Village District of Eastman

2026 Community Forum

Session 2

July 27, 2026

Welcome!

Welcome to the VDE's Second Community Forum for 2026

- **Three forums planned to share important VDE information and address important VDE issues.**
- **All will be held here at South Cove Activity Center starting at 6pm**
- **Why Summer?**
  - **To engage more (full-time and seasonal) customers in the discussion**
  - **To inform and take feedback on VDE major project plans**

VDE Forum Agendas

Tonight

- **Drinking Water system 101**
- **Drinking Water rates analysis**
- **VDE Drinking Water Capital Improvement Plan: Base case and increased spending case**
- **Customer feedback on Drinking Water CIP**
- **Customer Open Forum**

August Forum

- **Wastewater system 101**
- **Wastewater rates analysis**
- **VDE Wastewater Capital Improvement Plan: Base case and increased spending case**
- **Customer feedback on Wastewater CIP**
- **Customer Open Forum**

Change in After-Hours Contact Information

EFFECTIVE JULY 15:

603-863-6512

If customers have a VDE water or wastewater emergency, question, or concern, call

24 hours a day, 7 days a week.

- Eliminates use of ECA Security interface during “after hours”
- VDE contracting with utility-experienced call center for after-hours issue triage and forwarding to VDE on-call operator or management
- Office Business Hours
  - Monday-Thursday 8am to 4pm
  - Friday 8am to noon

Emergency

BILL PAY ABOUT VDE PROJECTS DOCUMENTS

WELCOME TO THE VILLAGE DISTRICT OF EASTMAN!

Your Water Source, Your Wastewater Steward

Emergency — No Water, Water Line Break, Leak, or Sewer Problem

R — **Report Issue** — Discolored Water or Low Pressure

Water Event Map

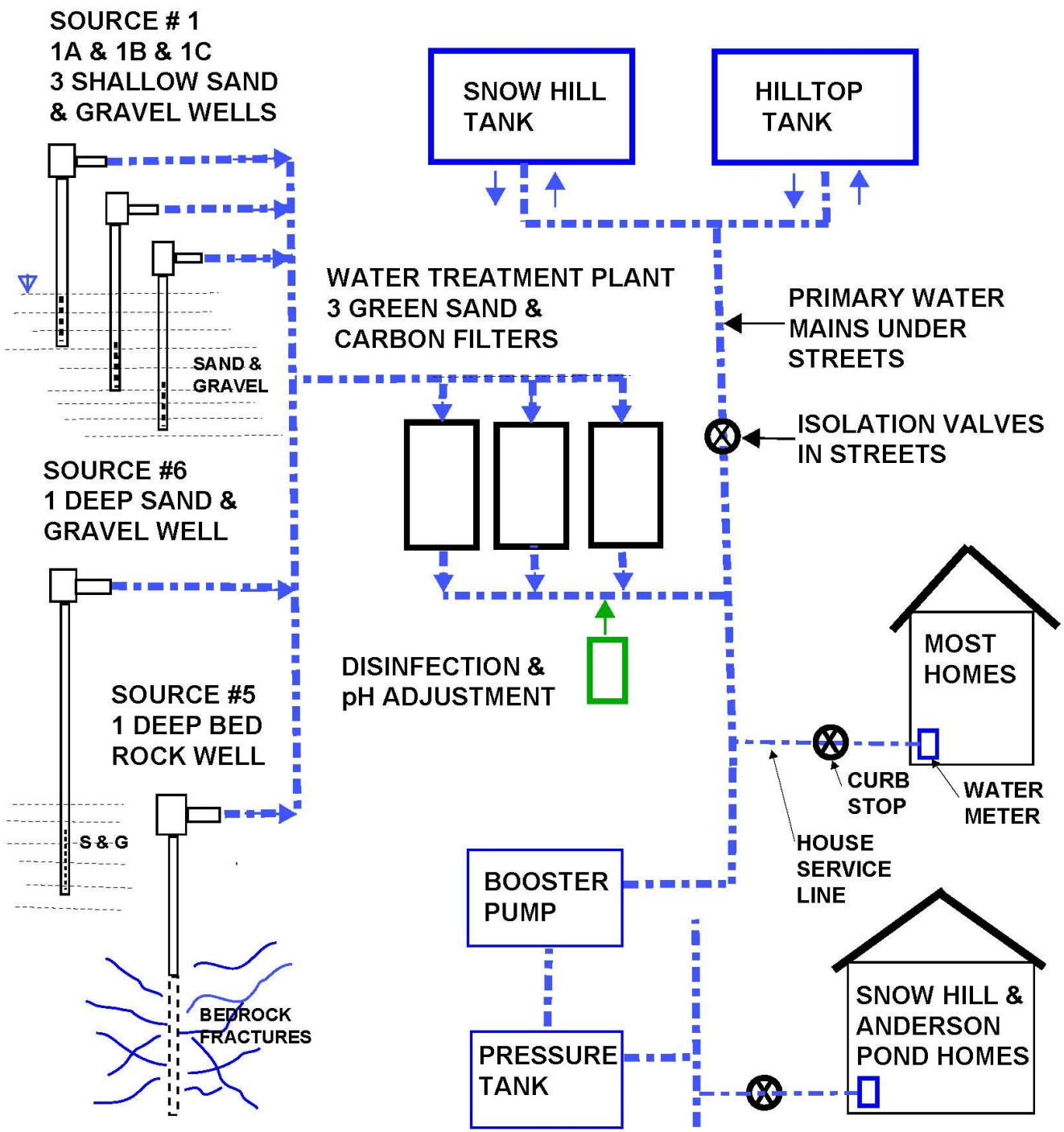
Important – Please Read!

