



East Davie Wastewater Collection System Update

Presented by: Jeremy Allen, PE, and Tyler Highfill, PE

October 2, 2017



HIGHFILL



Presentation Outline

- Why project is needed
- Benefits to Davie County customers
- Project flow diagrams and maps
- Project highlights
- Photos of similar completed projects
- Funding
- Schedule

The “Why?”

Protecting the Sustainability of Davie County

- Background
 - Growth creates capacity need
 - County charged 2x “inside-City of Winston-Salem” rates
- Actions taken
 - Alternatives were analyzed
 - Selected best solution for Davie County

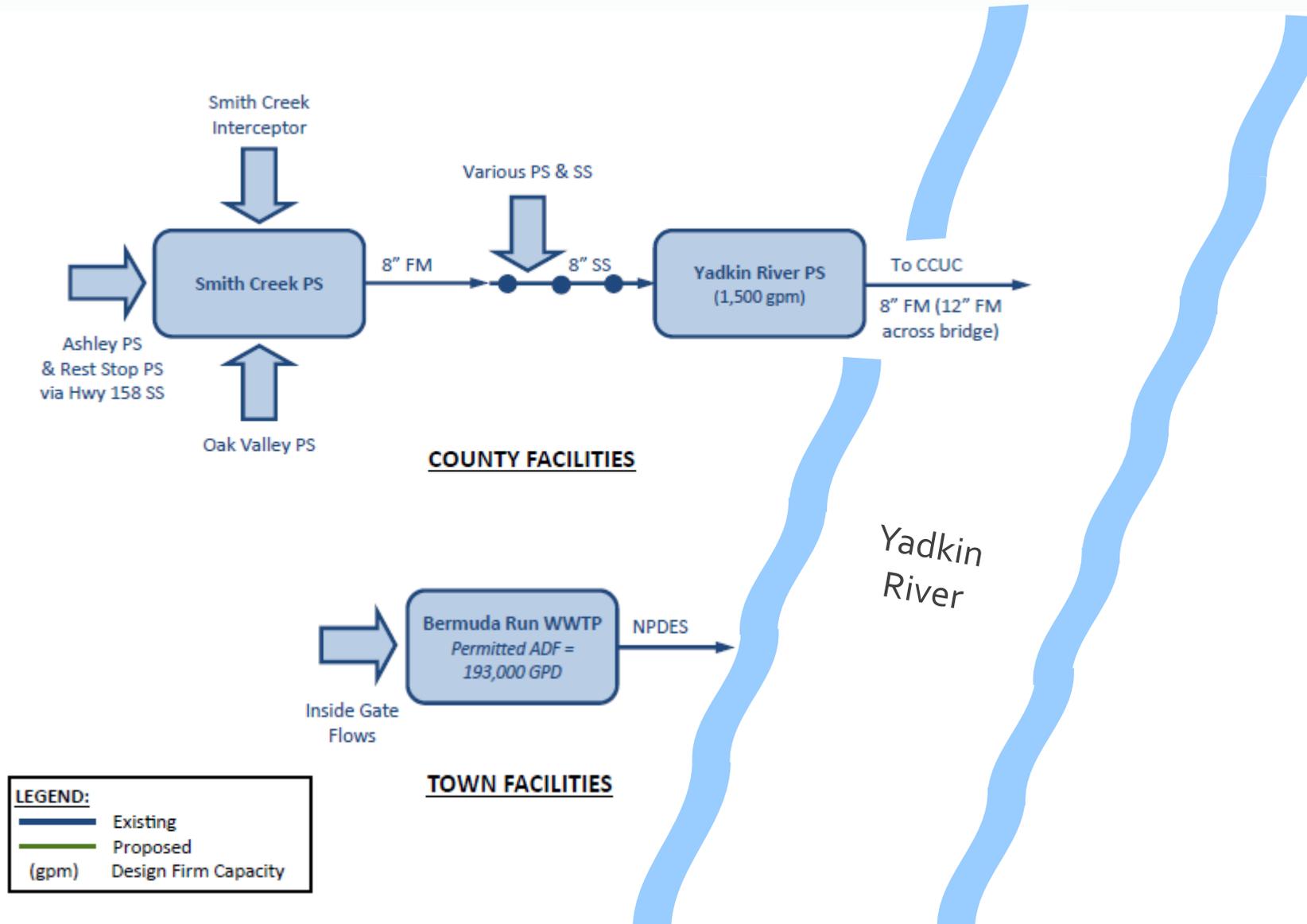
Benefits to Davie County Customers

Project Will Benefit Customers

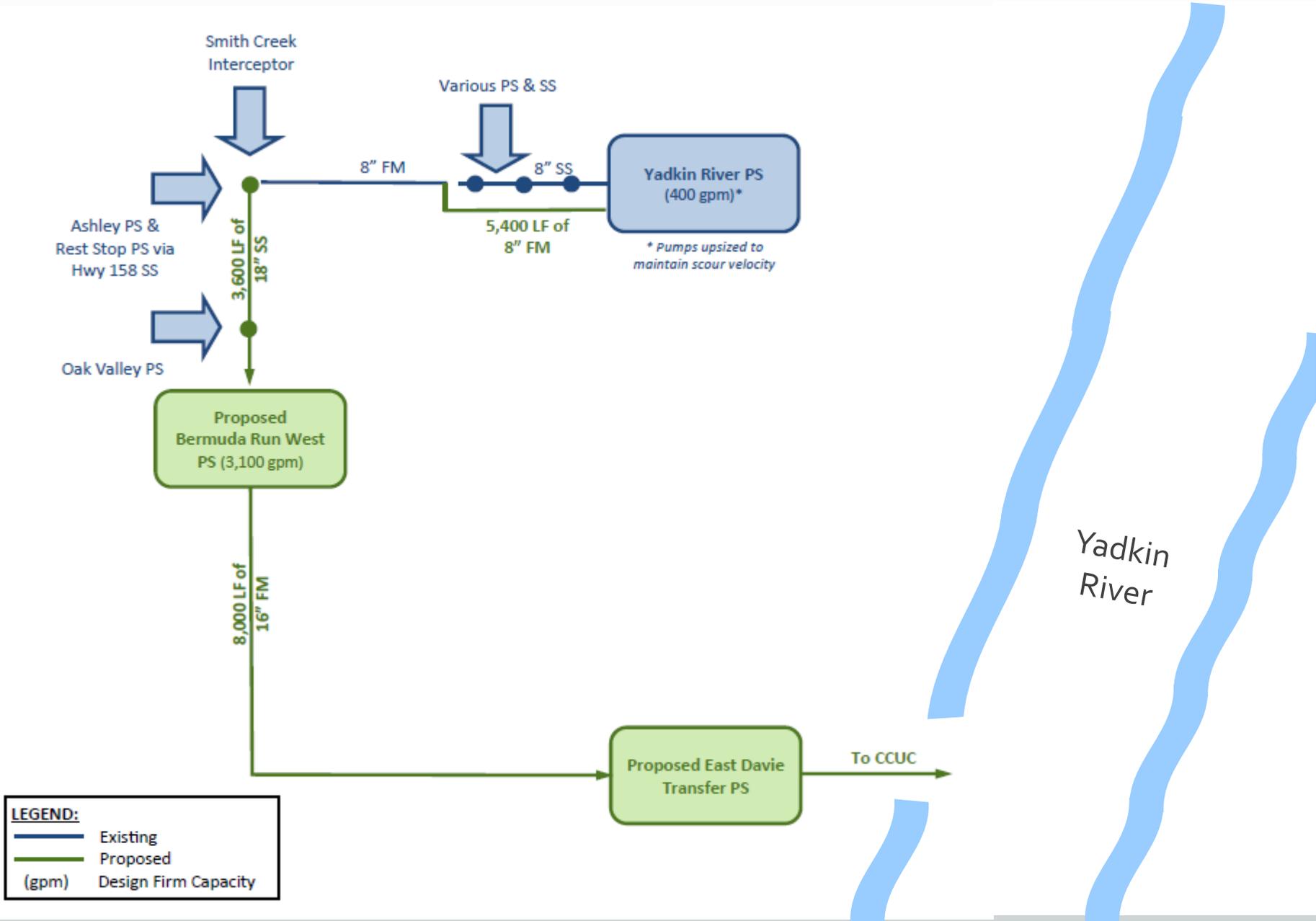
- Reduce rates to 1x “inside City” rates
- Minimal impact to residents
- Regional cooperation:
 - Take advantage of treatment plant economies of scale by working with CCUC.
 - Accommodating Idols Road Regional PS will:
 - reduce equipment sizes (pumps, generator, and electrical gear)
 - lower the on-going operational costs (power and chemicals)
- Provides capacity for Davie County growth

