

August 10, 2025
Mary-Elen Harper
Levy County Manager

RE: W3C Wastewater Facilities Plan

Dear Mary-Ellen,

I have prepared a report on the proposed W3C project, based on the facilities plan published 12/16/24, evaluating its consistency with the current Levy County Comprehensive Plan and the Land Development Code provisions for development in flood-prone areas. The report includes a list of pros and cons for your consideration, along with recommended next steps for moving forward.

Comprehensive Plan & Land Development Code Consistency Report

I. Executive Summary

The Waccasassa Water & Wastewater Cooperative (W3C) Wastewater Facilities Plan proposes a regional wastewater system serving Cedar Key, Otter Creek, and Bronson, with an inland advanced treatment facility and 28.7 miles of transmission mains along SR 24. The project directly supports Levy County's Comprehensive Plan (CP) Infrastructure Element and Land Development Code (LDC) flood resilience goals by:

- Eliminating vulnerable coastal wastewater treatment facilities.
- Facilitating septic-to-sewer conversions.
- Providing advanced nutrient removal.
- Enabling long-term growth management through centralized service.

To fully integrate the program, Levy County would need to do the following:

- adopt targeted CP amendments (recognizing W3C as the regional provider, mapping service areas, scheduling in the CIE) and
- LDC updates (capacity/concurrency rules, mandatory connection & OSTDS abandonment, utility corridor/floodproofing standards).

II. W3C Plan Overview

- Treatment Capacity: Initial 0.8 MGD (two 0.4 MGD trains, Class 3 reliability) with expansion to 1.2 MGD.
- Service Area: Cedar Key, Otter Creek, Bronson, SR 24 corridor; demand sized for 2045 medium-growth (plants) and 2070 high-growth (transmission).
- Facilities: Two master lift stations, 29 miles force main; HDD/wetland crossings; emergency power and odor/grit control.
- Septic Conversion Potential: 1,549 parcels; 0.388 MGD flow reduction from OSTDS retirement.
- Estimated Cost: \$87.7M Class-4 (±20–30% range); funding via grants, loans, phased assessments.
- Environmental Benefits: Removes coastal treatment risk, reduces nutrient/pathogen loading, improves aquaculture/shellfish safety.



Civil Engineering



Surveying



Landscape Architecture



Planning



GIS



Construction Services

III. CP Infrastructure Element Consistency

- A. Stormwater Management: Alignment strong; inland treatment & force main routing reduce pollutant load to floodplains and estuaries.
Recommendation: Require HDD/boring and restoration specs where force main crosses wetlands/ditches.
- B. Aquifer Recharge: Fully consistent; W3C is an essential public use.
Recommendation: Confirm mitigation hierarchy in permits.
- C. Potable Water & Estuaries: Sewer buildout complements potable water quality protection; reclaimed water readiness aligns with Policy 5.2.
Supports estuary protection by reducing coastal discharge risk.
- D. Growth Management: Strong alignment: maximizes centralized sewer in MSDs, discourages sprawl, supports infill.
Recommendation: Tie connection requirements to MSD boundaries & available capacity.
- E. Sanitary Sewer: Centralized sewer as preferred system; W3C provides regional backbone.
Mandatory connections within 300 ft; LOS protection.
Recommendation: Add wastewater LOS/capacity certificate process.
- F. Utilities: Consistent with common corridor preference (SR 24) and adequacy before development orders.

IV. LDC Flood Damage Prevention Consistency

- A. Purpose & Intent: W3C directly supports Article VI's intent to minimize flood-related damages and NFIP compliance by relocating critical facilities outside high-risk zones.
- B. Utility Standards in Flood Hazard Areas: LDC requires minimized infiltration/exfiltration, floodproofing/elevating essential equipment above BFE, materials resistant to flood damage. W3C lift station design and inland siting meet or exceed these standards.
- C. Permitting Requirements: LDC coordination with FEMA, FDEP, Florida Building Code; W3C's NEPA/FDOT/SRWMD/USACE review fits within these frameworks.
- D. Recommendations for LDC Article VI:
 - 1. Add utility corridor floodproofing standards: HDD for SFHA crossings, anchoring, sealed access covers, scour protection.
 - 2. Define wastewater plants/lift stations as critical facilities prohibited in CHHA unless no practicable alternative exists.
 - 3. Require resilience retrofits for sewer facilities in SFHA upon major rehab or expansion.

V. Pros & Cons for Levy County

- A. Pros
 - 1. Environmental Protection: Improves groundwater & estuary health; supports aquaculture industry.
 - 2. Public Health: Reduces septic failures during floods; improves resilience.
 - 3. Growth Management: Centralized service supports MSD infill and discourages sprawl.
 - 4. Funding Competitiveness: Multi-jurisdictional, regional projects are strong grant candidates.
 - 5. Operational Efficiency: Uniform standards, pretreatment, and I/I control.
- B. Cons / Risks

1. Capital Cost: ~\$87.7M; requires complex funding strategy.
2. Permitting Complexity: Long linear corridor with wetlands/floodplain crossings.
3. Governance: Interlocal agreements must address capacity, rates, pretreatment, emergency response.
4. Implementation Dependency: Benefits rely on timely local collection system buildouts and connection mandates.
5. Construction Impacts: Temporary SR 24 access/traffic disruptions.

VI. Recommended Amendments if applicable

A. CP Amendments

1. Recognize W3C as regional wastewater provider for SR 24 corridor.
2. Map Regional Wastewater Service Area in CP.
3. Require mandatory connections & OSTDS abandonment when capacity is available.
4. Add wastewater LOS and capacity certificate process.
5. Program project phases & costs into Capital Improvements Element.

B. LDC Amendments

1. Capacity & Concurrency: Adopt wastewater LOS, certificate/reservation rules.
2. Mandatory Connection & OSTDS Abandonment: Define triggers, timelines, financing provisions.
3. Utility Corridor Standards: HDD/floodproofing specs for SFHA; FDOT ROW coordination.
4. Pretreatment & I/I Control: Uniform requirements consistent with W3C agreements.
5. Critical Facility Siting: Restrict new wastewater facilities in Coastal High Hazard Area/high-risk zones.

VII. Next Steps if applicable

- A. Draft CP redlines for Infrastructure Element incorporating W3C recognition, service area mapping, connection mandates, and LOS policies.
- B. Draft LDC text for concurrency/capacity, mandatory connection, utility corridor/floodproofing standards, and critical facility siting.
- C. Initiate interlocal agreement process with W3C and member municipalities to formalize service areas, rates, and standards.