. We could explore to find a new well and to complete the Phase 2 well assessment and test for well drilling that Wright-Pierce had suggested which includes installing pressure transducers, doing a well video for pump assessment and sand and gravel exploration. We could also assess doing our street/s that need the most work (currently Deerpoint Drive) due to frequent leaks. Mary Ellen Duffy Tanamly's question was whether this money was to research what new water source or infrastructure we might or need/need or to actually research and then pay for obtaining that source? Commissioner Auger's response was that the intent is to research and fund a project. Commissioner Taber added this is part of a larger program (almost a 5-10 year one) for improving the water system infrastructure. We currently have 8 bedrock wells. As of this meeting we only have 6 active wells and part of that is consumption, usage rates and historical leak rates. One of the wells dried up in March. Wright-Pierce (through the Asset Management Program) identified that the district already owns 2 pieces of property that could be viable for additional source water. In order to support the district, we need wells that can pump 20-40 gallons per minute with the suggestion for a gravel pack well/s on the Eastman Park and Mary

Rowe areas. Martha Caron asked if we are going to have a written long term plan for recommended long term annual expenses to include increasing water revenues to meet the cost and becoming more proactive and not reactive? Greg Smith's response (from Wright-Pierce) was that our system has quite a lot of leaks (which is our biggest source of water loss) and is similar to other systems in the State. He stated that we are in a unique situation in that our bedrock wells are being over pumped significantly and results in the need for transducers, which is also a DES requirement. Finding additional water is much less expensive than replacing large portions of water main where a significant expense would occur. Water lines will need to be replaced regardless of what the district's plans for water are in the future. Costs increase with wells if we demand that they pump more than 40 gallons per minute. Sand and gravel wells are more sustainable, predictable and easier to maintain than bedrock wells and could result in a higher water quality. Martha Caron made a statement that the original engineering of our water system hasn't been adequate enough to deal with the way the district has grown over the years and has since then sustained neglect and she again suggested a written plan for the future of our water. Joanne Staples questioned if we're ever going to connect to the Town of Hillsboro? Treasurer Kilcoyne's response pointed to the May 28th Asset Management program presentation and stated that this is a summary of the work and data that Wright-Pierce compiled over the last 6 months and the \$350K is needed as a result of this program entailing what would be needed financially in the coming years to improve our system. This detailed presentation is available on the website. Mary Ellen Duffy Tanamly had a question about the aforementioned water quality statement and asked for more of an explanation specifically regarding the arsenic levels. Greg Smith's response was that typically bedrock wells rely on much older water and deeper water and pick up more minerals and usually have poorer water quality. Sand and gravel water is much younger water and therefore usually better quality. Admin Kardaseski mentioned that she's aware that many residents are hoping to connect to the Town, but in doing this would require a two-thirds vote and doesn't believe this will happen and if it would ever happen, it would not happen quickly. We need to be able to rely on our own sources and this board has done a tremendous amount of work to get a plan in place and this will not be a cheap endeavor due to the fact this system is over 50 years old and wasn't installed properly. Commissioner Taber responded with more details of the board's intent for this year. Ultimately, source water exploration costs and installation of a new water source as well as the installation of our second required zone meter for Hemlock and Hummingbird and to also install piping that was never done to connect the two. Any new infrastructure installed will be 4" piping to provide volume and easier repairs. The Asset Management (mentions financial impacts and future opportunities for a 10 year plan) plan is step one in this direction. Every or every other year, the board will be seeking any funding (loans and/or grants) we are eligible to receive to repair 2 to 4 roads which can range from \$500K to \$2 million dollars. A resident

