

# Environmental Protection Division Yearbook 2023





At the Orange County Environmental Protection Division, our team of over 100 environmental and administrative professionals combines its talents, passion and experience in pursuit of a challenging mission: serving our community by conserving, protecting and enhancing the environment for current and future generations.

We give the best of ourselves all year to ensure that the residents and visitors of Orange County and Central Florida can enjoy the air, land and water resources that are vital for a healthy and rich quality of life.

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## Board of County Commissioners



Jerry L. Demings  
Orange County Mayor



Nicole H. Wilson  
Commissioner, District 1



Christine Moore  
Commissioner, District 2



Mayra Uribe  
Commissioner, District 3



Maribel Gomez Cordero  
Commissioner, District 4



Emily Bonilla  
Commissioner, District 5



Michael "Mike" Scott  
Commissioner, District 6

# Message From the Manager

## Actions That Move the Needle

Greetings!

I'm Renée Parker, and it's my honor to serve as the new manager of Orange County's Environmental Protection Division (EPD). Earlier this year, our EPD team took part in developing a new vision statement: *Healthy air, land and water for a resilient, sustainable and thriving Orange County*. This vision aligns coherently with EPD's existing mission statement: *Serving our community by conserving, protecting and enhancing the environment for current and future generations*.

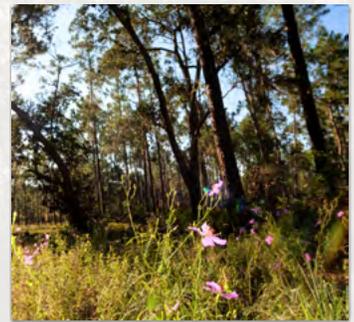
The EPD team pursues this mission in a variety of ways. 2023 was a unique year — one in which policy initiatives clearly helped move the needle on environmental protection. For example:

- EPD's Green PLACE Program continued its swift progress in implementing the Board of County Commissioners' (BCC) 2021 policy decision to fund environmentally sensitive land (ESL) acquisition. Over the past year, 22 purchase contracts were signed and approved by the BCC. Once these transactions are finalized, they will add over 405 acres to Orange County's existing ESL under protection.
- The BCC approved changes to the Wetland Conservation Areas Ordinance which had not been updated in 35 years. EPD worked for two years to assess the effectiveness and weaknesses of current policy, formulate data-driven proposals that clarify and streamline permitting processes, identify and protect priority wetlands and surface waters, and strike a balance between protection and the exercise of property rights.

Looking back at the results of our efforts helps hold us accountable to our residents and reminds us internally how our diligence and focus produce value for our community. This is how public servants define success! As the following pages of this 2023 Yearbook show, EPD's diverse programs were busy preventing air, surface water and groundwater pollution, protecting natural resources, helping residents and businesses comply with environmental regulations, and bringing enforcement cases to the appropriate authorities when necessary. We hope you find this Yearbook informative, and we invite you to reach out to us to learn more and get involved.



*EPD Manager Renée Parker*



*Green PLACE Property*



*BCC Adoption Hearing  
Wetland Conservation Areas Ordinance*

A handwritten signature in blue ink that reads "Renée Parker".

Renée Parker  
Manager, Orange County Environmental Protection Division



# Compliance & Waste Management (C&WM) Section

- Compliance Support & Strategic Engagement Program
  - » Environmental Volunteer and Internship Program (eVIP)
- National Pollutant Discharge Elimination System (NPDES) Program
- Pollution Prevention & Control Program
- Solid Waste Permitting Program

# Compliance Support & Strategic Engagement Program

The program creates content and shares information with residents, businesses and organizations about why our natural resources are important, and how, together, we can conserve, protect and enhance the environment. We disseminate information via print materials, in person, on internet webpages, videos, social media and public spaces through the news media.

**STAFF**

**3 Full-time**  
**2 On-calls**  
**2 Interns**

## Wetlands Ordinance - Public Engagement

Orange County Wetlands Ordinance, Chapter 15, Article X



### Building a Better Wetlands' Code

A brand-new, interactive webpage allows members of the public and organizations to learn about and get involved in Orange County's wetland code update process: [www.ocfl.net/WetlandCodeUpdate](http://www.ocfl.net/WetlandCodeUpdate)



### Celebrating Earth Day

Mayor Demings, Commissioner Bonilla, community organizations, volunteers and the media visited the Dell property in East Orange County, a new conservation parcel acquired as part of the expansion of the Green PLACE Program.



