Brevard County
Save Our Indian River Lagoon Project Plan
Citizen Oversight Committee

November 18, 2022 – 8:30 to 11:30 am
Brevard County Government Center
2725 Judge Fran Jamieson Way
Building C, 3rd Floor, Florida Room
Viera, Florida 32940

I. Call to Order

II. Roll Call

III. Approval of the Agenda

IV. Approval of Minutes

V. Progress and Fiscal Reports

a. Monthly Progress Report – Virginia Barker, Director

b. Monthly Revenue Graph & Financial Statements – Crystal Melton, Finance Manager

c. Quarterly Financial and Grants Statement – Crystal Melton, Financial Manager

d. Quarterly Save Our Indian River Lagoon Project Performance Table Update - Terri Breeden, Environmental Section Supervisor

VI. Other Reports and Special Presentations

a. Brevard County Half-Cent Sales Surtax - Save Our Indian River Lagoon Fiscal Year 2022 Internal Audit Report – Laura Manlove, Director, or Jaime Bardee, Supervisor, RSM US

b. 2023 Project Funding Requests – Terri Breeden

VII. Old Business

VIII. New Business

a. 2023 Funding Recommendations for the 2023 Plan Update

b. Cocoa Beach Maritime Hammock Contingency Request – Terri Breeden

IX. General Public Comments

X. Final Comments by Chair and Committee Members

XI. Adjournment

Save Our Indian River Lagoon
Citizen Oversight Committee Meeting Minutes

September 16, 2022 – 8:30 a.m.
2725 Judge Fran Jamieson Way, Bldg. C, 3rd Floor,
Florida Room and On-Line via Zoom Conference
Viera, FL 32940

Members Present:

Expertise	Member	Present	Alternate	Present
Science	Lorraine Koss	No	Charles Venuto	Yes
Technology	Vinnie Taranto - Chair	Yes	David Sherrer	No
Education	Stephany Eley	Yes	Kimberly Newton	Yes
Finance	Courtney Barker	Yes	Todd Swingle	Yes
Tourism	David Lane Vice-Chair	Yes	Laurilee Thompson	No
Real Estate	Susan Hodgers	Yes	Eric Mannes	Yes
Lagoon Advocacy	John Windsor	Yes	Terry Casto	Yes

Staff Present:
Heather Balser, Assistant County Attorney
Virginia Barker, Brevard County Natural Resources Management Director
Brandon Smith, Environmental Specialist III
Matt Badolato, Associate Environmental Specialist
Beb Sebastian, Associate Environmental Specialist
Crystal Melton, Department Finance Manager
Jeanne Allen, Engineer III
Courtney Maier, Engineer II
Jenny Hansen, Environmental Scientist
Jaculin Watkins, Executive Secretary

I. Call to Order

II. Roll Call

III. Acceptance of Virtual Votes

John Windsor moved to allow Committee Members, who were attending online via Zoom, to vote virtually; seconded by Courtney Barker.

There was no public comment for the motion. Motion was unanimously approved.

IV. Approval of the Agenda

John Windsor moved to approve the Agenda as written; Seconded by Courtney Barker.

There was no public comment for the motion. Motion was unanimously approved.

V. Approval of Minutes

John Windsor moved to approve the Minutes as written; seconded by Charles Venuto.

There was no public comment for the motion. Motion was unanimously approved.

VI. Progress and Fiscal Reports

a. Monthly Progress Report – Virginia Barker, Director

The Monthly Progress Report was given by Virginia Barker.

Discussion ensued. Virginia Barker, Brandon Smith, and Matt Badolato responded to Committee's questions.

b. Monthly Revenue Graph & Financial Statements - Crystal Melton, Finance Manager

Crystal Melton reported on the Monthly Revenue Graph. The Monthly Revenue graph for the August 19, 2022 meeting was also included; this was reported on at the August meeting, but not attached to the Agenda packet.

Discussion ensued. Crystal Melton responded to the Committee's questions.

VII. Other Reports and Special Presentations

a. At-Risk Vessel Program – Florida Fish and Wildlife Conservation Commission

Officer Specialist Morgan Maslo from the Florida Fish and Wildlife Conservation Commission gave an oral presentation on the At-Risk Vessel program. Her presentation provided information on the categories used to identify at-risk versus derelict vessels, and some preliminary information on a new program, the "Turn it in Program" (TIIPS), for boat owners to call to voluntary turn in a vessel before it becomes derelict.

Discussion ensued. Officer Maslo responded to the Committee's questions.

b. Project Videos – Sewer Lateral Smoke Testing

Sewer Later Smoke Testing video was shown.

VIII. Old Business

a. Septic Upgrade Program Retroactive Payments Request – Matt Badolato, Associate Environmental Specialist

Matt Badolato reviewed previously-discussed options for offering retroactive payments to homeowners who received postcards about septic upgrade incentives, but had previously not been eligible. These homeowners had elected to upgrade their systems during the program on their own, and later requested to be included in

the program. Staff offered potential updates to consider regarding the ten retro-pay conditions. Discussion ensued. Staff offered the following conditions for considering retroactive payments to property owners who installed advanced treatment septic systems:

1. Upgrade must have been voluntary, not required by local or state code.

2. Upgrade must have followed all Save Our Indian River Lagoon program guidelines other than grant approval prior to construction

3. Upgrade must have been properly permitted and certified by the Florida Department of Health/Florida Department of Environmental Protection.

4. Operation and maintenance permits for the advanced system must be current. with no gaps in the owner's compliance.

5. Retro-pay amount shall not exceed the sum of costs documented with proof of payment.

6. Work must have been completed after inception of the septic upgrade homeowner grant program.

7. Work had to be completed before 6/1/2022 (several weeks after the last grant program eligibility notifications were mailed to owners of priority sites).

8. Eligible funding will be (up to $6,000) pro-rated at $1200/lb based on septic loading estimated in the 2018 county-wide septic loading model for conventional septic at the site.

9. Retro-pay amount shall be up to $6,000, representing the typical difference in cost, or the voluntary upgrade, between conventional ($12,000) and advanced systems ($18,000) and equal to the typical cost share of $1,200/pound times 5 pounds of load reduction.

10. The sum of Retroactive Payments to be processed by staff shall not exceed $100,000 without specific authorization by the County Commission.

Stephany Eley moved to recommend to the Board of County Commissioners that the County authorize retroactive payments to homeowners with the agreed-upon modifications noted above; Seconded by Courtney Barker. Motion was unanimously approved.

b. Communication Expansion Discussion – Citizen Oversight Committee

In response to direction from the Committee, staff presented options for communication expansion to be included in the 2023 Save Our Indian River Lagoon

(SOIRL) Project Plan Update. Discussion ensued on the various outreach campaigns that are currently included in the SOIRL Project Plan and other options for outreach, and the benefits and projected cost-effectiveness of each. Also discussed was adding signage to project sites to inform the public of the impact of the SOIRL half-cent tax and show how the funds are being utilized. Public Comments were heard.

John Windsor moved to double the funding for the remaining five (5) years for the three existing programs; fund the two previously-proposed but not funded programs at the double funding level, and add an additional $6,000 Awareness budget that will include drivers to individual actions, and we will evaluate the success. Seconded by Stephaney Eley. Motion passed unanimously.

IX. New Business

a. Adoption of 2023 Meeting Calendar

John Windsor moved to accept the 2023 Citizen Oversight Committee Meeting Calendar as presented; Seconded by Stephaney Eley. Motion was unanimously approved.

b. Contingency Funding Request of $545,373 for the City of Cocoa Zones J and K Septic to Sewer Project

(Item IX.b. was heard out of order.)

Stockton Whitten, City Manager, Cocoa, Florida presented a letter request for additional funding for the J&K Septic to Sewer Project. The additional budgetary allocation request is half of the City's projected shortfall, as 50/50 grant match funding is assumed, and the Contingency Fund Reserve includes an additional amount of funding to account for the impact of inflation on project delivery costs. This shortfall amount is within the allowed contingency amount. Discussion ensued.

Stephany Eley moved to recommend that the Committee recommend the Board of County Commissioners approve the proposal request for the additional budgetary allocation request of $545,373; Seconded by John Windsor. Motion was unanimously approved.

c. Hybrid Meeting Discussion

Staff requested the Committee consider discontinuing the Zoom option of monthly COC meetings. Attendance via Zoom has substantially declined in the last few months. Hosting Zoom for virtual participation requires additional communications staff to run and stream the meeting simultaneously on SCGTV, Facebook Live, and

Zoom. This multi-streaming creates logistical conflicts including unavoidable sound issues. Discussion ensued.

John Windsor moved to eliminate the zoom meetings, except under special circumstances; Seconded by Courtney Barker. Brandon Smith answered Committee's questions. Public Comments were heard. Motion was unanimously approved.

d. Discussion on Canceling the October 2022 Citizen Oversight Committee Meeting

October's COC meeting coincides with the MRC Low-Impact Design Conference and staff recommends cancelling the October meeting to allow for those interested to attend. Discussion ensued.

Courtney Barker moved to cancel the October 15, 2022 meeting; Seconded by John Windsor. There were no Public Comments. Motion was unanimously approved.

X. General Public Comments

General public comments were heard.

XI. Final Comments by Chair and Committee Members

Final Comments were heard.

XII. Adjournment

Save Our Indian River Lagoon Project Plan
November 2022 Progress Report

WORK COMPLETED THIS MONTH:

- South Central D Septic-to-Sewer Project – held a community meeting with homeowners
- Leaky Lateral Repairs – 109 of 431 detected leaks have been repaired; 28 grant applications received; 14 grant recipient sites have been repaired and processed for payment
- Plumbing Services – New Request for Qualifications resulted in prequalifying 6 plumbers
- Septic Upgrades – 4 more reimbursements processed for a total of 96 completed to date; 230 homeowner cost-share agreements executed
- In-Ground Nitrogen Reducing Biofilter Septic System – All lab results submitted to Florida Department of Environmental Protection; meeting requested to compare results to agreed success metrics
- Cocoa Beach Maritime Hammock Aquatic Vegetation Harvesting – harvesting complete
- Melbourne Grant Place Baffle Box – installation complete
- Brevard Zoo North Indian River Lagoon Oyster Project –installed 1890 sf at multiple locations
- University of Central Florida reported average recruitment of 143 oysters per square meter at 1 month after installation at Castaway Cove. Corrals contained 20 and 31 oysters per sample and gabions contained 22 and 33 oysters per sample for wide and narrow oyster bar footprints, respectively.
- Derelict Vessels removed this month – 1
- Countywide Groundwater Quality Monitoring Report analyzed data from June 2018 to April 2022
- Videos Complete – Fertilizer Best Management Practices and Canal Harvesting
- Terms were renewed for 10 Citizen Oversight Committee members; currently advertising for 4 seats

WORK UNDERWAY THIS MONTH:

- 2023 Plan Update – drafting revisions and reviewing 17 Project Applications
- Oak Point Mobile Home Park – Package Plant conversion to Central Sewer 60% complete
- South Central C Septic-to-Sewer – Construction 64.9% complete; 143 of 147 homeowner connection grants contracted. Construction is underway in the north subdivision.
- Sykes Creek P Septic-to-Sewer – Bid package being finalized
- Sykes Creek M & T Septic-to-Sewer – 30% design underway
- Brevard County Septic-to-Sewer - Survey, design, and engineering continue; 30% design being finalized for 13 projects; homeowner notification letters prepared for distribution. Land acquisition underway.
- Satellite Beach Lori Laine Stormwater Project – Construction has begun
- Basin 79/Scottsmoor C & Basin 89/Scottsmoor I Stormwater Treatments – Baffle box installed; denitrification system under construction; adding access road for baffle box maintenance needs
- Basin 1280B Flamingo Denitrification and Basin 1304B W Arlington Denitrification – Permit application was withdrawn and resubmitted after agency staff agreed they were charging the wrong permit fee
- Basin 958 Pioneer Rd – awaiting permit approval from St Johns River Water Management District
- Basin 1398 Sand Dollar – Working to schedule vegetation harvesting and ditch cleaning in-house
- Basin 1387 Kingsmill-Aurora Phase II – 30% Plans received
- Grand Canal Muck Dredging – Removed a total of 245,000 cubic yards to date
- Sykes Creek Muck Dredging – Removed a total of 18,030 cubic yards to date
- Innovative Technology Grant (INV24) – Draft Quality Assurance Project Plan submitted for state review
- 2022 Audit –Auditor's presentation to the Audit Committee scheduled for November 14th

PRESENTATIONS THIS MONTH:

October 18 – East Merritt Island HOA – Brandon
October 29 – Merritt Island Wildlife Association – Terri
November 1 & 2 – Manatee Forum in St Petersburg– Virginia

UPCOMING LAGOON SCIENCE FORUMS AND PUBLIC EVENTS:

November 5 – Indian River Lagoon Day
November 12 – Titusville Eco Fest: EEARS to the Environment
November 12 – Boater's Exchange Lagoon Loyal Day
January 19 – Brevard Indian River Lagoon Coalition Straight Talk Titusville

UPCOMING VOLUNTEER PARTICIPATION OPPORTUNITIES:

November 12 – Marine Resources Council Mangrove Workshop
November 14, 15, 21, & 22 – Brevard Zoo Clam Restoration – Email Restore Our Shores to register
November 18– Brevard Zoo Oyster Habitat Building
Marine Resources Council super clam monitoring, storm drain marking in Melbourne, and Concrete Creations Program seeking volunteers – Email Caity Savoia to register
Rotary Park rain garden maintenance or storm drain marking in Cocoa – Email Carlos Cuevas for opportunities

WEBSITE, SOCIAL MEDIA, NEWSLETTER, AND REPORT LINKS:

Lagoon Loyal Outreach and Engagement Landing Page
Save Our Indian River Lagoon Website
Save Our Indian River Lagoon Facebook
Save Our Indian River Lagoon Instagram
Save Our Indian River Lagoon YouTube – New Custom URL Handle https://youtube.com/@saveourlagoon
Sign up for our Monthly Newsletter
Sign up for our Weekly Harmful Algal Bloom Reports

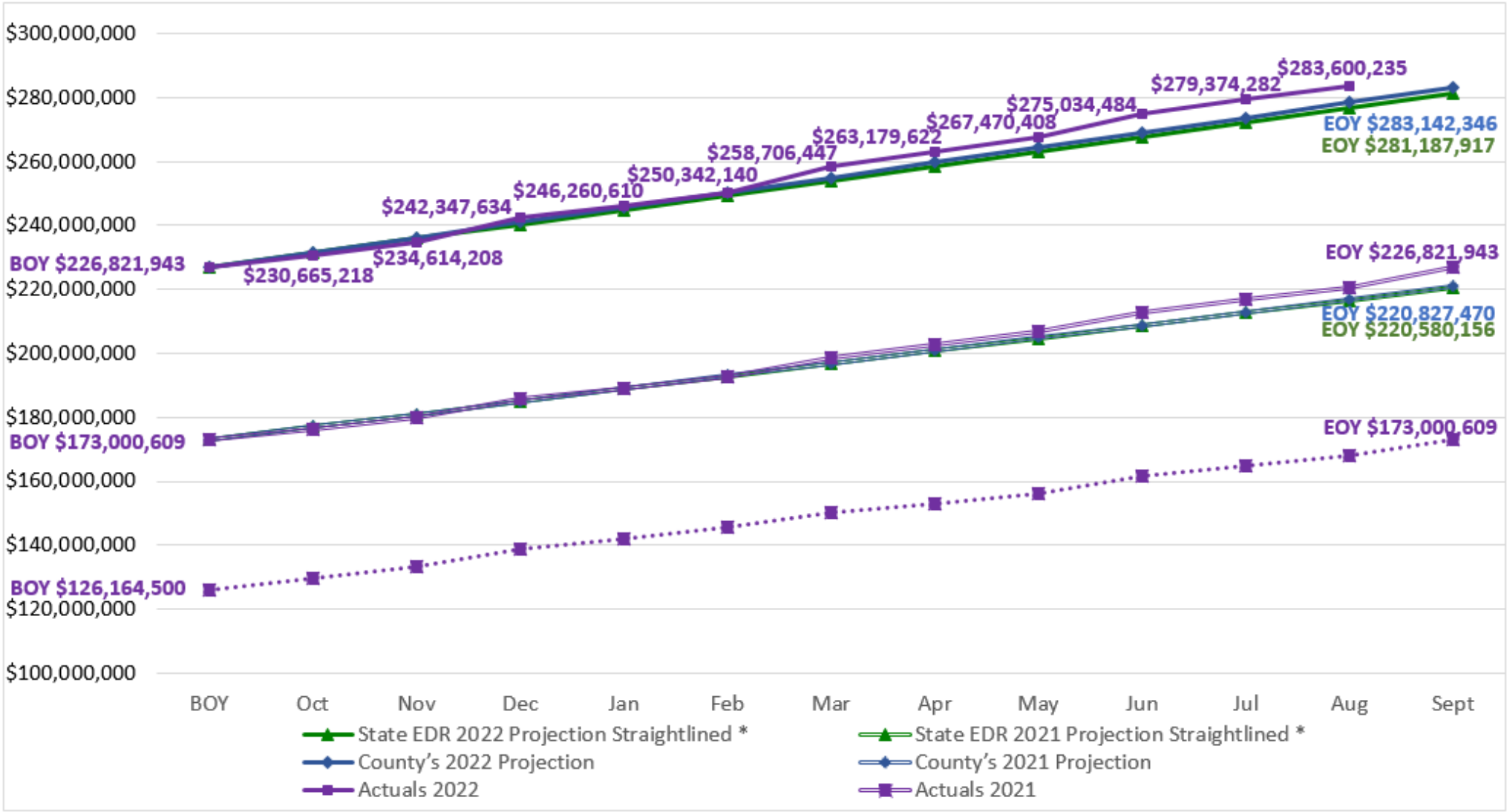
FUTURE TOPICS FOR SPECIAL PRESENTATIONS:

