City of Asheville Water Resources Recovery Projects

March 3, 2026

Bill Hart,
Water Resources Department,
Director

THE CITY OF ASHEVILLE



Water Resources Department Recovery Projects

North Fork Transmission Main #3

Water Plant Treatment Improvements

- North Fork WTP
- William DeBruhl WTP

Dam/Spillway Restoration

- North Fork Fuse Gate Replacement
- Bee Tree Spillway/Dam/Cone Valve Replacement

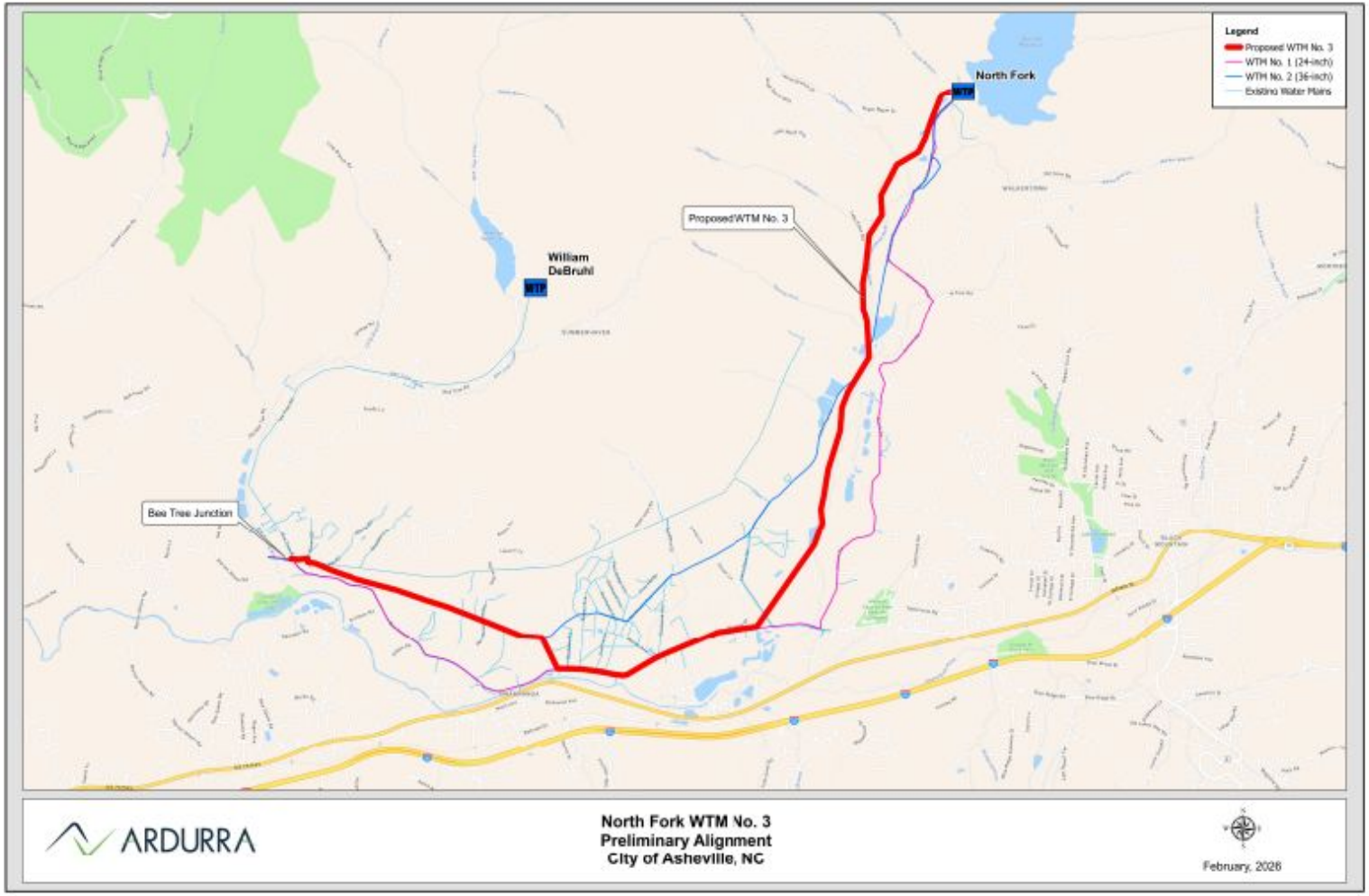
Debris Removal

- North Fork Watershed
- Bee tree Watershed

North Fork Transmission Main #3

- Extends from the North Fork WTP to Bee Tree Road to connect into the water distribution system.
- Avoids flood prone areas to maintain a resilient water transmission system.
- Adurra in under contract to provide design services at a cost of $10,570,450.00, design is partially funded by a NCDEQ/DWI loan. **Total Estimated Cost $125 million**
- Project funding through FEMA HMGP.