### Year In Review Video

This short video highlights EPD's prior-year accomplishments.



### Award-Winning Campaign

The "Where There's Smoke, There's Air Pollution" campaign received an Award of Commendation from the Public Relations Society of America's Sunshine District.



**427,351 Social Media Impressions**

Innovative content on multiple platforms helped boost engagement.



### Annual Reporting Products

- State of the Environment
- EPD Yearbook
- Green PLACE Annual Report



### eVIP Volunteers Make a Difference!

402 eVIP Volunteers contributed 4,482 hours to EPD. Combined time is valued at \$131,815.



# National Pollutant Discharge Elimination System Program

Also known as NPDES, this program prevents stormwater pollution and protects water quality in Orange County by monitoring and enforcing NPDES requirements under the County's Municipal Separate Storm Sewer System (MS4) permit.

**STAFF**

**6 Full-time**

**1 Intern**

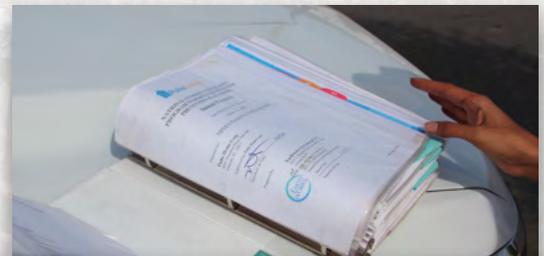


## Sustainable Pool Construction and Maintenance Campaign

Two new training videos were posted on EPD's pool pollution prevention webpage to help homeowners and contractors understand their responsibilities when it comes to pool construction and maintenance, and how to prevent illicit discharges into local water bodies.



**399** active construction sites were inspected.



## Over 1,500 total inspections

- Industrial Inspections: 15
- Pond Inspections: 56
- Citizen Inquiries/Complaints: 375
- Construction Inspections: 1,088



IV.A.1. WORK SESSION AGENDA  
STORMWATER MANAGEMENT - MOVING

## Policies in Focus

EPD took part in formal work sessions to aid policymakers in developing a more resilient approach to managing stormwater in the future.

## Outreach & Training

- Virtual training presentations to several hundred construction and land development professionals, sharing regulator updates, permit requirements and compliance tips
- Partnered with Orange County Public Works and the Division of Building Safety on site development workshops
- Presented at the Greater Orlando Builders Association's Project Superintendent Training

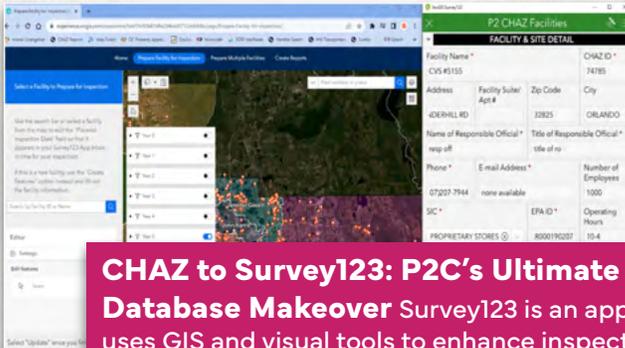


# Pollution Prevention & Control Program

Also known as P2C, this program implements Orange County's Small Quantity Generator Verification and Assessment Program, which verifies the proper management of regulated waste generated at Orange County businesses. P2C also coordinates pollution prevention and sustainability efforts, and investigates environmental complaints lodged by the County's residents.

**STAFF**

- 10** Full-time
- 1** On-call
- 1** Intern



**CHAZ to Survey123: P2C's Ultimate Database Makeover** Survey123 is an app that uses GIS and visual tools to enhance inspection planning, data capture and report generation for the **5,929 facilities** identified as hazardous waste generators in Orange County.

**2,739** total hazardous waste inspections and responses.



**County Inspectors** perform the initial inspections for complaints related to:

- Air quality · Water pollution
- Solid waste · Wetland impacts
- Noise · Hazardous waste



**Pollution Prevention Week**  
 EPD organized several activities promoting waste reduction, including a lunch & learn, garbage pickup at an Orange County public park, environmental trivia and a BINGO game for County employees as well as residents.

