

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

October 15, 2021 – 8:30 to 11:30 am
Brevard County Government Center
2725 Judge Fran Jamieson Way Viera,
Florida 32940

County Commission Chambers and On-line via Zoom Conference

- I. Call to Order
- II. Roll Call
- III. Approval of the Agenda
- IV. Approval of Minutes (August and September)
- V. Progress and Fiscal Reports
 - a. Monthly Progress Report – Virginia Barker, Director
 - b. Monthly Revenue Graph – Crystal Melton, Finance Manager
- VI. Other Reports and Special Presentations
 - a. Junior Achievement Lagoon STEM Pilot Program – Anne Conroy-Baiter, President, Junior Achievement of the Space Coast
 - b. Cocoa Beach Golf Muck Dredging/Capping Study – Jim Langenbach, Senior Principal, Geosyntec Consultants
 - c. Geochemical Nutrient Cycling in the IRL: Historical Perspectives, Ocean Inflow and the Future – Dr. Austin Fox, Assistant Professor, Florida Institute of Technology
 - d. Tracking Changes, Improving Outcomes and Measuring Success: A Story of Oxygen in the Lagoon – Dr. Austin Fox, Assistant Professor, Florida Institute of Technology
- VII. Old Business
- VIII. New Business
- IX. General Public Comments
- X. Final Comments by Chair and Committee Members
- XI. Adjournment

**Save Our Indian River Lagoon
Citizen Oversight Committee Meeting Minutes**

August 20, 2021 – 8:30 a.m.
2725 Judge Fran Jamieson Way,
County Commission Chambers and online 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	Yes
Education	Stephany Eley – Vice Chair	Yes	Kimberly Newton	Yes
Finance	Courtney Barker	Yes	Todd Swingle	Yes
Tourism	David Lane	No	Laurilee Thompson	Yes
Real Estate	Susan Hodgers	No	Dennis Basile	No
Lagoon Advocacy	John Windsor	Yes	Terry Casto	No

Staff Present:

Virginia Barker, Brevard County Natural Resources Management Director
Alex Esseesse, Assistant County Attorney
Brandon Smith, Environmental Specialist
Matt Badolato, Associate Environmental Specialist
Terri Breeden, Associate Environmental Specialist
Jenny Hansen, Associate Environmental Specialist
Courtney Maier, Engineer I
Walker Dawson, Engineer III
Anthony Gubler, Environmental Specialist
Crystal Melton, Department Finance Manager

I. Call to Order

II. Roll Call

A quorum was established.

III. Acceptance of Virtual Votes

Stephany Eley moved that the Committee accept the votes on issues considered at the meeting of any members not in the room and attending via zoom; seconded by John Windsor. Motion was unanimously approved.

IV. Approval of the Agenda

Courtney Barker moved to approve the Agenda as written; seconded by John Windsor. Motion was unanimously approved.

V. Approval of Minutes

John Windsor moved to approve the July 16, 2021 minutes as written; seconded by Stephany Eley. 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. The Committee's questions were answered by Virginia Barker.

b. Monthly Revenue Graph – Crystal Melton, Department Finance Manager

Crystal Melton reported on the Monthly Revenue Graph and Quarterly Financial Statement.

c. Quarterly Save Our Indian River Lagoon Finance & Project Performance Table Update – Crystal Melton, Finance Manager & Terri Breeden, Associate Environmental Specialist and Project Managers

Terri Breeden and Project Managers gave an update on the Quarterly Progress Report, April 1 – June 30, 2021. The update included: 1) Baffle Box Story Map by Brandon Smith; 2) Palm Bay North Area Wastewater Reclamation Facility and Titusville Osprey Reclamation Facility by Terri Breeden; 3) County Septic Removal Projects – South Beaches Zone O, South Central Zone C, Micco Sewer Line Connections; and Septic Upgrades and Quick Connects by Anthony Gubler; and, Sylvan Estates Septic Removal Project by Terri Breeden, 4) Brevard County Stormwater Projects by Courtney Maier, 5) Municipalities Stormwater Project Updates by Terri Breeden; 6) Brevard County Muck Removal Projects by Walker Dawson, and Cocoa Beach Muck Removal Project(s) update by Terri Breeden; 7) Planted Shorelines - Brevard Zoo North IRL Project 2 by Jenny Hansen; and; 8) Project Overview by Terri Breeden.

