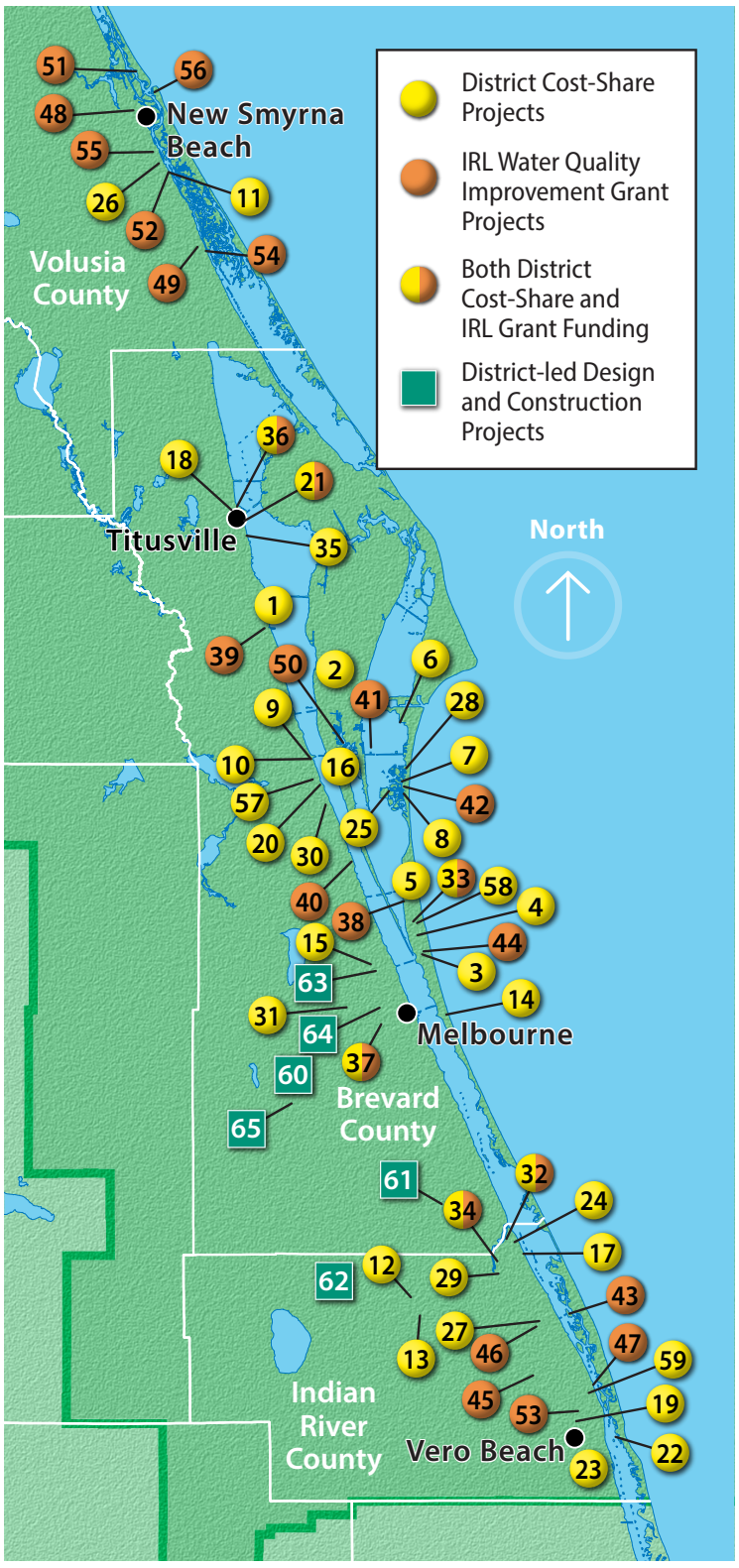
Cost-share and District-led projects in the Indian River Lagoon



The St. Johns River Water Management District (District) offers several cost-sharing programs. In partnering with local communities throughout our 18-county district, important water resource projects are being completed every year. Since 2014, the District has awarded $38 million for projects in Indian River Lagoon (IRL) communities, leveraging a total of $81 million in public dollars when combined with local matching funds and/or state funds from the Florida Department of Environmental Protection. Included in this total are two projects for Rural Economic Development Initiative (REDI) communities.

In addition to our cost-share program, the District is taking the lead on design and construction of regionally significant projects benefitting the IRL.