1. Seagrass Guidance Risk Assessment Tool
2. Project Performance Measurements and Cost-Effectiveness Results
3. Shoreline Armor and Living Shoreline Permitting Authorities, Rules, and Opportunities
4. Surface Water Remediation Technologies
5. Nutrient Loading Impacts of Reclaimed Water
6. Lagoon Projects - managed and funded by other agencies, entities, or grant programs
7. Indian River Lagoon Research News: Conference, Symposium, or Assembly Highlights
8. Lagoon Fish and Fisheries Research – Dr. Grant Gilmore
9. Clam Restoration and Aquaculture Stimulus Projects
10. Inground Nitrogen Reducing Bioreactor Septic Drain Field Pilot Project Findings
11. Low Impact Development/Green Infrastructure/Resilience: Local examples and potential opportunities
12. Microplastics – University of Central Florida research
13. Isotope studies
14. Zoo Conservation/Aquarium
15. Bottlecaps as denitrification media
16. Titusville Causeway Multi-Trophic Restoration and Living Shoreline Resiliency Action Plan

Save Our Indian River Lagoon Revenues Cumulative Graph
Fiscal Year 20-21 to Current Fiscal Year

* Economic and Demographic Research Data is sourced from Florida's Office of Economic & Demographic Research using their Estimation of Realized and Unrealized Tax Revenues Table

- Projected and Actual Data is from Systems, Applications and Products program
- EDR-Economic and Demographic Research Data, BOY-Beginning of Year, EOY-End of Year
- For Screen Readers use the Save Our Indian River Lagoon Revenues Cumulative Chart Fiscal Year 20-21 to Current Fiscal Year Table
- Updated the State EDR Beginning Of Year to match Actuals End Of Year to the prior Fiscal Years



Save Our Indian River Lagoon Revenues Cumulative Chart
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Month	State EDR 2022 Projection Straightlined *	County's 2022 Projection	Actuals 2022	State EDR 2021 Projection Straightlined *	County's 2021 Projection	Actuals 2021	Actuals 2020
BOY	**$226,821,943**	**$226,821,943**	**$226,821,943**	**$173,000,609**	**$173,000,609**	**$173,000,609**	**$126,164,500**
Oct	$231,352,441	$231,515,310	$230,665,218	$176,965,571	$176,986,181	$176,417,554	$129,590,162
Nov	$235,882,939	$236,208,677	$234,614,208	$180,930,533	$180,971,752	$179,767,028	$133,089,868
Dec	$240,413,437	$240,902,044	$242,347,634	$184,895,496	$184,957,324	$185,628,087	$138,551,296
Jan	$244,943,935	$245,595,411	$246,260,610	$188,860,458	$188,942,896	$189,094,044	$142,014,229
Feb	$249,474,432	$250,288,778	$250,342,140	$192,825,420	$192,928,467	$192,467,433	$145,518,464
Mar	$254,004,930	$254,982,145	$258,706,447	$196,790,382	$196,914,039	$198,814,528	$150,424,958
Apr	$258,535,428	$259,675,512	$263,179,622	$200,755,345	$200,899,611	$202,841,586	$153,099,730
May	$263,065,926	$264,368,879	$267,470,408	$204,720,307	$204,885,183	$206,775,862	$156,326,096
Jun	$267,596,424	$269,062,246	$275,034,484	$208,685,269	$208,870,754	$212,965,332	$161,413,353
Jul	$272,126,922	$273,755,612	$279,374,282	$212,650,231	$212,856,326	$216,998,992	$164,827,524
Aug	$276,657,419	$278,448,979	$283,600,235	$216,615,194	$216,841,898	$220,555,946	$167,886,836
Sept	$281,187,917	$283,142,346		$220,580,156	$220,827,470	$226,821,943	$173,000,609

Save Our Indian River Lagoon - FY 2022

Monthly Financial Statement
Date Range 01 October 2021 - 03 November 2022
Fund 1260

*Total Assigned YTD-Year to Date, includes all stages of accounting for expenditures, with data derived from Systems, Applications and Products program

Revenues	Budget	Total Assigned YTD*	% Earned
Taxes	$ 48,783,398	$ 56,778,292	116.39%
Interest Earned	$ 725,952	$ 1,447,552	199.40%
Other Federal Grants	$ 4,089,270	$ 1,750	0.04%
Federal Grants Hurricane Irma	$ 1,357,269		0.00%
Other State Grants	$ 9,092,186	$ 497,697	5.47%
State Grants Hurricane Irma	$ 226,212		0.00%
Tourism Development Council Grants	$ 96,843	$ 7,004	7.23%
American Rescue Plan Act (ARPA)	$ 5,278,700	$ 3,807,745	72.13%
Certified, Copy, and Records Requests	$ -	$ 325	
Statutory Reduction	$ (3,218,561)		0.00%
Balance Forward	$ 200,653,985	$ 200,653,985	100.00%
Total	**$ 267,085,254**	**$ 263,194,350**	98.54%

Expenditures (Roll-Up)	Budget	Total Assigned YTD*	Actuals
Compensation & Benefits	$ 904,819	$ 875,530	$ 708,847
Operating Expenses	$ 199,645	$ 194,339	$ 189,202
Capital Outlay	$ 29,500	$ 11,822	$ 11,822
SOIRL Projects funded under Operating Expenses (Non-Capital County Project & Programs)	$ 4,460,822	$ 2,598,244	$ 1,993,088
SOIRL Projects funded under Capital Improvement (County Projects over $35K)	$ 67,625,441	$ 23,852,789	$ 10,856,950
SOIRL Projects funded under Aid to Gov't Agencies (Cities & Water Management Districts)	$ 60,745,430	$ 31,138,848	$ 7,222,803
SOIRL Projects funded under Aid to Private Organizations (Property Owners & Non-Government Organizations)	$ 52,433,981	$ 3,300,377	$ 1,444,184
Contingency	$ 11,371,795		
Reserves (for approved projects scheduled beyond this fiscal year)	$ 69,313,821		
Total	**$ 267,085,254**	**$ 61,971,950**	**$ 22,426,896**

Save Our Indian River Lagoon Financial Tables – Fiscal Year 21/22 Quarter 4

*Projects Completed; + Project using contingency funds; FY=Fiscal Year; TBD = To Be Determined; WWTF = Waste Water Treatment Facility

Table 1. Public Education Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
58a	Expanded Fertilizer Education	Brevard County	$625,000	$312,500	$0	$0	$120,951	$49,477	$46,571	$35,834	$252,833
58b	Grass Clippings Campaign	Brevard County	$200,000	$100,000		$0	$20,000	$0	$6,638	$8,363	$35,000
58c	Septic System Maintenance Education	Brevard County	$300,000	$150,000		$0	$48,380	$49,245	$22,709	$11,497	$131,831
193	Oyster Gardening*	Brevard Zoo	$300,000	$300,000				$150,000	$150,000	$0	$300,000
227	Restore Our Shores: Community Collaborative	Brevard Zoo	$1,000,000	$1,000,000						$100,000	$100,000
	Public Education Total		**$2,425,000**	**$1,862,500**	**$0**	**$0**	**$189,332**	**$248,722**	**$225,917**	**$155,694**	**$819,664**

Table 2. Waste Water Treatment Facility Upgrades for Reclaimed Water Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
99	Cocoa Beach Water Reclamation Facility Upgrade*	Cocoa Beach	$945,000	$945,000			$0	$945,000	$0	$0	$945,000
59	City of Melbourne Grant Street Water Reclamation Facility	Melbourne	$6,769,500	$6,769,500			$0	$0	$0	$0	$0
2016-17	City of Palm Bay Water Reclamation Facility*	Palm Bay	$3,636,900	$3,636,900		$43,573	$101,679	$373,976	$2,581,471	$534,201	$3,634,900
2016-2	City of Titusville Osprey WWTF+	Titusville	$8,300,000	$8,300,000		$90,586	$333,705	$528,975	$2,288,921	$3,635,081	$6,877,270
138	Ray Bullard Water Reclamation Facility Biological Nutrient Removal Upgrades	West Melbourne	$4,260,000	$4,260,000				$0	$123,592	$81,455	$205,047
216	City of Rockledge Flow Equalization Basin Project	Rockledge	$2,054,795	$2,054,795						$133,747	$133,747
	WWTF Upgrades for Reclaimed Water Total		**$25,966,195**	**$25,966,195**	**$0**	**$134,159**	**$435,384**	**$1,847,951**	**$4,993,985**	**$4,384,484**	**$11,795,963**

Table 3. Rapid Infiltration Basin/Sprayfield Upgrades Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
6	Long Point Park Upgrade*	Brevard County	$22,207	$22,207	$22,086	$120	$0	$0	$0	$0	$22,207
196	Sterling House Condominium Sprayfield	Property Owner	$60,000	$0						$0	$0
	Rapid Infiltration Basin/Sprayfield Upgrades Total		**$82,207**	**$22,207**	**$22,086**	**$120**	**$0**	**$0**	**$0**	**$0**	**$22,207**

Table 4. Package Plant Connection Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
192	Oak Point Wastewater Treatment Facility Improvements	Property Owner	$279,000	$279,000					$11,403	$115,399	$126,802
202	Merritt Island Utility Company	Property Owner	$1,349,445	$0						$0	$0
228	Indian River Shores Trailer Park Wastewater Treatment Facility	Property Owner	$528,627	$0						$0	$0

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
	Package Plant Connection Total		**$2,157,072**	**$279,000**	**$0**	**$0**	**$0**	**$0**	**$11,403**	**$115,399**	**$126,802**

Table 5. Sewer Laterals Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
63ab	Satellite Beach Pilot & Countywide Repair/Replacement	Brevard County	$840,000	$221,479		$0	$0	$4,228	$6,204	$202,210	$212,642
114	Barefoot Bay Lateral Smoke Testing	Brevard County	$90,000	$83,564				$0	$0	$32,873	$32,873
115	South Beaches Lateral Smoke Testing	Brevard County	$200,000	$195,443				$0	$0	$84,304	$84,304
116	Merritt Island Lateral Smoke Testing	Brevard County	$250,000	$250,000				$0	$0	$246,630	$246,630
100	Osprey Basin Lateral Repair Project	Titusville	$200,000	$0			$0	$0	$0	$0	$0
	Sewer Laterals Total		**$1,580,000**	**$750,486**	**$0**	**$0**	**$0**	**$4,228**	**$6,204**	**$566,017**	**$576,449**

Table 6. Septic System Removal by Sewer Extension Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-27	Sharpes - Zone A	Brevard County	$7,872,000	$529,305			$0	$0	$0	$151,472	$151,472
2016-29	South Banana - Zone B	Brevard County	$1,372,500	$98,581			$0	$0	$0	$45,214	$45,214
2016-35	South Beaches - Zone A	Brevard County	$1,959,000	$259,160	$0	$0	$0	$18,000	$0	$57,863	$75,863
2016-36	South Beaches - Zone O	Brevard County	$133,488	$133,488			$0	$0	$16,855	$1,388	$18,243
2016-37	South Beaches - Zone P	Brevard County	$300,348	$500,580			$0	$0	$65,931	$29,554	$95,485
2016-50	South Central - Zone C	Brevard County	$6,600,000	$6,600,000		$47,592	$142,218	$13,565	$109,557	$4,222,604	$4,535,536
3	Micco Sewer Line Extension (Phase I and II)	Brevard County	$2,239,500	$2,239,500	$22,620	$128,500	$20,115	$30,446	$39,290	$14,777	$255,748
47	Sykes Creek - Zone N	Brevard County	$4,176,000	$2,603,016	$0	$29,462	$32,911	$8,477	$131,852	$17,721	$220,423
48	Sykes Creek - Zone M	Brevard County	$2,697,000	$1,868,832	$0	$22,400	$53,600	$11,200	$9,586	$422,073	$518,859
49	Sykes Creek - Zone T	Brevard County	$5,040,000	$4,939,056	$0	$26,000	$97,500	$16,700	$4,564	$52,976	$197,740
136	Micco - Zone B	Brevard County	$9,000,000	$2,248,125				$0	$0	$701,489	$701,489
145	Merritt Island - Zone F	Brevard County	$1,100,000	$170,713				$0	$0	$57,533	$57,533
146	Merritt Island - Zone C	Brevard County	$1,580,000	$204,375				$0	$0	$58,112	$58,112
147	Sykes Creek - Zone R	Brevard County	$4,387,500	$449,625				$0	$0	$123,352	$123,352
148	North Merritt Island - Zone E	Brevard County	$3,811,500	$554,917				$0	$0	$194,429	$194,429
150	South Central - Zone D (Brevard County)	Brevard County	$4,774,500	$651,403				$0	$0	$105,591	$105,591
151	Merritt Island - Zone G	Brevard County	$16,617,000	$2,755,456				$0	$0	$458,819	$458,819
152	Sharpes - Zone B	Brevard County	$4,038,000	$387,019				$0	$0	$40,245	$40,245
153	Cocoa - Zone C	Brevard County	$800,000	$776,884				$0	$0	$83,346	$83,346
203	South Central - Zone A	Brevard County	$5,482,500	$707,437	$0	$0	$0	$0	$0	$30,715	$30,715
2016-31/32	City of Cocoa - Zones J & K	Cocoa	$5,622,000	$0	$0	$0	$0	$0	$0	$0	$0
2016-28	South Central - Zone D (Melbourne)	Melbourne	$265,500	$0				$0	$0	$0	$0

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-33	City of Melbourne	Melbourne	$867,672	$0	$0	$0	$0	$0	$0	$0	$0
2020-34	South Central - Zone F/Pineapple Avenue	Melbourne	$1,701,972	$1,701,972			$0	$0	$0	$120,141	$120,141
4	Hoag Sewer Conversion	Melbourne	$86,031	$86,031	$0	$0	$13,520	$0	$12,575	$0	$26,095
5	Pennwood Sewer Conversion+	Melbourne	$40,632	$40,632	$0	$0	$17,074	$0	$0	$0	$17,074
61	Riverside Drive Septic-to-Sewer Conversion	Melbourne	$262,044	$262,044		$0	$0	$0	$0	$0	$0
62	Roxy Avenue Septic-to-Sewer Conversion	Melbourne	$88,944	$88,944		$0	$0	$0	$39,495	$0	$39,495
189	Avendia del Rio Septic to Sewer	Melbourne	$70,000	$0					$0	$0	$0
190	Bowers Septic to Sewer	Melbourne	$147,000	$0					$0	$0	$0
191	Kent and Villa Espana Septic to Sewer Conversion	Melbourne	$710,000	$710,000					$0	$0	$0
2	Merritt Island Septic Phase Out Project*+	Merritt Island Redevelopment Agency	$320,000	$320,000	$128,875	$0	$0	$134,517	$56,608	$0	$320,000
2016-39	City of Palm Bay – Zone A	Palm Bay	$2,569,644	$0	$0	$0	$0	$0	$0	$0	$0
2016-46	City of Palm Bay – Zone B	Palm Bay	$8,309,628	$0	$0	$0	$0	$0	$0	$0	$0
2016-30	City of Rockledge	Rockledge	$500,580	$0	$0	$0	$0	$0	$0	$0	$0
2016-40	Rockledge - Zone B	Rockledge	$5,339,520	$0			$0	$0	$0	$0	$0
1	Breeze Swept Septic to Sewer Connection*	Rockledge	$880,530	$880,530	$0	$880,530	$0	$0	$0	$0	$880,530
2016-38	City of Titusville - Zone H	Titusville	$1,168,020	$0			$0	$0	$0	$0	$0
109	City of Titusville - Zones A-G	Titusville	$1,201,392	$943,110	$0	$0	$0	$0	$86,860	$57,177	$144,037
60	Sylvan Estates Septic-to-Sewer Conversion*	West Melbourne	$1,561,215	$1,561,215		$19,116	$86,928	$658,513	$796,657	$0	$1,561,215
224	Lake Ashley Circle	West Melbourne	$1,704,000	$1,704,000						$0	$0
225	Dundee Circle and Manor Place	West Melbourne	$2,248,500	$2,248,500						$0	$0
	Septic System Removal by Sewer Extension Total		**$119,645,660**	**$39,224,450**	**$151,495**	**$1,153,600**	**$463,866**	**$891,419**	**$1,369,831**	**$7,046,589**	**$11,076,799**

Table 7. Septic System Removal by Sewer Connection Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-16	Banana Septic System 144 Quick Connections	Property Owners	$1,905,729	$36,000			$0	$0	$18,406	$0	$18,406
2016-18	North IRL Septic System 463 Quick Connections	Property Owners	$6,018,000	$741,250			$0	$0	$534,000	$121,327	$655,327
2016-19	Central IRL Septic System 269 Quick Connections	Property Owners	$3,354,000	$48,000			$0	$0	$0	$23,760	$23,760
222	Hedgecock/Grabowsky & Desoto Fields	Satellite Beach	$39,447	$0						$0	$0
	Septic System Removal by Sewer Connection Total		**$11,317,176**	**$825,250**	**$0**	**$0**	**$0**	**$0**	**$552,406**	**$145,087**	**$697,492**

Table 8. Septic System Upgrades Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
51	Banana River Lagoon 100 Septic System Upgrades	Private Citizens	$1,800,000	$153,076	$0	$0	$0	$0	$0	$120,703	$120,703
52	North IRL 586 Septic System Upgrades	Private Citizens	$10,548,000	$1,040,293	$0	$0	$0	$176,100	$108,000	$291,709	$575,809

