

Utilities Department

Proposed Interlocal Agreement between
Broward County and City of Cooper City to
Fund the Design of a Regional Biosolids Solutions Facility

February 2026

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What are Biosolids?

Biosolids are the cleaned and treated solids that come from the wastewater treatment process.

When wastewater is processed to remove contaminants, the remaining material (organic matter) are carefully treated, stabilized, and dewatered.

The result is a nutrient-rich material called *biosolids*, which can be safely reused for beneficial purposes, such as improving soil quality or supporting land reclamation.

Cooper City Production (Class B):

Current:

2,423 wet tons of biosolids per year (about 484.6 dry tons);

Projected:

2,665 wet tons per year by 2045 as population and flows rise;

Wastewater Permit Capacity (4.27 MGD):

How We Manage Them Today:

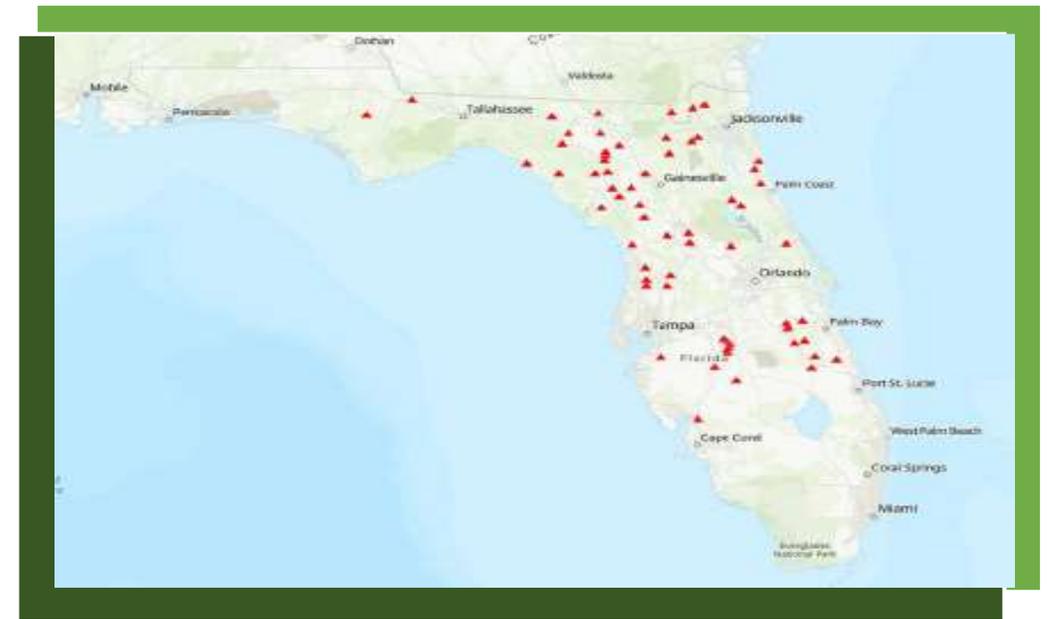
Biosolids are dewatered to about 21% solids using a centrifuge, then hauled off-site by private contractors for land application or landfill disposal.



Biosolids in Florida

There are over 4,100 individually permitted domestic wastewater facilities throughout the state of Florida.

2025: 40 permitted land application sites in Florida



2019 - 140 Land Application Sites
2021 - 130 Land Application Sites
2024 - 65 Land Application Sites
2025 - 40 Land Application Sites

Biosolids Regulations

State (Florida DEP) – 1990

- 1990 – Chapter 62-640, Florida Administrative Code (F.A.C.) Florida established its own biosolids management rule, aligning with federal standards while adding permitting and land application requirements.
- 2020 – Florida Statute 403.0855 **Restricted land application of Class B biosolids** within Basin Management Action Plan (BMAP) areas and required nutrient management plans.
- 2021 – House Bill 1309 Signed into Law: Expanded FDEP oversight, required advanced treatment, enhanced Polyfluoroalkyl Substances (PFAS) and nutrient testing, **and limited Class B land application statewide.**
 - **Effective July 1, 2024:** *represents the state’s most significant biosolids reform in over a decade— pushing utilities toward Class A or advanced thermal treatment and away from land application, which has dropped statewide from about 130 sites in 2021 to just 40 in 2025.*

Federal (EPA 40 CFR Part 503) - 1987

- National standards for the treatment, quality, and disposal (reuse) of biosolids, including pathogen and metal limits.
- The EPA can take enforcement action against any WWTP not meeting **Part 503** EPA Regulations, even without a specific biosolids permit.
- Treatment facilities must submit annual biosolids reports by February 19th each year detailing biosolids treatment and management practices.

