



Estero Water Monitoring

Program Update

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Why Monitor?

- Recommended in Village's Stormwater Master Plan
- Water Quality:
 - Identify issues
 - Identify areas of pollution sources
 - Track improvement or decline in quality
- Water Level:
 - Stormwater model calibration
 - Understand system response to rainfall events
 - Identify areas of flooding risk
 - Identify system changes



Why?

- Water Flow:
 - Stormwater model calibration
 - Identify where water originates
 - Understand system response to rainfall events
 - Identify system changes



Water Monitoring

Water Quality

- 4 County Locations
- 5 Village Locations
- 4 Village Temporary Locations

Elevation

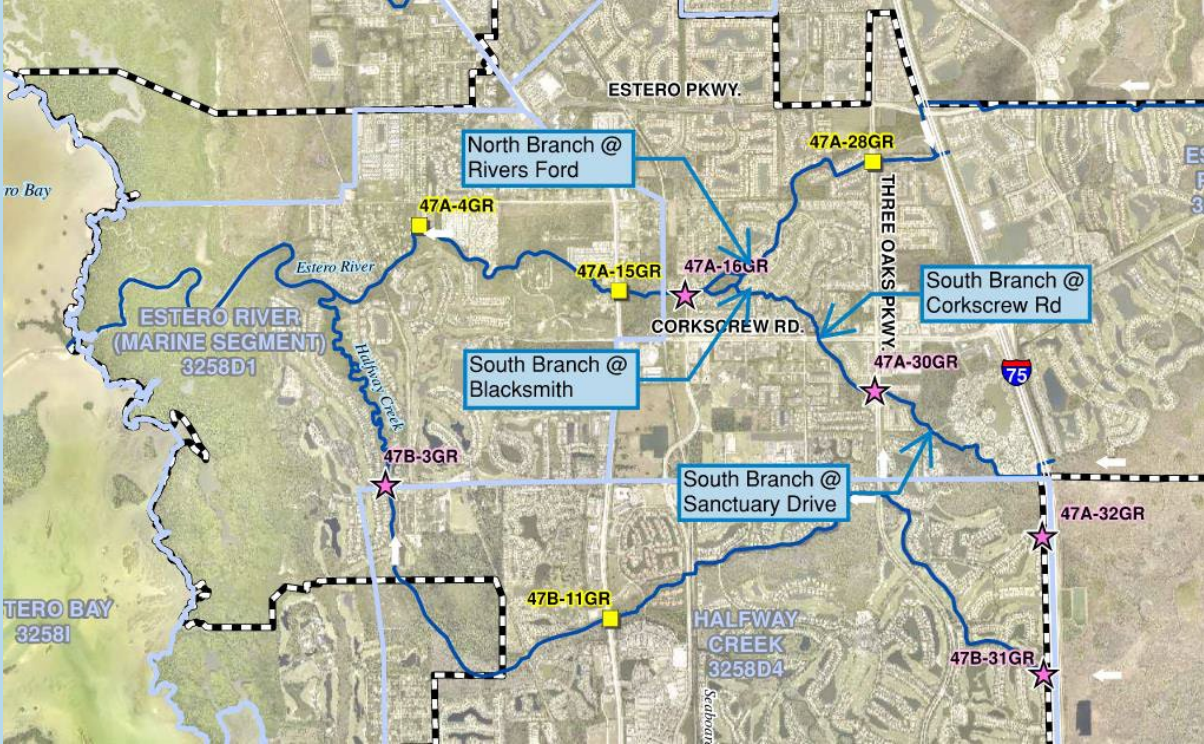
- 2 USGS Locations
- 4 Village Locations