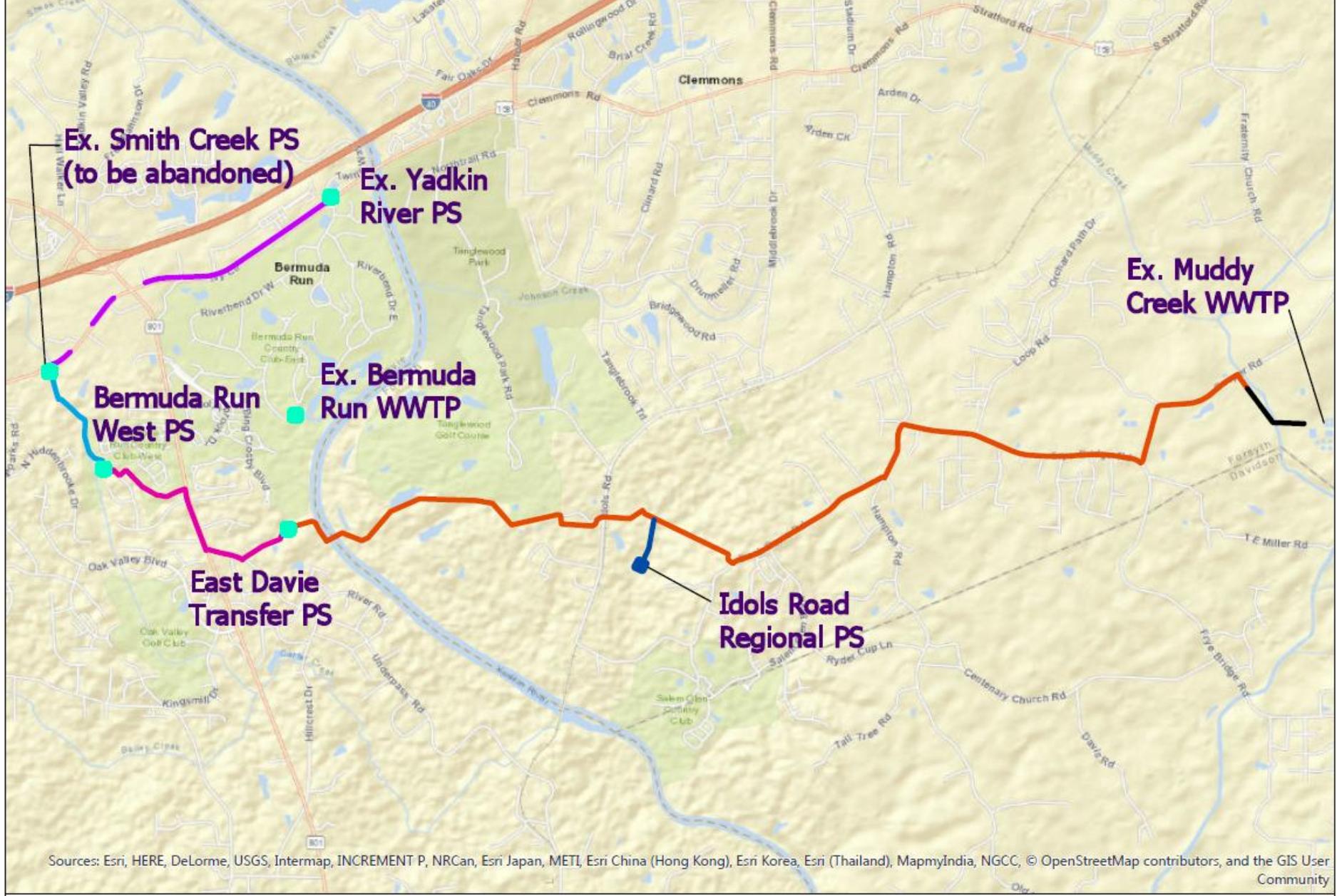
Project Flow Diagrams and Maps

Existing System

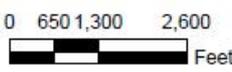