Regional Biosolids Solution(s) Working Group

In Broward County there are 31 municipalities and 11 wastewater treatment plants.

Initiated in **2021** by Broward County in collaboration with 11 utilities:

- Cities of Sunrise, Cooper City, Miramar, Coral Springs Improvement District (CSID), Pembroke Pines, Plantation, Davie, Fort Lauderdale, Hollywood, and Margate
- Invites consideration for a multi-utility regional approach that will allow cost-share for advanced biosolids treatment facility and disposal.

In **2023**, these 11 participating utilities entered into an Interlocal Agreement to jointly fund a Regional Conceptual Study (“Study ILA”);

In **2024**, a Conceptual Study was completed, which **confirmed the technical and financial feasibility** of constructing a Regional Biosolids Facility to:

- *Process wastewater residuals*
- *Reduce landfill dependence*
- *Ensure compliance with current and future Florida Department of Environmental Protection (FDEP) regulations.*



Recommended Technology – Thermal Drying

Thermal Drying process heats Biosolids to 350°F–500°F:
destroying pathogens, bacteria, and viruses.

The result is a **Class A, Exceptional Quality:**

- *Pathogen-free and odor-stable.*
- *Safe for public use, commercial and residential landscaping, turf, agriculture, and soil conditioning.*
- *Marketable — often pelletized and sold as fertilizer.*

Class A product will help utilities maintain compliance with EPA Part 503 and Florida DEP Chapter 62-640, ensuring future permit renewals even under stricter regulations.

Significant mass reductions (4-5 times)

Suitable technology to accept Biosolids from all participating utilities (11+)

If PFAS regulation on Biosolids is implemented, Thermal Drying is a necessary 1st step in the process of PFAS removal.

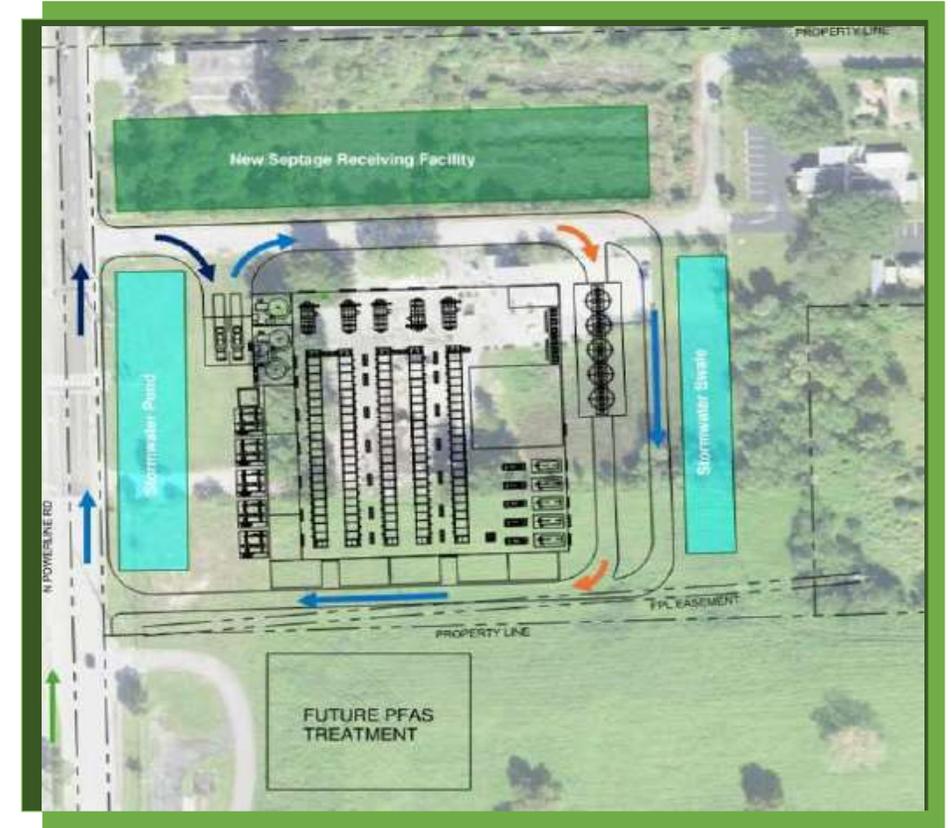
Capital cost range: \$200 million – \$500 million (higher estimate includes redundancy).



