



# FLORIDA DEPARTMENT OF Environmental Protection

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Lt. Governor

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Secretary

## LONG RANGE PROGRAM PLAN

Department of Environmental Protection

Tallahassee

September 30, 2019

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Tallahassee, Florida 32399-1300

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201 Capitol  
Tallahassee, Florida 32399-1300

Dear Directors:

Pursuant to Chapter 216, Florida Statutes, our Long Range Program Plan (LRPP) for the Department of Environmental Protection is submitted in the format prescribed in the budget instructions. The information provided electronically and contained herein is a true and accurate presentation of our mission, goals, objectives and measures for the Fiscal Year 2020-21 through Fiscal Year 2024-25. The internet website address that provides the link to the LRPP located on the Florida Fiscal Portal is <https://floridadep.gov/program-content/ADM/Budget-Planning>. This submission has been approved by Noah Valenstein, Secretary.

A handwritten signature in black ink that reads "Darica H. Smith".

Darica H. Smith, Chief of Staff



**Florida**

**Department of Environmental Protection**



# Long Range Program Plan



**Fiscal Years:  
2020-2021  
through  
2024-2025**

# Florida Department of Environmental Protection



## AGENCY MISSION:

The Florida Department of Environmental Protection protects, conserves and manages the state's natural resources and enforces its environmental laws.

**GOALS AND OBJECTIVES /**  
**AGENCY SERVICE OUTCOMES AND PERFORMANCE PROJECTION TABLES**

**GOAL #1 – PROTECT PUBLIC HEALTH AND SAFETY**

**OBJECTIVE 1A – Environmental Assessment and Restoration Program:** Increase the protection, conservation and restoration of Florida's water resources to meet existing and future public supply and natural systems needs.

**OUTCOME:** Percent of Florida’s freshwater surface waters that meet priority water quality criteria (total nitrogen, total phosphorus, and dissolved oxygen): 1) small lakes; 2) large lakes; 3) streams; and 4) rivers. (See Objectives 2A, 3B)

Small Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%

Large Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%

Streams (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%

Rivers (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%

**Projection Methodology and Influencing Factors**

Excessive nutrient (nitrogen and phosphorus) levels and impaired biological conditions are the most significant problems affecting surface waters in Florida. Historically, the Department used narrative criteria to determine

when a waterbody does not meet water quality standards because of an excessive level of nutrients, which is triggered when nutrient concentrations cause an imbalance of natural populations of flora or fauna or the discharge of nutrients causes violations of other water quality standards. After extensive scientific investigation and public participation, the Department adopted numeric nutrient criteria (NNC) to supplement and strengthen the narrative criteria. These federally approved NNC represent a more refined approach to identifying nutrient impacts and promoting water quality restoration.

Water quality trends over the last 20 years have shown improvements in nutrients and chlorophyll-*a* in estuaries and streams, with some degradation in lakes and springs. The application of the NNC, over time, will indicate that some waters determined in the past to meet the narrative criteria do not meet NNC, while others that have failed the narrative criteria in the past now meet NNC. This is because the implementation protocols for NNC are sensitive to biological health, not merely water chemistry, and to subtle trends in nutrient impacts. Thus, they provide a more accurate understanding of water quality. Adoption of NNC, and the related adoption of dissolved oxygen criteria in 2013, require the Department to expand how the outcome measure reflecting surface water quality is calculated and reported.

In order to provide an accurate and comprehensive depiction of water quality, the results for total nitrogen, total phosphorus, and dissolved oxygen are being reported individually by resource (waterbody) type. The standards are statewide measures of water quality based on statistically valid sample sizes with calculated levels of confidence. For example, a 94.5% total nitrogen result for small lakes with a confidence interval of  $\pm 1.6\%$  indicates that the room for error in the results is limited and if the same analysis were conducted many times the results would be expected to fall within that 3.2% ( $\pm 1.6\%$ ) interval.

**OUTCOME:** Percent of groundwater quality monitoring network wells that reflect good water quality (no exceedances of ground water quality standards). (See Objectives 2A, 3B)

Baseline Year: FY 2006-2007	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85%	85%	85%	85%	85%	85%

Projection Methodology and Influencing Factors

The Department determined the following percentages of groundwater wells met water quality standards during fiscal years 2009-2010 through 2017-2018:

- 2009-2010 – 85%
- 2010-2011 – 82%
- 2011-2012 – 85%
- 2012-2013 – 81.5%
- 2013-2014 – 80%
- 2014-2015 – 81.3% ( $\pm 4.55\%$ )
- 2015-2016 – 82% ( $\pm 4.48\%$ )
- 2016-2017 – 80% ( $\pm 4.60\%$ )
- 2017-2018 – 80% ( $\pm 4.60\%$ )

For this measure, the determination of whether groundwater wells meet water quality standards is based on statewide sampling for seven common analytes: arsenic, cadmium, chromium, fluoride, lead, nitrate+nitrite and sodium. Of the seven analytes examined, sodium is responsible for far more water wells failing groundwater standards than any other - commonly referred to as saltwater intrusion.

Improvements in groundwater quality, as reflected in this metric, will be difficult to achieve in light of the disproportionate influence of one analyte, sodium. The exceedance rates for analytes other than sodium during these years were either stable or decreasing. These are long-term trends that are unlikely to change rapidly but, with the exception of sodium, reflect generally good groundwater quality overall. This statewide measure is based on a statistically valid sample with a calculated level of confidence. The 80% result for Fiscal Year 2017-2018 has a confidence interval of  $\pm 4.60\%$ . This interval indicates that the room for error in the results is limited and if the same analysis were conducted many times the results would be expected to fall within that 9.20% ( $\pm 4.60\%$ ) interval. The result for the reporting year falls within an interval that includes the outcome standard for the current year and future year targets. Given this fact and considering the marginally lower ground water quality over the last several years, there is no basis for projecting improvement over the next five years.

Sodium results drive this measure. Because those results are substantially different from and unrelated to the results for the other analytes (pollutants), they have the effect of skewing water quality results associated with those pollutants. (The Department reports the results for each analyte separately in the water quality report cards on its webpage at <https://floridadep.gov/dear/watershed-monitoring-section/content/interactive-water-quality-report-cards>). Department reviews the results of the groundwater monitoring program annually and may in the future propose splitting the measure into two parts, one for sodium and one for the other analytes. The change would allow continued tracking of saltwater intrusion and promote a better understanding of the effect of the other pollutants (arsenic, cadmium, chromium, fluoride, lead, nitrate+nitrite) on groundwater. However, no change is proposed at this time, thus no Validity and Reliability Form is being submitted.

**OBJECTIVE 1B – Water Resource Management Program:** Increase the protection, conservation and restoration of Florida's water resources to meet existing and future public supply and natural systems needs.

**OUTCOME:** Percent of public water systems with no significant health-based drinking water quality problems.

Baseline Year: 2002	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
93.5%	95%	96%	97%	98%	98%

Projection Methodology and Influencing Factors

The Department’s Drinking Water Program has been meeting this goal annually for a number of years and should continue to do so. Federal rules, which the state must adopt, are subject to routine re-evaluation and, when changed, pose a compliance challenge as drinking water systems adjust to new monitoring and reporting requirements. Compliance is based on water quality standards including bacteria and disinfection by-products and is calculated as the number of water quality violations divided by the number of active systems in a given year. The Department has improved system compliance over the last few years and additional improvements will be implemented over time.

**OBJECTIVE 1C – Office of Emergency Response:** Reduce and control adverse impacts to public health and the environment from releases of hazardous materials and discharges of pollutants.

**OUTCOME:** Percent of pollutant discharge sites remediated by the responsible party/owner (Remediation by the responsible party/owner is defined as any action or contractual arrangement related to cleanup of a site). (See Objectives 3A, 4A)

Baseline Year: FY 2008-2009	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
76%	76%	76%	76%	76%	76%

Projection Methodology and Influencing Factors

One of the Department’s goals is to mitigate the impact to the environment in the event that a spill of hazardous materials occurs. This is accomplished by prompt on-site response, cleanup activities, and recovery of the cost of the cleanup and environmental damage from the responsible party. The Department’s Office of Emergency Response implemented the Oil and Hazardous Materials Incident Tracking (OHMIT) system in 2006 to improve records management and statistical reporting capabilities. The ability to record and track activity in real-time through the OHMIT system provides a sophisticated means of analyzing trends and projecting future results.

**OBJECTIVE 1D – Waste Management Program:** Ensure appropriate and timely cleanup of contamination.

**OUTCOME:** Percent of contaminated sites with cleanup completed.

Baseline Year: FY 2013-2014 (Projected)	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
47%	68%	69%	70%	71%	72%

Projection Methodology and Influencing Factors

The projected five-year outcomes for the Waste Management Program listed in the Performance Projection Tables above was developed based on several factors:

- Past experience in implementing the program;
- Changes in federal regulations, state statutes and administrative rules, as well as major regulatory deadlines or milestones to be implemented over the next five years;
- An extensive review and overhaul of the state-funded petroleum restoration program to improve its efficiency and effectiveness and implement a competitive procurement process for site rehabilitation services; and
- The Department’s continued focus on mission-critical activities.

The Department’s priority continues to be to maintain cleanup continuity on as many active cleanup sites as possible and to find new and innovative ways to close sites faster and reduce the site backlog. This can be achieved by eliminating programmatic inefficiencies, effectively using funding for drycleaning solvent contaminated site cleanup, implementing competitive procurement for contracted site rehabilitation services in the large state-funded petroleum restoration program, and continuing to use the Low-Scored Site Initiative to close more sites with a very low threat to human health and the environment.

Increased efforts on non-government funded waste cleanup sites has resulted in a greater number of determinations that there is no viable responsible party for the cleanup, which means that these sites are turned over to the state lead cleanup group. The increase in the number of sites added to the state lead cleanup list results in a decrease in the completion of “other sites” and necessitates the adjustment of the projections for these sites in the table above.

The number of known contaminated sites varies every year as new discoveries are made or accidental discharges may occur. The amount of time that is needed to complete cleanup activities is generally based on a number of factors such as the size and complexity of the site and the local site geology. As a result, the number of sites identified for cleanup activities can temporarily increase as the rate of site cleanup and closure may not keep pace with the rate of new site discoveries. The Department’s focus on the utilization of Risk Based Corrective Actions is expected to increase the cost-effectiveness of the selected cleanup strategies and ultimately increase site closure rates. Conversely, focusing on the lowest cost approaches, where appropriate, and switching from active cleanup strategies to longer-term natural attenuation approaches will decrease the rate of site closures for a period of time. However, the cumulative effect of these approaches is expected to lead to an overall improvement in the rate of site closures and is reflected in the outcome percentages above.

**OBJECTIVE 1E – Air Resources Management Program:** Provide an air monitoring network that retrieves quality assured data.

**OUTCOME:** Percent change in per capita annual emissions of priority pollutants (nitrogen oxides, sulfur dioxide, carbon monoxide, volatile organic compounds), compared to the level five years ago.

Baseline Year: FY 2002-2003	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
2.5%	-4.5%	-4.6%	-4.7%	-4.8%	-4.9%

Projection Methodology and Influencing Factors

The above projected outcomes are based on the assumption, supported by permitting actions and new regulations, that annual emissions per capita of the listed pollutants are being reduced despite historical population growth trends in the state.

**OBJECTIVE 1F – Air Resource Management Program:** Increase the time that monitored population will breathe good quality air.

**OUTCOME:** Percent of time that population breathes good or moderate quality air.

Baseline Year: FY 2002-2003	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
99.1%	99.52%	99.53%	99.54%	99.55%	99.56%

Projection Methodology and Influencing Factors

In Objective 1F, “good and moderate quality air” are defined in *Section 40 of the Code of Federal Regulations (Part 58, Appendix G), as part of the Air Quality Index (AQI)*. The “good and moderate” categories of the AQI include pollutant concentration less than the National Ambient Air Quality Standard. “Monitored Population” means population in any county that has one or more air monitors. The time the population breathes good or moderate quality air is determined by reviewing the percentage of days where the AQI was reported as “good or moderate”.

The above projections are based on the assumption, supported by decades of history, that the air quality in Florida is unlikely to change significantly. Ambient monitoring data has shown that even as the state population increases and as the EPA tightens standards, emissions continue to go down, maintaining a high level of good or moderate air quality.



**GOAL #2 – RESTORE AND PROTECT THE EVERGLADES**

**OBJECTIVE 2A – Water Resource Management Program and Environmental Assessment and Restoration Program:** Increase the protection, conservation and restoration of Florida's water resources to meet existing and future public supply and natural systems needs.

***Water Resource Management Program:***

**OUTCOME:** Percent of reclaimed water (reuse) capacity relative to total domestic wastewater capacity; percent of treated domestic wastewater reused for beneficial purposes. (See Objective 3B)

Baseline Year: FY 2013-2014	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
60% / 45%	64% / 45%	64% / 45%	64% / 45%	65% / 45%	65% / 46%

Projection Methodology and Influencing Factors

Florida’s annual reuse inventory provides a summary of facility listings and types of reuse activities and their capacities and is the basis for reporting this measure. It can be found at: <https://floridadep.gov/water/domestic-wastewater/content/reuse-inventory-database-and-annual-report>. Rule 62-610, F.A.C., requires owners (permittees) of domestic wastewater facilities having permitted capacities of 0.1 million gallons per day and above that provide reclaimed water for reuse to submit annual reports. The data from the annual reports are used to determine reuse capacity. Although the Department has continued to encourage reuse of reclaimed water, the statewide percentages of total reclaimed water capacity and domestic wastewater capacity have stabilized. However, Section 403.086, F.S., requires that ocean outfall facilities provide 60% reuse by December 31, 2025. It is anticipated that this requirement will eventually increase the reclaimed water capacity as well as the total domestic wastewater capacity.

***Environmental Assessment and Restoration Program:***

**OUTCOME:** Percent of Florida’s freshwater surface waters that meet priority water quality criteria (total nitrogen, total phosphorus, and dissolved oxygen): 1) small lakes; 2) large lakes; 3) streams; and 4) rivers. (See Objectives 1A, 3B)

Small Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%

Large Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%

Streams (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%

Rivers (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%

**OUTCOME:** Percent of groundwater quality monitoring network wells that reflect good water quality (no exceedances of water quality standards). (See Objective 1A, 3B)

Baseline Year: FY 2006-2007	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85%	85%	85%	85%	85%	85%

**OBJECTIVE 2B – Water Policy and Ecosystems Restoration Program:** To complete the scheduled restoration strategies milestones by the dates referenced in the Restoration Strategies Regional Water Quality Plan and associated documents.

**OUTCOME:** This is a pass/fail measure. Percent of scheduled restoration activities completed over the last year as required by the Restoration Strategies Water Quality Plan and associated documents.

Baseline Year: FY 2012-2013	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
100%	100%	100%	100%	100%	100%

Projection Methodology and Influencing Factors

To address water quality concerns associated with existing flows to the Everglades Protection Area, the South Florida Water Management District (SFWMD), Department and EPA engaged in technical discussions starting in 2010. The primary objectives were to establish a Water Quality Based Effluent Limit (WQBEL) that would achieve compliance with the State of Florida’s numeric phosphorus criterion in the Everglades Protection Area and to identify a suite of additional water quality projects to work in conjunction with the existing Everglades Stormwater Treatment Areas (STAs) to meet the WQBEL.

Based on the collaborative effort described above, a suite of projects have been identified that would achieve the WQBEL. The Restoration Strategies Regional Water Quality Plan ([http://floridadep.gov/everglades/files/sta/restoration\\_strat\\_regional\\_plan.pdf](http://floridadep.gov/everglades/files/sta/restoration_strat_regional_plan.pdf)) describes those resulting projects and the evaluation tools and assumptions that were utilized in the technical evaluation. The projects have been divided into three flow paths (Eastern, Central and Western), which are delineated by the source basins that are

tributary to the existing Everglades STAs. The identified projects primarily consist of Flow Equalization Basins, STA expansions, and associated infrastructure and conveyance improvements.

Each project milestone verifies timely progress and implementation of the Restoration Strategies Regional Water Quality Plan, with the ultimate goal (post 2025) of meeting the WQBEL standard for total phosphorus in discharges to the Everglades Protection Area. Additional information on the required activities and schedule can be found on page 5 at the following link: [http://floridadep.gov/everglades/files/sta/CO\\_EFA\\_12-1149\\_08152012.pdf](http://floridadep.gov/everglades/files/sta/CO_EFA_12-1149_08152012.pdf)

**GOAL #3 – PROTECT FLORIDA’S WATER RESOURCES**

**OBJECTIVE 3A – Office of Emergency Response:** Reduce and control adverse impacts to public health and the environment from releases of hazardous materials and discharges of pollutants.

**OUTCOME:** Percent of pollutant discharge sites remediated by the responsible party/owner (remediation by the responsible party/owner is defined as any action or contractual arrangement related to cleanup of a site). (See Objectives 1C, 4A)

Baseline Year: FY 2008-2009	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
76%	76%	76%	76%	76%	76%

**OBJECTIVE 3B – Environmental Assessment and Restoration Program and Water Resources**

**Management Program:** Increase the protection, conservation and restoration of Florida's water resources to meet existing and future public supply and natural systems needs.

***Environmental Assessment and Restoration Program:***

**OUTCOME:** Percent of Florida’s freshwater surface waters that meet priority water quality criteria (total nitrogen, total phosphorus, and dissolved oxygen): 1) small lakes; 2) large lakes; 3) streams; and 4) rivers. (See Objectives 1A, 2A)

Small Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%	85% / 90% / 90%

Large Lakes (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%	85% / 70% / 95%

Streams (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%	65% / 75% / 80%

Rivers (total nitrogen / total phosphorus / dissolved oxygen).

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%	70% / 82% / 95%

**OUTCOME:** Percent of groundwater quality monitoring network wells that reflect good water quality (no exceedances of water quality standards). (See Objectives 1A, 2A)

Baseline Year: FY 2006-2007	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
85%	85%	85%	85%	85%	85%

**Water Resource Management Program:**

**OUTCOME:** Percent of reclaimed water (reuse) capacity relative to total domestic wastewater capacity; percent of treated domestic wastewater reused for beneficial purposes. (See Objective 2A)

Baseline Year: FY 2013-2014	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
60% / 45%	64% / 45%	64% / 45%	64% / 45%	65% / 45%	65% / 46%

**Water Resource Management Program:**

**OUTCOME:** Percentage of critically eroded miles of beaches that are currently restored and maintained.

Baseline Year: FY 2016-2017	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
55.8%	55.8%	55.8%	55.8%	55.8%	55.8%

Projection Methodology and Influencing Factors

This outcome is a measure of the percentage of beaches that are designated as critically eroded under active management. Management begins with initial restoration and includes periodic maintenance through beach nourishment. Verification of maintenance is provided through permit required project completion certification, field inspection and construction contract auditing.

**GOAL #4 – PROTECT FLORIDA’S NATURAL AND ENVIRONMENTAL RESOURCES**

**OBJECTIVE 4A – Office of Emergency Response:** Reduce and control adverse impacts to public health and the environment from releases of hazardous materials and discharges of pollutants.

**OUTCOME:** Percent of pollutant discharge sites remediated by the responsible party/owner (remediation by the responsible party/owner is defined as any action or contractual arrangement related to cleanup of a site). (See Objectives 1C, 3A)

Baseline Year: FY 2008-2009	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
76%	76%	76%	76%	76%	76%

**OBJECTIVE 4B – Waste Management Program:** Promote sound waste management practices.

**OUTCOME:** Percent of municipal solid waste recycled.

Baseline Year: FY 2013-2014	FY 2020-2021	FY 2021-2022	FY 2022-2023	FY 2023-2024	FY 2024-2025
50%	75%	75%	75%	75%	75%

Projection Methodology and Influencing Factors

The projected five-year outcomes for the Waste Management Program listed in the Performance Projection Tables were developed based on several factors:

- Past experience in implementing the program;
- Changes in state statutes and administrative rules, as well as major regulatory deadlines or milestones to be implemented over the next five years; and
- The Department’s continued focus on mission critical activities.

The waste reduction program continues to focus on the statewide recycling goal of 75% of municipal solid waste by 2020 pursuant to Section 403.7032, F.S. The 2010 Legislature enacted comprehensive recycling legislation setting benchmarks for the goal, and the 2012 Legislature revised the factors used to calculate progress. The first benchmark was for the 34 counties over 100,000 in population to recycle 40% of recyclable solid waste by December 31, 2012, with the goal increasing every two years through 2020. The statewide recycling rate for calendar year 2017 is 52%. Though Florida achieved the interim goals established for 2012 and 2014; Florida’s current recycling rate of 52 percent, falls short of the 2016 interim recycling goal of 60 percent. As a result of falling short of the 2016 interim goal the Department submitted a report to the 2017 Legislature identifying additional programs and statutory changes that should be considered to achieve the goals set forth in Section 403.706, F.S. The report found that in order to make meaningful lasting advancements in Florida’s recycling practices, the state should take under consideration the following three prong recycling enhancement approach: 1) focus on education; 2) increased local government assistance; and 3) market incentives.

## LINKAGE TO GOVERNOR'S PRIORITIES

The Florida Department of Environmental Protection (Department) is pleased to present its Long Range Program Plan (LRPP) for Fiscal Year 2020-2021 through Fiscal Year 2024-2025.

### *Department of Environmental Protection Summary Overview*

The Department is the lead agency in state government for environmental management and stewardship, and is responsible for protecting Florida's air, water and land. The vision of the Department is to create strong community partnerships, safeguard Florida's natural resources and enhance its ecosystems. The Department is divided into three primary areas: Regulatory Programs, Land and Recreation, and Ecosystem Restoration. Florida's environmental priorities include restoring and protecting the water quality in our aquifers, springs, lakes, rivers and coastal waters; restoring America's Everglades; ensuring effective statewide water management and source water protection reducing waste; improving air quality; conserving and restoring environmentally sensitive lands; and providing residents and visitors with recreational opportunities, now and in the future. The Department is committed to providing superior customer service, carrying out its responsibilities cost-effectively, and continuously measuring and improving environmental results.

### *Governor DeSantis' Priorities*

Governor DeSantis has made environmental protection and water quality improvement a centerpiece of his administration. Through his Executive Order and efforts to secure unprecedented levels of legislative budget support, the Governor has laid out a comprehensive strategy for environmental protection that will support other select statewide issues addressed through the following priorities.

#### 1. Restore and Protect Florida's Environment

- Secure \$2.5 billion over 4 years to improve water quality, quantity, and supply.
- Prioritize Everglades' restoration, and the completion of critical Everglades' restoration projects.
- Prevent fracking and off-shore oil drilling to protect Florida's environment.

#### 2. Improve Florida's Education System

- Increase access to and expand options for quality educational choices for Florida families.
- Revamp Florida's curriculum to lead the nation and expand civics and computer education.
- Maintain the Florida higher education system's status as number one in the nation while still making necessary adjustments to improve it.
- Provide quality career and technical education options for Florida's students and workforce.

#### 3. Economic Development and Job Creation

- Focus on diversifying Florida's job market, including a focus on an expansion of the financial services and technology sectors.
- Maintain Florida's status as a low-tax state and continue to find opportunities to reduce taxes and fees.
- Reduce existing regulations and stop any new regulations that do not serve the public health, safety and welfare.
- Prioritize infrastructure development to meaningful projects that provide regional and statewide impact, especially focused on safety and improved mobility.

#### 4. Health Care

- Focus resources on continuing to combat the opioid crisis and substance abuse in general and addressing mental health.
- Promote innovation in healthcare that reduces the cost of medical procedures and services and increases access to care for Floridians.
- Reduce the cost of prescription drugs through state and federal reform.

#### 5. Public Safety

- Fully coordinate and cooperate with the federal government on the enforcement of immigration law.
- Support local and state law enforcement's ability to investigate and prevent criminal activity.
- Develop and implement comprehensive threat assessment strategies to identify and prevent threats to the public.
- Continue efforts to enhance safety in our schools.

#### 6. Public Integrity

- Protect taxpayer resources by ensuring the faithful expenditure of public funds.
- Promote greater transparency at all levels of government.
- Hold public officials and government employees accountable for failure to serve the public interest at all times.

#### ***Department of Environmental Protection's Priorities:***

The Department has developed a set of strategic goals that support its vision and priorities, provide direction to its employees and complement the Governor's priorities. The Department's six strategic goals are:

- Florida has the largest and most successful restoration program in the world and will continue water quality improvements within the Everglades protection area and increase clean freshwater deliveries to the Everglades protection area.
- Leverage Florida's leadership in conservation stewardship through strategic acquisitions and recreational networks.
- Manage environmental impacts by meeting environmental regulatory standards.
- Utilize the most advanced water protection programs in the nation to continue to improve water quality by preventing pollution and ensure future water supply needs.
- Ensure solutions, resources and ideas are shared to advance the mission of the Department to protect, conserve and manage Florida's natural resources through a commitment to communities and employees.
- Continue to lead the nation with the most advanced coastal resiliency program by assisting communities in mitigating the risks of sea level rise, addressing the threats to coral reefs and protecting Florida's beaches.

#### ***Contribution and Alignment of the Department's Priorities with Governor DeSantis' Priorities:***

The following section highlights the Department's priorities and associated programs that most closely align with and support select key priorities of the Governor.

## **GOVERNOR'S PRIORITY #1 – RESTORE AND PROTECT FLORIDA'S ENVIRONMENT**

The Department supports the Governor's efforts to secure unprecedented funding levels for Everglades Restoration along with funds for all the Governor's initiatives to achieve more now for Florida's environment. These initiatives include Springs Restoration, targeted alternative water supply, targeted water quality improvement projects, innovation technologies, land acquisition, coastal resiliency, and beach nourishment.

The Department is implementing a series of Everglades projects that will meet increased water storage needs and continue to improve water quality. The projects will include land acquisition, design and survey work along with water quality studies. The Department has also communicated to the federal Department of Interior the Governor's opposition to oil and gas drilling in the Gulf of Mexico, including opposition to proposed lease sales off Florida's coasts.

The water management and nutrient issues contributing to algal blooms in Lake Okeechobee and the downstream estuaries have been building for decades. Combating algal blooms requires a combination of long-term restoration projects as part of the greater Everglades restoration initiative, as well as short-term actions. DEP's projects and actions will increase storage and better manage water levels in the lake, reduce nutrient loading, and treat water entering and leaving the lake.

To further address these water quality issues, the Department established the Blue-Green Algae Task Force. The Governor secured funding for research and innovative technology to support the work of the Task Force. The Task Force provides a forum to connect Florida's world-class university system with DEP's high-caliber scientists and community leaders to combine the state's resources and increase collaboration to utilize data and research to expedite results.

Florida's outstanding freshwater springs continue to face complex challenges from excess nutrients and decreasing spring flows. As springs provide economic and recreational benefits to Florida's communities, as well as reflect the health of the groundwater that supplies 90 percent of Florida's water, springs protection remains a crucial component of Governor's efforts to protect Florida's environment. The Department is continuing its efforts over the past several years to assess and restore Florida's Outstanding Springs. Springs funding is used for projects that will reduce nutrient pollution, save water to improve springs flow and conserve land surrounding springs.

## **GOVERNOR'S PRIORITY #2 – ECONOMIC DEVELOPMENT AND JOB CREATION**

One key way the Department fosters economic and sustainable growth is by promoting, and often underwriting, responsibly planned wastewater, drinking water, stormwater and solid waste management facilities. A high quality local environmental infrastructure:

- Assures healthy natural resources
- Attracts job-creating business and industry
- Increases property values
- Supports the exceptional quality of life that Floridians and visitors have grown to expect



The Department continuously examines and adapts its business processes to make sure customers—permit applicants, local governments and citizens—get prompt, professional service. Processing time for permits were reduced by 65% over the last 10 years; the Department continues its efforts to streamline permitting and minimize time to take final agency action on permit applications. Regulatory process improvement, whether eliminating ineffective regulations, streamlining permitting actions or increasing education and outreach is fundamental to the Department’s regulatory approach. The Department will continue rolling out new e-permitting and other e-business tools each year. Transacting business through direct exchanges of information speed up agency response, save staff time, improve data quality and public access, and provide the opportunity to make better management decisions. In addition, the Department continues to expand its outreach and compliance assistance actions, promoting environmental stewardship to prevent environmental harm before it takes place.

The Department has also formed a work group to further evaluate ideas for regulatory improvements and define ways the programs can share information and resources necessary to achieve improvements. The goal is to review the current lines of communication between regulatory and restoration programs to identify ways programs across the agency could better work together to “achieve more now” to improve water quality. The focus is primarily directed towards the water quality challenges experienced in South Florida, but ideas for improved processes, revised regulations, and enhanced communication and training will benefit all areas of the state.

### **GOVERNOR’S PRIORITY #5 – Public Safety**

At the Governor’s recommendation, the Legislature approved the transfer of the Environmental Crimes Enforcement from the Florida Fish and Wildlife Commission to DEP. This action will improve DEP’s ability to protect the environment from criminal environmental actions while maintaining record compliance and its investment in public education. The Environmental Crimes and Enforcement unit will complement the Department’s efforts on promoting environmental protection and compliance with Florida’s environmental laws by hosting a record number of training, educational and outreach events. The enforcement unit will also support the Department’s use of enforcement action as an important compliance tool. Moving the investigations and criminal enforcement unit to DEP better aligns and integrates resources focused on environmental protection and public safety.

### **GOVERNOR’S PRIORITY #6 – Public Integrity**

To ensure greater accountability and transparency, the Department has implemented two of the Governor’s directives to appoint a Chief Science Officer and create an Office of Environmental Accountability and Transparency. The Chief Science Officer will work closely with the Office of Environmental Accountability and Transparency to coordinate and prioritize the scientific data, research and analysis needs to ensure alignment with the current and emerging environmental concerns most pressing to Floridians, as well as the agency’s priorities. This position will collaborate with the scientific community on behalf of DEP and with other DEP scientific experts to provide unbiased analysis for key issues to further DEP’s ability to provide information, recommendations and take actions based on sound scientific evidence. The Chief Science Officer should also collaborate closely with the Florida Department of Health to ensure a shared focus on health impacts related to contaminants of emerging concern.

