

ENVIRONMENTAL PROTECTION DIVISION YEARBOOK

2025



ORANGE
COUNTY
FLORIDA





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



Kelly Martinez Semrad
Commissioner,
District 5



Michael "Mike" Scott
Commissioner,
District 6

Get to Know EPD

Orange County's Environmental Protection Division (EPD) works to conserve, protect and enhance the environment for current and future generations. This work is carried out through a diverse set of programs focused on regulatory compliance, pollution prevention and environmental stewardship, including:

- Compliance Support & Strategic Engagement
- National Pollutant Discharge Elimination System (NPDES)
- Pollution Prevention & Control
- Solid Waste Permitting & Compliance
- Air Quality Management
- Petroleum Restoration & Brownfields
- Petroleum Storage Tank Compliance
- Development Review
- Natural Resources Compliance & Enforcement
- Natural Resources Permitting
- Green PLACE
- Lake Management
- Water Sciences

The pages that follow highlight key accomplishments, partnerships and progress from the past year. We invite you to see how EPD's efforts help protect what makes Orange County a place we're proud to call home.



**EPD Manager
Renée Parker**



Compliance & Waste Management (C&WM) Section



- Compliance Support & Strategic Engagement Program
- National Pollutant Discharge Elimination System (NPDES) Program
- Pollution Prevention & Control Program
- Solid Waste Permitting & Compliance Program



Compliance Support & Strategic Engagement Program

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This program, also known as CSSE, supports EPD's regulatory and conservation program efforts to improve compliance and encourage positive environmental stewardship. CSSE uses social marketing principles and methods to pursue this goal, including content creation and distribution via print materials, internet, videos, social media, public spaces and the news media.

Trending on Social Media



CSSE spotlighted the Air Quality Management program's efforts to keep Orange County's air clean on social media, with one post surpassing 500,000 video views.

Reporting Results

The program highlights EPD and environmental data in a yearbook, year in review video and Green PLACE report.



Water Quality Education

An updated "Help Prevent Water Pollution" brochure offers tips to help keep pollution out of our rivers, lakes and springs.



Ribbon Cutting Ceremonies



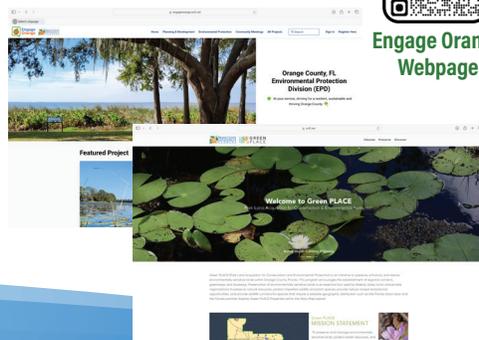
CSSE supported ceremonies at Greeneyes Wildlife Preserve and Back to Nature Wildlife Refuge featuring elected officials, community members and media coverage.

New Webpages

- New Green PLACE webpage launched via social media, email and news media
- New Engage Orange webpages provide interactive tools for residents



Engage Orange Webpage



eVIP Volunteers in Action



302 environmental volunteer and internship (eVIP) volunteers contributed 2,093 hours to EPD, valued at \$58,876.

Radiance Awards

CSSE won four Florida Public Relations Society of America Sunshine District awards in the public affairs, events, social media and annual reports categories.



Engaging With Our Community



EPD brought interactive activities to 29 community events attended by more than 12,400 people.



National Pollutant Discharge Elimination System Program

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The National Pollutant Discharge Elimination System, also known as NPDES, is a federal program authorized under the Clean Water Act with the purpose of protecting water quality through the regulation of stormwater point source discharges into waters of the County. The program is carried out by monitoring, inspecting and enforcing NPDES requirements under Orange County's Municipal Separate Storm Sewer System (MS4) permit.

Training Updates

- All staff are certified through the Florida Department of Environmental Protection (FDEP) Florida Stormwater, Erosion and Sedimentation Control Inspector Program.
- All staff have completed Florida Stormwater Association (FSA) Qualified Stormwater Operator Levels 1 and 2, MS4 spill prevention and illicit discharge detection and elimination, and HAZWOPER awareness.
- Some staff completed Qualified MS4 Stormwater Permit Compliance Professional and MS4 Industrial Inspector training.



