



# **CHARLOTTE COUNTY LAKE VIEW – MIDWAY WATER QUALITY IMPROVEMENTS PROJECT**

**Preliminary Engineering Report (PER)  
Public Meeting**

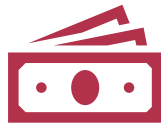
**June 13<sup>th</sup>, 2023**

**GWE** Giffels-Webster  
**Engineers, Inc.**

# PURPOSE



Preliminary  
Engineering Report  
(PER)



Estimated  
Construction Costs



FDEP SRF Loan  
Process  
Requirements



Obtain Acceptance &  
Approval from BCC

# RECENT SEPTIC-TO-SEWER PROJECTS

*East/West Spring Lake Contract A Vacuum Station*



*East/West Spring Lake Contract D Vacuum Station*



*Ackerman Vacuum Station (Under Construction)*

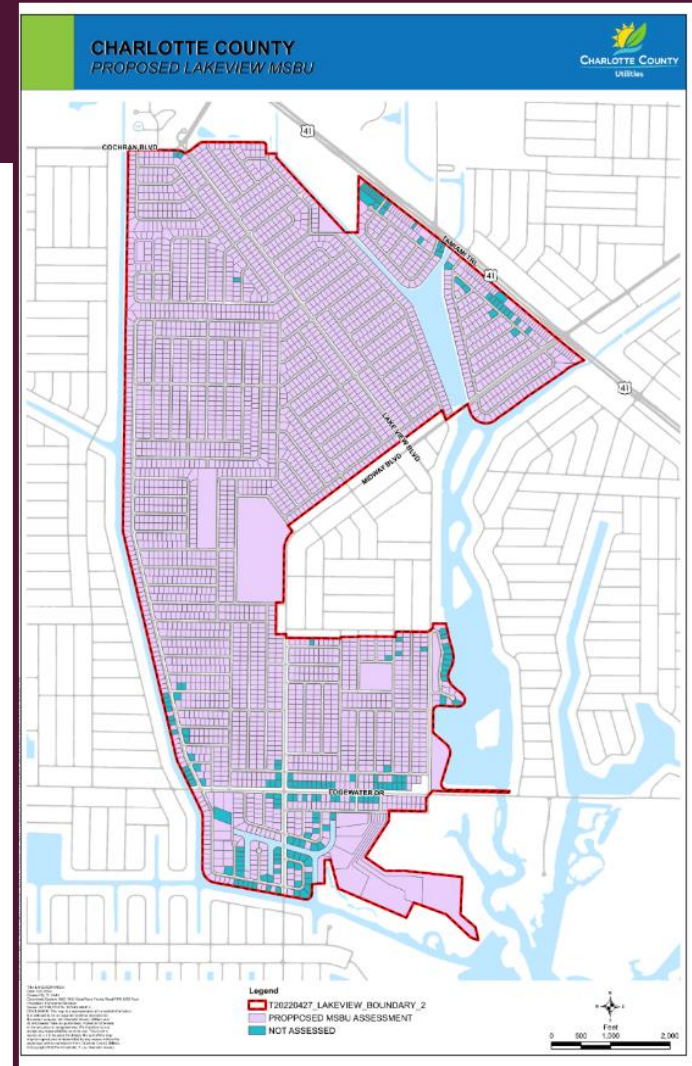


*El Jobean Vacuum Station*



# PROJECT OVERVIEW

- “Septic-to-sewer” project
- Primary Goal: Replace septic systems with a centralized sewer collection system.
- The project involves...
  - Preliminary Engineering Report
  - Design Phase
    - Sewer collection mains
    - Wastewater transmission mains
    - Potable water mains
  - Permitting
  - Funding
  - Construction Phase



