

Small Town – Mega Project

Financial and Technical Challenges

Presented by: Taylor Dukes & Nitant Desai | April 28, 2026



Meet our Presenters



Taylor Dukes
*Utilities Director
Town of Exmore*



Nitant Desai, PE
*Director of Engineering
Bowman*

presenters

Agenda



1. History of Exmore Sewer
2. Project Need
3. Stakeholders
4. Financial Needs
5. Design Planning
6. Bidding Strategy
7. Construction Phase

History of System

- LMI Community in early 90s about 100 homes
- Mid 2000s Downtown District drain fields started failing at rapid rate
- 2008 Town built Fluidyne SBR
- Added 250 customers



Street Scene
Exmore, Virginia

System Problems

Single train plant could not maintenance
treatment plant

Cooler temperatures poor treatment
quality

Small diameter collection system with
high head pressure

High volume of I&I

Commercial districts could not use
system causing slow growth on highway

High volume of fresh water affected
Seaside Aquaculture Industry

Solutions

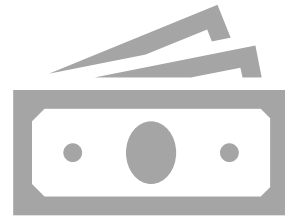
- Began in June 2014
- Construct new treatment facility on Bayside
- Construct new collection system to add 500 new customers commercial and residential
- Work with HRSD for new regional treatment facility



PER and Funding Requirements



Evaluate three different collection types(vacuum, gravity and low-pressure)

