

MIAMI-DADE WATER & SEWER DAMAGE PREVENTION

PRESENTED BY:
PEDRO VIGIL,
DAMAGE PREVENTION
MANAGER



MISSION TASK AT MIAMI-DADE

- WASD is the largest Water & Sewer Utility in the SE United States, and in the top 10 largest in the nation
- To protect the underground capital assets including 8,500 miles of water and 6,400 miles of sewer pipes that lie underneath our streets, lands, and bodies of water
- If you were to lay pipes end to end would reach Beijing, China
- To prevent service interruptions to our 2.3 million customers and protect 2.8 million citizens of our County
- 31 Locators; supplemental vendor (USIC) ; 4 damage investigator
- When we do the job well, you won't know
- We are the unseen protectors of our citizens





IMAGINE A DAY WITHOUT WATER...

- Hospitals are affected
- Outpatient treatment facilities such as dialysis centers
- No Fire Protection
- Schools will be closed
- High rises will not have water to the top floors
- Hotels and vacations are impacted
- Restaurants Shut Down
- Beaches, lakes, rivers, and other natural bodies of water



What do you mean Damage?

Pipe, environmental, and loss of time





SEPARATE INCIDENT
MORE RECENT – 54"
FORCE MAIN

LAKE WORTH SITE
REQUIREMENTS FOR
REPAIR



April 9, 2024:

- An underground subcontractor conducting directional drilling along Florida Mango Road under the L-10 canal broke the 36-inch regional force main owned by Lake Worth Beach and its subregional partners.
- There were 300 rounds of vacuum trucks to the ECR and other locations to discharge liquids.
- The trucks recovered 850,000 gallons of sewage.
- A total of 20 outside municipalities shared resources with the team for support.
- Total estimated sewage loss was 3-4MGD over the course of the incident.
- Since the sewage break incident, the cleanup activities have been ongoing.

Cost and Legal Proceedings:

- Hinterland's cost estimate for emergency repair and work to date is \$5 million, with a total project estimate of \$15 million.



DAMAGE TO OUR PIPES POMPANO BEACH

- Contractors are boring through our pipes on a weekly basis
- Utility lines under pressure (water, reuse and force mains) show up quickly, and we usually can confront the contractor
- Hidden damage with our wastewater gravity main and stormwater piping not under pressure
- Damaged pipe can sit undiscovered for awhile, usually causing sinkholes in roadways and swales
- Restrictions in the pipe, can cause flooding or sewer spills
- Major inconvenience to the public, especially when repairing a cross-bore hit located in high-traffic area
- Employee safety concerns, especially if the cross bore is a gas main or high voltage (*has happened before*)

FLORIDA THEN & NOW

- Then:
 - 1993: population 13,713,593
 - Governor: Lawton Chiles, aka “Walking Lawton”/ 1,000 mile walk Pensacola/K.West
 - Electoral Votes: 25
 - President: Bill Clinton