Discussion ensued. The Committee's questions were answered by Virginia Barker, Brandon Smith, Terri Breeden, Courtney Maier, Jenny Hansen, Anthony Gubler and Walker Dawson.

VII. Other Reports and Special Presentations

a. Getting Ready for Shovel-Ready Seagrass Restoration – Mark S. Fonseca, Ph.D., Vice President Science, CSA Ocean Sciences Inc.

Mark Fonseca gave a power point presentation entitled: Asking the Right Questions: Getting Ready for Shovel-Ready Projects. Topics included: 1) Sea Grass Restoration - General principals and question asking; 2) Defining and Managing (Ecological) Expectations; 3) History Lesson – Methods; 4) Limiting Factors and Ecological Chain Reactions; 5) Stable States and Extreme Events; 6) Transplanting for Acreage and Knowledge; and, 7) Take Home Message.

Discussion ensued. The Committee's questions were answered by Virginia Barker, Kimberly Newton, and Mark Fonseca.

b. Manatee Habitat Enhancement of the Atlantic Estuaries – Julie Mitchell, Fish & Wildlife Biologist III, Florida Fish & Wildlife Conservation Commission

Julie Mitchell gave a power point presentation entitled: Manatee Habitat Enhancement of the Atlantic Estuaries. Topics included: 1) Status of Habitat in the Indian River Lagoon; 2) Loss of Foraging Habitat; 3) Manatee Unusual Mortality Event; 4) Research and Management Activities – Contingency Response, 5) Monitoring and Research; 6) Aquatic Habitat Restoration; 7) Foraging Habitat Restoration; 8) Warm-Water Refuge Habitat Restoration; and, 9) How to Get Involved.

c. Brevard Zoo Lagoon Restoration: Past, Present and Future – Ashley Rearden, Conservation Curator, Brevard Zoo

Ashley Rearden gave a power point presentation entitled: Brevard Zoo Seagrass Restoration: Past, Present and Future. Topics included: 1) Pilot Seagrass Project - Environmentally Endangered Lands; 2) Seagrass Mats through Clam Project – Indian River Lagoon Wide; and, 3) Community-Based Seagrass Restoration.

Discussion ensued. The Committee's questions were answered by Ms. Rearden and Dr. Fonseca.

Discussion regarding funding sources for planting sea grass ensued. It was noted that currently there was no funding in the Save Our Indian River Lagoon Project Plan for sea grass restoration. Virginia Barker noted that there were other grant funding sources that could be used to cover sea grass planting, but not monitoring. Ms. Barker proposed using Respond funds to try and fill the gap, if the Committee agreed.

After further discussion, it was the consensus of the Committee to have staff research sea grass monitoring to see how to work with other partners and to use respond funds.

d. Project Videos – Jackson Court Stormwater Treatment Train, Ray Bullard Stormwater Management Area and Susan Hodgers' My Lagoon Story

A video, Jackson Court Stormwater Treatment Train Project, was shown.

A video, Ray Bullard Stormwater Management Area Project, was shown.

A My Lagoon Story video, featuring Susan Hodgers – Real Estate Member, was shown.

Discussion ensued. The Committee's questions were answered by Virginia Barker.

VIII. Old Business

a. Proposed Cost Share Eligibility by Project Type for the 2022 Save Our Indian River Lagoon Project Plan Update.

Virginia Barker gave a summary explanation of proposed cost share eligibility by project type for new projects funding requests submitted for consideration in the 2022 Save Our Indian River Lagoon Project Plan Update.

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Stephany Eley moved to recommend offering the proposed cost shares for recruiting project proposals for the 2022 Save Our Indian River Lagoon Project Plan Update; seconded by Courtney Barker.

There were no public comments.

Motion was unanimously approved.

IX. New Business

a. Contingency Funding Request of \$29,053 for the City of Titusville's Draa Field Aquatic Vegetation Harvesting Project

Virginia Barker gave a summary explanation of the City of Titusville Draa Field Aquatic Vegetation Harvesting Project.