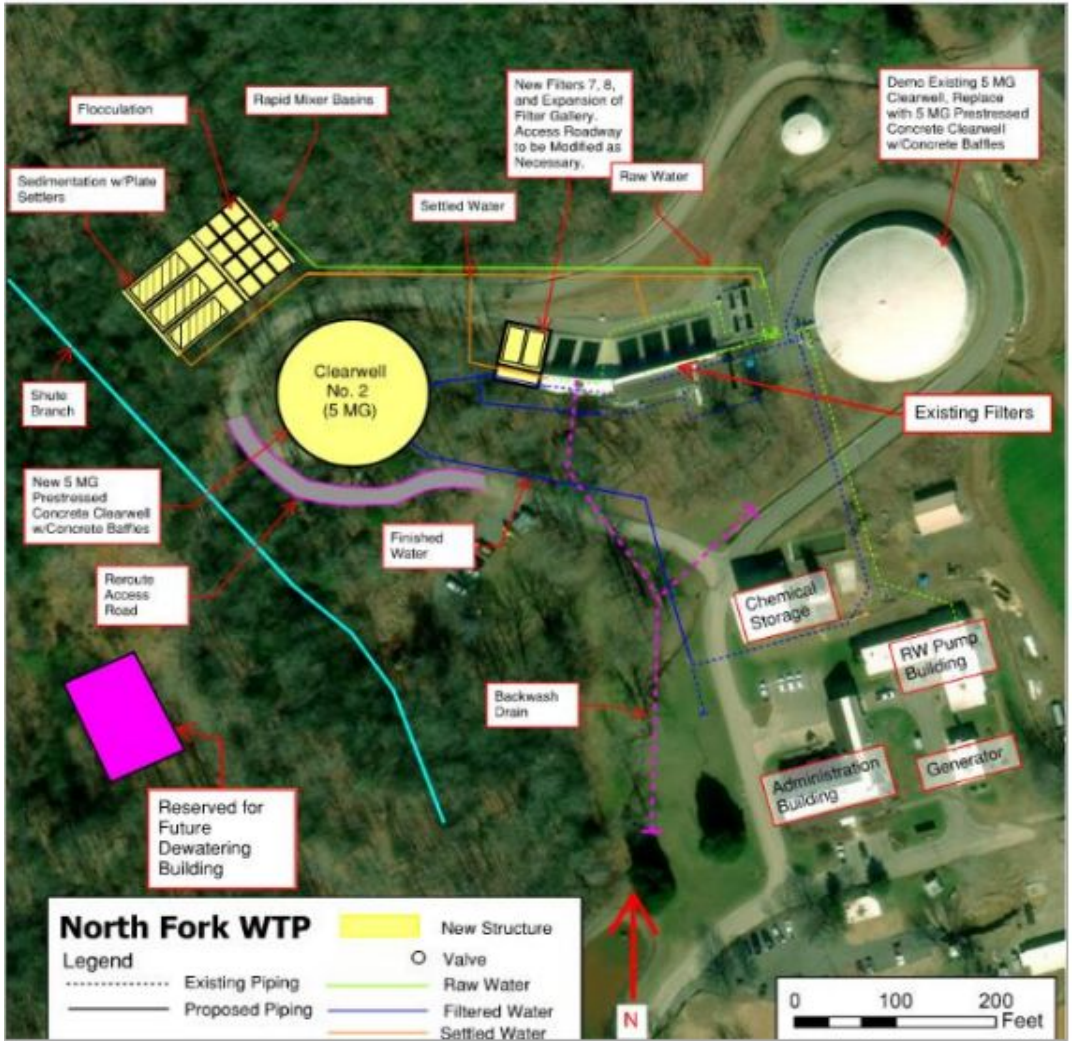



Legend
Proposed WTM No. 3
WTM No. 1 (24-inch)
WTM No. 2 (36-inch)
Existing Water Mains
North Fork
WTP
Proposed WTM No. 3
William DeBruhl
WTP
Bee Tree Junction
ARDURRA
North Fork WTM No. 3
Preliminary Alignment
City of Asheville, NC
February, 2026