Flow

- 2 USGS Locations
- 1 Brooks Location
- 1 County Location
- 4 Village Locations

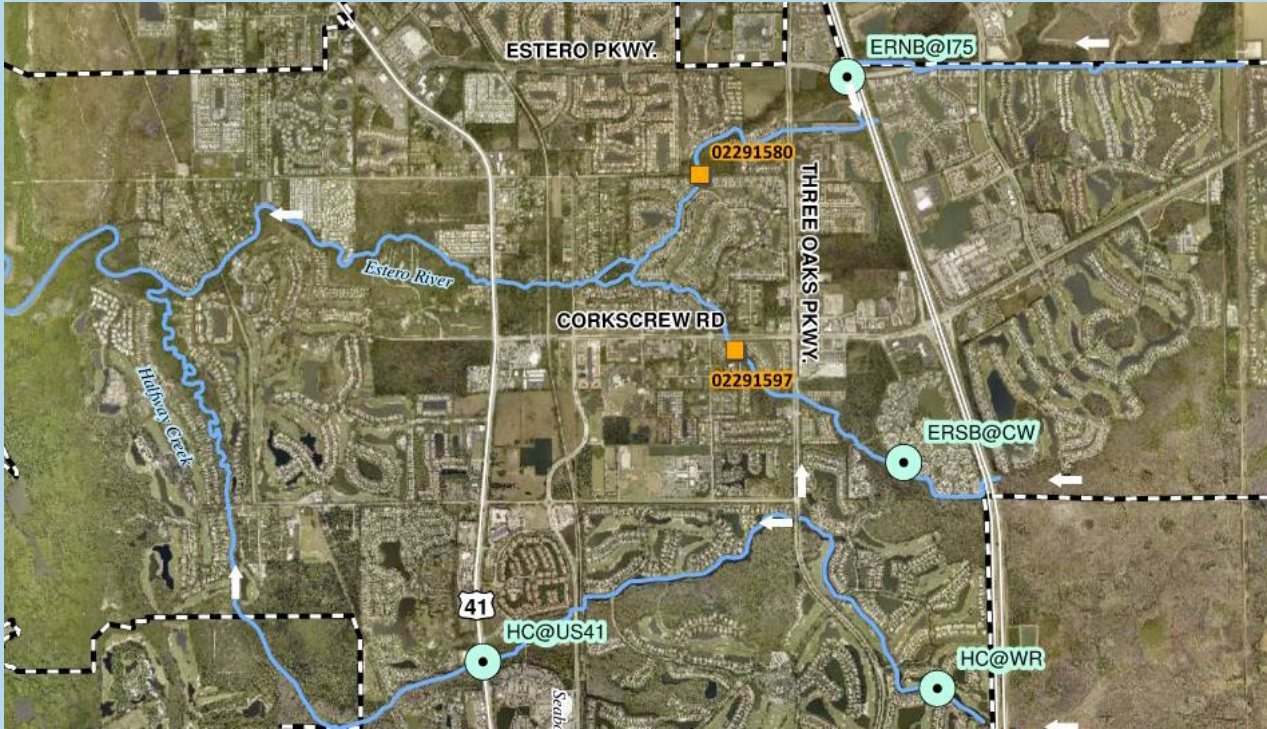


Water Quality Locations



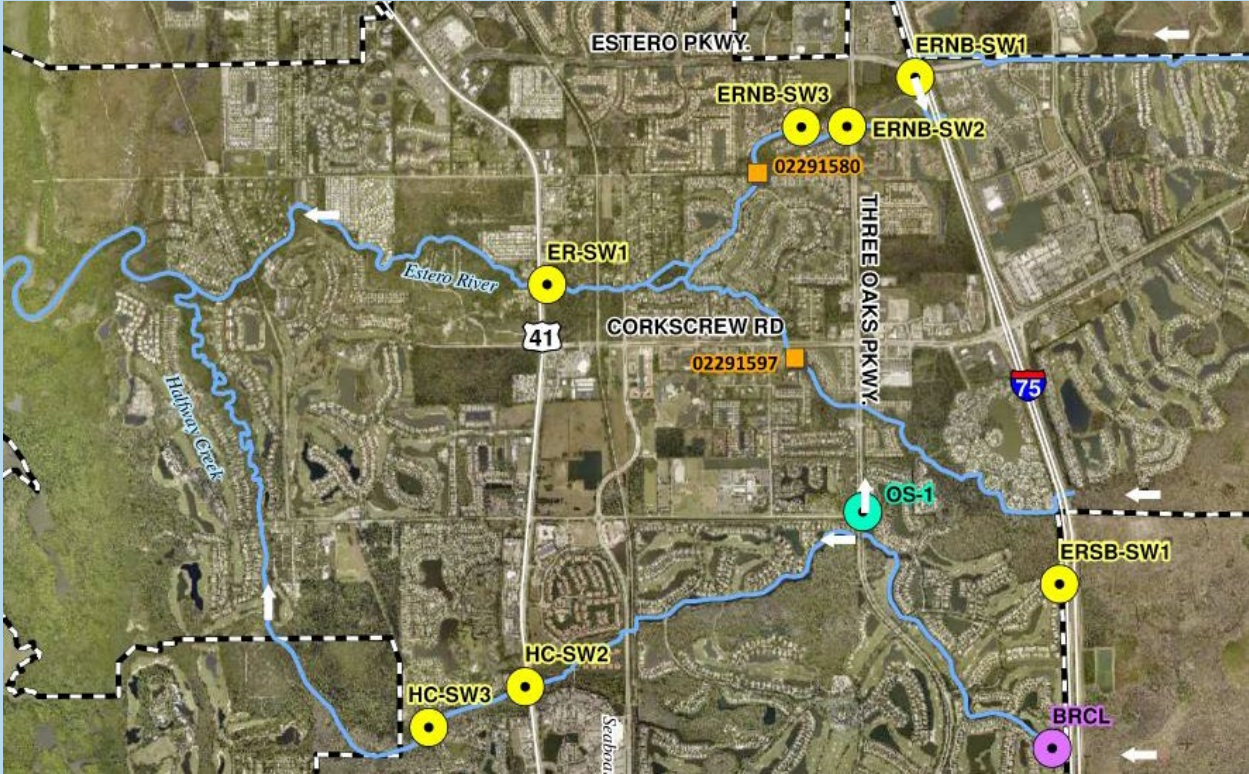


Flow Locations





Water Level Locations