Inspections

- Total inspections — 1,315
- Construction inspections — 1,059
 - Stormwater inspections — 169
 - Citizen inquiry/complaints — 57
 - Industrial/commercial site inspections — 30



NPDES Stormwater Webpage



Active construction site inspections — 132

Outreach & Public Education



The NPDES program participated in multiple events to educate the public about stormwater management:

- Backyard Biodiversity Day
- Mayor's Citizen Academy (Spanish and English)
- Spring into Conservation
- Apartment Association of Greater Orlando outreach (permitting, dewatering, Metropolitan Environmental Training Alliance, wetlands)
- Central Florida Earth Day
- Earth Day Celebration at Lennar

Stormwater System Maintenance Campaign



- Sent more than 8,500 postcards to local businesses and home owners associations on proper stormwater system maintenance

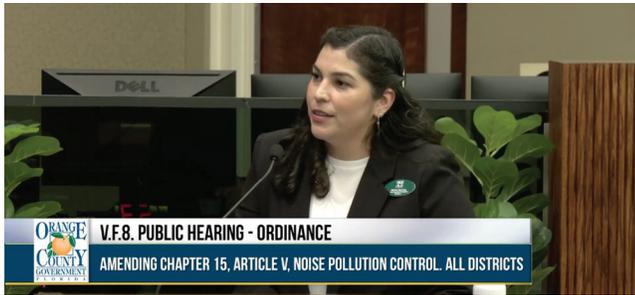
- Presented to the Greater Orlando Business Association (GOBA) on the new state stormwater rule
- Presented to industry professionals via the Division of Building Safety Customer-First webinar series on proper disposal of fats, oil and grease (FOG)
- Educated residents on stormwater pollution at the Condo & Home Owners Association Expo

Pollution Prevention & Control Program

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FULL-TIME ON-CALL

Also known as P2C, this program implements Orange County's Small Quantity Generator (SQG) 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.

Noise Ordinance Updated



On August 5, 2025, Orange County updated its Noise Pollution Control Ordinance (Chapter 15, Article V), reducing allowable noise levels in unincorporated areas.

Pollution Prevention Week



- EPD celebrated the 40th anniversary of the National Pollution Prevention Roundtable.
- Mayor Jerry Demings issued the first P2 Week proclamation.
- Events: Love Canal documentary lunch & learn, second-hand fashion show, Green PLACE cleanup (1,320 pounds of trash collected)

Fix It! Don't Pitch It



- 482 pounds of waste were diverted from the landfill due to successful repairs.
- Repairs have saved residents \$80,505 since 2018.

Inspections



Commercial Pollution Prevention Webpage

- Complaints — 1,830
 - Hazardous waste inspections — 1,522
- P2C inspectors respond to:
Air • Water • Wetlands • Noise • Hazardous waste

Mend & Swap Repair Café



P2C's first Mend & Swap Repair Café, with the Goblin Market, drew more than 150 attendees.

- Nine volunteers repaired 66 items.
- Leftover clothing was donated or sent for textile recycling.

Outreach & Education



Protect Our Environment: HANDLE VEHICLE LEAKS AND SPILLS PROPERLY

Why Should You Care?
Leaking oil or chemicals can pollute springs, lakes, and rivers, causing environmental damage. Polluted stormwater runoff can't be treated and seeps into waterways. Motor oil and other engine fluids are toxic to humans, wildlife, and vegetation. Just one gallon of oil can contaminate one million gallons of freshwater!



Cleanup Procedures:

- **Act Quickly:** Clean up oil and spills immediately.
- **Absorb:** Use absorbent materials, such as kitty litter, to contain and soak up spills.
- **Do NOT:** mix spills with water; pour down the drain or into the sea.
- **Dispose Properly:** Collect and store contaminated absorbent material in sealed containers. Contaminated material and free gallons can be disposed of in a hazardous waste transfer station.
- **Prevent Contamination:** For garages, use secondary containment, such as a drip pan, and avoid parking near storm drains.



Proper Disposal Locations:

Dispose of all 15-gallon per vehicle, kits for Orange County residents.

- Dry cleaner perchloroethylene phaseout letters sent to approximately 30 businesses
- Health care facilities survey letters distributed; over 50% completed and submitted
- Leaking vehicle rack card for spill cleanup produced



Solid Waste Permitting & Compliance Program

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The Solid Waste Permitting and Compliance 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.

EPD Permitting and Compliance Reviews

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



Solid Waste Compliance Webpage

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

Recent Accomplishments

- Supported the development of the Vision 2050 Comprehensive Plan, including solid waste and redevelopment policies.
- Recruited and trained a second staff member to facilitate inspections, reviews and ensure operational continuity.



Permit Review & Inspections

- Transfer station/MRF facilities — 6
- Yard trash processing facilities — 5
- Private landfills — 4



More than 110 inspections are conducted each year, on a monthly or quarterly basis.



Petroleum, Air, Sustainability & Energy Section



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

Air Quality Management Program

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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.