Has VDE checked your home for lead piping?
VDE still needs to change some water meters – FREE OF CHARGE!

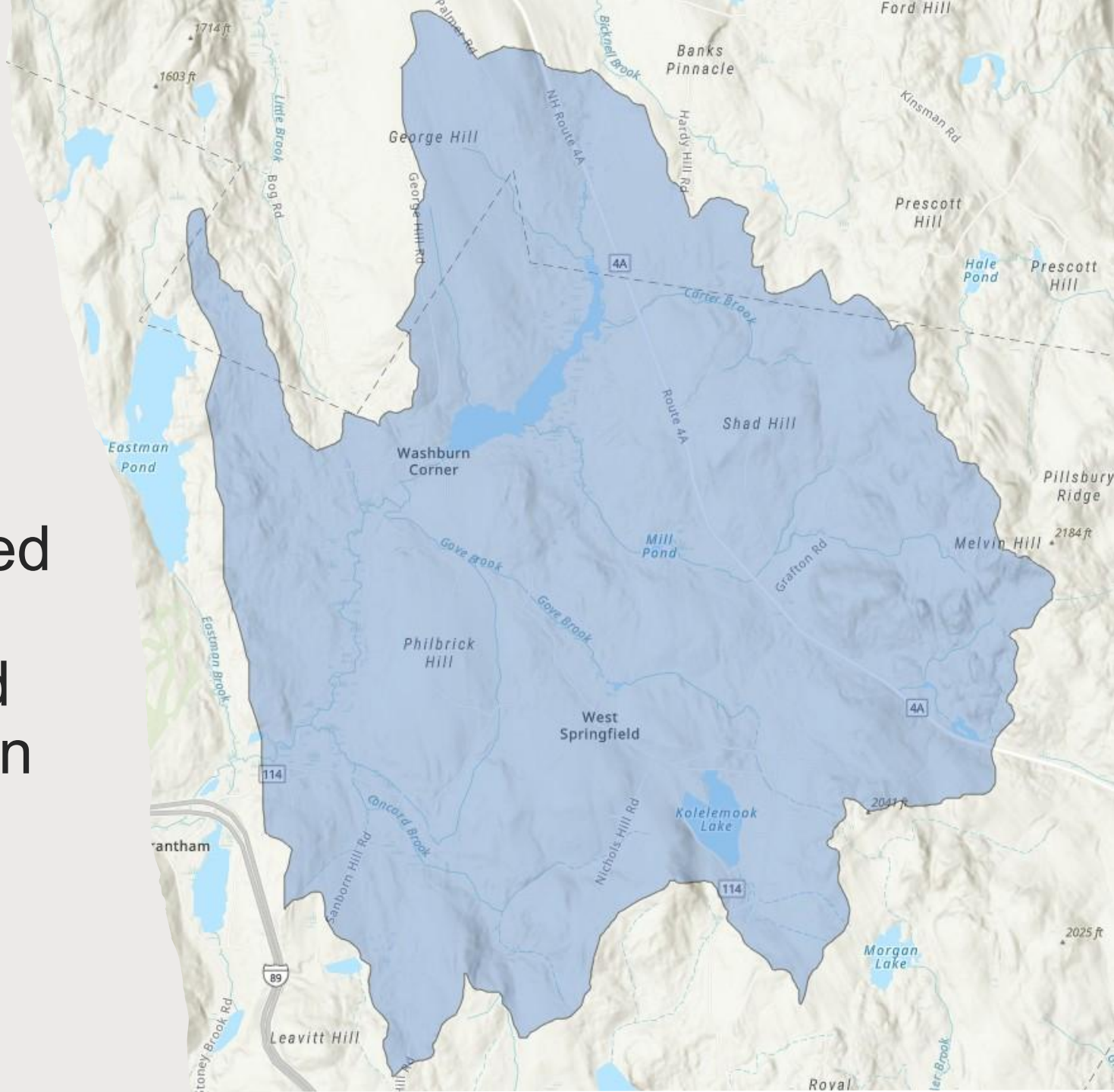
NEW! Informational Community Forums are planned for this summer. The second forum will be held on July 27, 6PM, at South Cove. Topics for each presentation can be found **here.**

