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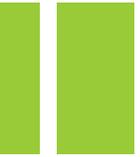


# Ocean Outfall Legislation Overview

Roy Coley, MBA

Director, Miami-Dade Water & Sewer Department

Program Update **Spring 2021**



# Agenda

- Legislation Overview
- WASD Compliance Plan
  - Reduction of Ocean Outfall Disposal
  - Nutrient Diversion
  - Reuse Program
- Status of Projects

# Ocean Outfall Legislation Objectives



# WASD's Compliance Investments

**22** PROJECTS

**\$2.2** billion

**Future Expansion**

- SDWWTP
  - 3 Injection Wells
  - HLD Expansion
  - Step Feed
  - Filter Backwash
  - Chlorine Contact Tank & Effluent PS
  - Headworks & Oxy. Trains
  - Clarifiers
  - Electrical Switchgear

**Reduced Ocean Outfall Discharge**

- NDWWTP
  - HLD Treatment
  - Electrical Switchgear
- CDWWTP
  - HLD Treatment
  - Electrical Switchgear
  - Headworks
  - O2 Train & Clarifiers

**Nutrient Diversion**

- NDWWTP
  - 5 Injection Wells
  - Effluent Pump Station
- CDWWTP
  - 9 Injection Wells
  - 2 Industrial Wells
  - Effluent Pump Station

**Reuse**

- 15 MGD reuse partnership with FPL

## Project Status

Completed 4

Construction 3

Procurement 2

Design 13

# Reduction in Ocean Outfall Discharge

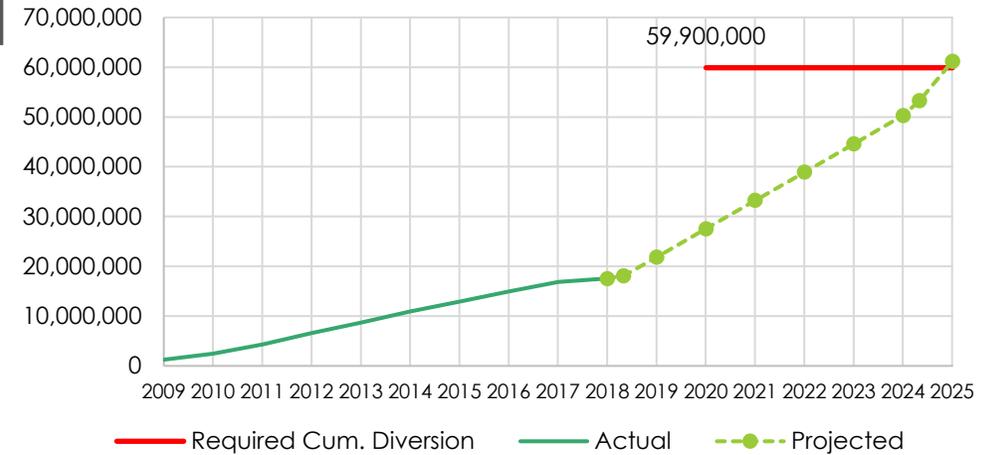
- WASD will achieve elimination of 95%+ of Ocean Outfall Discharges by 2025
- This is accomplished via improvements to the Central and North District WWTP's
  - Tertiary Treatment (High Level Disinfection)
  - Development of Deep Injection Wells



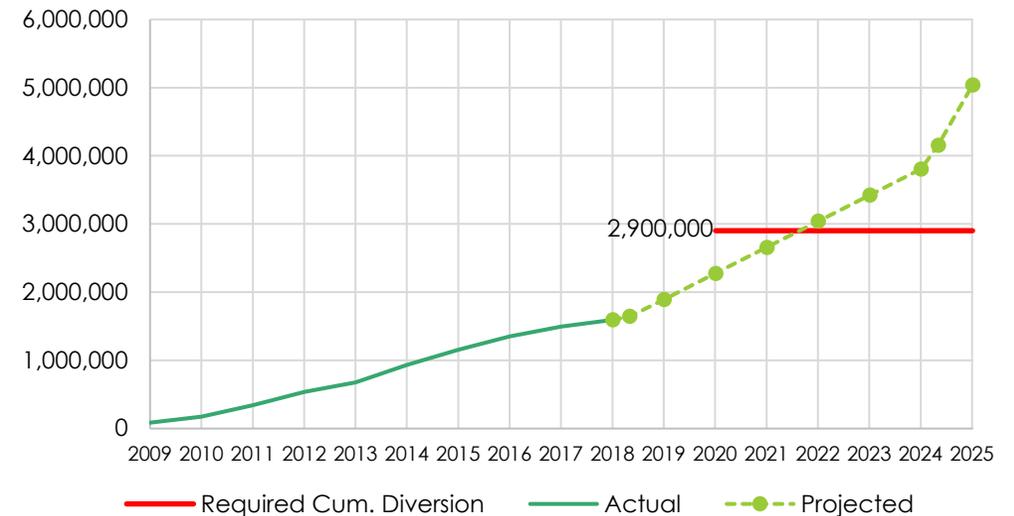
# Diversion of Nutrient Loads from Environment