District Cost-Share Projects:

The following cost-share project list for IRL communities includes District Cost-Share Projects and legislatively appropriated IRL Water Quality Improvement Grant Projects for fiscal year 2021. The projects are differentiated on the accompanying map. A description of benefits is provided for each project, which notes the annual reduction in total phosphorous (TP) and total nitrogen (TN), acres of wetland enhancement, and/or any alternative water supplied in millions of gallons per day (mgd).

1. **Brevard County Oyster Reef Living Shorelines** — Constructed six oyster reefs totaling 2,360 linear feet in the IRL. Completed. (Estimated nutrient load reduction: 639 lbs./yr. TN and 48 lbs./yr. TP)
2. **Brevard County Passive Nutrient Reduction for Septic Tanks** — Retrofitted three residential septic tanks with an average flow rate of 400 gallons per day to the Passive

Onsite Treatment System, which contains Bold and Gold media. Completed. (Estimated nutrient load reduction: 115 lbs./yr. TN and 20 lbs./yr. TP)

3. **Brevard County S-17 Lift Station** — Rehabilitated older portions of the county's sanitary sewer collection system in the South Beaches sewer service area. Completed. (Estimated nutrient load reduction: 1,374 lbs./yr. TN and 243 lbs./yr. TP)
4. **Brevard County S-9 Lift Station** — Rehabilitated older portions of the county's sanitary sewer collection system in the South Beaches sewer service area. Completed. (Estimated nutrient load reduction: 1,374 lbs./yr. TN and 243 lbs./yr. TP)
5. **Brevard County South Patrick Drive Baffle Box** — Installed a second-generation baffle box with the addition of a denitrification bioreactor to treat stormwater runoff from a 74-acre residential area. Completed. (Estimated nutrient load reduction: 243 lbs./yr. TN and 48 lbs./yr. TP)
6. **Cape Canaveral Reclaimed Water Tank Project** — Constructed a 2.5-million-gallon tank for reclaimed water storage. The tank eliminates wastewater discharges to the Banana River Lagoon and reduces the amount of nutrient discharges. Completed. (Estimated nutrient load reduction: 305 lbs./yr. TN and 4 lbs./yr. TP)
7. **Cocoa Beach Muck Removal Phase 2A** — Removed 22,500 cubic yards (CY) of muck sediments from five canals that enter into the Banana River Lagoon. Completed. (Estimated nutrient load reduction: 1,586 lbs./yr. TN and 302 lbs./yr. TP)
8. **Cocoa Beach Muck Removal Phase 3** — The dredging project removed 44,044 CY of muck from 13 residential canals. Completed. (Estimated nutrient load reduction: 3,906 lbs./yr. TN and 521 lbs./yr. TP)
9. **Cocoa Church Street Stormwater Retrofit** — A Type 2 Nutrient Separating Baffle Box was installed at the Church Street outfall and treats untreated stormwater for an approximate 73-acre drainage basin. Completed. (Estimated nutrient load reduction: 173 lbs./yr. TN and 35 lbs./yr. TP)
10. **Cocoa Factory Street Stormwater Retrofit** — Retrofitted an existing dry detention pond to accommodate a larger drainage area to treat stormwater that directly discharged into the IRL. Completed. (Estimated nutrient load reduction: 34 lbs./yr. TN and 6 lbs./yr. TP)
11. **Edgewater East Thomas Street Septic Elimination** — Installed gravity sewer pipe and connections to 32 existing homes and residential lots on East Thomas Street and the intersecting 2nd, 3rd, and 4th Streets. Completed. (Estimated nutrient load reduction: 1,498 lbs./yr. TN and 257 lbs./yr. TP)
12. **Fellsmere North Regional Lake (REDI Community)** — Constructed a three-acre stormwater pond at the north end of Broadway Street in Fellsmere. Specific benefits targeted a portion of the community redevelopment area fronting North Broadway Street where no treatment was in place. Completed. (Estimated nutrient load reduction: 212 lbs./yr. TN and 104 lbs./yr. TP)
13. **Fellsmere South Regional Lake (REDI Community)** — Construction of the first phase of a stormwater pond to accept water from the Fellsmere Water Control District ditch 18 via a weir diversion structure. This project provides treatment for a system that did not have any treatment and will benefit the south prong of the Sebastian River and IRL. Completed. (Estimated nutrient load reduction: 479 lbs./yr. TN and 98 lbs./yr. TP)
14. **Melbourne Beach Drainage Improvements** — Constructed dry stormwater treatment swales and exfiltration trenches. Completed. (Estimated nutrient load reduction: 207 lbs./yr. TN and 41 lbs./yr. TP)
15. **Melbourne Lime Drive Stormwater Enhancement** — Constructed a second-generation baffle box with bioactivated media to reduce nutrients in runoff discharging directly into the Eau Gallie River and to the IRL. Completed. (Estimated nutrient load reduction: 139 lbs./yr. TN and 248 lbs./yr. TP)