submitted an email prior to the meeting asking what the plan was to complete Phase 2 of Tatum & Howard's original plan? Phase 1 was replacing the main around the lake and Phase 2 was replacing 70 year old leaking and decrepit water lines. Commissioner Taber admitted he has not reviewed the Tatum & Howard plans and does not know what status they have nor what documents were provided at that point in time. The board had to act on finding source water that came from last year's well/pump failures and the extent of leaks found compounded with the need to truck in water. The new board found that only 7 out of the 8 wells were working and no means in place to measure performance of the wells and the pumps would run a normal cycle or 24/7 depending on the storage tank volume. The board challenged the water system operator (WSO) to look for several possible leaks which resulted in limited efforts for several of them and other leaks were reacted to very quickly. The Asset Management program provided us with information that in the past 5 years our well output has decreased from 200 gallons per minute to about 60 gallons per minute. All future projects (infrastructure, water source and metering) could cost in excess of \$10 million dollars. This shorter term approach was decided upon to reach the district's long term goals. A much longer term goal would be to hook up to Hillsboro or Henniker and those cost estimates provided by Wright-Pierce stated there were 6 options ranging from \$4-\$6 million dollars and is only for the initial installation cost. The volume of water the district would purchase/use in excess of 22 million gallons would cost almost \$400K based on current rates, which is more than our current operating budget. Installing the last 2 zoning meters that are part of conservation methods, NHDES may grant an extension (for 3 years) of us having to install residential meters and that cost alone can be \$600- \$1 million dollars. If we continue to be self funding, there could be a potential of the water bills increasing \$100-\$160 dollars every year. Any funding we can get can soften the need to increase resident water bills. Many agencies that provide funding will not consider funding unless we show we have full intent on improving our own infrastructure. Keith Huber asked what the current plan is for the water bills. Commissioner Taber's response was that the bills would increase to \$860 this Fall. David Lee asked if we are planning to put meters on each residence to ensure each resident is paying for exactly what they use? Commissioner Auger's response was yes, that sometime in the future DES will require each residence to have their own personal meter. Martha Caron asked if it's possible to know how much the water bill would increase before next year's annual meeting? Commissioner Taber's response was that it shouldn't be an issue and not unrealistic if over the next 3 years we address source water improvement and 3-6 of our roads and would help assist in grant funding for the meters. Tricia Stefanelli brought up that a few years back during meetings that if we had meters residents would get charged a base rate plus usage? Commissioner Taber's response was that it would be accurate as the Town has a similar billing process. But, we would still need money to cover our water operator costs and don't know what those costs would be right now. Warren Fleck's question was about spending thousands of

dollars for a new well and as we're in a dry spell with hardly any rain and there isn't any guarantee that a new well wouldn't run dry and asked about meters as some residents don't bother conserving water and having outdated toilets and stated that the water ban we currently have is useless and wants to know if we can have meters regardless of the costs? Greg Smith's reply was that he agreed with Warren that drilling for new wells (the new sand and gravel wells would be better than the bedrock ones we have now) might be a difficult decision and agrees that conservation measures are a valid idea for things like older toilets and shower heads. Melissa Taber wanted to know that if we did hook up to Town water, would we be paying a fee to connect with them plus we would still need to replace all our piping? Commissioner Taber's response was yes and would cost an excess of \$10 million dollars. Moderator Daley added that the Town would be willing to add us to their water supply but would be a very high cost on our end. Carolyn Renken questioned the new zone meter to be installed. Commissioner Taber's response stated there's a missing link (100-150 feet of piping) between Hemlock/Hummingbird on the Gould Pond side. Martha Caron asked if water bills could be configured per residential occupancy instead of the current flat fee? Commissioner Taber's response was that this could be reviewed to try and make it more equitable. He also stated that if this article fails, it will look unfavorable as far NHDES (concerning fines and violations) is concerned and would inhibit any possible funding we may be able to receive in the future. David Lee asked whether or not our current bedrock wells could be turned into sand and gravel wells? Greg Smith's response was that there certainly is potential to do that and there are certain DES requirements that would have to be met. But, for now we are trying to continue with our initial phase and forego minimal impact to residential property. No further comments were made on this article. (This article passed).

In June 2020 the Water System Asset Management Plan was completed with a matching grant. Including: existing system review, storage tank evaluations, distribution system evaluations, source water evaluations, level of service, Capital Improvement program and financial implementation plan. An Asset Management Plan is also a requirement for most upcoming grant opportunities.

Source Water Capacity has been highlighted by NH Department of Environmental Services (NH DES) and in a number of reports over the years. Seeking an additional source water development was a highlighted recommendation in the most recent Asset Management Plan and the idea was supported by NH DES.

In August 2020 the Source Water Investigation for Sand and Gravel well exploration concluded the only viable option was found to be the Eastman Beach location with test wells showing priming output.