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
53	Central IRL 939 Septic System Upgrades	Private Citizens	$16,885,106	$2,189,593	$0	$0	$0	$34,485	$452,621	$441,610	$928,715
	Septic System Upgrades Total		**$29,233,106**	**$3,382,962**	**$0**	**$0**	**$0**	**$210,585**	**$560,621**	**$854,022**	**$1,625,227**

Table 9. Stormwater Projects Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-41	Banana River Lagoon 65 Basin Projects	Brevard County	$14,324,135	$0	$0	$0	$0	$0	$0	$0	$0
2016-42	North IRL 96 Basin Projects	Brevard County	$22,114,028	$0	$0	$0	$0	$0	$0	$0	$0
2016-43	Central IRL 8 Basin Projects	Brevard County	$3,258,500	$0	$0	$0	$0	$0	$0	$0	$0
18	Denitrification Retrofit of Johns Road Pond	Brevard County	$105,512	$105,512	$0	$17,173	$6,320	$3,738	$0	$78,282	$105,512
22	Kingsmill-Aurora Phase Two	Brevard County	$367,488	$367,488	$0	$0	$0	$0	$0	$0	$0
23	Denitrification Retrofit of Huntington Pond	Brevard County	$104,720	$104,720	$0	$9,074	$0	$0	$0	$0	$9,074
24	Denitrification Retrofit of Flounder Creek Pond	Brevard County	$75,328	$75,328	$0	$19,923	$0	$0	$0	$0	$19,923
85	Basin 1304 Bioreactor*	Brevard County	$90,000	$90,000			$0	$0	$83,029	$0	$83,029
87	Basin 2134 Fleming Grant Biosorption Activated Media*	Brevard County	$56,588	$56,588			$0	$56,588	$0	$0	$56,588
89	Basin 1298 Bioreactor*	Brevard County	$86,198	$86,198			$0	$0	$85,829	$0	$85,829
90	Basin 51 Johns Road Pond Biosorption Activated Media*	Brevard County	$23,030	$23,030			$0	$0	$23,030	$0	$23,030
91	Basin 100 Burkholm Road Biosorption Activated Media*	Brevard County	$64,390	$64,390			$0	$0	$64,390	$0	$64,390
92	Basin 115 Carter Road Biosorption Activated Media*	Brevard County	$62,510	$62,510			$0	$62,510	$0	$0	$62,510
93	Basin 193 Wiley Avenue Biosorption Activated Media*	Brevard County	$82,735	$82,735			$0	$0	$82,735	$0	$82,735
94	Basin 832 Broadway Pond Biosorption Activated Media*	Brevard County	$42,864	$42,864			$0	$42,864	$0	$0	$42,864
117	Basin 10 County Line Road Woodchip Bioreactor*	Brevard County	$72,773	$72,773				$72,773	$0	$0	$72,773
118	Basin 26 Sunset Road Serenity Park Woodchip Bioreactor	Brevard County	$73,810	$73,810				$0	$0	$73,810	$73,810
119	Basin 141 Irwin Avenue Woodchip Bioreactor*	Brevard County	$69,174	$69,174				$0	$69,174	$0	$69,174
121	Basin 2258 Babcock Road Woodchip Bioreactor	Brevard County	$50,203	$50,203				$0	$0	$0	$0
122	Basin 22 Huntington Road Woodchip Bioreactor*	Brevard County	$40,077	$40,077				$0	$40,077	$0	$40,077
205	Basin 998 Hampton Homes	Brevard County	$194,400	$0						$0	$0
206	Basin 1066 Angel Ave	Brevard County	$232,200	$0						$0	$0
207	Basin 1124 Elliot D Canal	Brevard County	$148,100	$0						$0	$0
213	Johnson Junior High Denitrification Media Chamber Modification	Brevard County	$64,478	$0						$0	$0
215	Basin 960 Pioneer Road Denitrification	Brevard County	$38,850	$0						$0	$0
220	Basin 1398 Sand Dollar Canal Bioreactor	Brevard County	$198,024	$0						$0	$0
229	Basin 1280B Flamingo Road Denitrification	Brevard County	$71,645	$0						$0	$0
230	Basin 1304B West Arlington Road Denitrification	Brevard County	$96,425	$0						$0	$0
231	Basin 89 Scottsmoor I Aurantia Road Denitrification	Brevard County	$245,100	$245,100						$0	$0
13	Central Boulevard Baffle Box*	Cape Canaveral	$34,700	$34,700	$0	$34,700	$0	$0	$0	$0	$34,700
14	Church Street Type II Baffle Box*	Cocoa	$88,045	$88,045	$0	$0	$20,856	$67,189	$0	$0	$88,045
124	Floating Wetlands to Existing Stormwater Ponds*	Cocoa	$1,497	$1,497				$0	$1,497	$0	$1,497

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
125	Diamond Square Stormwater Pond	Cocoa	$10,383	$0				$0	$0	$0	$0
129	Forrest Avenue 72-inch Outfall Baseflow Capture/Treatment	Cocoa	$13,956	$0				$0	$0	$0	$0
177	North and South Lakemont Ponds Floating Wetlands	Cocoa	$13,054	$13,054					$0	$13,054	$13,054
64	Stormwater Low Impact Development Convair Cove 1 – Blakey Boulevard	Cocoa Beach	$4,650	$4,650		$0	$0	$0	$0	$4,650	$4,650
65	Stormwater Low Impact Development Convair Cove 2 – Dempsey Drive	Cocoa Beach	$4,495	$4,495		$0	$0	$0	$0	$4,495	$4,495
219	McNabb Outfall Bioretention	Cocoa Beach	$19,423	$0						$0	$0
221	Burris Way Alley West Stormwater Low Impact Development (WITHDRAWN)	Cocoa Beach	$1,249	$0						$0	$0
127	Basin 5 Dry Retention*	Indialantic	$16,680	$16,680				$0	$16,680	$0	$16,680
16	Gleason Park Reuse*	Indian Harbour Beach	$4,224	$4,224	$0	$4,224	$0	$0	$0	$0	$4,224
66	Big Muddy at Cynthia Baffle Box*	Indian Harbour Beach	$67,532	$67,532		$0	$0	$9,388	$50,243	$0	$59,631
34	Cliff Creek Baffle Box*	Melbourne	$347,781	$347,781	$0	$0	$0	$347,781	$0	$0	$347,781
35	Thrush Drive Baffle Box*	Melbourne	$322,200	$322,200	$0	$0	$0	$0	$322,200	$0	$322,200
67	Grant Place Baffle Box	Melbourne	$82,481	$82,481		$0	$0	$0	$0	$72,590	$72,590
69	Apollo/GA Baffle Box	Melbourne	$297,522	$0		$0	$0	$0	$0	$0	$0
95	Cherry Street Baffle Box	Melbourne	$306,740	$0			$0	$0	$0	$0	$0
96	Spring Creek Baffle Box	Melbourne	$330,841	$0			$0	$0	$0	$0	$0
88	Espanola Baffle Box	Melbourne	$105,186	$0			$0	$0	$0	$0	$0
169	Sherwood Park Stormwater Quality Project+*	Melbourne	$292,400	$292,400					$292,400	$0	$292,400
175	High School Baffle Box	Melbourne	$144,326	$0					$0	$0	$0
176	Funeral Home Baffle Box	Melbourne	$58,682	$0					$0	$0	$0
15	Bayfront Stormwater Project*	Palm Bay	$30,624	$30,624	$0	$30,624	$0	$0	$0	$0	$30,624
128	Jackson Court Stormwater Treatment Facility	Satellite Beach	$8,266	$8,266				$0	$0	$8,266	$8,266
179	Lori Laine Basin Pipe Improvement Project	Satellite Beach	$17,525	$17,525					$0	$0	$0
68	Crane Creek/M-1 Canal Flow Restoration	St. Johns Water Management District	$2,033,944	$2,033,944		$0	$65,949	$34,051	$0	$0	$100,000
19	St. Teresa Basin Treatment*	Titusville	$272,800	$272,800	$0	$0	$0	$272,800	$0	$0	$272,800
20	South Street Basin Treatment*	Titusville	$86,856	$86,856	$0	$0	$0	$86,856	$0	$0	$86,856
21	La Paloma Basin Treatment*	Titusville	$208,296	$208,296	$0	$0	$0	$208,296	$0	$0	$208,296
97	Titusville High School Baffle Box	Titusville	$111,813	$111,813			$0	$0	$0	$111,813	$111,813
98	Coleman Pond Managed Aquatic Plant System*	Titusville	$11,438	$35,000			$0	$11,438	$0	$0	$11,438
110	Osprey Plant Pond Managed Aquatic Plant Systems*	Titusville	$60,000	$60,000				$0	$37,500	$0	$37,500
120	Draa Field Pond Managed Aquatic Plant Systems*	Titusville	$31,281	$31,281				$0	$31,281	$0	$31,281
174	St. Johns 2 Baffle Box	Titusville	$243,070	$243,070					$0	$0	$0
178	Marina B Managed Aquatic Plant Systems*	Titusville	$6,670	$6,670					$6,670	$0	$6,670
214	Sand Point Park Baffle Box	Titusville	$137,135	$137,135						$0	$0

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
123	Ray Bullard Water Reclamation Facility Stormwater Management Area*	West Melbourne	$160,674	$160,674					$52,368	$59,479	$111,847
	Stormwater Projects Total		**$48,441,724**	**$6,436,193**	**$0**	**$115,717**	**$93,125**	**$1,276,271**	**$1,259,102**	**$426,439**	**$3,170,654**

Table 10. Vegetation Harvesting Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
112	County Wide Stormwater Pond Harvesting*	Brevard County	$14,000	$14,000				$0	$14,000	$0	$14,000
172	Horseshoe Pond Vegetative Harvesting	Brevard County	$8,140	$8,140					$0	$0	$0
209	Basin 1398 Sand Dollar Canal Harvesting	Brevard County	$24,420	$0						$0	$0
210	Basin 958 Pioneer Road Vegetation Harvesting	Brevard County	$39,930	$0						$0	$0
173	North and South Lakemont Ponds Vegetation Harvesting	Cocoa	$1,980	$0					$0	$0	$0
208	Maritime Hammock Preserve Stormwater Pond Vegetation Harvesting	Cocoa Beach	$7,700	$7,700						$0	$0
211	Cocoa Beach Golf Course Stormwater Pond Harvesting	Cocoa Beach	$216,150	$0						$0	$0
171	Mechanical Aquatic Vegetation Harvesting	Melbourne Tillman Water Control District	$1,011,976	$1,011,976					$0	$132,683	$132,683
111	Draa Field Vegetation Harvesting*	Titusville	$50,000	$50,000				$0	$0	$50,000	$50,000
	Vegetation Harvesting Total		**$1,374,296**	**$1,091,816**	**$0**	**$0**	**$0**	**$0**	**$14,000**	**$182,683**	**$196,683**

Table 11. Muck Removal & Interstitial Treatment Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-3a & b	Muck Re-dredging in Turkey Creek & Interstitial Treatment (pending FEMA reimbursement) *	Brevard County	$137,329	$215,000		$1,092,823	$5,807	$0	$0	$0	$1,098,631
2016-04a & b	Rockledge A Muck & Interstitial Treatment	Brevard County	$5,010,244	$175,340	$0	$0	$9,949	$116,417	$16,965	$0	$143,331
2016-05a & b	Pineda Banana River Lagoon & Interstitial Treatment	Brevard County	$7,815,980	$0	$0	$0	$0	$0	$0	$0	$0
2016-06a & b	Titusville Railroad West & Interstitial Treatment	Brevard County	$3,607,375	$146,361	$0	$0	$24,209	$91,146	$27,752	$0	$143,107
2016-07a & b	National Aeronautics and Space Administration Causeway East & Interstitial Treatment	Brevard County	$11,423,355	$209,255	$0	$0	$41,009	$137,935	$3,115	$0	$182,059
2016-08a &b	Titusville Railroad East & Interstitial Treatment	Brevard County	$4,609,424	$318,457	$0	$62,449	$29,410	$53,221	$123,419	$0	$268,499
2016-10a & b	Canaveral South & Interstitial Treatment	Brevard County	$16,834,419	$69,957	$0	$0	$0	$0	$0	$69,384	$69,384

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-11a & b	Patrick Air Force Base & Interstitial Treatment	Brevard County	$8,216,800	$0	$0	$0	$0	$0	$0	$0	$0
40	Mims Muck Removal Outflow Water Nutrient Removal*	Brevard County	$400,000	$400,000	$0	$0	$0	$0	$0	$0	$0
41a & b	Grand Canal Muck & Interstitial Treatment	Brevard County	$18,020,368	$18,020,368	$0	$0	$1,060,449	$793,450	$1,984,733	$2,177,226	$6,015,858
42a & b	Sykes Creek Muck & Interstitial Treatment	Brevard County	$15,954,132	$1,315,925	$0	$0	$6,900	$814,428	$30,780	$278,959	$1,131,067
54a & b	Eau Gallie Northeast Muck & Interstitial Treatment	Brevard County	$10,020,487	$188,739	$0	$62,449	$0	$0	$54,645	$5,613	$122,706
71	Merritt Island Muck Removal – Phase 1	Brevard County	$7,733,517	$0		$0	$0	$0	$0	$0	$0
70a	Cocoa Beach Muck Dredging – Phase III*	Cocoa Beach	$1,376,305	$1,376,305		$359,660	$708,458	$308,187	$0	$0	$1,376,305
101	Cocoa Beach Muck Dredging Phase II-B	Cocoa Beach	$5,917,650	$5,917,650			$339,340	$2,320,973	$1,634,477	$1,616,360	$5,911,150
168a & b	Cocoa Beach Golf Muck & Interstitial Treatment	Cocoa Beach	$24,363,100	$24,363,100	$0	$0	$0	$0	$402,766	$495,355	$898,121
72a & b	Muck Removal of Indian Harbour Beach Canals & Interstitial Treatment	Indian Harbour Beach	$9,115,415	$9,115,415		$0	$0	$0	$0	$0	$0
223	Spring Creek Dredging	Melbourne	$80,080	$0						$0	$0
144 & 113	Satellite Beach Muck Dredging & Interstitial Treatment	Satellite Beach	$4,941,981	$0				$0	$0	$0	$0
	Muck Removal & Interstitial Treatment Total		**$155,577,961**	**$61,831,872**	**$0**	**$1,577,382**	**$2,225,533**	**$4,635,757**	**$4,278,652**	**$4,642,896**	**$17,360,219**

Table 12. Oyster Bars Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-55	Banana River Lagoon County Oyster Bars	Brevard County	$3,102,755	$0	$0	$0	$0	$0	$0	$0	$0
2016-56	North IRL County Oyster Bars	Brevard County	$2,885,834	$0	$0	$0	$0	$0	$0	$0	$0
73	RiverView Senior Resort Oyster Bar*	Brevard County	$30,304	$30,304		$30,304	$0	$0	$0	$0	$30,304
226	Hog Point Offshore Oyster Bar	Brevard County	$50,022	$0						$0	$0
75	Marina Isles Oyster Bar*	Brevard Zoo	$26,700	$26,700		$0	$0	$26,700	$0	$0	$26,700
76	Bettinger Oyster Bar*	Brevard Zoo	$10,680	$10,680		$0	$10,680	$0	$0	$0	$10,680
79	Gitlin Oyster Bar*	Brevard Zoo	$16,020	$16,020		$0	$16,020	$0	$0	$0	$16,020
80	Coconut Point/Environmentally Endangered Lands Oyster Bar*	Brevard Zoo	$45,120	$45,120		$0	$0	$45,120	$0	$0	$45,120
81	Wexford Oyster Bar*	Brevard Zoo	$31,150	$31,150		$0	$0	$0	$31,150	$0	$31,150
83	Bomalaski Oyster Bar*	Brevard Zoo	$8,900	$8,900		$8,900	$0	$0	$0	$0	$8,900
104	Brevard Zoo Banana River Oyster Project	Brevard Zoo	$583,020	$583,020			$0	$0	$19,424	$21,388	$40,812
105	Brevard Zoo Central IRL Oyster Project	Brevard Zoo	$161,160	$161,160			$68,329	$61,236	$20,459	$11,136	$161,160
106	Brevard Zoo North IRL Oyster Project	Brevard Zoo	$341,280	$341,280			$0	$164,994	$4,194	$6,946	$176,134
139	Brevard Zoo North IRL Oyster Project 2	Brevard Zoo	$336,400	$336,400				$0	$45,913	$1,626	$47,539
140	Brevard Zoo Central IRL Oyster Project 2	Brevard Zoo	$270,800	$270,800				$34,969	$15,653	$36,742	$87,364
141	Brevard Zoo Banana River Oyster Project 2	Brevard Zoo	$264,800	$0				$0	$0	$0	$0
142	Brevard Zoo Oyster Reef Adjustments North IRL	Brevard Zoo	$27,200	$0				$0	$0	$0	$0