The Office of Environmental Accountability and Transparency is charged with organizing and directing integrated scientific research and analysis to ensure that restoration projects, environmental programs and enforcement and monitoring actions are aligned with key priorities. The Office also ensures that agency priorities are associated with metrics, so that the agency can demonstrate measurable, goal-oriented outcomes to taxpayers.

## **TRENDS AND CONDITIONS ANALYSIS**

### **Introduction**

The Department's LRPP is goal-based, with a five-year planning horizon designed to establish agency priorities and policies for the future. The Department has evaluated all services, activities and expenditures to determine whether they should be continued, modified or eliminated. The plan gives context to the agency budget and presents a snapshot of where the agency is, where it intends to go, and how it intends to get there.

The responsibilities of the Department are wide-ranging and include:

- Providing reliable and valid laboratory analyses and technical interpretations (Chapters 403 and 373, F.S.).
- Conducting and reporting on geoscience research to support natural resource conservation needs including water, minerals and aggregate; maintaining geological samples and data that characterize Florida's natural systems (Chapter 377, F.S.).
- Regulating inland oil and gas exploration and production; conducting and reporting on research to support that regulation (Chapter 377, F.S.).
- Providing programming, network services, desktop support, data management, data storage and data integration to support agency information technology needs (Chapter 282, F.S.).
- Increasing the miles of critically eroded beaches under active beach management to protect, preserve and restore the state's beach coastal systems (Chapters 161, 253, 258, 373 and 403, F.S.).
- Assessing and improving the quality and ecological health of Florida's rivers, streams, lakes, wetlands, estuaries, coastal systems and groundwaters (Chapters 20, 370, 120, 211, 369, 373, 374, 376, 378, 380, 403 and 487, F.S.).
- Increasing available water supplies, including alternative water supplies, and promoting efficient water use and conservation to meet existing and future water supply needs (Chapters 20, 120, 373, 376 and 403, F.S.).
- Assuring adequate collection, treatment, disposal and reuse by Florida's domestic and industrial wastewater facilities (Chapter 403, F.S.).
- Assuring appropriate management of stormwater to reduce flooding and protect surface water and groundwater quality (Chapters 373 and 403, F.S.).
- Assuring adequate treatment, distribution, and delivery of drinking water by Florida's public water systems (Chapter 403, F.S.).
- Securing, equitably distributing, and managing funds to assist local governments and other entities finance wastewater, stormwater, drinking water, alternative water supplies, and other water-related infrastructure and activities and beach projects (Chapters 161 and 403, F.S.).
- Promoting sound waste management and ensuring appropriate and timely cleanup of environmental contamination (Chapters 376 and 403, F.S.).
- Increasing recreational opportunities for public use within the state park and greenways and trails systems (Chapters 258, 260 and 375, F.S.).
- Protecting Florida's submerged lands and coastal uplands (Chapters 253, 258 and 373, F.S.).
- Identifying strategies to maximize the protection and conservation of ocean and coastal resources while recognizing their economic benefits (Chapters 161 and 380, F.S.).
- Carrying out Florida's responsibilities under the federal Clean Air Act, including assuring compliance with ambient air quality standards and enforcing U.S. Environmental Protection Agency emission standards for hazardous air pollutants (Chapters 403, 316, 320 and 376, F.S.).

- Coordinating the siting of electrical power plants, electric transmission lines and natural gas transmission pipelines (Chapter 403, F.S.).
- Reducing and controlling adverse impacts to public health and the environment from releases of hazardous materials and discharges of pollutants (Chapters 252, 376 and 403, F.S.).
- Acquiring land for conservation, recreation and water resource protection (Chapters 253 and 259, F.S.).
- Serving as Florida's land steward for administering the management of its publicly owned lands and land records (Chapters 253, 258 and 259, F.S.).

The Department is charged with the protection and restoration of Florida's natural and environmental resources. To this end, a wide range of strategies is implemented: regulation, cleanup, restoration, land acquisition and conservation, education, recreation, technical assistance, financing, research, and planning. In achieving its mission over the next five years, Department staff will continue to exemplify the values of openness, accountability, and dedication to the public interest and focus on creative solutions beyond simple prescriptive regulation to solve environmental problems.

Change is the one constant in environmental protection, and the rate of technological change in every aspect of government and the private sector presents opportunities, challenges and risks. Technology-driven gains in productivity and efficiency are accompanied by exponentially increasing streams of data demanding ever-faster analysis and decision-making. Data are no substitute for judgment, however, and it will be human choices and leadership that set new directions in governance to enhance Florida's quality of life.

## **AGENCY OVERVIEW AND PROGRAM DISCUSSION**

The Department is one of the most diverse agencies in state government. More than 2,907.5 agency employees serve the people of Florida. The Department's responsibilities go well beyond the routine functions of environmental agencies in many other states that protect air quality, water quality and ensure proper waste management. It also is responsible for a nationally recognized state park system, 11 state greenways and trails and other spectacular outdoor areas open for public enjoyment. The agency manages the *Florida Forever land acquisition and management program, through which* sensitive lands are purchased for conservation and recreation, preserving these lands from future development; it also administers all state-owned submerged lands under Florida's public trust doctrine.

The Department is uniquely challenged by the sheer area of Florida and the diversity of its natural resources. In a state as vast as Florida, government services must be brought as close to the people as possible. The Department accomplishes this through its six regionally located district regulatory offices, five regionally situated state park offices, and field-based initiatives and programs around the state. These offices are staffed with professionals who are charged with helping Floridians serve as good stewards of the state's air and water quality and its unique wild lands and habitats.

The remainder of the analysis focuses on the Department's 11 programs and 16 Service Categories. These programs carry out various activities in order to achieve identifiable goals. Each program contains one or more Service Categories, or Budget Entities, which represent the lowest level to which program funding is provided. While these programs have been established for a single media (air resources management, waste management, water resource management, etc.), the services within each program work cooperatively. Each service must be considered a piece of a much larger whole: protection and restoration of Florida's environment. For additional programmatic, organizational and contact information, please visit the Department's website at [floridadep.gov/](http://floridadep.gov/).

## **MAJOR INITIATIVES FOR ACHIEVING THE DEPARTMENT'S PRIORITIES**

### ***Community Impact and Effective Partnerships***

One of the Department's priorities is to focus taxpayer resources on projects that provide a direct benefit to the environment and local communities. To meet this goal, the Department sponsors critical water restoration projects. This financial assistance takes the form of grants and loans and is used for projects that improve water quality and quantity. Projects include improving stormwater quality, reducing pollutants that enter surface water and groundwater (including springs), collecting and treating sanitary wastewater, producing and distributing drinking water, restoring and nourishing beaches as well as reclaiming mined land. The projects are primarily undertaken by counties and municipal entities, falling within the following programs:

- Nonpoint Source Management
- Beach and Mining Funding Assistance
- Clean Water State Revolving Fund
- Drinking Water State Revolving Fund
- Program Management for State Revolving Fund
- Deepwater Horizon Program
- Legislative Projects and Springs Projects

The Department is responsible for Fixed Capital Outlay (FCO) in each year's General Appropriations Act. The FCO supports financial assistance to local governments and other stakeholders for water quality infrastructure projects and best management practices that improve the quality and quantity of water.

Monitoring and assessment of Florida's surface and ground waters are cornerstones of the Department's water quality protection program and critical to supporting restoration projects. In 2014, Florida became the only state in the nation to adopt comprehensive nutrient standards for the protection of lakes, rivers, streams, springs, estuaries, and coastal waters. In addition, Florida has collected significantly more water quality data than any other state. The Department uses this data to assess whether individual waterbodies have significant nutrient (nitrogen and phosphorus) problems, adopt nutrient restoration goals, calculate protective effluent limits for wastewater dischargers, and adopt basin-wide restoration plans.

#### *Five Year Strategy:*

The Department is focused on providing communities with the resources to support key needs for the environment and the economy. To maximize these efforts and better leverage state funding, the Department is improving its partnerships with communities and businesses. Supporting these efforts are the monitoring and assessment of water resources that will bring the best science to restoration projects and water quality standards. Community investment priorities for meeting these needs include continuing to provide:

- Grant support to promote the restoration of Florida's impaired watersheds and improved overall water quality.
- Coordination and management of funds associated with the Deepwater Horizon Oil spill for projects including land acquisition, habitat restoration, coastal and marine species protection, water-quality improvements, and new or enhanced coastal public access facilities in the panhandle and along the Gulf Coast of Florida.

- Loans and grants for drinking water, wastewater and stormwater infrastructure and treatment projects. These investments support public health, pollution control and economic development.
- Funding for beach management and nourishment to provide protection to upland structures, critical habitats, recreation and tourism.
- Enhance joint program interaction and cooperation to develop projects that cross program boundaries to better leverage resources for the best environmental outcome. (Examples are septic to sewer, advanced wastewater treatment, increased centralized septage disposal capacity, and stormwater cleanup.)

The Department will also carry out critical monitoring and assessment activities that will support effective restoration projects and allow for effective interpretation of the numeric nutrient criteria. Specific efforts include continued adoption of:

- Total Maximum Daily Loads (TMDLs—specific waterbody restoration targets). Since 2011, the Department has adopted 152 water quality restoration goals and an average of approximately 20 TMDLs per year. As of May 2019, the Department has adopted a total of 426 TMDLs.
- Water restoration plans (known as basin management action plans, or BMAPs), which outline actions to protect and restore impaired waters. In total, the Department has adopted 31 BMAPs, covering a total of more than 13 million watershed acres. These restoration plans are developed and implemented collaboratively with stakeholders to ensure the long-term protection of Florida's water resources.
- Critical water-quality criterion and restoration goals to limit nitrogen pollution in all of Florida's springs. For springs not meeting the criterion, the Department will continue to set restoration goals and develop restoration plans for those spring watersheds but will also include plans for protecting unimpaired springs from future impacts. The Department adopted 13 BMAPs in June 2018 that focus on the restoration of Florida's impaired Outstanding Florida Springs. Eight of these springs BMAPs are in effect as of May 2019. Five of the BMAPs are pending the resolution of legal challenges.

## *America's Everglades*

America's Everglades is an international treasure. Known as the River of Grass for the sawgrass that flourishes throughout the marsh, the Everglades is a one-of-a-kind ecosystem that supports a diverse wildlife population with its mosaic of habitats, including sawgrass prairies, hardwood hammocks, cypress swamps, coastal lagoons, mangroves and pinelands. This unique ecosystem stretches southward from the Kissimmee Chain of Lakes, to Lake Okeechobee, then through the remaining Everglades and on to the waters of the Florida Bay, an area covering 18,000 square miles.

Everglades restoration is an enormous undertaking, and involves a combination of research, planning, engineering, construction, operation, land acquisition, and monitoring utilized to different degrees in different areas of the overall ecosystem based on the particular needs of those areas. The remaining projects and activities will take place over the course of decades. The summaries below give a broad overview of the current circumstances and projects and the work anticipated over the next five years. Much more information, including the plans referenced in the text below, is available on the Department's Everglades Restoration website at <https://floridadep.gov/eco-pro>.

### Restoration Efforts

The Department and the South Florida Water Management District (SFWMD) are implementing three major ongoing, overarching ecosystem restoration programs: Comprehensive Everglades Restoration Program (CERP) and Foundation Projects, Northern Everglades and Estuaries Protection Program (NEEPP) and Restoration Strategies. Each initiative consists of multiple projects that are in multiple phases and serve a unique purpose.

### *Five Year Strategy:*

Restoration features are dependent on authorizations and/or funding from the federal government, the SFWMD Governing Board, and the Florida Legislature. Priorities may shift among items and priorities (identified by our customers) over the course of the 5-year planning period and are subject to change. Over the next five years, the strategy for restoring the greater Everglades involves permit application review and issuance, funding, targeted land acquisition, design, engineering, construction, and operations or implementation efforts associated with the following projects:

**CERP and Foundation Projects:** Florida has partnered with the U.S. Army Corps of Engineers in implementing the largest ecosystem restoration project in the nation's history: the 30-year, Comprehensive Everglades Restoration Plan (CERP). CERP, funded by an unprecedented 50-50 state/federal cost-share, is improving the quality, quantity, timing and delivery of water to the ecosystem. CERP consists of 68 projects developed by an interdisciplinary team with extensive research experience in the South Florida ecosystem using the best available data and state-of-the-art scientific and engineering methodologies. Key current and upcoming projects:

- C-111 South Dade (Contracts 8, 8A and 9) - Complete
- C-111 Spreader Canal (Florida Bay Initiatives) - in operations
- Tamiami Trail Modifications: Next Steps Project - remaining road raising in cooperation with National Park Service and FDOT - planning/design
- Kissimmee River Restoration Construction
- Combined Operations Plan for C-111 South Dade and Modified Water Deliveries to Everglades National Park Projects CERP/Critical
- Central Everglades Planning Project: EAA Reservoir, S-333 Upgrade and Old Tamiami Trail Removal -planning/design/construction
- C-43 West Basin Storage Reservoir - contract 4 under construction starting summer 2019



- Indian River Lagoon South: C-44 Reservoir, C-44STA, C-23, C-24, C-25 and Allapatah Flats
- Picayune Strand Restoration Project – Miller Pump Station with associated hydrologic improvements, Southwest Protection Features and project operations
- Southern Corkscrew Regional Ecosystem Restoration Watershed Critical Project - Complete
- Herbert Hoover Dike Culvert Repair and Rehabilitation
- Kissimmee River Restoration Headwaters Revitalization
- Biscayne Bay Coastal Wetlands – Cutler Flow Way and remaining portion of the L-31E culverts
- Broward Water Preserve Areas: C-11 Impoundment and WCA 3A/3B Seepage Management
- Ten Mile Creek Reservoir and Stormwater Treatment Area - Complete
- Loxahatchee River Restoration Project
- Western Everglades / Seminole Big Cypress Critical Project
- Lake Okeechobee Watershed Project
- Lake Okeechobee System Operations Manual (Replacement for LORS 08)

**NEEPP:** June 2007 legislation passed creating the Northern Everglades and Estuaries Protection Program (NEEPP). This legislation expands the Lake Okeechobee Protection Program to safeguard and restore the entire Northern Everglades system, focusing on the Caloosahatchee and St. Lucie river basins, and calls for the development of far-reaching plans to protect and improve the quality, quantity, timing, and distribution of water north of Lake Okeechobee. Current and future projects include:

- Taylor Creek/Nubbin Slough Stormwater Treatment Areas Operations
- Dispersed Water Management projects on SFWMD owned lands
- Emergency and Interim Water Storage to address releases from Lake Okeechobee to the Caloosahatchee and St. Lucie River Estuaries
- C-43 BOMA – Water Quality Treatment and Testing
- Lake Hicpochee Construction
- Rolling Meadows Wetland Restoration
- Lakeside Ranch STA Phase I Performance and Phase II Construction
- Hybrid Wetland Treatment Technology Performance (Lemkin Creek & Grassy Island)
- Istokpoga Marsh Improvement District Water Quality Project
- Various other projects identified in the Northern Everglades Lake Okeechobee Phase II Technical Plan and St. Lucie and Caloosahatchee River Watershed Protection Plans

**Restoration Strategies:** Restoration Strategies is a long-term plan for water quality improvements for discharge into the Everglades Protection Area. It is a series of storage, treatment and conveyance improvements designed to treat stormwater runoff from the Everglades Agricultural Area and send it south. Current and future projects include:

- STA-1 West 4,700 Acre Expansion #1 Construction - Complete
- Eastern Flow-path Flow Equalization Basin (L-8 FEB) - Complete
- S-5A Divide Structure Modifications Operations - Complete
- S-375 Structure Expansion (G-716) Operations - Complete
- L-8 Divide Structure (G-541) Operations - Complete
- A-1 FEB Operations - Complete
- STA-1 East Repairs and Modifications
- Bolles/Cross Canal (G-341 Conveyance) Construction and Operations
- STA-1W 1,800 Expansion #2 Design
- C-139 FEB Design

- STA 5/6 Internal Stormwater Treatment Area Improvements – Design and Construction
- C-139 Restoration Annex Construction and Operations

## *Resource Management*

Florida's award-winning state park system is managed to ensure that Florida State Parks and Coastal and Aquatic Managed Areas are accessible for the use, enjoyment and benefit to Floridians and our visitors. The primary goals of the state parks are to:

- Improve the quality of natural resources through long-term planning, restoration and maintenance.
- Promote and encourage resource-based recreation while conserving the natural values of the land and preserving its cultural resources.

**Florida Park System:** Florida State Parks are sustained for future generations and to create strong community partnerships, safeguarding Florida's natural resources and enhancing its ecosystems. They also provide appropriate, high quality resource-based outdoor recreational, interpretive and educational opportunities that help visitors connect to "*the Real Florida*<sup>SM</sup>." The park system includes 175 parks, recreation areas, special feature sites and state trails, encompassing nearly 800,000 acres of land and 100 miles of beaches. The operation of these parks not only enhances the quality of life for Floridians, but also provides a major attraction for visitors. The Florida State Park system creates a sense of place and is recognized as containing the best of Florida's diverse natural and cultural heritage.

**Resilience and Coastal Protection:** The Office of Resilience and Coastal Protection are also available for recreational opportunities and include submerged lands and their associated marine and aquatic resources in Florida, specifically those with exceptional biological, aesthetic and scientific value as aquatic preserves. These areas offer prime opportunities for fishing, boating, swimming, paddling and other water-related recreation. The Department manages 41 aquatic preserves, including 37 saltwater and four freshwater systems, encompassing more than 2.2 million acres of sovereign submerged lands. In cooperation with the National Oceanic and Atmospheric Administration (NOAA), the Department also manages approximately 400,000 acres of submerged land and coastal uplands in three national estuarine research reserves: Apalachicola, Guana Tolomato Matanzas, and Rookery Bay. In addition, the Department partners with NOAA and the Florida Fish and Wildlife Conservation Commission to manage the Florida Keys National Marine Sanctuary, which contains 2,900 square nautical miles of submerged lands around the 126-mile long Florida Keys and encompasses the most extensive living coral reef system in the nation.

### *Five Year Strategy:*

The Department is focused on improving the quality of natural resources and coastal communities through long-term planning, restoration, and maintenance. In addition, the Department is continuing efforts to improve park conditions and enhance access to outdoor recreational opportunities, so even more Floridians and visitors can enjoy Florida's award-winning state parks.

- Move more acres within Florida State Parks from a restoration condition to a more natural and less labor-intensive maintenance condition.
- Bring all management zones into maintenance condition for both upland and aquatic areas.
- Involve local, state and federal natural resource managers, data providers, researchers and partners to identify and assess ecological indicators and to develop a decision support tool to better understand the status of aquatic resources.
- Improve land management through improved restoration: meet goals for prescribed burns and exotic plant removal, and removal of destructive animals such as feral hogs.
- Improve the quality of natural resource management and increase stakeholder engagement through the process of updating land and aquatic preserve management plans.

- Implement Point of Sale System, work to create new concession operations, and expand the Reservation System.
- Expand opportunities to engage local communities in state park planning and encourage local development of outdoor recreation opportunities.
- Systematically improve park campgrounds, cabins, roadways, infrastructure and other facilities.
- Develop strategies to attract youth, minorities and future generations to visit and support parks.
- Through the Florida Resilient Coastlines Program, the Department continues its efforts to help ensure collaboration among Florida's coastal communities, and to offer technical assistance and funding to coastal communities dealing with increasingly complex flooding, erosion and habitat shifts.

The Department and numerous partners from federal, state and local governments, universities, nongovernmental organizations and the South Florida community have been collaborating and working together on a multifaceted response effort to Stony Coral Tissue Loss Disease.

### ***Regulatory Effectiveness***

Critical regulations that safeguard the environment and public health must be maintained. The Department has participated in a review of agency regulations and is repealing those that provide no environmental value.

The Department has also streamlined its permitting processes, achieving a nearly 65 percent improvement in the time to reach final permitting decisions since 2010. One key to streamlining permitting is the Department's business portal (<https://floridadep.gov/sec>) where an increasing number of permits, exemption, payment, and reporting transactions can be conducted online.

The Department continues to expand its outreach and compliance assistance actions, promoting environmental stewardship and trying to prevent air and water quality problems rather than reacting to them once the damage is done. These efforts include providing pre-application assistance to property owners and businesses applying for permits and offering compliance seminars for consultants and industry representatives to promote better understanding of state and federal rules governing environmental impacts.

#### *Five Year Strategy:*

Over the next five years the Department will:

- Take advantage of every opportunity to streamline permit processing through the adoption of exemptions, certifications, and general permits that retain or advance environmental and public health protection.
- Consolidate and eliminate rules and permit processes that are duplicative or no longer have environmental value.
- Expand online permitting, reporting, payments, and other business transactions through its Business Portal.
- Exploit other technologies to solve problems suited to technological solutions without losing site of the common sense, low-tech solutions.
- Continue to expand the agency's Management Dashboard to measure performance and environmental outcomes and adapt programs and strategies to promote continuous improvement and better outcomes.
- Focus on those regulations essential to safeguarding the environment and public health.

- Increase outreach and educational efforts, while expanding assistance to regulated homeowners, businesses, industries and industry representatives, contractors, engineering and environmental consultants, and other stakeholders to prevent noncompliance and environmental harm.
- Increase the rate of compliance inspections to all regulated facilities.
- Target enforcement against chronic and egregious violators to deter future noncompliance and deliver the message to potential violators that there will be consequences if found in violation of environmental rules and statutes.

## PROGRAM NARRATIVE

### *ADMINISTRATIVE SERVICES*

The Administrative Services areas include Executive Direction and Support Services and the Office of Technology and Information Services. These programs provide leadership, direction and support services to the agency. As the agency continues to look for new and more efficient ways to deliver its services to the people of Florida, the demand for services rendered by programs in the Administrative Services area is expected to increase. Numerous initiatives are underway to improve technology support, enhance customer service, broaden communication with the public, increase transparency and ensure accountability, and technology based solutions to streamline administrative and regulatory processes. To the greatest extent possible, the Administrative Services programs contemplate meeting these challenges utilizing existing resources. Automation and process improvements with increased reliance on technology are used by the Department to mitigate the need for additional resources.

#### Executive Direction and Support Services

The Executive Direction and Support Services provide leadership, direction and services to the agency and the public. Specific services provided are executive leadership and direction to the programs; training and development, audit and investigation; legal counsel; internal and external communication; customer service; planning, budget, financial and other support services.

#### Information Technology

The Office of Technology and Information Services (OTIS) provides information technology (IT) support services to the Department's divisions and offices in Tallahassee, six regulatory and five park districts distributed across the state. OTIS manages the Department's communications and networking infrastructure, messaging systems and enterprise databases. OTIS also provides or manages application development and maintenance services; geographic information systems support; an enterprise service desk; contract management and procurement services; project management and business analysis support; and IT strategic planning and technical standards oversight.

OTIS continues to assess the Department's infrastructure, application portfolio and services to forecast expenditures, avoid significant risk, effectively use resources, and support the Department's priorities including Protecting Florida Together initiatives. These activities may result in future Legislative Budget Requests and will drive parts of OTIS' Work Plan for the foreseeable future. Over the next two years, OTIS will focus on the following major initiatives:

- ***Employee enablement through digital initiatives:*** The Department is establishing the framework to empower its staff to work more efficiently and to develop innovative solutions through their daily work. Examples include:
  - Facilitate drone imagery and data acquisition to better understand environmental changes and concerns.
  - Increase data literacy and proficiency in the use of the Department's data visualization tool to help answer some of the Department's tough environmental question and inform operational improvements.
  - Expansion of the Department's application Platform as a Service (aPaaS) to allow business area staff to fine-tune interactions with applications to meet changing needs.
  
- ***Automation Initiatives:*** Multiple automation and digitization efforts aim to enhance the public's experience when interacting with the Department. This includes software to facilitate grant management and administration, providing web-based self-service permitting options, developing

mobile compliance inspection software, expansion of online services through the business portal, and modernizing infrastructure in the Department's remote offices to prepare for future digital initiatives.

- **Cloud Migrations:** The Department will continue to migrate applications that are ready to move to the cloud. The Department has migrated approximately 40 percent of its application portfolio to the cloud over the past few years. Cloud hosting of applications and services allow for:
  - Built-in disaster recovery – where systems can be configured to automatically fail over to a variety of geographic regions
  - Scalability – provides the ability to increase capacity of systems when necessary (such as during emergency response)
  - Cost Savings – typically realizes significant cost savings over traditional data center services
  - Reliability – services have proven to be extremely reliable which reduce IT and business area down-time
  - Greater agility – allows new infrastructure components to be created and deleted quickly
- **Application Modernization:** The Department's application portfolio includes some older technologies such as Oracle Forms and Active Server Pages. The Department continually assesses applications running on these older technologies to decommission, replace, or rewrite them using a modern application platform.
- **Infrastructure Modernization:** Onsite and point of sale services are an important and growing part of how visitors interact with the Department's Parks. The Department will continue to improve connectivity in these remote locations and develop plans to connect those locations that are currently without Internet access.
- **Improved Security:** The Department has made continual improvements to its information technology security posture over the past few years. Examples include firewall improvements, focused security training for key staff, and implementation of a secure email gateway. While these changes have made a noticeable difference, the Department plans to further strengthen its position by focusing on IT security staffing, updating its application portfolio security architecture and implementing an identity management solution.

The Department serves as the coordinating agency for Geographic Information Systems (GIS) and geospatial data. Along with several Department focused efforts on data collection, analysis, and conveying environmental data to the public, the Department will be engaged in the following statewide initiatives:

- Develop a GIS Portal for Federal, State and local partners to share, edit and analyze secure spatial data for joint initiatives such as coral bleaching, blue green algae blooms, and PFAS contamination.
- Transfer the My Florida Open Data Portal created by the GIS Workgroup to the GIO's AGO account to provide the public a single, seamless discovery and access site for all of Florida's state agency and partner organizations' spatial data, by referencing individual portals.
- Other GIS-focused initiatives as prioritized in Florida's GIS Strategic Plan.

## **Department Organization**

The Department's Executive Leadership directs a highly professional staff organized into three major services, each led by a Deputy Secretary. These services - Regulatory Programs, Ecosystem Restoration and Land and Recreation - have separate statutory authorities and responsibilities but are integrated across these boundaries through intra-agency teams and ad hoc working groups. The primary programs in each of the three services are summarized below. More information is available from the agency's website at <https://floridadep.gov/>.

### ***REGULATORY PROGRAMS***

The Deputy Secretary for Regulatory Programs is responsible for six primary program areas that implements a diverse range of programs to protect and restore air and water quality, clean up contamination, provide technical and laboratory assistance, conduct emergency response, reduce coastal erosion and finance local environmental infrastructure. The major budgetary components comprising the Regulatory Programs are the Florida Geological Survey, Office of Emergency Response, District Offices, Air Resources Management, Waste Management and Water Resource Management. The core components of these programs are described in the following sections.

#### Florida Geological Survey

The Department's Florida Geological Survey (FGS) collects, maintains, interprets, and disseminates geoscience information. Maps, data, and scientific publications of the FGS are used by local, state, and federal government agencies, industry, environmental consultants, and the public. FGS geoscience information is used to guide regulatory, water, economic mineral, energy resource, and land management decisions that support environmental protection, restoration and conservation efforts. Geoscience information also provides critical input to local and regional economic development plans. FGS resources and services are routinely applied toward aquifer and springs protection, land-use planning, mineral resource characterization and assessment, sinkhole hazard mitigation and assessment, alternative water supplies, aquifer vulnerability, groundwater sustainability, and to address water-quality issues. Geoscience research has been demonstrated by economists to yield a high return on investment; for example, every dollar invested in geologic mapping can realize nearly a \$30 savings through use of geologic maps to address societal needs. Conducting geologic field work and continued analysis of geologic samples within the state's geological sample repository support discovery of water, mineral, and energy resources as well as provides a better understanding of Florida's geologic framework. The FGS anticipates an increasing need for geologic resources in support of Florida's economic prosperity and a growing population.

#### Office of Emergency Response

The Department's Office of Emergency Response (OER) provides systematic oversight for environmental response and preparedness, including organizational internal readiness. Pollutant discharges or releases of hazardous materials can threaten public health, the environment and Florida's economy if they are not effectively and rapidly controlled. Field responders handle incidents involving oil and hazardous substances, including biomedical wastes that present an imminent hazard, or threat of hazard, to the health, welfare and safety of the public or environment. OER oversees hazardous materials forensics for administrative and criminal cases and provides staffing and coordination of statewide response efforts at the State Emergency Operations Center during declared disasters.

OER's professional field responders are augmented by response assistants from the Department's regulatory district compliance and assistance programs. These responders provide incident assessment, hazard identification and response 24 hours/day, seven days/week. On a yearly basis, responders handle an average of 2,400 incidents, including on-scene emergency cleanup and resource damage assessment.



Responders work together attentively with other state agencies to provide efficient mitigation and response services to the community. Responsible parties generally cleanup sites while responders provide oversight and technical assistance. However, if the responsible party is unknown or uncooperative, OER responders conduct the cleanup using contracted resources and seek reimbursement from the responsible party whenever possible. OER has overseen or otherwise been responsible for remediating an average of 740 sites on a yearly basis.