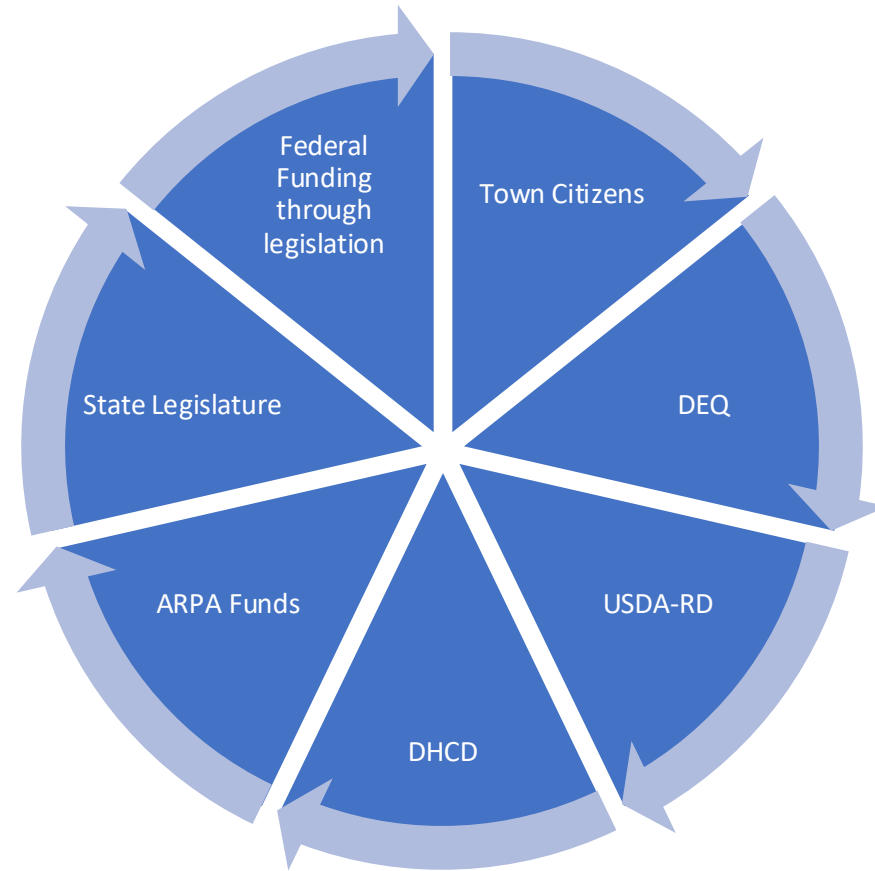


Utility rates had to provide a positive fund account



Mandatory 100% connections

Stakeholders



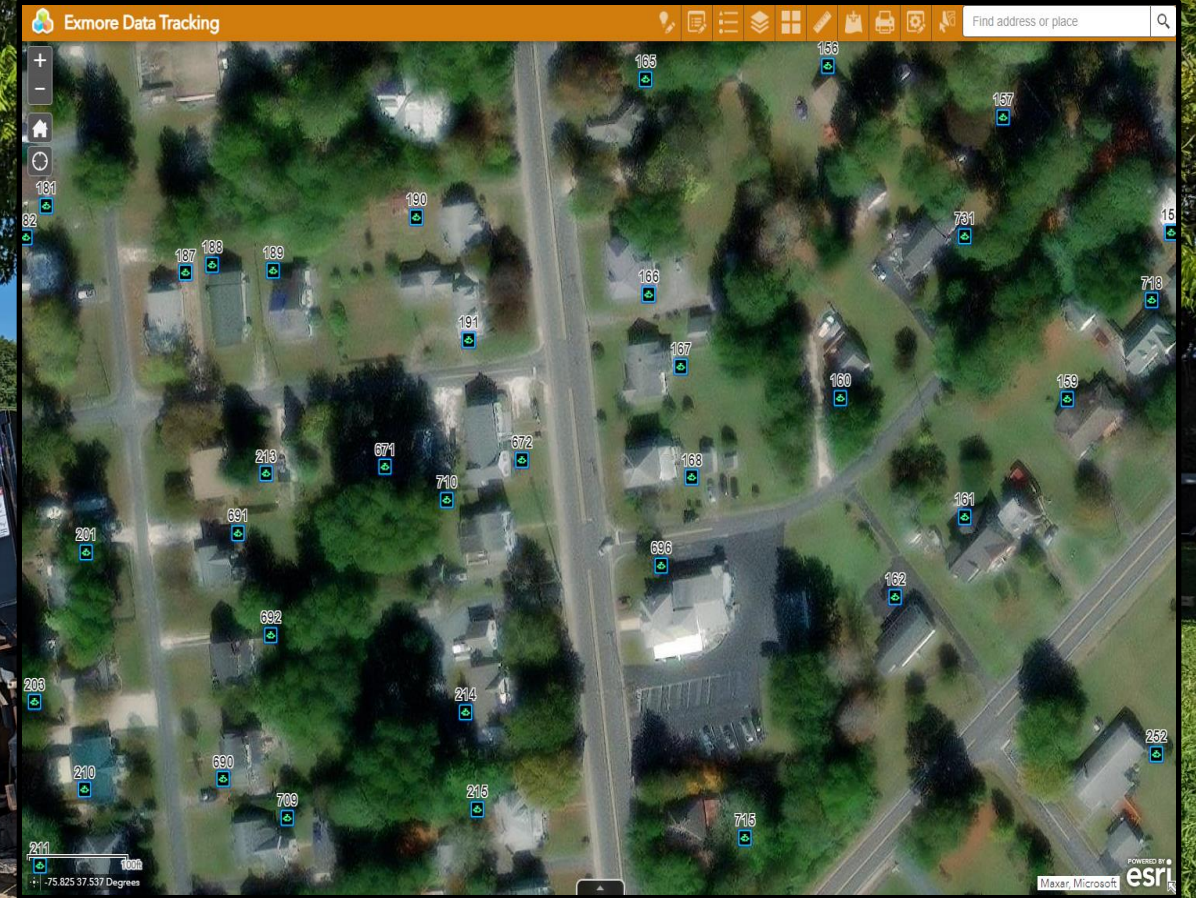
Financial Requirements

- DHCD required 51% Low to Moderate Income (57%)
- Town had a debt limit of \$10,000,000
- Needed as much grant money as possible to keep sewer bills affordable
- Town must have CIP in place



Design Parameters

- Low Pressure System
- Treatment Plant vs HRSD PS
- Current Households
- Future Growth
- Grinder Pumps at each property
- Forcemain in Right-Of-Way





Bidding Phase

- Bid Form Setup to maximize Unit Price but limit inspection efforts
- Local Contractors and Large Contract
- Funding Agency Requirements
- 5 Bidders
- Successful and Responsive Low Bidder



Construction Phase

- Value Engineering to Reduce Overall Debt Service
- Process Paperwork through Stakeholders
- Town Inspector
- Town Utility Locator
- Existing Utilities