Proposed System





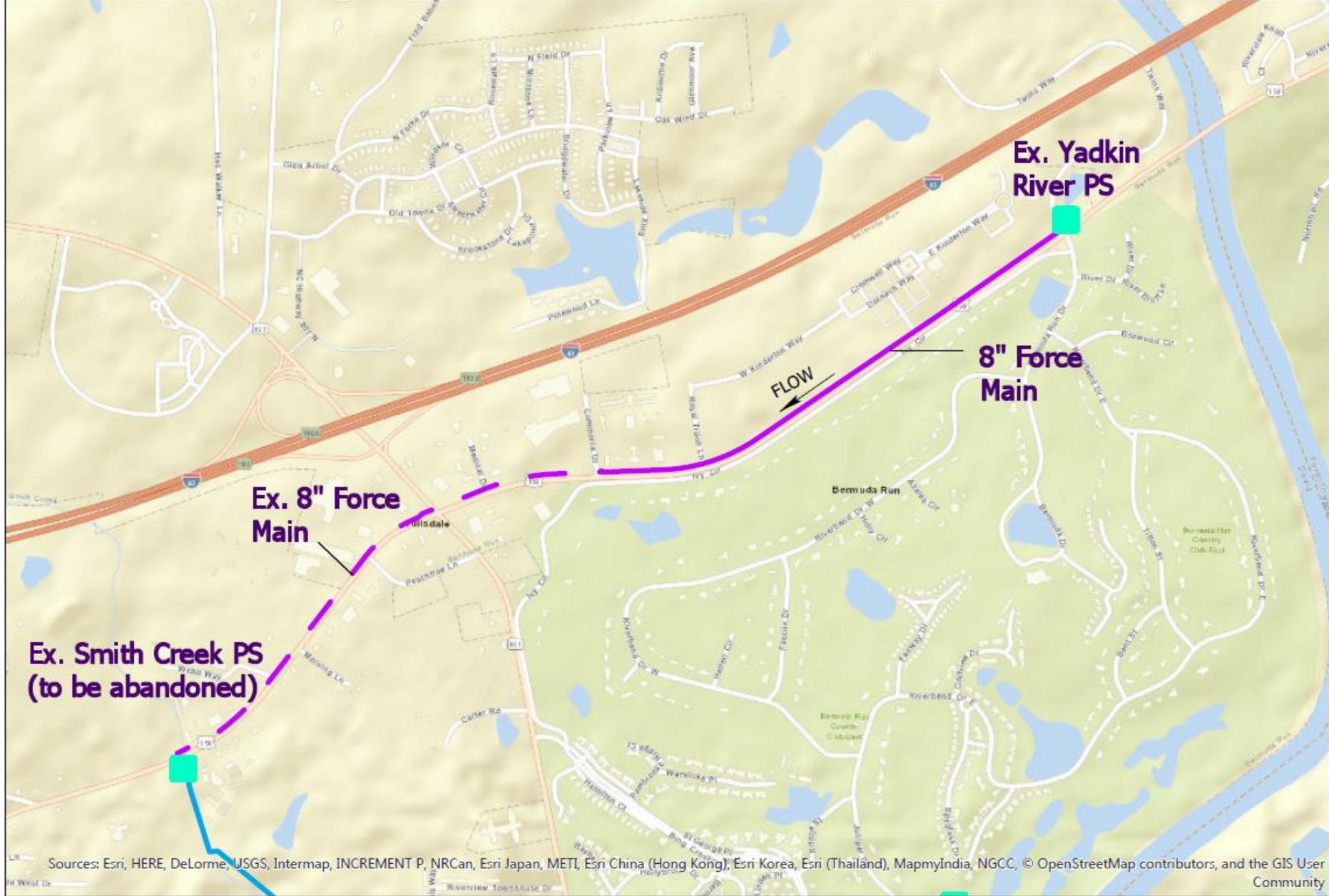
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OVERALL PROJECT LOCATION