### Regulatory District Offices

The Department's six district regulatory offices in Pensacola, Jacksonville, Orlando, Tampa, Ft. Myers and West Palm Beach provide closer, more personal interaction with regulated interests and citizens across Florida. The districts are generally the Department's front line in permitting, compliance, enforcement and in helping the public, local governments and businesses better understand and protect Florida's natural resources. District offices work with citizen groups, trade associations and business organizations to identify local priorities and solve local problems. Each district office is under the charge of a Director of District Management that manages day-to-day program responsibilities, policy implementation, office administration, budgeting and accounting, public outreach and other administrative functions. District programs also respond to policy direction from the Department's regulatory division counterparts in the Air, Waste and Water programs.

District office staff conduct essential components of the permitting, compliance, enforcement, compliance assistance and public outreach responsibilities for the following Department programs: air, domestic and industrial wastewater, drinking water, environmental resource permitting, solid and hazardous waste, storage tank regulation, and waste cleanup. District core responsibilities broadly include:

- Timely reviewing and acting on permit applications;
- On-site compliance inspections;
- Environmental monitoring;
- Reviewing air and water quality data, including waste cleanup data;
- Complaint response;
- Case referrals, penalty assessments, expert testimony and other enforcement activities;
- Technical guidance and compliance assistance to regulated entities;
- Public outreach and education; and
- Emergency response.

The district offices process the vast majority of permit applications in the Department. The Department tracks the processing time for thousands of permit applications received every year to gauge efficiency and public service. In 2011, the average total time to process a permit was 32 days. As of May, 2019, the average total time to process a permit is 15.3 days. Timely permitting decisions promote economic activity, while good permitting decisions assure that Floridians enjoy the highest possible quality of life. The districts also conduct the majority of agency site and facility inspections. The on-site review of the practices and performance of regulated entities allows the Department to maintain compliance rates of 90 percent or better in most programs.

The Department's six district offices protect Florida's natural resources and serve as positive forces within their local communities. As Florida continues to grow and develop and remains among the top vacation destinations in the world, environmental pressures will grow as well. Strong district office operations are essential if Florida is to maintain environmentally sustainable growth and a vibrant economy.

## Water Resource Management

The Department's Division of Water Resource Management (DWRM) administers programs that are responsible for the protection of Florida's coastline, rivers, lakes, estuaries, springs, aquifers and millions of acres of open water and wetlands. It works particularly closely with the Department's Division of Environmental Assessment and Restoration, the Division of Water Restoration Assistance, and Florida's five Water Management Districts. Day-to-day permitting and compliance programs are implemented largely in the Department's six regulatory district offices.

### *Water Reuse*

Florida's reclaimed water (reuse) program is by far the most successful in the United States, both in terms of total and per capita reuse. DWRM promotes reuse of highly treated wastewater for irrigation, ground water recharge, architectural uses and natural systems enhancement to ensure that Florida's water resources are productively used not wasted. DWRM's rigorous treatment and operational requirements assure public health protection. According to the 2018 Reuse Inventory, approximately 67 percent of Florida's wastewater treatment capacity is devoted to reuse of which about 48 percent of the wastewater is productively reused every day. The table on the following page reflects current reuse activities in Florida ("mgd" signifies million gallons per day).

Reuse Type	Number of Systems <sup>(a)</sup>	Reuse Capacity <sup>(b)</sup> (mgd)	Reuse Flow <sup>(b)</sup> (mgd)	Reported Area <sup>(b, c)</sup> (acres)	Adjusted Area <sup>(b, c)</sup> (acres)
Golf Course Irrigation	187	316.6	125.7	69,666	73,822
Residential Irrigation	141	445.7	230.4	157,845	178,096
Other Public Access Areas & Other	156	250.1	99.4	43,765	53,300
<b>Public Access Areas &amp; Landscape Irrigation Subtotal</b>	<b>245</b>	<b>1012.4</b>	<b>455.5</b>	<b>271,276</b>	<b>305,217</b>
Edible Crops <sup>(d)</sup>	16	29.5	10.1	10,567	10,567
Other Crops	111	132.9	55.3	21,344	24,093
<b>Agricultural Irrigation Subtotal</b>	<b>119</b>	<b>162.4</b>	<b>65.4</b>	<b>31,911</b>	<b>34,660</b>
Rapid Infiltration Basins	181	209.2	89.3	6,361	6,396
Absorption Fields	10	3.4	1.5	146	146
Surface Water Augmentation	0	0	0	NA	NA
Injection	1	3.0	2.4	NA	NA
<b>Ground Water Recharge &amp; Indirect Potable Reuse Subtotal</b>	<b>186</b>	<b>215.6</b>	<b>93.2</b>	<b>6,507</b>	<b>6,542</b>
At Treatment Plant	101	92.3	66.0	881	881
At Other Facilities	43	144.3	71.0	4,898	4,898
<b>Industrial Subtotal</b>	<b>120</b>	<b>236.6</b>	<b>136.9</b>	<b>5,789</b>	<b>5,779</b>
<b>Toilet Flushing</b>	14	2.3	1.0	NA	NA
<b>Fire Protection</b>	1	2.0	0	NA	NA
<b>Wetlands</b>	15	101.0	44.1	5,112	5,188
<b>Other Uses</b>	6	3.2	0.6	4	7
<b>2018 Totals</b>	<b>429</b>	<b>1735.4</b>	<b>796.7</b>	<b>320,589</b>	<b>357,393</b>
<b>2017 Totals</b>	<b>430</b>	<b>1,689.5</b>	<b>812.5</b>	<b>322,604</b>	<b>358,979</b>
<b>% Change</b>	<b>-0.7%</b>	<b>+2.7%</b>	<b>-1.9%</b>	<b>-0.6%</b>	<b>-0.4%</b>

*Note:*

- (a) The numbers of systems are not additive since a single system may engage in one or more reuse activity.
- (b) Discrepancies in column totals are due to internal rounding associated with the development of this summary table; totals presented in table are calculated without rounding individual values.
- (c) Some facilities did not report the acreage where reclaimed water was applied. For a better representation of the actual acreage, the averages of the reported areas were used to adjust the acreage totals to include the non-reported values.
- (d) About 75 percent of total area for edible crops is citrus – including oranges, grapefruit and tangerines.

*Submerged Land Protection*

Protecting wetlands is critical to preserving water quality and wildlife habitat, including breeding and fledging areas. They are also vital to slowing the flow of stormwater runoff and reducing flooding. DWRM and district staff review activities that alter surface water flow or affect wetlands and other surface waters, including activities affecting sovereign (state-owned) submerged lands. The Environmental Resource Permit (ERP) program is implemented in conjunction with Florida’s five Water Management Districts and two local governments (Broward and Hillsborough counties) under agreements that clearly divide responsibilities by type and location of activity.

The following table reflects statewide wetland gains and losses in the context of the ERP program from October 2013 through September 2018.

**Permitting Actions and Wetland Gains and Losses (acres) Authorized by the ERP Program**

10/13 to 9/18	Individual Permits issued (includes WMD Std GPs)	Applications Denied	Applications Withdrawn	Exemptions Verified	General Permits Verified	Acreage Permanently Lost	Acreage Temporarily Disturbed	Acreage Preserved	Acreage Created	Acreage Improved	Mitigation Bank Credits Used
NWFWMD	747	0	88	225	388	214.59	1.88	310.65	1.68	196.75	*
SWFWMD	7994	162	857	1957	248	3424.63	472.92	9542.39	1001.93	1021.36	*
SJWMD	4281	27	804	149	1092	2591.87	94.39	7089.28	241.80	6350.60	1257.71
SFWMD	7181	41	633	415	351	4814.67	*	13945.30	1882.69	29631.73	2077.02
SRWMD	287	2	30	249	241	183.28	253.84	270.56	65.43	444.56	10.37
WMD Subtotal	20490	232	2412	2995	2320	11229.04	823.03	31158.18	3193.53	37645.00	*
DEP	7188	225	2647	27876	5595	1339.33	18.16	69.82	13.31	33.90	*
Grand Total	27678	457	5059	30871	7915	12568.37	841.19	31228.00	3206.84	37678.90	*

The 2012 Legislative Session brought major changes to ERP through passage of House Bill 7003, which required the Department to adopt a streamlined rule, applicable statewide, to increase consistency and clarity in ERP program implementation. The Statewide Environmental Resource Permitting (SWERP) rule (62B-330, F.A.C.) became effective in October 2013, (referred to as SWERP I) and improved consistency and streamlined the e-permitting process. The Department finalized additional revisions to 62B-330, F.A.C., in 2018, to provide additional clarification and rule revisions (referred to as SWERP II).

In 2017, the Florida Legislature granted authority to the Department to seek assumption of 404 dredge and fill permitting from the U.S. Environmental Protection Agency (section 373.4146, F.S.). The Department is currently working on the assumption application package. Revisions to 62B-330, F.A.C., and the creation of 62B-331, F.A.C., are necessary to fulfill the requirements of the assumption submittal.

*Drinking Water*

In addition to protecting, conserving and reusing Florida’s water supply, the Department must ensure that drinking water produced from this supply is properly treated and arrives safely at the tap. Florida has more than 5,114 drinking water systems serving its nearly 20.7 million residents and more than 116.5 million annual visitors. The Department regulates the quality of the drinking water as it is treated and distributed to consumers and works with providers to safeguard ground water and surface water sources. Florida’s stringent drinking water quality standards are adopted in Rule 62-550, F.A.C., and are almost entirely based on federal requirements that are re-evaluated continuously and regularly updated. The drinking water program is implemented in conjunction with the Florida Department of Health.

The Department also implements a comprehensive Source Water Assessment and Protection (SWAP) program to assess potential sources of pollution to public drinking water supplies. Local governments, other interested parties and the public can use the assessments to develop local pollution prevention strategies. SWAP results are available, county-by-county, at <https://fldep.dep.state.fl.us/swapp/search.asp>, with general information at <https://fldep.dep.state.fl.us/swapp>. Assessments are refined and published as new data is obtained.

### *Coastal Protection and Restoration*

Florida's 825 miles of sandy shoreline fronting the Atlantic, the Gulf and the Straits of Florida attract millions of people annually. Coastal areas are critical to protecting Florida's ecology, public health, safety and welfare, providing unique wildlife habitat and a buffer against storms.

There currently are 419.6 miles of sandy beaches in Florida identified as critically eroded, of which 55 percent are actively managed and maintained by local, state and federal agencies to reduce the impacts of erosion. Erosion results from hurricanes and tropical storms, imprudent coastal development, normal storm systems, and other natural processes. The largest contributors to man induced erosion are artificial and altered inlets that interrupt the normal long shore transport of sand. Imprudent upland development in close proximity, to the shoreline, has destabilized protective dunes in critically eroded shoreline areas.

DWRM determines shoreline conditions and trends, restores and manages critically eroded beaches, and protects the beach and dune system through the following programs:

- Beach erosion control, through implementation of the Statewide Strategic Beach Management Plan.
- Regulation of coastal construction that could have a physical effect on coastal processes seaward of the mean high-water line and seaward of the coastal construction control line.
- Coastal monitoring to characterize long-term shoreline erosion trends to improve beach management, planning and regulatory reviews.
- Emergency Storm Response activities through post storm windshield surveys and post storm hurricane reports.

DWRM's beach program also plays a critical role in Florida's emergency response activities, including damage assessments, emergency permitting and coordination with other state and federal response agencies.

### *Beach & Mining Funding Assistance Program*

The Beach and Mining Funding Assistance Program in DWRM provides grants to local governments for the planning and implementation of beach and inlet management projects, which provide protection for upland structures, infrastructure, critical habitat, recreation and tourism. Activities eligible for program funding include beach restoration and nourishment, design and engineering studies, environmental studies and monitoring, inlet management planning, inlet sand bypassing (transfer), dune restoration and vegetation, and beach erosion control alternatives. Projects must be accessible to the public, located within an area designated as "critically eroded," and be consistent with strategies listed in the statewide Strategic Beach Management Plan.

The Beach and Mining Funding Assistance Program also manages grants for the reclamation of eligible phosphate lands mined before July 1975, when the regulatory requirement for reclamation was introduced in statute. As the cost of reclamation often exceeds land value, an incentive program was needed for private land owner participation. This nonmandatory mined land reclamation program improves environmental and economic utility of lands by removing safety hazards and improving water quality and quantity. Program funding is provided through severance fees paid by active mining operations. Reclamation using these funds has been ongoing and thousands of acres have been funded and reclaimed. Per statute, no additional applications were accepted by the Department after January 2005.

### *Mining and Mitigation*

DWRM administers mining and minerals regulatory programs to ensure restoration of mined lands and protection of water quality, water quantity and wetlands at mines extracting phosphate, heavy minerals, fuller's earth, limestone, dolomite and shell, gravel, sand, dirt, clay, peat and other solid resources. According to the U.S. Geological Survey's Mineral Commodity Summaries for 2018, states in the U.S. produced more than \$82.2 billion's worth of nonfuel mineral commodities. Florida ranked sixth with a nonfuel raw minerals production valued at \$3.55 billion and accounts for nearly 4.19 percent of the U.S. total. Florida's principle minerals production in order of value are phosphate rock, stone (crushed), cement (portland), sand and gravel (construction) and zirconium concentrates.

Florida ranks first in phosphate rock production, however, production of both phosphate and marketable products is estimated to be lower in 2018 compared to the prior year because of temporary idling of certain operations in Florida. In 2018, Florida and North Carolina provided approximately 75 percent of the nation's total domestic phosphate fertilizer. Florida ranks third nationally in crushed stone production (limestone and dolomite) which is primarily used for road construction. Florida ranks fourth nationally in cement production. Although Florida does not rank in the top 10 states in sand and gravel (construction) production, its production is extremely important to economic growth in the state. Two firms produce heavy minerals (titanium, ilmenite and rutile) from surface mines in Florida and Virginia. Florida's zirconium concentrates are a co-product of its heavy minerals mining operations. Lastly, of note, Florida and Minnesota are the leading producers of peat in the United States.

DWRM implements the ERP program for the protection of water resources and the control of stormwater at mines. This includes requirements to mitigate for impacts to wetlands. DWRM also requires the reclamation of land disturbed by mining operations. For phosphate mines, the requirement to reclaim disturbed land began July 1, 1975. Between July 1975 and December 31, 2016, 263,372 acres have been disturbed by mining operations and 194,324 acres (74 percent) have been reclaimed.

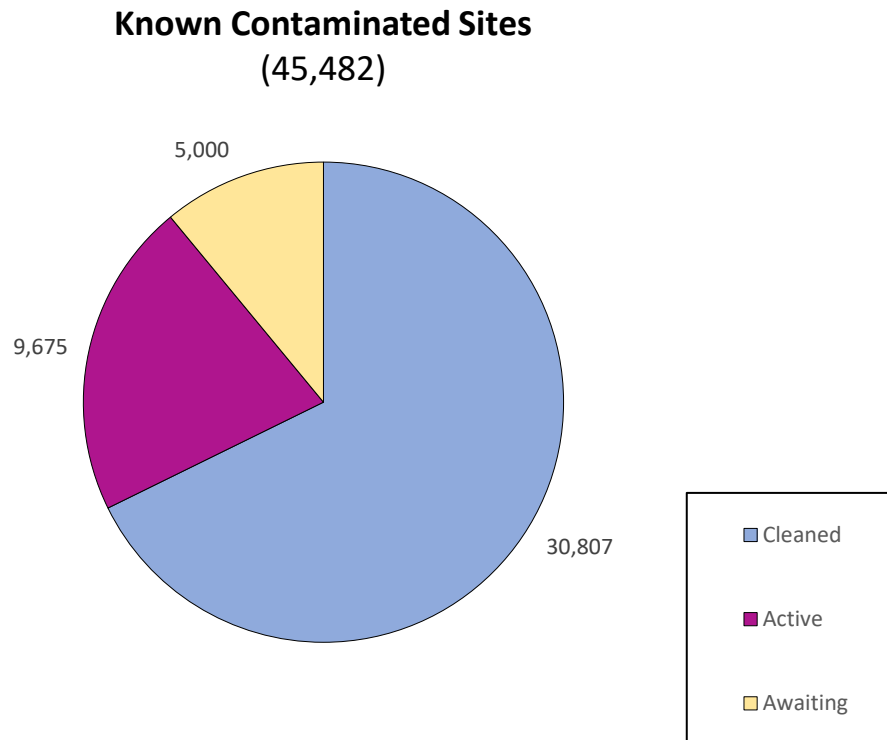
DWRM implements an innovative Integrated Habitat Network to guide permitting and reclamation and to promote the conservation of critical lands in the central Florida phosphate-mining district.

### *Oil and Gas*

DWRM's Oil and Gas Program regulates onshore exploration, drilling and production of crude oil and natural gas. The Program is tasked with implementing the state laws created to ensure conservation of oil and gas resources; protection of correlative rights; maintenance of health and human safety and environmental protection.

## Waste Management

The Department's Division of Waste Management (DWM) protects public health and the environment through management and regulation of solid and hazardous waste and petroleum storage tanks along with the cleanup of soil, ground water and surface water contamination. Cleanup is funded by government programs or by responsible parties through voluntary actions or enforcement. The universe of known contaminated sites and the status of cleanups are illustrated in the chart below.



The two largest taxpayer funded cleanup programs are Petroleum Restoration Program and Drycleaning Solvent Cleanup. The Department addresses other contaminated sites as well, including orphan hazardous waste sites, sites on state-owned lands, Superfund sites, Resource Conservation and Recovery Act (RCRA) sites and federal facilities contaminated sites in partnership with the U.S. Department of Defense.

The Department promotes cleanup and reuse of contaminated property and economic revitalization of local communities through the Petroleum Advanced Cleanup Redevelopment program and designation and remediation of brownfields. The Petroleum Restoration Program has spent \$8.3 million on 10 Advanced Cleanup Redevelopment projects since the program's inception on July 1, 2017. The total number of brownfields increased from 25 areas in 1999 to 480 areas as of May 2019, with 350 executed Brownfield Site Rehabilitation Agreements. Voluntary cleanup of contaminated sites has increased due to Brownfield Program incentives and the Voluntary Cleanup Tax Credit program. With the July 1, 2018, authorization, the Department has issued 959 voluntary cleanup tax credit certificates totaling more than \$90 million since inception of the tax credit program in 1998.

The Department ensures that regulated entities comply with state environmental laws and federally delegated environmental program requirements through permitting, compliance assistance, compliance verification, enforcement, investigations, assessments and review of technical documents. Cleanup of non-government funded contaminated sites is achieved through voluntary cleanup, the Brownfield Redevelopment Program and enforcement involving responsible parties. For Fiscal Year 2018-19,

cleanup will be underway at more than 3,654 contaminated sites through enforcement actions or voluntary cleanup.

Priority areas for the Waste Management Program in Fiscal Year 2019-20 include:

- **Permit Streamlining and Regulatory Consistency:** A major effort is underway to streamline permitting and improve consistency in compliance and enforcement involving permitting templates and increased review and oversight by DWM over district permitting and enforcement, and guidance on compliance inspection priorities. In Fiscal Year 2018-19, the waste programs processed 98 solid waste permits, 12 hazardous waste permits and more than 28,117 registrations, certifications and other authorizations.

- **Recycling:** DWM continues to focus on the statewide recycling goal of 75 percent of municipal solid waste by 2020 pursuant to Section 403.7032, F.S. In 2010, the Florida Legislature enacted comprehensive recycling legislation setting benchmarks for the goal while the 2012 Legislature revised the factors used to calculate progress. The first benchmark was for counties with a population over 100,000 to recycle 40 percent of recyclable solid waste by December 31, 2012, with the goal increasing every two years through 2020. The statewide recycling rate for calendar year 2018 was 49 percent. The Department's Recycling Business Assistance Center is



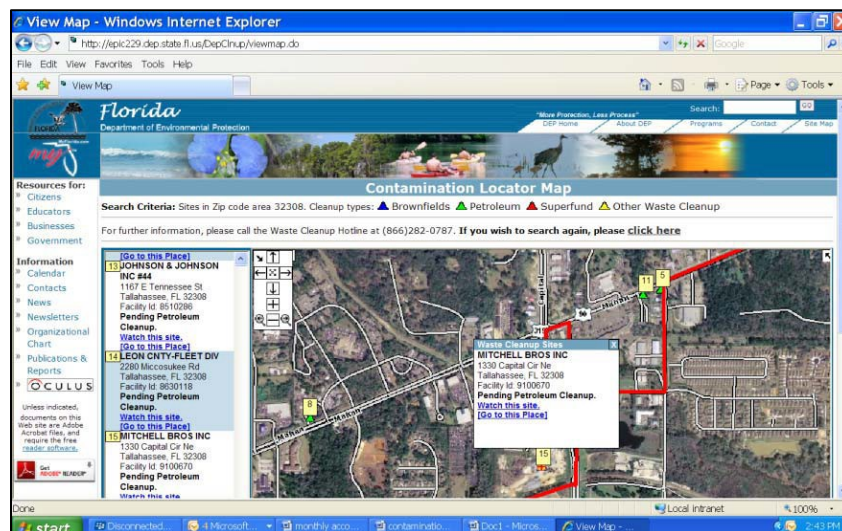
working to expand and enhance the markets for recyclables in Florida (see <https://floridadep.gov/waste/waste-reduction/content/recycling-business-assistance-center>). Businesses can also access the Florida Recycling Loan Program for capital to purchase equipment and machinery to expand recycling capacity; information is available at <https://floridadep.gov/waste/waste-reduction/content/recycling-loan-program>

- **Petroleum Cleanup:** DWM continues to implement changes to the Petroleum Restoration Program (PRP) to improve the efficiency and cost effectiveness of the program. This has been accomplished by refining the contractor selection process to emphasize contractor performance on future assignments. In addition, the PRP remains committed to assessing all remaining discharges in five years. The most significant achievement is the record number of annual site closures that have been achieved for the past two consecutive years that are the result of efficiencies introduced in the PRP.
- **Discharge Prevention:** DWM has created a mobile application tool (<http://dep.state.fl.us/waste/categories/tanks/default.htm>) designed to assist gasoline filling station operators to prepare for a compliance inspection. The goal of the video is to help prevent releases of petroleum products into the environment. The video was released in four languages: Spanish, Creole, Hindi and English.
- **Waste Cleanup:** DWM continues to review known responsible party contaminated sites that have existed for years without completing cleanup and newer sites that are not moving steadily through site rehabilitation. The review evaluates progress and legal options to compel more timely and effective action by responsible parties and, if no responsible parties are engaged in cleanup, more rigorous efforts by the Department to determine responsibility. DWM also monitors the universe of known contaminated sites to identify those that warrant higher priority for immediate action, including a determination as to the extent of contamination on and off the source property, whether a source is continuing to release contaminants, whether contamination is spreading and whether people are exposed to contamination.
- **Information Technology (IT) Initiatives:** Investing in IT is essential to improving efficiency, providing quality data for sound management decisions, increasing transparency and making information easy for the public to access. IT projects in operation or under development in DWM include:



- **OCULUSTM** – DWM’s electronic document management system provides public access to millions of documents and has saved money by reducing file room space.
- **FIRST/SWIFT** – These field applications increase the efficiency and accuracy of inspections, data entry and reporting for the Department’s tanks, hazardous waste and solid waste programs. In Fiscal Year 2018-19, the application was upgraded to full compatibility with the Windows 10 operating system and support was transitioned to application maintenance rather than development. In Fiscal Year 2019-20, ongoing maintenance will address any performance issues or new requirements.
- **CLM** – The Contamination Locator Map is an online tool that allows anyone to locate waste contamination sites in the vicinity of any identified location in Florida; it also has a subscription system to notify subscribers when cleanup milestones have been reached at the selected site.
- **ADaPT** – This automated data processing tool evaluates and reports ground water data from permits and sampling reports associated with DWM’s programs, eliminates paper reports and saves considerable time in reviewing and reporting data.
- **DEP Business Portal** – DWM continues to expand online services for registrations and authorizations through the Department’s Business Portal. To date, fourteen Enterprise Self Service Authorizations (ESSA) flows have been added to the portal.
- **ERIC** – The Environmental Restoration Integrated Cleanup (ERIC) project consolidates and modernizes the input, validation, analysis and reporting of cleanup data from several different DWM databases and will include ArcGIS mapping data. The ERIC system was brought into production in 2014 and the process of migrating the legacy systems to ERIC is underway. Multiple data migrations have occurred starting in Fiscal Year 2015-16 with the goal of a consolidated system with a unified tracking system for the waste cleanup sites in the state by 2020.

### Contamination Locator Map



### Air Resources Management

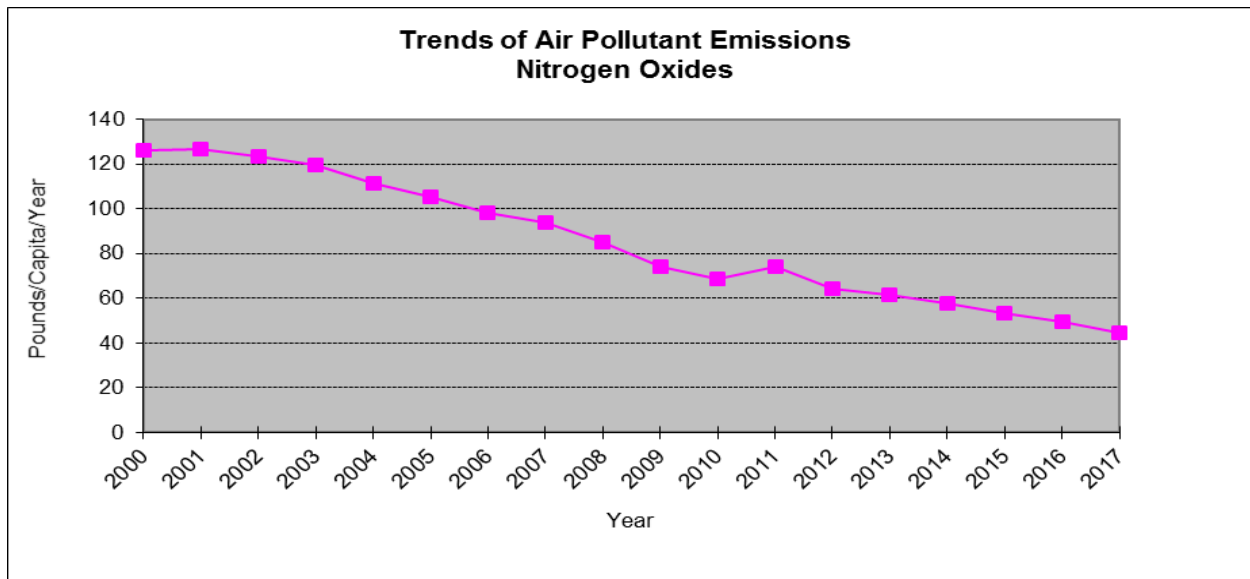
The Department’s Division of Air Resources Management (DARM) manages Florida’s air resources through consistent regulation of industry and accountability to our customers. Florida’s air program is largely driven by the federal Clean Air Act and U.S. Environmental Protection Agency (EPA) regulations, as well as state laws in Chapter 403, F.S. DARM’s primary functions include permitting, compliance assistance, compliance determinations and enforcement, emissions inventory management, state regulatory planning for Clean Air Act compliance, and ambient air monitoring. DARM directly

implements air regulatory actions and oversees the activities of the Department's six regulatory districts and eight Department-approved county air pollution control programs.

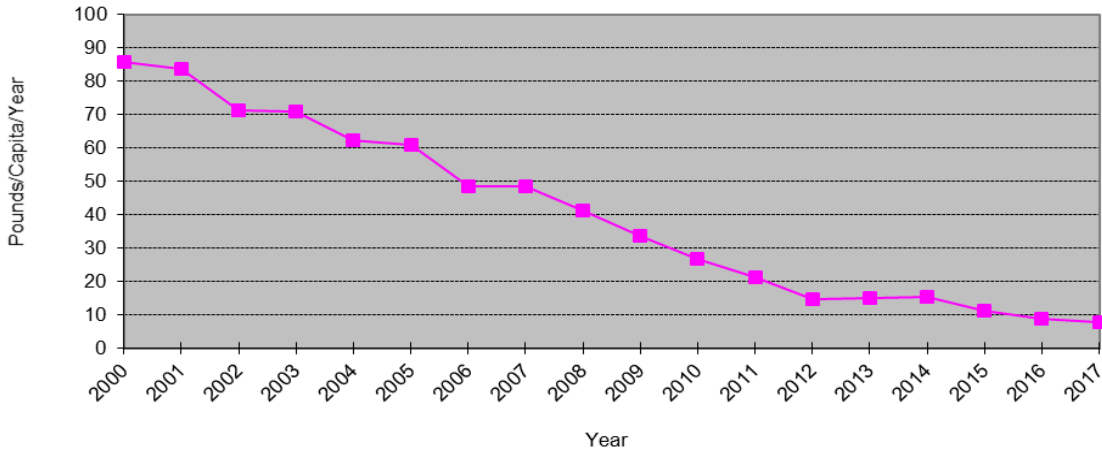
DARM also uses ambient air quality data to evaluate air pollution levels and trends with respect to the National Ambient Air Quality Standards (NAAQS), which EPA has established for six pollutants, referred to as "criteria" pollutants because they are based on health-related criteria: Lead (Pb), Nitrogen Dioxide (NO<sub>2</sub>), Carbon Monoxide (CO), Ozone (O<sub>3</sub>), Particulate Matter (PM) and Sulfur Dioxide (SO<sub>2</sub>).

The ambient data required to determine compliance with the NAAQS are obtained through Florida's statewide air monitoring network, which consists of 203 monitors located in 37 counties, covering 91.4 percent of Florida's population. While most monitoring occurs in densely populated areas, instruments are also located in rural areas to establish background levels of pollutants. Details on the types and locations of air monitors, along with real-time data, are available at [www.floridadep.gov/air/air-monitoring](http://www.floridadep.gov/air/air-monitoring).