A Sand and Gravel well Investigation at Eastman Beach (TW 1-20) was chosen for the following reasons:

- Sand and Gravel wells are more predictable than bedrock wells
- Close proximity to surface water serves as a consistent source of recharge for well
- Relatively low yield requirements for source would require only marginally productive soils given ample saturated thickness indicating high probability for success to develop a new, sustainable source
- Less expensive to explore than a bedrock well
- On property we already own

NHDES determined that the 175 food protective radius for TW 1-20 was acceptable and the board of Commissioners closed parking for Eastman Beach while investigating Eastman Well viability. The Beach (Eastman Beach) is usable under its current state, as a walk-in while well investigation is taking place. NHDES indicated that vehicle parking would not be in-line with use within the protective radius. This includes Eastmen Beach parking lot and along the roadway, parking is prohibited.

### Summer 2020, the Gravel packed well was drilled at Eastman Beach.

Preliminary well applications for Large Community Wells sent to NH DES and approved. The 5-day pumping test and report was completed.

In Summer 2021 Pilot Testing by Aquamen Water Solutions began. The challenge will be to find a cost-effective treatment to remove TOC (total organic carbon), iron and manganese to acceptable water quality within state guidelines.

#### Well-Piloting Components:

- Creating a baseline of effectiveness of treatment
- Multiple samples of water sent to the Lab for analysis, daily during operations
- Jar testing with various polymers and coagulants
- Various treatment with filtration aids
- pH adjusted pilot trial
- Being conducted on-site in an enclosed trailer with pilot system
- Pilot system includes 5 filter banks for multiple configurations, multiple chemical feed systems and more.



# **Well Piloting Process**

Well Piloting will continue 8/11 on-site by Aquamen. Current water quality concerns at Eastman Well are Iron, Manganese and Organics. The goal of pilot testing is to reduce these contaminants in the water with effective and economical solutions for treatment.

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

# ELVD Updates 8/10/21

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, Board of Commissioners Questions or Concerns? Email: info@elvdnh.com

A pilot testing trailer was built by Aquamen and used on site for several months until Pilot Testing completed in May 2022.

Aquamen has begun creating the treatment design. Once an effective treatment design is completed and can be presented, it will be sent to NH DES for review. This review can take up to 45 days. If approved, treatment upgrades will be needed at the Meetinghouse Treatment center and piping will need to be installed (piped up to roadway) to get this well online for use.

#### May 2023 - Eastman well transmission line installation

#### June 2023 Water quality summary (Wright Pierce)

As previously discussed treatment using a combination of GAC and Greensandplus for the removal of TOC, iron, manganese, and sulfides was shown to be effective but less so when applied in the order of Greensandplus followed by GAC. GAC followed by Greensandplus appears to provide better treatment and run times, but there is potential for the GAC media to expire prematurely in this configuration. Additional information is recommended to be gathered to further understand potential full scale capital and O&M costs before proceeding with design of a full scale treatment system.

#### Eastman Well Phone call with State 7/13/2023

Pilot treatment showed 2 configurations, works best with GAC followed by greensand but this method of treatment has a limited lifespan, works like a sponge, cannot backwash, would need to be replaced. Current \$2/lb for replacement cost.

- Unknown now How long will GAC last?
- Strongly Recommending Long term pilot testing
- Piloting protocol to be included in Strategic Planning Grant

NHDES seems amenable to allowing water from Eastman that is being treated through a pilot treatment process, assuming the finished water quality will be acceptable, to be sent to distribution. Aquamen believes they can successfully implement a pilot solution that would treat 5-10 GPM. Continuing discussions to refine the protocol and costs to most effectively get this up and running in the short term.

Next steps: protocol and costs (pilot effort costs from Aquamen) to most effectively get this up and running in the short term.

#### September 21, 2023 - Aquamen update:

Working with engineers & the state to come up with a pilot process on a larger scale that would feed into distribution. After the initial well was drilled and tested, the water quality had high iron, total organic carbon, manganese, low ph, high solidified. A lot of mineral content issues. The biggest being the total organic carbons. Being organic, it interacts with all the other minerals that are conventionally removed relatively simply and creates a bonding that makes conventional treatment very difficult. So we did a small scale pilot test to prove the ability to test the best process for the water to end up with a portable water quality. We had to try out a lot of different treatment processes. Keeping in mind costs of ownership. It is a very in-depth process and we are making sure the process that is put in place is a process that is safe.

#### October 2023 - Plan for Long Term Pilot Testing

For installation of a long term pilot system to treat a theoretical flow rate of 10 gpm is outlined below. We are designing with the ability to reconfigure treatment techniques on the fly, primarily with respect to location of chemical feed injection points to allow for chemical injection to occur at any point in the process. Below are the treatment system designs.