The Drinking Water System

- Source of Water
- Treatment
- Routine Water Sampling
- Storage
- Distribution
- Issues and Concerns


SOURCE # 1
1A & 1B & 1C
3 SHALLOW SAND
& GRAVEL WELLS
SAND &
GRAVEL
SOURCE #6
1 DEEP SAND &
GRAVEL WELL
SOURCE #5
1 DEEP BED
ROCK WELL
S & G
BEDROCK
FRACTURES
SNOW HILL
TANK
HILLTOP
TANK
WATER TREATMENT PLANT
3 GREEN SAND &
CARBON FILTERS
DISINFECTION &
pH ADJUSTMENT
PRIMARY WATER
MAINS UNDER
STREETS
ISOLATION VALVES
IN STREETS
MOST
HOMES
CURB
STOP
WATER
METER
HOUSE
SERVICE
LINE
BOOSTER
PUMP
PRESSURE
TANK
SNOW HILL &
ANDERSON
POND HOMES

Watershed and Wellhead Protection Area



Water Sources

SOURCE DATA:

	TYPE	GPM
WELL 1A/B/C:	Gravel-pack	130
WELL 2	Gravel-pack	70
WELL 5	Bedrock	35
WELL 6	Gravel-pack	75

TOTAL GPM (dependable yield) **310**

TOTAL GPD (dependable yield) **446,400**

PEAK DEMAND GPD **300,000**

* WELL 7A/B/C	Gravel-pack	110gpm

***Glenwood wellsite: anticipated to be online by the end of 2026**

Routine Water Sampling

Sampling Results – 4 System Sampling Sites

Parameter	WQ Criteria	Data Range
• Iron	0.3 mg/L	0.00 – 0.10 mg/L
• Manganese	0.05 mg/L	0.003 – 0.005 mg/l
• Chlorine	> 0.2 mg/L	0.5-1.1 mg/L
• Bacteria	Absent	Absent