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
143	Brevard Zoo Oyster Reef Adjustments Banana River	Brevard Zoo	$12,800	$0				$0	$0	$0	$0
184	Brevard Zoo North Indian River Lagoon Oyster Project 3	Brevard Zoo	$419,232	$419,232					$38,943	$17,787	$56,730
185	Brevard Zoo Central Indian River Lagoon Tributary Pilot Oyster Project	Brevard Zoo	$230,657	$0					$0	$0	$0
186	Brevard Zoo North Indian River Lagoon Individual Oyster Project	Brevard Zoo	$173,092	$0					$0	$0	$0
187	Brevard Zoo Central Indian River Lagoon Oyster Project 3	Brevard Zoo	$86,546	$0					$0	$0	$0
188	Brevard Zoo Banana River Oyster Project 3	Brevard Zoo	$56,771	$0					$0	$0	$0
217	Brevard Zoo Central Indian River Lagoon Oyster Project 4	Brevard Zoo	$138,156	$0						$0	$0
218	Central Oyster Project Offshore Reefs	Brevard Zoo	$357,300	$0						$0	$0
78a	McNabb Park Oyster Bar	Cocoa Beach	$34,056	$34,056		$0	$0	$0	$0	$9,096	$9,096
82a	Riverview Park Oyster Bar	Melbourne	$108,790	$0		$0	$0	$0	$0	$0	$0
	Oyster Bars Total		**$9,809,545**	**$2,314,822**	**$0**	**$39,204**	**$95,029**	**$333,018**	**$175,735**	**$104,722**	**$747,708**

Table 13. Planted Shorelines Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
212	Titusville Causeway Multi-Trophic Restoration & Living Shoreline	Brevard County	$31,440	$0						$0	$0
103	Brevard Zoo North IRL Plant Project*	Brevard Zoo	$720	$720			$0	$720	$0	$0	$720
130	Brevard Zoo North IRL Plant Project 2*	Brevard Zoo	$9,840	$9,840				$0	$9,840	$0	$9,840
78b	McNabb Park Planted Shoreline	Cocoa Beach	$5,760	$5,760		$0	$0	$0	$0	$0	$0
77a	Cocoa Beach Country Club Planted Shoreline*+	Marine Resources Council	$16,014	$16,014		$16,014	$0	$0	$0	$0	$16,014
77b	Lagoon House Shoreline Restoration Planting*+	Marine Resources Council	$23,961	$23,961		$23,961	$0	$0	$0	$0	$23,961
133	Fisherman's Landing*	Marine Resources Council	$4,800	$4,800				$4,800	$0	$0	$4,800
135	Rotary Park*	Marine Resources Council	$4,800	$4,800				$4,800	$0	$0	$4,800
180	Scottsmoor Impoundment	Marine Resources Council	$10,560	$0					$0	$0	$0
181	Riveredge	Marine Resources Council	$4,080	$4,080					$0	$4,080	$4,080
82b	Riverview Park Planted Shoreline	Melbourne	$18,480	$0		$0	$0	$0	$0	$0	$0
	Planted Shorelines Total		**$130,455**	**$69,975**	**$0**	**$39,975**	**$0**	**$10,320**	**$9,840**	**$4,080**	**$64,215**

Table 14. Clam Restoration Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
194	Aquaculture Stimulus Program	Private Citizens	$60,000	$18,000					$0	$6,000	$6,000
	Clam Restoration Total		**$60,000**	**$18,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$6,000**	**$6,000**

Table 15. Monitoring & Respond Projects Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
	Living Shoreline Monitoring	Brevard County		$391,015	$0	$15,529	$66,352	$86,116	$112,554	$78,170	$320,879
	Groundwater/Water Quality Monitoring	Brevard County		$1,857,607	$0	$92,308	$119,031	$350,621	$345,421	$404,575	$1,311,955
	Stormwater Monitoring	Brevard County		$40,756	$0	$0	$256	$40,500	$0	$0	$40,756
	Sewer/Septic Monitoring	Brevard County		$750,015	$0	$31,313	$116,099	$7,977	$82,267	$139,617	$377,273
	Muck Dredging Monitoring	Brevard County		$568,115	$0	$5,204	$38,997	$233,562	$35,690	$238,688	$552,140
	Plan Updates	Brevard County		$130,371	$17,105	$20,682	$23,067	$16,779	$18,183	$26,324	$122,140
	Monitoring & Respond Projects Total		**$10,000,000**	**$3,737,879**	**$17,105**	**$165,036**	**$363,802**	**$735,554**	**$594,114**	**$887,374**	**$2,725,143**

Table 16. Contingency & Inflation Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
2016-2	City of Titusville Osprey WWTF+	Titusville		$800,000				$0	$0	$0	$0
77a	Cocoa Beach Country Club Planted Shoreline*+	Marine Resources Council		$66		$66	$0	$0	$0	$0	$66
77b	Lagoon House Shoreline Restoration Planting*+	Marine Resources Council		$39		$39	$0	$0	$0	$0	$39
169	Sherwood Park Stormwater Quality Project+	Melbourne		$99,708				$0	$52,961	$46,747	$99,708
2	Merritt Island Septic Phase Out Project*+	Merritt Island Redevelopment Agency		$268					$268	$0	$268
5	Pennwood Sewer Conversion+	Melbourne		$40,368					$0	$0	$0
41a & b	Grand Canal Muck & Interstitial Treatment	Brevard County		$217,053					$0	$0	$0
111	Draa Field Vegetation Harvesting+*	Titusville		$36,413						$36,413	$36,413
	Contingency Projects Total		**$19,814,425**	**$1,193,915**	**$0**	**$105**	**$0**	**$0**	**$53,229**	**$83,160**	**$136,494**
	Inflation		**$104,840,456**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**

Table 17. Projects Total Financial Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Save Our Lagoon Funds Contracted	FY 2017 Actuals Year 0*	FY 2018 Actuals Year 1*	FY 2019 Actuals Year 2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4	FY 2022 Actuals Year 5	Cumulative Actuals
-	***Total***		***$542,080,337***	***$149,007,522***	***$190,686***	***$3,225,298***	***$3,866,071***	***$10,193,825***	***$14,105,038***	***$19,604,645***	***$51,147,720***

Save Our Indian River Lagoon Grant Financial Tables – Fiscal Year 21/22 Quarter 4

*Projects Completed

Table 1. State Grants Financial Table

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	6415	**FDEP Grant INV014-Remote Sensing harmful Algae**	**$290,972**	**Active**	**Other State Grants**	**Florida Department of Environmental Protection**					
		Remote Sensing harmful Algae HAB								$118,631	**$181,569**
	6414	**LPAO144: 50 Septic Upgrades FDEP Grant**	**$450,000**	**Active**	**Other State Grants**	**Florida Department of Environmental Protection**					
		Banana Septic Upgrades 100 Upgrades								$39,384	**$48,384**
53		Central IRL 939 Septic System Upgrades							$25,193	$144,232	**$186,650**
52		North IRL 586 Septic System Upgrades							$18,000	$74,923	**$110,923**
	6413	**FDEP GRANT-LPAO145-65 Quick Connects to Sewer**	**$585,000**	**Active**	**Other State Grants**	**Florida Department of Environmental Protection**					
2016-16		Banana Septic System 144 Quick Connections								$13,540	**$13,540**
2016-19		Central IRL Septic System 269 Quick Connections								$9,000	**$11,880**
2016-18		North IRL Septic System 463 Quick Connections								$54,970	**$60,663**
	6412	**LPO146 FDEP GRANT-Eau Gallie N E Muck Project**	**$2,500,000**	**Active**	**Other State Grants**	**Florida Department of Environmental Protection**					
54a & b		Eau Gallie Northeast Muck & Interstitial Treatment								$0	**$0**
	6402	**LPA0093 Water Quality Improvements DEP**	**$2,200,000**	**Active**	**Other State Grants**	**Florida Department of Environmental Protection**					
53		Central IRL 939 Septic System Upgrades								$0	**$0**
114		Barefoot Bay Lateral Smoke Testing								$0	**$47,643**
115		South Beaches Lateral Smoke Testing								$83,790	**$107,993**
3		Micco Sewer Line Extension (Phase I and II)								$0	**$0**
2016-36		South Beaches - Zone O								$0	**$0**
2016-37		South Beaches - Zone P								$0	**$0**
	6401	**Grant 36553 South Central C ST JOHNS RIVER WATER MGMT DISTRICT (SJRWMD)**	**$1,166,820**	**Active**	**Other State Grants**	**SJRWMD**					
2016-50		South Central - Zone C								$1,029,966	**$1,166,357**
	5226	**Grand Canal - SJRWMD Grant - Phase II**	**$983,180**	**Active**	**Other State Grants**	**SJRWMD**					
41a & b		Grand Canal Muck & Interstitial Treatment								$120,082	**$983,180**

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	5224	**Micco Sewer Line Extension - IRL NEP Grant**	**$110,600**	**Active**	**Other State Grants**	**Indian River Lagoon (IRL) Council**					
3		Micco Sewer Line Extension (Phase I and II)								$0	**$0**
	5207	**Oak Point SJRWMD Grant**	**$350,000**	**Active**	**Other State Grants**	**SJRWMD**					
192		Oak Point Wastewater Treatment Facility Improvements								$105,000	**$188,560**
		State Grants Total	**$8,636,572**								

Table 2. Federal Grants Financial Table

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	5232	**Testing Steel Gabions & Concrete Core Modules Oyster Bars IRL**	**$1,750**	**Active**	**Other Federal Grants**	**IRL COUNCIL**					
		Testing Steel Gabions & Concrete Core Modules Oyster Bars IRL							$1,447	$32	**$1,479**
		Other Reimbursable Charges for Testing Steel Gabions & Concrete Core Modules Oyster Bars IRL							$271		**$271**
	5009	**Micco 319 Grant NF070**	**$272,118**	**Active**	**Other Federal Grants**	**Florida Department of Environmental Protection**					
3		Micco Sewer Line Extension (Phase I and II)							$29,840	$0	**$29,840**
	4655	**FDEP Grant for Septic to Sewer Conversion for 1,019 Homes**	**$1,500,000**	**Active**	**Other Federal Grants**	**Florida Department of Environmental Protection**					
3		Micco Sewer Line Extension (Phase I and II)								$0	**$0**
2016-50		South Central - Zone C								$0	**$0**
	4638	**FDEP Grant-Sykes Creek Zone M**	**$423,936**	**Active**	**Other Federal Grants**	**Florida Department of Environmental Protection**					
48		Sykes Creek - Zone M								$0	**$0**
	4637	**FDEP 319 Grant-Sykes Creek-Zone T Septic to Sewer**	**$1,071,936**	**Active**	**Other Federal Grants**	**Florida Department of Environmental Protection**					
49		Sykes Creek - Zone T								$0	**$0**
	3842	**SOIRL-BC Baffle Box Upgrades - DEP NF025**	**$139,000**	**Inactive**	**Other Federal Grants**	**Florida Department of Environmental Protection**					

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
13		Central Boulevard Baffle Box*		Completed					$7,000		**$7,000**
14		Church Street Type II Baffle Box*		Completed					$13,900		**$13,900**
19		St. Teresa Basin Treatment*		Completed					$13,900		**$13,900**
20		South Street Basin Treatment*		Completed					$38,269		**$38,269**
21		La Paloma Basin Treatment*		Completed					$13,900		**$13,900**
34		Cliff Creek Baffle Box*		Completed					$52,031		**$52,031**
		Federal Grants Total	**$3,408,740**								

Table 3. Tourism Development Council Grants Financial Table

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	7626	**Tourism Development Council (TDC) Manatee Hot Spot**	**$23,140**	**Inactive**	**TDC Grants**	**TDC**					
		Manatee Hot Spot*		Closed				$200	$6,804		**$7,004**
	7628	**TDC Transparency**	**$95,000**	**Inactive**	**TDC Grants**	**TDC**					
		Transparency*		Completed				$23,900	$32,716		**$56,616**
	7630	**TDC Aqualutions**	**$49,282**	**Inactive**	**TDC Grants**	**TDC**					
		Aqualutions*		Withdrawn							**$0**
	7627	**TDC Manatee Signage & Distribution**	**$48,000**	**Active**	**TDC Grants**	**TDC**					
		Manatee Signage & Distribution								$15,143	**$19,351**
	7625	**TDC Lagoon Recreational Field Guide**	**$44,000**	**Active**	**TDC Grants**	**TDC**					
		Lagoon Recreational Field Guide								$14,494	**$20,312**
		Tourism Development Council Grants Total	**$259,422**								

Table 4. Federal Emergency Management Agency Grants Financial Table

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	Budget Office	**Federal Hurricane Irma**		**Inactive**		**Florida Department of Environmental Protection**					
2016-3a & b		Muck Re-dredging in Turkey Creek & Interstitial Treatment*	**$820,053**	Closed			$820,053				**$820,053**
	Budget Office	**State Hurricane Irma**		**Inactive**		**Florida Department of Environmental Protection**					
2016-3a & b		Muck Re-dredging in Turkey Creek & Interstitial Treatment*	**$136,675**	Closed			$136,603				**$136,675**
		Federal Emergency Management Agency Grants Total	**$956,728**								

Table 5. American Rescue Plan Act Grants Financial Table

SOIRL Project Number	Contract Management Number	Grant & Corresponding Project Titles	Grant Amount	Status	Contract Type	Grantor	FY 2017-2019 Actuals Year 0-2*	FY 2020 Actuals Year 3*	FY 2021 Actuals Year 4*	FY 2022 Actuals Year 5	Cumulative Actual Expenditures
	Budget Office	**American Rescue Plan Act (ARPA)**	**$5,278,700**	**Active**		**ARPA**					
3		Micco Sewer Line Extension (Phase I and II)								$0	**$0**
2016-50		South Central - Zone C								$0	**$0**
2016-35		South Beaches - Zone A								$0	**$0**
		American Rescue Plan Act Grants Total	**$5,278,700**								

Save Our Indian River Lagoon Performance Tables – Fiscal Year 21/22 Quarter 4

*Projects Completed; [+] Project using contingency funds; FY=Fiscal Year; TBD = To Be Determined; WWTF = Waste Water Treatment Facility

Table 1. Public Education Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
58a	Expanded Fertilizer Education	Brevard County	$625,000	6,613	813	Complete	Complete	100%	63%
58b	Grass Clippings Campaign	Brevard County	$200,000	17,800	1,200	Complete	Complete	100%	53%
58c	Septic System Maintenance Education	Brevard County	$300,000	4,466	TBD	Complete	Complete	100%	63%
193	Oyster Gardening*	Brevard Zoo	$300,000	N/A	N/A	Complete	Complete	100%	100%
227	Restore Our Shores: Community Collaborative	Brevard Zoo	$1,000,000	N/A	N/A	Complete	Complete	100%	10%
	Public Education Total		**$2,425,000**	**28,879**	**2,013**				

Table 2. Waste Water Treatment Facility Upgrades for Reclaimed Water Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
99	Cocoa Beach Water Reclamation Facility Upgrade*	Cocoa Beach	$945,000	2,520	685	Complete	Complete	100%	100%
59	City of Melbourne Grant Street Water Reclamation Facility	Melbourne	$6,769,500	18,052	9,671	Complete	Complete	100%	
2016-17	City of Palm Bay Water Reclamation Facility*	Palm Bay	$3,636,900	20,240	102	Complete	Complete	100%	100%
2016-2	City of Titusville Osprey WWTF[+]	Titusville	$8,300,000	12,286	TBD	Complete	Complete	100%	76%
138	Ray Bullard Water Reclamation Facility Biological Nutrient Removal Upgrades	West Melbourne	$4,260,000	11,360	3,302	Complete	Complete	60%	
216	City of Rockledge Flow Equalization Basin Project	Rockledge	$2,054,795	5,365	N/A	Complete	Complete	100%	8%
	WWTF Upgrades for Reclaimed Water Total		**$25,966,195**	**69,823**	**13,760**				

Table 3. Rapid Infiltration Basin/Sprayfield Upgrades Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
6	Long Point Park Upgrade*	Brevard County	$22,207	163	TBD	Complete	Complete	100%	100%
196	Sterling House Condominium Sprayfield	Property Owner	$60,000	154	TBD				
	Rapid Infiltration Basin/Sprayfield Upgrades Total		**$82,207**	**317**	**TBD**				

Table 4. Package Plant Connection Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
192	Oak Point Wastewater Treatment Facility Improvements	Property Owner	$279,000	186	TBD	Complete	Complete	100%	60%
202	Merritt Island Utility Company	Property Owner	$1,349,445	1,367	TBD				
228	Indian River Shores Trailer Park Wastewater Treatment Facility	Property Owner	$528,627	450	TBD				

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
	Package Plant Connection Total		**$2,157,072**	**2,003**	**TBD**				

Table 5. Sewer Laterals Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
63ab	Satellite Beach Pilot & Countywide Repair/Replacement (303 repairs completed)	Brevard County	$840,000	5,056	188	Complete	Complete	100%	41%
114	Barefoot Bay Lateral Smoke Testing*	Brevard County	$90,000	-	TBD	Complete	Complete	100%	100%
115	South Beaches Lateral Smoke Testing*	Brevard County	$200,000	-	TBD	Complete	Complete	100%	100%
116	Merritt Island Lateral Smoke Testing*	Brevard County	$250,000	-	TBD	Complete	Complete	100%	100%
100	Osprey Basin Lateral Repair Project	Titusville	$200,000	640	TBD	Complete	Under Review		
	Sewer Laterals Total		**$1,580,000**	**5,696**	**188**				