EAST DAVIE WASTEWATER COLLECTION SYSTEM

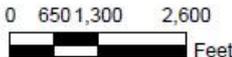




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YADKIN RIVER PS & FM

EAST DAVIE WASTEWATER COLLECTION SYSTEM



**Ex. Smith Creek PS
(to be abandoned)**

**18" Sanitary
Sewer**

**Bermuda Run
West PS**

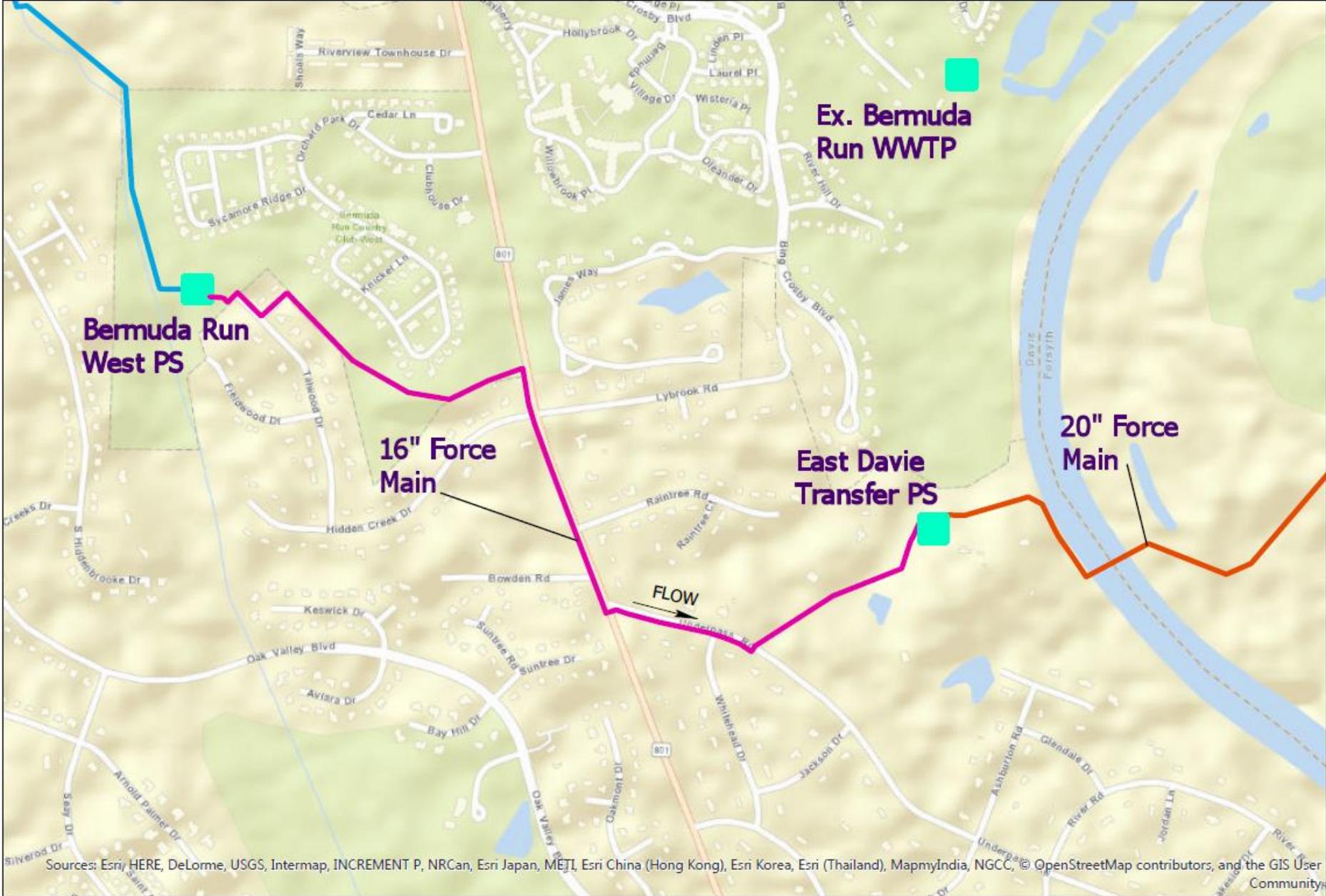
FLOW