AQM By the Numbers

- Facility activities/inspections — 334
- Asbestos inspections — 194
- Enforcement actions — 54



184 Permitted Facilities

- Surface coating operations
- Boat builders
- Concrete plants
- Crematories
- Data centers
- Aerospace
- Hospitals



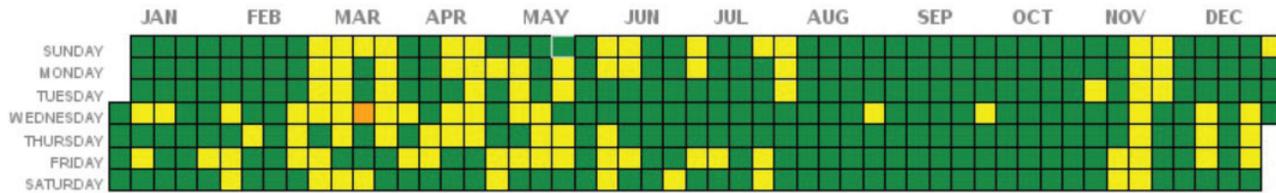
Air Quality Management Webpage

AQM Case Heard by Special Magistrate



On January 13, 2025, AQM's first Special Magistrate case, an open burning violation, resulted in corrective actions and penalties.

Air Quality Index



*preliminary data for 2025

- Green Good (≤ 0.054 ppm) 266 days
- Yellow Moderate (0.055 - 0.070 ppm) 98 days
- Orange Unhealthy for Sensitive Groups (0.071 - 0.085 ppm) 1 day
- Red Unhealthy (0.086 - 0.105 ppm) 0 Days
- Purple Very Unhealthy (0.106 - 0.200 ppm) 0 days
- Dark Red Hazardous (≥ 0.405 ppm 11-hour) 0 days

Community Involvement

In collaboration with the National Coalition of 100 Black Women - Central Florida Chapter, EPD worked with the nonprofit to collocate their Environmental Protection Agency Inflation Reduction Act grant-funded sensors at the Winter Park Air Monitoring Station.



Celebrating Clean Air Month



AQM staff highlighted how they keep the County's air clean through social media videos featuring the nasal ranger and the program's electric vehicle.

Open Burning Rules Campaign



AQM's "Where There's Smoke, There's Air Pollution" campaign highlighted Orange County's open burning rules.



Open Burning Rules Webpage

Petroleum Restoration & Brownfields Programs

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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.



The PRP team oversaw 519 petroleum-contaminated sites in Orange, Osceola and Seminole counties under contract with the Florida Department of Environmental Protection.

Outreach & Education



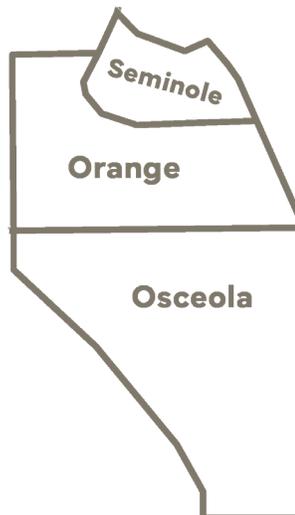
Staff led a Building Safety webinar on the Brownfields Program to inform the community about potential pollution at former industrial sites and incentives for redevelopment.

Monitoring Cleanups

PRP staff conducted 400 site visits and 112 operation and maintenance inspections.



Site managers reviewed more than 1,300 contamination assessments, remedial action plans and monitoring reports.



Entrusted with \$12.4 million in state funds, the PRP team identified contaminants, assessed contamination levels and ensured cleanup of petroleum-contaminated sites.

Protecting Groundwater

- Full site restorations completed in Orange County — 18
- Full site restorations in Osceola and Seminole counties — 10



Petroleum Management Webpage



Petroleum Storage Tank Compliance Program

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FULL-TIME

The program safeguards Orange County's groundwater resources from fuel and certain chemical contamination 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.

EPD's State-Contracted Program

This program covers Orange, Osceola, Lake, Seminole and Volusia counties.



Inspecting Tank Systems

- Routine compliance inspections — 1,127
- Installation site inspections — 132
- Compliance assistance inspections — 76
- Closure site inspections — 49
- Component closure inspections — 12
- Component installations — 10
- Discharge/incident site inspections — 9
- Complaint site inspections — 3

Monitoring Compliance

EPD regulates more than 6,500 storage tanks at more than 3,500 facilities across five counties, with inspectors averaging 240 inspections each. As Central Florida grows, more tanks are installed, adding to the potential pollution sources our team inspects.