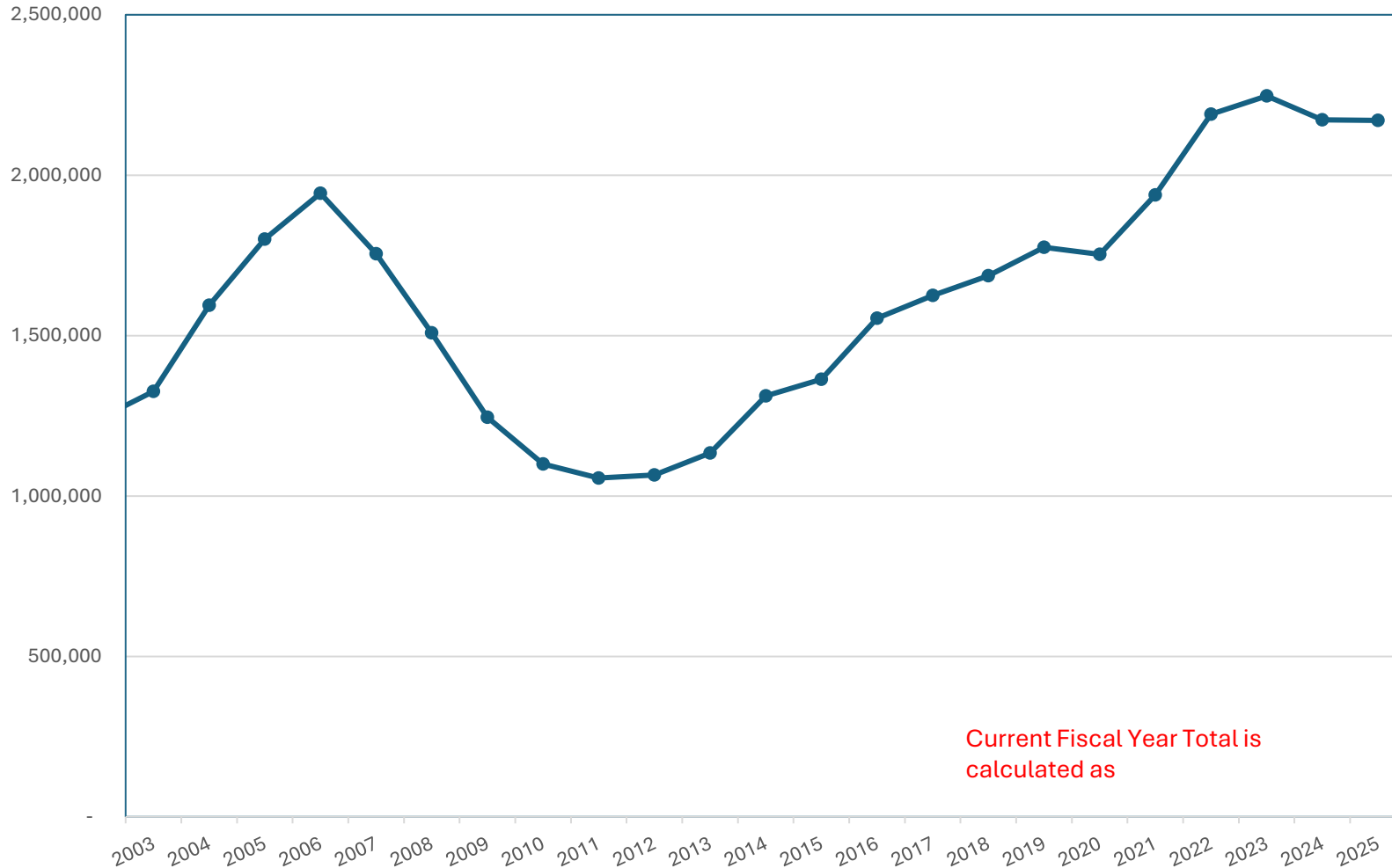
- Now:
 - 2024: population 23,002,597
 - Governor: Ron DeSantis
 - Electoral Votes: 30 (third-most in the union)
 - President Trump
 - Danny Perez- (R) Miami, Speaker of Fl. House