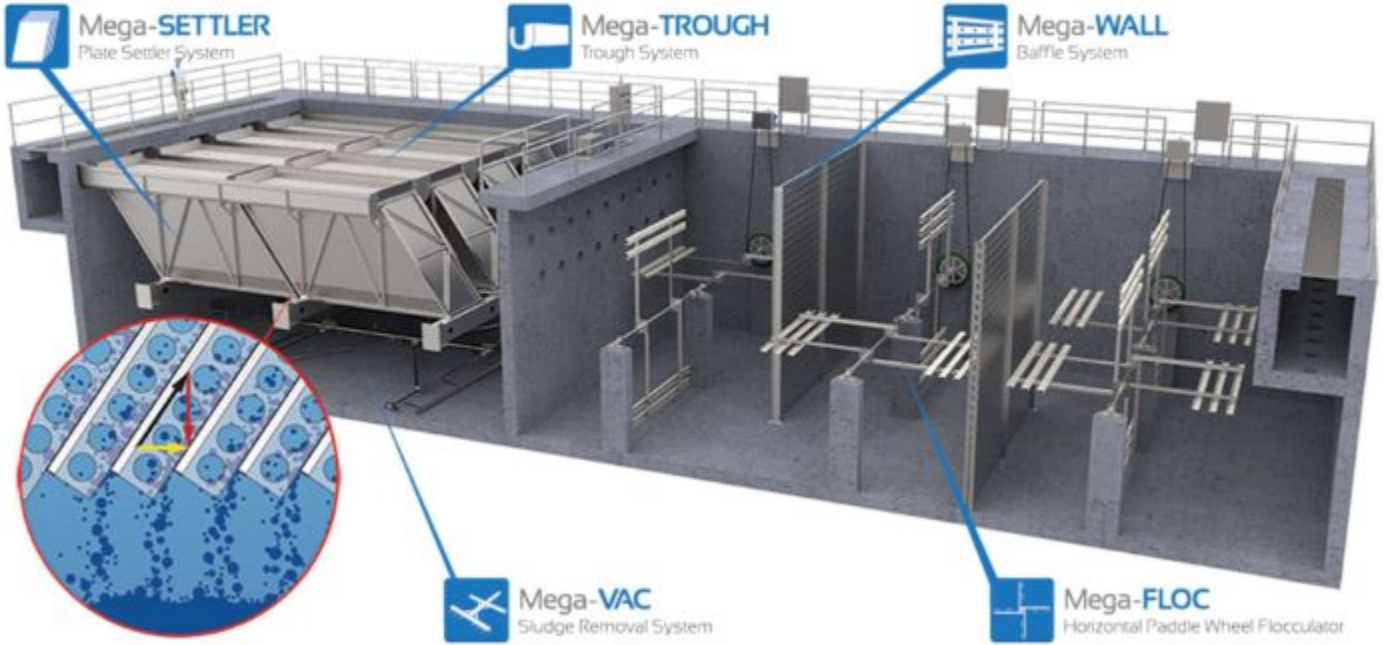
Treatment Improvement Projects

North Fork WTP

- Installation of a Plate Settler sedimentation system to allow successful treatment of water of all qualities.
- Installation of supporting systems to include new clearwells, raw water pumps, filters and residuals processing area.
- Provides resilience in treatment and solidifies the plants 31 MGD capacity.
- CDM Smith is under contract to provide design services at a cost of $6,705,000.00, design is partially funded by a NCDEQ/DWI loan. **Total Estimated Cost $135 million**
- Project funding through FEMA HMGP.


Flocculation
Rapid Mixer Basins
New Filters 7, 8, and Expansion of Filter Gallery. Access Roadway to be Modified as Necessary.
Demo Existing 5 MG Clearwell, Replace with 5 MG Prestressed Concrete Clearwell w/Concrete Baffles
Sedimentation w/Plate Settlers
Raw Water
Settled Water
Clearwell No. 2 (5 MG)
Shute Branch
Existing Filters
New 5 MG Prestressed Concrete Clearwell w/Concrete Baffles
Finished Water
Reroute Access Road
Chemical Storage
RW Pump Building
Backwash Drain
Administration Building
Generator
Reserved for Future Dewatering Building
North Fork WTP
Legend
Existing Piping
Proposed Piping
New Structure
Valve
Raw Water
Filtered Water
Settled Water
N
0
100
200
Feet