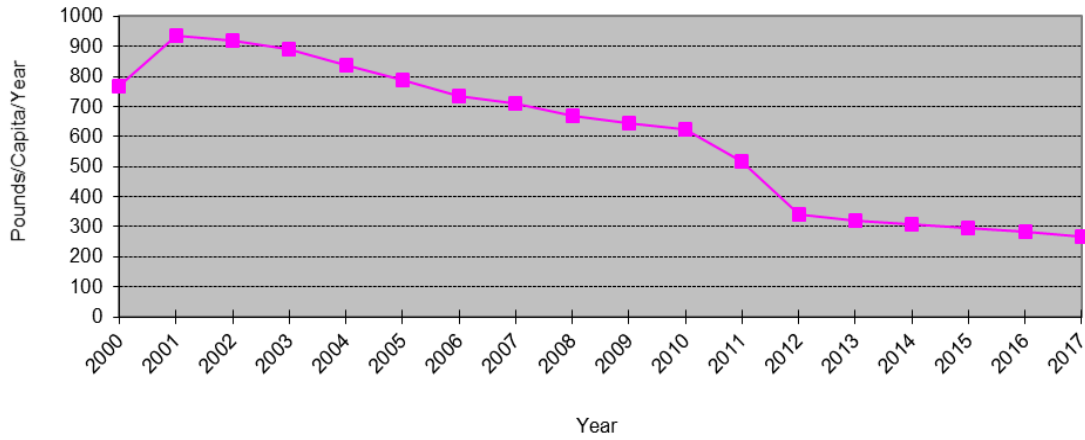
Significantly, Florida has experienced declines in emissions of SO<sub>2</sub>, CO, volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) from 1985 until 2017, as illustrated in the four graphs on the following pages. The slight increase in NO<sub>x</sub> emissions from 2010 to 2011 is attributable to changes in the EPA model used to calculate on-road mobile emissions, rather than actual emissions increases.



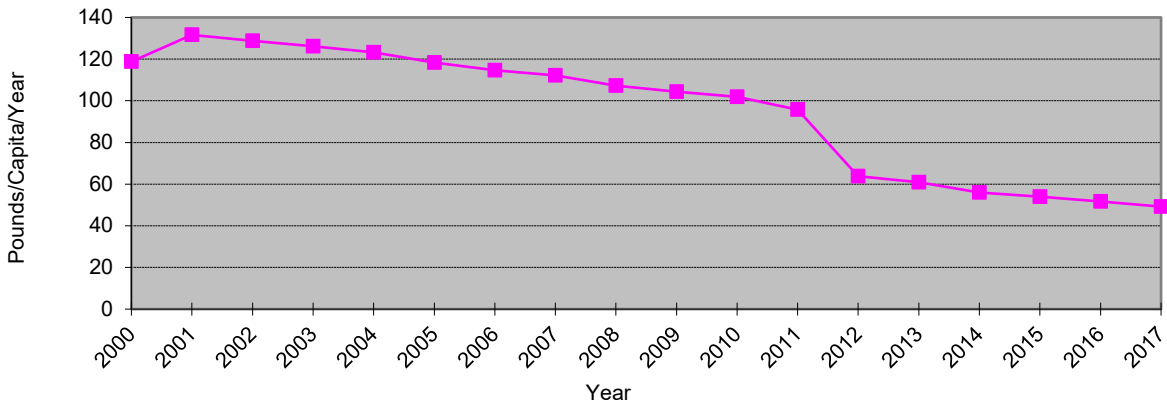
**Trends of Air Pollutant Emissions  
Sulfur Dioxide**



**Trends of Air Pollutant Emissions  
Carbon Monoxide**



**Trends of Air Pollutant Emissions  
Volatile Organic Compounds**



DARM also implements the Small Business Environmental Assistance Program, which was established in 1990 by Title V of the federal Clean Air Act to provide compliance advice and technical assistance to small businesses. The program encourages partnerships with trade associations, government entities and small businesses and offers compliance tools, such as industry-specific compliance calendars and fact sheets; free and confidential phone consultations; notification of applicable requirements and facts; referrals to other environmental programs (water, waste, etc.); presentations and workshops to public and private organizations; and a hotline directory of key personnel who manage various state environmental programs and services.

### *Siting Coordination Office*

The Department is statutorily designated as the lead agency to coordinate the interagency review and certification (licensing) of threshold electrical power plants, electrical transmission lines and natural gas pipelines. The Siting Coordination Office (Office), in conjunction with the Department's Office of General Counsel, performs the administrative and legal tasks of the coordination process. The Governor and Cabinet, acting as the Siting Board, are the actual licensing entity. Certification is an umbrella permit, which includes all applicable state, regional and local regulatory nonprocedural requirements. It is a life-of-the-facility permit authorizing construction, operation and maintenance.

The majority of the Office's work deals with threshold siting projects. However, the Office also oversees and performs compliance reviews for electric and magnetic fields from transmission lines and provides recommendations to county property appraisers regarding the eligibility of certain pollution control equipment for ad valorem tax reductions.

### Environmental Law Enforcement

The Division of Environmental Law Enforcement (Division) will provide systematic oversight for the investigation of environmental crimes and the Office of Emergency Response. This includes coordination for environmental response and preparedness, assistance to pollutant discharges, and assessment of possible impacts to local wildlife populations. Environmental crimes pose a threat to public health, the environment, and Florida's economy. The Division will also assist in mitigation, enforcement, and assessment in the prosecution of certain environmental crimes when the responsible party does not take appropriate action to remediate pollutants or hazardous materials. Law Enforcement Investigators are intended to protect and calculate possible damage to Florida's natural resources and provide necessary documentation in support of cost recovery efforts. Mitigation of pollutant discharge or releases of hazardous materials due to incidents will be directed by the Division, as well as the investigation of abandoned and derelict vessels.

## ***WATER POLICY & ECOSYSTEM RESTORATION***

The Deputy Secretary for Water Policy & Ecosystem Restoration is responsible for five primary program areas that have enormous implications for water quality and water resource protection in Florida: establishing water quality standards, assessing water quality in accordance with those standards and implementing programs necessary to restore the quality of waters that do not meet the standards; providing financial assistance to local governments and other entities to protect and restore water resources; restoring Florida's Everglades and other related South Florida ecosystems; and managing Florida's aquatic preserves, including more than 4 million acres of valuable submerged lands and coastal uplands. In all cases, these programs are focused on making best use of taxpayer resources, partnering with local communities and businesses to protect natural resources and promote economic growth, establishing clear metrics to evaluate and strengthen the programs, and empowering staff with the best science to solve problems through innovation and efficiency.

## Office of Water Policy

Ensuring adequate, high quality water for human use and natural systems is essential to sustaining the state's economy and quality of life. The Department and Water Management Districts under its general supervisory authority are responsible for water management in four key areas:

- Water quality
- Water supply
- Natural systems
- Flood protection and flood plain management

The Office of Water Policy leads in developing appropriate water policies based on statutory direction, overseeing the Water Management Districts and coordinating Department and district water programs. Primary responsibilities of the Office of Water Policy include:

- Developing statewide water resource policies;
- Updating the "Water Resource Implementation Rule," Chapter 62-40, F.A.C., that provides guidance for Department and Water Management District water programs and activities;
- Reviewing Water Management Districts programs, plans, and rules for consistency with Chapter 62-40, F.A.C., and Chapter 373, F.S.;
- Tracking Water Management District performance on mission critical activities;
- Working with the U.S. Geological Survey to produce Water-Use in Florida Report;
- Reviewing Water Management District budgets;
- Reviewing and approving minimum flow and level (MFL) priority lists and schedules (Section 373.042, F.S.) and reviewing proposed MFL rules;
- Providing guidance on Water Management District regional water supply plans and reporting annually to the Florida Legislature on the status of water supply planning;
- Coordinating "Conserve Florida," the state's water conservation initiative; and
- Ensuring consistency among Water Management District regulatory programs.

## Office of Ecosystem Projects

The State of Florida has recognized that the greater South Florida ecosystem is unique in the world and one of Florida's greatest treasures. A century ago, water flowed down the Kissimmee River into Lake Okeechobee, then south through the vast Everglades to Florida Bay, the ultimate destination of the system's uninterrupted sheetflow. The Florida Everglades once covered almost 11,000 square miles. Subsequent draining of the marshland for agriculture, development and flood control has resulted in the Everglades being only half that size today. This "River of Grass" remains a mosaic of sawgrass marshes, freshwater ponds, prairies and forested uplands that supports a rich plant and wildlife community. Renowned for its wading birds and wildlife, the Everglades is home to dozens of state and federally threatened and endangered species.

The Office of Ecosystem Projects (Office) oversees the South Florida Water Management District's South Florida Ecosystem restoration efforts and bears significant responsibility for activities required through the Everglades Forever Act (Section 373.4592, F.S.), Comprehensive Everglades Restoration Plan (Sections 373.470, 373.1501 and 373.1502, F.S.) and Northern Everglades and Estuaries Protection Program (Section 373.4595, F.S.). The Office is responsible for all Department policy, programmatic, technical and regulatory responsibilities under these statutes. The Office's activities focus on improving water quality and restoring the ecology and hydrology of the greater South Florida's ecosystem which stretches from the Kissimmee Chain of Lakes near Orlando to the Florida Keys.

The Office represents the State's interests through policy and program development to ensure a holistic approach to restoring South Florida's ecosystem. The Office also formulates and plans projects consistent with governing rules and statutes that meet both federal and state restoration goals. Plan elements are complex, have a multitude of stakeholders and require balancing the protection of water and ecological resources with the often competing objectives of water supply and flood control. Projects include the construction and operations of large scale civil works, including reservoirs, impoundments and stormwater treatment areas, all of which improve the quality, quantity, timing and distribution of water.

The Office coordinates closely with state and federal partners, primarily the U.S. Army Corps of Engineers and South Florida Water Management District, to ensure smooth transition from project planning to permitting of construction and long-term operations of water management projects. Projects are evaluated to determine whether sufficient information has been provided to demonstrate that the benefits, goals and objectives of restoration outweigh potential environmental impacts and proposed activities comply with Florida law. Specific consideration is given to avoiding and minimizing wetland and endangered species impacts; ensuring water quality standards will be met; determining that project components maintain public health safety or welfare; and confirming that projects will achieve design objectives. Staff inspect restoration projects throughout construction to ensure compliance with permit conditions including verification that best management practices are implemented. Completed projects are periodically evaluated for compliance with water quality standards and achievement of water quality improvement.

The Office is also responsible for monitoring and enforcing the \$880 million "Restoration Strategies" consent order which is anticipated to construct the facilities required achieve the water quality needed to protect the Everglades by 2025.

Specific Office responsibilities include:

- Developing and communicating agency policy and assisting in the development of state-led Everglades and other restoration efforts;
- Representing the Department in Everglades Forever Act, Comprehensive Everglades Restoration Plan and Northern Everglades and Estuaries Protection Program coordination planning;
- Linking regulatory activities with project planning, biological assessments and engineering/design through internal and external consultation and guidance;
- Providing regulatory authority over South Florida ecosystem restoration projects;
- Inspecting projects and providing environmental compliance assistance;
- Participating in interagency technical teams and committees including the Everglades Technical Oversight Committee, Restoration Coordination and Verification, Restoration Strategies Science Plan Team, South Florida Ecosystem Restoration Task Force, Loxahatchee River Management Coordination Council, Biscayne Bay Regional Restoration Coordination Team and others;
- Providing technical assistance for legislative activities related to Everglades restoration;
- Providing oversight and financial contracted management of legislative appropriations for restoration activities;
- Providing technical assistance to the Department's Office of General Counsel on Everglades restoration litigation;
- Coordinating with other Department programs, state and federal agencies, industry representatives and other groups in developing and implementing water quality, biological and other research and monitoring programs in the Everglades Protection Area;
- Reviewing and preparing technical reports on topics related to Everglades restoration; and
- Reviewing and providing comments on documents distributed through the Florida State Clearinghouse to ensure consistency with the Florida Coastal Zone Management Act.

## Environmental Assessment and Restoration

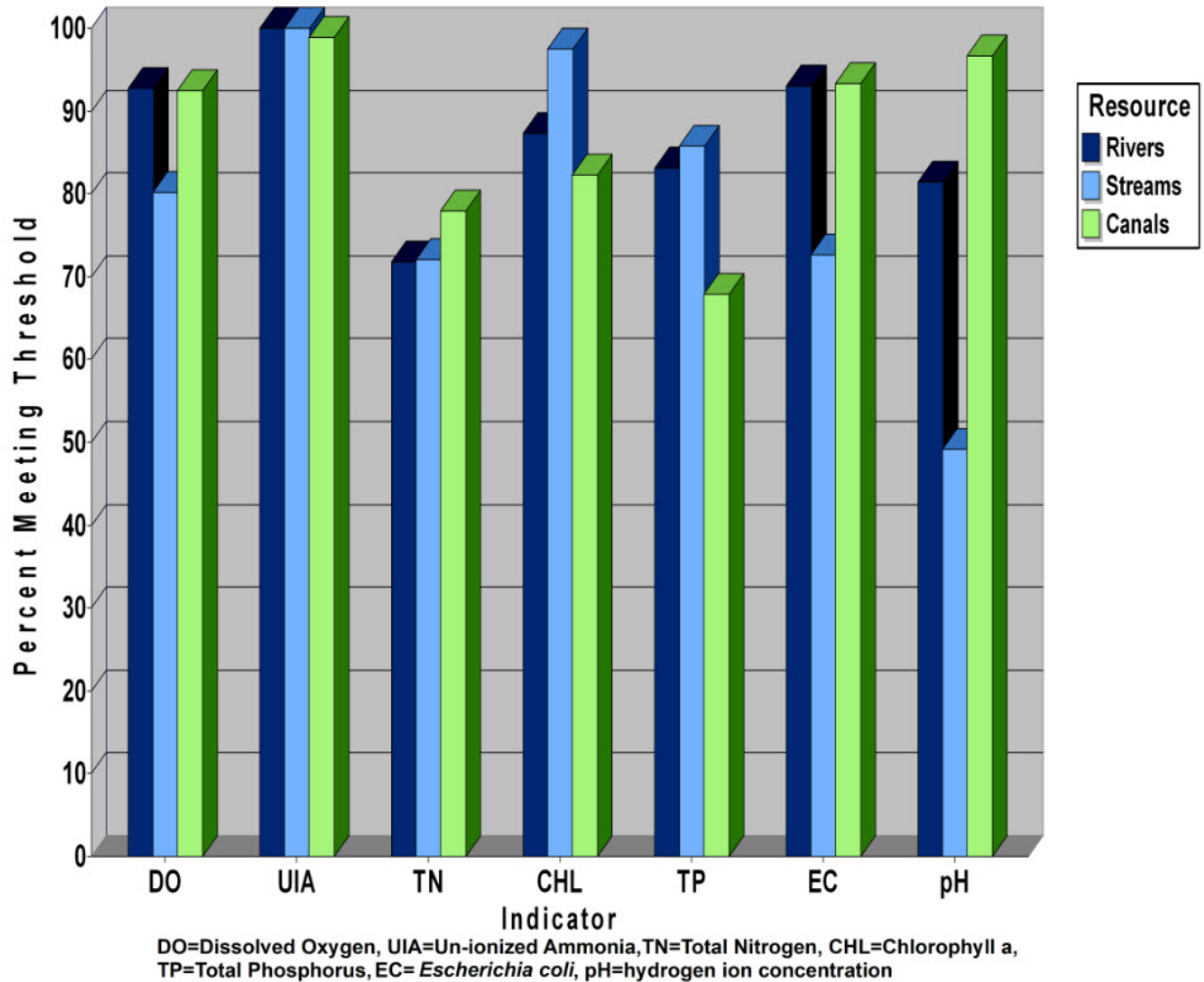
According to the most recent data available, Florida has more than 2,000 linear miles of coastline; over 1.6 million acres of lakes; nearly 27,000 miles of rivers and streams, with another 44,000 miles of canals; and more than 1,000 springs. Florida's surface waters cover more than 12,000 square miles and include the third largest area of inland waters among the 50 states. Florida also has an untold volume of groundwater in its aquifer systems. These resources provide drinking water sources, wildlife habitat, shellfish harvesting, agricultural supplies and a wide range of recreational opportunities. Water resources are intimately linked: lakes often reflect groundwater levels; spring flow provides the base flow of many streams and stream flow to estuaries is critical to maintaining salinity balance. The Department's *Integrated Water Quality Assessment* includes a wealth of other information on water resources. The most recent version, along with past assessments, are available at <https://floridadep.gov/dear/water-quality-assessment/content/reports-documents-sops-and-links>.

The Division of Environmental Assessment and Restoration (DEAR) works with Department divisions, Water Management Districts, other state agencies, local governments, the federal government, the private sector, and stakeholders to identify and reduce the impact of human activities on water quality and restore those waters that have already been identified as impaired. Partnering with local communities and businesses is essential to protecting and restoring natural resources and promoting sustained economic growth.

Florida's typically slow-moving, warm surface waters are susceptible to contamination from many sources. Discrete sources include domestic and industrial wastewater discharges, which are extensively regulated so that pollution from these sources has been significantly reduced over the last four decades. Diffuse sources of pollution, however, are difficult to identify and regulate. They include an estimated 2.4 million septic tanks, according to the Florida Department of Health; urban and agricultural runoff, including pesticides, fertilizers, animal waste and other pollutants; improperly disposed solvents, petroleum products and other forms of hazardous and solid waste; and atmospheric deposition (pollution entrained in rain and dust).

DEAR implements a statewide monitoring network to assess the chemical and biological health of Florida's surface waters and groundwaters. At its highest level, monitoring addresses statewide and regional questions to characterize overall water quality trends and conditions. For example, the following graphic provides a snapshot of statewide water quality conditions for flowing waters during the period 2015-2017 for six primary indicators: dissolved oxygen (DO), un-ionized ammonia (UIA), total nitrogen (TN), chlorophyll *a* (CHL), total phosphorus (TP) and fecal coliform bacteria (FC). The bars represent the percentage of waters meeting water quality standards. The indicators reflect nutrients and bacteria, excessive levels of which are the leading causes of Florida's surface water quality problems. Similar snapshots of statewide conditions for other types of surface waters and groundwaters, along with trend conditions over time, are available from DEAR's water quality report cards at <https://floridadep.gov/dear/watershed-monitoring-section/content/interactive-water-quality-report-cards>.

## Statewide Results for Rivers, Streams, and Canals 2015 to 2017



Monitoring is also used to evaluate regulatory compliance, the effectiveness of urban and agricultural best management practices and the success of restoration programs. DEAR continuously improves the effectiveness and efficiency of water quality monitoring and coordinates with other local and state monitoring agencies through the Florida Water Resources Monitoring Council (<https://floridadep.gov/dear/watershed-monitoring-section/content/fwrmc>) to reduce duplication of efforts and expand the pool of available water quality data. The division provides a searchable database of Florida water monitoring activities online at <http://water-cat.usf.edu/>. Monitoring water quality at all levels provides a wealth of environmental metrics used to evaluate and strengthen DEAR's water quality programs, activities and services. Monitoring partners and the public can keep track of the division's sampling efforts through the Water Quality Monitoring Activity Tracker interactive map available at <http://arcg.is/0viWjf>.

DEAR assesses all this monitoring data in the context of surface water quality standards established consistent with the federal Clean Water Act. Florida's standards, adopted in Chapter 62-30262-302, F.A.C., include surface water classifications, numeric and narrative criteria, an anti-degradation policy and moderating provisions, along with special protections for certain waters, such as Outstanding Florida Waters. Federal regulations require states to perform triennial reviews to assess applicable surface water quality standards and, as appropriate, adopt new or modified standards through a process that includes public hearings.



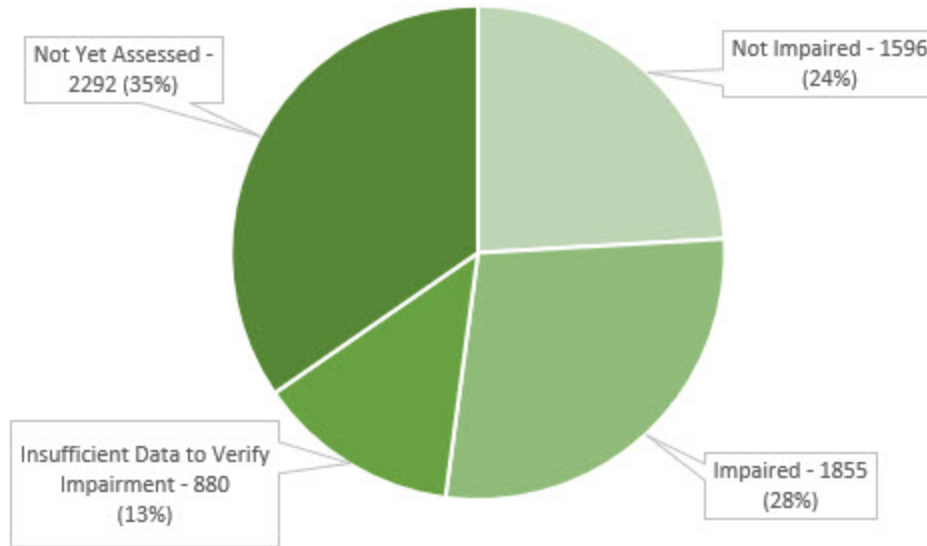
More than 90 percent of Florida’s public drinking water supply comes from groundwater. Florida’s groundwater standards are based primarily on public health considerations and are adopted pursuant to the federal and state Safe Drinking Water Acts. Groundwater standards consist of a classification system based on use and water characteristics, along with narrative “minimum criteria” and specific numeric water quality criteria, all adopted in Chapter 62-520, F.A.C.

The Department has integrated surface water and groundwater protection in its watershed management program, which involves data collection and interpretation to assess the health of water resources; establishment of scientific water quality restoration targets and pollutant loading limits for individual waterbodies; and development and implementation of detailed plans to restore water quality. These activities are undertaken in a continuous cycle that promotes an increasingly refined understanding of water quality and assures that restoration actions, and water quality protection programs, are routinely re-evaluated and improved. This graphic illustrates the watershed management cycle:



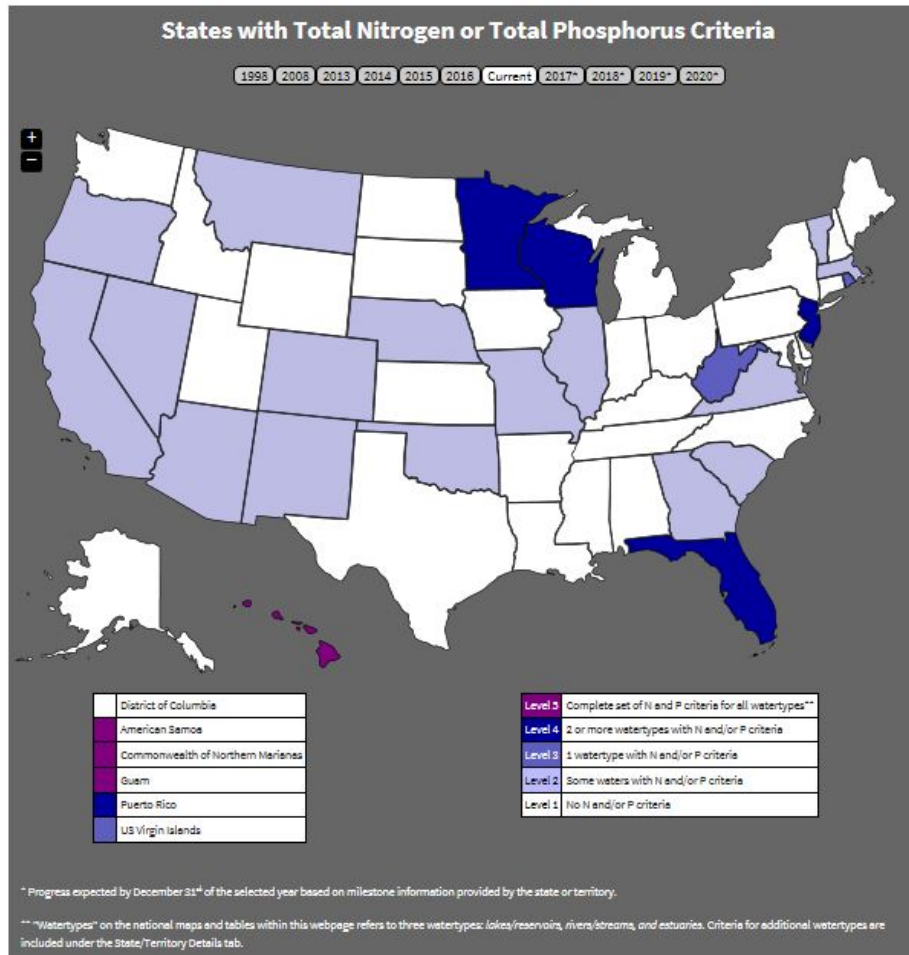
The first step in restoring Florida’s polluted rivers, lakes, streams, springs and estuaries is assessing water quality data to determine and verify specific pollution problems. To date, DEAR has assessed 4,331 of Florida’s discrete watershed segments and identified 1,855 as “impaired” (not meeting water quality standards) as the result of a variety of pollutants, including nutrients and bacteria. There are 880 segments that have been evaluated but not enough data are yet available to make an impairment determination. DEAR concluded its latest 5-year assessment cycle for 2017 and is in year-two of the next cycle. The following chart illustrates the status of water quality assessments to date:

Surface Waters - Assessment Status of Waterbody Segments  
as of May 2019  
(6623 Total Segments)



This scientific, data-driven assessment is one way DEAR focuses taxpayer resources on those priority projects and activities that are essential to water quality improvement. The public nature of the process enables DEAR to partner with local communities, businesses and industries to restore waters they all depend on.

The most challenging surface water quality problem confronting Florida is excessive levels of nutrients (forms of nitrogen and phosphorus), which can cause rampant algae growth, deplete oxygen levels and compromise aquatic habitats. The numeric nutrient criteria (NNC) developed and adopted by DEAR are among the most comprehensive water quality standards in the nation, as illustrated in the following EPA map comparing NNC development among the states and territories. The graphic is available at <https://cfpub.epa.gov/wqsits/nnc-development/>.



Adoption of these rigorous criteria was the result of years of scientific work, negotiations with an array of stakeholders, several rounds of litigation and multiple EPA approvals.

Whether the problem is nutrients, bacteria, metals or other pollutants, it is essential to establish the amount of the pollutant(s) a waterbody can assimilate and still meet its water quality standards. To do so, DEAR determines Total Maximum Daily Loads (TMDLs). Each TMDL, developed using available data and state-of-the-art water quality modeling, sets a specific water quality restoration target for a waterbody, adopted by rule, to guide the development and implementation of local Basin Management Action Plans (BMAPs). These plans provide the blueprints for restoring waterbody health. TMDLs and BMAPs are factored into permitting decisions, acquisition of conservation lands, financial assistance for infrastructure construction, and implementation of urban and agricultural best management practices, among other actions.

To date, DEAR has adopted 426 TMDLs and will have approximately 20 TMDLs under development in Fiscal Year 2019-20. The division has also adopted 31 BMAPs encompassing more than 13 million watershed acres. DEAR has adopted 13 BMAPs for major spring systems. Eight of these springs BMAPs are in effect as of May 2019. Another five springs BMAPs are pending the resolution of legal challenges. DEAR is also pursuing three stakeholder-led restoration plans by supporting efforts of local governments, citizens, environmental groups and others to develop the plans.

The map, "Water Quality Assessments, TMDLs, and BMAPs," available at <https://www.arcgis.com/home/webmap>, depicts the current geographic scope of DEAR's TMDLs and BMAPs that have been adopted or are in development, along with the other areas with impaired waters

(those that do not meet standards) that establish priorities for future actions. Detailed information on the impaired waters listing process, the development and adoption of TMDLs and BMAPs is available at <https://floridadep.gov/DEAR/>.

The Department's central laboratory, a state-of-the-art facility housed within DEAR, is essential to the analysis and reporting of water quality and other environmental and public health data. The lab typically conducts between 160,000 and 170,000 analyses each year and provides biological and chemical laboratory support to many state and local government programs, including specialized field sampling, scientific study design and statistical and narrative interpretation of environmental data. The lab has rigorous operating procedures and clear metrics designed to determine customer satisfaction in analytical and reporting work and evaluate and strengthen performance. Through the third quarter of Fiscal Year 2018-19, sample analyses have met performance expectations more than 99 percent of the time and analytical reports have met expectations 98 percent of the time. The lab continues to add cutting-edge tools and analytical capabilities, including the tools and capabilities to analyze perfluorinated alkylated substances (PFAS) like perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in both water and soil. Performing these analyses inhouse rather than at contract laboratories not only produces results sooner, it also saves the Department hundreds of dollars per analysis.

DEAR's laboratory is also one of only seven elite laboratories in the Environmental Response Laboratory Network, coordinated by the U.S. Department of Homeland Security and EPA, that can analyze for ultra-dilute chemical warfare agents to provide analytical support for response and recovery operations following a terrorist attack or other national emergency.

See <https://www.epa.gov/emergency-response/environmental-response-laboratory-network> for more information.

#### The Office of Resilience and Coastal Protection

The Office of Resilience and Coastal Protection (RCP) protects natural resources on state-owned sovereign submerged lands and coastal uplands through administration of the state's 41 Aquatic Preserves, three National Estuarine Research Reserves, Florida Keys National Marine Sanctuary, and the Coral Reef Conservation Program. RCP also oversees the Florida Coastal Management Program, Clean Boating Program, and Resilient Coastlines Program.