Pollution Prevention

Inspections detect faulty components, maintenance gaps or operational issues before environmental discharges occur.



Did you know?

The team strives to help facilities comply, but sometimes enforcement is appropriate. Eight Orange County cases led to consent orders and penalties.



Petroleum Management Webpage



Natural Resources Permitting & Development Review Section



- Development Review Program
- Natural Resources Compliance & Enforcement Program
- Natural Resources Permitting Program

Development Review Program

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FULL-TIME

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INTERNS

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

Plan Review Tools & Activities



The program considers the impact of past and future development on:

- Surface waters/wetlands
- Protected habitats
- Erosion/sedimentation
- Air quality and noise pollution
- Soil/groundwater contamination
- Stormwater

Connecting with Customers

Development Services

TEAM 400

As part of Team 400, EPD's Development Review program works with other County divisions providing services to residents, developers and landowners during plan and permit reviews.

Commercial Building Permits

More than 6,700 permits reviewed annually.



Outreach & Education



- The Development Review and Green PLACE programs showcased the Gopher Tortoise Habitat Suitability Map Tool at STEAM/ National Parks Sustainability Night.
- AMANDA with Amanda Lunch & Learn provided a hands-on informational session on navigating the program.



Development & Technical Reviews



More than 900 plan reviews are conducted annually in the Development Review Committee/ Technical Review Group process.

Did you know?



EPD's expertise is applied throughout these land development processes:

- Board of County Commissioners
- Planning and Zoning Commission/ Local Planning Agency
- Board of Zoning Adjustment
- Development Review Committee
- Technical Review Group



Natural Resources Compliance & Enforcement Program

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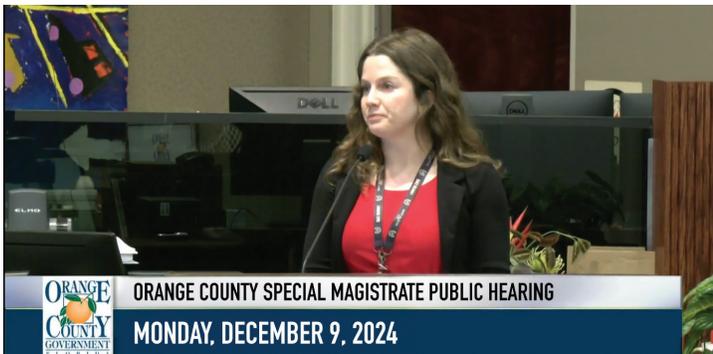
Also known as NRCE, this program's goal is to protect and conserve Orange County's natural resources by achieving compliance through standardized procedures and educational efforts committed to fairness, professionalism and excellent customer service.

Compliance and Enforcement

- A total of 265 cases were reported in fiscal year 2024-25.
- On average, 2 cases per month were taken to Special Magistrate.



Enforcement Cases



Major environmental violations may go to Special Magistrate hearings to ensure compliance and environmental restoration.

Natural Resource Management (NRM) Workshop



The NRCE and NRP programs receive training independently throughout the year and attend two joint field trainings each year to improve their delineation skills.

Lakeshore Protection



Enforcement of the Lakeshore Protection Code (Ch. 15, Art. VII) safeguards our lakes and requires restoration projects where necessary.

Living Lakeshores Webpage



Living Lakeshores Campaign



"Healthy Lakes Need Living Lakeshores" promotes shoreline compliance to protect our waters. Learn more at www.ocfl.net/LivingLakeshores.

Natural Resources Permitting Program

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FULL-TIME ON-CALL

Also known as NRP, this program's goal is to protect and conserve Orange County's natural resources by implementing the County's environmental ordinances and balancing environmental protection of natural resources with sustainable development.

Permit Inspections



Staff conducted 277 inspections to check compliance and resolve noncompliance issues.

Permit Applications



The NRP team reviewed more than 5,500 building permits. In addition, more than 520 permit applications were checked for compliance with Chapters 15 and 33 of the Orange County Code, covering:

- Boat dock construction permits
- Boat ramp facility construction permits
- Lakeshore protection permits
- Noticed general permits
- Shoreline alteration dredge and fill permits
- Wetland determinations

Commissioners' Watershed Tours



Commissioners toured Shingle Creek and the St. Johns River basins as part of a study to designate them as Special Protection Areas.

Lakeshore Protection Code Update

Healthy Lakes Need Living Lakeshores

Orange County is reviewing long-standing lakeshore protection codes to strengthen policies that safeguard lakes, ponds and streams amid Central Florida's continued growth.

Engage Orange Lakeshore Protection Webpage



Gopher Tortoise Conservation



A web mapper and brochure were created to show potential burrow locations and explain protections.



