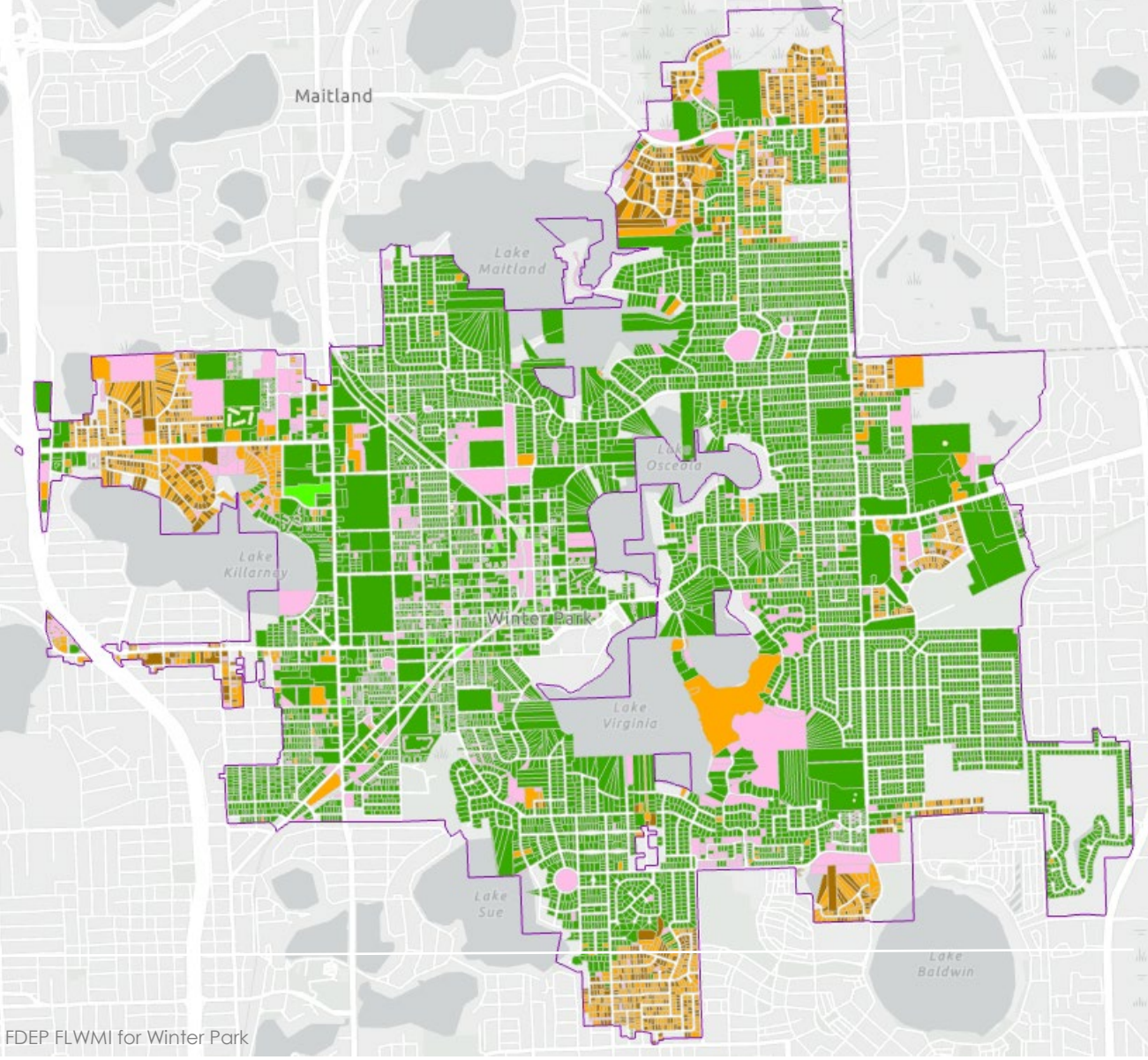
SEPTIC TO SEWER OPTIMIZATION TOOL

Image: https://floridahikes.com/winter-park-chain-of-lakes



FDEP FLWMI for Winter Park

Ron Fick, rfick@ufl.edu
Tricia Kyzar, tkyzar@ufl.edu