## Noise Outreach

A new brochure outlining Orange County's noise ordinance (Chapter 15 - Article V) was created to inform the public on noise level limits and exemptions, collaborative efforts between EPD and the Sheriff's Office and who to contact in the event of a noise disturbance.



## Fix It! Don't Pitch It

- 2 events
- 100 successful repairs
- 664 pounds of garbage diverted from the landfill
- \$20,400 saved by residents since Fix It! began in 2018
- P2C's Aimée Krivan recognized by WESH 2 as a community champion for organizing the events



# Solid Waste Management Program

The program works to minimize the threats to public health and the environment by regulating the construction, operation and closure of private solid waste management facilities.

**STAFF**

**1 Full-time**

**1 On-call**



Inspections are performed monthly or quarterly and total over **100** inspections each year.



**Permit Review & Inspections for:**  
**5** private landfills  
**6** transfer station/MRF facilities  
**6** yard trash processing facilities



## Orange County EPD performs permitting and compliance reviews for:

- Class III landfills
- Construction and demolition (C&D) debris disposal facilities
- Transfer stations
- Materials recovery facilities (MRF)
- Yard trash processing facilities
- Waste tire processing facilities

Note: EPD does not regulate solid waste facilities operated by Orange County Government.



## Recent Accomplishments

- Conducted reviews related to redevelopment of former landfills
- Carried out permit determination review for proposed regional food waste facility
- Provided input to draft Orange Code related to solid waste management facilities



# Petroleum, Air, Sustainability & Energy Section

- Air Quality Management Program
- Petroleum Restoration Program & Brownfields Program
- Petroleum Storage Tank Compliance Program



# Air Quality Management Program

Also known as AQM, this program's goal is to protect and monitor Orange County's air quality. We ensure compliance by administering permits, inspecting facilities and monitoring ambient air quality.

**STAFF**

**15 Full-time**



**AQM conducted**  
**39** enforcement actions  
**162** asbestos inspections  
**381** facility activities/inspections

## State-of-the-Art Equipment

On June 8, the AQM Program presented equipment at the Winter Park Air Monitoring Station. Attendees from the A&WMA Conference saw instruments measuring five pollutants, emphasizing their vital impact on health and the environment.

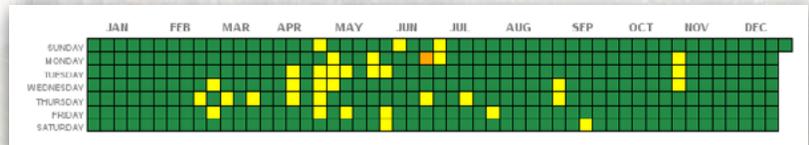


## 189 Permitted Facilities

- Concrete Plants
- Dry Cleaners
- Surface Coating Operations
- Hospitals
- Crematories

## ORANGE COUNTY AIR QUALITY INDEX 2023

- Good [ $\leq 50$  AQI] 329 days
- Moderate [51-100 AQI] 35 days
- Unhealthy for Sensitive Groups [101-150 AQI] 1 days
- Unhealthy [151-200 AQI] 0 Days
- Very Unhealthy [201-300 AQI] 0 days
- Hazardous [ $\geq 301$  AQI] 0 days



## Open Burning Compliance Awareness Campaign

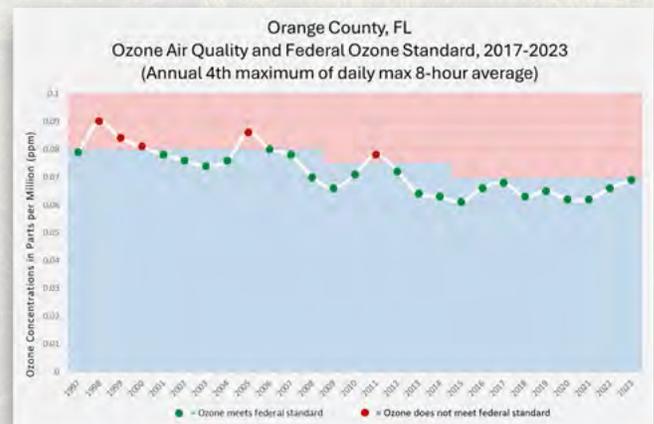
The AQM Program's "Where There's Smoke, There's Air Pollution" campaign raised awareness about the county's open burning rules.