16. **Merritt Island Septic Phaseout** — Converted 83 residential and commercial septic tanks to sewer and constructed a stormwater treatment train to improve water quality. Completed. (Estimated nutrient load reduction: 2,501 lbs./yr. TN)
17. **Sebastian Treatment Train Nutrient Reduction Project** — Constructed a stormwater treatment train for a 13-acre basin. The treatment train included grassy swales and drainage system with floc logs, inlet baskets, and baffle box. Completed. (Estimated nutrient load reduction: 199 lbs./yr. TN and 26 lbs./yr. TP)
18. **Titusville Draa Stormwater Park** — Constructed a four-acre stormwater wet detention pond. Completed. (Estimated nutrient load reduction: 915 lbs./yr. TN and 202 lbs./yr. TP)
19. **Vero Beach Hybrid STEP System Force Main Phase 1** — Constructed a Septic Tank Effluent Pumping (STEP) system sewer collection force main to service approximately 1,484 single and multi-family residential units. Completed. (Estimated 0.5 mgd alternative water supplied)
20. **Rockledge Eliminate Failing Septic Tanks and Construct Sewer** — Abandoned 139 septic tanks and installed sewer. Completed. (Estimated nutrient load reduction: 4,433 lbs./yr. TN)
21. **Titusville South Street Basin Baffle Boxes** — The project included the installation of three second-generation baffle boxes with upflow filters and nutrient-reducing media within the 202-acre South Street basin. Completed. (Estimated nutrient load reduction: 720 lbs./yr. TN and 125 lbs./yr. TP)
22. **Vero Beach STEP Septic System Service Lines Phase 2** — City installed 293 Septic Tank Effluent Pumping Systems (STEPs) and service lines and connected to force main. Completed. (Estimated nutrient load reduction: 3,868 lbs./yr. TN)
23. **Indian River County Osprey Acres Stormwater Park** — The project constructed a stormwater park to improve water quality discharges to the IRL. The treatment system included initial deep settling basins, a serpentine water flow way, shallow marsh, filter marsh, and a final deep settling basin. The remaining pine flatwoods on-site is preserved as a wildlife refuge and includes an educational hiking trail for the public. Completed. (Estimated nutrient load reduction: 9,000 lbs./yr. TN and 400 lbs./yr. TP)
24. **Indian River County Sebastian Septic-to-Sewer Phase I** — The project constructed gravity sewer and two lift stations to serve 61 parcels primarily zoned commercial. Completed. (Estimated nutrient load reduction: 2,190 lbs./yr. TN)
25. **Cocoa Beach Water Reclamation Facility Upgrade** — Upgrades to the city's water reclamation facility to improve wastewater effluent quality; thereby reducing nutrient loading to the IRL. Completed. (Estimated nutrient load reduction: 3,603 lbs./yr. TN and 1,201 lbs./yr. TP)
26. **Edgewater Reclaimed Water Quality Reservoir** — The project included construction of a new reuse storage reservoir and wetland outfall, and extending reclaimed water mains to an existing subdivision and two planned undeveloped subdivisions. The construction reduces effluent discharges into the IRL. Completed. (Estimated nutrient load reduction: 2,949 lbs./yr. TN and 1,643 lbs./yr. TP)
27. **Indian River County West Wabasso Septic-to-Sewer** — The project included constructing a gravity sewer system to connect to 101 parcels. Project included abandonment of 54 existing septic systems and connection to centralized sewer and providing sewer hookups for 47 vacant parcels for a total of 101 parcels. Completed. (Estimated nutrient load reduction: 1,153 lbs./yr. TN)
28. **Cocoa Beach Muck Removal Phase 2B** — The project includes dredging 12 canals and removing approximately 150,000 CY of muck. It is the final phase of a three-phased plan to benefit the Banana River Lagoon. In progress. (Estimated nutrient load reduction: 6,321 lbs./yr. TN and 842 lbs./yr. TP)
29. **Kashi Church Foundation Septic-to-Sewer Conversion** — The project included the abandonment of 12 existing septic tanks and drainfields, installation of 3,000 linear feet of sewer pipes, 11 sanitary manholes, and connection to

existing sewer at the north end of the property. Completed. (Estimated nutrient load reduction: 139 lbs./yr. TN)