PotAsh Feed System: This will be driven by an LMI C761-468SP chemical metering pump with a delivery range of .04 - 4.0 GPH at 175 PSI. We will utilize a 50 gallon day tank for the potassium carbonate solution.

Chlorine Feed System: We will utilize 12.5% sodium hypochlorite as the disinfectant and will feed from a neat solution direct from the 55 gallon drum. Delivery will be driven with an LMI AD941-A20HI chemical metering pump with a max delivery of 0.5 GPH at 250 PSI.

Aquamen WS2H 10 Cubic Foot Centaur Carbon Filter with fabricated internal sample ports: system vessel size is 24" x 72" natural mineral tank with 6" flange top, 2" Hub and lateral assembly, Clack WS2H control valve, Aquamen 6" flange adaptor with 4 - .25" FNPT internal sample access ports (Custom Fabrication), 6" flange X 2.5" FPT control valve mounting adaptor, 250lbs 1/4" X 1/8" gravel underbedding, 10 Cubic feet of Calgon Centaur bituminous activated carbon, 24v relay expansion board and 2" Clack separate source MAV.

Aquamen WS2H 15 cubic foot greensand filter with dual intermittent/continuous oxidation delivery system: system vessel size is 30" x 72" natural mineral tank with 6" flange top, 2" Hub and lateral assembly, Clack WS2H control valve, 6" flange X 2.5" FPT control valve mounting adaptor, 350lbs 1/4" X 1/8" gravel underbedding, 15 Cubic feet of Inversand Greensand Plus Manganese Dioxide filter media, 24v relay expansion board and 2" Clack separate source MAV.

Plumbing: We are quoting for handling the pilot system installation from a generated feed in the treatment building and integrating it into the distribution system. Any work to bring the water supply into the building would be quoted and billed separately. The system will be plumbed in 2" schedule 80 PVC materials and integrated into the 4" Schedule 80 PVC discharge to distribution.

to rebed 1 - 10 cubic foot carbon filter including removal and disposal of the spent carbon, flush and clean vessel, refill with new gravel underbedding, carbon media and flush the system.

### October 2023 Notes (sent by Aquaman)

ELVD would own the equipment. That being said, The control valves (WS-2H) with the 2" MAV (for separate source regeneration) can be used for the full scale system as well as the internal sampling collars for the 6" flange top. For the mineral tanks the 10 cubic foot vessel could be rebed with E33 arsenic media and treat a flow rate of 15 gallons per minute. This provides an empty bed contact time of 4.97 minutes. Specs for E33 list a typical EBCT time of 3-4 minutes. If

2 carbon filters are used this would provide 2 vessels for hummingbird arsenic treatment in a redundant set up. A 15 cubic foot vessel would provide an EBCT of 4.47 minutes at a flow rate of 25 gallons per minute. These are all options for repurpose to hummingbird arsenic treatment. The chemical feed pumps would be appropriate for full scale design and would also be integrated into the full scale build out.

Major components to be integrated into full scale system:

- LMI C761-468SP chemical metering pump
- LMI AD941-A20HI chemical metering pump
- Clack WS2H(F) control valve(S)
- Aquamen 6" flange adaptor with 4 .25" FNPT internal sample access ports (Custom Fabrication)
- 6" flange X 2.5" FPT control valve mounting adaptor
- 24v relay expansion board
- 2" Clack separate source MAV
- other major controls and components

#### Systems that may be repurposed:

- Vessel with 6" flange top 10 cubic foot 24" X 72" provides EBCT of 4.97 minutes @ 15
   GPM
- Vessel with 6" Flange Top 15 cubic foot 30" X 72" provides EBCT of 4.47 minutes @ 25 GPM

### November 2023 Phone call with State (from WP)

Dylan and I met with Randy Suozzo to discuss the pilot effort. He is developing a list of samples and results that we'll need to achieve before introducing Eastman well water into distribution. As part of this new source approval ELVD will need to restart their lead and copper sampling routine. This shouldn't be an issue but you'll have more sampling to complete. The treatment changes at Patten and Humingbird will result in a similar restart.

We also met with Craig McGraw to review the cost and scope of supply and installation for the pilot work.

Action items that we working on to move the Eastman well project forward:

- 1. Meeting with Randy and Drew Koff (well permitting) to discuss submission of the Eastman Well permit. Approval of the Eastman well permit will be subject to successful treatment so there will be some language that will be revised in the draft permit.
- 2. Excavation work at the well and at the Meetinghouse WTP that will need to be completed ahead of the pilot effort.
  - 1. Aquamen is developing a cost to complete the work in the yard at Meeting house WTP.

