Village
District of
Eastman

2026 Community Forum
Session 3
August 31, 2026

Welcome!

Welcome to the VDE's Third Community Forum for 2026

- **Three forums planned to share important VDE information and address important VDE issues.**
- **All 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 receive feedback on VDE major project plans**

VDE Forum 3 Agenda

- **Wastewater System 101**
- **Septic Systems**
- **Wastewater rates analysis**
- **VDE Wastewater Capital Improvement Plan**
- **Customer Open Forum & General Discussion**

Change in After-Hours Contact Information

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

603-863-6512

24 hours a day, 7 days a week.

- Eliminates use of ECA Security interface during “after hours”
- VDE has contracted with utility-experienced call center for after-hours issue triage and forwarding to VDE on-call operator or management
- VDE 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 Wastewater System: Wastewater 101

- Collection, Treatment, Storage, and Disposal
- Septic Systems
- Challenges & Progress
- Funding & Budget
- Capital Planning
- Open Forum

Other Condos & Homes

Gravity Sewer

West Cove Condos & Homes

West Cove A & B Pump Stations

Force Main under Trail 6

Headworks

Blower/Aeration Building

Aeration Lagoons

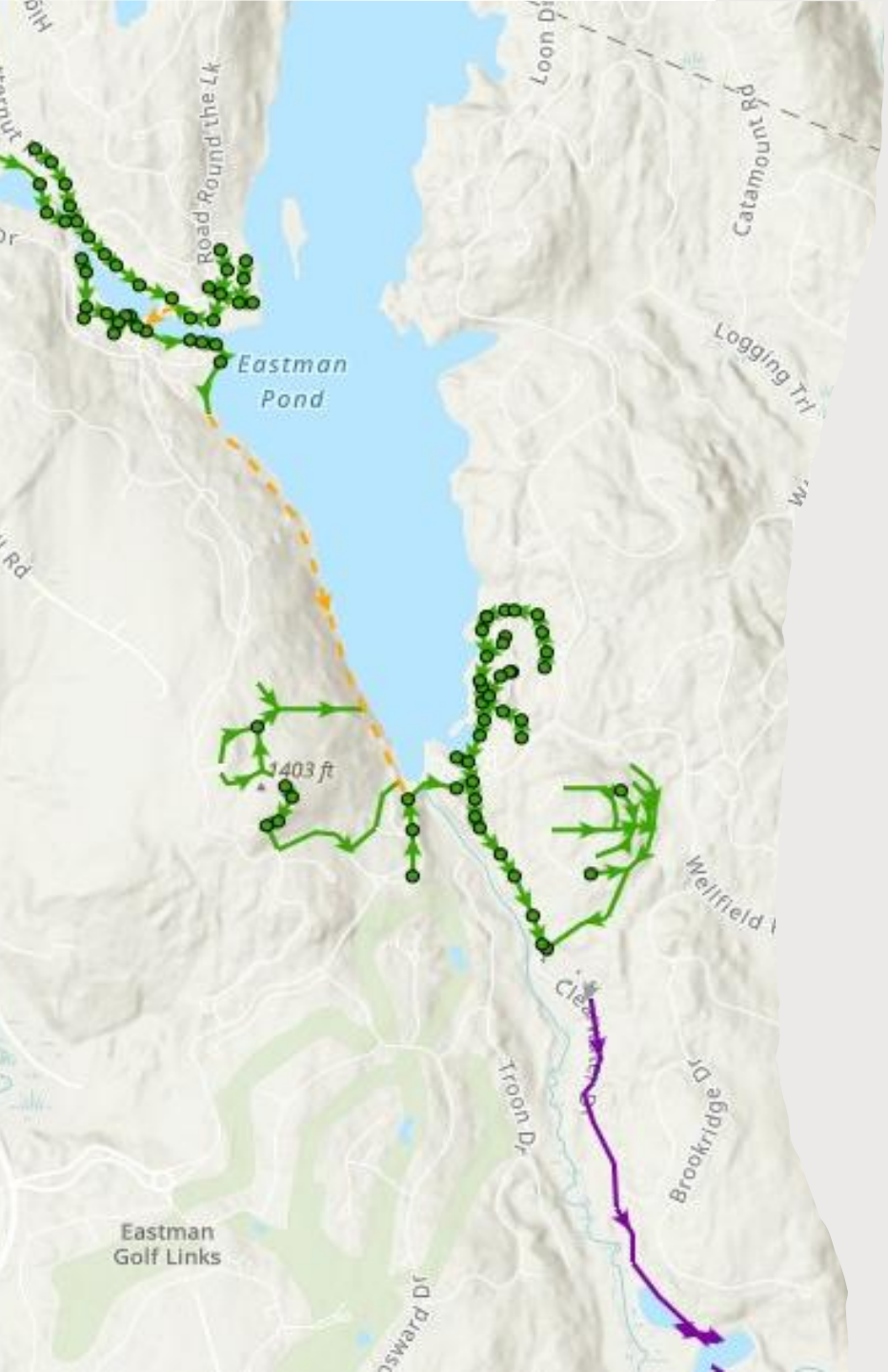
Effluent Pump Station

Holding Pond Pump Station

Holding Ponds in John's Glen

Subsurface Leach Field (Fall 2026)

Golf Course Irrigation

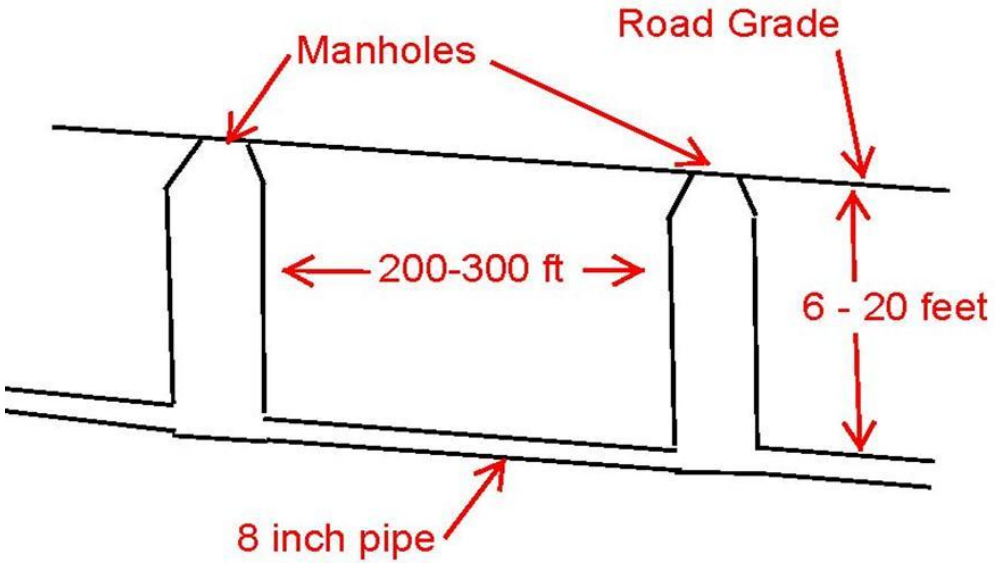


Wastewater: Collection

- 7.88 miles of gravity sewer
- 1.75 miles of force main
- Serves all condos plus many homes that can reach a sewer main by gravity

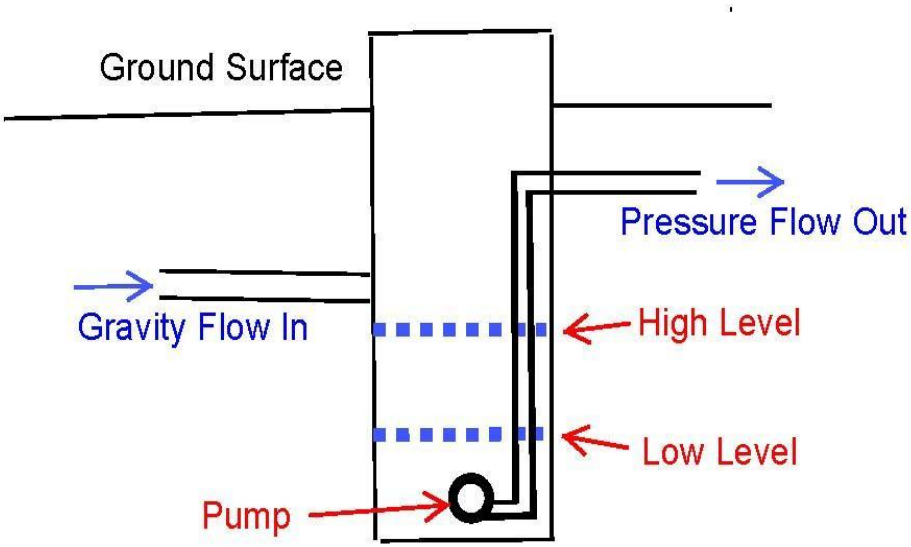
What is a Gravity Sewer?