- WASD is diverting nutrients by 2025 & ahead of schedule.
  - Nitrogen: 59.9 million lbs
  - Phosphorous: 2.9 million lbs
- To achieve this WASD invested approximately \$50 million at CDWWTP
- Maximizing use of existing injection wells at NDWWTP

### Cumulative TN Load Diverted to Injection Wells (lbs)

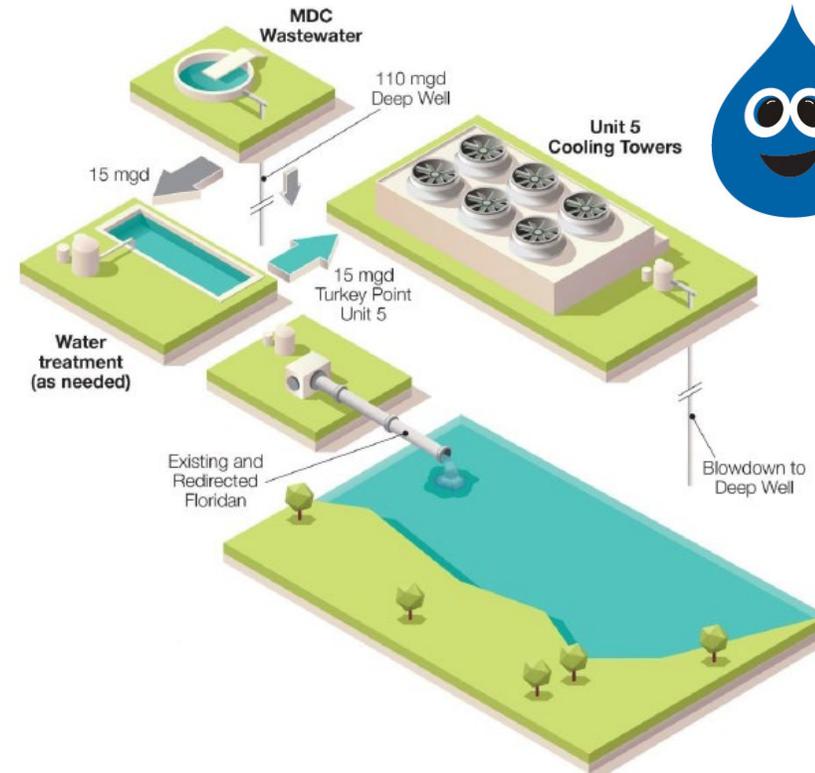


### Cumulative TP Load Diverted to Injection Wells (lbs)



# Reuse Program

- Miami-Dade County has partnered with FPL to construct a 15 million gallon per day Clean Water Recovery Center
- **4th Largest Reuse Facility in the State of Florida**
- The facility will treat wastewater for utilization within Turkey Point's Cooling Towers, allowing for the re-allocation of Floridan Aquifer water supply for environmental purposes
- The project will serve as a cornerstone of Miami-Dade County's wastewater reuse program given its expandability for an additional 30 MGD
- Program consists of all technically, environmentally, and economically feasible reuse