Construction Timeline

- Initial Substantial Completion Date: August 2025
- Completed Ahead of Schedule



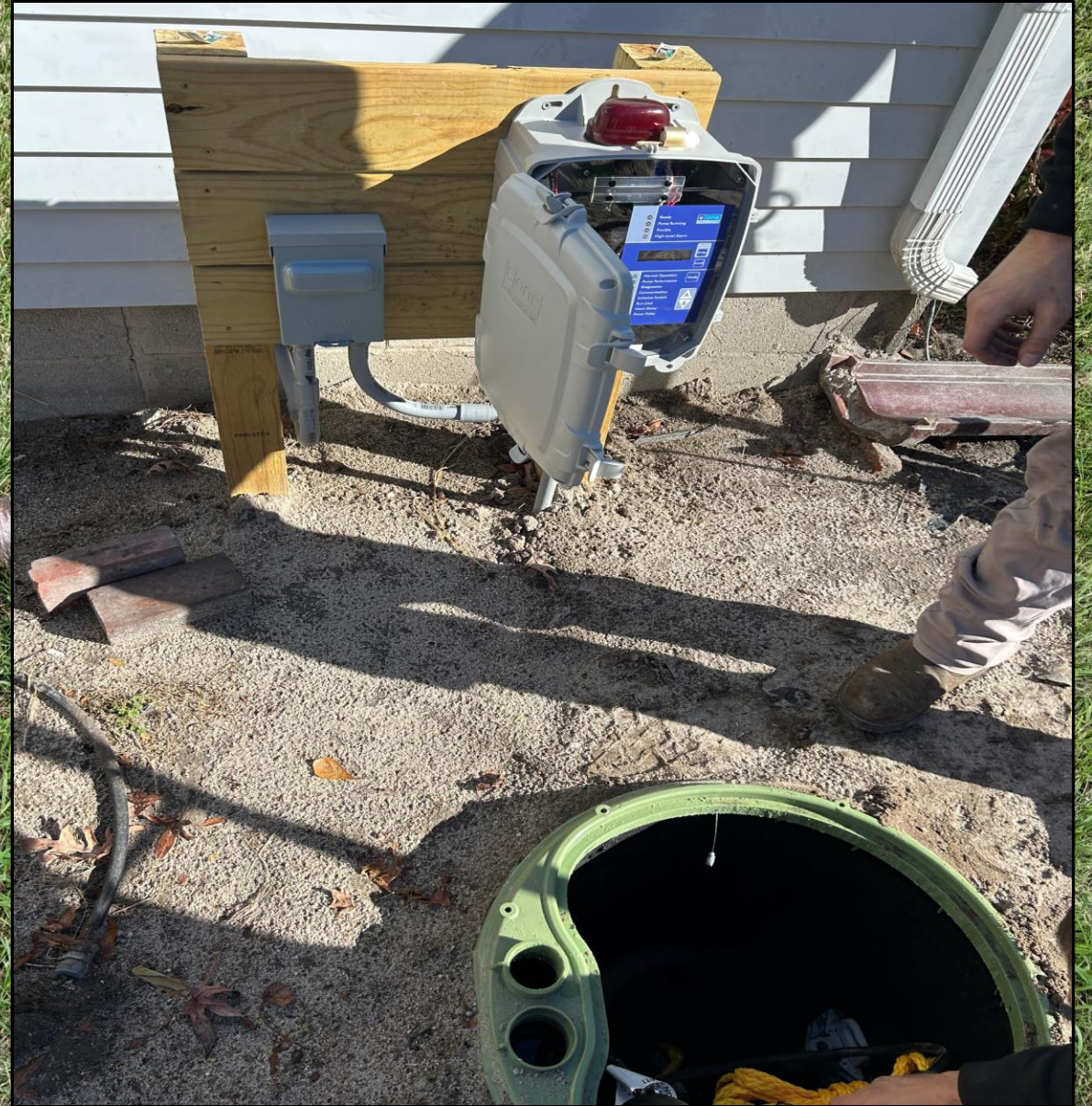
Challenges and Solutions

- Failing Existing WWTP and Consent Order
 - Get complete section of the project installed, tested, started.
 - Existing system offline
 - WWTP offline
 - Release from VDH Consent Order