Storage Tank Capacity

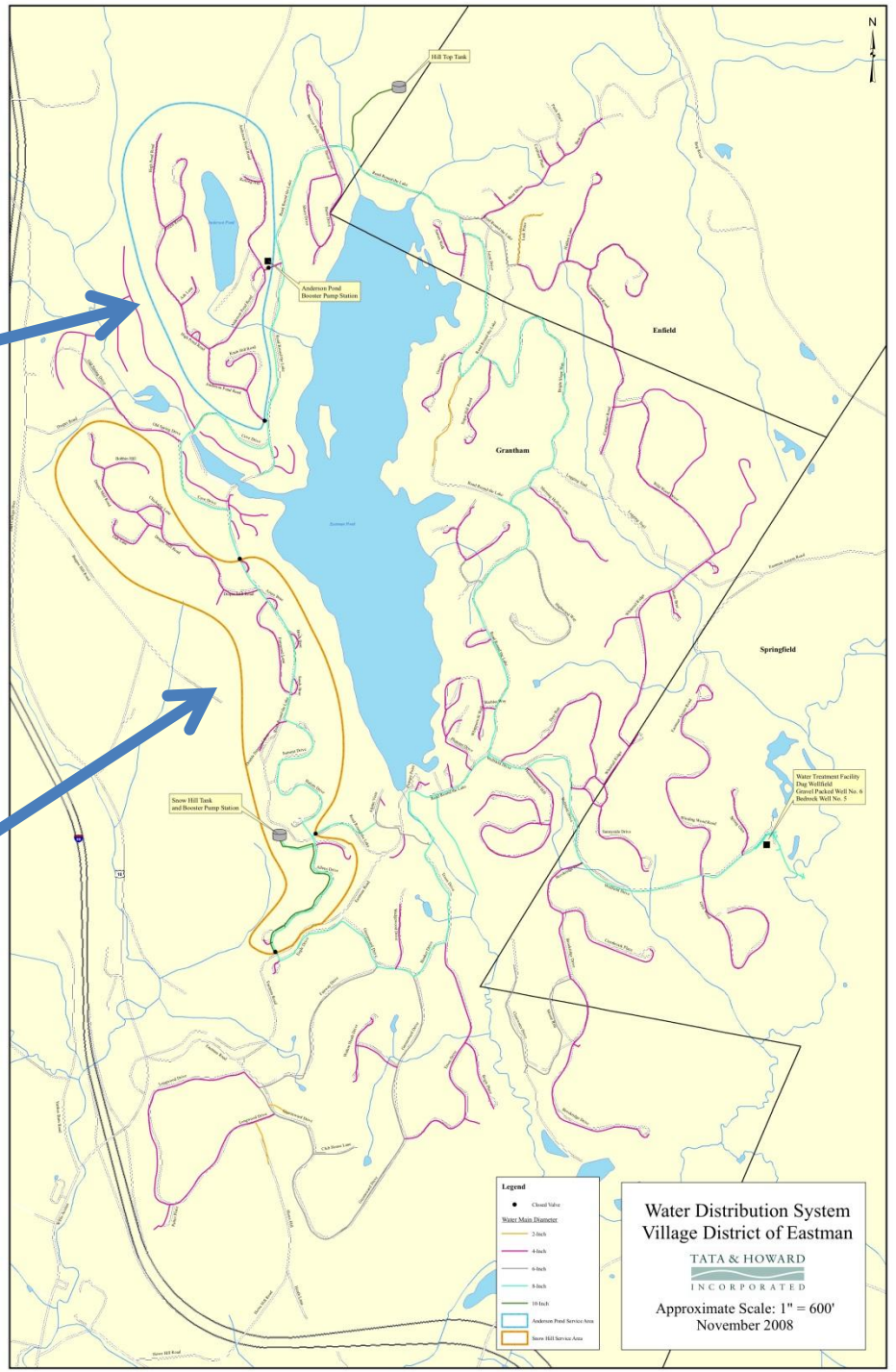
- Two concrete tanks: Snow Hill (200 Kgal) & Hilltop (180Kgal)
- Water surface elevation in tanks sets pressure in system

VDE's Water Distribution System

- Approx. 50 miles of water main
- Water main diameters vary from 8 inches to 2 inches
- Materials include plastic, cast iron, and asbestos-cement
- Some mains are very brittle
- Flanges and saddles were attached using iron bolts
- Limited isolation points
- Two elevated zones that require booster pressure pumps
- Rocks in the trench back fill cause numerous problems
- System is 55+ years old, with limited historic investment