Aquatic Preserves are submerged lands of exceptional ecological character to be maintained in their natural or existing conditions for future generations. There are 41 Aquatic Preserves, coastal and fresh water sites, encompassing 2.2 million acres of sovereign submerged lands. National Estuarine Research Reserves were designated by joint action of the state and federal government through the National Oceanic and Atmospheric Administration (NOAA). RCP provides stewardship, education, training, research and monitoring programs at Florida's three National Estuarine Research Reserves (Apalachicola, Guana Tolomato Matanzas and Rookery Bay). RCP also oversees the organization and operation of several ecotourism activities that are hosted in some managed areas.

The Florida Keys National Marine Sanctuary, established in 1990 by Congress, and confirmed by the Board of Trustees of the Internal Improvement Trust Fund, covers 2.3 million acres of state and federal submerged lands. The Florida Keys National Marine Sanctuary contains unique and nationally significant marine resources, including the southern portion of the Florida Reef Tract (the world's third largest barrier coral reef), extensive sea grass beds, mangrove-fringed islands and more than 6,000 species of marine life. RCP leads state co-management efforts in the Sanctuary in partnership with the Florida Fish and Wildlife Conservation Commission and NOAA.

The Coral Reef Conservation Program coordinates research and monitoring develops management strategies and promotes partnerships to protect the northern portion of the Florida Reef Tract along the southeast Florida coast, pursuant to the U.S. Coral Reef Task Force's National Action Plan. The Coral

Reef Conservation Program also implements Florida's Local Action Strategy, the Southeast Florida Coral Reef Initiative. The program leads response, assessment and restoration efforts and jointly oversees enforcement efforts for non-permitted reef resource injuries (vessel groundings, anchor and cable drags, etc.) in southeast Florida pursuant to the Florida Coral Reef Protection Act (Section 403.93345, F.S.).

The Florida Coastal Management Program is based on a network of agencies implementing 24 statutes that protect and enhance the state's natural, cultural and economic coastal resources. The goal of the program is to coordinate local, state and federal government activities using existing laws to ensure that Florida's coast is as valuable to future generations as it is today. RCP is responsible for directing the implementation of the statewide coastal management program. The Florida Coastal Management Program provides funding to promote the protection and effective management of Florida's coastal resources at the local level through the Coastal Partnership Initiative grant program.

RCP's Outer Continental Shelf Program is responsible for coordinating the state's review, oversight, monitoring and response efforts related to activities that occur in federal waters on the Outer Continental Shelf to ensure consistency with state laws and policies and that these activities do not adversely affect state resources. Reviews are conducted under federal laws, including the Outer Continental Shelf Lands Act, Coastal Zone Management Act, National Environmental Policy Act, Deepwater Ports Act, Marine Protection, Research and Sanctuaries Act, Rivers and Harbors Act, Clean Air and Water Acts and the regulations that implement them.

The Clean Boating Program includes Clean Marina designations to bring awareness to marine facilities and boaters regarding environmentally friendly practices intended to protect and preserve Florida's natural environment. Marinas, boatyards and marine retailers receive clean designations by demonstrating a commitment to implementing and maintaining a host of best management practices. The Clean Vessel Act provides grants, with funding provided by the U.S. Fish and Wildlife Service, for construction and installation of sewage pumpout facilities and purchase of pumpout boats and educational programs for boaters.

The Resilient Coastlines Program's mission is synergizing community resilience planning and natural resource protection tools and funding to prepare Florida's coastline for the effects of rising sea levels. This program is working to ensure Florida's coastal communities are resilient and prepared for the effects of rising sea levels, including coastal flooding, erosion, and ecosystem changes. The Program is synergizing community resilience planning and natural resource protection tools; providing funding and technical assistance to prepare Florida's coastal communities for sea level rise; and continuing to promote and ensure a coordinated approach to sea level rise planning among state, regional, and local agencies.

#### Water Restoration Assistance

The Division of Water Restoration Assistance (DWRA) is responsible for providing financial assistance (grants and loans) for projects that improve water quality and quantity. Projects include improving stormwater quality, reducing pollutants that enter surface water and groundwater (including springs), collecting and treating sanitary wastewater, producing and distributing drinking water and restoring potable water service to households affected by contaminated source water. DWRA also administers grants for water restoration activities that are directed by the Legislature. The projects are primarily undertaken by counties and municipal entities.

DWRA is responsible for managing Fixed Capital Outlay appropriated for Fiscal Year 2019-20, totaling approximately \$531 million. Including those funds that are encumbered and certified forward, the total funding under management in the division is approximately \$1.83 billion.

DWRA's Nonpoint Source Management Program provides grants, primarily to local governments and special districts, for the implementation of the State of Florida's stormwater and nonpoint source

management activities. The goal of these activities is to minimize stormwater/nonpoint source pollution from new land use activities and to reduce pollution from existing activities. The Program manages the federal Clean Water Act Section 319(h) Grant and the state water quality restoration grant. The grants support projects that reduce pollution from nonpoint sources and urban stormwater.

Springs restoration is underwritten by a recurring appropriation from the Florida Legislature and supports land acquisition and capital projects that protect spring flow and water quality. For Fiscal Year 2019-20, the Legislature appropriated \$100 million for springs restoration. The Water and Springs Restoration Program manages the springs appropriation and the legislative grants for water restoration activities.

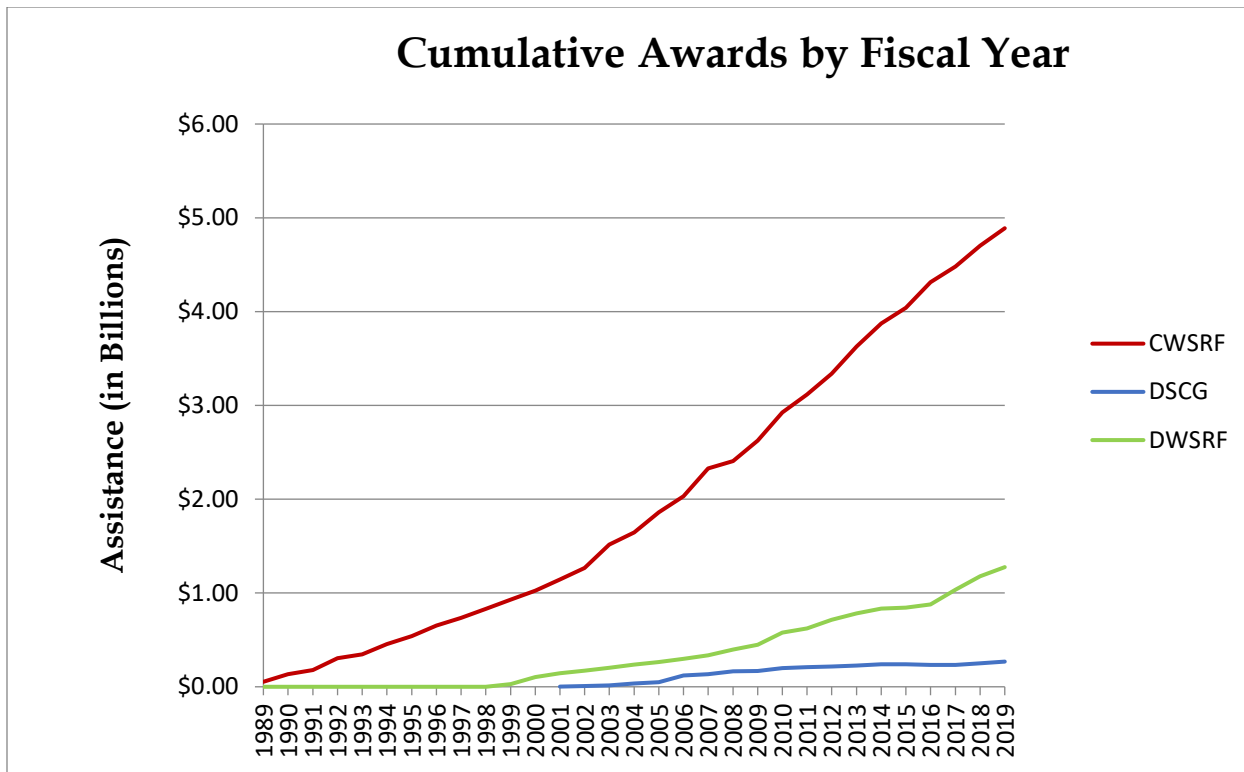
DWRA's Clean Water State Revolving Fund (CWSRF) program provides low interest loans for wastewater and stormwater projects that reduce or eliminate a source of pollution. Non-point source projects, such as agricultural best management practices, and green infrastructure projects are also eligible for low interest loans. The Disadvantaged Small Community Grants (DSCG) program provides grants to small disadvantaged communities for wastewater treatment, collection, and disposal facilities. Grants are combined with low-interest CWSRF loans to leverage local resources and build better infrastructure.

DWRA's Drinking Water State Revolving Fund (DWSRF) program provides low-interest loans to eligible entities for planning, designing, and constructing public water facilities. Additional assistance is available for disadvantaged communities having populations less than 10,000.

The State Revolving Fund (SRF) Management Program in DWRA is responsible for financial oversight of the State Revolving Fund and grant programs. Program staff prepare financial assistance agreements and amendments, manage disbursement requests, monitor loan repayments, and reconcile program funds.

Financial assistance information on the State Revolving Fund programs is included in the chart below which shows cumulative awards by Fiscal Year from 1989 to 2019 for the Clean Water and Drinking Water SRF programs, and the Disadvantaged Small Community Grants, identified on the chart as CWSRF, DWSRF and DSCG, respectively.

## Cumulative Awards by Fiscal Year



DWRA's Deepwater Horizon Program supports restoration activities associated with the 2010 Deepwater Horizon oil spill. This includes assessing and establishing restoration plans through the Natural Resource Damage Assessment (NRDA) process. This legal process determines the type and amount of restoration needed to compensate the public for damages caused by the oil spill. In addition, the Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast State (RESTORE) Act was signed into law on July 6, 2012. The Act creates the Gulf Coast Ecosystem Restoration Council and outlines five funding categories for 80 percent of Clean Water Act civil and administrative penalties from the Deepwater Horizon oil spill. Also, the Gulf Environmental Benefit Fund was established by the National Fish and Wildlife Foundation (NFWF) to administer funds arising from plea agreements that resolve the criminal cases against BP and Transocean. The Florida Fish and Wildlife Conservation Commission and the Department work directly with NFWF to identify projects for the State of Florida, in consultation with the U.S. Fish and Wildlife Service and NOAA. The criminal plea agreement will award \$356 million over the period of five years to fund restoration projects in Florida.

On April 4, 2016 a settlement was entered resolving all federal and state claims against BP. Based on the settlement, BP will pay a total of \$18.7 billion, over a fifteen-year period, which is broken down between Clean Water Act penalties, natural resource damage claims, and economic claims, across the Gulf States. The state of Florida will receive \$3.25 billion, of which \$2 billion will be paid to resolve Florida's economic claims. Florida is also receiving a total of \$680 million to resolve the State's NRDA claims, and \$572 million pursuant to the RESTORE Act. The various funds are used to implement a variety of restoration projects including rebuilding coastal and estuarine marshes and wetlands, restoring sea grass beds and oyster reefs, installing living shorelines, replenishing damaged beaches and dunes, protecting sensitive areas for wildlife, and improving water quality and altered hydrology.

## ***LAND AND RECREATION***

The Deputy Secretary for Land and Recreation is responsible for the acquisition and management of lands for conservation and recreational purposes, serving as staff to the Board of Trustees (BOT) of the Internal Improvement Trust Fund (Governor and Cabinet) and for overseeing the Florida State Park system. These diverse program areas preserve and protect what, in many ways, are Florida's environmental signature: the wild, natural places millions visit every year and that are seen in photographs and posters around the world.

### State Lands

#### *Land Acquisition*

Since 1963, Florida has invested more than \$8.1 billion to conserve over 4<sup>[1]</sup> million acres of land for environmental, recreational and preservation purposes. These investments have been implemented through several programs, most recently Florida Forever and its predecessor, Preservation 2000. Through the Florida Forever program, Florida has adopted a comprehensive approach to resource restoration through land acquisition. In addition to acquiring land, Florida Forever has focused on protection and restoration of water resources, wildlife habitat, recreation spaces, forests, wetlands and public beaches.

To achieve its mission, the Division of State Lands (Division) coordinates and evaluates land management plans, conducts appraisals, completes surveys and maps for land purchases and exchanges, and conducts land negotiations and closings on behalf of the State for conservation lands and non-conservation lands such as universities, state office buildings and state courts. In addition, the Division provides staff support to the Acquisition and Restoration Council, performs geodetic surveys, conducts fresh and tidal shoreline survey work and tracks and maintains the BOT's land ownership records along with surveys and maps of historical records.

Future land acquisitions must be carefully planned to protect natural areas, waterbodies and springs, and provide linkages to create safe biological and recreational pathways. The Department will continue to partner with other governmental or non-governmental groups to stretch funding to increase the acquisition of appropriate lands.

#### *Land Management*

The Florida Constitution requires that state-owned lands be held in trust, by the BOT, for the use and benefit of the people of Florida; Florida law further requires that the lands be managed to provide the greatest combination of benefits to the people. With Florida's preservation land inventory exceeding 4 million acres, land management plans, land use plans and on-site reviews are necessary to ensure that all responsible agencies manage the land in accordance with best management practices and BOT policies.

State land acquisition programs have increased the demand for land management services and the need for administering and managing uses of state-owned lands via leases, subleases, management agreements and easements, exchanges and surplus. There are more than 9 million acres of sovereignty-submerged lands within the boundaries of Florida. These shoreline areas of sovereignty-submerged lands have great revenue potential associated with the issuance of leases or easements.

The Division continues its efforts to identify lands no longer needed for state purposes that may be declared surplus and sold, returning them to county tax rolls and improving local economies. Selling

<sup>1</sup> 4 million acres refers to lands that have been acquired by the State, including acquisitions by the Water Management Districts and local governments. This has been accomplished with a number of programs including the Environmentally Endangered Lands, Outdoor Recreation, Save Our Coasts, Save Our Rivers, Conservation and Recreation Lands, Preservation 2000, and Florida Forever. This does not refer to lands that are managed by the State.



surplus land has allowed the Division to make better use of state assets by using funds received from sales for conservation management purposes and to acquire conservation lands with higher resource value.

The Public Land Survey System (PLSS), established in Florida in 1824, provided for the survey of approximately 250,000 section corners, which are still the geographic basis for all land titles and land ownership boundary descriptions. Age and land development activities have compromised the integrity of the PLSS, resulting in uncertainty in boundary location of both public and private lands. The cost-effective way to perpetuate the PLSS is to restore the original position of the corners and establish a geographic or geodetic position on the corner to permanently memorialize its position. The Division maintains an ongoing repository and website ([www.labins.org](http://www.labins.org)) for PLSS corner records. The Division provides for extension and densification of geodetic survey control throughout the state. Ties between the PLSS and the geodetic reference system will allow establishment of a digital cartographic database with unique coordinates identifying land corners, providing consistency throughout land information systems and reducing duplicative mapping.

The determination of tidal datums (reference points) along coastal tidewaters requires continued monitoring through the extension and maintenance of a network of tide control stations. Private sector surveyors must also be properly trained to assure defensible placement of coastal water boundaries. The new generation tide stations collect data to provide an elevation for mean high water at a certain location and can be equipped with sensors to measure current, wind velocity and direction, salinity, dissolved oxygen, etc. Extending the network is important to hurricane and oil spill emergency response activities, commercial and recreational boating, tide height information collection, and many other uses. The Department's mean high water survey repository can be found on [www.labins.org](http://www.labins.org) along with statewide aerial photography and beach and shore preservation (erosion control line) surveys.

With all these technological advances, the Division is still responsible for maintaining physical records, including original public land records and instruments of the BOT, which are maintained in a vault with more than 1 million instruments, documents and inventory parcels. The Division initiated a computerized information system program for BOT documents, with an inventory base map and hybrid web-map applications for state agency and public use. The system maps parcels in over 76,000 land record documents. An annual inventory reconciliation of lands held in the name of the BOT is performed against the Florida Department of Revenue's annual property assessment rolls for all 67 counties.

The legislatively required Florida State Owned Lands and Records Information System (FL-SOLARIS) project allows the Department and other agencies to track the ownership of all state-owned lands and facilities. The project began in November 2010 and, since then, has allowed submission of state land and facility data from more than 50 agencies. FL-SOLARIS data is available to the public on the Division's website at [http://www.dep.state.fl.us/lands/fl\\_solaris.htm](http://www.dep.state.fl.us/lands/fl_solaris.htm).

The management system of the BOT's land records is known as the Board of Trustees Land Document System (BTLDS). A redesign commenced in 2013 after it was determined that the original BTLDS must be refreshed with up-to-date technologies to meet Department IT standards. In addition, business processes between mission critical applications, BTLDS and FL-SOLARIS, have been enhanced to include seamless integration and web-enabled access for greater user efficiency. The full implementation of the refreshed BTLDS was completed in February 2017. Web versions of the refreshed BTLDS are available to the public on the following website: <http://prodenv.dep.state.fl.us/DslBtlds/public/welcome>.

## Recreation and Parks

### *Florida State Parks*

The Department proudly manages 175 nationally recognized and awarded state parks and trails. The operation of these parks not only enhances the quality of life for Florida's residents, but also provides a major attraction for visitors. In Fiscal Year 2018-19, more than 29 million people visited Florida's State Parks, generating over \$66 million in revenue. The state park system's impact on local economies throughout Florida exceeds \$2 billion.<sup>[2]</sup> With so many acres of conservation land purchased over the years, a concentrated effort has been made to make these natural areas more accessible to the public and provide recreational opportunities for the fast-growing nature tourism segment of Florida's tourist industry. The Florida State Park System's 175 park units comprise nearly 800,000 acres. Over the next five years, the need for public outdoor recreation land and parks will increase as population growth begins to rebound and visitors continue to flock to Florida.

The Department partners with the private sector for a variety of park services, including grounds maintenance, cleaning, water and wastewater services and life guarding. Additionally, the park system has close to 100 vendors who provide recreational opportunities for visitors, including kayak and canoe rentals, boat tours and restaurants. The concessionaires allow the Department to make additional amenities available to visitors while providing jobs for the private sector.

Visiting a state park is a wonderful recreational and educational opportunity; an extended stay enables a full appreciation of Florida's natural treasures. The Department's central reservations system makes it easy, allowing visitors to reserve overnight accommodations by calling the toll-free number, (800)326-3521, or (866) I CAMP FL. Reservations are also available online at [floridastateparks.reserveamerica.com/](http://floridastateparks.reserveamerica.com/).

### *Office of Greenways and Trails*

The Office of Greenways and Trails (Office), within the Division of Recreation and Parks, provides statewide leadership and coordination to establish, expand and promote the Florida Greenways and Trails System (FGTS). The FGTS Plan (Plan) establishes priorities and defines the role of the FGTS in advancing Florida's economy, tourism, health, transportation, recreation, conservation and quality of life. The Office oversees the priority and opportunity maps that define the FGTS, and works in partnership with communities, agencies and organizations to close gaps in the system.

The Office coordinates with communities, agencies and organizations and provides technical assistance regarding the acquisition, development, designation and management of greenways and trails projects that fulfill the FGTS plan and vision. The Office also manages the Florida Greenways and Trails Acquisition Program, a component of the Florida Forever Program. This land acquisition program has helped to acquire land for several corridors within Florida's Priority Trails System. The Priority Trails System serves as a framework for systematically "closing gaps" and connecting priority corridors within the FGTS to establish a fully connected and integrated statewide trail network.

## **TASK FORCES, STUDIES IN PROGRESS**

### **TASK FORCES**

#### ***ADMINISTRATIVE SERVICES***

##### *Executive Direction and Support Services*

- Department of Environmental Protection Diving Safety Advisory Board – Internal agency board established to provide a state-of-the-art dive safety process in compliance with state and federal dive safety standards and regulations.
- Department of Environmental Protection Safety Advisory Board – Internal agency board established to prevent employee injuries and equipment losses and reduce the Department’s automotive, civil rights, workers’ compensation and general liabilities claims.
- Interagency Advisory Council on Loss Prevention – Duties of this Council are established in Section 284.50, F.S., and is the responsibility of the Department of Financial Services. All state agencies are required by Florida Statute to provide a member to the Council.
- Department of Environmental Protection Boating Safety Advisory Board – Internal agency board established to train Department staff in proper boating techniques, recommend improvements and identify corrective measures to eliminate or control recognized hazards.

##### *Florida Geological Survey*

Many of the groups in which the Florida Geological Survey (FGS) leads or participates in were established in response to the FGS’s various statutory responsibilities under Section 377.075, F.S.

- Big Cypress Swamp Advisory Committee – Created to ensure proper oil well and facility siting and safeguards within the Big Cypress Swamp watershed. The Director of the FGS, who also serves as Florida’s State Geologist, serves as Chair of the committee. Other members include representatives from the oil industry and an organized conservation group; a botanist; and a hydrologist (Section 377.42, F.S.).
- Florida Board of Professional Geologists – Established in Chapter 492, F.S., to safeguard the public and environment by ensuring Professional Geologists meet minimum competency standards. The State Geologist in the Department of Environmental Protection serves as an ex officio member of the board.
- Florida Geoscience Workgroup – The Florida Geoscience Workgroup is comprised of representatives from the Department and Water Management Districts. The workgroup is an agency-based forum to discuss geoscience issues facing the Department and Water Management District program areas fostering communication about data and research and providing educational opportunities for geoscientists through webinars and other platforms.
- Salinity Network Workgroup – The Salinity Network Workgroup is a subgroup of the Florida Water Resource Monitoring Council which is working to develop indices for groundwater levels and groundwater quality. The group will develop protocols for saltwater encroachment monitoring and special protocols for sampling the freshwater/saltwater interface.

- STATEMAP Advisory Committee – This group meets in October on a yearly basis. It provides guidance to the FGS STATEMAP Program Coordinator on which areas of the state are priorities for future surficial geologic mapping efforts. The group consists of geologists from federal and state agencies, including water management districts, the private sector, and academia.
- Water Science and Technology Board of the National Academy of Sciences, Engineering and Medicine – The FGS Director and State Geologist serves on this advisory board to the Academies, providing expertise on water resource and hydrogeology issues.

### *Office of Emergency Response*

- Emergency Response Function 10 (ESF10) – Emergency Support Function 10 provides coordinated state and federal response efforts to the State of Florida for current or potential environmental hazards involving oil and hazardous materials. Some ESF10 responsibilities include monitoring debris disposal, water quality monitoring, air quality sampling and protection of natural resources.
- Hazardous Assessment and Recovery Team (HART) – The primary duty of the Hazardous Assessment Response Team is to provide systematic response to hazardous materials incidents and ensure facilities generating hazardous materials have not been compromised by an emergency event. These duties include responding to reports of abandoned containers with unknown substances, verify and mitigate hazmat releases, inspect hazardous waste generating facilities, and other missions directed by ESF10.
- State Emergency Response Team (SERT) – The State Comprehensive Emergency Management Plan (Plan), authorized by Chapter 252, F.S., establishes the roles and responsibilities of the state agencies, special districts and local governments in a disaster. The Plan coordinates response and recovery activities with local agencies, the business community and voluntary organizations active in disasters. The Plan unifies the efforts of these groups for a comprehensive approach to reducing the effects of an emergency and/or disaster. The Office of Emergency Response provides Emergency Coordinating Officers to the SERT.
- Regional Response Team (RRT) – The RRT’s mission is to protect the health, welfare and safety of the public and the environment by ensuring coordinated, efficient and effective support of the responding federal, state and local On-Scene Coordinators for significant oil and hazardous substance incidents occurring within federal Region IV. The RRT is mandated by the National Contingency Plan and required under the federal Water Pollution Control Act. The Office of Emergency Response provides a representative and alternate to the RRT.
- State Emergency Response Commission (SERC) – The SERC is responsible for implementing provisions of the federal Emergency Planning and Community Right to Know Act in Florida and serving as a technical advisor and information clearinghouse for state and federal hazardous material programs. Currently, SERC membership comprises 26 individuals appointed by the Governor who represent the interests of state and local government, emergency services, industry and the environment. The Office of Emergency Response serves as a SERC member.
- State Domestic Security Working Group (SWG) – The SWG is the interagency, multidisciplinary team responsible for implementing state all-hazard domestic security priorities in accordance with the

Executive Office of the Governor's Homeland Security Advisor and State Administrative Advisor. The SWG devises policy for specialty response teams and coordinates statewide projects funded through the federal State Homeland Security Grant Program.

### *STATE LANDS*

- Acquisition and Restoration Council (ARC) – Established by Section 259.035, F.S., ARC is a 10-member council (four of which are Governor appointed; four are state agency heads or designees; one appointed by the Florida Commissioner of Agricultural and Consumer Services; and one appointed by the Florida Fish and Wildlife Conservation Commission.) ARC's duties include making recommendations to the Board of Trustees on the Internal Improvement Trust Fund on the acquisition, management and disposal of state-owned conservation lands.
- Land Management Uniform Accounting Council (LMUAC) – The LMUAC was created within the Department by Section 259.037, F.S., and is formed by seven state agency directors. LMUAC's duties include compiling conservation land management costs across state agencies and establishing formulas for identifying land management funding needs.
- Florida Coordinating Council on Mosquito Control – Established by Section 388.46, F.S., the mission of the Florida Coordinating Council on Mosquito Control is to provide assistance and recommendations to the Commissioner of Agriculture and the legislature on all matters related to public health pest control.
- Critical Lands and Waters Identification Project (CLIP) Technical Advisory Group – In 2006, the Century Commission for a Sustainable Florida called for an identification of those lands and waters in the state that are critical to the conservation of Florida's natural resources. In response, the Florida Natural Areas Inventory, University of Florida GeoPlan Center and Florida Fish and Wildlife Conservation Commission collaborated to produce CLIP, a GIS database of statewide conservation priorities for a broad range of natural resources, including biodiversity, landscape function, surface water, groundwater and marine resources.
- Office of Agricultural Water Policy (OAWP) Interagency/Production Group – OAWP was established in 1995 by the Florida Legislature to facilitate communications among federal, state and local agencies and the agricultural industry on water quantity and water quality issues involving agriculture. In this effort, the OAWP is actively involved in the development of Best Management Practices (BMPs), addressing both water quality and water conservation on a site specific, regional and watershed basis. As a significant part of this effort, OAWP is directly involved with statewide programs to implement the federal Clean Water Act's Total Maximum Daily Load requirements for agriculture. The OAWP works cooperatively with agricultural producers and industry groups, the Department, university system, Water Management Districts and other interested parties to develop and implement BMP Programs that are economically and technically feasible.
- Upland Ecosystem Restoration Project – The Upland Ecosystem Restoration Project is a cooperative partnership between Tall Timbers Research Station and Land Conservancy, state and federal agencies, the University of Florida and numerous conservation groups to improve populations of declining fire-dependent wildlife species on public land throughout Florida.
- Babcock Ranch Preserve Interagency Coordinating Group – Agencies with managing interests in the Babcock Ranch Preserve meet at least three times a year to resolve managing issues.

- Cooperative Conservation Blueprint (CCB) – The purpose of the CCB is to help to conserve the most vital working landscapes and natural habitats while maintaining a sustainable economy and agriculture opportunities. This public-private partnership will create, publish and maintain an online centralized GIS application of common priorities. The CCB will help to guide future land use planning decisions and recommend market-based incentives that encourage conservation. The Department serves as an interagency member.
- Air Force Landscape Planning Initiative: Conservation and Working Lands Group – This interagency group works to locate lands for special operations military units to use for training exercises.
- Florida Surveying and Mapping Council – The purpose of this Council is to promote communication between government and private sector surveyors.
- Land Conservation Task Team – Initiated by the federal government to track progress in Everglades' restoration, the Land Conservation Task Team provides staff support, to update land acquisition and conservation data for the South Florida Ecosystem Area.
- Boating Advisory Council – Established by Section 327.803, F.S., this 18-member council makes recommendations to the Florida Fish and Wildlife Conservation Commission and the Department of Economic Opportunity regarding issues affecting the boating community.
- Fisheating Creek Settlement Agreement Advisory Board – This court ordered board advises the Florida Fish and Wildlife Conservation Commission on the management of the Fisheating Creek Wildlife Management Area.

### ***REGULATORY DISTRICT OFFICES***

- Miami River Commission – Created in 1998 by Section 163.06, F.S., the Commission is the official clearinghouse for all public policy and projects related to the Miami River. The Commission's mission is to help ensure that government agencies, businesses and residents speak with one voice on river issues.
- Tampa Bay Estuary Program – The Tampa Bay Estuary Program protects and restores Tampa Bay through a partnership of Pinellas, Hillsborough and Manatee counties, the cities of Tampa, St. Petersburg and Clearwater, the Department, Southwest Florida Water Management District and U.S. Environmental Protection Agency. The Program is governed by a Policy Board of elected officials and a Management Board of top-level bay managers and administrators and consists of various technical and advisory committees.
- St. Johns River Alliance – The Alliance is governed by a regional, 34-member Board of Directors that includes elected officials, agencies, citizens and businesses devoted to water quality improvements and restoration of the St. Johns River.
- Southwest Florida Water Management District's Comprehensive Watershed Management Initiative – This initiative manages water resources by evaluating interconnected systems of the region's watersheds. The Initiative joins the Department's Southwest District staff with representatives from local governments, other interested organizations and citizens to develop plans to protect and improve

the watersheds. The Initiative has four primary goals: 1) identify and prioritize existing and potential water resource issues; 2) develop strategies for remedial or protective actions; 3) implement the strategies; and 4) monitor effectiveness.