- The force of gravity does the work
- No pumping needed, therefore no electricity required
- 8-inch diameter buried pipes between manholes
- Works where natural slope is available



What is a Force Main Sewer?

- Used where gravity does not work
- Pumping up and over a high point, electricity required
- 4-inch diameter pressurized pipes



Wastewater: Treatment

- Primary Treatment
  - Remove solids
- Secondary Treatment
  - Reduce BOD (biological oxygen demand)
- Tertiary Treatment
  - Reduce nutrient concentrations
- Disinfection
  - Destroy pathogens

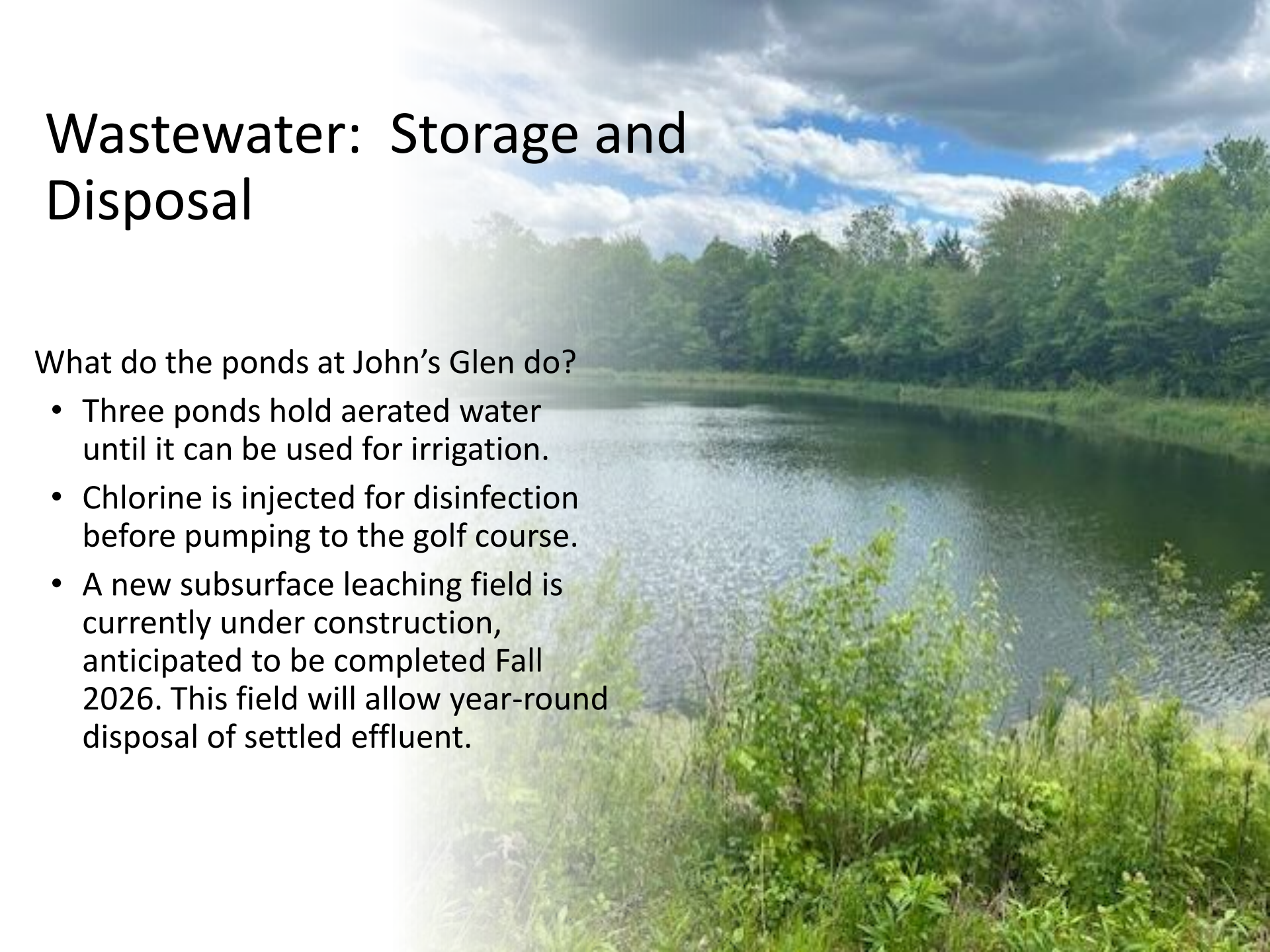
Wastewater: Treatment

Combined primary and secondary treatment occurs within the aeration lagoons on Clearwater Drive.

After aeration, wastewater is pumped up to the holding ponds in John's Glen, where it continues to "settle," or, any undissolved solids settle onto the bottom of the ponds, becoming sludge.

Disinfection occurs prior to settled effluent flowing to the golf course, where it can be used for irrigation.

Wastewater: Storage and Disposal



What do the ponds at John's Glen do?

- Three ponds hold aerated water until it can be used for irrigation.
- Chlorine is injected for disinfection before pumping to the golf course.
- A new subsurface leaching field is currently under construction, anticipated to be completed Fall 2026. This field will allow year-round disposal of settled effluent.

Septic Systems

What treatment does a septic system provide?

- Solids removal - if tank is pumped to maintain volume
- Destruction of pathogens – if there is an aerated zone below the leaching field

Your septic tank and leaching field…

- Will the leaching field last forever? **NO!**
- Why do they fail – solids accumulate in leaching field & block pore spaces - need to limit solids sent to tank.
- “Flushable” items – product labels can be misleading. Only human waste and toilet paper are truly flushable.