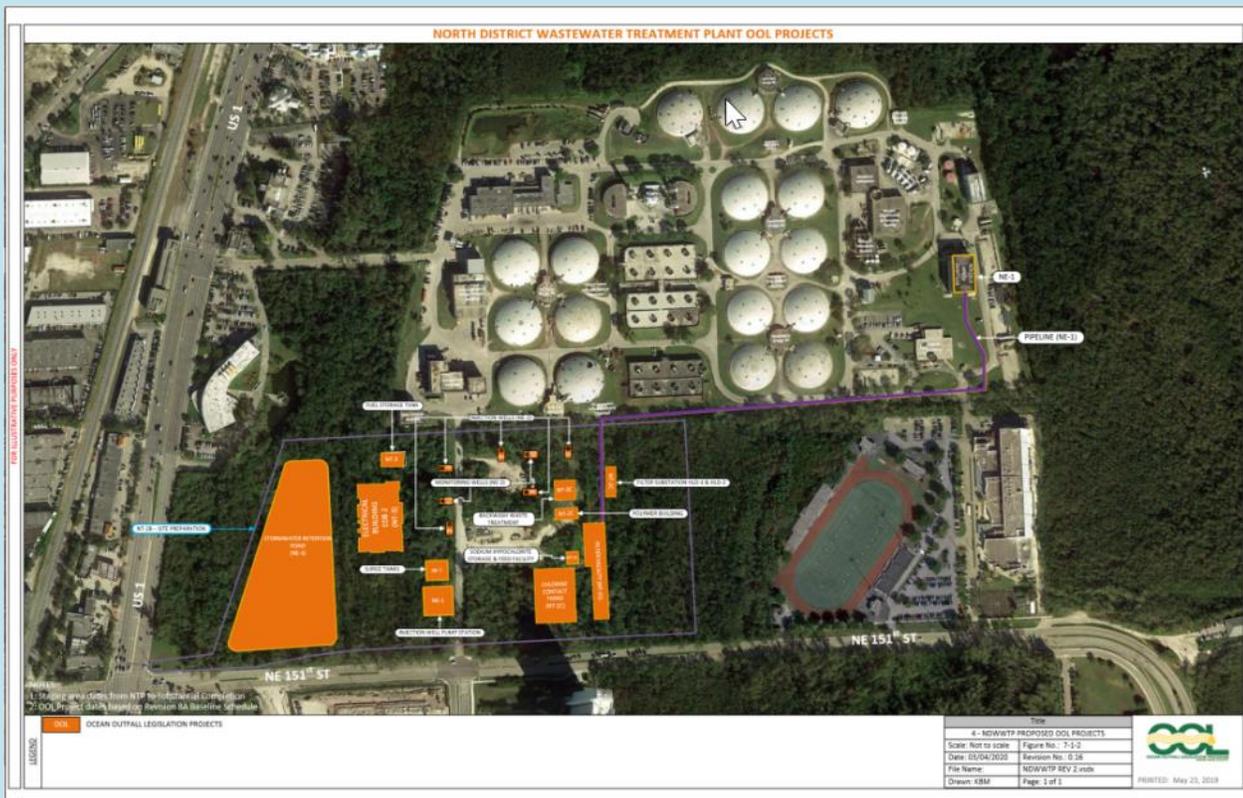


# North District Wastewater Treatment Plant Improvements

Total Investment of **\$436 M**  
Completion Date: Dec. 2025

## Projects:

- Municipal deep injection well system
- Site preparation and mitigation of impact to wetlands
- Conversion of the existing Outfall Pump Station to a Transfer/Outfall Pump Station
- High-Level Disinfection Facilities
- Electrical Distribution Building



# Central District Wastewater Treatment Plant Improvements

Total Investment: **\$1,157M**  
Completion Date: Dec. 2025

## Projects:

- Municipal deep injection well system
- Industrial deep injection well system
- Conversion of the existing Outfall Pump Station to a Transfer/Outfall Pump Station
- High-level Disinfection Facilities (Disk Filters, Chlorine Contact Tank)
- Improve the existing stormwater system
- One oxygenation train and three secondary clarifiers
- New Electrical Distribution Buildings



# South District Wastewater Treatment Plant Improvements

Total Investment: **\$656M**  
Completion Date: Dec. 2025

## Projects:

- Rehabilitation of ox trains including mechanical mixer replacement
- New Headworks and two new oxygenation trains
- New secondary clarifier; RAS Pump Station 3 improvements; New Filter Train
- New chlorine contact tank; new 72-inch well loop interconnect
- New Electrical Distribution Building with new back-up engine-generators
- Three municipal injection wells



# On-Going Construction



# Thank You

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