UF UNIVERSITY of FLORIDA

CCS CENTER FOR COASTAL SOLUTIONS

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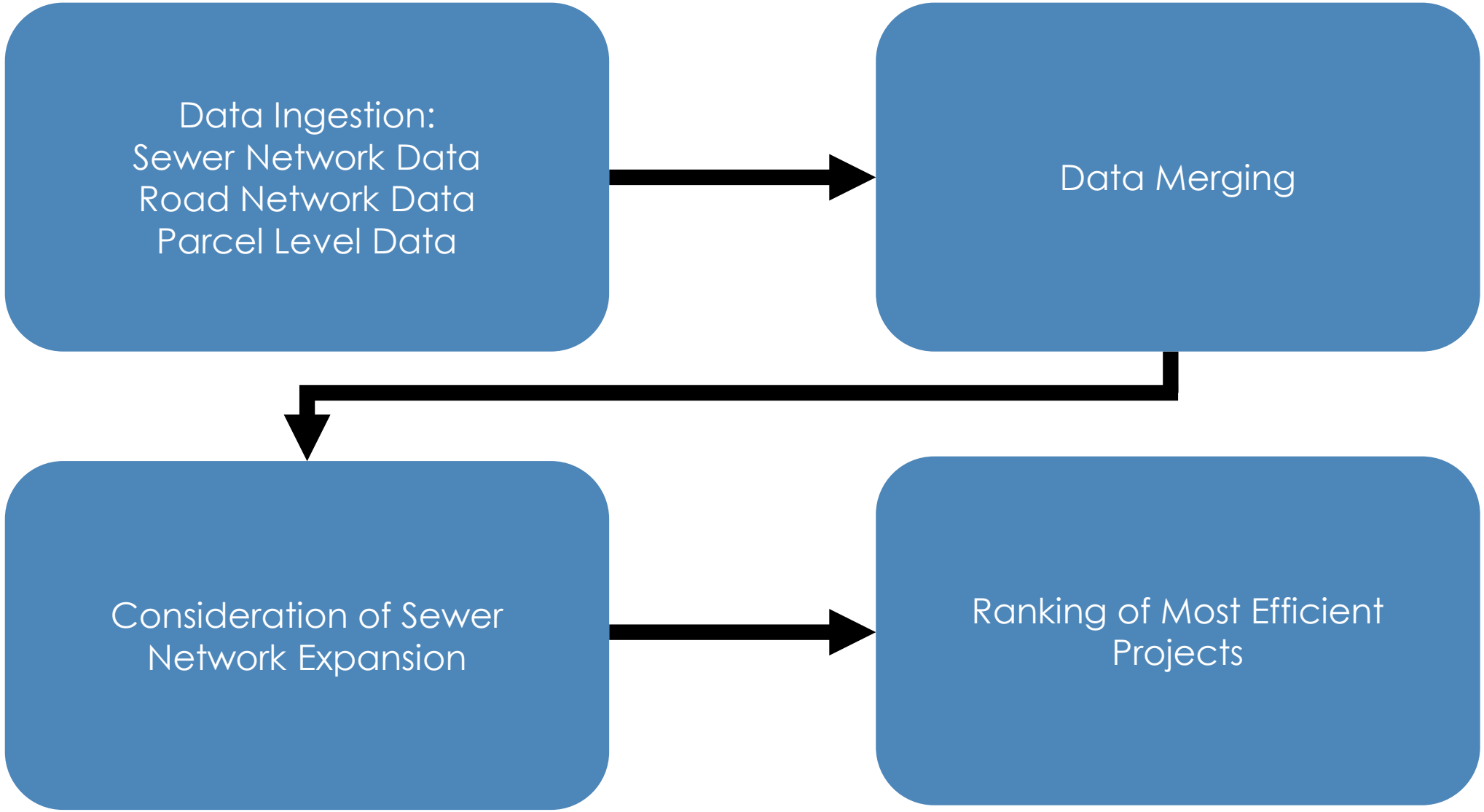
Septic System Vulnerability Assessment + S2S Optimization Tool