- 2. Connection of the Eastman Well to the transmission main that was installed earlier this year, pump installation, controls, and ancillaries at the well.
- 3. If the District is ready to approve Aquamen's scope of work, a lot of that pilot set up effort can be completed in parallel with the other work that needs to be completed to get this well online and making water.

new segment of line to be installed on the Mary Rowe offset line leading to the Meeting House treatment building for the Eastman Beech pilot testing. intent is for this piping change. It is solely to divert off from the main supply line coming into the building and diverting into the pilot test system.

#### January 2024

Trailer on site for long term pilot testing, prepping begins.

For the Meetinghouse/Eastman project-

# 1. Piloting and Wellhead Installation Effort

- 1. Installation of the water main and electrical conduit from the Eastman Park driveway to the well can be completed by Aquamen using AIS materials and DB wage rates. Work conducted by Aquamen to install the water main and conduit will be viewed as construction effort and they will need to supply a quotation and this will need to be reviewed and approved by NHDES as a sole source for this work (this is different than the guidance NHDES gave us last week in regards to Patten Well). Execution of a contract and the work in this manner should not be an issue and has been used by other organizations to complete construction related effort using their contract operator. I am planning to have a follow up meeting with NHDES to clarify this process as the guidance from NHDES has changed from conversation to conversation.
- 2. WP is currently preparing a plan for Aquamen to provide a quote to complete the water main installation at Eastman well. We should have that plan to Aquamen today for their use in developing a quotation.
- 3. The piloting effort and equipment related to the equipment installed at Meeting house is considered "preconstruction" effort as this work is not considered permanent and is not subject to the same funding constraints as "construction" effort. The invoice associated with the pilot vessel installation can be included in the next ARPA disbursement request.

#### 2. Permitting

- Temporary Groundwater discharge permit There will be need for discharge to ground for initial filter startup and intermittent backwash during the piloting effort. WP is developing this application and will forward for ELVD signature when it's ready to submit.
- 2. Shoreland Permit WP is currently developing this application. We will forward the application when ready for execution early next week.

3. Groundwater withdrawal permit – Permit Application was submitted in 2021 and we have requested NHDES continue processing this application. Approval and associated operational conditions are forthcoming. The modified daily withdrawals of the post 1998 wells (Patten 11 and Mary Rowe) are listed below for your reference:

		Post-1998 sources	Original PPV	Proposed PPV (gpd)
ACTIV E	012	BRW 11/PATTEN HILL 205' NW OF STORAGE	40,320	<mark>23,760</mark>
ACTIV E	111	MARY ROWE WELL /220' NE OF PH	14,400	<mark>5,040</mark>
		Eastman Well		28,799
		Total:		<mark>57,599</mark>

# 3. Project Funding

- The current end date of the loan/grant agreement that ELVD has in place for this
  project can be extended past the current 12/2024. In discussion with NHDES (R.
  Suozzo), this request should occur later this year once piloting is complete and
  construction timeline is better defined, acceptance of a grant/loan extension will
  be acceptable to NHDES.
- 2. The ARPA funds associated with the Meetinghouse project (\$252,000) need to be allocated in CY24 and then those contract fund can be expended by 2026. To that effect, ELVD has not executed design or CA Agreements with WP which can account for a significant percentage of the ARPA expenditure. Additionally contract work for installation of the pilot system by Aquamen and the needed permanent infrastructure at Eastman well (pitless adapter at the well head, generator, electrical, controls, site modifications, etc) are not dependent on the result of the pilot trial at the well site. This effort can be specified and contracts executed to allocate the ARPA grant funds in 2024 to ensure that the contracts are in place meet the conditions of the ARPA grant.

Pilot testing to begin as soon as well is operational.

Sept. 2024 – Aquamen is on site today installing the transmission line connection from the Eastman well site to the end of the transmission line connection

NH DES (Sept. 2024) Please keep in mind that the pilot test cannot start putting water into the distribution system until we have given final authorization as there is some paperwork on our end that needs to be done. Some additional testing will be required including what will be put on an updated Master Sampling Schedule.