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

0 362.5725 1,450
Feet

SMITH CREEK INTERCEPTOR & BERMUDA RUN WEST PS EAST DAVIE WASTEWATER COLLECTION SYSTEM

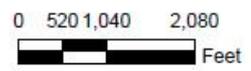




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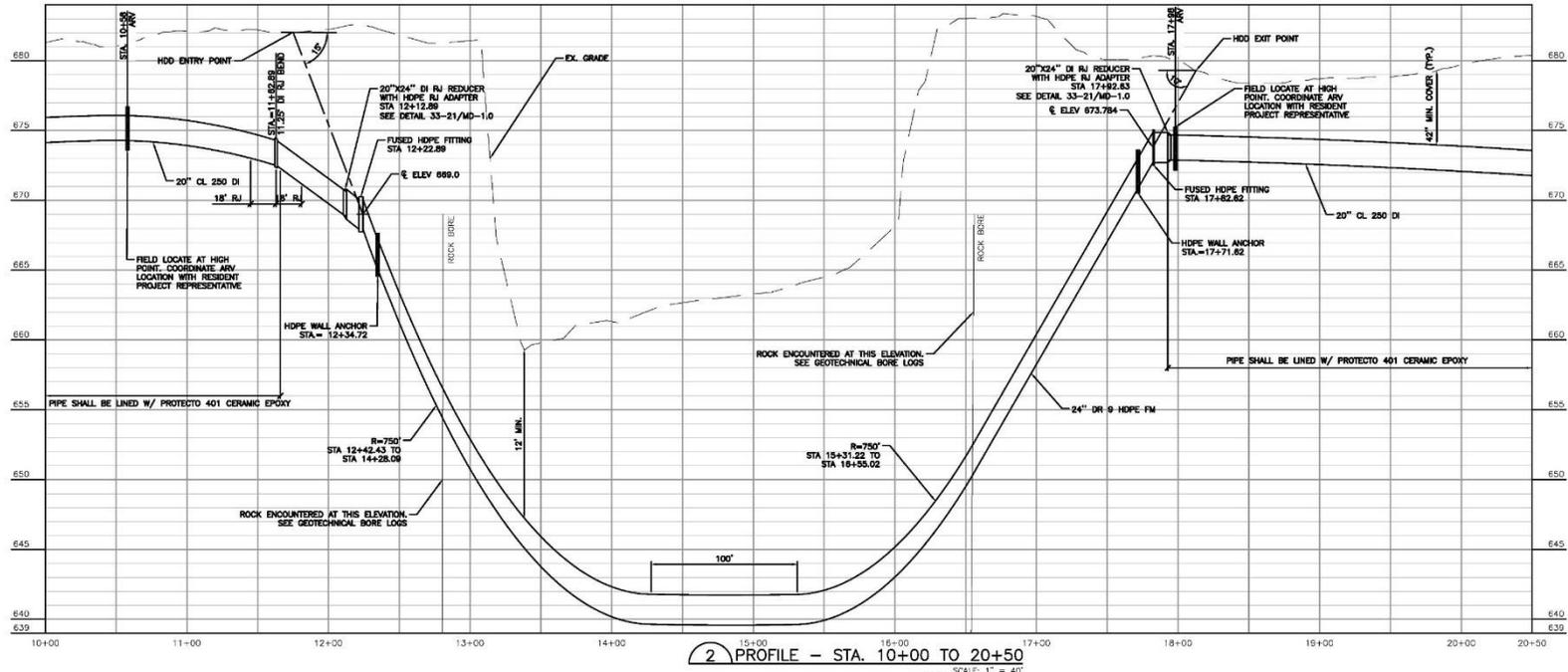
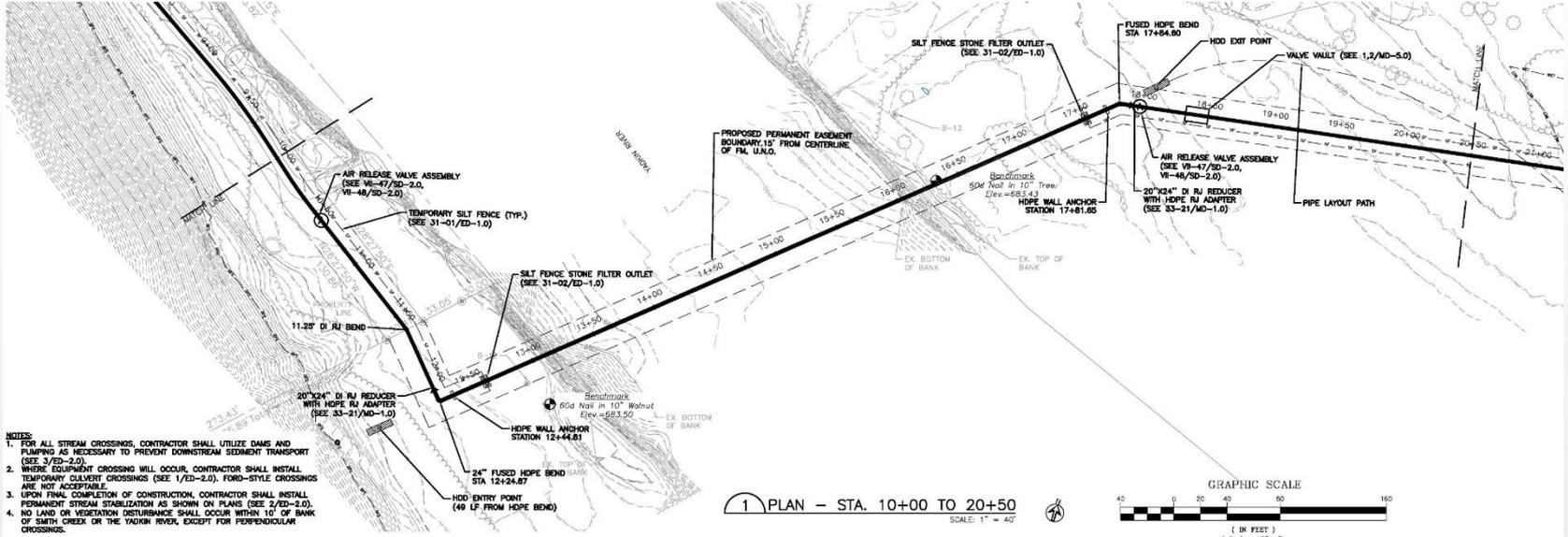
BERMUDA RUN WEST FM & EAST DAVIE TRANSFER PS