Water Quality Parameters

Ammonia Nitrogen

Total Organic Nitrogen

Nitrate + Nitrite

Total Kjeldahl Nitrogen

Total Nitrogen

Total Phosphorus

Biochemical Oxygen Demand

Chloride

E-Coli Bacteria

Enterococci Bacteria

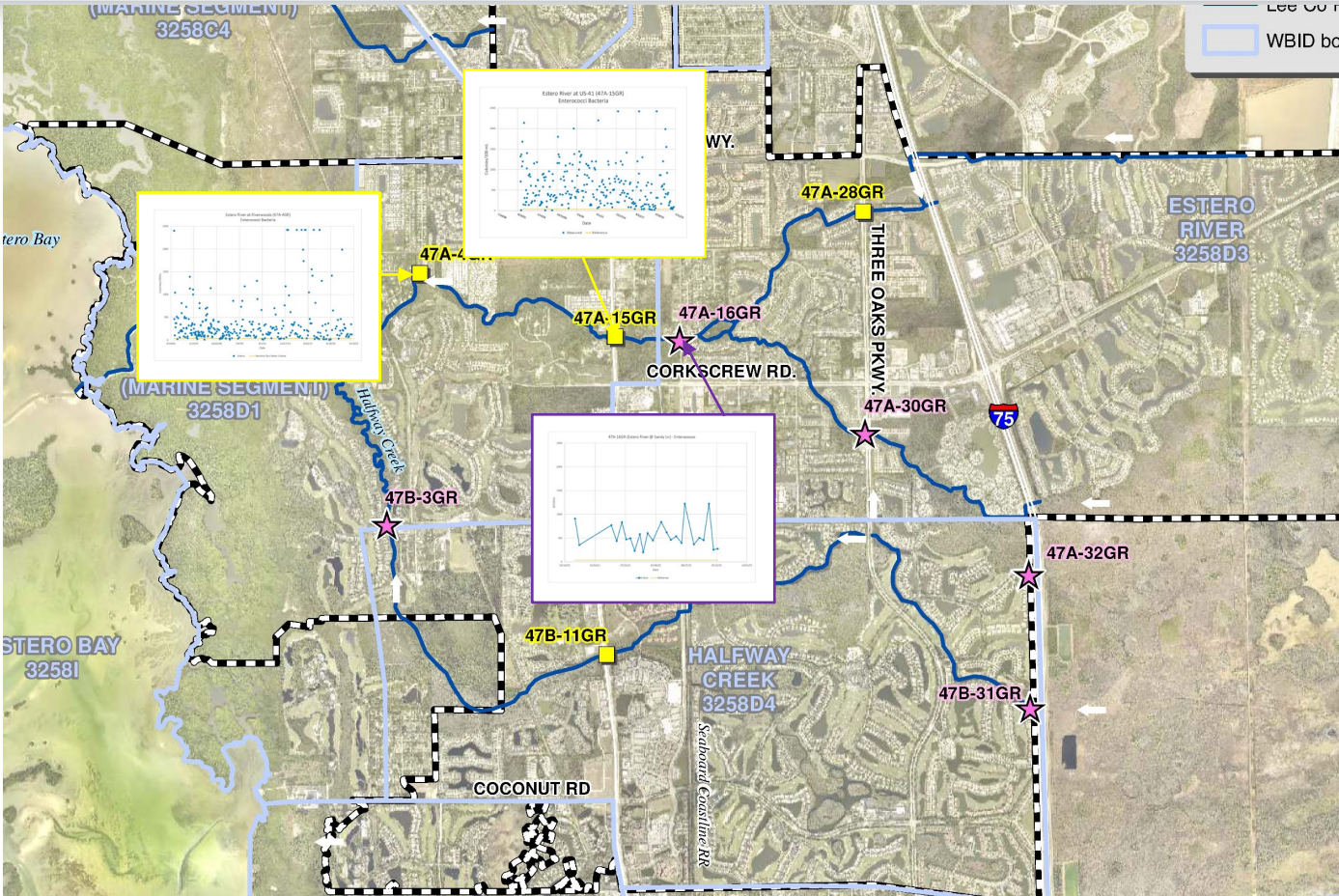
