

TOWNSHIP OF VERONA WASTEWATER TREATMENT PLANT ASSESSMENT

MARCH 25, 2024



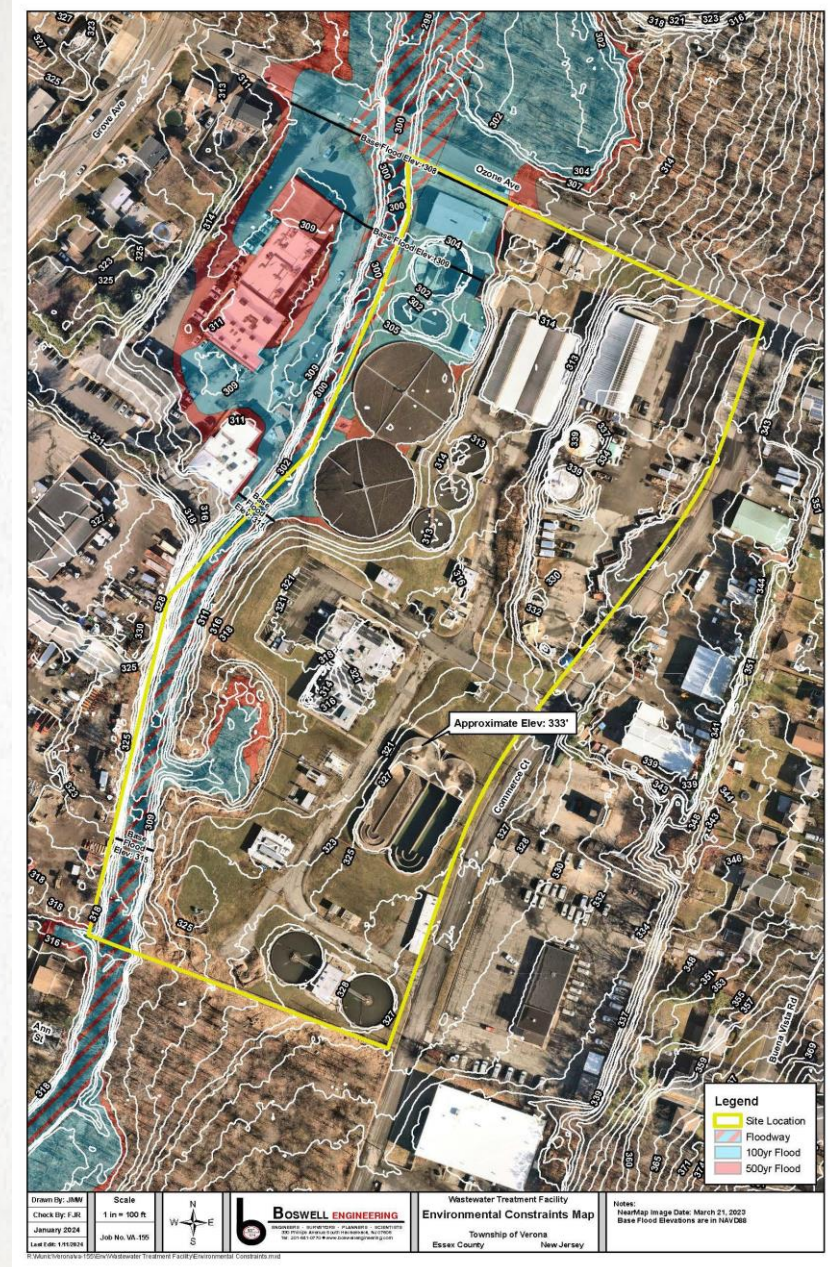
BOSWELL

WASTEWATER TREATMENT PLANT

- Verona Wastewater Treatment Plant (WTP) was constructed in 1928.
 - Major renovations were completed in 1967 and 1988.
 - Plant is owned and operated by the Township and is rated for an average daily flow of 3.0 million gallons per day (MGD) and discharges into the Peckman River
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WTP MAIN ASSETS

- Raw sewage Pumping Station
- Headworks area
- Three (3) primary clarifiers
- Primary Clarifier Pumping Station
- Two (2) trickling filters
- Two (2) oxidation ditches
- Three (3) secondary clarifiers
- Secondary Clarifier Pumping Station
- Two (2) anaerobic digesters
- Three (3) microscreens
- Four sets of in-channel UV system



Drawn By: JMW Scale: 1 in = 100 ft
Checked By: T.J.L. January 2024
Job No. VA_155
LAW: L1502024

Wastewater Treatment Facility
Environmental Constraints Map
Township of Verona
Essex County
New Jersey

Notes:
Aerial Image Date: March 21, 2023
Base Flood Elevations are in NAVD83

IMMEDIATE NEED PROJECTS

- Projects identified by Operator and staff that need immediate replacement or rehabilitation due to deficiencies

PRIORITY 1 PROJECTS

- Primary Clarifier Pumping Station
- Microscreens
- Ultraviolet (UV) Disinfection System

Approximate Construction Cost - \$7.18M

FUTURE PROJECTS

- Primary Clarifier Drives
- Raw Sewage Pumping Station
- Trickling Filter Slide Gate and flow meter
- Secondary Clarifiers structural improvements
- Secondary Clarifiers Drives
- Electrical Analysis of WTP
- Structural Analysis of Clarifiers
- Miscellaneous Site Civil Improvements
- I/I Study
- I/I Rehabilitation Works

Approximate Construction Cost - \$22M

OPERATION AND MANAGEMENT OF WTP

- Alternative 1 – Hiring full-time operator and staff for WTP
 - Alternative 2 – Retain the services of O&M Provider
 - Alternative 3 – Possible conversion of WTP to pumping station to convey flow to Passaic Valley Sewerage Commission
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ALTERNATIVE 2 – O&M PROVIDER

- Ability to implement a solution within the shortest timeline. It is expected this alternative can be implemented within 6 months
 - Assumption of responsibility WTP operations by O&M Provider
 - Assumption of responsibility for all testing, reporting and records management
 - Opportunity for training and mentoring of Township personnel by qualified personnel
 - Specialized experience with advanced technologies by O&M provider
 - Ability for O&M Provider to change staffing to meet specific operating conditions, as needed
 - Ability to implement solution on either a short or long-term basis.
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CONCLUSIONS

- All alternatives will require capital projects to ensure regulatory compliance
 - Benefits of I/I study
 - Project costs and coordination with User Rate Study
 - Cost for Alternative 2 versus other alternatives
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QUESTIONS?