Anderson Pond Pumped Pressure Zone

Snow Hill Pumped Pressure Zone

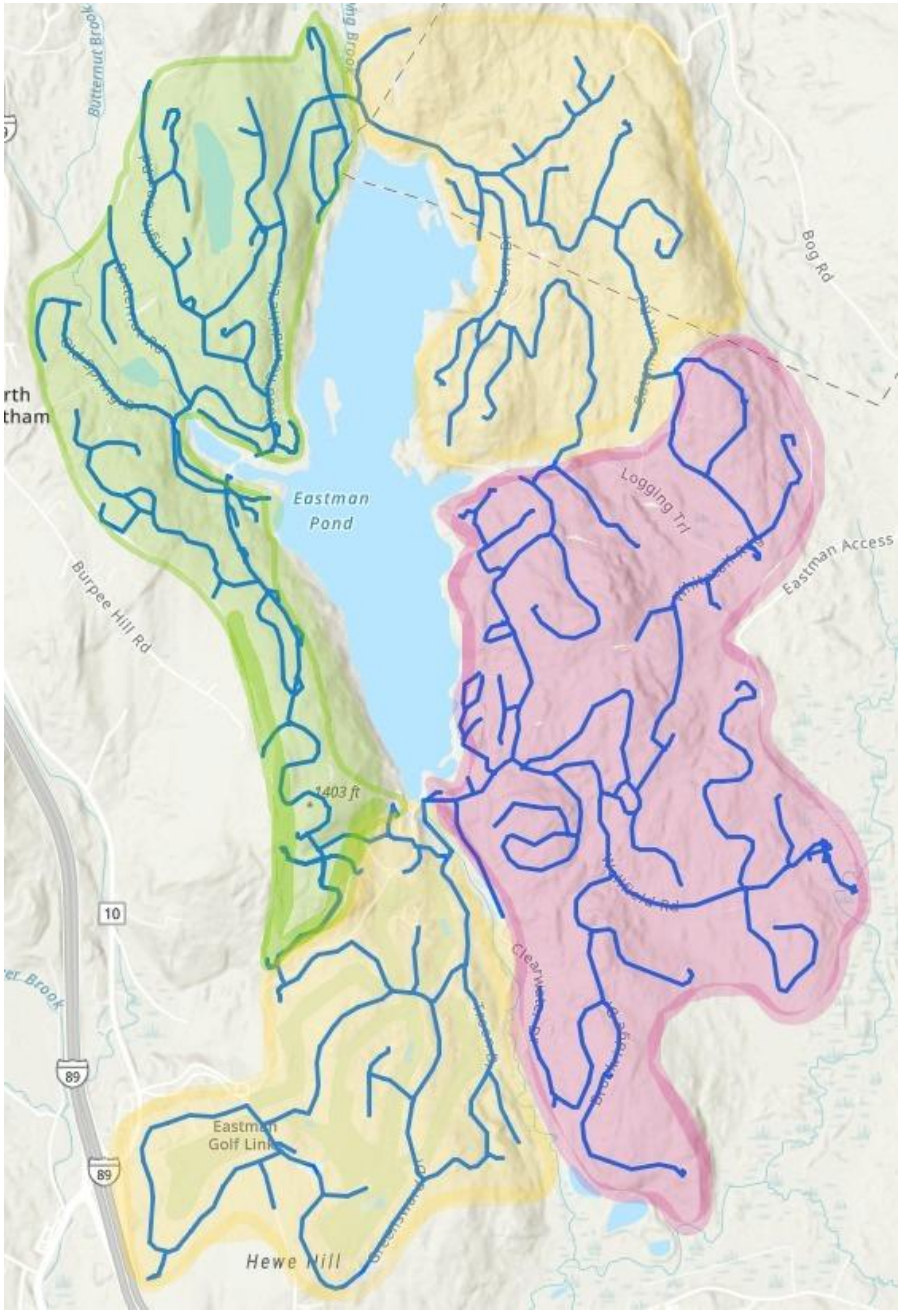


How the water flows…

After storage tanks

Gravity/WTP feed

Before storage tanks



Service Connections

Shut off valve for house

In-line ball valve

Challenges

“Lost Water”
Losses from 2020-2025:
Water main leaks: 72.4MG
Service line leaks: 28.6MG
It costs $$ to pump and treat every gallon of water, but we get zero revenue from water lost through leaks

Challenges

Rusted iron bolts and saddles

- The entire system used iron bolts and fittings
- Hundreds of saddles and service connections have been replaced with stainless steel as we upgrade water mains

Challenges

Brittle plastic pipes tend to crack lengthwise due to pressure from improper/poor backfill material

Challenges

- All gravel-pack wells accumulate screen precipitate of iron and manganese, which can enter the raw water flow into the treatment plant
- Frequency of filter cleaning, or backwashing, can impact finished water flow
- Flushing programs are in place, and used when we have the capacity