Table 6. Septic System Removal by Sewer Extension Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-27	Sharpes - Zone A (0 of 186 connected)	Brevard County	$7,872,000	5,248	TBD	Complete	Complete	29%	
2016-29	South Banana - Zone B (0 of 41 connected)	Brevard County	$1,372,500	915	TBD	Complete	Complete	46%	
2016-35	South Beaches - Zone A (1 of 37 connected)	Brevard County	$1,959,000	1,306	TBD	Complete	Complete	22%	
2016-36	South Beaches - Zone O (0 of 4 connected)	Brevard County	$133,488	136	TBD	Complete	Complete	100%	
2016-37	South Beaches - Zone P (0 of 15 connected)	Brevard County	$300,348	489	TBD	Complete	Complete	100%	
2016-50	South Central - Zone C (0 of 140 connected)	Brevard County	$6,600,000	5,146	TBD	Complete	Complete	100%	65%
3	Micco Sewer Line Extension (Phase I and II) (0 of 18 connected)	Brevard County	$2,239,500	1,493	TBD	Complete	Complete	100%	
47	Sykes Creek - Zone N (0 of 91 connected)	Brevard County	$4,176,000	2,784	TBD	Complete	Complete	95%	
48	Sykes Creek - Zone M (0 of 56 connected)	Brevard County	$2,697,000	1,798	TBD	Complete	Complete	30%	
49	Sykes Creek - Zone T (0 of 148 connected)	Brevard County	$5,040,000	3,360	TBD	Complete	Complete	30%	
136	Micco - Zone B (0 of 540 connected)	Brevard County	$9,000,000	8,687	TBD	Complete	Complete	31%	
145	Merritt Island - Zone F (0 of 71 connected)	Brevard County	$1,100,000	1,292	TBD	Complete	Complete	34%	
146	Merritt Island - Zone C (0 of 43 connected)	Brevard County	$1,580,000	1,419	TBD	Complete	Complete	28%	
147	Sykes Creek - Zone R (0 of 192 connected)	Brevard County	$4,387,500	2,925	TBD	Complete	Complete	27%	
148	North Merritt Island - Zone E (0 of 195 connected)	Brevard County	$3,811,500	2,541	TBD	Complete	Complete	35%	
150	South Central - Zone D (0 of 94 connected)	Brevard County	$4,774,500	3,387	TBD	Complete	Complete	16%	
151	Merritt Island - Zone G (0 of 1,146 connected)	Brevard County	$16,617,000	11,078	TBD	Complete	Complete	17%	
152	Sharpes - Zone B (0 of 136 connected)	Brevard County	$4,038,000	2,692	TBD	Complete	Complete	10%	
153	Cocoa - Zone C (0 of 273 connected)	Brevard County	$800,000	3,499	TBD	Complete	Complete	11%	
203	South Central - Zone A (0 of 101 connected)	Brevard County	$5,482,500	3,655	TBD	Complete	Complete	1%	
2016-31/32	City of Cocoa - Zones J & K	Cocoa	$5,622,000	3,748	TBD				
2016-28	South Central - Zone D (Melbourne) (0 of 28 connected)	Melbourne	$265,500	177	TBD				

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-33	City of Melbourne (0 of 26 connected)	Melbourne	$867,672	878	TBD				
2020-34	South Central - Zone F/Pineapple Avenue (1 of 51 connected)	Melbourne	$1,701,972	1,688	TBD	Complete	Complete	100%	5%
4	Hoag Sewer Conversion (3 of 5 connected)	Melbourne	$86,031	101	TBD	Complete	Complete	100%	60%
5	Pennwood Sewer Conversion (2 of 5 connected)	Melbourne	$40,632	48	TBD	Complete	Complete	100%	60%
61	Riverside Drive Septic-to-Sewer Conversion (1 of 12 connected)	Melbourne	$262,044	305	TBD	Complete	Complete	100%	54%
62	Roxy Avenue Septic-to-Sewer Conversion (2 of 6 connected)	Melbourne	$88,944	102	TBD	Complete	Complete	100%	60%
189	Avenida del Rio Septic to Sewer (0 of 3 connected)	Melbourne	$70,000	71	TBD				
190	Bowers Septic to Sewer (0 of 6 connected)	Melbourne	$147,000	120	TBD				
191	Kent and Villa Espana Septic to Sewer Conversion (0 of 37 connected)	Melbourne	$710,000	542	TBD				
2	Merritt Island Septic Phase Out Project (74 connected)*	Merritt Island Redevelopment Agency	$320,000	2,492	TBD	Complete	Complete	100%	100%
2016-39	City of Palm Bay – Zone A (0 of 77 connected)	Palm Bay	$2,569,644	2,136	TBD				
2016-46	City of Palm Bay – Zone B (0 of 249 connected)	Palm Bay	$8,309,628	6,809	TBD				
2016-30	City of Rockledge (0 of 15 connected)	Rockledge	$500,580	712	TBD				
2016-40	Rockledge - Zone B (0 of 160 connected)	Rockledge	$5,339,520	4,037	TBD				
1	Breeze Swept Septic to Sewer Connection (143 connected)*	Rockledge	$880,530	2,002	TBD	Complete	Complete	100%	100%
2016-38	City of Titusville - Zone H (0 of 35 connected)	Titusville	$1,168,020	910	TBD				
109	City of Titusville - Zones A-G (0 of 18 connected)	Titusville	$1,201,392	642	TBD	Complete	Complete	90%	
60	Sylvan Estates Septic-to-Sewer Conversion (59 connected)*	West Melbourne	$1,561,215	1,073	TBD	Complete	Complete	100%	100%
224	Lake Ashley Circle (0 of 46 connected)	West Melbourne	$1,704,000	1,136	TBD	Complete	Complete		
225	Dundee Circle and Manor Place (0 of 60 connected)	West Melbourne	$2,248,500	1,499	TBD	Complete	Complete		
	Septic System Removal by Sewer Extension Total		**$119,645,660**	**95,078**	**TBD**				

Table 7. Septic System Removal by Sewer Connection Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Applications Contracted	Contracts Completed	Total TN Reduction (lbs/yr)
2016-16	Banana Septic System 144 Quick Connections	Private Citizens	$1,905,729	7	3	67
2016-18	North IRL Septic System 463 Quick Connections	Private Citizens	$6,018,000	48	39	955
2016-19	Central IRL Septic System 269 Quick Connections	Private Citizens	$3,354,000	8	3	77
222	Hedgecock/Grabowsky & Desoto Fields	Satellite Beach	$39,447	0	0	0
	Septic System Removal by Sewer Connection Total		**$11,317,176**	**63**	**45**	**1099**

Table 8. Septic System Upgrades Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Applications Contracted	Contracts Completed	Total TN Reduction (lbs/yr)
51	Banana River Lagoon 100 Septic System Upgrades	Private Citizens	$1,800,000	17	8	155
52	North IRL 586 Septic System Upgrades	Private Citizens	$10,548,000	68	34	804

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	Applications Contracted	Contracts Completed	Total TN Reduction (lbs/yr)
53	Central IRL 939 Septic System Upgrades	Private Citizens	$16,885,106	148	56	1323
	Septic System Upgrades Total		**$29,233,106**	**233**	**98**	**2282**

Table 9. Stormwater Projects Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-41	Banana River Lagoon 68 Basin Projects	Brevard County	$14,324,135	63,789	8,421				
2016-42	North IRL 95 Basin Projects	Brevard County	$22,114,028	118,696	15,673				
2016-43	Central IRL 8 Basin Projects	Brevard County	$3,258,500	19,832	2,617				
18	Basin 62 Denitrification Retrofit of Johns Road Pond*	Brevard County	$105,512	1,199	TBD	Complete	Complete	100%	100%
22	Basin 1387 Kingsmill-Aurora Phase Two	Brevard County	$367,488	4,176	814	Complete	Complete	30%	
23	Basin 41 Denitrification Retrofit of Huntington Pond	Brevard County	$104,720	1,190	TBD	Complete	Complete	75%	
24	Basin 71 Denitrification Retrofit of Flounder Creek Pond	Brevard County	$75,328	856	TBD	Complete	Complete	100%	
85	Basin 1304 Bioreactor*	Brevard County	$90,000	958	127	Complete	Complete	100%	100%
87	Basin 2134 Fleming Grant Biosorption Activated Media*	Brevard County	$56,588	602	91	Complete	Complete	100%	100%
89	Basin 1298 Bioreactor*	Brevard County	$86,198	917	116	Complete	Complete	100%	100%
90	Basin 51 Johns Road Pond Biosorption Activated Media*	Brevard County	$23,030	245	37	Complete	Complete	100%	100%
91	Basin 100 Burkholm Road Biosorption Activated Media*	Brevard County	$64,390	685	104	Complete	Complete	100%	100%
92	Basin 115 Carter Road Biosorption Activated Media*	Brevard County	$62,510	665	101	Complete	Complete	100%	100%
93	Basin 193 Wiley Ave Biosorption Activated Media*	Brevard County	$82,735	954	144	Complete	Complete	100%	100%
94	Basin 832 Broadway Pond Biosorption Activated Media*	Brevard County	$42,864	456	69	Complete	Complete	100%	100%
117	Basin 10 County Line Road Woodchip Bioreactor*	Brevard County	$72,773	597	90	Complete	Complete	100%	100%
118	Basin 26 Sunset Road Serenity Park Woodchip Bioreactor*	Brevard County	$73,810	605	92	Complete	Complete	100%	100%
119	Basin 141 Irwin Avenue Woodchip Bioreactor*	Brevard County	$69,174	567	86	Complete	Complete	100%	100%
121	Basin 2258 Babcock Road Woodchip Bioreactor	Brevard County	$50,203	412	62	Complete	Complete	13%	
122	Basin 22 Huntington Road Serenity Park Woodchip Bioreactor*	Brevard County	$40,077	329	50	Complete	Complete	100%	100%
205	Basin 998 Hampton Homes	Brevard County	$194,400	TBD	TBD	Complete	Under Review		
206	Basin 1066 Angel Ave	Brevard County	$232,200	TBD	TBD	Complete	Under Review		
207	Basin 1124 Elliot Canal	Brevard County	$148,100	TBD	TBD	Complete	Under Review		
213	Johnson Junior High Denitrification Media Chamber Modification	Brevard County	$64,478	206	TBD	Complete	Under Review		
215	Basin 960 Pioneer Road Denitrification	Brevard County	$38,850	105	3				
220	Basin 1398 Sand Dollar Canal Bioreactor	Brevard County	$198,024	444	70				
229	Basin 1280B Flamingo Road Denitrification	Brevard County	$71,645	161	31				
230	Basin 1304B West Arlington Road Denitrification	Brevard County	$96,425	216	TBD				
231	Basin 89 Scottsmoor I Aurantia Road Denitrification	Brevard County	$245,100	1,706	292	Complete	Complete	100%	60%
13	Central Boulevard Baffle Box*	Cape Canaveral	$34,700	481	14	Complete	Complete	100%	100%
14	Church Street Type II Baffle Box*	Cocoa	$88,045	937	135	Complete	Complete	100%	100%
124	Floating Wetlands to Existing Stormwater Ponds*	Cocoa	$1,497	12	3	Complete	Complete	100%	100%

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
125	Diamond Square Stormwater Pond	Cocoa	$10,383	85	23				
129	Forrest Avenue 72-inch Outfall Baseflow Capture/Treatment	Cocoa	$13,956	94	12				
177	North and South Lakemont Ponds Floating Wetlands*	Cocoa	$13,054	107	25	Complete	Complete	100%	100%
64	Stormwater Low Impact Development Convair Cove 1 – Blakey Boulevard*	Cocoa Beach	$4,650	30	3	Complete	Complete	100%	100%
65	Stormwater Low Impact Development Convair Cove 2 – Dempsey Drive*	Cocoa Beach	$4,495	29	3	Complete	Complete	100%	100%
219	McNabb Outfall Bioretention	Cocoa Beach	$19,423	44	7				
221	Burris Way Alley West Stormwater Low Impact Development (WITHDRAWN)	Cocoa Beach	$1,249	3	-				
127	Basin 5 Dry Retention*	Indialantic	$16,680	113	18	Complete	Complete	100%	100%
16	Gleason Park Reuse*	Indian Harbour Beach	$4,224	48	9	Complete	Complete	100%	100%
66	Big Muddy at Cynthia Baffle Box*	Indian Harbour Beach	$67,532	436	58	Complete	Complete	100%	100%
34	Cliff Creek Baffle Box*	Melbourne	$347,781	3,952	797	Complete	Complete	100%	100%
35	Thrush Drive Baffle Box*	Melbourne	$322,200	3,661	773	Complete	Complete	100%	100%
67	Grant Place Baffle Box*	Melbourne	$82,481	937	193	Complete	Complete	100%	100%
69	Apollo/GA Baffle Box	Melbourne	$297,522	3,381	479				
95	Cherry Street Baffle Box	Melbourne	$306,740	980	174				
96	Spring Creek Baffle Box	Melbourne	$330,841	1,057	232				
88	Espanola Baffle Box	Melbourne	$105,186	1,119	148				
169	Sherwood Park Stormwater Quality Project*	Melbourne	$292,400	3,214	879	Complete	Complete	100%	100%
175	High School Baffle Box	Melbourne	$144,326	1,183	319				
176	Funeral Home Baffle Box	Melbourne	$58,682	481	129				
15	Bayfront Stormwater Project*	Palm Bay	$30,624	348	83	Complete	Complete	100%	100%
128	Jackson Court Stormwater Treatment Facility*	Satellite Beach	$8,266	56	8	Complete	Complete	100%	100%
179	Lori Laine Basin Pipe Improvement Project	Satellite Beach	$17,525	117	21	Complete	Complete	100%	16%
68	Crane Creek/M-1 Canal Flow Restoration	St. Johns Water Management District	$2,033,944	23,113	2,719	Complete	Complete	80%	
19	St. Teresa Basin Treatment*	Titusville	$272,800	3,100	459	Complete	Complete	100%	100%
20	South Street Basin Treatment*	Titusville	$86,856	987	156	Complete	Complete	100%	100%
21	La Paloma Basin Treatment*	Titusville	$208,296	2,367	346	Complete	Complete	100%	100%
97	Titusville High School Baffle Box*	Titusville	$111,813	1,190	166	Complete	Complete	100%	100%
98	Coleman Pond Managed Aquatic Plant System*	Titusville	$11,438	1,240	198	Complete	Complete	100%	100%
110	Osprey Plant Pond Managed Aquatic Plant Systems*	Titusville	$60,000	606	88	Complete	Complete	100%	100%
120	Draa Field Pond Managed Aquatic Plant Systems*	Titusville	$31,281	256	38	Complete	Complete	100%	100%
174	St. Johns 2 Baffle Box	Titusville	$243,070	1,992	611	Complete	Complete	100%	
178	Marina B Managed Aquatic Plant Systems*	Titusville	$6,670	55	7	Complete	Complete	100%	100%
214	Sand Point Park Baffle Box	Titusville	$137,135	438	71	Complete	Complete	15%	

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
123	Ray Bullard Water Reclamation Facility Stormwater Management Area*	West Melbourne	$160,674	1,317	400	Complete	Complete	100%	100%
	Stormwater Projects Total		**$48,441,724**	**280,134**	**38,894**				

Table 10. Vegetation Harvesting Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
112	County Wide Stormwater Pond Harvesting*	Brevard County	$14,000	931	327	Complete	Complete	100%	100%
172	Horseshoe Pond Vegetative Harvesting*	Brevard County	$8,140	74	7	Complete	Complete	100%	100%
209	Basin 1398 Sand Dollar Canal Harvesting	Brevard County	$24,420	222	21	Complete			
210	Basin 958 Pioneer Road Vegetation Harvesting	Brevard County	$39,930	363	47				
173	North and South Lakemont Ponds Vegetation Harvesting	Cocoa	$1,980	18	4				
208	Maritime Hammock Preserve Stormwater Pond Vegetation Harvesting*	Cocoa Beach	$7,700	70	5	Complete	Complete	100%	100%
211	Cocoa Beach Golf Course Stormwater Pond Harvesting	Cocoa Beach	$216,150	1,965	135				
171	Mechanical Aquatic Vegetation Harvesting	Melbourne Tillman Water Control District	$1,011,976	16,636	1,664	Complete	Complete	100%	39%
111	Draa Field Vegetation Harvesting*	Titusville	$50,000	786	TBD	Complete	Complete	100%	100%
	Vegetation Harvesting Total		**$1,374,296**	**21,065**	**2,210**				

Table 11. Muck Removal & Interstitial Treatment Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-3a & b	Muck Re-dredging in Turkey Creek & Interstitial Treatment*	Brevard County	$137,329	5,691	221	Complete	Complete	100%	100%
2016-04a & b	Rockledge A Muck & Interstitial Treatment	Brevard County	$5,010,244	20,286	1,982	Complete	Complete	30%	
2016-05a & b	Pineda Banana River Lagoon & Interstitial Treatment	Brevard County	$7,815,980	34,853	2,490				
2016-06a & b	Titusville Railroad West	Brevard County	$3,607,375	23,554	1,421	Complete	Complete	30%	
2016-07a & b	National Aeronautics and Space Administration Causeway East & Interstitial Treatment	Brevard County	$11,423,355	50,839	3,684	Complete	Complete	30%	
2016-08a &b	Titusville Railroad East & Interstitial Treatment	Brevard County	$4,609,424	17,081	1,291	Complete	Complete	30%	
2016-10a & b	Canaveral South & Interstitial Treatment	Brevard County	$16,834,419	78,070	5,812	Complete	Complete	5%	