- What is the risk to Eastman Lake? - Nutrients, primarily phosphorus, not removed from the tank or leach field can be present in run-off from septic tank overflows.
- Recommendation – Per NHDES, septic tanks should be pumped every three to five years.

Beneficial Re-use of Treated Wastewater

- Treated wastewater may be used for golf course irrigation as a sustainable strategy:

- Chlorine concentration is the key factor for success.
- Pipe capacity limits volume.
- Permit compliance samples are collected at the irrigation holding pond on the golf course.

The 5-year discharge permit was reissued in 2023 with no changes in compliance criteria.

Wastewater Challenges and Progress

Alternative Disposal System

- Over the last several years, the treated wastewater volume used for golf course irrigation did not adequately draw down the Holding Ponds.
- In March 2023 and 2024 there was a real risk the dikes at the Holding Ponds would be overtopped.
- NHDES had allowed emergency spray discharge into the adjacent forest but has now required an alternative disposal system be built.

Mitigation Plan:

- A 25,000 gpd leaching field was designed in 2024 and is currently under construction adjacent to the Pump Station in John's Glen, between ponds #1 and #2.

Wastewater Challenges and Progress

West Cove A & B pump station wet wells (collection tanks)

- More than 50% of VDE's total wastewater flow is from upstream of the West Cove A pump station.
- In 2014, when the VDE took over the wastewater system, the consulting firm evaluating the sewer network identified the A & B wet wells as a serious risk with a major Consequence of Failure.
- The issue was the potential failure of the 40+ year old steel walls.

Resolution:

- Construction of new concrete wet wells adjacent to existing was completed in 2025.
- Project was funded using reserve funds and a NHDES clean water grant.