- Septic System Vulnerability Assessment
  - Identifies where septic systems are vulnerable to failure
- Septic to Sewer (S2S) Optimization Tool
  - Identifies cost efficient project groupings of septic systems and prioritizes by most vulnerable projects

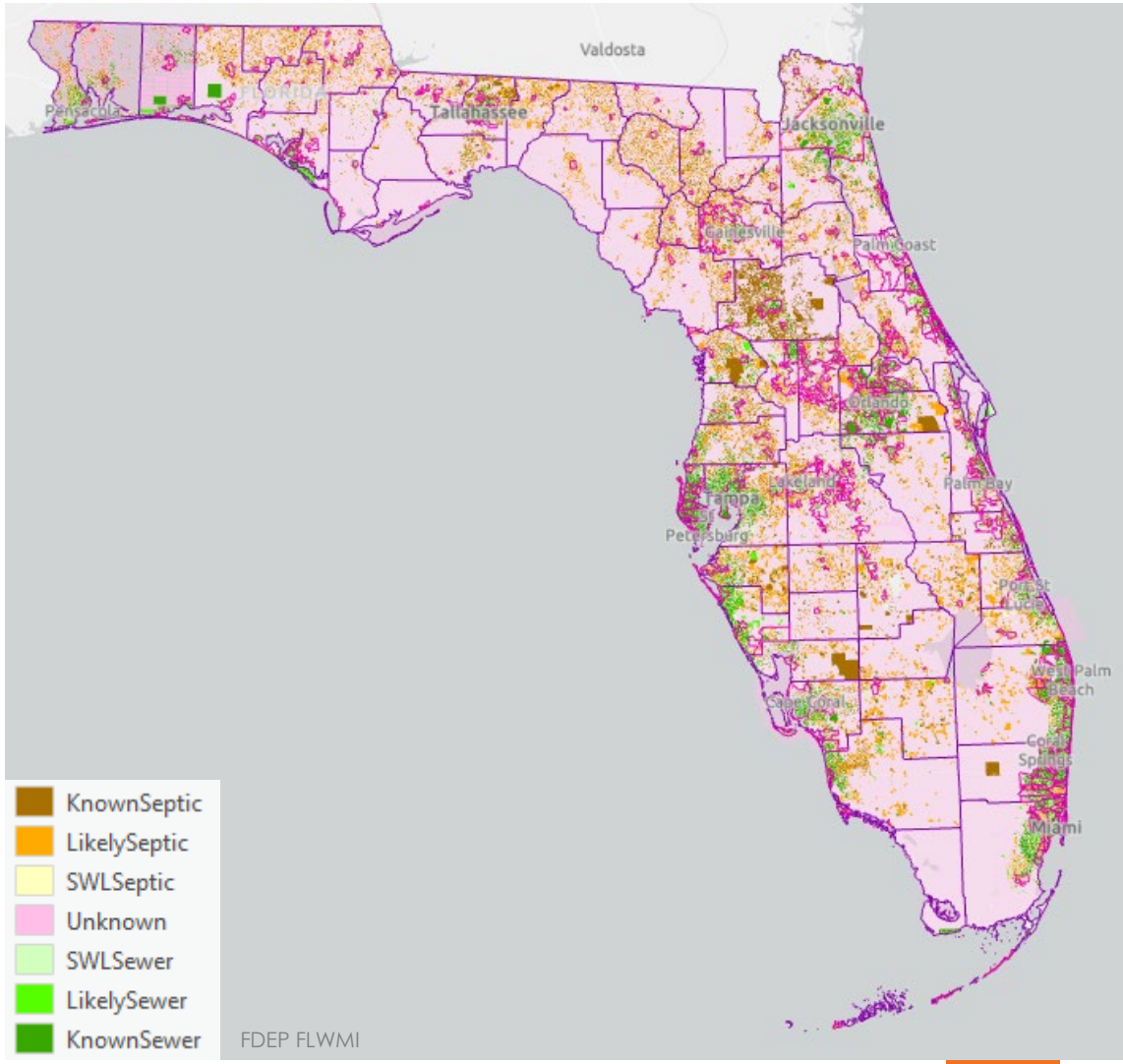
Image: https://coastalreview.org/2022/11/a-cycle-of-septic-repairs-washouts-on-park-service-beaches/