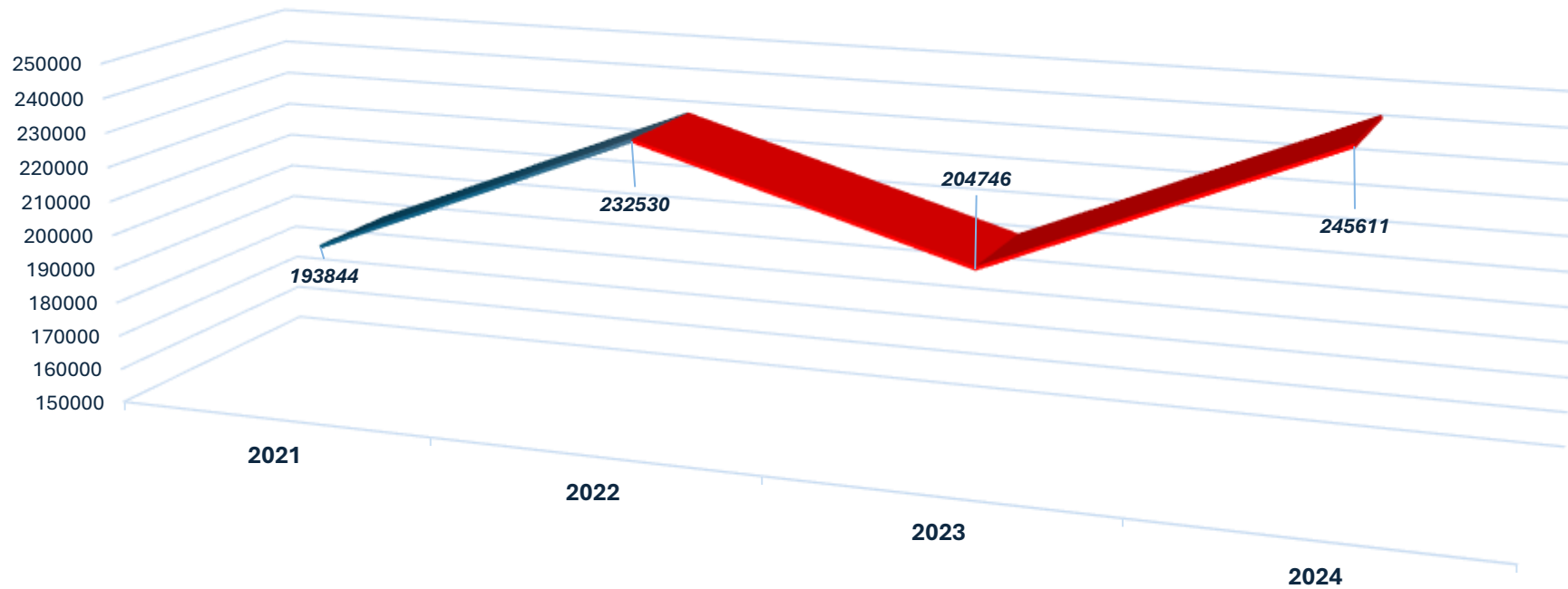
Sunshine 811 State Tickets Volumes

Year over Year Ticket Total

Year	Total Tickets
2025	2,170,757
2024	2,172,616
2023	2,247,049
2022	2,189,670
2021	1,938,081
2020	1,753,040
2019	1,774,864
2018	1,686,616
2017	1,625,128
2016	1,554,098
2015	1,363,693
2014	1,311,852
2013	1,133,618
2012	1,065,561
2011	1,055,971
2010	1,099,242
2009	1,245,100
2008	1,508,627
2007	1,755,179
2006	1,943,549
2005	1,800,816
2004	1,594,628
2003	1,325,602
2002	1,237,810
2001	1,227,231



Miami Dade Water & Sewer 811 Tickets Volumes



Year	Amount
2021	174,447
2022	227,637
2023	198,823
2024	245,609



DRIVING FACTORS FOR INCREASE

- Utility work and Infrastructure expansion, including WASD \$800 Million CIP projects
- AT&T Fiber One Expansion-weekly coordination meeting
 - (#1 ticket volume requester in the State of Florida)
- FPL hardening program to hurricane proof transmission & service drops
(On going for next 10 years , & expansion to serve Electric Vehicle charging infrastructure)
- FDOT Projects
- Federal Infrastructure Stimulus grants for Telecom, Elec., roads and bridges
 - (With time completion milestones)
- Affordable Housing development