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-11a & b	Patrick Air Force Base & Interstitial Treatment	Brevard County	$8,216,800	27,333	2,279				
40	Mims Muck Removal Outflow Water Nutrient Removal*	Brevard County	$400,000	2,803	244	Complete	Complete	100%	100%
41a & b	Grand Canal Muck & Interstitial Treatment	Brevard County	$18,020,368	99,210	1,358	Complete	Complete	100%	51%
42a & b	Sykes Creek Muck & Interstitial Treatment	Brevard County	$15,954,132	83,913	2,618	Complete	Complete	100%	16%
54a & b	Eau Gallie Northeast Muck & Interstitial Treatment	Brevard County	$10,020,487	35,886	3,795	Complete	Complete	100%	
71	Merritt Island Muck Removal – Phase 1	Brevard County	$7,733,517	8,085	1,540	Complete	Complete	90%	
70a	Cocoa Beach Muck Dredging – Phase III*	Cocoa Beach	$1,376,305	4,095	780	Complete	Complete	100%	100%
101	Cocoa Beach Muck Dredging Phase II-B*	Cocoa Beach	$5,917,650	6,300	840	Complete	Complete	100%	100%
168a & b	Cocoa Beach Golf Muck & Interstitial Treatment	Cocoa Beach	$24,363,100	128,792	11,080	Complete	Complete	60%	
72a & b	Muck Removal of Indian Harbour Beach Canals & Interstitial Treatment	Indian Harbour Beach	$9,115,415	31,198	720	Complete	Complete	60%	
223	Spring Creek Dredging	Melbourne	$80,080	154	21				
144 & 113	Satellite Beach Muck Dredging & Interstitial Treatment	Satellite Beach	$4,941,981	33,863	3,577	Complete			
	Muck Removal & Interstitial Treatment Total		**$155,577,961**	**692,006**	**45,753**				

Table 12. Oyster Bars Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
2016-55	Banana River Lagoon County Oyster Bars (196,591 Square Feet)	Brevard County	$3,102,755	7,864	197				
2016-56	North IRL County Oyster Bars (182,846 Square Feet)	Brevard County	$2,885,834	7,314	183				
73	RiverView Senior Resort Oyster Bar* (1,920 Square Feet)	Brevard County	$30,304	77	2	Complete	Complete	100%	100%
226	Hog Point Offshore Oyster Bar	Brevard County	$50,022	126	3				
75	Marina Isles Oyster Bar* (1,800 Square Feet)	Brevard Zoo	$26,700	60	20	Complete	Complete	100%	100%
76	Bettinger Oyster Bar* (720 Square Feet)	Brevard Zoo	$10,680	24	8	Complete	Complete	100%	100%
79	Gitlin Oyster Bar* (1,080 Square Feet)	Brevard Zoo	$16,020	36	12	Complete	Complete	100%	100%
80	Coconut Point/Environmentally Endangered Lands Oyster Bar* (2,400 Square Feet)	Brevard Zoo	$45,120	96	2	Complete	Complete	100%	100%
81	Wexford Oyster Bar* (1,750 Square Feet)	Brevard Zoo	$31,150	70	24	Complete	Complete	100%	100%
83	Bomalaski Oyster Bar* (600 Square Feet)	Brevard Zoo	$8,900	20	7	Complete	Complete	100%	100%
104	Brevard Zoo Banana River Oyster Project (2,638 of 36,894 Square Feet)	Brevard Zoo	$583,020	1,476	37	Complete	Complete	7%	7%
105	Brevard Zoo Central IRL Oyster Project* (10,200 Square Feet)	Brevard Zoo	$161,160	408	10	Complete	Complete	100%	100%
106	Brevard Zoo North IRL Oyster Project (3,270 of 21,600 Square Feet)	Brevard Zoo	$341,280	864	22	Complete	Complete	86%	54%
139	Brevard Zoo North IRL Oyster Project 2 (1,836 of 21,030 Square Feet)	Brevard Zoo	$336,400	841	21	Complete	Complete	60%	19%
140	Brevard Zoo Central IRL Oyster Project 2 (5,638 of 16,932 Square Feet)	Brevard Zoo	$270,800	677	17	Complete	Complete	60%	33%
141	Brevard Zoo Banana River Oyster Project 2 (16,560 Square Feet)	Brevard Zoo	$264,800	662	17				
142	Brevard Zoo Oyster Reef Adjustments North IRL (1,700 Square Feet)	Brevard Zoo	$27,200	68	2				

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
143	Brevard Zoo Oyster Reef Adjustments Banana River (800 Square Feet)	Brevard Zoo	$12,800	32	1				
184	Brevard Zoo North Indian River Lagoon Oyster Project 3 (3,705 of 26,388 Square Feet)	Brevard Zoo	$419,232	1,056	26	Complete	Complete	63%	14%
185	Brevard Zoo Central Indian River Lagoon Tributary Pilot Oyster Project	Brevard Zoo	$230,657	581	15				
186	Brevard Zoo North Indian River Lagoon Individual Oyster Project	Brevard Zoo	$173,092	436	11				
187	Brevard Zoo Central Indian River Lagoon Oyster Project 3	Brevard Zoo	$86,546	218	5				
188	Brevard Zoo Banana River Oyster Project 3	Brevard Zoo	$56,771	143	4				
217	Brevard Zoo Central Indian River Lagoon Oyster Project 4	Brevard Zoo	$138,156	348	9				
218	Central Oyster Project Offshore Reefs	Brevard Zoo	$357,300	900	23				
78a	McNabb Park Oyster Bar (1,800 Square Feet)	Cocoa Beach	$34,056	72	24	Complete	Complete	70%	33%
82a	Riverview Park Oyster Bar (5,750 Square Feet)	Melbourne	$108,790	230	78				
	Oyster Bars Total		**$9,809,545**	**24,699**	**780**				

Table 13. Planted Shorelines Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
212	Titusville Causeway Multi-Trophic Restoration & Living Shoreline	Brevard County	$31,440	131	45				
103	Brevard Zoo North IRL Plant Project* (50 Linear Feet)	Brevard Zoo	$720	3	1	Complete	Complete	100%	100%
130	Brevard Zoo North IRL Plant Project 2* (610 Linear Feet)	Brevard Zoo	$9,840	41	14	Complete	Complete	100%	100%
78b	McNabb Park Planted Shoreline (360 Linear Feet)	Cocoa Beach	$5,760	24	8	Complete	Complete	88%	33%
77a	Cocoa Beach Country Club Planted Shoreline* (1,000 Linear Feet)	Marine Resources Council	$16,014	67	23	Complete	Complete	100%	100%
77b	Lagoon House Shoreline Restoration Planting* (1,493 Linear Feet)	Marine Resources Council	$23,961	100	34	Complete	Complete	100%	100%
133	Fisherman's Landing* (300 Linear Feet)	Marine Resources Council	$4,800	20	7	Complete	Complete	100%	100%
135	Rotary Park* (300 Linear Feet)	Marine Resources Council	$4,800	20	7	Complete	Complete	100%	100%
180	Scottsmoor Impoundment (650 Linear Feet)	Marine Resources Council	$10,560	44	15				
181	Riveredge (250 Linear Feet)	Marine Resources Council	$4,080	17	6	Complete	Complete	100%	
82b	Riverview Park Planted Shoreline (1,150 Linear Feet)	Melbourne	$18,480	77	26				
	Planted Shorelines Total		**$130,455**	**544**	**186**				

Table 14. Clam Restoration Performance Table

Project Number	Project	Responsible Entity	Save Our Lagoon Project Cost	TN Reductions (lbs/yr)	TP Reductions (lbs/yr)	Scope of Work Received	Contract Review Status	Design	Construction
194	Aquaculture Stimulus Program (3 of 10 grantees)	Private Citizens	$60,000	1,000	TBD	Complete	Complete	30%	30%
	Clam Restoration Total		**$60,000**	**1,000**	**TBD**				

Table 15. Overview

Totals	Total TN Reduction (lbs/yr)	Total TP Reduction (lbs/yr)	Scopes of Work Received	Contracts Executed	Projects in Design	Projects Under Construction	Projects Complete
Total as of Previous Quarter	127,295	9,728	143	134	128	86	63
Total as of This Quarter	159,557	11,144	145	137	134	95	69

Save Our Indian River Lagoon Project Applications – 2023

Table 1. Project Application Table

Project Number	Project Name	Entity	Project Type	TN Reduction (pounds/year)	Eligible Cost-Share Rate ($/pound TN)	Maximum Eligible SOIRL Cost Share	Total Cost	Total Cost ($/pound TN)	Eligible Cost Share Request	Cumulative SOIRL Funding Increase	Notes
208	Cocoa Beach Golf Course Stormwater Pond Aquatic Vegetation Harvesting	Cocoa Beach	Vegetation Harvesting	5,385	$110	$2,369,400	$592,350	$28	$592,350	$376,200	4 years of vegetation harvesting to remove 3,094,930 lbs of wet weight; previously approved for $216,150
228	Unincorporated Countywide Vegetation Harvesting	Brevard County Natural Resources	Vegetation Harvesting	2,362	$110	$519,640	$450,000	$95	$450,000	$826,200	2 years of vegetation harvesting to remove 1,200,000 lbs of wet weight
229	Mullet Creek Island Area Muck Removal	Brevard County Natural Resources	Muck Removal	54,998	$520	$28,598,960	$12,834,540	$233	$12,834,540	$13,660,740	Remove an estimated 259,811 cubic yards of muck from 49 acres.
230	Mullet Creek Island Area Interstitial Treatment	Brevard County Natural Resources	Interstitial Treatment	26,407	$98	$2,587,886	$2,427,185	$92	$2,427,185	$16,087,925	
231	North Fiske Stormwater Pond Floating Wetlands	Cocoa	Stormwater	200	$313	$62,600	$50,000	$250	$50,000	$16,137,925	Install floating wetlands to treat 59 acres
232	Riverfront Center Nutrient Removing Filtrations Boxes	Titusville	Stormwater	679	$313	$212,527	$412,500	$608	$212,527	$16,350,452	Install 3 NRF boxes with BAM
233	Commons & City Hall Tree Boxes	Titusville	Stormwater	80	$313	$25,040	$176,500	$2,206	$25,040	$16,375,492	Install up to 15 bioretention tree boxes
234	South Brevard Water Reclamation Facility	Brevard County Utilities	WWTF Upgrades for Reclaimed Water	4,316	$383	$1,653,028	$2,200,000	$510	$1,653,028	$18,028,520	Project will bring current TN from 12 mg/l to 2 mg/l
235	Woodland Business Center Stormwater Retention	Woodland Business Center	Stormwater	11	$446	$4,906	$79,800	$7,255	$4,906	$18,033,426	Construction of grassed retention areas to capture runoff from the site and allow it to percolate into the ground
236	Sunnyland Canals Muck Removal	Sunnyland Beach Property Owners Association	Muck Removal	10,030	$520	$5,215,600	$10,072,478	$1,004	$5,215,600	$23,249,026	Remove an estimated 164,350 cubic yards of muck from 24 acres of canals.
237	Willow Lakes Package Plant Connection	Willow Lakes Homeowners Association	Package Plant Connection	725	$1,500	$1,087,500	$1,700,000	$2,345	$1,087,500	$24,336,526	Connect 327 properties from aging package plant to sewer.

Project Number	Project Name	Entity	Project Type	TN Reduction (pounds/year)	Eligible Cost-Share Rate ($/pound TN)	Maximum Eligible SOIRL Cost Share	Total Cost	Total Cost ($/pound TN)	Eligible Cost Share Request	Cumulative SOIRL Funding Increase	Notes
238	Kelly Park Sewer Connection	Brevard County Parks & Recreation	Septic to Sewer	90	$1,500	$135,000	$659,337	$7,326	$135,000	$ 24,471,526	
239	The Cove at South Beaches Package Plant Connection	The Cove Homeowners Association	Package Plant Connection	81	$1,500	$121,500	$697,000	$8,605	$121,500	$24,593,026	Connect 40 properties from aging package plant to sewer.
240	Rotary Park Sewer Connection	Brevard County Parks & Recreation	Septic to Sewer	104	$1,500	$156,000	$977,802	$9,402	$156,000	$24,749,026	
241	Manatee Cove Sewer Connection	Brevard County Parks & Recreation	Septic to Sewer	24	$1,500	$36,000	$1,322,826	$55,118	$36,000	$24,785,026	
242	Riverwalk Nature Center Sewer Connection	Brevard County Parks & Recreation	Septic to Sewer	4	$1,500	$6,000	$781,007	$195,252	$6,000	$24,791,026	
243	Cocoa Beach Jr/Sr High School Turf Field	Cocoa Beach Jr/Sr High School	Stormwater – Fertilizer Reduction (New project type)	252	$446	$112,392	$1,233,488	$4,895	$112,392	$24,903,418	Replace football field with turf grass
244	North Banana River Three Bridges	RDI Aquatics, LLC	Stormwater – Aeration (New project type)	0	TBD	TBD	$1,425,250	TBD	$ -	$24,903,418	Aerate and monitor 3 canals

Save Our Indian River Lagoon Funding Application Short Form: Cocoa Beach Golf Course Stormwater Pond Aquatic Vegetation Harvesting

Project Details

Entity: City of Cocoa Beach

Project Type: Vegetation Harvesting

Sub Lagoon: Banana River Lagoon

Location: 500 Tom Warriner Blvd, Cocoa Beach, FL 32931

Project Description: This project will remove vegetation from 19 Stormwater ponds at the Cocoa Beach Country Club, a total of 28 acres of pond. Aquatic vegetation present includes cattail and other submerged vegetation. This project anticipates removing 3,094,930 pounds of wet weight of plant material. This is an expansion of a previously approved project request. The previous application was approved to remove 1,965 pounds of total nitrogren at $110 per pound for a total of $216,150. Certified lab data was received from the recently completed Maritime Hammock Vegetation Harvesting Project and the City of Cocoa Beach anticipates similar total nitrogen reduction values.

Education and Outreach: The City will share project updates and educational materials relating to the benefit of vegetation harvesting for nutrient removal on social media and through city newsletters. The project site is a public facility, so signage will be posted during harvesting to further educate the public.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 5,385

Total Phosphorus Reduction (lbs/year): 542

Costs

Total Project Cost: $592,350

Estimated Cost per Pound Total Nitrogen Removed: $28

Estimated Cost per Pound Total Phosphorus Removed: $273

Eligible Tax Funding Cost Share: $2,369,400

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: Four years of vegetation harvesting to remove 3,094,930 pounds of wet weight; previously approved for $216,150.

Save Our Indian River Lagoon Funding Application Short Form:

Unincorporated Countywide Vegetative Harvesting - IRL Watershed

Project Details

Entity: Brevard County Natural Resources Environmental Resources Management Section

Project Type: Vegetation Harvesting

Sub Lagoon: N/A

Location: N/A

Project Description: Brevard County seeks to expand its aquatic vegetation harvesting program. This request will allow the initial removal of 1,200,000 pounds of excess vegetation from stormwater management sites throughout Brevard situated within the IRL watershed. Historically, management of such vegetation relied chiefly on aquatic herbicides, resulting in the downstream release of sequestered nutrients and organic matter. Commencing with these initial removal events, subsequent management at each location will transition primarily to maintenance via vegetation harvesting in lieu of reliance on herbicides.

Education and Outreach: The benefits of vegetation harvesting are included in the County's stormwater outreach programs.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 2,362

Total Phosphorus Reduction (lbs/year): 573

Costs

Total Project Cost: $450,000

Estimated Cost per Pound Total Nitrogen Removed: $95

Estimated Cost per Pound Total Phosphorus Removed: $393

Eligible Tax Funding Cost Share: $450,000

Project Funding

Is Local Match in Adopted Budget: N/A

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Reduced reliance on herbicides, reduced release of sediments and organics that contribute to muck accumulation in the lagoon, reduced biological demand/improved dissolved oxygen levels.

Notes: Two years of vegetation harvesting to remove 1,200,000 pounds of wet weight.

Save Our Indian River Lagoon Funding Application Short Form: **Mullet Creek Island Area**

Project Details

Entity: Brevard County

Project Type: Muck

Sub Lagoon: Central Indian River Lagoon

Location: 27.922726, -80.497548

Project Description: Mullet Creek Island Area is located in South Brevard on the east side if the Indian River Lagoon about 5 miles north of Sebastian Inlet. The island area is state-owned conservation land and consists of several islands separated by meandering channels. The four original Mullet Creek Islands were split into 10 smaller ones during the 1950s when Brevard County constructed mosquito-control impoundments, ditches and berms. The area is about 1.4 miles long by 0.4 miles wide. It is surrounded by the IRL to the west, Honest John's Fish Camp to the north, and in close proximity to the Sunnyland neighborhood community and its canals to the east. The islands and meandering channels provide a natural area for wildlife habitat and recreational activities. Preliminary muck measurements in the channels around the islands indicated a high flux rate of about 1,629 lbs TN/ac/yr from muck contamination (Fox, 2022). The cost/lbs TN removed is estimated to be $233 compared to the average muck removal cost/lbs TN removed of $520 from the SOIRL Project Plan. Muck sources likely originated from nearby agricultural and community development activities that increased nutrient loading into the area via stormwater runoff, excess fertilizer applications, and septic systems. Historical muck sources have been removed or are in process of being reduced. Much of the State preserve surrounding Honest John's Fish Camp was one of Brevard County's last surviving barrier-island citrus groves (Florida Today, July 15, 2015). The Sunnyland community, which abuts the Mullet Creek Island channels, has developed an educational program to educate its homeowners on how to reduce nutrient loading into its canals to lessen future muck accumulation. In addition, Sunnyland has completed 10 septic system upgrades to advanced septic treatment systems, and has 26 more in progress. Reducing nutrient loading sources creates a favorable location for muck removal. During the early 1980s, Miami developers wanted to build a 27-hole golf course and 175 townhouses and villas on the Mullet Creek Islands. A group of about 200 citizens banded together as the Mullet Creek Preservation Society to oppose the proposal and encourage the state to conserve the land (Florida Today, July 15, 2015).

Education and Outreach: Community meetings will be held to discuss the project and inform the residents about the muck problem and what can be done to prevent future accumulations.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 54,998

Total Phosphorus Reduction (lbs/year): 683

Costs

Total Project Cost: $12,834,540

Estimated Cost per Pound Total Nitrogen Removed: $233

Estimated Cost per Pound Total Phosphorus Removed: $18,791

Eligible Tax Funding Cost Share: $28,598,960

Project Funding

Is Local Match in Adopted Budget: N/A

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Increase dissolved oxygen and water clarity to support seagrass, shellfish, and other marine life that contribute to improved water quality and ecological resilience of the Lagoon.