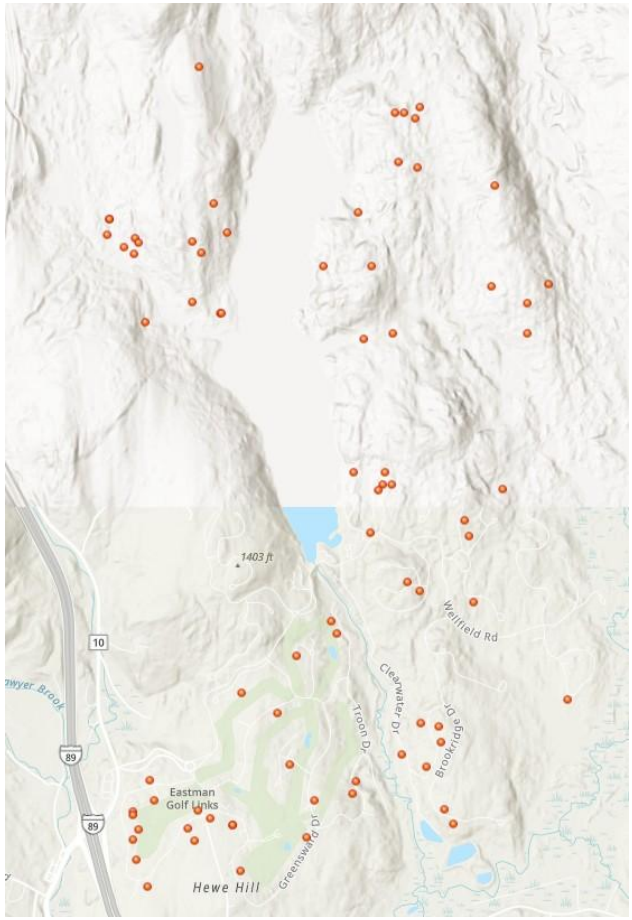
Challenges – Discolored Water Events

- Latent Iron and Manganese dispersed throughout the system from operation prior to WTP in service (1998)
  - Drinking water from system wells was untreated with no removal of any elements
  - Drinking water distribution system, and all homes occupied prior to 1998 have latent Iron and Manganese in the piping
  - A physical disturbance to piping or change in flow can cause latent material to “release” from the piping walls and out of customer faucets
- Water Treatment Plant equipment issues
  - Backwash of WTP filters
- A handful of occurrences in 2025
  - Failure of filter internals
    - Late 2025 holiday period events
  - Operator Error
    - One in second quarter of 2025

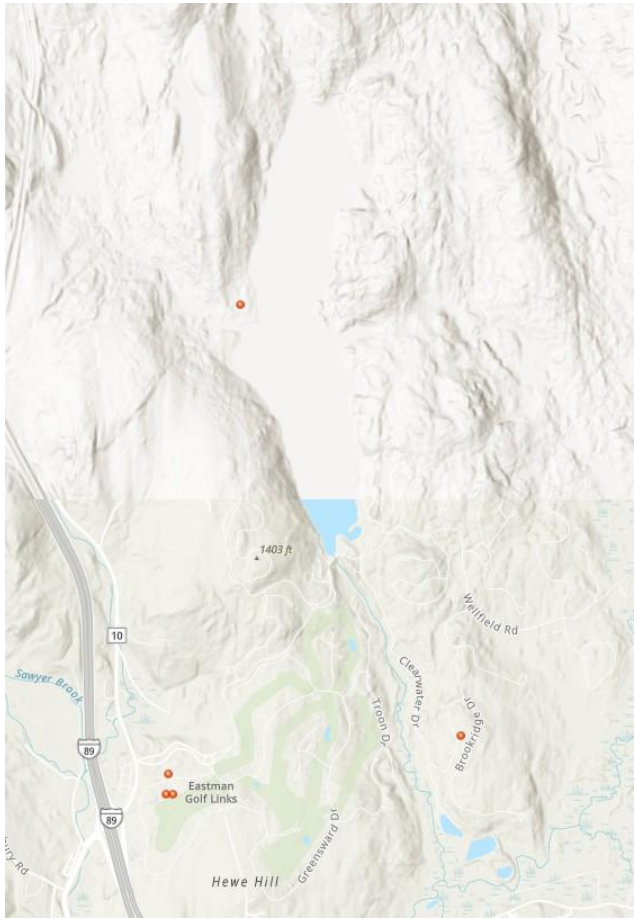
What to do about discolored water?