Copper

Iron

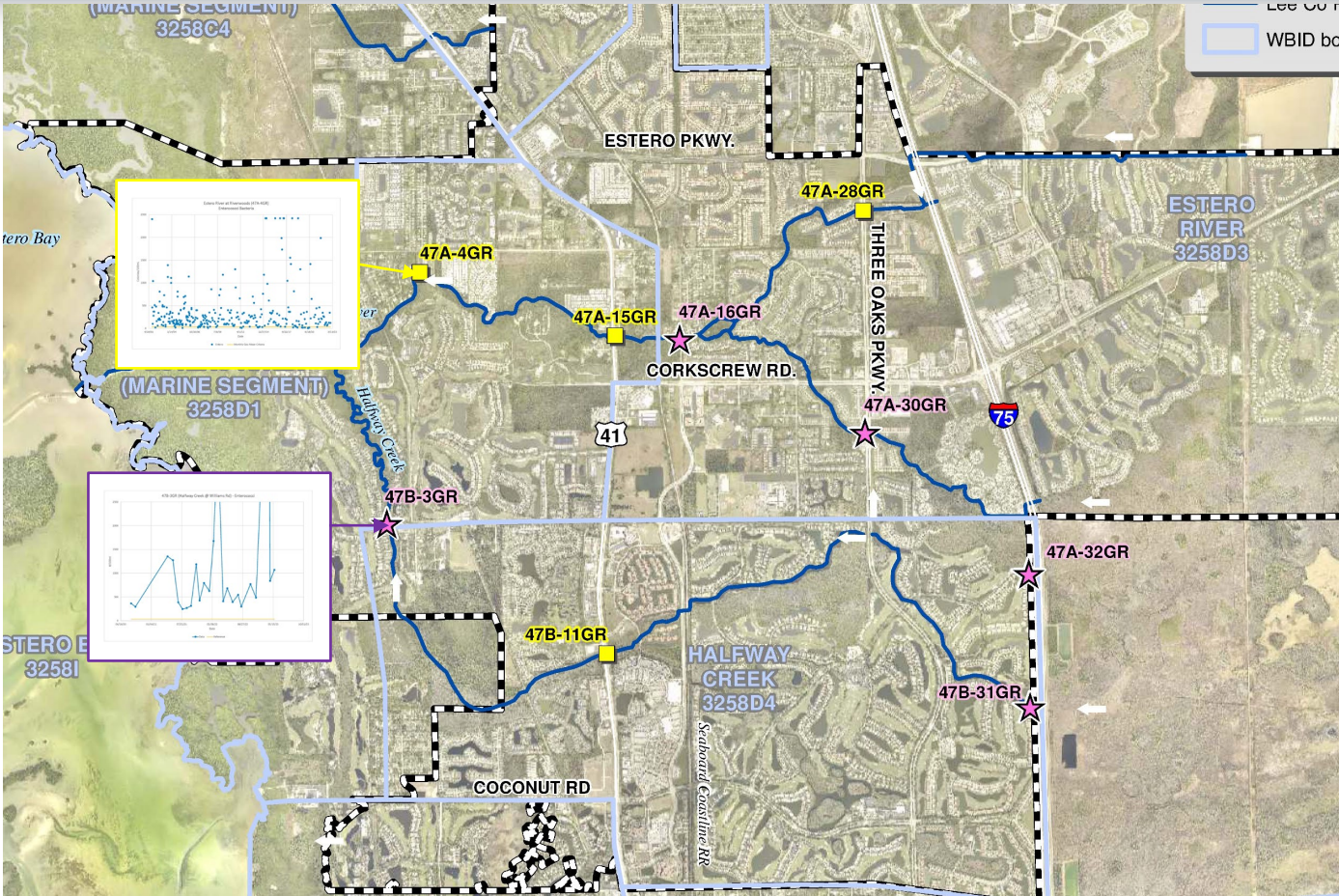
Total Hardness

Total Organic Carbon

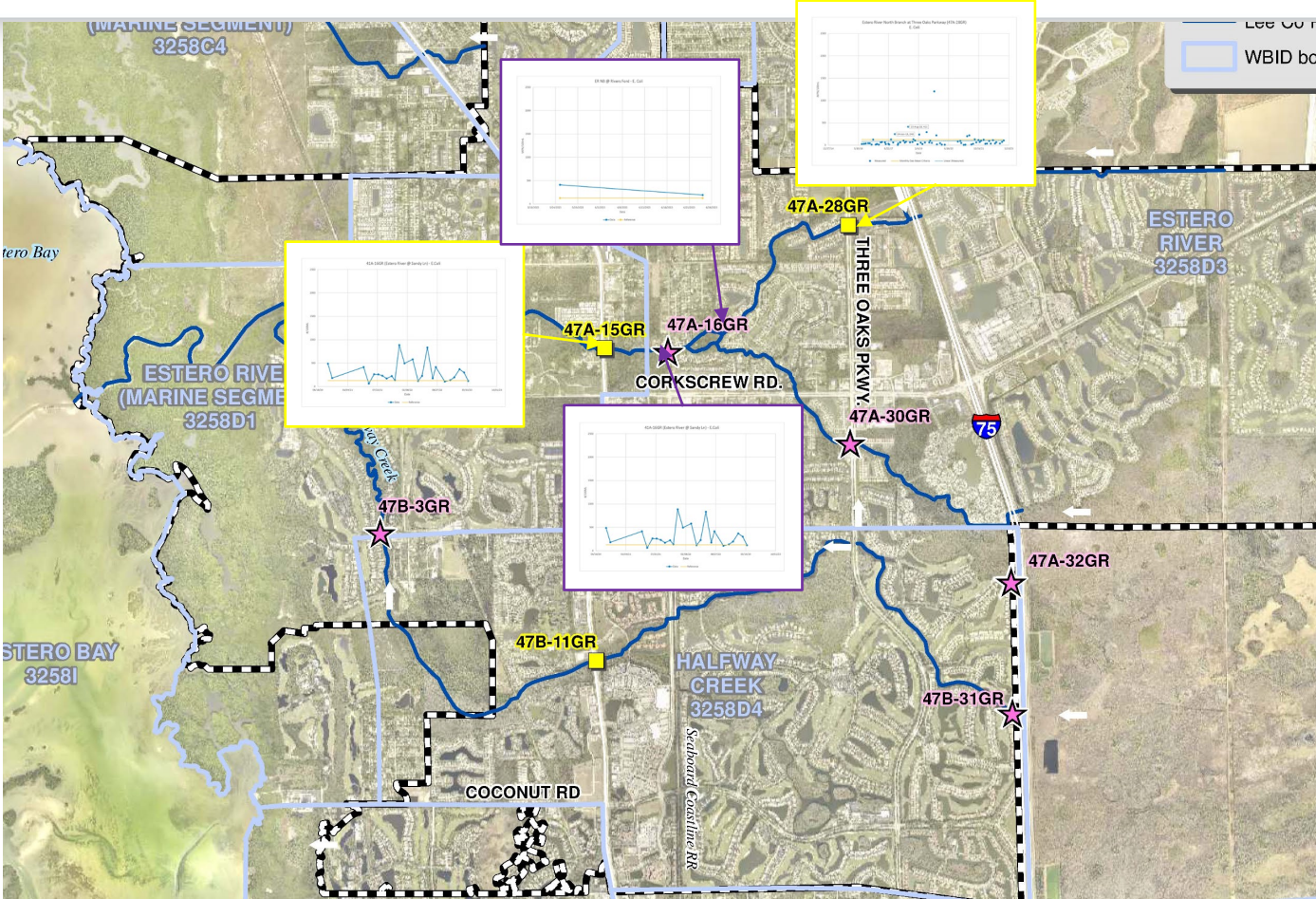
Entero. Bacteria - Estero River



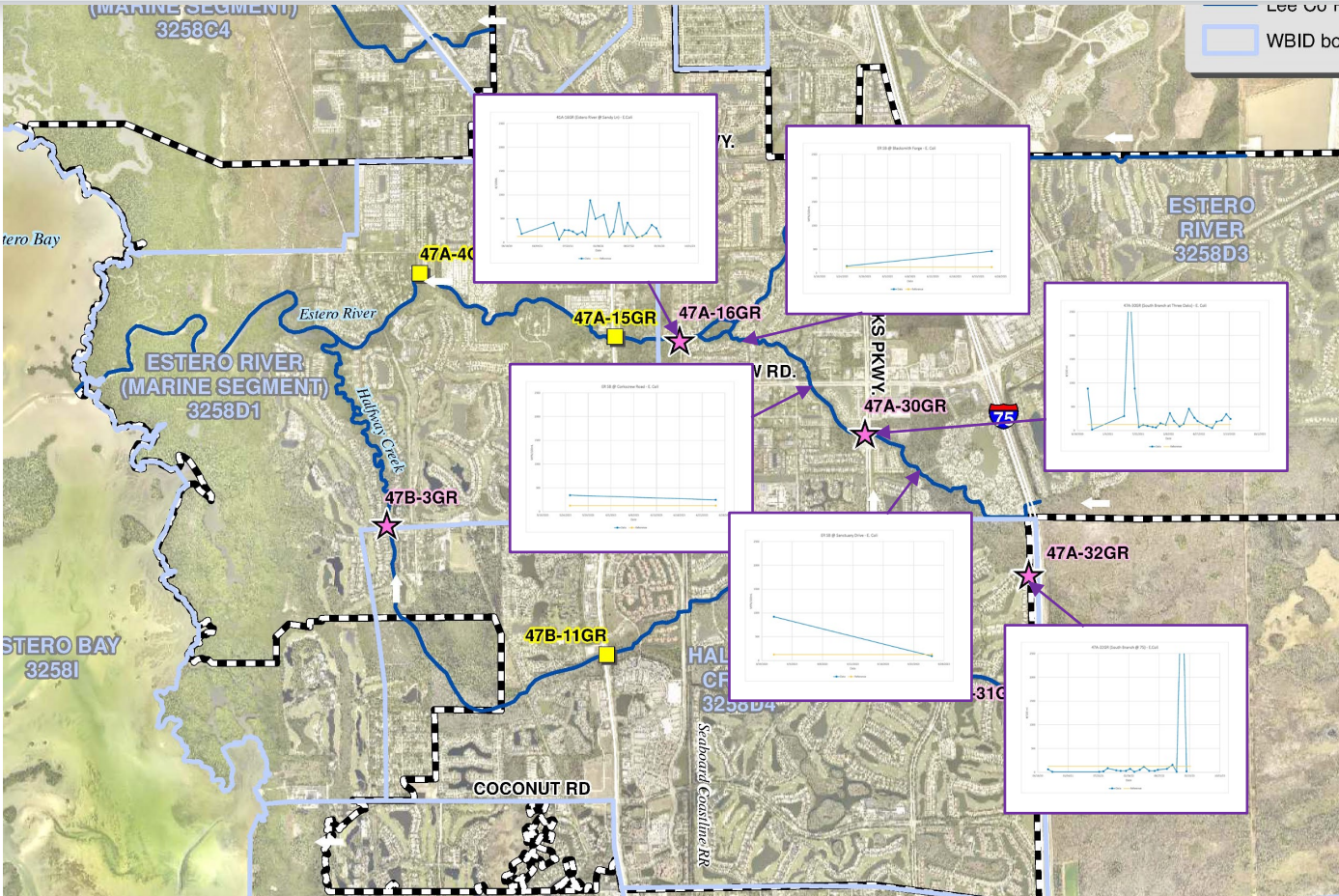
Entero. Bacteria – Halfway Creek