## Outreach & Training

- Asbestos Regulation presentation at Southeast Food for Thought Workshop and METRA Environmental Excellence Day
- Ozone Trends presentation at METRA Environmental Excellence Day



## Ground-level ozone ( $O_3$ ) levels meet federal standards\*



\*Ground-level  $O_3$  levels are trending down, but still close to the ambient air quality standard that has been reduced over time by U.S. EPA.



# Petroleum Restoration & Brownfields Programs

The goal of the Petroleum Restoration Program (PRP) is to identify and remove petroleum contamination from soil and groundwater.

The Brownfields Redevelopment Program's goal is to restore abandoned or underused industrial and commercial properties whose redevelopment may be complicated by real or perceived environmental contamination.

**STAFF**

**13** Full-time

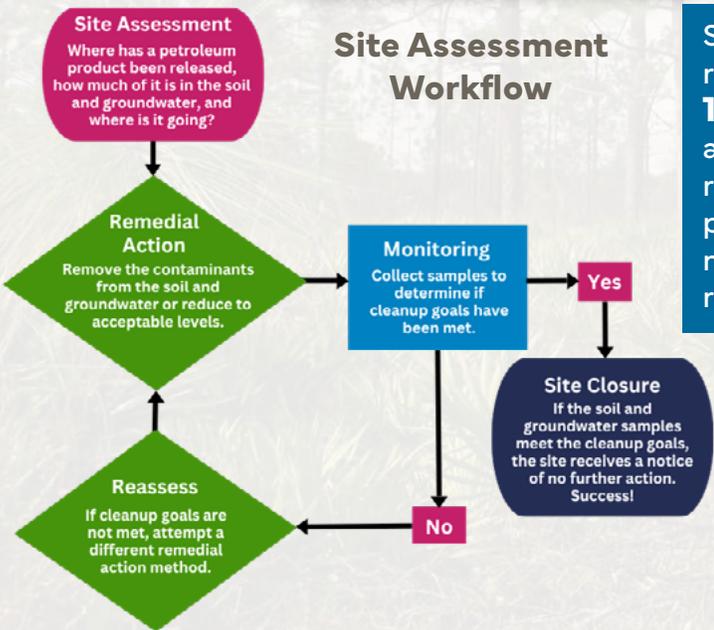
**1** On-call



More than **\$10 million** in state funds were administered during the 2022-2023 fiscal year to identify, assess and clean up petroleum contaminated sites.



The PRP staff, also known as site managers, conducted **386** site visits, and **106** operation and maintenance inspections.



Site managers reviewed over **1,100** site assessments, remedial action plans and monitoring reports.

The PRP team finalized cleanup activities on **27** properties during the 2022/2023 fiscal year.



The PRP team managed **457 petroleum-contaminated sites** across **3** counties under contract with Florida Department of Environmental Protection.

- Orange
- Osceola
- Seminole



**Did you know?**  
Orange County EPD helps revitalize communities by encouraging redevelopment and guiding interested parties through the Brownfields designation process.

# Petroleum Storage Tank Compliance Program

The program safeguards Orange County's groundwater resources by inspecting underground storage tank (UST) and aboveground storage tank (AST) systems for compliance with technical regulations, as contracted by the Florida Department of Environmental Protection and required under Orange County's ordinance.

**STAFF**

**7 Full-time**  
**2 On-call**

EPD's state-delegated program covers **5 counties:**

- Orange
- Osceola
- Lake
- Seminole
- Volusia



EPD regulates over **6,500 tanks** residing on more than **3,400 facilities** across **5 counties**.

*\*In the 2022-2023 contract year.*



**Did you know?** Orange County has more than **1,600 facilities** and over **3,100 registered petroleum storage tank systems**.



## Leak Prevention

Storage tanks and systems are regulated by laws intended to prevent discharges to the environment. Our compliance inspections help identify faulty components, maintenance gaps or poor operating conditions before leaks can occur.