30. **Gus Hipp Ditch Denitrification Improvements** — The project included the installation of Bio-Sorption Activated Media (BAM) along approximately 1,700 linear feet of the bottom of the Gus Hipp Ditch. Completed. (Estimated nutrient load reduction: 5,185 lbs./yr. TN and 790 lbs./yr. TP)
31. **West Melbourne Sylvan Drive Septic-to-Sewer Conversion** — This project included construction of a new gravity sewer system in the Sylvan Drive right-of-way, construction of a new lift station within City-owned property on Sylvan Drive, construction of sewer laterals from all 59 homes to the new gravity mains, and abandonment of all existing septic systems. Completed. (Estimated nutrient load reduction: 641 lbs./yr. TN)
32. **Indian River County North Sebastian Septic-to-Sewer Phase 2** — The project will construct three miles of gravity sewer main, manholes, and a lift station. The project area currently encompasses a total of 180 parcels on septic systems in the North Sebastian area, which will be connected to the gravity sewer main. In Progress. (Estimated nutrient load reduction: 1,179 lbs./yr TN)
33. **Satellite Beach Stormwater Improvement Projects** — Construction of four stormwater treatment areas within the city to address untreated stormwater that currently enters the southern end of the Banana River. Completed. (Estimated nutrient load reduction: 664 lbs./yr. TN and 117 lbs./yr. TP)
34. **Sebastian Roseland Rd. Septic-to-Sewer** — Construction of 2,350 feet of gravity sewer main; including approximately 11 manholes, a lift station, and removal of 13 septic tanks in direct proximity to the St. Sebastian River, which ultimately outfalls into the IRL. In Progress. (Estimated nutrient load reduction: 150 lbs./yr. TN)
35. **Titusville High School Baffle Box** — Installation of a second-generation baffle box with up-flow filter and nutrient reducing media within the 258-acre Titusville High School Basin. Stormwater within the basin currently discharges to the IRL without treatment. Completed. (Estimated nutrient load reduction: 502 lbs./yr. TN and 86 lbs./yr. TP)
36. **Titusville Osprey Water Reclamation Nutrient Removal Upgrade** — Construction of biological, chemical and physical process upgrades throughout the Osprey Water Reclamation Facility directed toward an effluent TN concentration of 3 milligrams per liter (mg/L) and an effluent TP concentration of 1 mg/L. In Progress. (Estimated nutrient load reduction: 26,475 lbs./yr. TN)
37. **West Melbourne Ray Bullard Water Reclamation Facility Stormwater Management Area** — Construction of an offline wet detention pond to treat the first flush of stormwater flows from approximately 450 upstream acres that flow to Crane Creek and ultimately the IRL. The pond will treat stormwater runoff with a combination of wet detention and media-based filtration (Bold and Gold shelf filter). In Progress. (Estimated nutrient load reduction: 1,317 lbs./yr. TN and 400 lbs./yr. TP)
38. **Brevard County Grand Canal Muck Removal** — The project consists of muck dredging, dewatering, and upland disposal of 37,300 CY of muck in 20 acres in the northern finger canals in Grand Canal. The nutrient load reduction benefits the Banana River Lagoon. Not Started. (Estimated nutrient load reduction: 2,100 lbs./yr. TN and 280 lbs./yr. TP)
39. **Brevard County Oak Point Park Sewer Conversion** — The project will convert a 61-year-old package plant to central sewer. The package plant serves a 108-unit mobile home property located directly adjacent to the IRL. In Progress. (Estimated nutrient load reduction: 186 lbs./yr. TN and 65 lbs./yr. TP)
40. **Brevard County South Central Zone C Septic-to-Sewer** — The project includes abandonment of 142 residential septic tanks and connection to gravity sewer. Not Started. (Estimated nutrient load reduction: 1,641 lbs./yr. TN)
41. **Brevard Zoo Clam Restoration** — The research project involves adult clams and seed clams grown, planted, and monitored throughout the IRL in approximately 100 distinct sites that vary in size. In Progress.