Proven, reliable process with hundreds of installations across the U.S. since 1950's:
Palm Beach County
Solid Waste Authority (SWA) - 2009

Cooper City's Participation Cost

- % of Regional Facility
 - .0092%
- Design Cost: \$50M (24-30 months)
 - *City's contribution not to exceed \$460,000*
- Construction Cost: \$200M-\$500M (Depending on final design)
 - *Separate ILA*
 - ***City's contribution \$1.8M-4.6M***
- Coverage
 - *Current 4.27 MGD permit only;*
 - *Future additional allocation would require an ILA amendment and additional capacity purchase at higher cost.*

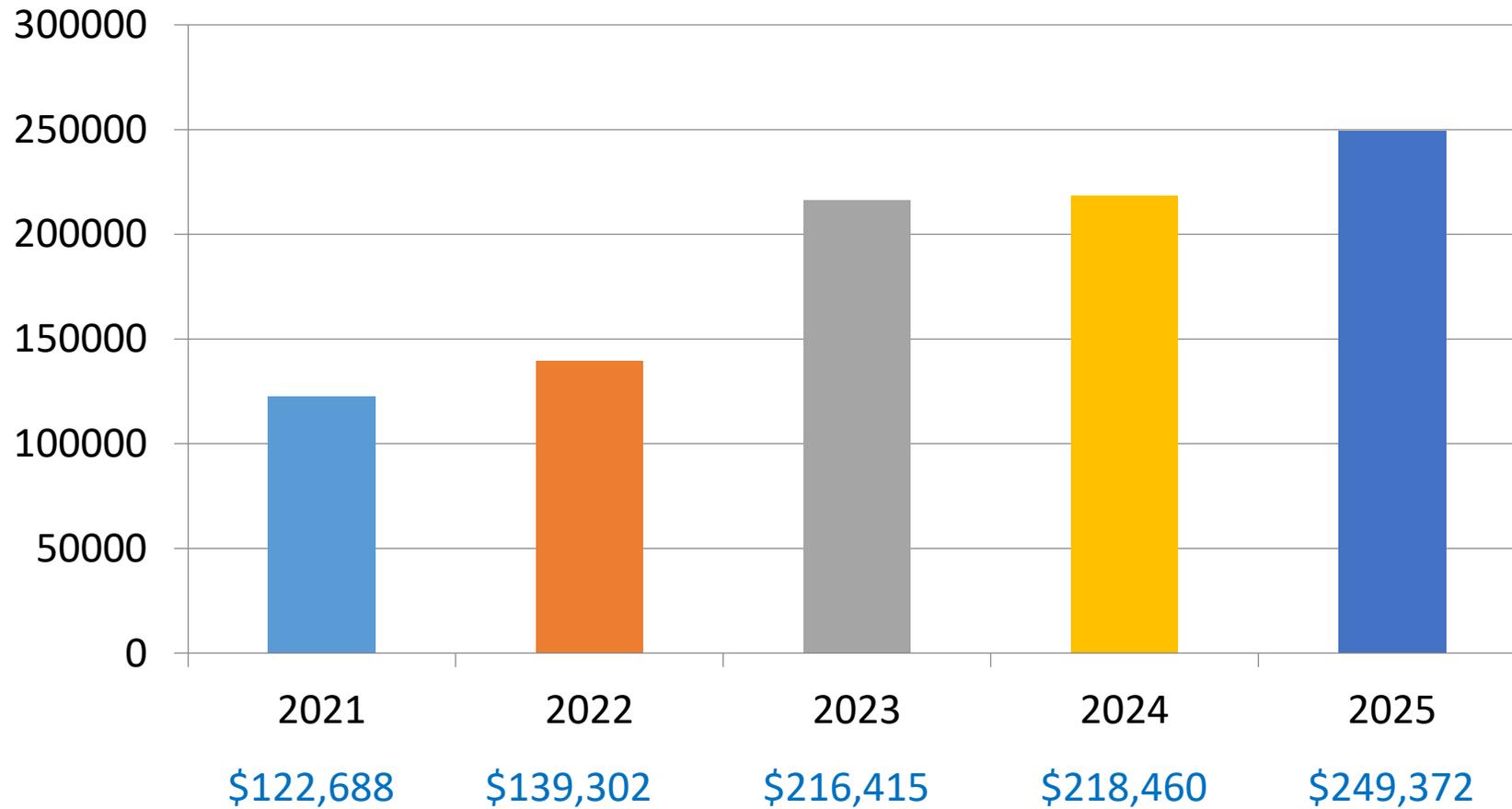


Yearly Cost Analysis

Actual Yearly Costs & Cost per Wet Ton

Actual Yearly Costs

Actual Costs (\$)



Key Cost Trends & Observations

- *Actual yearly costs increased from \$122,688 in 2021 to \$249,372 in 2025.*
- *Costs remained relatively stable per wet ton from 2021–2022 at \$31.95.*
- *Largest year-over-year increase in total costs occurred between 2022 and 2023.*
- *Significant escalation began in 2024, rising to \$37.50 per wet ton.*
- *Costs per wet ton more than doubled between 2024 and 2025.*
- *Continued cost pressure is projected into 2026, reaching \$95.62 per wet ton.*

Comparison

Option 1 Palm Beach County-ILA Facility	Option 2 Miami-Dade County	Option 3 Broward County Water and Wastewater Services (WWS)	Option 4 Current Disposal Method
<ul style="list-style-type: none"> • Location/Ownership: Palm Beach County • Facility Developed: 2005 • Owner: Solid Waste Authority (SWA) • Operator: Synagro • Eligibility: Accepts biosolids only from Palm Beach County municipalities • Assessment: No access for non-Palm Beach municipalities • Viability: Not a viable option 	<ul style="list-style-type: none"> • Location: Miami-Dade County • Project Status: In planning stages • Eligibility: Will only accept biosolids from Miami-Dade County wastewater facilities • Current Practice: Biosolids currently shipped out of state (Georgia) • Assessment: No third-party acceptance anticipated • Viability: Not a viable option 	<ul style="list-style-type: none"> • Agency: Broward County Water and Wastewater Services • Project Status: ILA currently in planning stages • Eligibility: Biosolids accepted only from ILA partner agencies • Estimated Operating Cost: <ul style="list-style-type: none"> ○ \$52.00 per wet ton ○ Projected annual cost: \$126,000 • Capital Cost Commitments: <ul style="list-style-type: none"> ○ Design Cost: \$50 million ○ City Contribution: \$460,000 ○ Construction Cost: \$200-\$500 million ○ City Contribution: \$1.8M-\$4.6M • Assessment: Lower long-term operating cost but significant upfront capital investment and partnership commitment required • Viability: Viable, subject to ILA participation and capital approval 	<ul style="list-style-type: none"> • Current Cost: <ul style="list-style-type: none"> ○ \$77.56 per wet ton (PWT) ○ Annual cost: \$249,372 • Vendor Requested Increase: 2/2026 <ul style="list-style-type: none"> ○ 33.3% increase to \$95.62 per wet ton (PWT) • Assessment: No capital investment required, but highest operating cost and exposure to continued rate increases & limited land application sites remaining/decreasing • Viability: Viable but cost-intensive. Future dumping costs are unknown and likely to exponentially increase.

Recommendations & Next Steps

Approve the Interlocal Agreement (ILA) between the City of Cooper City and Broward County Water and Wastewater Services (WWS) to participate in the Regional Biosolids Management Facility Design Phase.

Reserve 2,665 Wet Tons Per Year (WTPY) allocation, which includes a 10% projected growth.

Covers 4.27 MGD (current permit).

Design Cost: ~ Not to exceed \$460,000 (Cooper City's share of \$50M).

Construction Cost: Separate ILA.

Secures long-term regional Biosolids treatment capacity and ensures disposal reliability.

Maintains regulatory compliance (Class A quality) and operational flexibility through 2050 and beyond.

Prevents future cost escalation by locking in proportional capacity and funding now.