Discussion ensued. The Committee's questions were answered by Sandra Reller, City of Titusville.

John Windsor moved to recommend approval of a \$29,053 funding increase for the City of Titusville Draa Field Aquatic Vegetation Harvesting Project; seconded by Laurilee Thompson.

There were no public comments.

Motion was unanimously approved.

X. General Public Comment

Public Comments were heard.

XI. Final Comments by Chair and Committee Members

Final Comments were heard.

XII. Adjournment

**Save Our Indian River Lagoon
Citizen Oversight Committee Meeting Minutes**

September 17, 2021 – 8:30 a.m.
2725 Judge Fran Jamieson Way,
On-Line via Zoom Conference
Viera, FL 32940

Members Present:

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

Staff Present:

Virginia Barker, Brevard County Natural Resources Management Director
Alex Esseesse, Assistant County Attorney
Brandon Smith, Environmental Specialist
Matt Badolato, Associate Environmental Specialist
Terri Breeden, Associate Environmental Specialist
Jenny Hansen, Associate Environmental Specialist
Courtney Maier, Engineer I
Walker Dawson, Engineer III
Anthony Gubler, Environmental Specialist
Crystal Melton, Department Finance Manager

I. Call to Order

II. Roll Call

III. Approval of the Agenda

The meeting was informational only. No official action was taken.

IV. Approval of Minutes (postponed to October)

V. Progress and Fiscal Reports

a. Monthly Progress Report – Virginia Barker, Director

The Monthly Progress Report was given by Virginia Barker.

Discussion ensued. The Committee’s questions were answered by Virginia Barker.

b. Monthly Revenue Graph – Crystal Melton, Department Finance Manager

Crystal Melton reported on the Monthly Revenue Graph.

VI. Other Reports and Special Presentations

a. Tiny Bubbles: is Aeration a Viable Solution to improve Water Quality in the IRL? – Dr. Austin Fox, Assistant Professor, Florida Institute of Technology.

Dr. Fox gave a power point presentation entitled: Tiny Bubbles: Is Aeration a Viable Solution to improve Water Quality in the IRL? Topics included: 1) Muck: An Internal Source of Nitrogen and Phosphorus to the Indian River Lagoon; 2) Aeration; 3) Destratification “mixing”; 4) Dissolved Oxygen in sand versus muck (anoxic versus oxic); 5) Aeration with microporous diffusers; 6) Nanobubbles; 7) Muck volume and thickness; and, 8) Summary.

Discussion ensued. The Committee’s questions were answered by Dr. Fox.

b. Subaqueous Sand Capping to Mitigate Releases of Nitrogen and Phosphorus from Muck Deposits. – Dr. Austin Fox, Assistant Professor, & Abbey Gering, Florida Institute of Technology

Dr. Fox gave a power point presentation entitled: Subaqueous Sand Capping to Mitigate Releases of Nitrogen and Phosphorus from Muck Deposits. Topics included: 1) Potential capping remedies through physical isolation of contaminated sediments from the benthic environment, stabilization of contaminated sediments, preventing resuspension and transport to other sites, and, decreasing fluxes of dissolved contaminants into the water column; 2) Data and results from the study of a Florida Power and Light remediation capping project in the Indian River Lagoon; and 3) Summary.

Discussion ensued. The Committee’s questions were answered by Dr. Fox.

c. Restore Lagoon Inflow Project – Dr. Jeff Eble, Research Assistant Professor, & Dr. Austin Fox, Assistant Professor, Florida Institute of Technology

Dr. Eble gave a power point presentation entitled: Restore Lagoon Inflow Project. Topics included: 1) Project Introduction; and, 2) Key findings and next steps.

Discussion ensued. The Committee’s questions were answered by Dr. Eble.

VII. Old Business

VIII. New Business

IX. General Public Comments

Public Comments were heard.

X. Final Comments by Chair and Committee Members

Final Comments were heard.