Tool Functionality



Need

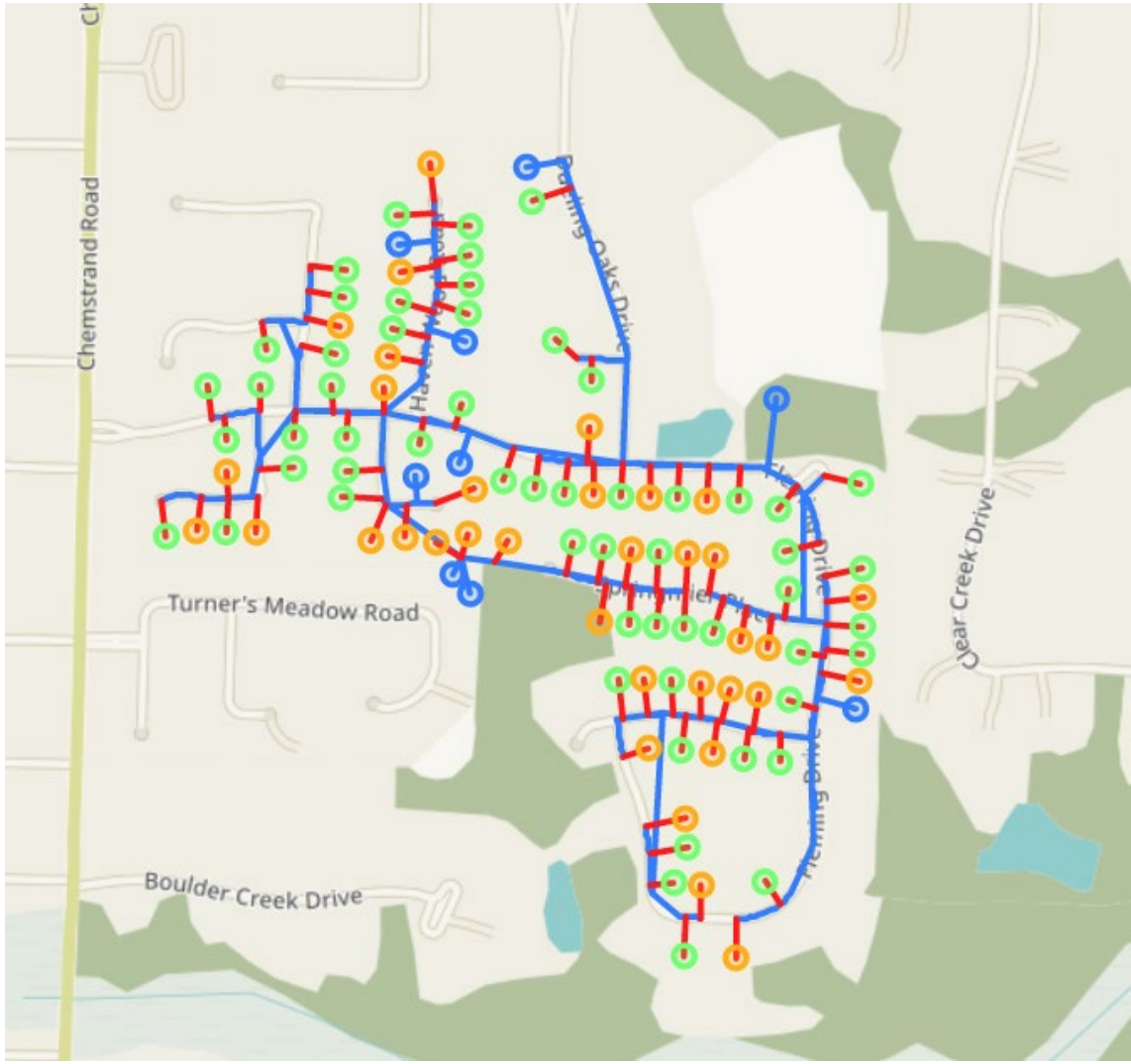
- Convert Septic Systems to address water quality challenges
- Septic to Sewer conversions are expensive, need to be as cost effective as possible
- Spatially efficient projects reduce duration of disruption to citizens
- This tool was developed in the panhandle, but can be applied anywhere in the state at various scales