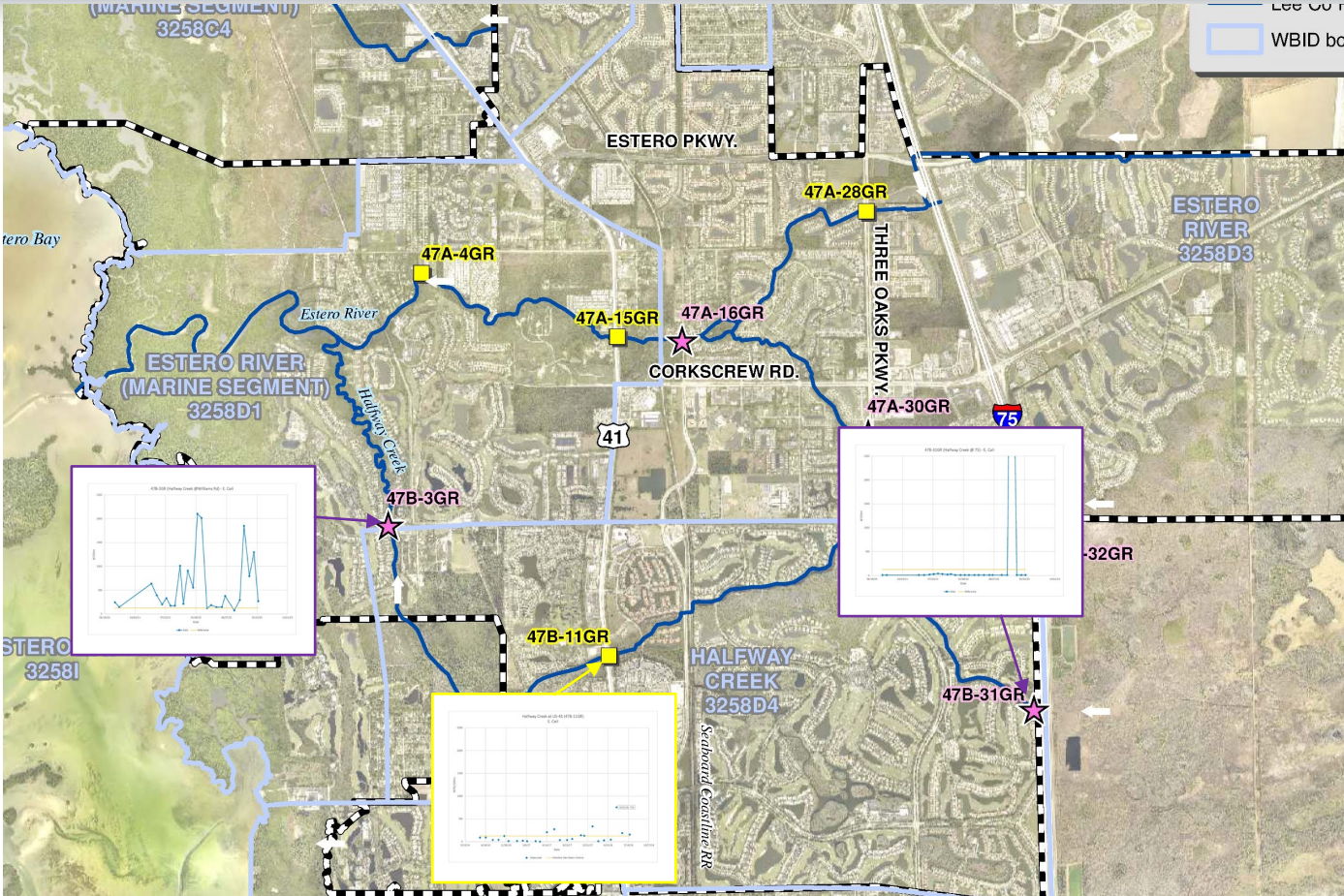
E. Coli Bacteria – Estero River NB



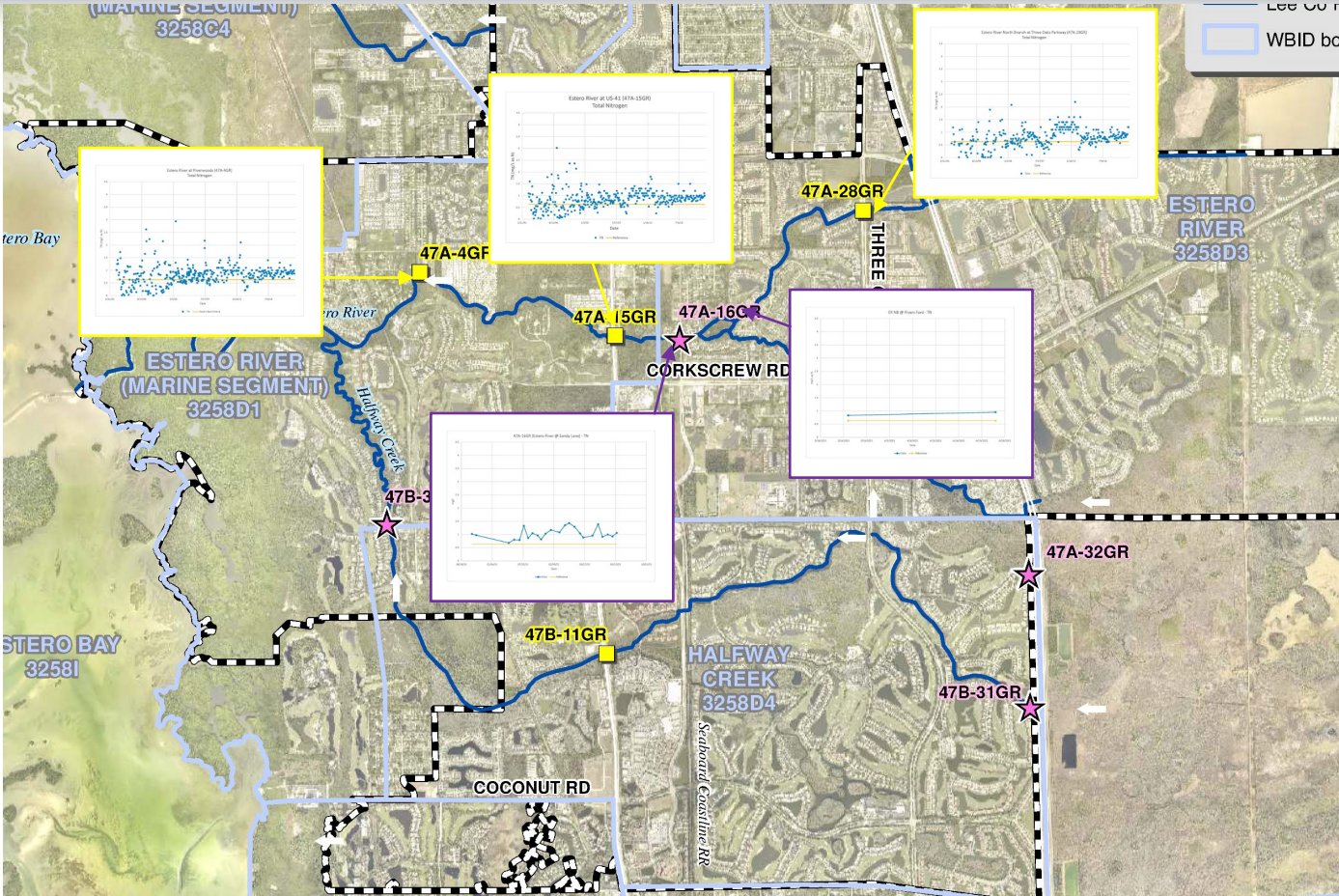
E. Coli Bacteria – Estero River SB



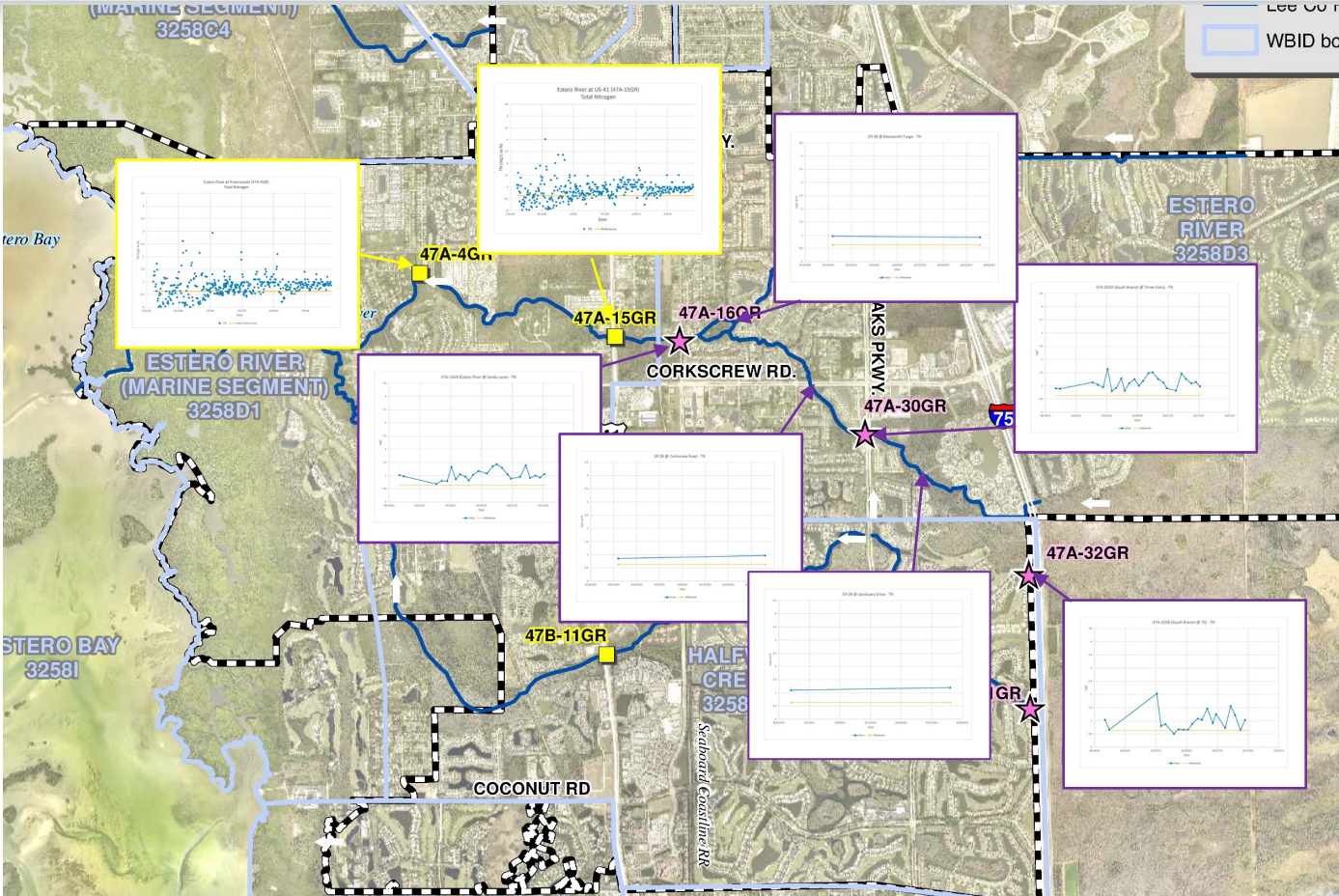
E. Coli Bacteria – Halfway Creek