# PRELIMINARY ENGINEERING REPORT OBJECTIVES



Evaluate Sewer Collection System Alternatives



Identify Project Limitations & Define Service Areas



Estimated Costs

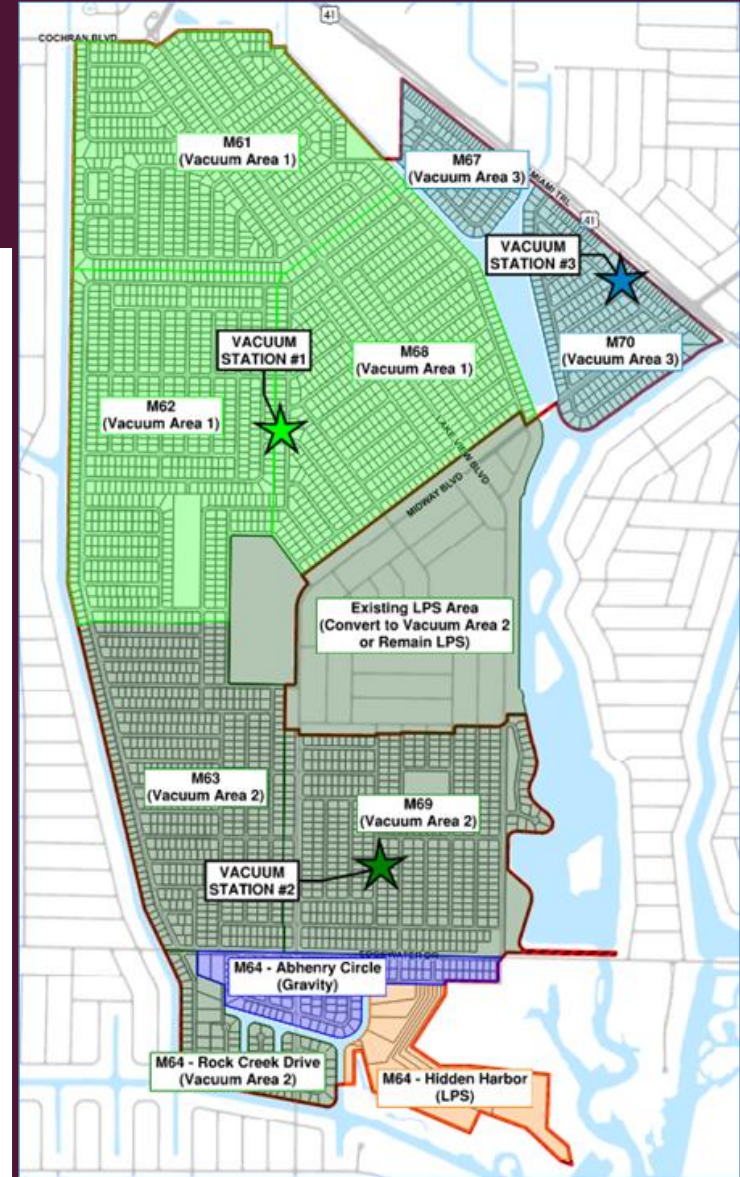


Recommended a Sewer System Plan



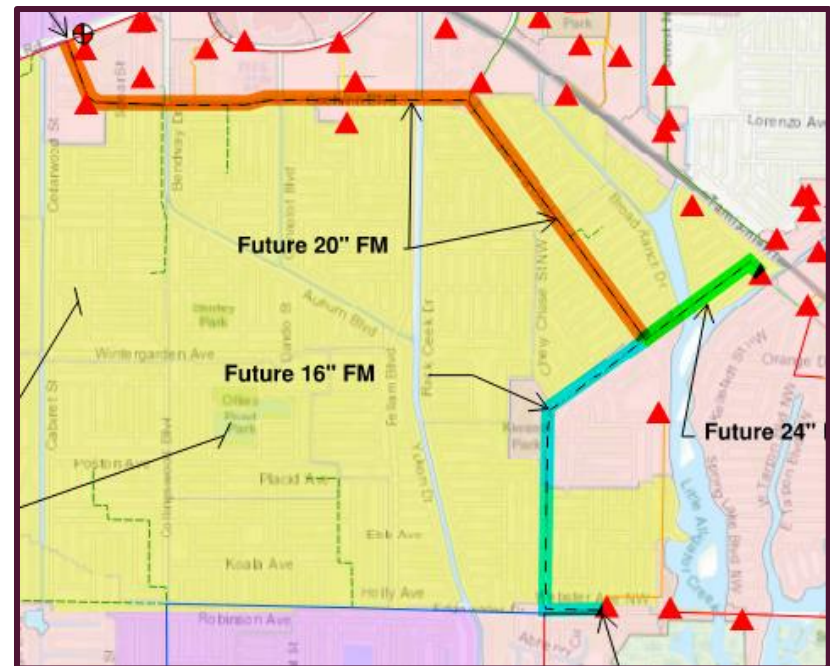
# RECOMMENDED PLAN (SEWER COLLECTION)

- Design a combination of vacuum sewer, gravity sewer, and LPS:
  - Vacuum sewer for highly developed areas
  - Gravity extensions in areas with existing gravity service
  - Low pressure sewer for one isolated area



# RECOMMENDED PLAN (TRANSMISSION MAINS)

- Convey wastewater from project and nearby areas to treatment plant
- 20" FM (Cochran/Toledo Blade) will provide service to the West Port development and growth along SR 776



# RECOMMENDED PLAN (WATER MAINS)

- Replace all existing water mains in the project area
- Upgrade water infrastructure to meet current standards
- Coordinate with sewer system installation to minimize community disruption and reduce costs