42. **Cocoa Beach Convair Cove Low Impact Development and Living Shoreline** — The project includes installation of a stormwater low-impact-development treatment train, including permeable pavers, underground rain tanks, bioactivated media barrier wall, and rain garden bioswales. Additionally, a living shoreline will be installed that includes mangroves, oysters, and grasses. In Progress. (Estimated nutrient load reduction: 168 lbs./yr. TN and 16 lbs./yr. TP)

43. **Environmental Learning Center Septic-to-Sewer** — The project includes removal of the existing septic tank and replacing with a private lift station which will be connected to an existing sewer main. In Progress. (Estimated nutrient load reduction: 24 lbs./yr. TN)

44. **Indian Harbour Beach Big Muddy Baffle Box** — Installation of a second-generation baffle box, bio-media, and stormwater structures on Yacht Club Boulevard adjacent to the Big Muddy canal. The project provides treatment to approximately 63.8-acres, which is currently untreated. Completed. (Estimated nutrient load reduction: 408 lbs./yr. TN and 71 lbs./yr. TP)

45. **Indian River County Moorhen Marsh Low Energy Aquatic Plant System (LEAPS)** — Construction of an aquatic plant (waterlettuce) based treatment system that treats stormwater from a 6,300-acre contributing area. The system will pump 10 mgd from the North Relief Canal and into the aquatic plant treatment system. In Progress. (Estimated nutrient load reduction: 4,854 lbs./yr. TN and 785 lbs./yr. TP)

46. **Indian River County W. Wabasso Septic-to-Sewer: Phase 3** — The project will convert 36 existing septic tanks to sewer. There are 61 total parcels in the project area and 36 parcels are developed with septic tanks. The 25 undeveloped parcels will provide a lateral stub out for future connection. A gravity sewer system will be installed and is 3,000 linear feet gravity sewer, 13 manholes, service laterals, and two lift stations. Not Started. (Estimated nutrient load reduction: 409 lbs./yr. TN)

47. **Indian River Shores Indian-Seminole Lane Treatment Train** — The project consists of installing catch basins, inlet debris baskets, polyacramide (PAM) blocks and maintenance dredging. Not Started. (Estimated nutrient load reduction: 378 lbs./yr. TN and 194 lbs./yr. TP)

48. **New Smyrna Beach Canal C-05 Diversion Structure and Offsite Pond** — The project includes construction of a low-flow diversion weir in the C-05 canal. Flow will be rediverted to an adjacent stormwater treatment facility, then back into the canal downstream of the diversion weir. Not Started. (Estimated nutrient load reduction: 1,300 lbs./yr. TN and 320 lbs./yr. TP)

49. **Oak Hill Septic-to-Sewer Area 1 Indian Harbor Estates** — The project will abandon 280 septic tanks and connect to 10,600 linear feet of sewer line. Not Started. (Estimated nutrient load reduction: 2,883 lbs./yr. TN)

50. **ORCA Satellite Algae Bloom and Nutrient Source Tracking** — The research project is a pilot study to identify interpreted satellite images with water quality data to attempt to identify nutrient sources and algal blooms. In Progress.

51. **Ponce Inlet Ponce De Leon Circle Septic-to-Sewer** — The project consists of the construction of approximately 1,200 feet of 8-inch gravity sewer, 1,300 feet of force main, manholes, a lift station, and abandonment of up to 24 septic tanks and connection of those parcels to sanitary sewer. In Progress. (Estimated nutrient load reduction: 161 lbs./yr. TN)

52. **Riverside Conservancy Living Shoreline** — The project consists of restoring one quarter mile of living shoreline within southeast Volusia County, including the planting of mangroves and salt marsh plants and placement of oyster reef modules. Complete. (Improved .25 acres of wetlands)

53. **Vero Beach Stormwater Treatment Plant** — The project consists of the construction of an intake station with screens, pumps and associated piping from the intake to the filtration system to withdraw approximately 3 mgd from the Main Relief Canal that currently discharges to the IRL. Construct a

pipeline from the intake structure to the existing filters at the city of Vero Beach Water Treatment Plant (WTP), retrofit the existing four filters at the WTP, re-pump station with pumps and associated aboveground piping, and electrical equipment for the intake and re-pump station. The canal water will be filtered, screened, and treated at the existing water treatment plant. Not Started. (Estimated nutrient load reduction: 5,820 lbs./yr. TN and 900 lbs./yr. TP)