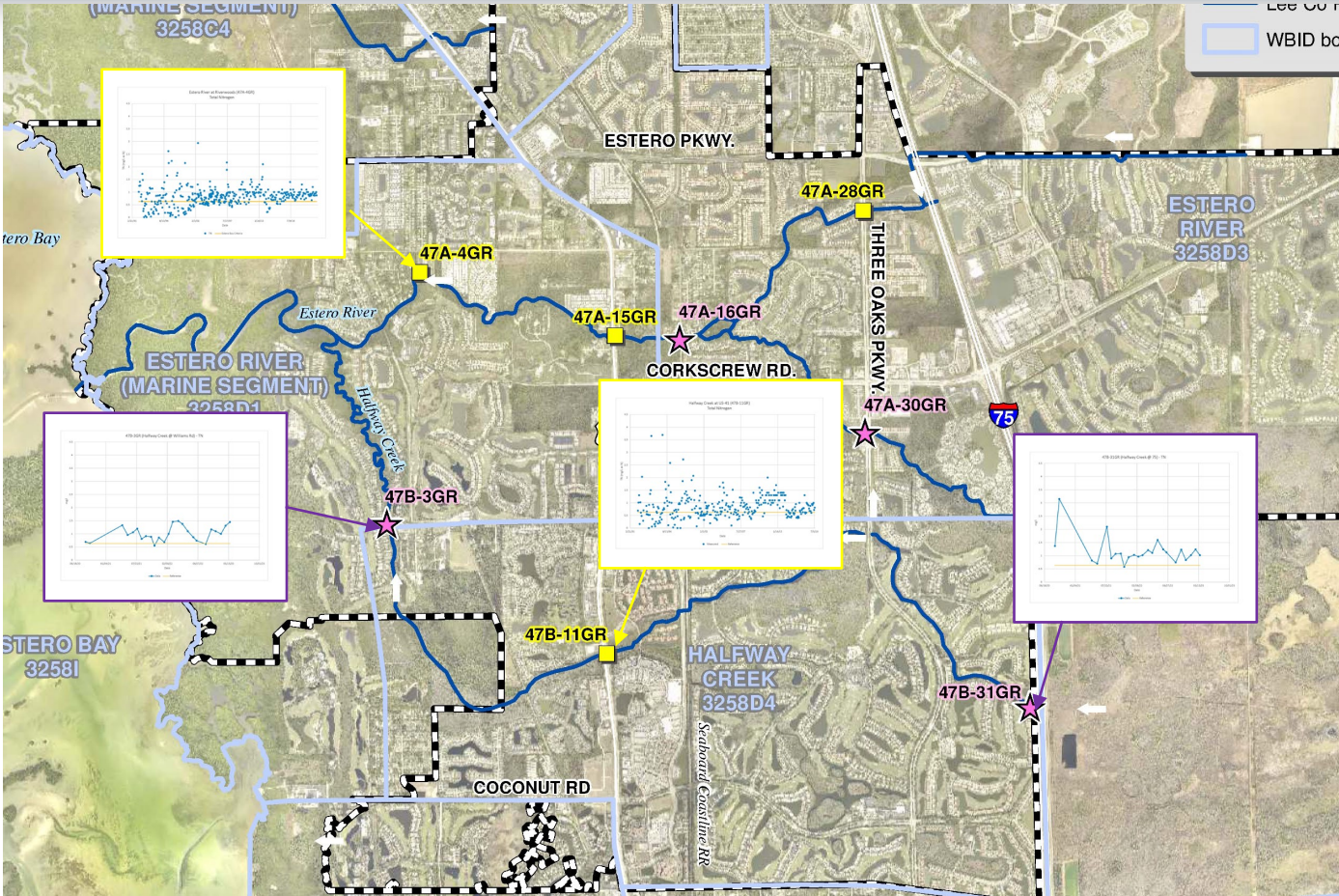
Total Nitrogen – Estero River NB



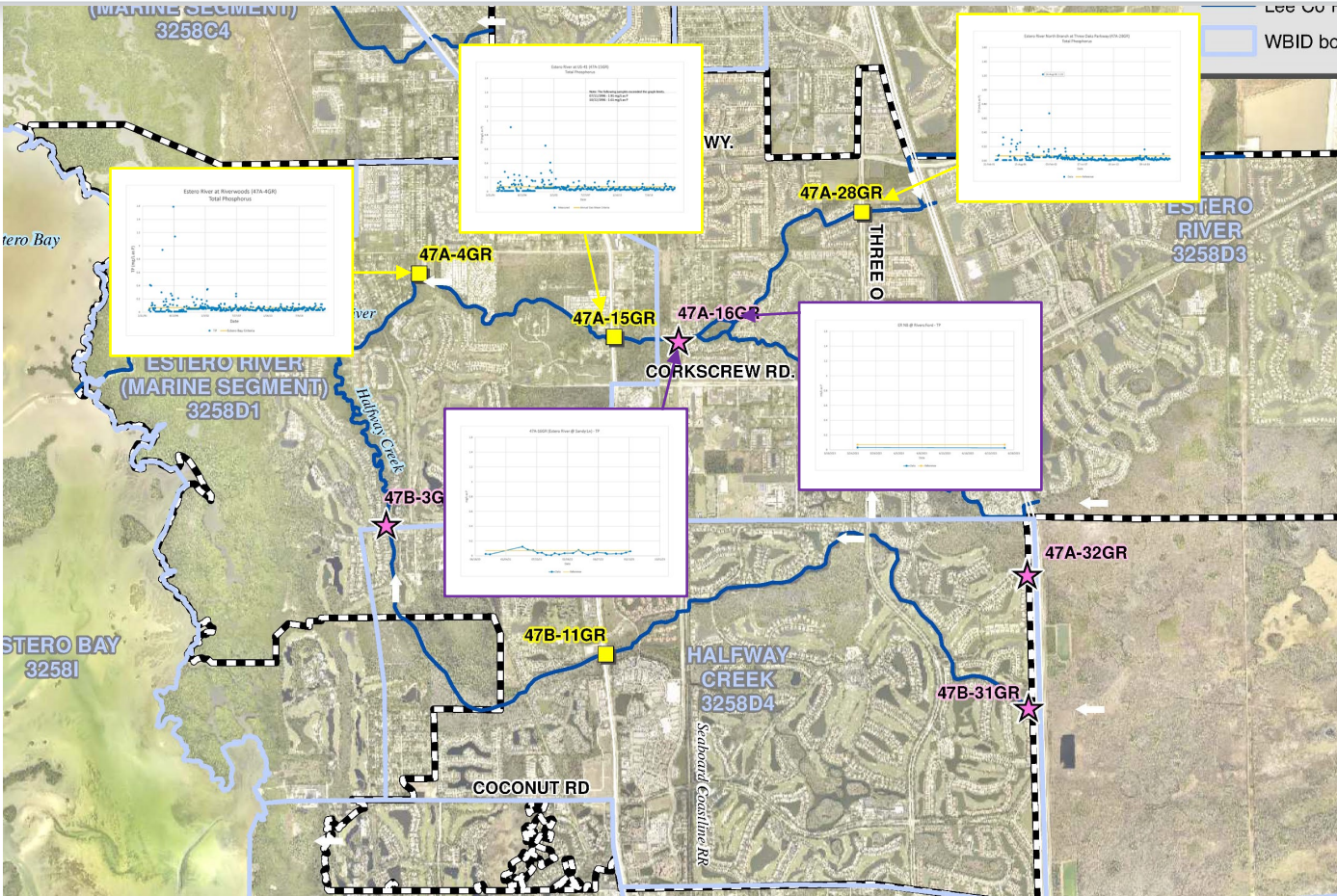
Total Nitrogen – Estero River SB



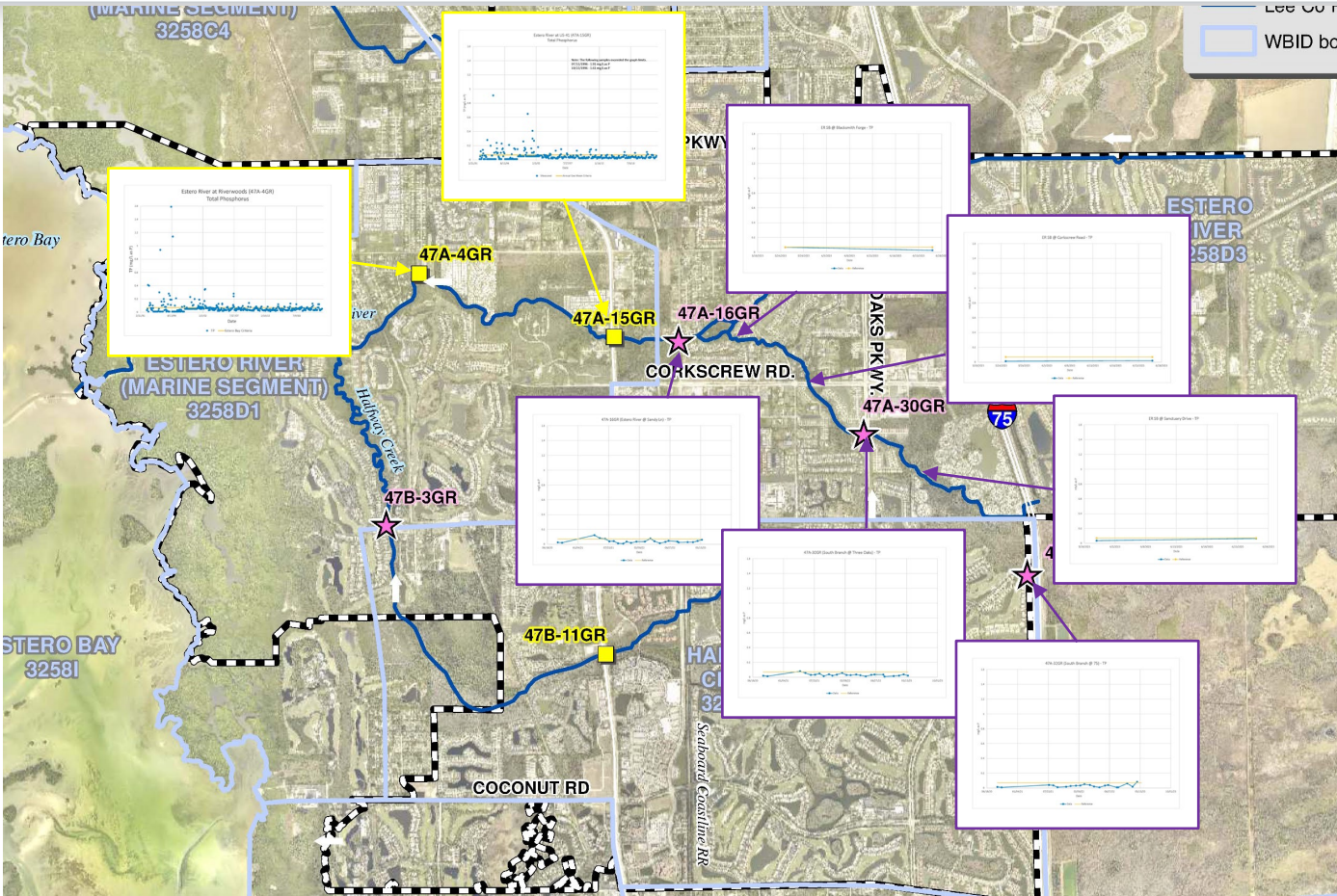
Total Nitrogen – Halfway Creek



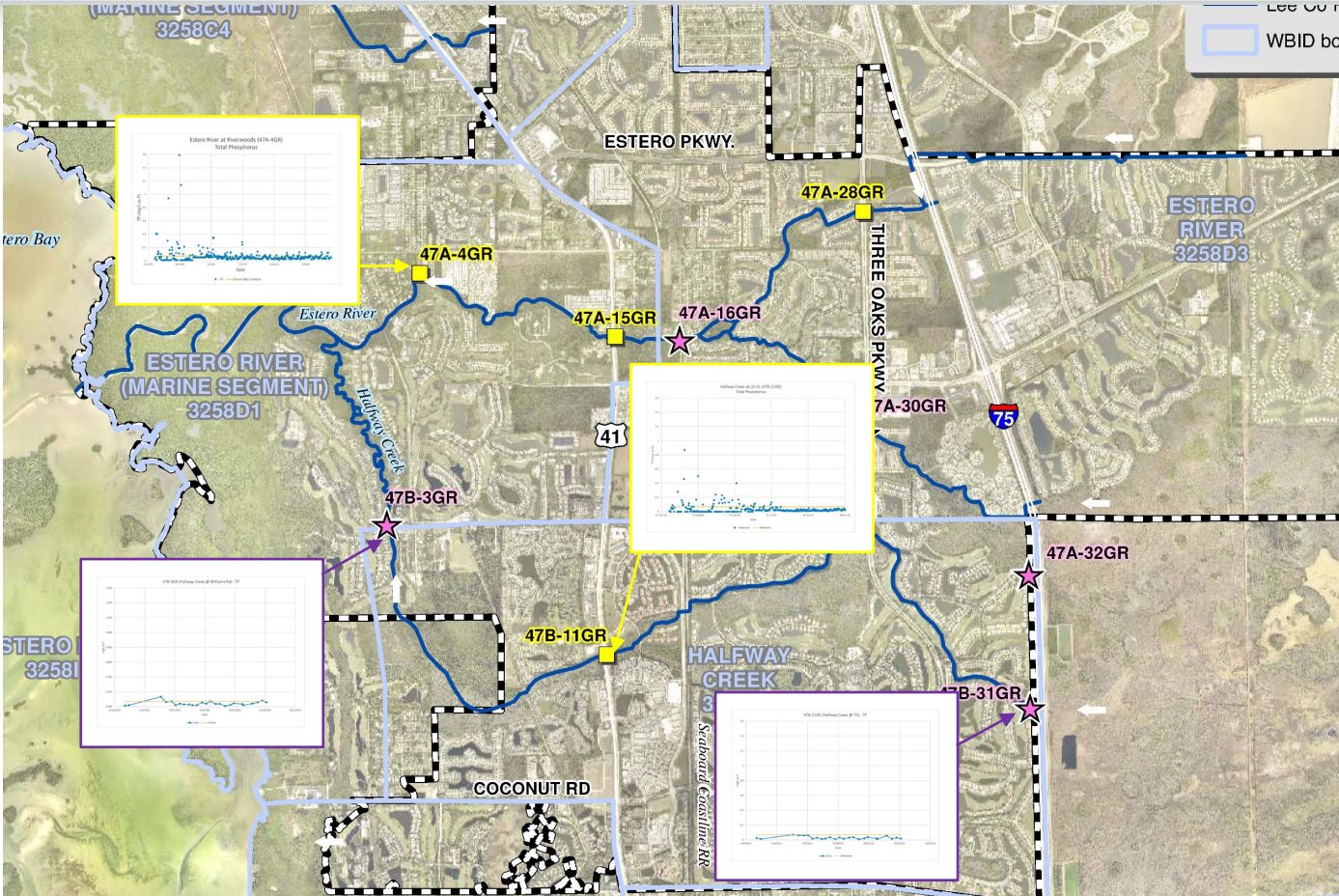