Example Project #1

- Neighborhood with existing sewer infrastructure, but few connections

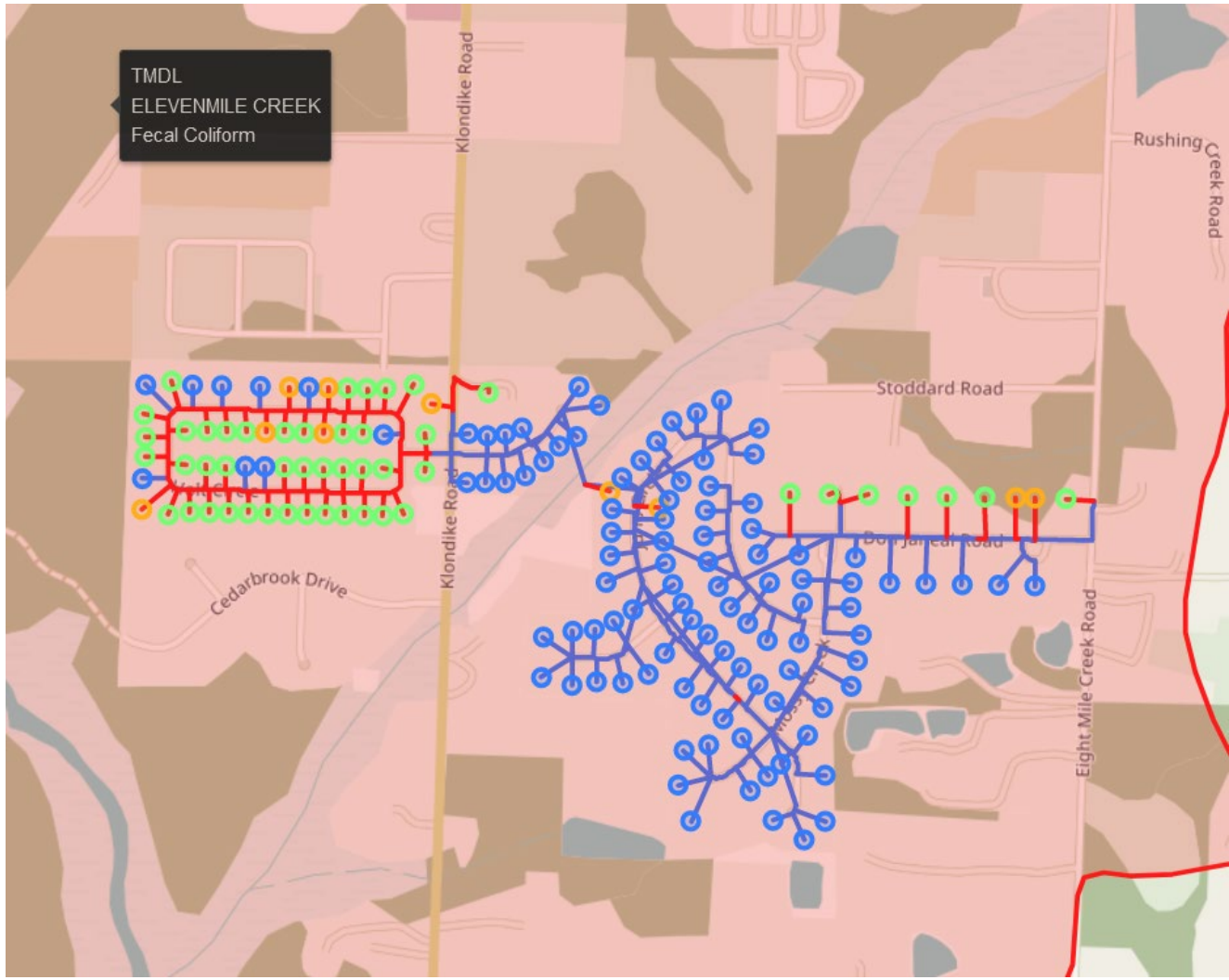
- Legend:
  - Blue Line – Existing sewer lines
  - Red Line – New sewer lines
  - Green Circle – Current septic parcel converted to sewer under this plan
  - Orange Circle – Parcel currently unknown status according to DOH
  - Blue Circle – Current sewer parcel