EAST DAVIE WASTEWATER COLLECTION SYSTEM



Project Highlights

Cost Effective & Environmentally Friendly



Odor Prevention and Treatment are Key Project Components

- Wastewater can create odor concerns when it become septic.
- There are two types of odor management:
 - Prevention – chemical additions to stabilize wastewater
 - Treatment – scrubbers to clean odor-laden air



What it will look like

Example - Construction



Example - Completed PS



Example - Completed Pipelines



Project Funding

Funding Sources Contribute to Project Success

- Primary funding through Clean Water State Revolving Funds loan.
 - “Letter of Intent to Fund” has been obtained
 - Interest rates are 1/2 of the market rate
 - 20-year term
 - State and Federal funds
- County is seeking additional funding through Economic Development Assistance (EDA) for \$2M.
 - Federally funding grant from jobs creation
 - Currently in Phase 2 of the two-step application process.
- Current Opinion of Cost: \$18.2M

Project Schedule

Project Schedule

Project Phase	Schedule
ER/EID Review	Present – End of December 2017
East Davie Transfer Redesign	Mid August 2017 – End of September 2017
Permitting/Easement Acquisition	Early October 2017 – Early June 2018
Bidding and Award	Mid June 2018 – Mid October 2018
Construction	Mid November 2018 – Early September 2020

Questions...

Clarifications...

Discussion.



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