## Total Inspections

- 69** Closure Site Inspections
- 10** Complaint Site Inspections
- 57** Compliance Assistance Inspections
- 13** Component Closure Inspections
- 14** Component Installations
- 5** Discharge Site Inspections
- 125** Installation Site Inspections
- 1,033** Routine Compliance Inspections





# Natural Resources Permitting & Development Review Section

- Development Review Program
- Environmental Permitting & Compliance Program

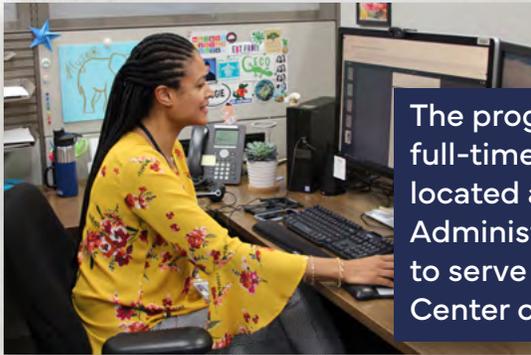


# Development Review Program

The program protects Orange County's natural resources by reviewing industrial, commercial, office and residential development plans, and ensuring that they comply with environmental regulations.

**STAFF**

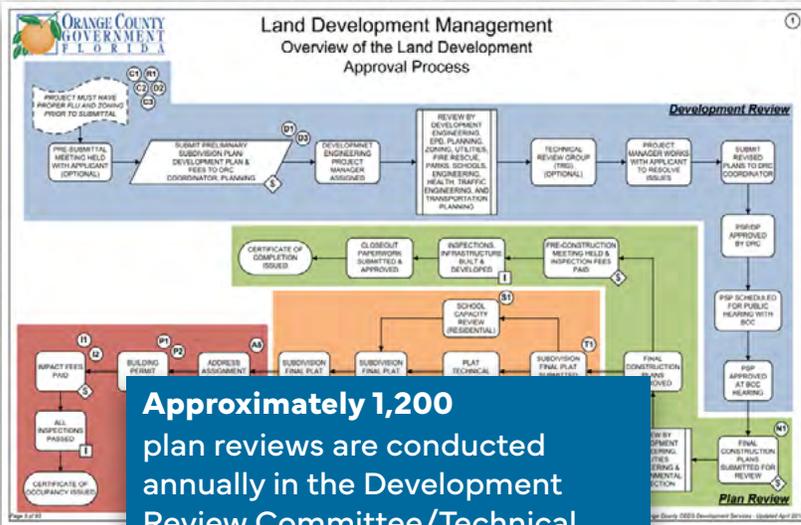
**6 Full-time**  
**2 Interns**



The program has one full-time staff member located at the County Administration Building to serve One-Stop Service Center customers.



**Did you know?**  
EPD's Development Review Program collaborates regularly with other County divisions and EPD programs during many typical plan reviews. They are also in frequent communication with residents, developers and landowners.



**Approximately 1,200** plan reviews are conducted annually in the Development Review Committee/Technical Review Group process.

**About 7,500** commercial plans are reviewed each year.



**Plan Review Tools & Activities**  
The program considers the effect of past and proposed future development on all environmental media including:

- Surface waters/wetlands
- Unique habitats
- Erosion/sedimentation
- Air resources
- Soil/groundwater contamination
- Stormwater

**EPD's expertise is often required** for plans to pass a number of county processes:

- Development Review Committee
- Planning & Zoning Commission
- Future Land Use Changes
- Board of Zoning Adjustment
- One-Stop Service Center
- Board of County Commissioners

# Environmental Permitting & Compliance Program

The program's goal is to protect and conserve Orange County's natural resources through the administration and enforcement of the County's environmental ordinances in a fair and professional manner with superior customer service.

**STAFF**

**10** Full-time  
**2** On-calls  
**1** Intern



**Compliance and Enforcement**

- 123 incidents closed during fiscal year 2022-2023
- Responded to an average of 18 new cases per month
- An average of 1 case per month taken to the Special Magistrate

**505** permit applications were reviewed to ensure compliance with Chapter 15 and Chapter 33 of Orange County Code.



These reviews include

- Boat Dock and Boat Ramp Facility Construction Permits
- Conservation Area Impact Permits
- Lakeshore Protection Permits
- Shoreline Alteration Dredge and Fill Permits
- Conservation Area Determinations
- Conservation Area Authorizations



**Compliance Inspections**  
415 inspections were completed to determine compliance with permit conditions and to work with permittees regarding non-compliance issues.