December 2024 - Discharge permit

January 2025

- \*A new pole will be placed just to the left of the Eastman parking lot entrance gate.
- \*From there it will drop over to the current pole in that location where the Meter box and connections will be placed.
- \*Kyle indicated he would do the preinstall elements on the existing pole prior to Eversource making the service move so that it can be done and active once Eversource makes the move.
- \*Eversource will provide Kyle the Meter box on Monday 1/13/25 when the service crew is in the district for the Pattenhill service move.
- \*Eversource indicated that there is a possibility that the pole placement will not occur for 3-4 weeks as an estimate. He was not able to share an estimated swap over date or timing window once the pole is placed.

February 2025 - Internet support

July 2025 - Stamped plan and memo sent to NH DES

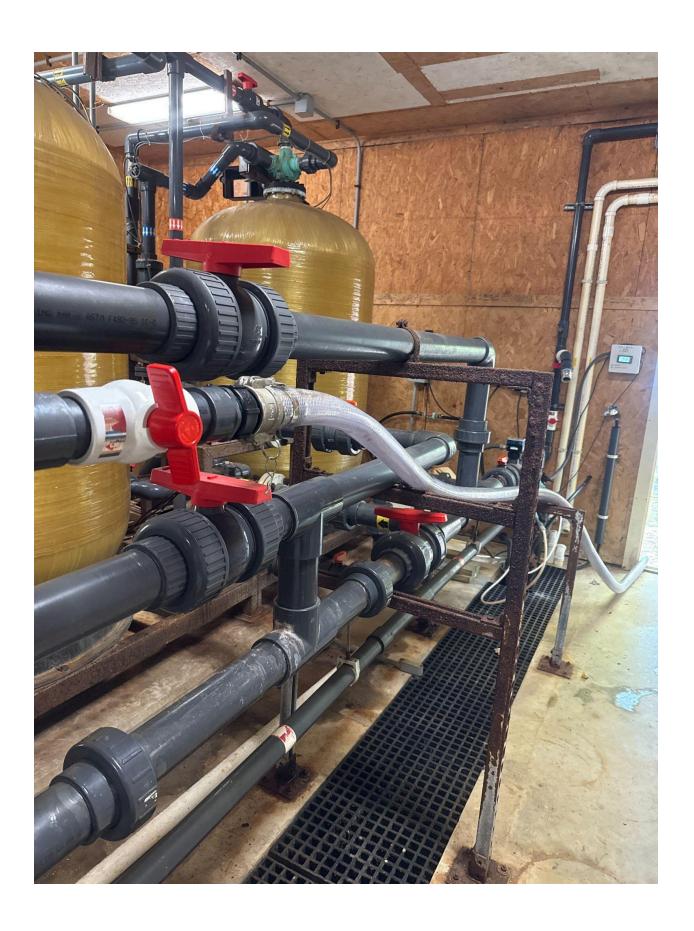
Sept. 2025 - pilot connection sketch submitted

NHDES is allowing to be put into the distribution system (not common)

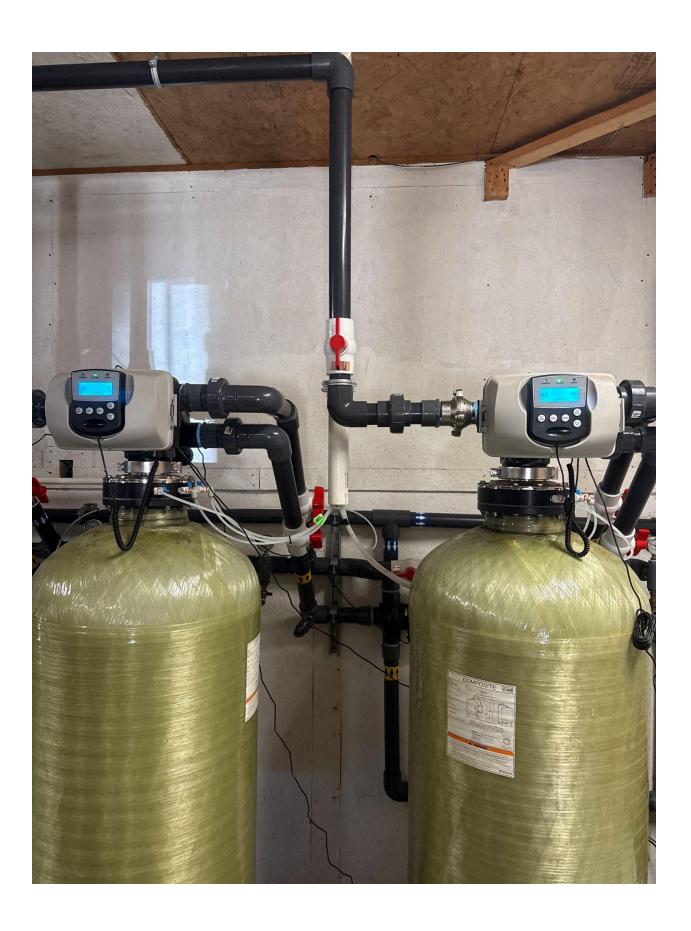
Craig – I am currently onsite in operations with the pilot system. To bring you all up to date with the system. Eastman well and transmission line to meeting house have been shock chlorinated flushed sampled for bacteria and passed. All three filters, the two 10 ft.³ carbon filters and the one 15 ft.³ green sand filter. We're all saturated and flushed with distribution water. The green sand filter was charged with chlorine and allowed to soak. I then seasoned the system utilizing well for. We ran 3500 gallons of water from well four through the system to complete the seasoning process. I am now in operation of running the Eastman well through the pilot system. I am running the system at 10 gallons a minute.