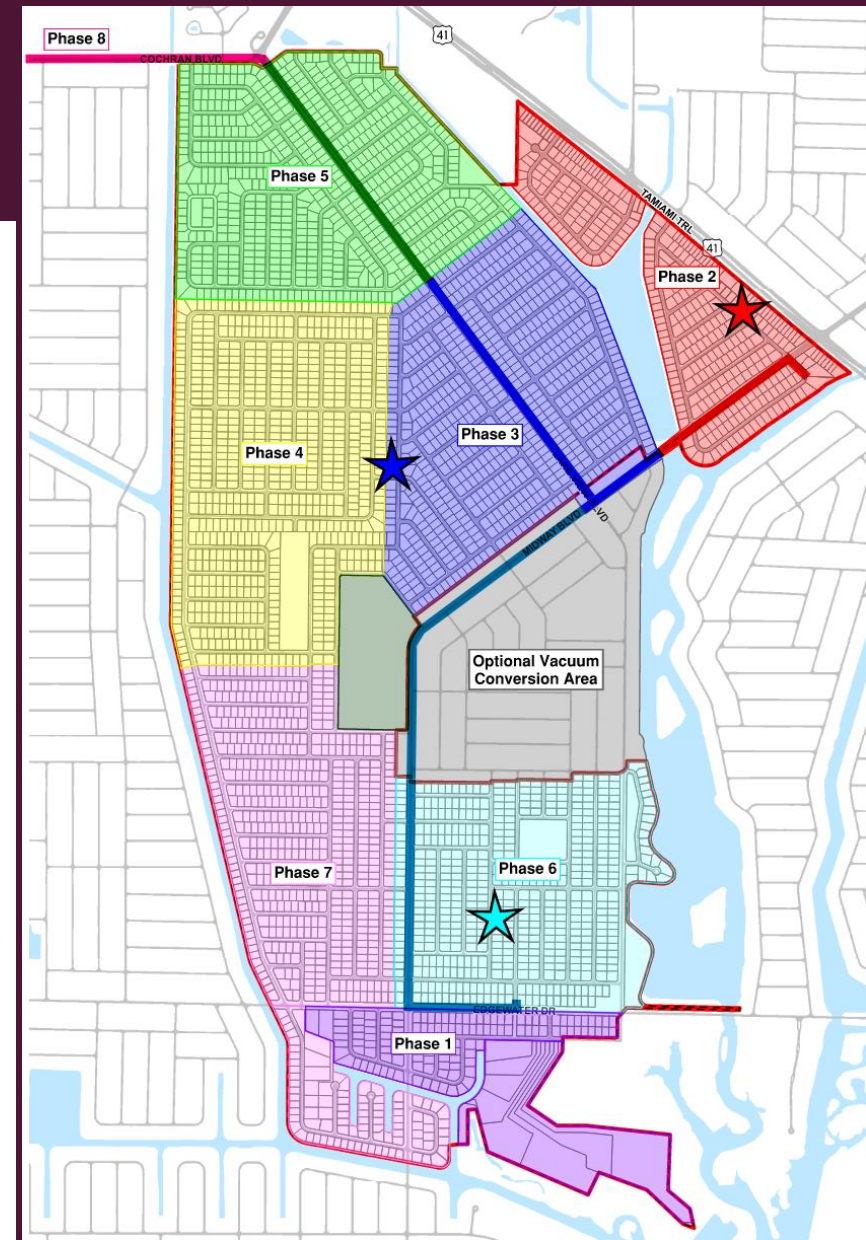
# EXISTING LPS AREA

- This area is NOT in the MSBU.
- LPS is being converted to vacuum sewer due to high O&M costs.
- The south vacuum station will handle the flows from this area.



# PROJECT PHASING

- First *phases* coordinated with CCPW projects:
  - Edgewater Phase 3 construction
  - West Ellicott Sidewalk and Midway Pedestrian Bridge
- Second phase independent area
- Construct collection system in logical sequence with transmission mains



# COST ESTIMATE DEVELOPMENT



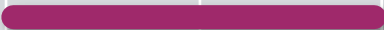


Two estimates were prepared for the MSBU sewer area.



Current pricing trends... (materials, labor, etc.)

2020 Estimate (CCU Ackerman Pricing)	2022 Estimate (2020+33%)	2023 Dollars (Recent bids)
\$48,370,000	<b>\$64,170,000</b>	\$57,660,000
~33% increase in costs from 2020 → 2022		~10% decrease in costs from 2022 → 2023

# ESTIMATED SCHEDULE

Tasks	Years					
	2024	2025	2026	2027	2028	2029
Design / MSBU						
Permitting / Funding						
Construction						

## PROJECT COST ESTIMATE (IN THE PER)

Project Component	2022 Estimated Cost in PER
MSBU Area – Sewer Systems	\$64,170,000
MSBU Area – Water Replacement	\$21,120,000
Existing LPS Area – Sewer Conversion	\$8,420,000
Existing LPS Area – Water Replacement	\$2,960,000
Transmission Mains	\$5,630,000
<b>TOTAL PROJECT ESTIMATE =</b>	<b>\$102,300,000</b>





# Questions?