- Sarasota Bay National Estuary Program – This Program protects and restores Sarasota Bay through a partnership of Sarasota and Manatee counties, the Department, Southwest Florida Water Management District and U.S. Environmental Protection Agency. The Program is governed by a Policy Board of elected officials and a Management Board of top-level bay managers and administrators.
- Charlotte Harbor National Estuary Program – This Program is a partnership of citizens, elected officials, resource managers and commercial and recreational resource users working to improve the water quality and ecological integrity of the greater Charlotte Harbor watershed. A cooperative decision-making process is used within the Program to address diverse resource management concerns in the 4,400 square mile study area.
- Indian River Lagoon National Estuary Program – This Program protects and restores the Indian River Lagoon through a partnership of the Lagoon’s five bordering counties, the Department, St. Johns River Water Management District and U.S. Environmental Protection Agency. It is governed by a Policy Board of elected officials and a Management Board of top-level lagoon managers and administrators.
- Hillsborough River Interlocal Planning Board/Hillsborough River Technical Advisory Council – The Hillsborough River Interlocal Planning Board (River Board) is an organization consisting of three elected officials representing the geographical location of the Hillsborough River. It is supported by the Hillsborough River Technical Advisory Council (Council), comprised of eight agency representatives (the Department is one of the eight agencies) and three citizen members. The River Board and Council developed a Master Plan for the Hillsborough River, incorporating policies broadly pertaining to water quality and quantity; safety and use of the River; and protection of wildlife and its habitat along the river.
- Tampa Bay Nitrogen Management Consortium (NMC) – The NMC consists of local governments, regulatory agencies, private industries and agricultural interests collaborating to achieve nitrogen management goals in Tampa Bay. NMC is a unique voluntary partnership funded by contributions from participants. A Co-Chair from industry and a Co-Chair from local government in conjunction with representatives of the Tampa Bay Estuary Program provide oversight of the NMC.

#### ***WATER POLICY AND ECOSYSTEMS RESTORATION***

- Everglades Technical Oversight Committee – The Committee originated from the July 11, 1991, Settlement Agreement as a mechanism for technical review and conflict resolution to support the Everglades Program begun by the Agreement and continued in the 1994 Everglades Forever Act (Section 373.4592, F.S.).
- Restoration Strategies Science Plan Team – This interagency team required by the Restoration Strategies Regional Water Quality Plan accompanies the National Pollutant Discharge Elimination System Watershed Permits and associated consent orders for the Everglades Stormwater Treatment Areas (STAs). The team drafted a science plan that will ensure continued research and monitoring to improve and optimize the performance of the STAs.

- South Florida Ecosystem Restoration Task Force (SFERTF) – The SFERTF was established by Section 528(f) of the Water Resources Development Act of 1996. The Task Force: 1) coordinates the development of consistent policies, strategies, plans, programs, projects, activities and priorities addressing the restoration, preservation and protection of the South Florida ecosystem; 2) exchanges information regarding programs, projects and activities of the agencies and entities represented on the Task Force to promote ecosystem restoration and maintenance; 3) facilitates the resolution of interagency and intergovernmental conflicts associated with the restoration of the South Florida ecosystem among the agencies and entities represented on the Task Force; 4) coordinates scientific and other research associated with the restoration of the South Florida ecosystem; and 5) provides assistance and support to agencies and entities represented on the Task Force in their restoration activities.
- SFERTF Working Group – Assists the Task Force in its efforts to coordinate the development of consistent policies, strategies, plans, programs, projects, activities and priorities addressing the restoration, preservation and protection of the South Florida ecosystem.
- SFERTF Science Coordination Group – Continually documents and supports programmatic-level science and other research through updates and implementation of the Task Force's Plan for Coordinating Science.
- SFERTF Biscayne Bay Regional Restoration Team – Implements an Action Plan developed to integrate and coordinate restoration, enhancement, preservation projects, plans, and activities to help maintain a functioning Biscayne Bay ecosystem. The focus is on maintaining adequate volume and appropriate timing and distribution of freshwater flow to Biscayne Bay.
- Water Resources Analysis Coalition – This body to the South Florida Water Management District Governing Board and the South Florida Ecosystem Restoration Task Force serves as a forum for improving public participation and decision-making about water resource issues in South and Central Florida.
- North Florida Regional Water Supply Partnership – This partnership is a collaborative effort among the St. Johns River and Suwannee River Water Management Districts, the Department, local elected officials and area stakeholders to protect natural resources and ensure cost-effective and sustainable water supplies in northeast Florida.
- Central Florida Water Initiative (CFWI) – The CFWI builds on the prior work of the Central Florida Coordination Area. Both efforts focus on an area that includes southern Lake, Orange, Osceola, Seminole and Polk counties. The St. Johns River, Southwest Florida and South Florida Water Management Districts, along with the Department, Florida Department of Agriculture and Consumer Services, regional public water supply utilities and other stakeholders are collaborating to develop a unified process to address central Florida's current and long-term water supply needs.
- Restoration Coordination and Verification (RECOVER) Leadership Group – The Comprehensive Everglades Restoration Plan interagency team is responsible for coordinating and integrating the activities of the RECOVER technical teams and ensuring that the overall focus and direction of the implementation process remains consistent with the goals of system wide restoration.
- Loxahatchee River Management Coordinating Council – The Council, established by Chapter 83-358, Laws of Florida, advises the Department and South Florida Water Management District on matters that affect administration of the Loxahatchee River.



## ***ENVIRONMENTAL ASSESSMENT AND RESTORATION***

- Florida Water Resources Monitoring Council – The Council exists to promote information sharing among stakeholders that participate in monitoring efforts and management for marine waters, fresh surface waters and groundwater in Florida. By fostering communication, cooperation and collaboration, the Council works to share monitoring data, including promoting the use of the Watershed Information Network (WIN) data repository, and works to identify and address overlap and gaps in monitoring programs, catalog monitoring programs, and investigate marine and coastal monitoring initiatives. As part of the work of the Council, Water-CAT was developed, which is an interactive, searchable, web-enabled database of state, federal, local, private sector and volunteer organizations that monitor water resources in Florida. The Council comprises the Department, the departments of Health and Agriculture and Consumer Services, Florida Fish and Wildlife Conservation Commission, Water Management Districts, local governments, federal agencies and volunteer organizations.
- Florida Harmful Algal Bloom Task Force – The Florida Harmful Algal Bloom Task Force was established in 1999. Part J of Governor Ron DeSantis’ Executive Order 19-12 (Achieving More Now for Florida’s Environment) requires the Department to “Participate in Florida Fish and Wildlife Conservation Commission’s (FWCC) Harmful Algal Bloom Task Force to provide technical expertise and assistance studying causes and impacts of red tide. The Department of Health is also directed to participate in FWCC’s Task Force to help study air quality and human health impacts of red tide”. The Florida Harmful Algal Bloom Task Force will work with the newly formed Blue-Green Algae Task Force to create a comprehensive plan to improve water quality and mitigate harmful algal blooms.
- Pesticide Registration Evaluation Committee – In general, each brand of pesticide distributed, sold, or offered for sale within Florida, or delivered for transportation or transported in intrastate commerce or between points in Florida through any point outside the state, must be registered by the Florida Department of Agriculture and Consumer Services (FDACS). Registrations must be renewed biennially. FDACS established the Pesticide Registration Evaluation Committee to implement its review responsibilities and obtain input from involved FDACS staff and affected state agencies. DEAR represents the Department on the Committee.

## ***WATER RESOURCE MANAGEMENT***

- Miami-Dade County Lake Belt Mitigation Committee – This interagency committee was created pursuant to Section 373.41492, F.S., to approve expenditures of mitigation fee funds to conduct projects to offset the impacts of limestone mining within the Miami-Dade County Lake Belt Area.
- Domestic Wastewater 2.0 – The Division of Water Resource Management established Domestic Wastewater 2.0 in 2017 to implement proactive strategies to eliminate sanitary sewer overflows (SSOs) from wastewater collection and transmission systems to reduce potential impacts to human health, safeguard Florida’s natural resources and enhance its ecosystems.
- Nonmandatory Land Reclamation Committee – The Committee was created pursuant to Section 378.033, F.S., to advise the Department on nonmandatory reclamation of lands disturbed before July 1, 1975.

## ***WASTE MANAGEMENT***

- Brownfield Areas Loan Guarantee Council – The Council was created pursuant to Subsection 376.86(1), F.S., to approve or deny the situations and circumstances for a limited state guaranty of up to five years of loan guarantees or loan loss reserves for redevelopment of a Brownfield area.

## ***RECREATION AND PARKS***

### *State Park Operations*

- Visit Florida – Florida State Parks is a Visit Florida partner and serves on the Industry Relations Committee and other committees as appropriate.
- Florida Attractions Association – Florida State Parks is a member of the Florida Attractions Association that promotes and advances the interests of the attraction industry.
- Florida Trail of Indian Heritage – Florida State Parks is a member of the network of archaeological sites, history museums, heritage interpreters and county, state and national parks working together to promote responsible site visitation and public education of Florida's Indian heritage.
- Florida Association of Destination and Marketing Organizations – Florida State Parks is a member of the organization that is the single unifying voice for all of Florida's destination marketing organizations, providing insight and direction as Florida enters a new millennium marked by an increasing competitive tourism marketplace.
- Florida Recreation and Park Association – Florida State Parks is a member of the organization that provides professional development, networking and resources to its members. The organization also provides advocacy for parks and recreation interests.
- National Recreation and Park Association – Florida State Parks is a member of the organization that is dedicated to advancing park, recreation and conservation efforts that enhance the quality of life for all people.
- Wekiva River System Advisory Management Council – Florida State Parks is a member of the organization that oversees the federally designated Wild and Scenic Wekiva River Basin. The organization is staffed by the National Park Service and advises the Secretary of the Interior on any river issues.
- Florida's Prescribed Burning Councils – Florida State Parks is a member of the Florida's North, Central and South Prescribed Burning Councils with multi-agencies who develop fire management policies and coordination for the State of Florida.
- Florida Greenways and Trails Council – Pursuant to Chapter 260, F.S., this advisory council reports on greenways and trails issues statewide.
- Florida Bicycle and Pedestrian Partnership Council – The Office of Greenways and Trails represents the Department on this Council. The Council was established in 2010 by the Florida Department of

Transportation (DOT) to make policy recommendations to DOT and transportation partners throughout Florida on the state's walking, bicycling and trail facilities.

- Florida Paddling Trails Association – Members serve as the volunteer Stewards of Florida's paddling. An Office of Greenways and Trails (OGT) representative serves on the executive committee.
- American Trails – Nonprofit group works to enhance and protect America's network of interconnected trails. Division of Recreation and Parks is a member and staff take advantage of the group's webinars.
- Florida National Scenic Trail Coalition – US Forest Service and its partners work to complete, protect, maintain and promote Florida National Scenic Trail as a distinct Florida recreation asset and to ensure an optimum, nationally significant recreation experience.
- Society for Outdoor Recreation Professionals (SORP) – The Society of Outdoor Recreation Professionals (SORP) is the nation's leading association of outdoor recreation and related professionals. The mission of SORP is to protect natural and cultural resources by promoting sustainable recreational access through research, planning, management, and policy development.

#### *Florida State Parks*

- Technical Advisory Committee – The Office of Greenways and Trails represents the Department on this Committee and makes recommendations to the Capital Region Transportation Planning Agency Board regarding the development of an efficient, safe and cost-effective transportation system that considers the needs of users of all modes of transportation, including bicycle/pedestrian and transit.
- Florida Off-Highway Vehicle (OHV) Advisory Committee – The Office of Greenways and Trails represents the Department on this Committee, which was established in Chapter 261, F.S. The Committee members are appointed by the Commissioner of the Department of Agriculture and Consumer Service to establish policies to guide the Department regarding the OHV Recreation Program and the system of OHV recreation areas and trails.
- Florida Scenic Highways Advisory Committee – The Office of Greenways and Trails represents the Department on this committee, which was established by Section 335.093, F.S. The Florida Scenic Highways Program (FSHP) was developed “to preserve, maintain, protect and enhance Florida's outstanding cultural, historical, archeological, recreational, natural and scenic resources.” The Committee advises the Florida Department of Transportation on whether the candidate corridors have met all requirements specified in the FSHP Manual, Rule 14.15.016, F.A.C. Also, services on the Big Bend Scenic Byway that is one of the committees that makes up the Florida Scenic Highways Organizations.
- Preventive Health and Health Services Block Grant (PHHSBG) Advisory Committee Meeting - Through the Florida Department of Health. The Florida PHHSBG Advisory Committee serves as an advisory unit to the Florida Department of Health (DOH). The Advisory Committee consults on the planning, program priorities, funding decisions, and the maintenance of the funding accountability. Current priorities include Healthiest Weight Florida, Chronic Disease Prevention, Community Health Assessment, and Community Health Improvement Planning.

- Healthy Weight, Nutrition and Physical Activity (HWNPA) Workgroup for the State Health Improvement Plan (SHIP) - Through the Florida Department of Health. The Advisory Committee consults on the planning, program priorities, funding decisions, and the maintenance of the funding accountability. Current priorities include Improve access to and participation in physical activity opportunities within the built environment for Florida to increase healthy weight.
- Rural Economic Development Initiative Committee - Through the Florida Department of Economic Opportunity. The Rural Economic Development Initiative was established to significantly improve Florida's rural economies, specifically in terms of personal income, job creation, average wages and strong tax bases. Work with communities to improve their rural economies.

#### *Resilience and Coastal Protection*

- Florida Oceans and Coastal Resources Council – Established in Chapter 2005-166, Laws of Florida, the Council assists the state in identifying new research strategies to maximize protection and conservation of ocean and coastal resources while recognizing their economic benefits. The Council reviews existing research and prepares a Florida Ocean and Coastal Scientific Research Plan annually.
- Florida Keys National Marine Sanctuary Advisory Council – Formed by a Memorandum of Understanding signed by the Board of Trustees of the Internal Improvement Trust Fund, the Council provides oversight and direction to the management of the Florida Keys National Marine Sanctuary.
- U.S. Coral Reef Task Force (Interior/Commerce) – Executive Order 13089 by the President of the United States, created the U.S. Coral Reef Task Force and established the Coral Reef Conservation Program within the Office of Resilience and Coastal Protection (RCP).
- Gulf of Mexico Alliance – RCP participates in an association of representatives of the five Gulf of Mexico states and federal agencies to coordinate coastal research, management and education efforts.
- Coastal States Organization – RCP holds a seat on the executive committee. The Coastal States Organization represents the coastal states and has important input on ocean and coastal policies at a national level.
- Clean Boating Partnership - The mission of the Clean Boating Partnership is to coordinate public and private resources to promote a clean marine environment and foster stewardship of Florida's waters.

#### ***AIR RESOURCES MANAGEMENT***

- Small Business Air Pollution Compliance Advisory Council – The council, established in Section 403.8051, F.S., is comprised of seven members from different small business groups across the state to review and advise the Department on the effectiveness of the Small Business Environmental Assistance Program.
- Florida Air Monitoring Advisory Committee – The Advisory Committee exists to identify and address air monitoring quality assurance issues, and to provide guidance and training to the statewide Quality Assurance (QA) Coordinators. It comprises QA representatives from the Department and nine local air monitoring agencies.

## **STUDIES IN PROGRESS**

### ***FLORIDA GEOLOGICAL SURVEY***

Applied geology, hydrogeology, geophysics and geochemistry projects are ongoing in collaboration with regional, state and federal agencies and academia. Examples include statewide aquifer vulnerability modeling, statewide sinkhole geohazard mapping, informing our current knowledge of complex arsenic behavior Florida's hydrogeological environment, characterization and assessment of spring and coastal watersheds and detailed surface and subsurface geologic mapping. Applications of these projects include mitigation of groundwater contamination and sinkhole hazards, development of alternative drinking water supplies, characterization of mineral resources and refining frameworks for improve water balance/flow models in support of resource sustainability and springs restoration. FGS activities also include sea-floor characterization in cooperation with Florida Fish and Wildlife Conservation Commission in support of the Florida Coastal Mapping Program multi-agency initiative. FGS also participates in work funded by the U.S. Department of Interior's Bureau of Ocean Energy Management. Other partners include Water Management Districts, the Department's Regulatory and Ecosystem Restoration programs, U.S. Geological Survey, the National Park Service, Florida Division of Emergency Management and the State University System.

### ***ENVIRONMENTAL ASSESSMENT AND RESTORATION***

#### **South Florida Canal Aquatic Life Study**

The Division of Environmental Assessment and Restoration (Division) conducted a study to comprehensively assess south Florida canals and their aquatic life. Study objectives were to:

1. Define appropriate and desired aquatic life;
2. Determine interrelationships between aquatic life and other variables that affect them;
3. Evaluate the best attainable condition for the canals; and
4. Identify information that can be used to guide management decisions.

The data collection phase of the study has been completed and the Department has prepared a report summarizing the results. The results indicate the canals frequently do not achieve the generally applicable criteria for several parameters (dissolved oxygen, chlorophyll, pH, and specific conductance) related to both natural and anthropogenic/management causes. Additionally, the canals generally have limited biological communities compared to natural streams. The Division plans to present results of the study at public workshops in south Florida in early fall of 2019 and will prepare a list of potential regulatory options for consideration that acknowledge the unique characteristics of the canals. More information regarding the study is available at: <https://floridadep.gov/dear/water-quality-standards/content/south-florida-canal-aquatic-life-study>.

#### **Alternative Drainfield Study**

The Division, in cooperation with the state park system and the Florida Department of Health, is evaluating simplified, low-cost alternatives to enhance nitrogen removal by conventional septic tank drainfields. In many populated areas, including near spring systems, nitrogen leaching into ground water is a significant problem. Monitoring of nitrogen removal by an under-drainfield amendment (recycled wood chips) for the septic system at the Ichetucknee Springs State Park Manager's residence is in its 5th year and is continuing to demonstrate reductions. Quarterly reports are provided to the Department of Health (DOH).

Additionally, two other systems have been installed. A passive drain field study funded by the Division was completed by the University of Central Florida at the Wekiva Park Rangers residence. This system utilized “Bold and Gold” as the drainfield media in a lined containment. Results demonstrated increased nutrient removal for the system. Also, a passive drain field system installed in 2016, which is comprised of a mulch layer in a lined drainfield. Quarterly reports submitted to DOH for the subsequent 3 years document the reductions achieved.

#### Microbial Source Tracking

DEAR is using molecular source tracking (MST) methods to identify sources of fecal contamination in waters considered to be impaired (not meeting water quality standards) for fecal coliform bacteria. Methods that can differentiate human-induced fecal contamination from natural sources of bacteria are desirable when determining what action to take in response to a waterbody being listed as impaired. The Department’s Laboratory (lab) can analyze genetic material extracted from water samples using new molecular biology methods to detect genetic markers that indicate the presence of human fecal contamination. The lab has validated additional genetic markers to identify the presence of other non-human sources of fecal contamination, such as birds, dogs, and cattle, and will continue to add new molecular markers for additional animals as needed. The lab also analyses for chemical markers of human fecal waste, which may include the artificial sweetener sucralose (Splenda®); analgesics such as acetaminophen (Tylenol®); ibuprofen, and naproxen; and the anti-seizure medicines carbamazepine and primidone. A robust MST toolbox will assist the Department program staff identify and more quickly eliminate the sources of fecal contamination in our impaired waterbodies. The rapid detection and elimination of these fecal sources helps to reduce the risk to human health.

### ***WATER RESOURCE MANAGEMENT***

#### Domestic Wastewater Ocean Outfalls

Section 403.086(9), F.S., prohibits construction of new domestic wastewater ocean outfalls, sets out a timeline for elimination of existing domestic wastewater ocean outfalls by 2025, and requires that a majority of the wastewater previously discharged be beneficially reused. Each of the ocean outfall permit holders submitted an updated detailed plan for meeting the requirements by the July 1, 2016, statutory deadline. The permit holder’s next, progress report is due by December 31, 2019, and the Department’s next report to the Governor and Florida Legislature is due by July 1, 2020.

### ***RECREATION AND PARKS***

#### Statewide Outdoor Recreation Plan Participant Survey

The Department’s Division of Recreation and Parks (DRP) is undertaking a project to assess Florida residents' and tourists' outdoor recreation participation. The results of the project will be used in the development of the 2019 Statewide Comprehensive Outdoor Recreation Plan (SCORP). Section 375.021, F.S., provides the Department with the authority to develop and execute the multipurpose outdoor recreation plan. The main purpose of the plan is to document recreational demand and estimate the need for additional recreation opportunities. The plan is intended to be a broad statewide and regional appraisal of the outdoor recreation needs of Florida and a guide for the development of a diverse, balanced statewide outdoor recreation system.

## CONCLUSION

The Department works within the framework of the Governor's statewide priorities to identify the environmental and regulatory issues that should be addressed during the next five years. These broad and ongoing efforts include monitoring and assessing Florida's waters, restoring America's Everglades, promoting regulatory accountability by identifying and eliminating unnecessary and burdensome regulations, and providing citizens and visitors with year-round, nature-based recreational opportunities.

The Department continually develops, evaluates and improves strategies needed to address these broad ranging challenges. Because we live in a constantly evolving world of technological, industrial and environmental change, it is imperative to initiate solutions rather than respond to problems. We must always be willing and able to efficiently identify and implement new, more effective problem-solving techniques. The objectives, strategies, outcomes and philosophies embodied in this Long Range Program Plan represent the foundation upon which this philosophy is transformed into a reality for the benefit of all Floridians.



Performance Measures and Standards -  
LRPP Exhibit II



**Performance Measures and Standards – LRPP Exhibit II**

Department of Environmental Protection - 37000000

Program	Budget Entity & Performance Measures	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
Administrative Services 37010000	<i>Executive Direction and Support Services - 37010100</i>				
	Administrative costs as a percent of total agency costs	1.4%	0.75%	1.4%	1.4%
	Administrative positions as a percent of total agency positions	8.5%	7.8%	8.5%	8.5%
	Average permit application time in house (receipt to agency action)	30 Days	24.7 Days	30 Days	30 Days
	Percent of regulated sites and facilities in compliance	95%	95%	95%	95%
	<i>Emergency Response – 37010400</i>				
	Percent of pollutant discharge sites remediated by the responsible party/owner in the context of emergency response	76%	81%	76%	76%
State Lands 37100000	<i>Land Administration and Management - 37100400</i>				
	Percentage of Land Use Plans and Land Management Plans meeting land management and conservation goals	85%	85%	85%	85%
	Average processing time for upland and submerged land instruments	45 Days	45 Days	45 Days	45 Days

Program	Budget Entity & Performance Measures	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
Water Policy and Ecosystems Restoration 37200000	<i>Water Policy and Ecosystems Restoration - 37200100</i>				
	Percent of Florida's 2030 public water supply demand met	5%	5%	5%	5%
	Percent of restoration activities completed over the last year (as required by the Everglades Water Quality Plan)	100%	100%	100%	100%
Water Restoration Assistance 37220000	<i>Water Restoration Assistance - 37220100</i>				
	Percentage of critically eroded miles of beach that are currently restored and maintained	55.8%	54.7%	55.8%	55.8%
	<b>Proposed New Measure:</b> Percent of agreements executed that maintain/improve water quality	N/A	N/A	N/A	70%

Program	Budget Entity & Performance Measures	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
Environmental Assessment and Restoration 37300000	<i>Water Science and Laboratory Services - 37300100</i>				
	Percent of groundwater quality monitoring wells that reflect good water quality (no exceedances of ground water quality standards)	85%	81.65 ± 4.55%	85%	85%
	Percent of Florida's freshwater surface waters that meet priority water quality criteria (nutrients and dissolved oxygen): 1) Large lakes; 2) Small lakes; 3) Rivers; 4) Streams	<p>Large Lakes: TN - 85%; TP - 70%; DO - 95%</p> <p>Small Lakes: TN - 85%; TP - 90%; DO - 90%</p> <p>Rivers: TN - 70%; TP - 82%; DO - 95%</p> <p>Streams: TN - 65%; TP - 75%; DO - 80%</p>	<p>Large Lakes: TN - 82.0 ± 3.8% TP - 73.5 ± 3.9% DO - 98.1 ± 0.7%</p> <p>Small Lakes: TN - 97.1 ± 1.2% TP - 93.2 ± 1.4% DO - 80.1 ± 2.8%</p> <p>Rivers: TN - 75.4 ± 2.3% TP - 85.1 ± 1.8% DO - 86.4 ± 1.9%</p> <p>Streams: TN - 72.4 ± 3.0% TP - 87.0 ± 1.5% DO - 76.2 ± 3.0%</p>	<p>Large Lakes: TN - 85%; TP - 70%; DO - 95%</p> <p>Small Lakes: TN - 85%; TP - 90%; DO - 90%</p> <p>Rivers: TN - 70%; TP - 82%; DO - 95%</p> <p>Streams: TN - 65%; TP - 75%; DO - 80%</p>	<p>Large Lakes: TN - 85%; TP - 70%; DO - 95%</p> <p>Small Lakes: TN - 85%; TP - 90%; DO - 90%</p> <p>Rivers: TN - 70%; TP - 82%; DO - 95%</p> <p>Streams: TN - 65%; TP - 75%; DO - 80%</p>

Program	Budget Entity & Performance Measures	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
Water Resource Management 37350000	<i>Water Resource Management – 37350400</i>				
	Percent of reclaimed water (reuse) capacity relative to total domestic wastewater capacity; percent of treated domestic wastewater reused for beneficial purposes	60%; 45%	67%, 48%	60%; 45%	60%; 45%
	Percent of public water systems with no significant health drinking water quality problems	94%	94%	94%	94%
Waste Management 37450000	<i>Waste Management – 37450300</i>				
	Percent of municipal solid waste recycled	50%	50%	50%	50%
	Percent of contaminated sites with cleanup completed	47%	68%	47%	47%
Recreation and Parks 37500000	<i>State Park Operations – 37500300</i>				
	Percent change in the number of state parks acres restored or maintained in native state from the prior fiscal year	5.0%	10.2%	5.0%	5.0%

Program	Budget Entity & Performance Measures	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
	Percent increase in the number of visitors from the prior fiscal year	3.5%	4.5%	3.5%	3.5%
	<i>Coastal and Aquatic Managed Areas – 37500400</i>				
	Total number of degraded acres in National Estuarine Research Reserves enhanced or restored	1,320	1,320	1,320	1,320
	Percent increase in number of visitors	1.3%	1.3%	1.3%	1.3%
Air Resources Management 37550000	<i>Air Resources Management – 37550500</i>				
	Percent of time population breathes good or moderate quality air	99.1%	99.8%	99.1%	99.1%
	Percent change in per capita annual emissions of priority pollutants (nitrous oxides, sulfur dioxide, carbon monoxide, volatile organic compounds) compared with the level 5 years ago	-3.8%	Nitrogen Oxides (NOx) -30.36%  Sulfur Dioxide (SO2) -47.06%  Carbon Monoxide (CO) -22.11%  Volatile Organic Compounds (VOC) -22.94%	-3.8%	-3.8%

Program	<i>Budget Entity &amp; Performance Measures</i>	Approved Prior Year Standard FY 2018-19	Prior Year Actual 2018-19	Approved Measures and Standard FY 2019-20	Requested Measures and Standard FY 2020-21
Environmental Law Enforcement 37700100	<i>Environmental Law Enforcement – 37700100</i>				
	<b>Proposed New Measure:</b> Percent of environmental law investigations to 100,000 Florida population	N/A	N/A	N/A	1.0%



Assessment of Performance for Approved  
Performance Measures -  
LRPP Exhibit III

## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Water Restoration Assistance (moving to Water Resource Management)

**Service/Budget Entity:** Water Resource Assistance/37220100 (moving to Water Resource Management/37350400)

**Measure:** Percentage of critically eroded miles of beach that are currently restored and maintained

**Action:**

- Performance Assessment of Outcome Measure     Revision of Measure
- Performance Assessment of Output Measure     Deletion of Measure
- Adjustment of GAA Performance Standards

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
55.8%	54.7%	-1.1%	2%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- Personnel Factors
- Staff Capacity
- Competing Priorities
- Level of Training
- Previous Estimate Incorrect
- Other (Identify)

**Explanation:**

The amount of critically eroded and non-critically eroded beaches is assessed and updated annually in the “Critically Eroded Beaches in Florida” Report.

**External Factors** (check all that apply):

- Resources Unavailable
- Technological Problems
- Legal/Legislative Change
- Natural Disaster
- Target Population Change
- Other (Identify)
- This Program/Service Cannot Fix the Problem
- Current Laws Are Working Against the Agency Mission

**Explanation:**

The number of miles of critically eroded beach can increase or decrease as beaches are managed/restored/nourished and/or impacted by major storm events.

**Management Efforts to Address Differences/Problems** (check all that apply):

- Training
- Technology
- Personnel
- Other (Identify)

**Recommendations:**



## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Environmental Assessment and Restoration

**Service/Budget Entity:** Water Science and Laboratory Services/37300100

**Measure:** Percent of groundwater quality monitoring wells that reflect good water quality (no exceedances of groundwater quality standards)

**Action:**

- Performance Assessment of Outcome Measure     Revision of Measure  
 Performance Assessment of Output Measure     Deletion of Measure  
 Adjustment of GAA Performance Standards

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
85%	81.65 ± 4.55%	(3.35%)	4%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- |   |  |
|---|--|
| <input type="checkbox"/> Personnel Factors<br><input type="checkbox"/> Competing Priorities<br><input type="checkbox"/> Previous Estimate Incorrect | <input type="checkbox"/> Staff Capacity<br><input type="checkbox"/> Level of Training<br><input type="checkbox"/> Other (Identify) |
|---|--|

**Explanation:**

**External Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Resources Unavailable<br><input type="checkbox"/> Legal/Legislative Change<br><input type="checkbox"/> Target Population Change<br><input type="checkbox"/> This Program/Service Cannot Fix the Problem<br><input type="checkbox"/> Current Laws Are Working Against the Agency Mission | <input type="checkbox"/> Technological Problems<br><input type="checkbox"/> Natural Disaster<br><input checked="" type="checkbox"/> Other (Identify) |
|--|--|

**Explanation:**

The performance results for the current reporting period fall 4% below the standard. This value is within the statistically calculated margin of error, which is ±4.55%, and indicates no statistical change (i.e., there is not a difference from the standard). Weather conditions – drought and rain cycles – influence nutrient concentrations and may be the reason for the variability within an acceptable range.