Total Phosphorus – Estero River NB



Total Phosphorus – Estero River SB

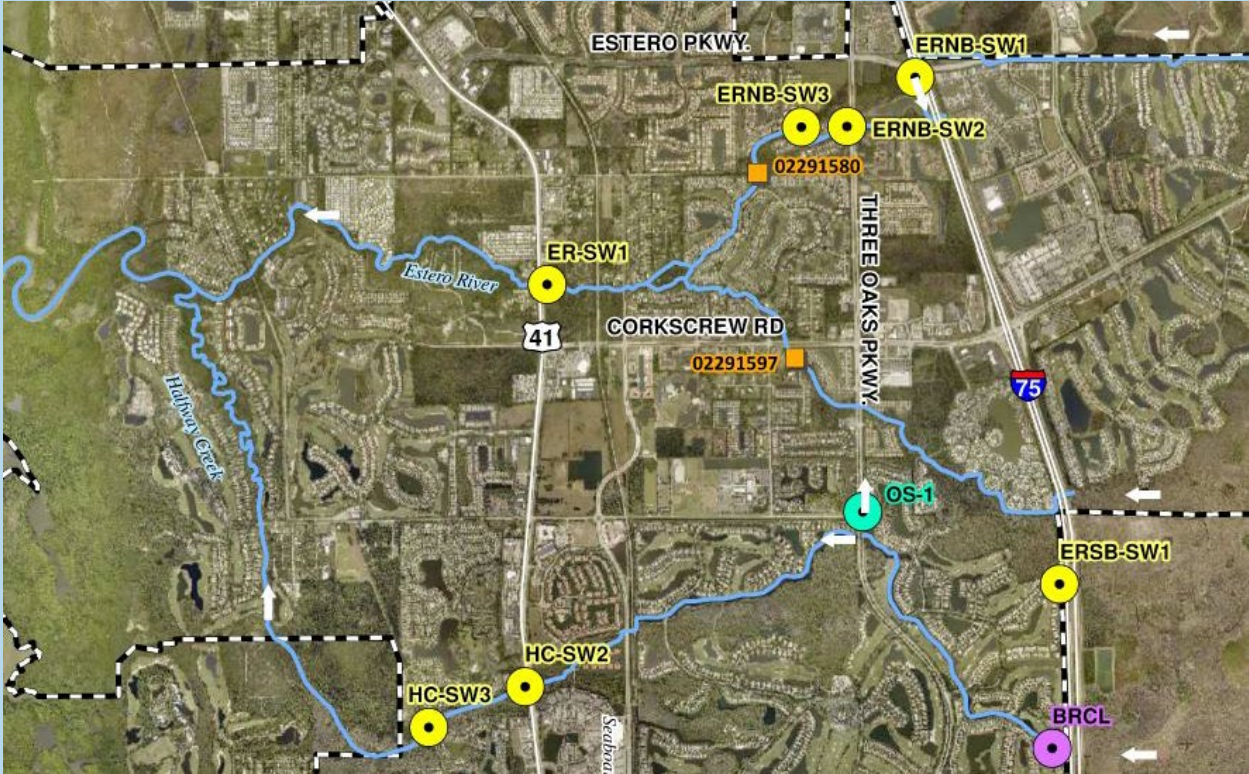


Total Phosphorus – Halfway Creek



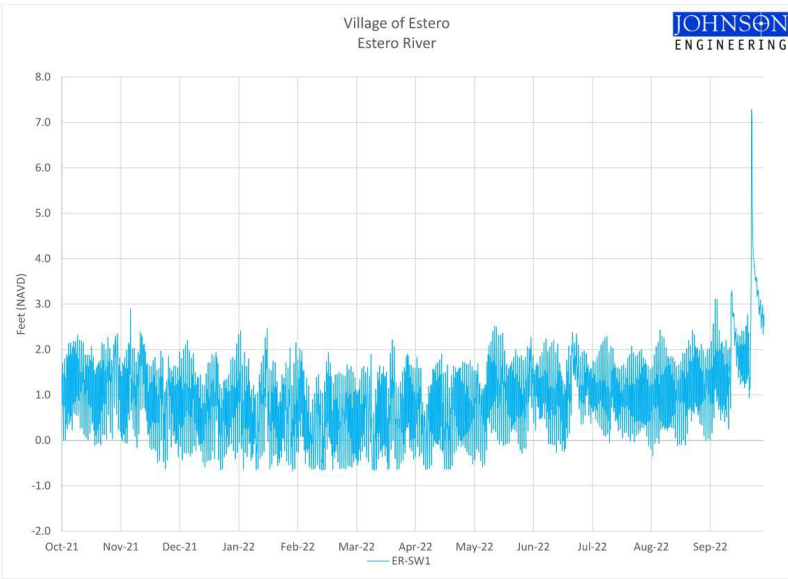
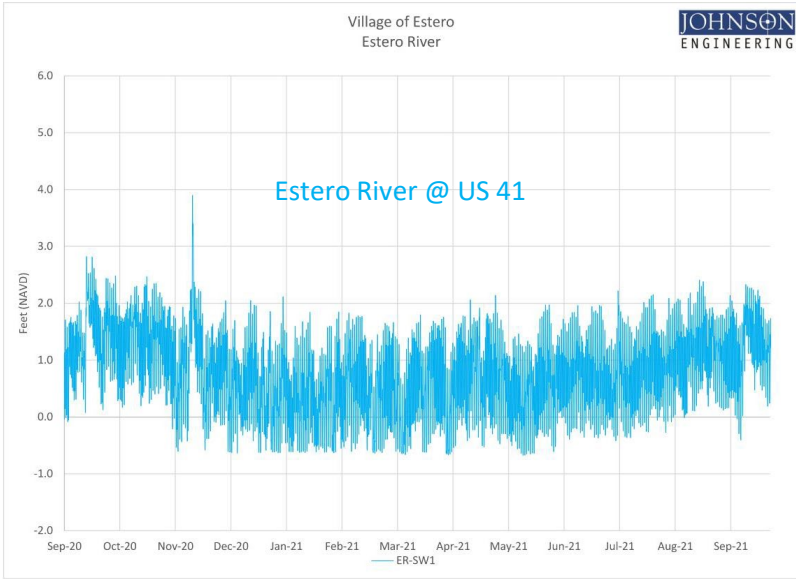