Notes: Remove an estimated 259,811 cubic yards of muck from 49 acres.

Save Our Indian River Lagoon Funding Application Short Form: Mullet Creek Island Area

Project Details

Entity: Brevard County

Project Type: Interstitial Water Treatment

Sub Lagoon: Central Indian River Lagoon

Location: 27.922726, -80.497548

Project Description: Mullet Creek Island Area is located in South Brevard on the east side if the Indian River Lagoon about 5 miles north of Sebastian Inlet. The island area is state-owned conservation land and consists of several islands separated by meandering channels. The four original Mullet Creek Islands were split into 10 smaller ones during the 1950s when Brevard County constructed mosquito-control impoundments, ditches and berms. The area is about 1.4 miles long by 0.4 miles wide. It is surrounded by the IRL to the west, Honest John's Fish Camp to the north, and in close proximity to the Sunnyland neighborhood community and its canals to the east. The islands and meandering channels provide a natural area for wildlife habitat and recreational activities. Preliminary muck measurements in the channels around the islands indicated a high flux rate of about 1,629 lbs TN/ac/yr from muck contamination (Fox, 2022). The cost/lbs TN removed is estimated to be $92 compared to the average interstitial treatment cost/lbs TN removed of $97 from the SOIRL Project Plan. Muck contamination sources likely originated from nearby agricultural and community development activities that increased nutrient loading into the area via stormwater runoff, excess fertilizer applications, and aged septic systems. It is likely that some nutrient loading muck sources have either been removed, and/or are in process of being reduced. Much of the State preserve surrounding Honest John's Fish Camp was one of Brevard County's last surviving barrier-island citrus groves (Florida Today, July 15, 2015). The Sunnyland community, which abuts the Mullet Creek Island channels, has developed an educational program to educate its homeowners on how to reduce nutrient loading into its canals to lessen future muck accumulation. In addition, Sunnyland has completed 10 septic system upgrades to advanced septic treatment systems, and has 26 more in progress. Reducing nutrient loading sources creates a favorable location for muck removal. During the early 1980s, Miami developers wanted to build a 27-hole golf course and 175 townhouses and villas on the Mullet Creek Islands. A group of about 200 citizens banded together as the Mullet Creek Preservation Society and fought the proposal. After a long fight, the state eventually took control of the land (Florida Today, July 15, 2015).

Education and Outreach: Community meetings will be held to discuss the project and inform the residents about the muck problem and what can be done to prevent future accumulations.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 26,407

Total Phosphorus Reduction (lbs/year): 2,365

Costs

Total Project Cost: $2,427,185

Estimated Cost per Pound Total Nitrogen Removed: $92

Estimated Cost per Pound Total Phosphorus Removed: $1,026

Eligible Tax Funding Cost Share: $2,587,886

Project Funding

Is Local Match in Adopted Budget: N/A

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Increase dissolved oxygen and water clarity to support seagrass, shellfish, and other marine life that contribute to improved water quality and ecological resilience of the Lagoon.

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: North Fiske Stormwater Pond Floating Wetlands

Project Details

Entity: City of Cocoa

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28.382164 N, -80.743798 W

Project Description: Installation of floating wetlands at the North Fiske Stormwater Pond in the City of Cocoa.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 200

Total Phosphorus Reduction (lbs/year): 32

Costs

Total Project Cost: $50,000

Estimated Cost per Pound Total Nitrogen Removed: $250

Estimated Cost per Pound Total Phosphorus Removed: $1,563

Eligible Tax Funding Cost Share: $62,600

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $50,000

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: Wetlands can improve water quality of stormwater runoff and manage watershed nutrients, as well as treatment of wastewater and other industrial contaminants.

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Riverfront Center Nutrient Removing Filtration Boxes

Project Details

Entity: City of Titusville

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28*31'26.55"N; 80*47'01.95"W; Riverfront Center Blvd

Project Description: This project consists of the installation of three Nutrient Removing Filtration System (NRFS) Boxes with biosorption-activated media within the Riverfront Center Basins. The boxes will be installed offline within the existing stormwater system to add additional treatment and nutrient removal prior to the stormwater entering the Indian River Lagoon.

Education and Outreach: We will include information about this project on our website and in our Indian River Lagoon storyboards.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 679

Total Phosphorus Reduction (lbs/year): 160

Costs

Total Project Cost: $412,500

Estimated Cost per Pound Total Nitrogen Removed: $608

Estimated Cost per Pound Total Phosphorus Removed: $2,578

Eligible Tax Funding Cost Share: $212,527

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $55,898

Dollar Amount Secured Grant(s): $144,075

Additional Information

Other Indian River Lagoon Benefits:

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Commons & City Hall Tree Boxes

Project Details

Entity: City of Titusville

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28*36'39.29"N; 80*48'24.01"W; Indian River Ave, Titusville, FL

Project Description: This project will include the installation of up to 15 bioretention tree boxes with the Commons and City Hall basins. The final number of tree boxes will be determined in final design. All catch basins within the basins will have a bioretention tree box installed unless there are physical constraints that prevent it. This is a highly developed area of the City with little area to installed traditional BMPs. Although this is a small basin this low impact development strategy will allow the City to implement a nutrient reducing project within a highly developed area of the City that directly discharges to the Indian River Lagoon.

Education and Outreach: These boxes will be installed in a highly visited area of downtown. We will install educational signage explaining what the bioretention boxes are and how they are helping the Indian River Lagoon.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 80

Total Phosphorus Reduction (lbs/year): 15

Costs

Total Project Cost: $176,500

Estimated Cost per Pound Total Nitrogen Removed: $2,206

Estimated Cost per Pound Total Phosphorus Removed: $11,767

Eligible Tax Funding Cost Share: $25,040

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $151,500

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits:

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: South Brevard Water Reclamation Facility

Project Details

Entity: South Brevard Water Reclamation Facility

Project Type: Wastewater Treatment Facility

Sub Lagoon: Central Indian River Lagoon

Location: Existing facility at N27.888846, W80.536708, 7700 Dottie Drive, Barefoot Bay, FL 32976

Project Description: This project includes the engineering design and construction for the tertiary treatment component of the new South Brevard Water Reclamation Facility, replacing the existing Barefoot Bay Water Reclamation Facility. The new facility is planned to have an increased system capacity enabling additional sewer connections, including septic-to-sewer connections, and have reduced effluent nutrient concentrations providing additional water quality benefits.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 4,316

Total Phosphorus Reduction (lbs/year): 863

Costs

Total Project Cost: $2,200,000

Estimated Cost per Pound Total Nitrogen Removed: $510

Estimated Cost per Pound Total Phosphorus Removed: $2,549

Eligible Tax Funding Cost Share: $1,653,028

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: $0

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form:

Woodland Business Center Stormwater Retention

Project Details

Entity: Woodland Business Center

Project Type: Stormwater

Sub Lagoon: Banana River Lagoon

Location: 28.3207, -80.61231, 102 Woodland Avenue, Cocoa Beach

Project Description: The project involves the construction of grassed retention areas to capture runoff from the site and allow it to percolate into the ground.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 11

Total Phosphorus Reduction (lbs/year): 2

Costs

Total Project Cost: $79,800

Estimated Cost per Pound Total Nitrogen Removed: $7,255

Estimated Cost per Pound Total Phosphorus Removed: $39,900

Eligible Tax Funding Cost Share: $4,906

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits:

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form:

Sunnyland Canals Muck Removal

Project Details

Entity: Sunnyland Beach Property Owners Association

Project Type: Muck

Sub Lagoon: Central Indian River Lagoon

Location: 27*55'46.3" N 80*29'25.5" The project area involves four canals parallel to four streets in Sunnyland Beach: 1) The canal to the south of Nikomas Way, 2) the canal to the south of Arrowhead Lane, 3) the canal to the south of Hiawatha Way and 4) the canal to the south of Beverly Court. Also included is the lake at the east end of the canal south of Arrowhead Lane.

Project Description: Sunnyland Beach is a waterfront community in southern Brevard County, with four canals that connect to the Indian River Lagoon at the eastern side of the Mullet Creek Islands. It is located an area of significant natural beauty immediately to the south of the Indian River Lagoon Preserve state park and Archie Carr National Wildlife Refuge, providing habitat for manatee, dolphin, waterfowl and bald eagles. The water quality has declined in recent years from accumulated muck and associated nitrogen loading. The proposed project is to remove an estimated 164,350 cubic yards of accumulated muck from the approximately 24 acres of canals and lake in the community.

Education and Outreach: The Sunnyland Beach neighborhood has formed an environment advocacy committee with 24 active members seeking solutions to the water quality concerns in the local area. This committee organized an "Environmental Fair" for the community to connect with residents on the importance of the ATU septic upgrade program, lawn care best practices, native and filtering plants and natural insect control. Environmental outreach activities are ongoing in Sunnyland Beach through social media channels, neighborhood newsletters, neighborhood web site and bulletin board postings.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 10,030

Total Phosphorus Reduction (lbs/year): 336

Costs

Total Project Cost: $10,072,478

Estimated Cost per Pound Total Nitrogen Removed: $1,004

Estimated Cost per Pound Total Phosphorus Removed: $29,978

Eligible Tax Funding Cost Share: $5,215,600

Project Funding

Is Local Match in Adopted Budget: N/A

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Connect to County Sewer and/or Install Rapid Infiltration Basins

Project Details

Entity: Willow Lakes

Project Type: Package Plant

Sub Lagoon: North Indian River Lagoon

Location: all streets in willow lakes

Project Description: This will convert 327 properties within the IRL watershed from an aging package plant to sewer. The system discharges via a failing drip system. The plant will be replaced with a lift station & force main to pump into the County sewer. Willow Lakes is not mandated to connect and could upgrade their plant or construct a RIB, which would continue infiltrating nutrient-rich water into the IRL. With the proximity to the IRL, connection to central sewer is more beneficial compared to system upgrades.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 725

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $1,700,000

Estimated Cost per Pound Total Nitrogen Removed: $2,345

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $1,087,500

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: numerous additional businesses and private residences could connect as well

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Kelly Park East Improvements & Sewer Connections

Project Details

Entity: Brevard County Parks & Recreation

Project Type: Septic System Removal - Extend

Sub Lagoon: Banana River Lagoon

Location: Kelly Park East, 2550 N. Banana River Dr, Merritt Island, FL 32952

Project Description: This project will connect the park to the sewer line on Banana River Drive, thereby, eliminating the septic system. In addition to the septic-to-sewer project, Parks & Recreation is plans to construct a new pavilion and a new restroom facility at Kelly Park East. With the addition of the pavilion to the park, it is anticipated that there will be increased use of the park by residents for events and programs.

This project is part of a broader initiative to eliminate septic systems in Brevard County parks. In FY 2023, Parks & Recreation has budgeted approximately $1.7 million for five (5) septic-to-sewer projects in or near the Indian River Lagoon. However, the estimated costs for the project exceed this budget by almost $3.2 million meaning these projects will need to be budgeted for and completed over multiple years. The grant funds, if awarded, would help to expedite these septic-to-sewer projects.

Education and Outreach: As funding allows, Brevard County Parks & Recreation will work with the County's Communications Office and the Natural Resources Management Department to develop social media messages and park signage to educate residents about the County's initiative to eliminate septic systems within the Indian River Lagoon and the value of the Save Our Indian River Lagoon Program.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 90

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $659,337

Estimated Cost per Pound Total Nitrogen Removed: $7,326

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $135,000

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $524,337

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: The Cove Package Plant Connection

Project Details

Entity: The Cove at South Beaches

Project Type: Package Plant

Sub Lagoon: Central Indian River Lagoon

Location: 28*00'19.39"N 80*31'41.86"W

Project Description: This will convert 40 properties within the IRL watershed from an aging package plant to sewer. The system discharges via a drainfield. The plant will be replaced with a lift station & force main to pump into the County sewer. The Cove is not mandated to connect and could upgrade its plant which would continue infiltrating nutrient-rich water into the IRL. With the proximity to the IRL, connection to sewer is more beneficial compared to system upgrades. The line could connect other properties.

Education and Outreach: This project is to be introduced at the Home Owners Association Board meeting to be held on October 12, 2022. At this time the Board will be getting input from the homeowners. We will also be doing email blasts to the homeowners to introduce the particulars of this project.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 81

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $697,000

Estimated Cost per Pound Total Nitrogen Removed: $8,605

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $121,500

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): N/A

Additional Information

Other Indian River Lagoon Benefits: Reduced risk of overflow and infiltration into IRL. Possibility for other homes and businesses to connect.

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Rotary Park Merritt Island Sewer Connection

Project Details

Entity: Brevard County Parks & Recreation

Project Type: Septic System Removal - Extend

Sub Lagoon: Banana River Lagoon

Location: Rotary Park Merritt Island 1899 S. Courtenay Pkwy, Merritt Island, FL 32952

Project Description: This project is to connect Rotary Park Merritt Island Nature Center to the sewer system, thereby, eliminating the use of the septic system. This project will utilize a force main to move the waste approximately 300 yards to a main sewer line on Tropical Trail and allow for the abandonment of the septic system.

This project is part of a broader initiative to eliminate septic systems in Brevard County parks. In FY 2023, Parks & Recreation has budgeted approximately $1.7 million for five (5) septic-to-sewer projects in or near the Indian River Lagoon. However, the estimated costs for the project exceed this budget by almost $3.2 million meaning these projects will need to be budgeted for and completed over multiple years. The grant funds, if awarded, would help to expedite these septic-to-sewer projects.

Education and Outreach: As funding allows, Brevard County Parks & Recreation will work with the County's Communications Office and the Natural Resources Management Department to develop social media messages and park signage to educate residents about the County's initiative to eliminate septic systems within the Indian River Lagoon and the value of the Save Our Indian River Lagoon Program.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 104

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $977,802

Estimated Cost per Pound Total Nitrogen Removed: $9,402

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $156,000

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $821,802

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Manatee Cove Park Sewer Connection

Project Details

Entity: Brevard County Parks & Recreation

Project Type: Septic System Removal - Extend

Sub Lagoon: North Indian River Lagoon

Location: Manatee Cove Park 4905 N. Tropical Trail, Merritt Island, FL 32953

Project Description: This project is to connect Manatee Cove Park to the sewer system, thereby, eliminating the use of the septic system. This project will utilize a force main to move the waste to a main sewer line and allow for the abandonment of the septic system.

This project is part of a broader initiative to eliminate septic systems in Brevard County parks. In FY 2023, Parks & Recreation has budgeted approximately $1.7 million for five (5) septic-to-sewer projects in or near the Indian River Lagoon. However, the estimated costs for the project exceed this budget by almost $3.2 million meaning these projects will need to be budgeted for and completed over multiple years. The grant funds, if awarded, would help to expedite these septic-to-sewer projects.

Education and Outreach: As funding allows, Brevard County Parks & Recreation will work with the County's Communications Office and the Natural Resources Management Department to develop social media messages and park signage to educate residents about the County's initiative to eliminate septic systems within the Indian River Lagoon and the value of the Save Our Indian River Lagoon Program.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 24

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $1,322,826

Estimated Cost per Pound Total Nitrogen Removed: $55,118

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $36,000

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $1,286,826

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Riverwalk Nature Center Sewer Connection

Project Details

Entity: Brevard County Parks & Recreation

Project Type: Septic System Removal - Extend

Sub Lagoon: North Indian River Lagoon

Location: Riverwalk Nature Center, 5355 S. US Highway 1 Rockledge, FL 32955

Project Description: This project is to connect Riverwalk Nature Center to the sewer system, thereby, eliminating the use of the septic system. This project will utilize a force main to move the waste approximately 500 yards to a main sewer line and will allow for the abandonment of the septic system.

This project is part of a broader initiative to eliminate septic systems in Brevard County parks. In FY 2023, Parks & Recreation has budgeted approximately $1.7 million for five (5) septic-to-sewer projects in or near the Indian River Lagoon. However, the estimated costs for the project exceed this budget by almost $3.2 million meaning these projects will need to be budgeted for and completed over multiple years. The grant funds, if awarded, would help to expedite these septic-to-sewer projects.