**One-Stop Permitting Portal**  
Orange County's Fast Track Online Services provides a portal for applicants to check the status of their permit, view attachments related to their application, make payments, conduct research on historic permits and more.

Applications and/or questions for wetland permit applications may be submitted at [WetlandPermitting@ocfl.net](mailto:WetlandPermitting@ocfl.net)  
407-836-1402





# Water & Land Resources Management Section

- Green PLACE Program
- Lake Management Program
- Water Sciences Program



# Green PLACE Program

The program protects natural and water resources in Orange County and provides nature-based recreational opportunities. Green PLACE (Park Land Acquisition for Conservation and Environmental Protection) enhances habitats through the preservation of environmentally sensitive lands and land management activities, as well as provide for nature-based recreational opportunities.

**STAFF**

**4 Full-time**  
**2 On-calls**



## Environmentally Sensitive Lands (ESL) Acquisition

The Green PLACE Program assessed **1,230** parcels and appraised **77** parcels. The BCC approved **22** contracts which have preserved **405.18** acres, including 52.86 donated, to expand environmentally sensitive lands.



**14 Properties** are open for nature-based recreational activities such as: hiking, picnicking, fishing, kayaking, horseback riding, birdwatching and wildlife observation.



## Events at the New Dell Property

Mayor Jerry L. Demings, Commissioner Emily Bonilla, Orange County staff and partners were on hand to celebrate Earth Day as volunteers removed invasive species and cleaned up debris. The event included gopher tortoise trivia and burrow observations.

In honor of National Public Lands Day, EPD staff, volunteers and partners spent **168** hours clearing invasive plants, debris, a **1/4**-mile trail and removing **300** ft of fencing.

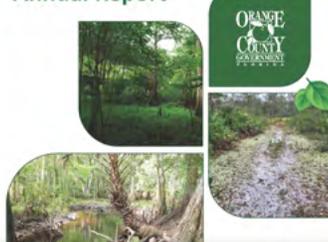


## Land Management Activities

include invasive species management, controlled burning, habitat restoration & enhancement and more.

**30 miles of trail** for hiking and horseback riding allow visitors to experience the diverse habitats of Central Florida.

**2022**  
Annual Report



## The Green PLACE Annual Report

Ongoing ESL acquisition is backed by the Mayor's *Transition Team Report* and the *Sustainable Operations & Resilience Action Plan*, targeting an additional **23,000** acres of preservation by 2030. The inaugural *Green PLACE Annual Report*, released this year, highlights program goals, funding and progress via data-driven metrics.

**The Green PLACE Advisory Board**, comprised of seven members, was established to provide guidance to the Board of County Commissioners on Green PLACE Program administration and environmentally sensitive land acquisitions. Meetings are held bi-monthly.



# Lake Management Program

The program's mission is to manage 39 lake taxing districts (MTSU/MSBU) and 15 advisory boards. We work to address local lake concerns such as aquatic plant management, water quality improvement, general lake maintenance, navigation and off-duty lake patrols.

**STAFF**

**9 Full-time**

**1 On-call**



**The Lakes Program** manages over **16,000** acres of surface water by controlling invasive plants, promoting native biodiversity, and enhancing safety and recreation.

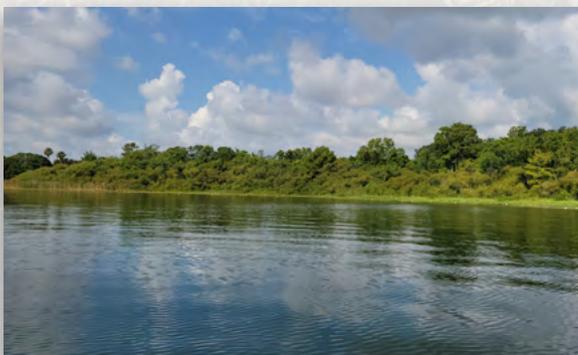


## Chapter 8 Boats & Water Safety Ordinance

The Swim Area & Vessel Exclusion zone for Egret (Bird) Island at Lake Butler was implemented. Boaters must stay outside the buoyed swim area to protect swimmers and wildlife.