54. **Volusia County Ariel Canal Water Quality Improvement** — The project will retrofit an existing stormwater facility, diverting storm and base flow from Ariel Canal into a wet detention pond then route it to a BAM treatment area (1/3-acre). Flows from the canal will be routed through the downstream portion of the pond, then flow into the BAM treatment area, discharge back into the upstream portion of the pond and back to canal to the Mosquito Lagoon. The project will provide treatment for a 1,300-acre basin. Not Started. (Estimated nutrient load reduction: 1,300 lbs./yr. TN and 201 lbs./yr. TP)

55. **Volusia County Gabordy Canal and 10th Street** — The project includes the pumping of stormwater from the Gabordy Canal through a 2-acre treatment facility consisting of a 1-ft layer of sand for nitrification and a 2-ft layer of BAM for denitrification and phosphorus absorption. Flow will be collected and discharged to a pond prior to discharge to Gabordy Canal and ultimately the Mosquito Lagoon. In Progress. (Estimated nutrient load reduction: 4,300 lbs./yr. TN and 290 lbs./yr. TP)

56. **Volusia County Smyrna Dunes Park Septic-to-Sewer** — The project will abandon the septic tank and drain-field wastewater system serving the public restroom facility located at Smyrna Dunes Park and install a lift station and sanitary sewer connection. Not Started. (Estimated nutrient load reduction: 163 lbs./yr. TN)

57. **Rockledge Flow Equalization Basin Project** — The project includes the addition of a new 1.4 million gallon influent equalization basin, associated pump station, and supporting facilities at the Rockledge wastewater treatment plant. Not Started. (Estimated nutrient load reduction: 29,106 lbs./yr. TN)

58. **Satellite Beach Lori Laine Trunk Line Improvement Project** — The project consists of piping and earthwork to reroute stormwater conveyance to BAM-filled trenches for nutrient removal. Not Started. (Estimated nutrient load reduction: 129 lbs./yr. TN and 28 lbs./yr. TP)

59. **Vero Beach Canal to Irrigation Water Project** — The project includes construction of 29,150 linear feet of reclaimed water main to transmit treated canal water for use in irrigation. Not Started (Estimated 3 mgd alternative water supplied)

District-led Design and Construction Projects:

District-led projects are funded by ad valorem and cooperative funding sources and are deemed beneficial to the District's core missions but do not qualify for the District's annual cost-share programs. Project managers oversee design, permitting, and construction activities from concept to post construction project closeout. The following are examples of these regionally beneficial projects.

60. **The Canal 1/Sawgrass Lake Water Management Area Project** — This canal project redirects flows from IRL, returning up to 39 percent of drainage discharges to the Upper St. Johns River Basin. Completed. (Estimated nutrient load reduction: 148,000 lbs./yr. TN and 13,000 lbs./yr. TP)

61. **Micco Stormwater Park** — The park uses a series of ponds and a restored swamp to filter nutrients from stormwater before they can reach the nearby St. Sebastian River. Completed. (Estimated nutrient load reduction: 27,223 lbs./yr. TN and 16,753 lbs./yr. TP)

62. **Fellsmere Water Management Area (FWMA)** — The creation of 10,000 acres of wetland and open water in the Upper St. Johns River Basin to decrease the frequency of freshwater discharges through the C-54 canal to the IRL. Completed. (Estimated nutrient load reduction: 6,000 lbs./yr. TN and 500 lbs./yr. TP)

63. **Eau Gallie Muck Dredging Project** — A dredging project that removed more than 632,000 CY of muck from the Eau Gallie River, an IRL tributary. Complete (Estimated nutrient load reduction: 1 million lbs./yr. TN and 220,000 lbs./yr. TP)

64. **Crane Creek / M-1 Canal Flow Restoration Project** — A restoration project to reduce nutrient and sediment loads to the IRL by treating and returning baseflows and storm flows back to the St. Johns River. In design phase. (Estimated nutrient load reduction: 23,000 lbs./yr. TN and 2,900 lbs./yr. TP)

65. **C-10 Water Management Area** — This project is a water quality project to benefit the IRL with a secondary benefit as an alternative water supply project. The project will involve construction of a 1,300-acre reservoir with pump station, outfall structure, 4 miles of new levee, and improve existing federal levee. The estimated alternative water supply is 8 mgd. Design complete. (Estimated alternative water supplied: 8 mgd and estimated nutrient load reduction: 29,300 lbs./yr. TN and 1,300 lbs./yr. TP)