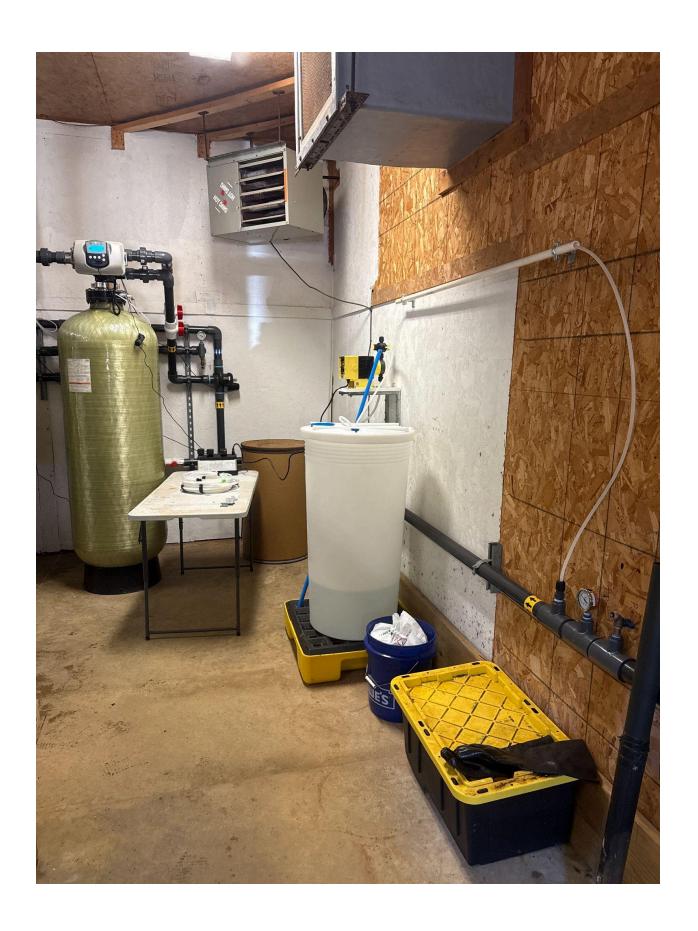
We have the carbon filters in parallel flow, each of them receiving 5 gallons a minute. Leaving the carbon filters we are injecting chlorine. Maintaining a residual of 1.5 mg/l going into the greensand filter and monitoring a maintained residual of .4 mg/L in the treated side of the greensand filter. We are running the filters to daylight for 3500 gallons then I will pull samples to send out AS by that time. Everything coming out of the treated side should be nothing but Eastman process water.











# 9/18/2025 Call with Aquamen

#### Eastman

- Completed greensand
- Chlorine analyzers soon
- Upgrade for meters to integrate to scada
- Disinfection of transmission line complete

NH DES 9/24/2025 – Based on the photos provided and *conditional* on the submitted schematic being **stamped** by a professional engineer **and resubmitted**, please consider this email as *conditional approval* to begin pilot testing either:

- after instrumentation is installed, or
- if pH and chlorine residuals are monitored manually a minimum of every 4 hours of operation.

Attached is the Investigative Monitoring required once the well is online. **Important:** please provide immediate notice of that occurrence.