### Best Management Practices (BMPs):

- **711** acres of exotic and invasive aquatic plants treated via herbicide control
- **34** lakes stocked with triploid grass carp for biological control
- **1.1** million pounds of debris prevented from entering lakes
- **830** stormwater filtration devices
- **5,677** miles of roads swept
- **2** alum stormwater treatment facilities



### Project Highlights

- The Conway chain of lakes received **2,232** additional triploid grass carp to continue mediating the growth of hydrilla.
- A community effort along the shores of Lake Holden saw several new duck boxes installed to provide safe shelter for nesting ducks.



# Water Sciences Program

The program helps preserve and restore the quality of freshwater resources in Orange County through water sampling, laboratory analyses and data-driven solutions aimed at identifying, capturing and removing pollutants.

**STAFF**

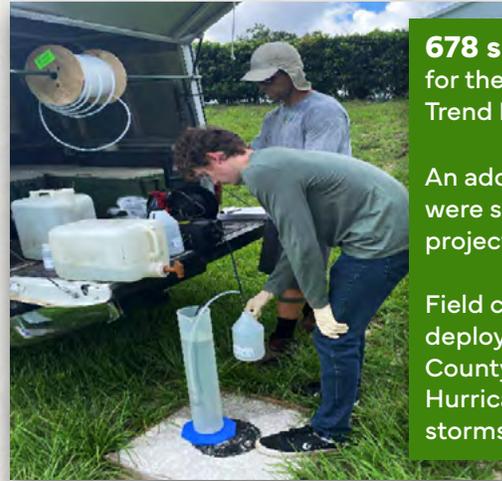
**13** Full-time  
**4** Interns



**Lake Lawne Regional Stormwater Facility (RSF)** prevented over 72,000 pounds of pollutants from reaching Lake Lawne.\*

- **1,089 pounds** of total phosphorus
- **7,151 pounds** of total nitrogen
- **64,205 pounds** of total suspended solids

\*RSF cumulative removal totals from 2019 to 2023



**678 sites** were sampled for the Water Quality Trend Network Program.

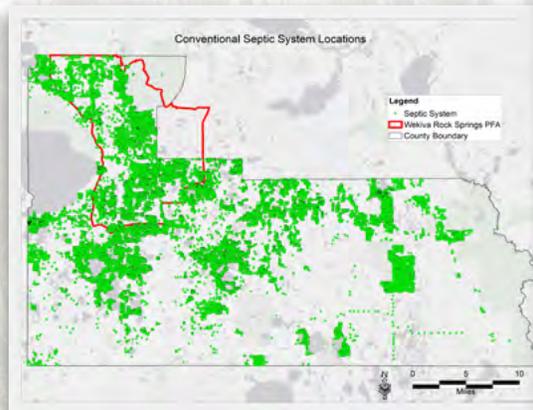
An additional **694 sites** were sampled for all other projects.

Field crews were rapidly deployed across Orange County in the wake of Hurricane Ian & tropical storms.



## Outreach & Training

A presentation on Data Driven Changes to the Orange County Fertilizer Ordinance was given at METRA Environmental Excellence Day.



## Protecting Groundwater & Freshwater Resources

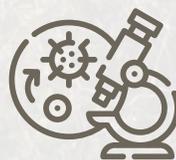
Contractors for the Orange County Environmental Protection Division recently completed the Orange County Groundwater Vulnerability Assessment (GVA).

Key study elements included:

- Mapping areas where groundwater is vulnerable to contamination
- Identifying subdivisions with high densities of septic tanks
- Deriving capture zones for water bodies of interest
- Evaluating septic system setbacks from water bodies

## Evaluating the Health of Our Lakes

Water Sciences monitors vegetative health and diversity in lakes, rivers and springs. One of the tools we use to assess the health of a lake is the Lake Vegetative Index (LVI). A lake with a healthy diverse plant community supports a wide range of invertebrates, provides habitat for juvenile fish and reduces nutrient pollution that can result in algae blooms. This year, another staff member was certified to conduct LVIs in our lakes.



## Real-time Monitoring

With the assistance of 5 real-time monitoring stations, the Water Sciences Program is provided with over **500,000** hydrological and physical parameter **data points** per year. Real-time monitoring returns continuous information about how a water body is behaving.



## EPD's Core Values

**Knowledgeable**  
**Integrity**   **Passionate**  
**Community-focused**  
**Teamwork**   **Dedication**  
**Professional**



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