Example Project #2

- Expansion of sewer infrastructure can serve many new parcels with minimal new lines
- Water quality impairment for fecal coliform in the area

- Legend:
  - Blue Line – Existing sewer lines
  - Red Line – New sewer lines
  - Green Circle – Current septic parcel converted to sewer under this plan
  - Orange Circle – Parcel currently unknown status according to DOH
  - Blue Circle – Current sewer parcel



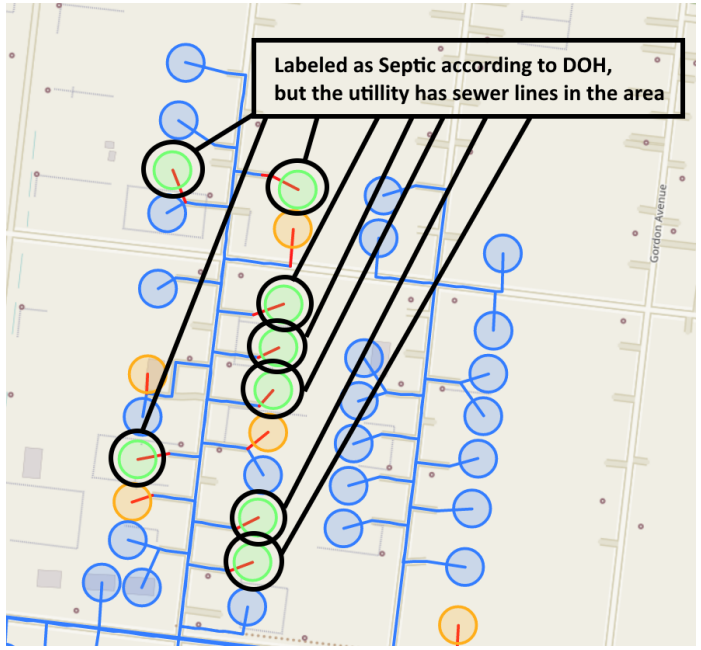
Benefit #1: Identification of cost-efficient potential septic to sewer projects

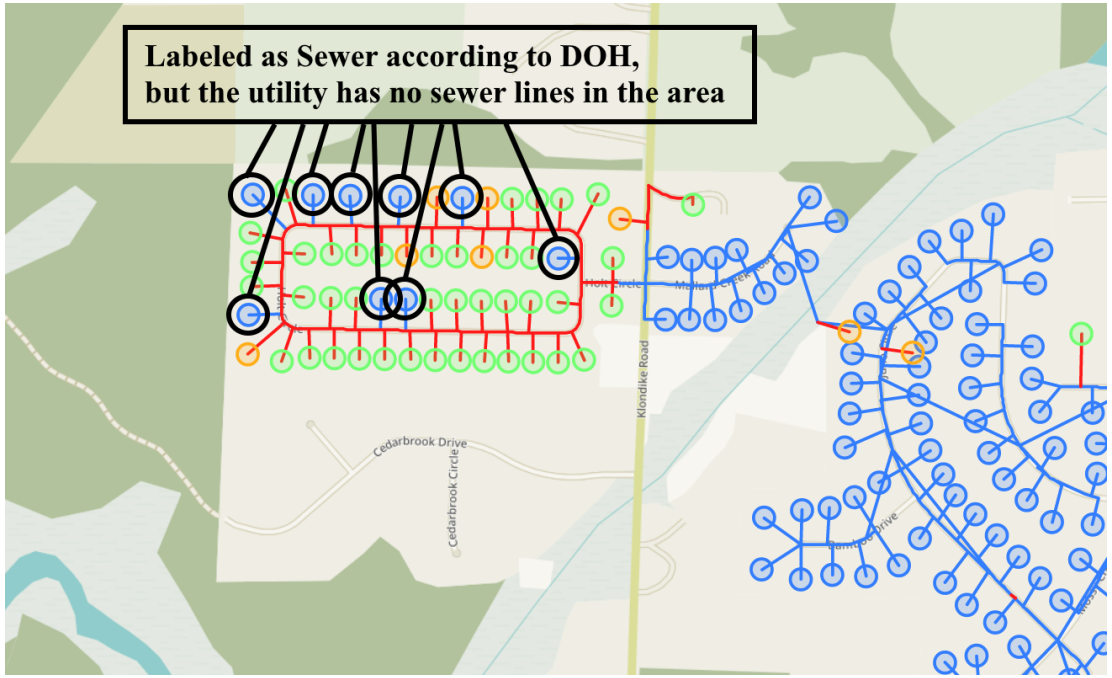
What the tool does:

- Based on estimated cost (provided by customer), identifies and prioritizes potential projects that can be further evaluated for feasibility and urgency by local utilities, municipalities, or counties
- Septic-to-sewer connection projects are identified based on expanding the existing sewer network to connect as many current septic parcels as possible with minimal new sewer lines

Benefit #2: Identifying inaccurate sewer and parcel-level wastewater data

1. Improve/update City's asset library
   - Maintaining an accurate capital database better identifies what to update when
2. Meet DEP update requirements
   - DEP requires Florida Water Management Inventory (FLWMI) update by July 1, 2025

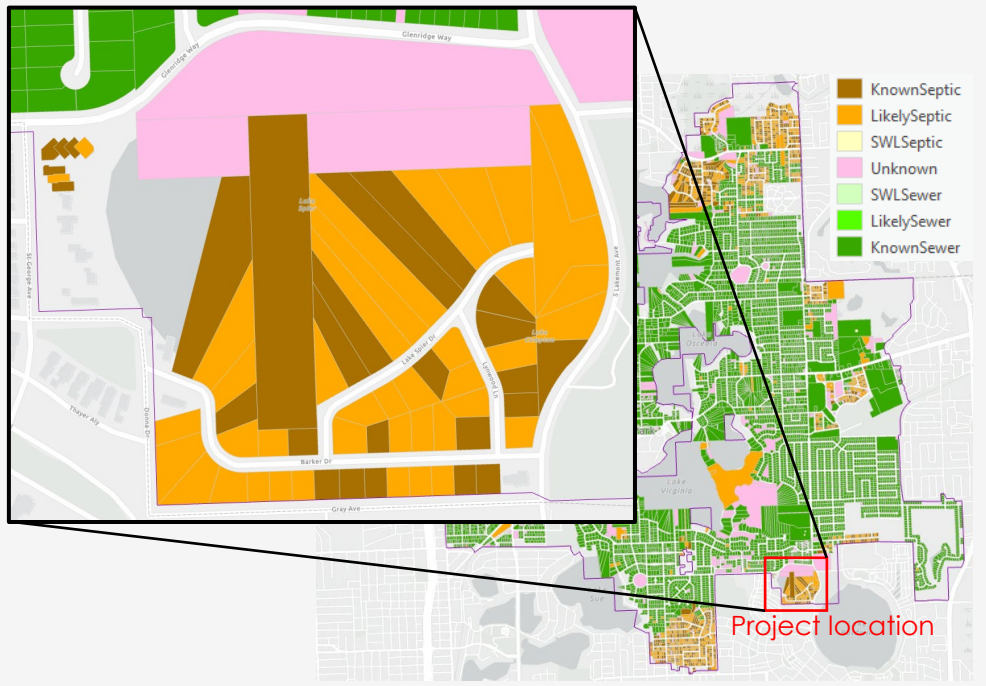




What the Tool Outputs Are:

- Identified projects
  - Filtered by project cost, nearby impairments, vulnerable systems, etc.
- Report summarizing potential data inaccuracies
  - Inaccurate parcel data
  - Incomplete sewer network data
- 'One-Pager' project reports for high priority projects
  - Funding applications
  - Commission meeting materials

Septic to Sewer Conversion Project Summary



Project ID	
Project Location	Oak Mews, Lake Spier
Number of Septic Systems Known Likely Somewhat Likely Unknown	68 26 40 2
Impairment(s)	Bacteria: Fecal Coliform
Project Area (approx.)	57 acres
Existing Sewer	Gravity/Pressurized
Estimated Project Cost	$###,###