- Only “immediate” remedy when a release of Iron and Manganese occurs is to flush it out either through the home or at a distribution line flushing hydrant, if one is available.
  - Once it is in the pipe, there is no other way to get it out
- Prevent Iron and Manganese from getting into the system
  - Repair of failed equipment at the WTP
  - Improvements to WTP systems, especially backwash operation
- Accelerate prioritized replacement of distribution lines
- Test/implement removal of Iron and Manganese deposits in system piping

Challenges
Discolored Water Events – Progress Made



January-February



May-June

2026 RATE STUDY HIGHLIGHTS: DRINKING WATER

USAGE

- New Hampshire average household consumption: 247 gallons per day
- Annual consumption: 90,155 gallons
- VDE 2026 water usage rate: $1.74 per 100 gallons
- Average annual water consumption bill: $1,569

PRECINCT TAXES

- Based on an average home value of $400,000 and an average tax rate of $1.80 per thousand, the average precinct tax for 2025 was $720.00.
- Added to the consumption, the total average water bill for 2025 was $2,289.

Valuation	VDE Average Valuation ($400,000)	NH State Average
Water		
Grantham	$2,324	$867.93
Enfield	$2,168	
Springfield	$2,484	

TOWN/CITY	POP.	YEARLY AVG
Manchester	115,644	$466.92
Concord	43,976	$489.24
Salem	30,089	$547.44
Meredith	6,662	$738.24
Keene	23,047	$741.00
Hanover	11,870	$870.72
Lebanon	14,282	$1,006.92

Year	2023	2024	2025	3-yr Average (Expenditures)	3-yr Average (Revenues)
Fixed ($)	$1,449,000	$1,516,000	$1,475,000	$1,480,000	$1,261,000
Variable ($)	$220,000	$185,000	$235,000	$214,000	$604,000
Total ($)	$1,669,000	$1,701,000	$1,710,000	$1,694,000	$1,865,000
Fixed (%)	86.8%	89.1%	86.2%	87.4%	67.6%
Variable (%)	13.2%	10.9%	13.8%	12.6%	32.4%

2026 Cost of Service Study

ANALYSIS

- Water rates have historically generated revenue that covers the expenses.
- It is not unusual for systems the size of VDE that the majority of expenses are fixed.
- Most NH drinking water systems have fixed revenues below their fixed expenses.

Capital Improvements and Prioritizing Water Main Replacements

Each drinking water line was evaluated for:

- **Consequence of Failure**
- **Condition Assessment**
- **Discolored Water Events**