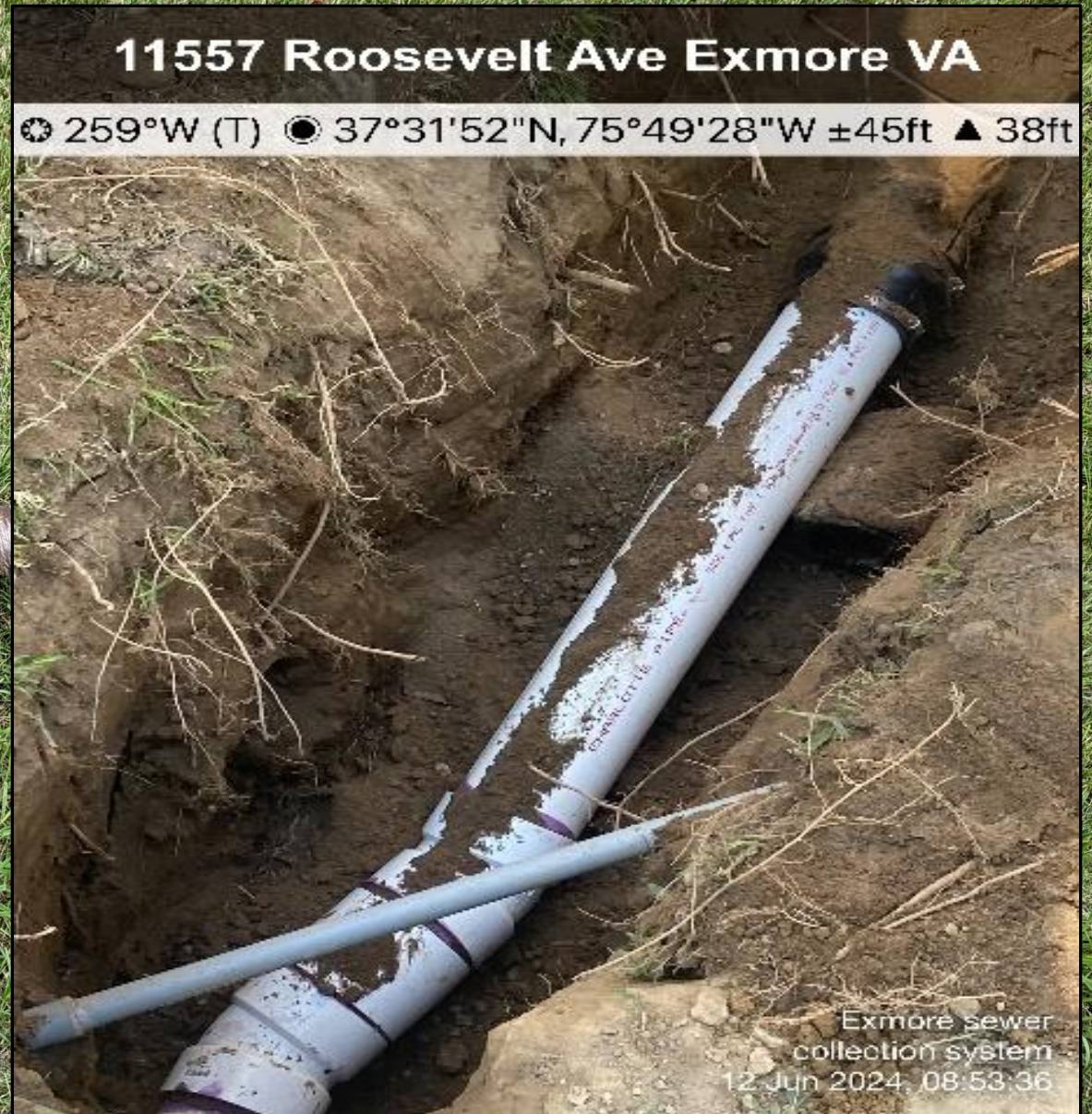
Challenges and Solutions

- Startup of 700+ stations
- Contractor – Manufacturer Coordination
- Manufacturer personnel
- Manufacturer trained GC personal



Challenges and Solutions

- Plumbing and Electrical Connection
- Change Order to original contract
- GC hired electrician and plumber
- Electric Utility Trades Permit



Challenges and Solutions

- User Agreement and Easements
 - Agreements in place in order to install
 - Few bad apples
 - Court Hearing



Challenges and Solutions

- Payment Application and Approvals
- Contractor, Inspector, Town, Engineer, Grant Administrator, Agencies
- Less than 30 days payout



Project Closeout

- Start-ups
- Billing Data
- Redlines
- GPS Points
- Asset Management
- Certifications
- Agency Closeout



Lessons

- Asbuilts – easiest to cut
- Planning
- Teamwork
- Owner Participation
- Organized Information



Questions?