Wastewater Challenges and Progress

Force Main Equipment Replacement

- Following the WCA & WCB pump station project, the new pumps in WCA were operating satisfactorily but not to design specifications.
- System evaluation and substantial investigation pointed to the three air relief valves (ARV) on the sewer force main under Trail 6.

Mitigation Plan:

- VDE is currently working with Underwood Engineers to finalize the replacement design of the three ARVs.
- This work has been part of the Wastewater Capital Improvement Plan.
- Project timing has advanced to Fall 2026 to optimize the operation of the WCA pump station upgrades.

Wastewater Challenges and Progress

Clearwater Drive Lagoons – Sludge Removal Plan

- One of the requirements in the current NHDES discharge permit is to develop a plan to remove accumulated sludge from the aeration lagoons and holding ponds.
- To the best of VDE's understanding, sludge removal has not occurred in the 50+ years of the sewer system operating.
- A survey to determine sludge depths in the aeration lagoons and one of the holding ponds has been completed.

Mitigation Plan:

- Based on the survey results from Underwood Engineers, a sludge removal plan will be developed in 2026 and future capital reserve funds set aside for sludge removal.

Please be careful with what you flush!!!

The wrong stuff clogs or burns out the pumps.

- **NO: diapers, sanitary napkins, sanitary wipes, rags, cooking grease**
- **YES: human toilet wastes, washing machine discharge, dishwasher discharge, food disposal discharge**

Mitigation Strategy:

- Getting owners and renters to fully understand the system is “fragile”
- Periodic sewer inspection & cleaning

Projects Completed

- Upgrades at West Cove A & B Pump Stations
- Upgrades at the Headworks and Aeration Buildings
- Five miles of TV inspections and sewer line cleaning
- New baffles in treatment lagoons
- New aeration diffusers and blowers

Wastewater Funding & Budget

The wastewater system is completely funded by our 535 sewer customers. The 2026 budget is based on a residential flat fee of $876 per year, plus $0.14 per 100 gallons of water used.

- Revenue/Expenses kept separate from Drinking Water division
- No real estate taxes involved
- Total 2026 budget = $494K
- $ 261K for operations
- $ 44K for debt service
- $ 189K for reserve funds

2026 RATE STUDY HIGHLIGHTS: WASTEWATER

TOWN/CITY	POP.	YEARLY AVG
Manchester	115,644	$484.56
Concord	43,976	$571.20
Salem	30,089	$437.16
Meredith	6,662	$653.52
Keene	23,047	$708.24
Hanover	11,870	$489.12
Lebanon	14,282	$1,213.08
VDE	3,413	$859.00
Statewide Average:		$1,100.04

- VDE's sewer rates include a fixed (flat fee) portion and a variable charge (per 100 gallons)
- A fixed and variable portion of the bill is good practice for revenue stability.
- The VDE sewer rate structure is consistent with many of New Hampshire municipalities.

Year	2023	2024	2025	3-yr Average (Expenditures)	3-yr Average (Revenues)
Fixed ($)	$338,000	$304,000	$349,000	$331,000	$483,000
Variable ($)	$106,000	$93,000	$80,000	$93,000	$24,000
Total ($)	$444,000	$397,000	$429,000	$424,000	$507,000
Fixed (%)	76.1%	76.5%	81.3%	78.0%	95.3%
Variable (%)	23.9%	23.5%	18.7%	22.0%	4.7%

2026 Cost of Service Study

ANALYSIS:

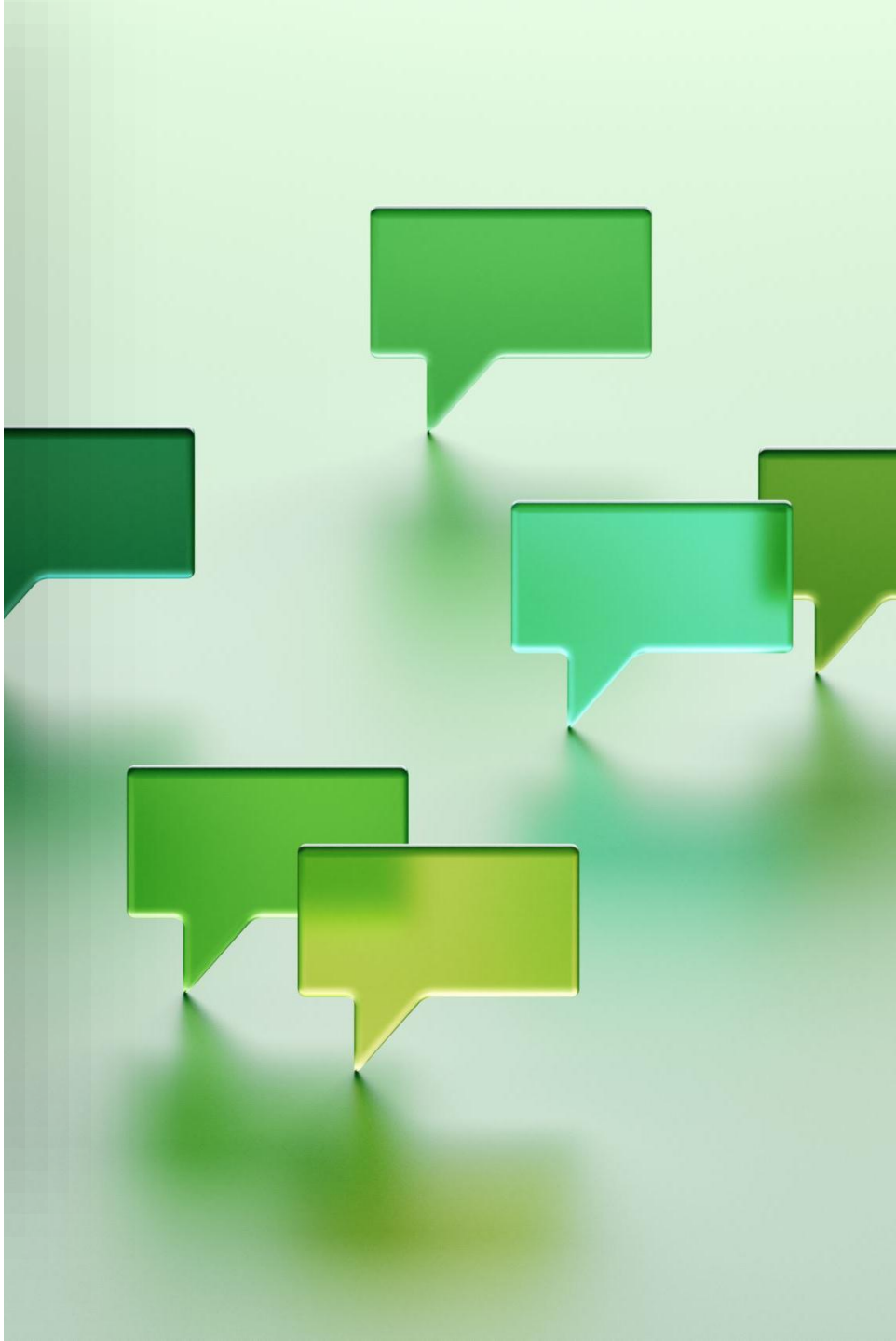
- When VDE acquired the sewer system in 2014, revenue was based solely on a flat operating fee, with no usage charge per 100 gallons used
- Revenues were not matching expenses and the need for capital upgrades
- It is not unusual for systems the size of VDE for the majority of expenses to be fixed, rather than variable
- In general, VDE has a fixed revenue stream that is higher than typical systems of this size

5-year Capital Improvement Plan: Wastewater System Improvements, 2025-2029

PROJECTS

Subsurface Leaching Field at John's Glen
Trail 6 Force Main: Replacement of Air Relief Valves
Develop Sludge Removal Plan: Aeration Lagoons
Telemetry Upgrades: 50/50 with Drinking Water
Lift Station Control Buildings: Remediation
Implement Sludge Removal Plan: Aeration Lagoons

- Total 5-year investment: **$1,464,630**
- Annual rate increase remains targeted at 6%.
- A comprehensive review of the Wastewater CIP will be undertaken in 2027, consistent with the Drinking Water CIP review performed in 2026

Open Forum

Customer feedback and questions are welcome!