**Management Efforts to Address Differences/Problems** (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Training<br><input type="checkbox"/> Personnel | <input type="checkbox"/> Technology<br><input checked="" type="checkbox"/> Other (Identify) |
|---|---|

**Recommendations:**

The Department's Office of Water Policy is working with Florida's five water management districts to more aggressively develop and implement minimum flow and level (MFL) determinations and, in turn, implement recovery strategies, including alternative water supply development and stronger consumptive use permitting, where warranted. Implementation of these MFLs and recovery strategies will, over time, further reduce the demand on water quantity and begin to restore depleted systems.

## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Environmental Assessment and Restoration

**Service/Budget Entity:** Water Science and Laboratory Services/37300100

**Measure:** Percent of Florida's large lakes that meet water quality criteria for total nitrogen

**Action:**

- Performance Assessment of Outcome Measure     Revision of Measure  
 Performance Assessment of Output Measure     Deletion of Measure  
 Adjustment of GAA Performance Standards

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
85%	82.0 ± 3.8%	(3%)	3.6%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- |   |  |
|---|--|
| <input type="checkbox"/> Personnel Factors<br><input type="checkbox"/> Competing Priorities<br><input type="checkbox"/> Previous Estimate Incorrect | <input type="checkbox"/> Staff Capacity<br><input type="checkbox"/> Level of Training<br><input type="checkbox"/> Other (Identify) |
|---|--|

**Explanation:**

**External Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Resources Unavailable<br><input type="checkbox"/> Legal/Legislative Change<br><input type="checkbox"/> Target Population Change<br><input type="checkbox"/> This Program/Service Cannot Fix the Problem<br><input type="checkbox"/> Current Laws Are Working Against the Agency Mission | <input type="checkbox"/> Technological Problems<br><input type="checkbox"/> Natural Disaster<br><input checked="" type="checkbox"/> Other (Identify) |
|--|--|

**Explanation:**

The performance results for the current reporting period fall 3% below the standard. This value is within the statistically calculated margin of error for the results, which is ± 3.8%, and indicates no statistical change (i.e., there is not a difference from the standard). Weather conditions – drought and rain cycles – influence nutrient concentrations and may be the reason for the variability within an acceptable range.

**Management Efforts to Address Differences/Problems** (check all that apply):

- |   |   |
|---|---|
| <input type="checkbox"/> Training<br><input type="checkbox"/> Personnel | <input type="checkbox"/> Technology<br><input checked="" type="checkbox"/> Other (Identify) |
|---|---|

**Recommendations:**

The Department cannot adjust policies or practices which will improve short-term outcome performance. The agency proposes to continue to focus on the assessment and identification of nutrient water quality problems, the establishment of aggressive restoration targets (total maximum daily loads, or TMDLs) and the implementation of comprehensive restoration plans (BMAPs). In addition, continued implementation of Florida's rigorous numeric nutrient criteria through the permitting of wastewater and stormwater systems will reduce the impact of nutrients on surface waters.

## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Environmental Assessment and Restoration

**Service/Budget Entity:** Water Science and Laboratory Services/37300100

**Measure:** Percent of Florida's small lakes that meet water quality criteria for dissolved oxygen

**Action:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Performance Assessment of <u>Outcome</u> Measure | <input type="checkbox"/> Revision of Measure |
| <input type="checkbox"/> Performance Assessment of <u>Output</u> Measure             | <input type="checkbox"/> Deletion of Measure |
| <input type="checkbox"/> Adjustment of GAA Performance Standards                     |  |

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
90%	80.1 ± 2.8%	(9.9%)	11.6%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Personnel Factors           | <input type="checkbox"/> Staff Capacity    |
| <input type="checkbox"/> Competing Priorities        | <input type="checkbox"/> Level of Training |
| <input type="checkbox"/> Previous Estimate Incorrect | <input type="checkbox"/> Other (Identify)  |

**Explanation:**

**External Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Resources Unavailable                               | <input type="checkbox"/> Technological Problems      |
| <input type="checkbox"/> Legal/Legislative Change                            | <input type="checkbox"/> Natural Disaster            |
| <input type="checkbox"/> Target Population Change                            | <input checked="" type="checkbox"/> Other (Identify) |
| <input type="checkbox"/> This Program/Service Cannot Fix the Problem         |  |
| <input type="checkbox"/> Current Laws Are Working Against the Agency Mission |  |

**Explanation:**

Low dissolved oxygen in waterbodies can be due to numerous factors both natural and human induced, such as limited flow, increased biomass (plants and algae) from excessive nutrients, organic material decomposition, increased temperature and other weather fluctuations – drought and rain cycles.

Excessive nutrients come from multiple sources both regulated by the Department (e.g., waste water effluent, urban stormwater) and outside its regulatory jurisdiction (e.g., septic systems, agricultural stormwater and urban fertilizer). The Department addresses regulated sources by setting total maximum daily loads (TMDLs), which are adopted limits on the amount of pollution that may be assimilated by a waterbody and still achieve water quality standards, and through basin management action plans (BMAPs),

which are developed by stakeholders and designed to achieve adopted TMDLs. Both are long-term processes requiring extensive investment in water quality protection infrastructure and changes in environmental stewardship behaviors and practices.

**Management Efforts to Address Differences/Problems** (check all that apply):

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Training  | <input type="checkbox"/> Technology                  |
| <input type="checkbox"/> Personnel | <input checked="" type="checkbox"/> Other (Identify) |

**Recommendations:**

The Department cannot adjust policies or practices which will improve short-term outcome performance. The agency proposes to continue to focus on the assessment and identification of nutrient water quality problems, the establishment of TMDLs, and the implementation of BMAPs. In addition, continued implementation of Florida's rigorous numeric nutrient criteria through the permitting of wastewater and stormwater systems will reduce the impact of nutrients on surface waters.

## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Environmental Assessment and Restoration

**Service/Budget Entity:** Water Science and Laboratory Services/37300100

**Measure:** Percent of Florida's rivers that meet water quality criteria for dissolved oxygen

**Action:**

- Performance Assessment of Outcome Measure     Revision of Measure
- Performance Assessment of Output Measure     Deletion of Measure
- Adjustment of GAA Performance Standards

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
95%	86.4 ± 1.9%	(8.6%)	9.5%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- Personnel Factors
- Staff Capacity
- Competing Priorities
- Level of Training
- Previous Estimate Incorrect
- Other (Identify)

**Explanation:**

**External Factors** (check all that apply):

- Resources Unavailable
- Technological Problems
- Legal/Legislative Change
- Natural Disaster
- Target Population Change
- Other (Identify)
- This Program/Service Cannot Fix the Problem
- Current Laws Are Working Against the Agency Mission

**Explanation:**

Low dissolved oxygen in waterbodies can be due to numerous factors both natural and human induced, such as limited flow, increased biomass (plants and algae) from excessive nutrients, organic material decomposition, increased temperature and other weather fluctuations – drought and rain cycles.

Excessive nutrients come from multiple sources both regulated by the department (e.g., waste water effluent, urban stormwater) and outside its regulatory jurisdiction (e.g., septic systems, agricultural stormwater and urban fertilizer). The department addresses regulated sources by setting total maximum daily loads (TMDLs), which are adopted limits on the amount of pollution that may be assimilated by a waterbody and still

achieve water quality standards, and through basin management action plans (BMAPs), which are developed by stakeholders and designed to achieve adopted TMDLs. Both are long-term processes requiring extensive investment in water quality protection infrastructure and changes in environmental stewardship behaviors and practices.

**Management Efforts to Address Differences/Problems** (check all that apply):

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Training  | <input type="checkbox"/> Technology                  |
| <input type="checkbox"/> Personnel | <input checked="" type="checkbox"/> Other (Identify) |

**Recommendations:**

The Department cannot adjust policies or practices which will improve short-term outcome performance. The agency proposes to continue to focus on the assessment and identification of nutrient water quality problems, the establishment TMDLs, and the implementation of BMAPs. In addition, continued implementation of Florida's rigorous numeric nutrient criteria through the permitting of wastewater and stormwater systems will reduce the impact of nutrients on surface waters.



## LRPP Exhibit III: PERFORMANCE MEASURE ASSESSMENT

**Department:** Environmental Protection

**Program:** Environmental Assessment and Restoration

**Service/Budget Entity:** Water Science and Laboratory Services/37300100

**Measure:** Percent of Florida's streams that meet water quality criteria for dissolved oxygen

**Action:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Performance Assessment of <u>Outcome</u> Measure | <input type="checkbox"/> Revision of Measure |
| <input type="checkbox"/> Performance Assessment of <u>Output</u> Measure             | <input type="checkbox"/> Deletion of Measure |
| <input type="checkbox"/> Adjustment of GAA Performance Standards                     |  |

Approved Standard	Actual Performance Results	Difference (Over/Under)	Percentage Difference
80%	76.2 ± 3.0%	(3.8%)	4.9%

**Factors Accounting for the Difference:**

**Internal Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Personnel Factors           | <input type="checkbox"/> Staff Capacity    |
| <input type="checkbox"/> Competing Priorities        | <input type="checkbox"/> Level of Training |
| <input type="checkbox"/> Previous Estimate Incorrect | <input type="checkbox"/> Other (Identify)  |

**Explanation:**

**External Factors** (check all that apply):

- |  |  |
|--|--|
| <input type="checkbox"/> Resources Unavailable                               | <input type="checkbox"/> Technological Problems      |
| <input type="checkbox"/> Legal/Legislative Change                            | <input type="checkbox"/> Natural Disaster            |
| <input type="checkbox"/> Target Population Change                            | <input checked="" type="checkbox"/> Other (Identify) |
| <input type="checkbox"/> This Program/Service Cannot Fix the Problem         |  |
| <input type="checkbox"/> Current Laws Are Working Against the Agency Mission |  |

**Explanation:**

Low dissolved oxygen in waterbodies can be due to numerous factors both natural and human induced, such as limited flow, increased biomass (plants and algae) from excessive nutrients, organic material decomposition, increased temperature and other weather fluctuations – drought and rain cycles.

Excessive nutrients come from multiple sources both regulated by the department (e.g., waste water effluent, urban stormwater) and outside its regulatory jurisdiction (e.g., septic systems, agricultural stormwater and urban fertilizer). The department addresses regulated sources by setting total maximum daily loads (TMDLs), which are adopted limits on the amount of pollution that may be assimilated by a waterbody and still

achieve water quality standards, and through basin management action plans (BMAPs), which are developed by stakeholders and designed to achieve adopted TMDLs. Both are long-term processes requiring extensive investment in water quality protection infrastructure and changes in environmental stewardship behaviors and practices.

**Management Efforts to Address Differences/Problems** (check all that apply):

- Training
- Personnel

- Technology
- Other (Identify)

**Recommendations:**

The Department cannot adjust policies or practices which will improve short-term outcome performance. The agency proposes to continue to focus on the assessment and identification of nutrient water quality problems, the establishment of TMDLs, and the implementation of BMAPs. In addition, continued implementation of Florida's rigorous numeric nutrient criteria through the permitting of wastewater and stormwater systems will reduce the impact of nutrients on surface waters.



Performance Measure Validity and Reliability -  
LRPP Exhibit IV

## LRPP EXHIBIT IV: Performance Measure Validity and Reliability

**Department:** Environmental Protection

**Program:** Water Restoration Assistance

**Service/Budget Entity:** Water Restoration Assistance/37220100

**Measure:** Percent of agreements executed that maintain/improve water quality

**Action** (check one):

- Requesting revision to approved performance measure.
- Change in data sources or measurement methodologies.
- Requesting new measure.
- Backup for performance measure.

### **Data Sources and Methodology:**

Each year the Department's Division of Water Restoration Assistance executes grant and loan agreements that provide funding for projects that provide safe drinking water, convey and treat wastewater and reclaimed water, abate stormwater pollution, and protect groundwater and surface water. Management of these agreements begins with drafting and execution of an agreement with a local grantee or project sponsor. After execution, the Division evaluates periodic project progress reports and reviews deliverables received. Representative projects are inspected and all agreements are monitored and subject to auditing by entities outside the Division. These agreements represent the majority of the activity of the Division, initiating and managing agreements that improve water quality and quantity. Many projects are not directly related to the objectives of improving water quality and quantity and providing safe drinking water but are intended to result in different benefits such as ecosystem restoration, tank capacity remediation, research activities and studies, flood control, demonstration projects, dredging for navigation, and resiliency. These agreements are also directed to the Division because of the Division's expertise with executing and managing agreements with local government sponsors.

The measure will show the proportion of agreements that are related to the Division's majority objectives compared to the total number of agreements executed in a given fiscal year. The calculation will divide the numerator (the cumulative total of grant agreements executed maintaining and/or improving water quality and drinking water) by the denominator (the cumulative total sum of grant agreements executed) and express the result as a percentage. The source of data will be the information recorded in Florida Accountability Contract Tracking System (FACTS) for the Division as reported for the fiscal year of interest. An example calculation is shown.

Percent = Total agreements executed maintaining and/or improving water quality and drinking water / Net Total agreements = 140 / 200 = 70%

The Division executes agreements across a number of program areas, including managing legislative water projects. Water projects are selected by the legislature. Other funding programs have some eligibility for projects such as demonstrations and studies. The standard for the measure should be selected considering the variability of project types and objectives inherent in legislative water projects and other funding programs. Considering four years of data, the standard for this measure for executing water quality and quantity agreements will be set at 70%.

**Validity:**

This measure will be a new measure for the Division of Water Restoration Assistance. It is valid because it represents the activity of the Division.

**Reliability:**

The measure is reliable because the data is tracked and documented in the procurement and financial reports and the calculation required is relatively simple and easy to duplicate with a spreadsheet.

## LRPP EXHIBIT IV: Performance Measure Validity and Reliability

**Department:** Environmental Protection

**Program:** Water Resource Management

**Service/Budget Entity:** Water Resource Management/37350400

**Measure:** Percentage of critically eroded miles of beach that are currently restored and maintained

**Action** (check one):

- Requesting revision to approved performance measure. (see note below)
- Change in data sources or measurement methodologies.
- Requesting new measure.
- Backup for performance measure.

Note: This measure will move from Budget Entity (37220100) Water Restoration Assistance to Budget Entity (37350400) Water Resource Management.

### **Data Sources and Methodology:**

Each year the department totals the miles of beaches that are designated as critically eroded that are under active management. Management begins with initial restoration and includes periodic maintenance through beach nourishment. Verification of maintenance is provided through permit-required project completion certification, permit-required monitoring, field inspection, and construction contract auditing.

The method will be to divide the total miles of critically eroded beaches that are currently restored and maintained by the total miles of critically eroded beaches and multiply by 100 to express the result as a percentage, rounded to one decimal place.

### **Validity:**

This measure is moving from Water Restoration Assistance to Water Resource Management and remains the same.

### **Reliability:**

The measure is reliable because of the quality assurance processes of certification, inspection and audit.

## LRPP EXHIBIT IV: Performance Measure Validity and Reliability

**Department:** Environmental Protection

**Program:** Environmental Crimes

**Service/Budget Entity:** Division of Environmental Law Enforcement /37700100

**Measure:** Percent of environmental law investigations to 100,000 Florida population

**Action** (check one):

- Requesting revision to approved performance measure.
- Change in data sources or measurement methodologies.
- Requesting new measure.
- Backup for performance measure.

### **Data Sources and Methodology:**

In Fiscal Year 2019-20, the Florida Department of Environmental Protection established the Environmental Crimes program within the Division of Environmental Law Enforcement. The main responsibilities of the Division include the maintenance of environmental standards, statewide consistency, law enforcement policy, training and criminal investigation. This includes the role of tracking the amount of each enforcement action type conducted by staff such as: Warning, Infraction, Misdemeanor, Felony, Direct File, Civil/Regulatory, Warrant Arrest, UTC, Unfounded, and Other.

An analysis will be calculated quarterly and annually to determine the number of environmental investigations in relation to the population of Florida. This will be done by taking the total number of investigations and dividing it by 100,000 to identify how many citizens are affected. Each report will be manually calculated on the last week day of each fiscal quarter.

### **Validity:**

This measure will be a new measure for the Division of Environmental Law Enforcement it is necessary to represent the activity of the Division associated with environmental crimes and investigation.

### **Reliability:**

The measure is reliable because the data on incident type is easily captured, documented, and maintained as well as the calculation required is relatively simple and easy to duplicate.



Associated Activities Contributing to  
Performance Measures -  
LRPP Exhibit V



**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

Approved Program Performance Measures Fiscal Year 2019-20	Associated Activities Title
<b>Administrative Services</b>	
Administrative costs as a percent of total agency costs	Executive Direction
Administrative positions as a percent of total agency positions	Executive Direction
Average permit application time in house (receipt to agency action)	Executive Direction
Percent of regulated sites and facilities in compliance	Executive Direction
Percent of pollutant discharge sites remediated by the responsible party/owner in the context of emergency response	On-site emergency response, off-site coordination and assistance and cost recovery
	Transfer to Florida Fish and Wildlife Conservation Commission to support Law Enforcement
<b>State Lands</b>	
Percentage of Land Use Plans and Land Management Plans meeting land management and conservation goals	Measure Percentage of Land Use Plans in compliance
	Measure Percentage of Land Use Plans not in compliance with statutory requirement.
	Coordinate outreach for conservation land management plans
	Evaluate conservation land management plans for statutory compliance
	Coordinate/conduct on-site conservation land management reviews on sites exceeding 1,000 acres
	Prepare individual reports of findings from on-site conservation land management reviews and compile for annual report as required by statute.
Average processing time for upland and submerged land instruments.	Measurement of time from the date of a complete application (uplands) or receipt of Delegation of Authority (submerged), to the time of mail-out to the lessee/grantee for signature.

**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

Approved Program Performance Measures Fiscal Year 2019-20	Associated Activities Title
<b>Water Policy and Ecosystems Restoration</b>	
Percent of Florida's 2030 public water supply demand met	Assure compliance with statutory requirements
Percent of restoration activities completed over the last year (as required by the Everglades Water Quality Plan)	Process water resource permits
	Authorize and encourage (or require) reuse of reclaimed water through department and water management district permitting programs
	Fund eligible alternative water supply projects through the State Revolving Fund and other funding programs
<b>Water Restoration Assistance</b>	
Percentage of critically eroded miles of beach that are currently restored and maintained	Fund priority beach projects
<b>Proposed New Measure:</b> Percent of agreements executed that maintain/improve water quality	<b>Proposed New Activity:</b> Execute priority water quality and drinking water improvement projects
<b>Environmental Assessment and Restoration</b>	
Percent of groundwater quality monitoring network wells that meet water quality standards	Fund priority public health and water resource protection and restoration projects
	Provide technical assistance, public education and outreach
	Establish water quality criteria and standards
	Monitor, assess and prioritize impaired surface waters and ground waters
	Interpret environmental data

**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

Approved Program Performance Measures Fiscal Year 2019-20	Associated Activities Title
	Analyze biological and chemical samples Develop total maximum daily load determinations for impaired waters
Percent of Florida's freshwater surface waters that meet priority water quality criteria (nutrients and dissolved oxygen): 1) Large lakes; 2) Small lakes; 3) Rivers; 4) Streams	Analyze biological and chemical samples Interpret environmental data Establish water quality criteria and standards Monitor, assess and prioritize impaired surface waters and ground waters Develop total maximum daily load determinations for impaired waters Fund priority public health and water resource protection and restoration projects Provide technical assistance, public education and outreach
<b>Water Resource Management</b>	
Percent of reclaimed water (reuse) capacity relative to total domestic wastewater capacity; percent of treated domestic wastewater reused for beneficial purposes	Process water resource permits Assure compliance with statutory requirements Provide technical assistance, public education and outreach Fund mine reclamation projects

**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

Approved Program Performance Measures Fiscal Year 2019-20	Associated Activities Title
	Authorize and encourage (or require) reuse of reclaimed water through department and water management district permitting programs
Percent of public water systems with no significant health drinking water quality problems	Process water resource permits
	Assure compliance with statutory requirements
	Provide technical assistance, public education and outreach
<b>Waste Management</b>	
Percent of municipal solid waste recycled	Reduce waste
	Fund waste management projects
	Conduct solid and hazardous waste compliance assurance
	Process solid and hazardous waste permit applications, variances, exemptions, certifications and registrations
	Pass through funding to the Florida Department of Agriculture for collection of agricultural pesticides
Percent of contaminated sites with cleanup completed	Manage government- funded cleanups of hazardous waste contaminated sites
	Conduct site investigations
	Conduct site technical reviews

**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

Approved Program Performance Measures Fiscal Year 2019-20	Associated Activities Title
	Manage government- funded cleanups of drycleaning contaminated sites
	Conduct petroleum storage systems compliance assurance
	Manage government- funded cleanups of petroleum contaminated sites
<b>Recreation and Parks</b>	
Percent-change in the number of state parks acres restored or maintained in native state from the prior fiscal year	Resource Management
Percent increase in the number of visitors from the prior fiscal year (State Parks)	Visitor Services/Recreation
<b>Coastal and Aquatic Managed Areas</b>	
Total number of degraded acres in National Estuarine Research Reserves enhanced or restored	Resource Management
Percent Increase in the number of visitors	Visitor Services/Recreation
<b>Air Resources Management</b>	
Percent of time population breaths good or moderate quality air	Monitor ambient air quality
	Analyze air quality and emissions
	Implement the Federal Clean Air Act
	Review and approve air resource permits.
	Air compliance assurance
	Small Business Assistance
	Coordination of Siting Acts, other certifications and report reviews

**LRPP Exhibit V: Identification of Associated Activity Contributing to Performance Measures**

<b>Approved Program Performance Measures Fiscal Year 2019-20</b>	<b>Associated Activities Title</b>
Percent change in per capita annual emissions of priority pollutants (nitrous oxides, sulfur dioxide, carbon monoxide, volatile organic compounds) compared with the level 5 years ago	Monitor ambient air quality
	Analyze air quality and emissions
	Implement the Federal Clean Air Act
	Review and approve air resource permits
	Air compliance assurance
	Small Business Assistance
	Coordination of Siting Acts, other certifications and report reviews
<b>Environmental Law Enforcement</b>	
<b>Proposed New Measure:</b> Percent of environmental law investigations to 100,000 Florida population	<b>Proposed New Activity:</b> Total number of investigations conducted

ENVIRONMENTAL PROTECTION, DEPARTMENT OF		FISCAL YEAR 2018-19			
SECTION I: BUDGET		OPERATING		FIXED CAPITAL OUTLAY	
TOTAL ALL FUNDS GENERAL APPROPRIATIONS ACT		529,000,186		1,248,629,715	
ADJUSTMENTS TO GENERAL APPROPRIATIONS ACT (Supplementals, Vetoes, Budget Amendments, etc.)		1,710,856		81,985,848	
FINAL BUDGET FOR AGENCY		530,711,042		1,330,615,563	
SECTION II: ACTIVITIES * MEASURES		Number of Units	(1) Unit Cost	(2) Expenditures (Allocated)	(3) FCO
Executive Direction, Administrative Support and Information Technology (2)					750,000
Coordinate Outreach For Conservation Land Management Plans * <b>Number of messages to managers regarding upcoming and past due Conservation Land Management Plans</b>		32	471,195.47	15,078,255	57,694,304
Evaluate Conservation Land Management Plans For Statutory Compliance * <b>Number of Conservation Land Management Plans approved for BOT by ARC or administrative process</b>		36	418,839.72	15,078,230	32,028,317
Measure Percentage Of Land Use Plans In Compliance * <b>Number of Land Use Plans received and approved</b>		567	26,593.00	15,078,231	32,028,316
Measure Percentage Of Land Use Plans Not In Compliance With Statutory Requirements * <b>Number of land use plans unapproved or not recieved per statutory requirements.</b>		12	1,256,519.25	15,078,231	32,028,316
Coordinate And Conduct On-site Land Management Reviews On Sites Exceeding 1,000 Acres * <b>Number of Conservation Land Management Reviews conducted</b>		34	443,477.38	15,078,231	32,028,316
Prepare Individual Reports Of Finding From Onsite Conservation Land Management Reviews & Compile Annual Reports Required By Statute * <b>Annual report provided to ARC and BOT</b>		1	15,078,230.00	15,078,230	32,028,317
Measurement Of Time From The Date Of Approval Of An Application Or Delegation Of Authority To Time Of Mailout To The Lessee For Signature * <b>Average number of days to process upland and submerged land instruments. Goal is 45 days or less.</b>		43	351,079.72	15,096,428	32,028,317
Fund Priority Beach Projects * <b>Miles of critically eroded beaches nourished/retored</b>		230	28,112.09	6,465,781	480,066,296
Oversee Responsible Party Cleanups Through Enforcement *		844	4,803.46	4,054,120	
Process Water Resource Permits *		24,322	4,219.80	102,634,068	265,373,781
Assure Compliance With Statutory Requirements *		5,170	3,287.00	16,993,815	
Provide Technical Assistance, Public Education And Outreach *		74,960	19.99	1,498,574	19,000,000
Fund Priority Public Health And Water Resource Protection And Restoration Projects * <b>Number of projects funded</b>		33	435,521.12	14,372,197	11,435,000
Establish Water Quality Criteria And Standards * <b>Number of water quality standards established</b>		17	277,054.35	4,709,924	
Monitor, Assess And Prioritize Impaired Surface And Ground Waters *		648	8,702.82	5,639,426	
Develop Total Maximum Daily Load Determinations For Impaired Waters * <b>Number of total maximum daily loads adopted</b>		17	241,230.12	4,100,912	
Fund Mine Reclamation Projects * <b>Number of mine reclamation projects underway</b>		12	136,370.33	1,636,444	
Fund Eligible Alternative Water Supply Projects Through The State Revolving Fund And Other Funding Programs *		32	11,028.41	352,909	
Manage Government-funded Cleanups Of Hazardous Waste Contaminated Sites * <b>Number of known contaminated sites being cleaned up</b>		425	6,417.96	2,727,632	5,000,000
Manage Government-funded Cleanups Of Drycleaning Contaminated Sites * <b>Number of known contaminated sites being cleaned up</b>		291	2,717.91	790,912	8,500,000
Manage Government-funded Cleanups Of Petroleum Contaminated Sites * <b>Number of known contaminated sites being cleaned up</b>		6,037	3,876.56	23,402,814	118,773,749
Process Solid And Hazardous Waste Permit Applications, Variances, Exemptions, Certifications And Registrations *		28,966	125.71	3,641,183	
Conduct Solid And Hazardous Waste Compliance Assurance *		1,433	6,107.90	8,752,617	
Conduct Petroleum Storage Systems Compliance Assurance *		312	33,337.07	10,401,166	
Reduce Waste * <b>Number of local household hazardous waste collection center grants funded</b>		5	542,101.40	2,710,507	1,000,000
Conduct Site Investigations * <b>Number of site investigations conducted annually</b>		655	1,498.75	981,678	
Conduct Site Technical Reviews * <b>Number of technical reviews conducted annually</b>		897	2,203.49	1,976,533	
Fund Waste Management Projects * <b>Number of projects funded</b>		33	15,208.48	501,880	5,000,000
Monitor Ambient Air Quality *		1,073	8,086.90	8,677,249	
Analyze Air Quality And Emissions * <b>Number of emission points reviewed and analyzed</b>		5,700	190.58	1,086,283	
Implement The Federal Clean Air Act * <b>Number of Clean Air Act plans produced</b>		5	87,502.40	437,512	
Review And Approve Air Resource Permits *		1,262	5,556.80	7,012,685	
Air Compliance Assurance *		3,279	2,418.87	7,931,491	
Small Business Assistance * <b>Number of Small Business Assistance Program contacts per year</b>		10,557	6.46	68,173	5,000,000
Coordination Of Siting Acts, Other Certifications And Report Reviews * <b>Number of certifications and follow-ups of specified facilities</b>		60	6,176.97	370,618	
Conduct Geologic Research Projects * <b>Number of projects completed</b>		563	6,505.79	3,662,761	
Analyze Biological And Chemical Samples * <b>Number of analyses completed</b>		165,451	23.62	3,908,256	
Interpret Environmental Data * <b>Number of man hours expended</b>		24,819	13.21	327,874	
Resource Management * <b>Number of acres treated with controlled burns and exotic species removal.</b>		121,683	467.38	56,871,750	17,647,434
Visitor Services/Recreation * <b>Number of visitors</b>		30,505,120	2.26	68,873,448	82,566,987
On-site Emergency Response, Off-site Coordination And Assistance And Cost Recovery * <b>Number of incidents reported</b>		2,485	634.11	1,575,776	
TOTAL				484,714,804	1,269,977,450
SECTION III: RECONCILIATION TO BUDGET					
PASS THROUGHS					
TRANSFER - STATE AGENCIES				18,784,577	
AID TO LOCAL GOVERNMENTS					
PAYMENT OF PENSIONS, BENEFITS AND CLAIMS					
OTHER					
REVERSIONS				27,211,690	60,638,113
TOTAL BUDGET FOR AGENCY (Total Activities + Pass Throughs + Reversions) - Should equal Section I above. (4)				530,711,071	1,330,615,563

### SCHEDULE XI/EXHIBIT VI: AGENCY-LEVEL UNIT COST SUMMARY

(1) Some activity unit costs may be overstated due to the allocation of double budgeted items.  
(2) Expenditures associated with Executive Direction, Administrative Support and Information Technology have been allocated based on FTE. Other allocation methodologies could result in significantly different unit costs per activity.  
(3) Information for FCO depicts amounts for current year appropriations only. Additional information and systems are needed to develop meaningful FCO unit costs.  
(4) Final Budget for Agency and Total Budget for Agency may not equal due to rounding.