Wetland Code Update Awards



- Diamond Award for Excellence in Conservation and Countryside from the East Central Florida Regional Planning Council
- Resiliency Award from the National Association of Counties (NACo)



Water & Land Resources Management Section



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

Lake Management Program

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FULL-TIME ON-CALL

This program's mission is to manage 39 Municipal Service Taxing Unit/Municipal Service Benefit Units (MSTU/MSBU), also known as lake taxing districts, and 15 advisory boards. We manage and address local lake priorities including aquatic plant management, water quality improvement projects, general lake maintenance, navigation concerns and off-duty patrol services.

Aquatic Plant Management



The Lake Management program manages more than 16,000 acres of surface water by controlling invasive plants, promoting native biodiversity and improving recreation and safety.

Lake Taxing Districts

A new MSBU for Lake Hourglass was established following community engagement and a public hearing.



Chapter 8 Boats & Water Safety Ordinance



The program is updating the code to improve boater navigation and safety.

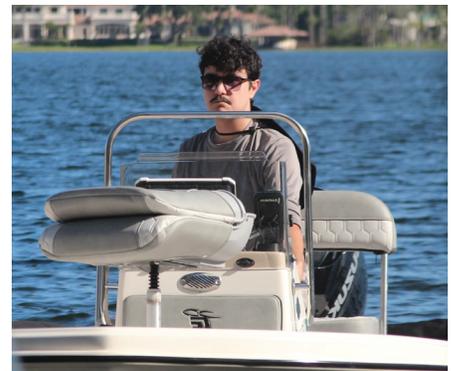
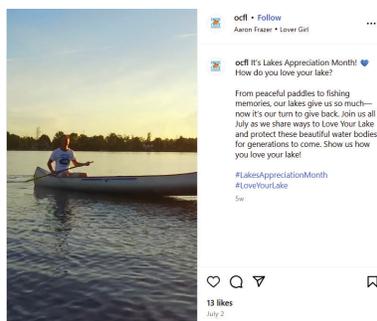
Best Management Practices



- Pounds of debris kept out of lakes using 901 filtration devices — 1,009,710
- Miles of roads swept — 5,306
- Triploid grass carp stocked on total of 1,468 acres of lakes — 1,436
- Acres of invasive aquatic plants treated with herbicides — 1,322
- Lakes stocked with triploid grass carp — 12
- Alum stormwater treatment facilities — 2

Lakes Appreciation Month

Lakes Appreciation Month social media posts promoted lake activities and triploid grass carp, reaching 2,755 impressions with 25 engagements.



Revisions add new boating safety zones, align the code with Florida's Uniform Waterway Marker Permit requirements, and remove outdated language. Updates are in partnership with the Florida Fish and Wildlife Conservation Commission and the Orange County Sheriff's Office.

Boating & Water Safety Webpage



Water Sciences Program

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FULL-TIME INTERNS

This 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.

Water Quality Monitoring



Staff sampled 662 sites in the Water Quality Trend Network Program and over 50 sites including special projects, Orange County Fire Rescue and NPDES samples.

Lab Activity



The Orange County EPD Lab is certified by the Florida Department of Health/National Environmental Laboratory Accreditation Program to ensure high-quality environmental testing. It is certified for E. coli, color, turbidity and chlorophyll a.

Sustainable Project of the Year Award



The Lake Gandy Water Quality Improvement Project was awarded Sustainable Project of the Year. EPD, Public Works and an engineering firm collaborated on the innovative design of wetland biofilter inlets, tree box inlets, a subsurface gravel wetland and upflow filtration systems that enhance water quality.

Microbial Source Tracking (MST)



In partnership with UCF, select water samples undergo genetic testing to identify the biological source of E. coli contamination. MST helps identify sources of bacterial impairment(s) in water bodies.

Biological Monitoring



- Lake Vegetation Index assessments — 19
- Stream Condition Index assessments — 7

Outreach & Education



- Shared the science and benefits of fertilizer ordinances at the Florida Stormwater Association Conference
- Informed property owners about new state septic rules and Orange County's Reimbursement Program for the Wekiva Priority Focus Areas via 6,500 postcards and NextDoor post
- Posted social media highlighting local water bodies and the Water Atlas
- Demonstrated water quality at Shingle Creek and St. Johns River Basin for Commissioners
- Performed and passed the 2025 Team Proficiency Testing for Lake Vegetation Index (LVI) Assessment



Knowledgeable

Integrity

Passionate

Teamwork

Dedication

Professional

Community-Focused



**ORANGE
COUNTY**
FLORIDA

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Planning, Environmental and Development Services Department**

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