Water Level Locations



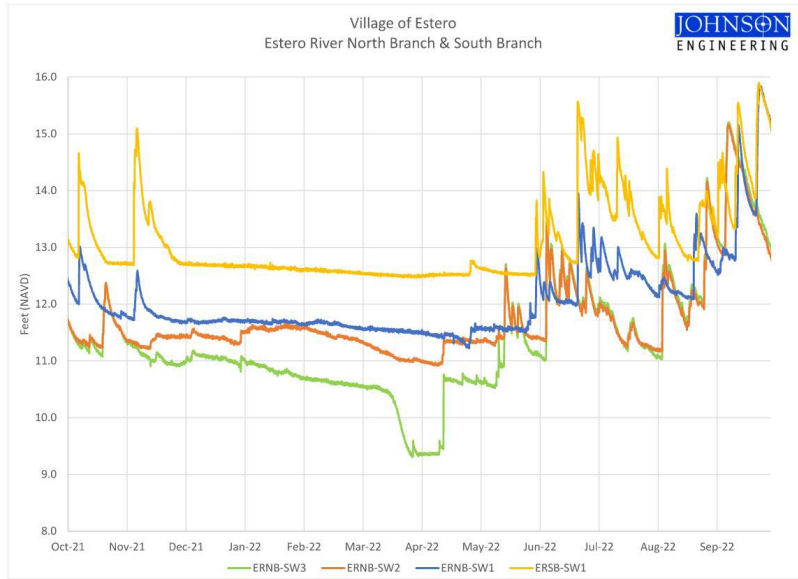
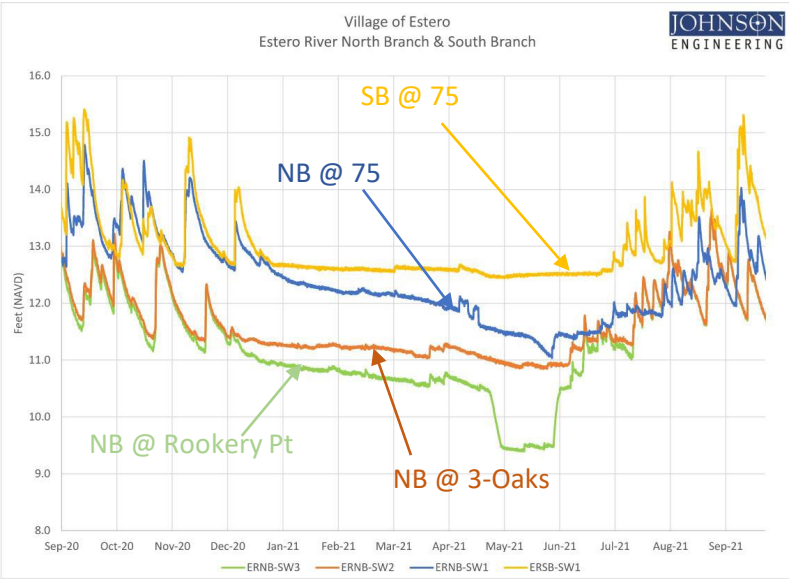


Estero River



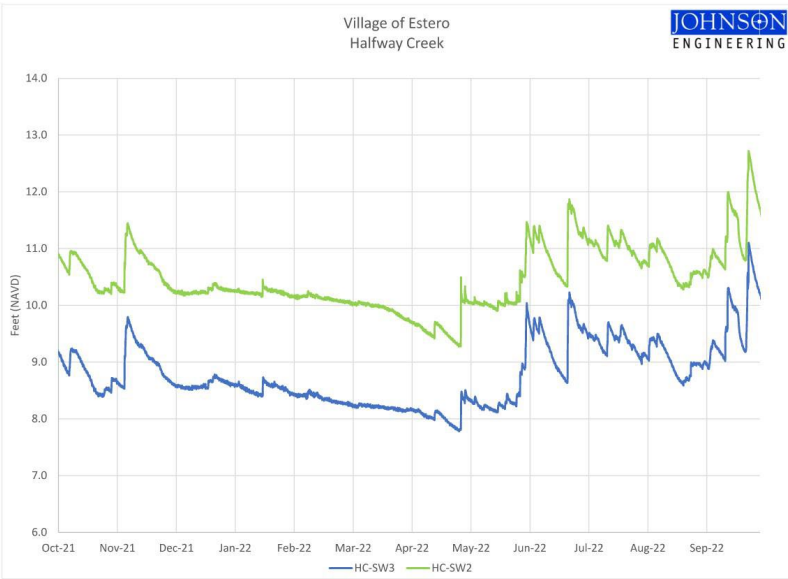
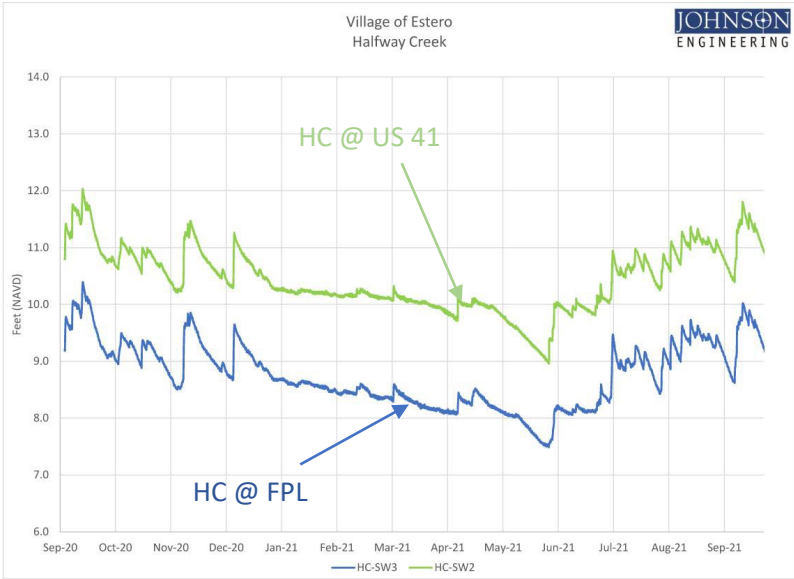


Estero River - Branches



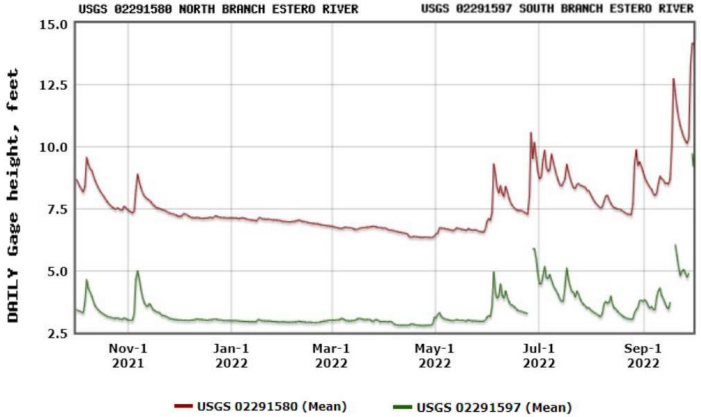
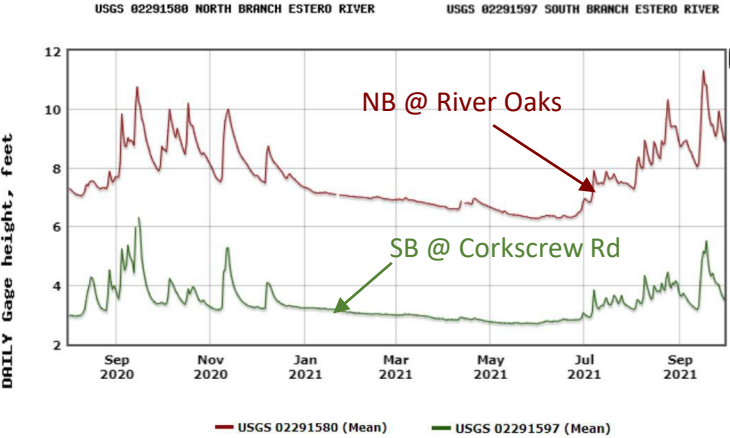


Estero River – Halfway Creek





Estero River – USGS (Branches)





QUESTIONS?