## Glossary of Acronyms and Terms

**ACE-** Army Corps of Engineers

Acquisition and Restoration Council: A ten-member group created by the Legislature to make recommendations to the Board of Trustees on the acquisition, management, and disposal of state-owned lands as directed in Section 259.035, F.S.

Activity: A unit of work which has identifiable starting and ending points, consumes resources, and produces outputs. Unit cost information is determined using the outputs of activities.

Actual Expenditures: Includes prior year actual disbursements, payables and encumbrances. The payables and encumbrances are certified forward at the end of the fiscal year. They may be disbursed between July 1 and December 31 of the subsequent fiscal year. Certified forward amounts are included in the year in which the funds are committed and not shown in the year the funds are disbursed.

Appropriation Category: The lowest level line item of funding in the General Appropriations Act which represents a major expenditure classification of the budget entity. Within budget entities, these categories may include: salaries and benefits, other personal services (OPS), expenses, operating capital outlay, data processing services, fixed capital outlay, etc. These categories are defined within this glossary under individual listings. For a complete listing of all appropriation categories, please refer to the ACTR section in the LAS/PBS User's Manual for instructions on ordering a report.

**ARC** - Acquisition and Restoration Council

ArcView: A software application for mapping used by the Office of Greenways and Trails and Division of State Lands, Bureau of Survey and Mapping.

Australian Melaleuca Tree: A large evergreen tree typically 65 feet in height with a brownish white, many-layered papery bark. Native to Australia and Malaysia, melaleuca was introduced into Florida in 1906 as a potential commercial timber and later extensively sold as a landscape ornamental tree and windbreak. It was also planted to dry up the Everglades to decrease mosquito populations and allow for development. Population estimates indicate melaleuca trees inhabit more than 400 thousand acres, mostly in southern Florida.

Baseline Data: Indicators of a state agency's current performance level, pursuant to guidelines established by the Executive Office of the Governor in consultation with legislative appropriations and appropriate substantive committees.

Basin: The entire surface area that collects water to supply a particular water body (e.g., a lake or river).

**BAWWG** - Biological Assessment of Wetlands Work Group

Bioassessment: Using biological approaches to measure and evaluate the consequences of human actions on biological systems.

Biocriteria: Numerical values or narrative expressions that describe the condition of aquatic, biological assemblages of reference sites of a given aquatic life use designation.

**BOT** - Board of Trustees of the Internal Improvement Trust Fund; also known as the Governor and Cabinet.



**Brownfield:** Real property, the expansion, redevelopment, or reuse of which may be complicated by actual or perceived environmental contamination. Brownfield Redevelopment Act was passed in 1997 by the Florida Legislature, creating a program that authorizes local governments to designate brownfield areas by resolution if certain criteria are met, including public notice requirements and the establishment of an advisory committee to improve public participation. The Act provided for the Department of Environmental Protection, or an approved local pollution control program, to enter into a brownfield site rehabilitation agreement with the applicant and to provide regulatory oversight for the cleanup process.

**Budget Entity:** A unit or function at the lowest level to which funds are specifically appropriated in the appropriations act. “Budget entity” and “service” have the same meaning.

**Byte:** Set of adjacent bits, now commonly a group of eight, used in computing to represent a unit of data such as a number or letter.

**CAMA** – Coastal and Aquatic Managed Areas

**CARL** - Conservation and Recreation Lands

**Cartographic:** Pertaining to the science of making maps.

**Causeway:** A raised path or road over a marsh or water or across land that is sometimes covered by water.

**CCA** - Chromated Copper Arsenate

**CERP** - Comprehensive Everglades Restoration Plan

**CHNEP** - Charlotte Harbor National Estuary Program

**Chromated Copper Arsenate (CCA):** A wood preservative, the most commonly used in Florida and the United States until the phase-out in January 2004 for residential uses. CCA contains high concentrations of chromium, copper and arsenic. When burned, CCA generates an ash containing high concentrations of these metals.

**CIO** - Chief Information Officer

**CIP** - Capital Improvements Program Plan

**Clean Marina:** A designation given to environmentally conscious marinas that join a voluntary program. The Clean Marina program is based on best management practices and developed through a partnership of Florida marinas, boatyards, boaters, and government.

**CO<sub>2</sub>** - Carbon Dioxide

**Comprehensive Everglades Restoration Plan:** The 30-year, \$7.8 billion Plan became law in 2000, creating a legally binding agreement between the state and federal government to reserve the water necessary to protect of the Everglades.

**Contamination Locator Map (CLM):** An online tool that provides localized information about contaminated sites in Florida.

**COT - Commercial-Off-the-Shelf System**

Cross Florida Greenway: Crossing central Florida from the Gulf of Mexico to the St. Johns River, the Marjorie Harris Carr Cross Florida Greenway occupies much of the land formerly known as the Cross Florida Barge Canal. This 110-mile corridor traverses a wide variety of natural habitats and offers a variety of trails and recreation areas. Carr Cross Florida Greenway occupies much of the land formerly known as the Cross Florida Barge Canal. This 110-mile corridor traverses a wide variety of natural habitats and offers a variety of trails and recreation areas. Cross Florida Greenway occupies much of the land formerly known as the Cross Florida Barge Canal. This 110-mile corridor traverses a wide variety of natural habitats and offers a variety of trails and recreation areas.

**CWM - Comprehensive Watershed Management**

**CWSRF - Clean Water State Revolving Fund**

**DACS - Department of Agricultural and Consumer Services**

**DARM - Division of Air Resources Management**

D3-A: A legislative budget request (LBR) exhibit, which presents a narrative explanation and justification for each issue for the requested years.

Debt Service: The amount of interest and sinking fund payments due annually on long-term debt.

Deep-Well Injection: A waste disposal technique in which industrial waste, sewage, radioactive waste, and (in the case of oil and gas production or reverse osmosis potable water production) saltwater are pumped under high pressure through wells that are cased and cemented at shallow levels, such that the disposed fluids will be forced into confined formations that are isolated and well below potential sources of drinking water.

Demand: The number of output units that are eligible to benefit from a service or activity.

Department: Department of Environmental Protection

Dissolved Oxygen: The volume of oxygen that is contained in water.

**DMS - Department of Management Services**

**DOAH** - Division of Administrative Hearings, a part of the Department of Management Services. Administrative Law Judges conduct hearings on matters in dispute, including Siting case hearings. Department of Management Services

**DOH - Department of Health**

Dolomite: Calcium magnesium carbonate. In rock form, dolomite is a sedimentary rock containing more than 50% of the mineral's calcite and dolomite, with dolomite being the most abundant.

**DOT** - Department of Transportation

Calcium magnesium carbonate: In rock form, dolomite is a sedimentary rock containing more than 50% of the mineral's calcite and dolomite, with dolomite being the most abundant.

**DRI** - Developments of Regional Impact

**DEAR** - Division of Environmental Assessment and Restoration

**DWM** - Division of Waste Management

**DWRA** - Division of Water Restoration Assistance

**DWRM** - Division of Water Resource Management

**DWSRF** - Drinking Water State Revolving Fund

**EASIR** - Electronic Access System for Inspection Information Retrieval

Ecological Integrity: The condition of an unimpaired ecosystem as measured by combined chemical, physical (including physical habitat), and biological attributes. Electronic Access System for Inspection Information Retrieval

Ecosystem: A place having unique physical features, encompassing air, water, and land, and habitats supporting plant and animal life.

Ecotourism: The effort to attract visitors to a particular area for visiting, enjoying and learning about nature and natural resource-based attractions or locations. In Florida, ecotourism is primarily related to the state's system of nationally prominent State Parks, a growing network of greenways and trails and the state's world-renowned top-rated beaches.

Enterprise Self Service Authorizations system (ESSA): Part of the Department's Internet Portal, ESSA makes on-line registration available for the renewal of the Division of Waste Management's 270 yard trash processing facilities.

Environmental Resource Permitting: A part of the Division of Water Resource Management, this program reviews development that alters the flow of water over the land or affects wetlands and other surface waters.

Environmental Regulation Commission: Established through s. 403.804, F.S., the Commission is the standard-setting authority for the Department, holding regular public meetings including rule adoption hearings.

**EOG** - Executive Office of the Governor

**EPA** - Environmental Protection Agency

Epidemiology: The scientific study of the causes and transmission of disease within a population.

**ERC** - Environmental Regulation Commission

Erosion: The gradual wearing away of rock or soil by physical breakdown, chemical solution, and transportation of material, as caused, for example, by water, wind, or ice. Environmental Regulation Commission

**ERP** - Environmental Resource Permitting

Estimated Expenditures: Includes the amount estimated to be expended during the current fiscal year. These amounts will be computer generated based on the current year appropriations adjusted for vetoes and special appropriations bills.

Estuary: A partially enclosed body of water formed where freshwater from rivers and streams flows into the ocean, mixing with the salty seawater.

**ESF10** - Emergency Support Function 10

**F.S.** - Florida Statutes

**FAC** - Florida Administrative Code

**FCO** - Fixed Capital Outlay

**FDACS** - Florida Department of Agriculture and Consumer Services

**FDEP** - Florida Department of Environmental Protection

**FDLE** - Florida Department of Law Enforcement

**FDOT** - Florida Department of Transportation

**FFWCC** - Florida Fish and Wildlife Conservation Commission

**FGCC** - Florida Greenways Coordinating Council

**FGS** - Florida Geological Survey

**FIRST** - A database system for the Storage Tank Program called "Florida Inspection Reporting for Storage Tanks".

First Magnitude Spring: A spring with a measured flow of at least 100 cubic feet per second.

**FITS** - Facility Identification Template for States. A set of working guidelines for integrating information about the identity of environmental data based on the collective experience of participant states.

Fixed Capital Outlay: Real property (land, buildings including appurtenances, fixtures and fixed equipment, structures, etc.), including additions, replacements, major repairs, and renovations to real property that materially extend its useful life or materially improve or change its functional use. Includes furniture and equipment necessary to furnish and operate a new or improved facility.

**FLAIR** - Florida Accounting Information Resource Subsystem

Florida Coastal Management Program: Transferred in 2002 from the Department of Community Affairs to the Department of Environmental Protection, this program is based on a network of agencies implementing 23 statutes that protect and enhance the state's natural, cultural, and economic coastal resources. The goal of the program is to coordinate local, state, and federal agency activities using existing laws to ensure that Florida's coast is protected.

Florida Forever: Florida's premier conservation and recreation lands acquisition program, a blueprint for conserving natural resources and renewing Florida's commitment to conserve the state's natural and cultural heritage; replaced the Preservation 2000 Program. natural resources and renewing Florida's commitment to conserve the state's natural and cultural heritage; replaced the Preservation 2000 Program.

Florida Keys National Marine Sanctuary: The 2,800 square nautical mile area surrounding the entire archipelago of the Florida Keys and including the productive waters of Florida Bay, the Gulf of Mexico and the Atlantic Ocean.

**FRDAP** - Florida Recreation Development Assistance Program

Fuller's Earth: A general term that can be applied to many types of clay that have an exceptional ability to absorb coloring materials from oils of animal, vegetable, and mineral origin. In Florida, the term is narrowly limited. Subsection 378.403(6), Florida Statutes, defines Fuller's Earth as clay possessing a high absorptive capacity consisting largely of the minerals montmorillonite or palygorskite.

**FWCC** - Fish and Wildlife Conservation Commission

**FY** - Fiscal Year

**GAA** - General Appropriations Act

Geodetic: A branch of applied mathematics concerned with the determination of the size and shape of the earth and the exact positions of points on its surface and with the description of variations of its gravity field.

Geophysical: A branch of earth science dealing with the physical processes and phenomena occurring especially in the earth and in its vicinity. Geophysics deals with a wide array of geologic phenomena, including the temperature distribution of the Earth's interior; the source, configuration, and variations of the geomagnetic field; and the large-scale features of the terrestrial crust.

Geoscience: A science (such as geology, geophysics, and geochemistry) dealing with the earth.

**GIS** - Geographic Information System

**GR** - General Revenue Fund

Graphical User Interface (GUI): A program user interface that takes advantage of the computer's graphics capabilities to make the program easier to use. A user interface can be the keyboard, mouse, computer system menu, or any boundary across which the user and the computer system meet and act on or communicate with each other.

Greenway: As defined in Chapter 260, F.S., a linear open space established along either a natural corridor, such as a river front, stream valley, or ridgeline, or over land along a railroad right-of-way

converted to recreational use, a canal, a scenic road, or other route; any natural or landscaped course for pedestrian or bicycle passage; an open space connector linking parks, nature reserves, cultural features, or historic sites with each other and populated areas; or a local strip or linear park designated as a parkway or green belt.

Groundwater: Water that is found underground in cracks and spaces in soil, sand, and rocks.

**HART**- Hazardous Assessment and Recovery Team

**HB** - House Bill

Heavy Minerals: Dense grains found not only in rocks, but also in different types of sand.

Hydrilla: A submersed plant native to Africa and Southeast Asia that is a major aquatic weed throughout most of the world's warmer climates. Hydrilla was introduced into Florida in the early 1950s and by the early 1990s occupied more than 140,000 acres of public lakes and rivers. Intensive interagency management has reduced the above ground portions of hydrilla to fewer than 50,000 acres.

**IHN** - Integrated Habitat Network. Serves as a guide for permitting and reclamation in the Central Florida phosphate mining district, with the objective of improving wildlife habitat, benefiting water quality and quantity, and connect the river systems in the mining region with significant environmental features.

**IMS** - Integrated Management Systems

Indicator: A single quantitative or qualitative statement that reports information about the nature of a condition, entity or activity. This term is used commonly as a synonym for the word "measure."

Information Technology Resources: Includes data processing-related hardware, software, services, telecommunications, supplies, personnel, facility resources, maintenance, and training.

Input: See Performance Measure.

Invasive Plant or Invasive Exotic Plant: A plant species that is not native to a particular geographic area (in this case, Florida) and has been introduced into that area through intentional or unintentional artificial means.

**IOE** - Itemization of Expenditure

**IT** - Information Technology

Judicial Branch: All officers, employees, and offices of the Supreme Court, district courts of appeal, circuit courts, county courts, and the Judicial Qualifications Commission.

Karst: A type of terrain characterized by sinkholes, caves, disappearing streams, springs, rolling topography, and underground drainage systems. Such terrain is created by ground-water dissolving limestone.

Lagoon: A coastal body of shallow water formed where low-lying rock, sand, or coral presents a partial barrier to the open sea.

Lake Worth Lagoon: Historically, Lake Worth Lagoon was a freshwater lake with drainage from a swampy area along the western edge. Today, Lake Worth Lagoon is connected to the Atlantic Ocean by two permanent inlets. The Atlantic Intracoastal Waterway runs the entire length of the Lagoon. Eight causeways and bridges connect the mainland to the barrier island. Twenty-eight marinas and hundreds of private docks are scattered along the shoreline.

Land Management Uniform Accounting Council: Entrusted with compiling conservation land management costs across state agencies and with establishing formulas for identifying land management funding needs.

**LAN** - Local Area Network

**LAS/PBS** - Legislative Appropriation System/Planning and Budgeting Subsystem. The statewide appropriations and budgeting system owned and maintained by the Executive Office of the Governor.

**LBC** - Legislative Budget Commission

Legislative Budget Commission: A standing joint committee of the Legislature. The Commission was created to: review and approve/disapprove agency requests to amend original approved budgets; review agency spending plans; issue instructions and reports concerning zero-based budgeting; and take other actions related to the fiscal matters of the state, as authorized in statute. It is composed of 14 members appointed by the President of the Senate and by the Speaker of the House of Representatives to two-year terms, running from the organization of one Legislature to the organization of the next Legislature.

**LBR** - Legislative Budget Request

Legislative Budget Request: A request to the Legislature, filed pursuant to Section 216.023, Florida Statutes, or supplemental detailed requests filed with the Legislature, for the amounts of money an agency or branch of government believes will be needed to perform the functions that it is authorized, or which it is requesting authorization by law, to perform.

**LIFE** - Learning in Florida's Environment. An initiative administered through the Department's Office of Environmental Education, wherein partnerships are formed between the Department and local school districts. The goal of each LIFE program is to increase student achievement and teacher professional development in science education. It is the state's largest network of outdoor, environmental-science education programs.

**LMUAC** - Land Management Uniform Accounting Council

**L.O.F.** - Laws of Florida

**LORS** – Lake Okeechobee Regulation Schedule

**LOSOM** – Lake Okeechobee System Operations Manual

**LRPP** - Long Range Program Plan

Long Range Program Plan: A plan developed on an annual basis by each state agency that is policy-based, priority-driven, accountable, and developed through careful examination and justification of all programs and their associated costs. Each plan is developed by examining the needs of agency customers and clients and proposing programs and associated costs to address those needs based on

state priorities as established by law, the agency mission, and legislative authorization. The plan provides the framework and context for preparing the Legislative Budget Request and includes performance indicators for evaluating the impact of programs and agency performance.

**LWL** - Lake Worth Lagoon

Marsh: A tract of soft, wet land usually characterized by grassy vegetation.

Mean High Water Line: Point used to mark the boundary of a body of water.

Mercury: A poisonous heavy silver-white metallic chemical element that is liquid at room temperature.

Methyl Mercury: A highly toxic, bioaccumulative form of mercury often created when mercury is mixed with other contaminants, such as sulfate.

**METRA** - Metropolitan Environmental Training Alliance

**MFL** - Minimum Flows and Levels

**NAAQS** - National Ambient Air Quality Standards

Narrative: Justification for each service and activity is required at the program component detail level. Explanation, in many instances, will be required to provide a full understanding of how the dollar requirements were computed.

**NASBO** - National Association of State Budget Officers

**NERR** - National Estuarine Research Reserves

**NOAA** - National Oceanic and Atmospheric Administration

**NO<sub>2</sub>** - Nitrogen Dioxide

Non-Point Source: A physical, visual, touchable avenue that carries nutrients to a waterway. Examples include a ditch or pipe through which wastewater effluent might reach a river, stream, or lake. A large dairy or farm that might collect agricultural runoff in holding ponds and release some of the water via overflow pipe or ditch.

Non-Recurring: Expenditure or revenue that is not expected to be needed or available after the current fiscal year.

**O<sub>3</sub>** - Ozone

Objective: Specific, measurable, intermediate ends that mark progress toward achieving the associated goal.

**OCA** - Other cost accumulators

**OCULUSTM** - The Department's web-based document management system.

Office of Emergency Response: Responds to incidents involving oil and hazardous substances



representing an imminent hazard, or threat of a hazard, to the public health, welfare and safety, or the environment. Typically, these are inland and coastal spills of hazardous materials, such as petroleum or other contaminants, or may be chemical or biological agents of mass destruction.

**OEP** - Office of Ecosystem Projects

**OGT** - Office of Greenways and Trails

**OPB** - Office of Policy and Budget, Executive Office of the Governor

**OPS** - Other Personal Services

**OTIS** - Office of Technology and Information Services

Outcome: See Performance Measure.

Other Cost Accumulators: Refers to accounting codes in the FLAIR system.

Output: See Performance Measure.

Outsourcing: Describes situations where the state retains responsibility for the service, but contracts outside of state government for its delivery. Outsourcing includes everything from contracting for minor administration tasks to contracting for major portions of activities or services that support the agency mission.

Pass Through: Funds the state distributes directly to other entities, e.g., local governments, without being managed by the agency distributing the funds. These funds flow through the agency's budget; however, the agency has no discretion regarding how the funds are spent, and the activities (outputs) associated with the expenditure of funds are not measured at the state level. ***NOTE: This definition of "pass through" applies ONLY for the purposes of long-range program planning.***

**PAT** - Permitting Action Tree

**Pb** - Lead

Performance Ledger: The official compilation of information about state agency performance-based programs and measures, including approved programs, approved outputs and outcomes, baseline data, approved standards for each performance measure and any approved adjustments thereto, as well as actual agency performance for each measure.

Performance Measure: A quantitative or qualitative indicator used to assess state agency performance.

- Input means the quantities of resources used to produce goods or services and the demand for those goods and services.
- Outcome means an indicator of the actual impact or public benefit of a service.
- Output means the actual service or product delivered by a state agency.

**PFAS** – Perfluorinated alkylated substance

**PFOA** – Perfluorooctanoic acid

**PFOS** – Perfluorooctanesulfonic acid

Phosphogypsum: The solid waste byproduct that results from the wet acid process of making phosphoric acid.

Pipe Clay Areas: Areas of land in which a type of fine, white clay is found.

**PLSS** - Public Land Survey System. A system of 250,000 section corners, created in 1824, which provides the basis for all land titles and land ownership boundary descriptions.

**PM** - Particulate Matter

**PMC** - Program Management Committee

**PPM** - Project and portfolio management.

Policy Area: A grouping of related activities to meet the needs of customers or clients that reflects major statewide priorities. Policy areas summarize data at a statewide level by using the first two digits of the ten-digit LAS/PBS program component code. Data collection will sum across state agencies when using this statewide code.

Pollution Prevention: Any practice which: a) reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and b) reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants. The term includes: equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

Preservation 2000 Program: Predecessor of Florida Forever land acquisition program that protected more than 1.78 million acres of conservation land.

Preserves: A piece of water or land owned by the government or conservation group, where wildlife, plants, or geographical features are protected or where fish or wild animals are bred.

Primary Service Outcome Measure: The service outcome measure which is approved as the performance measure that best reflects and measures the intended outcome of a service. Generally, there is only one primary service outcome measure for each agency service.

Privatization: Occurs when the state relinquishes its responsibility or maintains some type of partnership role in the delivery of an activity or service.

Program: A set of services and activities undertaken in accordance with a plan of action organized to realize identifiable goals and objectives based on legislative authorization (a program can consist of single or multiple services). For purposes of budget development, programs are identified in the General Appropriations Act by a title that begins with the word "Program." In some instances, a program consists of several services, and in other cases the program has no services delineated within it; the service is the program in these cases. The LAS/PBS code is used for purposes of both program identification and service identification. "Service" is a "budget entity" for purposes of the Long Range Program Plan.

**Program Component:** An aggregation of generally related objectives which, because of their special character, related workload and interrelated output, can logically be considered an entity for purposes of organization, management, accounting, reporting, and budgeting.

**Program Purpose Statement:** A brief description of approved program responsibility and policy goals. The purpose statement relates directly to the agency mission and reflects essential services of the program needed to accomplish the agency's mission.

**QA - Quality Assurance**

**Radon:** A colorless, odorless, tasteless, and radioactive gas. It is formed during the radioactive decay of Radium-226, which is a decay product in the uranium series. Low concentrations of uranium and its decay products, especially Radium-226, occur widely in the earth's crust. Thus, radon is naturally occurring and is being generated continuously. A portion of the radon formed during radioactive decay moves through pores in the soil to the soil surface and enters the air, while some remains below the surface and dissolves in ground water.

**RBCA - Risk-Based Corrective Action**

**RCP - Office of Resilience and Coastal Protection**

**Recharge Area:** An area that allows water to enter the aquifer. Such an area is particularly vulnerable to any pollutants that could be in the water. This is a very slow process whereby water infiltrates the ground surface and then percolates through the sediments until it either reaches a zone of saturation above an impermeable rock layer creating a water table or continues through the rock layer in several ways and recharges an aquifer.

**Reliability:** The extent to which the measuring procedure yields the same results on repeated trials and data is complete and sufficiently error free for the intended use.

**Remediation:** A remedy or solution to a particular problem, designed to help people with to improve their skills or knowledge; an alternative to litigation.

**RRT - Regional Response Team**

**SaaS - Software as a Service**

**Salinity:** Measure of the concentration or level of salt.

**Sanctuary:** A place or area of land where wildlife is protected from predators and from being destroyed or hunted by human beings.

**SB - Senate Bill**

**SBAP - Small Business Assistance Program**

**SBP - State Buffer Preserves**

**SCITS - Secretary's Correspondence/Information Tracking System**

**SCO - Siting Coordination Office**

**SEACO** - Southeast Air Coalition for Outreach

Seismic Tomography: A technique for three-dimensional imaging of the Earth's interior by using a computer to compare the seismic records from many stations. It is similar in concept to a CAT scan used for medical purposes.

**SERT** - State Emergency Response Team

Service: See Budget Entity.

**SFERTF** - South Florida Ecosystem Restoration Task Force

**SFWMD** - South Florida Water Management District

**SFY** - State Fiscal Year

Significant Compliance (Waste Program): A facility that has not committed a significant non-compliance violation (SNC), also known as a "Major" or "Moderate" violation, which resulted in, or is reasonably expected to result in, pollution in a manner that represents a significant threat to human health or the environment.

Sinkhole: A natural depression in the land surface, caused by the dissolution of limestone.

Sinkhole Dumping: Improper disposal of waste into sinkholes.

Siting: A procedure for the selection, licensing and utilization of sites for electrical generating facilities, including their sites, for electrical transmission lines and natural gas pipelines.

Silviculture: A branch of forestry dealing with the development and care of forests with respect to human objectives.

**SJRWMD** - St. Johns River Water Management District

Sludge: The solids in sewage that separate out during treatment.

Small Business Assistance Program: Established by Title V of the Clean Air Act Amendments of 1990, this program resides in the Division of Air Resource Management and provides technical and regulatory assistance to small businesses in the state.

**SO<sub>2</sub>** - Sulfur Dioxide

Source Water Assessment and Protection: A program designed to assess potential sources of water pollution, so that strategies for reducing those threats can be developed and implemented.

**STA** – Stormwater Treatment Area.

Standard: The level of required performance for an outcome or output.

Sulfate: A salt or ester of sulfuric acid; this chemical is often found in runoff from farms.

**SWAP** - Source Water Assessment and Protection

**SWFRRCT** - Southwest Florida Regional Restoration Coordination Team

**SWFWMD** - Southwest Florida Water Management District

**SWIFT** - A database system for the Solid and Hazardous Waste Program called “Solid Waste Information Field Tracking.”

**SWOT** - Strengths, Weaknesses, Opportunities and Threats

**TCS** - Trends and Conditions Statement

Terabytes: An information unit of one trillion bytes.

**TF** - Trust Fund

**TMDL** - Total Maximum Daily Load

Toxicology: The scientific study of poisons, especially their effects on the body and their antidotes.

Trails: Linear corridors and their adjacent land or water that provide public access for recreation or authorized alternative modes of transportation.

Trust Fund: A state investment fund over which an agency (e.g., the Florida Department of Environmental Protection) has legal management authority.

**UF** - University of Florida

Unit Cost: The average total cost of producing a single unit of output – goods and services for a specific agency activity.

**UNIX** - A computer programming language

Upland: Ground elevated above the lowlands along rivers or between hills.

Upland Buffer: Uplands that provide a protective barrier for adjacent lowlands or coastal areas.

**UPS** - Uninterrupted Power Supply

**U.S. EPA** - United States Environmental Protection Agency

**USF&WS** - United States Fish and Wildlife Service

**USGS** - United States Geological Survey

Validity: The appropriateness of the measuring instrument in relation to the purpose for which it is being used.

**VC** - Video conferencing.

**VPN** - Virtual Private Network. An expansion of the Department's computer network, which provides home and remote high-speed, secure access to agency email and network computers.

**VOC** - Volatile Organic Compound

**WACS** - The Department's Water Assurance Compliance System database.

Water Hyacinth: A plant native to South America that is now considered a major weed species in more than 50 countries. The floating water hyacinth was introduced into Florida in the 1880s and covered more than 120,000 acres of public lakes and navigable rivers by the early 1960s. Since then, intensive management efforts coordinated by the Florida Department of Environmental Protection and the U.S. Army Corps of Engineers have reduced water hyacinth to approximately 2,000 acres statewide.

Water Lettuce: A floating plant native to South America that is one of the worst weeds in the subtropical and tropical regions of the world. In Florida, it was first recorded in 1765; its introduction is linked to early shipping commerce between Florida and South America. Today, water-lettuce is commonly found in the central and southern portions of the state, but new infestations of water-lettuce have been found in North Florida's spring-fed rivers and lakes. Because of intensive statewide management efforts, water-lettuce populations are maintained at low population densities.

Waterbody Identification Number: A Water Body Identification number is an assessment unit that is intended to represent Florida's waterbodies at the watersheds or sub-watershed scale. A WBID has a unique identification number that is tracked by the department and that has a geographic delineation as a polygon layer. The assessment units are drainage basins, lakes, lake drainage areas, springs, rivers and streams, segments of rivers and streams, coastal, bay and estuarine waters in Florida. The polygons roughly delineate the drainage basins surrounding the waterbody assessment units. The WBIDs are used in the annual impaired waters assessment, implementation of Total Maximum Daily Loads (TMDLs) and Basin Management Action Plans (BMAPs), as well as other applications.

Watershed: The land area that drains into a particular lake, river, or ocean.

Watershed Information Network: The Department's repository for environmental data from non-regulatory data sources from data providers across Florida. Data providers and data users include federal agencies, DEP, other state and local agencies, academic institutions, volunteer organizations, private laboratories, and others.

**WBID** - Water Body Identification Number

**WCI** - Water Conservation Initiative

Web-Enabled: Information formatted in such a manner that it can be placed on an Internet web site.

Wetland: Those areas that are inundated or saturated by surface water or ground water at a frequency and duration enough to support - and under normal circumstances do support - a prevalence of vegetation typically adapted for life in saturated soils.

**WIN** - Watershed Information Network

**WMD** - Water Management District