Education and Outreach: As funding allows, Brevard County Parks & Recreation will work with the County's Communications Office and the Natural Resources Management Department to develop social media messages and park signage to educate residents about the County's initiative to eliminate septic systems within the Indian River Lagoon and the value of the Save Our Indian River Lagoon Program.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 4

Total Phosphorus Reduction (lbs/year): N/A

Costs

Total Project Cost: $781,007

Estimated Cost per Pound Total Nitrogen Removed: $195,252

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $6,000

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $775,007

Dollar Amount Secured Grant(s): 0

Additional Information

Other Indian River Lagoon Benefits: N/A

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: Cocoa Beach Jr/Sr High School Turf Field

Project Details

Entity: Cocoa Beach Jr/Sr High School

Project Type: Stormwater

Sub Lagoon: Banana River Lagoon

Location: 1500 Minutemen Causeway, Cocoa Beach FL 32931

Project Description: At Cocoa Beach Jr/Sr High School, we are developing an aquaculture program to begin next school year. This program will include an outdoor classroom with close proximity to the IRL for field work, an outdoor lab to develop and nurture sea grass, bivalves, fish, and mangroves, a partnership with Brevard Zoo, and opportunities for multiple certifications that students can use to start careers immediately following high school. This new program has become the catalyst for retrofitting our school to become as environmentally friendly as possible. Along with pursuing other green projects—xeriscaping the front of the school, installing solar-powered covered walkways, learning how to make oyster volcanoes and prisms for future deployment, and collaborating on a seagrass (shoal) nursery with Brevard Zoo—replacing our football field with artificial turf will be the most impactful initiative. The goal is to eliminate the use of fertilizers and pesticides completely on our game field, which is right next to the IRL. Here is the breakdown of our annual chemical application to the game field:

1. 200 pounds of Top- Choice insecticide @ 1.54/pound = $308.00
2. 6,000 pounds of fertilizer @ .60/pound = $3600.00
3. Bifen insecticide as needed approx 100 gallons of solution sprayed last year =$35.56
4. Advion insecticide as needed approx 200 pounds used @ 2.60/pound = $520.00
5. Manuscript herbicide 2 twice a year per label @ 9.6 oz per acre = $445.33
6. Tribute herbicide 2 twice a year per label @ 3oz per acre = $720.00
7. Celsius herbicide twice a year per label @ 3.5oz per acre = $220.00
8. Sencor herbicide twice a year per label @ 2.5oz per acre = $106.00
9. Q4 plus herbicide once a year per label @ 104oz per acre = $105.76
10. Spectical flo pre-emergent herbicide twice per year per label @4oz per acre = $108.13
11. MSO for every herbicide except manuscript 2 gallons per year = $72.00

On top of removing these chemicals from our watershed, the infill being used for this initiative is organic, comprised of cork and coconut husks as opposed to the traditional crumb rubber infill. While this organic infill is more expensive, it is necessary to meet our environmental goal.

Education and Outreach: Along with close proximity to the IRL, the stadium will be sandwiched between the new aqua lab and outdoor classroom. Therefore, on top of eliminating nitrogen output to the watershed, the location of the stadium will also provide countless opportunities for public education on nitrogen reduction and promotion of IRL health through the use of windscreen, advertisements, public service announcements, and course curricula. Our stadium is used by several athletic programs throughout the year, and our track is open to the community for use, so the possibilities for public education are countless in such a high-traffic area. In addition, the Cocoa Beach community has proven to be exceedingly generous with school initiatives, most relevantly evidenced by the substantial fundraising for the new track; they raised well over $100,000. The community is heavily invested in us, and they are willing to help our causes, which would include IRL initiatives with the proper promotion.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 252

Total Phosphorus Reduction (lbs/year): 42

Costs

Total Project Cost: $1,233,488.00

Estimated Cost per Pound Total Nitrogen Removed: $4,895

Estimated Cost per Pound Total Phosphorus Removed: $29,369

Eligible Tax Funding Cost Share: $112,392

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: While our two main concerns are eliminating the chemicals directly associated with the current field and public education on the impact we all have on the watershed, we are open to adding rainwater or stormwater harvesting to the design process. Please refer to the attachment labeled “Conceptual Drawing of Construction.” This shows what the turf construction would look like to see if harvesting would be possible. Catch basins are already part of the design. We are also directly next door to a water treatment plant, which yields multiple possibilities.

Another major benefit to our project is cost effectiveness. Selfishly, this project would also save the school district substantial money by not needing to buy chemicals for field maintenance. This could potentially be the impetus for other schools in Brevard County to switch as well, which would not only allow the school district to reallocate that money to other educational opportunities, but also reduce nitrogen output considerably throughout the entire county.

Notes: N/A

Save Our Indian River Lagoon Funding Application Short Form: North Banana River Three Bridges

Project Details

Entity: RDI Aquatics LLC

Project Type: Stormwater

Sub Lagoon: Banana River Lagoon

Location: Three canals along North Banana River Drive in Merritt Island

Project Description: Will take 3 canal systems, Canal system (A) aeration only at Girard Blvd, Canal system (B) aeration and circulation at W Central Ave, Canal system (C) aeration, circulation, bio-dredging at E Rivera Dr in Merritt Island. All three systems will be monitored and maintained by RDI Aquatics for three years, Starting after installation of the aeration and circulation equipment has been installed.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 0

Total Phosphorus Reduction (lbs/year): NA

Costs

Total Project Cost: $1,425,250

Estimated Cost per Pound Total Nitrogen Removed:

Estimated Cost per Pound Total Phosphorus Removed:

Eligible Tax Funding Cost Share: $0

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits:

Notes: N/A

UF IFAS Extension UNIVERSITY of FLORIDA

UF/IFAS PEER REVIEWED ENH1348

https://doi.org/10.32473/edis-EP612-2021

Synthetic Turfgrass and the Nine Principles of Florida-Friendly Landscaping™[1]

Jason Kruse, Bryan Unruh, Jennifer Marvin, Tom Wichman, Lynn Barber, Norma Samuel, John Bossart, Claire Lewis, and Esen Momol[2]

Introduction

Homeowners in Florida are offered many different species and cultivars of natural turfgrass to consider for their lawns, each offering varying levels of shade, maintenance, water, disease, and pest resistance, as well as differences in color, texture, and overall aesthetics. Recent additions to the list of available turfgrasses have benefited from extensive breeding programs to develop cultivars that need fewer inputs (e.g., water and fertilizer), have fewer pest problems, and require less mowing, all traits that contribute to their appropriate use in Florida-Friendly Landscaping™ (FFL) (Momol et al. 2021).

However, in addition to these living turf options, some homeowners replace natural turfgrass with synthetic turf, also referred to as artificial turf. Originally developed as a durable, low-maintenance playground surface, synthetic turf is a manufactured product that utilizes synthetic fibers that mimic the aesthetic look of natural grass. Essentially outdoor carpet, artificial turf is typically composed of nylon, polypropylene, or polyethylene fibers connected to a reinforced backing material. While designed to imitate the look of natural turf, synthetic turf does not provide the ecosystem benefits of a natural turf system. This publication examines the properties of synthetic turf in relation to each of FFL's nine principles.

Florida-Friendly Landscaping™: The Nine Program Principles

FFL protects Florida's natural resources by conserving water, reducing waste and pollution, creating wildlife habitat, and preventing runoff and erosion (Momol et al. 2021). Landscapes in Florida can be Florida-Friendly if designed and maintained according to the nine Florida-Friendly Landscaping™ principles (FYN Handbook 2015). Each of the nine Florida-Friendly Landscaping™ principles are evaluated below as they relate to living turfgrass and its potential replacement by synthetic turf.

1. **Right Plant, Right Place**: FFL's mission is to provide science-based information for creating resilient, sustainable landscapes of living plants that have been specifically selected and appropriately installed so that they require little or no irrigation, fertilizer, or pesticide. Because synthetic turf is not alive, it does not meet the criteria

1. This document is ENH1348, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date December 2021. Visit the EDIS website at https://edis.ifas.ufl.edu for the currently supported version of this publication.

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of a plant choice for an FFL landscape. As a living plant, natural turfgrass plays an important role in cooling the environment that synthetic turf cannot. Average surface temperatures of a natural turfgrass lawn have been reported to be as much as 70°F cooler than a dormant brown lawn and as much as 100°F cooler than synthetic turf surfaces. Higher surface temperatures increase the surrounding air temperatures and result in an increase in the energy required for mechanical cooling of adjacent homes and buildings. Caludio (2008) describes heat island effects generated by larger installations of synthetic turf. Living turfgrass also provides a root zone, which helps to filter and slow runoff and stop erosion. Synthetic turf cannot do this, because part of its installation requires compacting the earth below, increasing runoff beneath the synthetic turf.

2. **Water Efficiently**: Synthetic turf systems do not require supplemental irrigation; however, installations may require water use for different reasons. As mentioned above, synthetic turf can become excessively hot, with one author (Kruse) measuring surface temperatures on synthetic turf as high as 160°F. Because of these high temperatures, it is common for users to spray the surface with water to cool it for use, which may negate some of the perceived benefit from the system not requiring "irrigation." In addition, many manufacturers recommend weekly wash downs of the artificial turf surface to remove contaminants such as dust and pet waste and its odor. These washings, especially those to remove pet urine, often use quite a bit of water because the waste must pass through the artificial turf, the underlying substrate, and the weed barrier before being carried away. This wash water will generally not infiltrate into the ground below because of soil compaction conducted before installation of the synthetic turf. As noted in *The Ultimate Artificial Grass Maintenance Guide* (neograss.co.uk):

   > If your lawn has not been installed on a free-draining sub-base, then you may need to purchase one of the many artificial grass cleaning products available on the market that will remove the smell of urine and sanitize your lawn.

   Living turf, on the other hand, helps cool the environment, absorbs pet urine, and does not require washing to remove odors or dust. Once established, living turf needs minimal water during times of drought.

3. **Fertilize Appropriately**: Synthetic turf systems do not require fertilization. However, the lack of a root system and its associated microbial community in synthetic turf systems eliminates the water filtration benefit that is gained through the installation of a living turfgrass system.

4. **Mulch:** In an FFL landscape, mulch is often incorporated within ornamental beds and around shrubs to maintain soil moisture and control weed growth. However, mulch application is not applicable to synthetic turf systems.

5. **Attract Wildlife:** An FFL landscape will often incorporate elements that attract wildlife, including the installation of host and pollinator plants to attract butterflies and native bees, as well as mixes of shrubs and trees that provide food, cover, and nesting opportunities for birds and other wildlife. This effect is amplified when natural wildlife preserves, and other green areas are adjacent or nearby. Research has shown that turfgrass lawns support an abundance of beneficial arthropods, such as beetles, bees and wasps, as well as worms, which in turn support larger wildlife such as birds and other ground-feeding wildlife (Shimat et al. 2020). Synthetic turf does not offer any benefits that attract or support wildlife.

6. **Manage Yard Pests Responsibly:** A fundamental component of FFL is using the appropriate combinations of plants (see FFL Principle No. 1: Right Plant, Right Place) maintained through proper irrigation and fertilizer protocols, so that yard pests are controlled with little or even no need for pesticide application. This holistic pest management approach forms the basis of integrated pest management, or IPM. As discussed above, while synthetic turf plays no role in attracting or supporting wildlife, it also does not contribute to the mix and balance of landscaping plants that promote IPM.

7. **Recycle Yard Waste:** FFL promotes the recycling of yard and landscape clippings into mulch and compost. This not only reduces the amount of yard waste that must be picked up curbside and transported for disposal, but yard waste converted to compost and used as fertilizer decreases the need for a homeowner to buy other fertilizers, especially synthetic fertilizers. Because synthetic turf is primarily plastic, it does not directly generate yard waste such as leaf litter and clippings, although falling leaves that accumulate on the synthetic turf must still be removed to prevent wear and tear. More importantly, however, synthetic turf has a finite life span, perhaps 10 to 20 years depending on the quality of ongoing care including rinsing, removing leaves, and sanitizing. At the end of its life, the synthetic turf will need to be removed and replaced, with the ultimate disposal of the old synthetic turf most likely in a landfill.

8. **Reduce Stormwater Runoff:** The primary base construction for synthetic turf systems in residential landscapes involves removal of a portion (2"–3") of the topsoil followed by heavy compaction of the remaining soil to establish a firm, uniform base on which to install the synthetic turf product. This compaction reduces soil infiltration rates and increases the risk of runoff from the landscape. While it may be possible to use rain gardens, berms, and swales to retain runoff on the property, there remains a significant risk of increased runoff when compared to natural turfgrass, which has been shown to increase soil infiltration rates. A recent study by Simpson and Francis (2021) demonstrated that synthetic turf lawns had more runoff and decreased water retention compared to living turf lawns. A similar study (Chang et al. 2021) found that living turf provided greater runoff control than synthetic turf.

    a. In addition to runoff volume, synthetic turf runoff has been shown to contain zinc in concentrations that pose a potential risk to surface waters and aquatic organisms (Connecticut Department of Environmental Protection 2010). Another synthetic turf study in New York found that runoff water from rain or from spraying or misting contained some 25 different chemical species and four metals (zinc, selenium, lead, and cadmium) that were released into water from the rubber infill incorporated into the synthetic turf (Claudio 2008).

    b. In contrast to synthetic turf, a healthy, established natural turf system consists not only of the dense cover of the aboveground grass blades, but also an underlying deep, intricately intertwined root zone that can filter and absorb contaminants. Natural turf installations improve soil structure over time and as a result enhance water filtration and infiltration into the soil. A robust root zone with healthy soil will also absorb dissolved nutrients, decrease nutrient leaching into the underlying ground water, and sequester carbon. Because, by definition, synthetic turf systems do not consist of plant material, they have no capacity to provide these same ecosystem services as a living turf.

9. **Protect the Waterfront**: Synthetic turf systems lack the soil-stabilizing benefits offered by the rootzones of flood-tolerant plants that are typically found along the edges of water bodies. The presence of these plants protects the shoreline from erosion and has been documented as having a significant impact in reducing the concentration and amount of contaminates that enter bodies of water through stormwater runoff. Installation of a synthetic turf system along the edge of a water body increases the risk of soil erosion due to the lack of an established soil-stabilizing rootzone. In addition, the increased risk of runoff due to compaction of the soils during installation will increase the risk of pollutants reaching the water body that may have otherwise been caught/filtered out by the natural turfgrass system.

Conclusions

Protecting and preserving Florida's water resources through sustainable landscaping practices on living landscapes is the primary focus of the Florida-Friendly Landscaping™Program. It strives to achieve this goal through implementation of nine principles designed to reduce the environmental impact of urban landscapes while creating wildlife habitat, preventing erosion, and reducing landscape-based contributions to landfills. When considering the use of a synthetic turf system in the urban landscape, it is important to understand all the potential environmental impacts. Synthetic turf systems have not been shown to improve or create wildlife habitat, do not improve groundwater recharge, can heat excessively in the sun and, in more extensive installations, can cause a substantial heat island effect. In addition, synthetic turf generates higher stormwater runoff than natural turf and has been shown to leach a variety of contaminants, including both organic compounds and heavy metals. Finally, since synthetic turf is primarily plastic it has a finite lifespan and must eventually be disposed of in a landfill, a practice that is counter to the sustainability goals of the Florida-Friendly Landscaping™ Program.

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Save Our Indian River Lagoon
Citizen Oversight Committee
November 18, 2022

Agenda Item:
VIII. a. New Business

Title:
Project Funding Recommendations to include in the recommended 2023 Plan Update

Requested Action:
Motion to recommend modification of the *Save Our Indian River Lagoon Project Plan* to include:

- all the projects in the 2023 Project Funding Requests List with the exception of Project(s) Numbered _____[list project numbers to be excluded].

The Citizen's Oversight Committee may consider adding the following direction:

- Project(s) Numbered _____[list project numbers to be returned], are returned to staff for further review and Committee reconsideration at a later date.

Summary Explanation and Background:
Each year, new project ideas and funding requests are accepted for consideration by the Citizen Oversight Committee to be recommended for funding and inclusion in the next annual update of the Save Our Indian River Lagoon Project Plan.

The Committee's recommendations are presented to the Board of County Commissioners for their inclusion, modification and inclusion, or non-inclusion in the next annual plan update. Per the enabling ordinance for the surtax, the Board shall not act on the Committee's recommendations any sooner than 15 days after posting the draft plan update on the County's Save Our Indian River Lagoon website.

Upon County Commission approval, a project or projects that deliver comparable nutrient removal benefits may be added to the listed Save Our Indian River Lagoon Project Plan or substituted for funding allocated to other projects in the same sub-lagoon. Unless otherwise agreed to by the County Commission, if a substituted project costs more than the project previously included in the Plan, the requesting partner must provide the balance of costs.

Potential recommendations include 17 project requests from the community for consideration in the 2023 Plan Update. Based on estimated load reductions and advertised cost shares for each project type, the sum of eligible new and increased costs amounts to $24,903,418 of Save Our Indian River Lagoon surtax funding.

Save Our Indian River Lagoon
Citizen Oversight Committee
November 18, 2022

Agenda Item:
VIII. b. New Business

Title:
Contingency Funding Request for the City of Cocoa Beach Maritime Hammock Preserve Stormwater Pond Aquatic Vegetation Harvesting Project

Requested Action:
Motion to recommend approval of a $6,779.79 funding increase for expansion of the City of Cocoa Beach Maritime Hammock Preserve Stormwater Pond Aquatic Vegetation Harvesting Project

Summary Explanation and Background:
The City of Cocoa Beach Maritime Hammock Preserve Stormwater Pond Aquatic Vegetation Harvesting Project, completed in September 2022, consisted of harvesting aquatic vegetation from the Maritime Hammock Preserve Pond. Harvesting aquatic vegetation removes nutrients and avoids decomposition.

The city's request was approved for inclusion in the 2022 Plan Update based on an anticipated Total Nitrogen reduction of 70 pounds at $110 per pound. The project was estimated to cost $14,500 with Save Our Indian River Lagoon funds covering 53% of those costs for a contract amount of $7,700. However, the final project costs totaled $14,479.79 and removed 142.88 pounds of Total Nitrogen based on certified lab reports.

Section 5.1 of the Save Our Indian River Lagoon Project Plan allows the Contingency Fund Reserve to be used to increase funding for approved projects that can be *"expanded or altered to provide greater nutrient reduction benefits than planned… Contingency funds can be allocated at the rate for that project type established in the most recently adopted plan update."*

Based on an actual nitrogen load reduction of 142.88 pounds, the project is eligible for a maximum of $15,717. Since the total project cost is less, the City is requesting an additional $6,779.79 to cover the balance of project costs, which totals $14,479.49. Final project cost-effectiveness was $101.34 per pound of nitrogen removed.

Staff seeks a recommendation from the Citizen Oversight Committee on expanding the funding for the City of Cocoa Beach Aquatic Vegetation Harvesting Project by $6,779.79 to fund the higher than anticipated nutrient removal achieved.