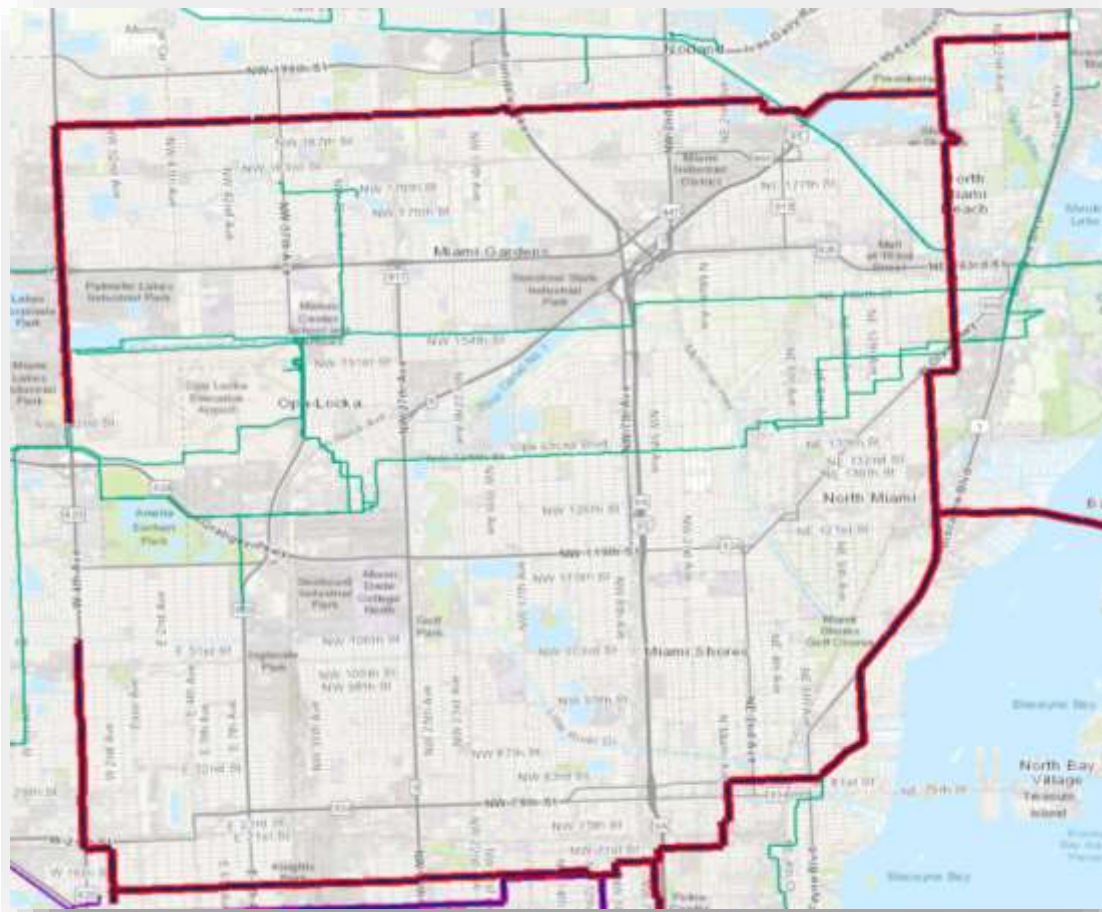


EDUCATION

- Damage Prevention Council meetings sponsored by S811
 - Educate excavator and foster relationships
- Florida Rural Water Association
- FDEP consultation- to advocate for enforcement
- FUCC - presented about Water/Waste perspective
- Participation in Common Ground Alliance (National) best practices for Locators and excavators next expo April in Orlando
- Golden Shovel program (CGA)



CRITICAL/HIGH-PROFILE MAINS SOP 72" PRESTON WTP REDUNDANT LINE CIP PROJECT



- Ticket is identified near High Profile Main
- Excavator is contacted to coordination mtg
- Explain their project
- We educate about the criticality of HPM
- We ensure the contractor potholes if directionally drilling
- We stay and observe
- **"Engage and Educate"**



ENGAGE AND EDUCATE

- **Maximum risk guarantees failure:**
- Gas industry protocols
 - 556.116 High-priority subsurface installations; special procedures.—(1) When an excavator proposes to excavate or demolish within 15 feet of the horizontal route of an underground facility that has been identified as a high-priority subsurface installation by the operator of the facility, the operator shall, in addition to identifying the horizontal route of its facility as set forth in s. 556.105(5)(a) and (b), and within the time period set forth in s. 556.105(9)(a) for a positive response, **notify the excavator that the facility is a high-priority subsurface installation. If the member operator provides such timely notice of the existence of a high-priority subsurface installation, an excavator shall notify the operator of the planned excavation start date and time before beginning excavation.** If the member operator does not provide timely notice, the excavator may proceed, after waiting the prescribed time period set forth in s. 556.105(9)(a), to excavate without notifying the member operator of the excavation start date and time. The exemptions stated in s. 556.108 apply to the notification requirements in this subsection.
- Ounce of prevention is worth a pound of cure
- Preventive dispatches to engage excavator
- Educate on proper procedures and best practices
 - Partnership with S811 and CGA
- Monitor DD around HPM
 - Only way we can guarantee zero damage



LEGISLATIVE

- FS 556 is 30+ years old – No cell phones or internet in 1993
- Major amendments to be presented to FL legislation in Jan 2026
 - One size fits all approach
 - Large project ticket – Distance based
 - 2, 3, 5 , 10 days to locate
 - Sewer Locates are different
 - Attend 811 Legislative Committees online
- MDC is lobbying to amend High-Priority Sub-surface Installation definition to include Raw, Potable, and Wastewater transmission and distribution mains to Section 556.102(8) in March 2025 session
- Join S811 lobbyist efforts in Tallahassee



ENFORCEMENT

- No state agency responsible for enforcing FS 556
 - 2023- 153 citations/\$153,904.54 -statewide
- Working with Florida Department of Environmental Protection
- Looking for recommendations for State Agency to assume this role



A PATH FORWARD

- How Can We Improve on these Points
 - Communication: to your elected officials
 - Cooperation: ask for assistance
 - Coordination: meetings like this
 - Commitment: It our responsibility
 - Collaboration: continue to meet



THANK YOU FOR YOUR TIME

Questions & Answers
Pedro Vigil

305-205-5152

Pedro.vigil@miamidade.gov

FOLLOW US ON SOCIAL MEDIA:



@MiamiDadeWater



@MiamiDadeWater



@MiamiDadeWater



@MiamiDadeWater