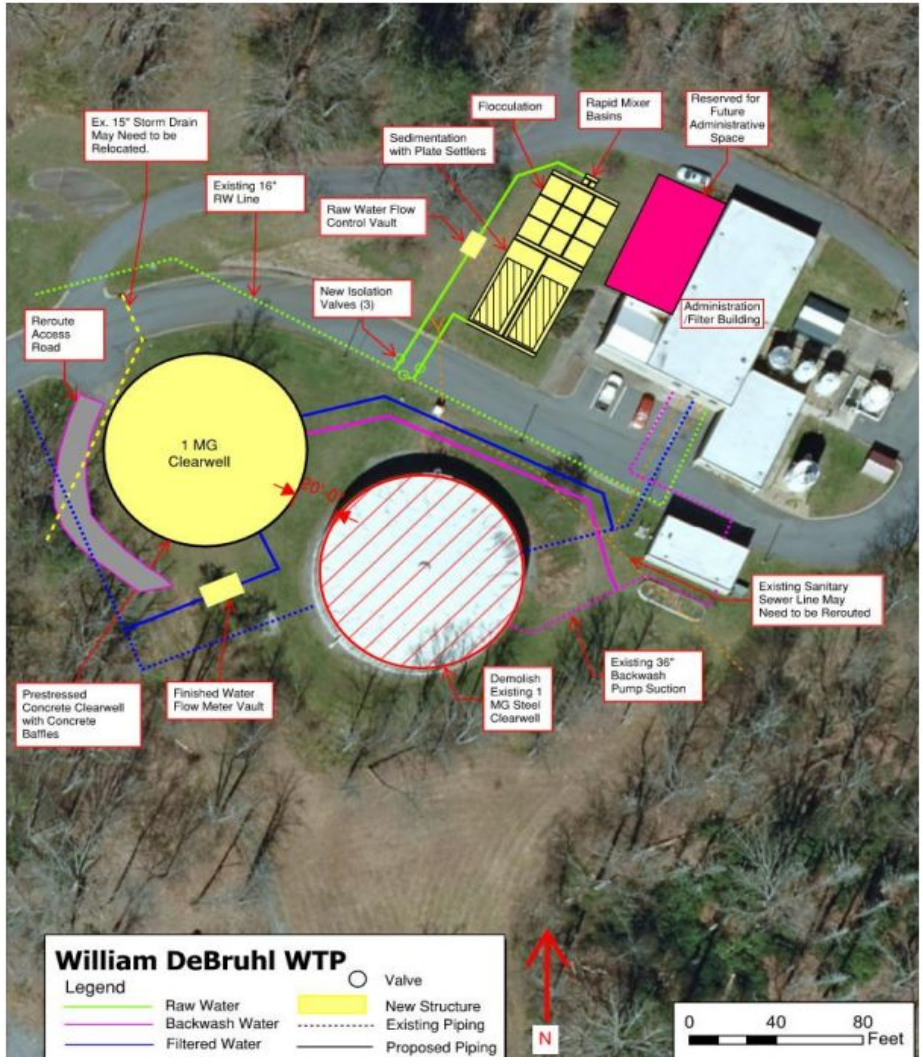
JMS Mega Settler - Plate Settler Example



Treatment Improvement Projects

William DeBruhl WTP

- Installation of a Plate Settler sedimentation system to allow successful treatment of water of all qualities.
- Installation of supporting systems to include new clearwells.
- Provides resilience in treatment and solidifies the plants 5 MGD capacity.
- Garver Engineering is under contract to provide design services at a cost of $3,326,468.00. **Total Estimated Cost $22.1 million**
- Project funding through FEMA PA.


Ex. 15" Storm Drain May Need to be Relocated.
Existing 16" RW Line
Sedimentation with Plate Settlers
Flocculation
Rapid Mixer Basins
Reserved for Future Administrative Space
Raw Water Flow Control Vault
New Isolation Valves (3)
Administration /Filter Building
Reroute Access Road
1 MG Clearwell
Existing Sanitary Sewer Line May Need to be Rerouted
Existing 36" Backwash Pump Suction
Demolish Existing 1 MG Steel Clearwell
Prestressed Concrete Clearwell with Concrete Baffles
Finished Water Flow Meter Vault
William DeBruhl WTP
Legend
Raw Water
Backwash Water
Filtered Water
Valve
New Structure
Existing Piping
Proposed Piping
N
0
40
80
Feet

Dam and Spillway Restoration

North Fork

- Replacement of fuse gate #4 on the Auxiliary Spillway.
- Repairs to areas below the Auxiliary Spillway damaged by Helene.
- Repairs to the Primary Spillway energy dissipator.
- Schnabel PC South is under contract for design and construction oversight. **Total Estimated Cost $750k - $1 million**

Bee Tree

- Replacement of the original cone valve.
- Spillway concrete repairs.
- Dam earthworks repairs.
- Schnabel PC South is under contract for design and construction oversight. **Cost $176,770.** Project is under development.


BOAT RAMP
FUSEGATE REPLACEMENT AND REPAIRS WORK AREA
PROPOSED STAGING AREA
PROPOSED LOCATION FOR ACCESS SCAFFOLDING
SLAB REPAIR WORK AREA SEE SHEET G-10
AUXILIARY SPILLWAY
N

North Fork and Bee Tree Watershed Debris Removal

- North Fork Debris Removal completed under the NC SMART program.
- 6,577.9 tons of debris was removed from the waterways.
- Preparation for Debris Removal in process for the Bee Tree Reservoir and Watershed through FEMA PA.
- Woody Debris to be removed from the streams, reservoir and banks around the reservoir.

Water Resources Department Recovery Projects

Questions?