LOCATION	TOWN	MAIN SIZE	MATERIAL	DEAD END?	SECTION	BLOW-OFF	AVG DEPTH
GREENSWARD DRIVE - UPPER	GRANTHAM	8"	AC	NO	1	YES	6'
EAGLE DRIVE to ALLENS	GRANTHAM	8"	AC	NO	1	NO	6'
SLALOM DRIVE	GRANTHAM	8"	AC	YES	2	YES	10'
SUMMIT DRIVE	GRANTHAM	8"	AC	NO	2	NO	9'
WELLFIELD ROAD (northern section)	GRANTHAM/SPRINGFIELD	8"	AC / C900	NO	5	HYDRANTS	7'
COVERED BRIDGE LANE	GRANTHAM	4"	PVC-W	YES	3	YES	9'
PLEASANT DRIVE	GRANTHAM	4"	PVC	YES	5	YES	8'
SPRING VALLEY DRIVE	GRANTHAM	4"	PVC-W / C900	NO	5	YES	7'
WINDING WOOD ROAD	SPRINGFIELD	4"	PVC-G / PVC-W	YES	5	YES	7'-20'
BRIGHT SLOPE WAY	GRANTHAM	8"	AC	NO	4	YES	6'
ROAD ROUND THE LAKE	GRANTHAM	8"	AC / PVC	NO	5	NO	
HILLTOP PLACE	GRANTHAM	8" -10"	AC / PVC	TANK	4	YES	8'
ROAD ROUND THE LAKE	GRANTHAM/ENFIELD	8"	AC / PVC	NO	4	NO	
ALLEN'S DRIVE	GRANTHAM	8"	AC	NO	1	YES	
COVE DRIVE	GRANTHAM	8"	AC	NO	3	NO	8'
OLD BEACH CIRCLE	GRANTHAM	4"	PVC-W	YES	3	YES	7'
ROAD ROUND THE LAKE	GRANTHAM/ENFIELD	8"	AC / PVC	NO	3	NO	
TROON DRIVE	GRANTHAM	4" - 8"	PVC / AC	NO	1	YES	5'
WILDWOOD DRIVE	GRANTHAM	4"	PVC-G / PVC-W	NO	4	YES	7'
BLACK DUCK SPUR	GRANTHAM	4"	PVC	NO	5	YES	6'
BROOKRIDGE DRIVE (Wellfield to Moose)	GRANTHAM/SPRINGFIELD	4"	PVC-W / C900	YES	5	YES	6'
CLEARWATER DRIVE SOUTH	GRANTHAM	6"	PVC-W	YES	5	HYDRANT	7'
GREENSWARD DRIVE - LOWER	GRANTHAM	6"	PVC	NO	1	NO	6'
GLENWOOD	SPRINGFIELD	4"	PVC-G / C900	YES	5	YES	7'
LONGWOOD DRIVE	GRANTHAM	4"	PVC-G	NO	1	NO	6'
LOON DRIVE	GRANTHAM/ENFIELD	8"	AC	NO	4	NO	6'
BAY TREE LANE	GRANTHAM	4"	PVC-W	YES	3	YES	10'
CLEARWATER DRIVE NORTH	GRANTHAM	8"	PVC-W	YES	5	YES	7'
LINK LANE	GRANTHAM	4"	PVC-W	NO	3	NO	7'
ROAD ROUND THE LAKE	GRANTHAM	8"	AC / PVC	NO	2	NO	
WALTON HEATH DRIVE	GRANTHAM	4"	PVC-W / C900	YES	1	YES	7'
CLUBHOUSE LANE	GRANTHAM	4"	PVC-W / C900	YES	1	NO	7'
SPRING GLEN	SPRINGFIELD	4"	PVC-W / C900	YES	5	YES	6'
TRILLIUM LANE	GRANTHAM	4"	PVC-W	YES	5	YES	5'
WHIP-POOR-WILL WALK	GRANTHAM	4"	PVC-W / C900	YES	5	YES	6'
WINTER HILL	GRANTHAM	4"	PVC	YES	4	YES	5'

10-year Capital Improvement Plan: “Base Investment” Water System Improvements, 2025-2034

Total 10-year investment:

$18,970,000

32,850 LF of water main replaced

Annual rate increase targeted at 6%.

PROJECT

West Cove B - water main replacement

Longwood Drive - remaining 1/3 water main replacement

West Cove C - water main replacement

Eagle Drive - water main replacement

Allen's Drive - water main replacement

East Lake Condos - water main replacement

Niblick/Pioneer Point - water main replacement

Troon South to Bogie Place - water main replacement

Loon Drive - water main replacement

Walton Heath/Pinehurst Drive - water main replacement

10-year Capital Improvement Plan: "Increased Investment" Water System Improvements, 2025-2034

Total 10-year investment:

$33,040,000

53,420 LF of water main replaced

Annual rate increase would begin at 20% in 2027, tapering to 10% over the 10 years.

PROJECT
Water Treatment Plant Upgrades
Glenwood - water main replacement
West Cove C - water main replacement
Road Round the Lake - Bypass Hydrants
Windingwood Road with loop to Whitetail - water main replc
West Cove B - water main replacement
Longwood Drive - remaining 1/3 water main replacement
Eagle Drive - water main replacement
Brookridge to Moose Run - water main replacement
Allen's Drive - water main replacement
Niblick/Pioneer Point - water main replacement
Summit/Slalom - water main replacement
Troon South to Bogie Place - water main replacement
East Lake Condos - water main replacement
Spring Valley Drive - water main replacement
Bright Slope Way - water main replacement
Hilltop Place - water main replacement
Loon Drive - water main replacement
Wildwood Drive - water main replacement
Walton Heath/Pinehurst Drive - water main replacement

Customer Feedback on Capital Improvement Plan Alternatives

OPEN FORUM

Customer questions are welcome.