XI. Adjournment



Save Our Indian River Lagoon Project Plan October 2021 Progress Report

WORK COMPLETED THIS MONTH:

- \$18,964,311 in state grants were approved for 8 county Septic to Sewer projects
- \$2,200,000 state grant to Utilities Services to upgrade the South Beaches plant to Advanced Treatment
- 2 Sewer Quick Connect completed
- Septic Upgrades – processed 2 more reimbursements for a total of 35 to date; 69 sites in progress
- Living Shoreline Performance - University of Central Florida monitored an oyster bar in advance of adjacent seawall construction. Post-construction monitoring will occur afterwards. Strategies to minimize impacts have been discussed with the owner and contractor
- Second quarterly sampling of In-Ground Nitrogen-Reducing Biofilter septic systems was completed
- Derelict Vessels – 3 removed
- Amendments – time extensions executed for MRC Grass Clipping Outreach, MTN Fertilizer and Septic Outreach, and the Titusville High School Baffle Box
- Homeowner Grant Portal – Live

WORK UNDERWAY THIS MONTH:

- Brevard County Smoke Testing – Contractor on standby; awaiting code enforcement software update
- South Central C Septic-to-Sewer –Contract amendment in review by County Attorney
- Micco Septic-to-Sewer –Reviewing final bid documents
- Sykes Creek M Septic-to-Sewer – contracting underway for Land acquisition
- Sykes Creek T Septic-to-Sewer –property acquisition ready for Board approval
- Sykes Creek N Septic-to-Sewer – 75% design received
- South Beaches P Septic-to-Sewer –Preliminary design underway
- Sunset Road/Serenity Park/Basin 26 and Johns Rd/Basin 62 – Construction delays for acquiring material
- Angel Avenue/Basin 1066 – design work underway
- Basin 998 – Design task order is in review
- Grand Canal Muck Dredging – Approximately 140,000 cubic yards of muck dredged through September
- Sykes Creek Phase I Muck Dredging – Recommendation of contract award is pending final review
- Eau Gallie Northeast Muck Dredging – Awaiting permit modifications from regulatory agencies
- Shellfish Aquaculture Grant Program - first application processed; Three applications pending
- Contracts - Melbourne Tillman Aquatic Harvesting, Cocoa Beach McNabb Oysters and Plants in draft
- Amendments – time extensions requests to the County Commission October 12th for Titusville Osprey Water Reclamation Facility Upgrade and Palm Bay North Area Water Reclamation Facility Upgrade
- Videos Underway - Convoir Cove Low Impact Development filmed and in editing
- Grants – State Innovative Technology pre-proposals approved for full submittals due October 15th
- Brevard Zoo constructing oyster bars in the North Indian River Lagoon in early to mid-October



PRESENTATIONS THIS MONTH:

September 8 – Master Gardeners - Anthony

September 22 – Cocoa Beach Sustainability Board - Brandon

September 30 – Junior Achievement- Lagoon STEM presentation at Cocoa Beach Jr./Sr High School – Matt

October 5 – Marine Resources Council Lunch & Learn – Virginia

UPCOMING LAGOON SCIENCE FORUMS AND PUBLIC EVENTS:

October 16 – Introduction to Pollution Mapping Workshop

October 21 – [Ocean Research Conservation Association - Intro to Fish Processing Workshop](#)

October 21-22 – [Marine Resources Council Low Impact Development Conference](#)

November 9 – Marine Resources Lunch & Learn on Frog Watch

UPCOMING VOLUNTEER PARTICIPATION OPPORTUNITIES:

October 12, 13, & 15 – [Brevard Zoo Restore Our Shores Oyster Bar Building](#)

October 15, 19, 27 – Fish Processing and Pollution Extractions – [Email Missy Weiss for Information](#)

November 20 – [Brevard Zoo Restore Our Shores Supply Making](#)

Brevard Zoo Restore Our Shores [Clam Restoration Project seeking volunteers](#)

Rotary Park rain garden maintenance – [Email Carlos Cuevas for opportunities](#)

Storm drain marking in Cocoa – [Email Carlos Cuevas for opportunities](#)

Storm drain marking in Melbourne – [Email Nicole Broquet for opportunities](#)

WEBSITE AND SOCIAL MEDIA 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](#)

FUTURE TOPICS FOR SPECIAL PRESENTATIONS:

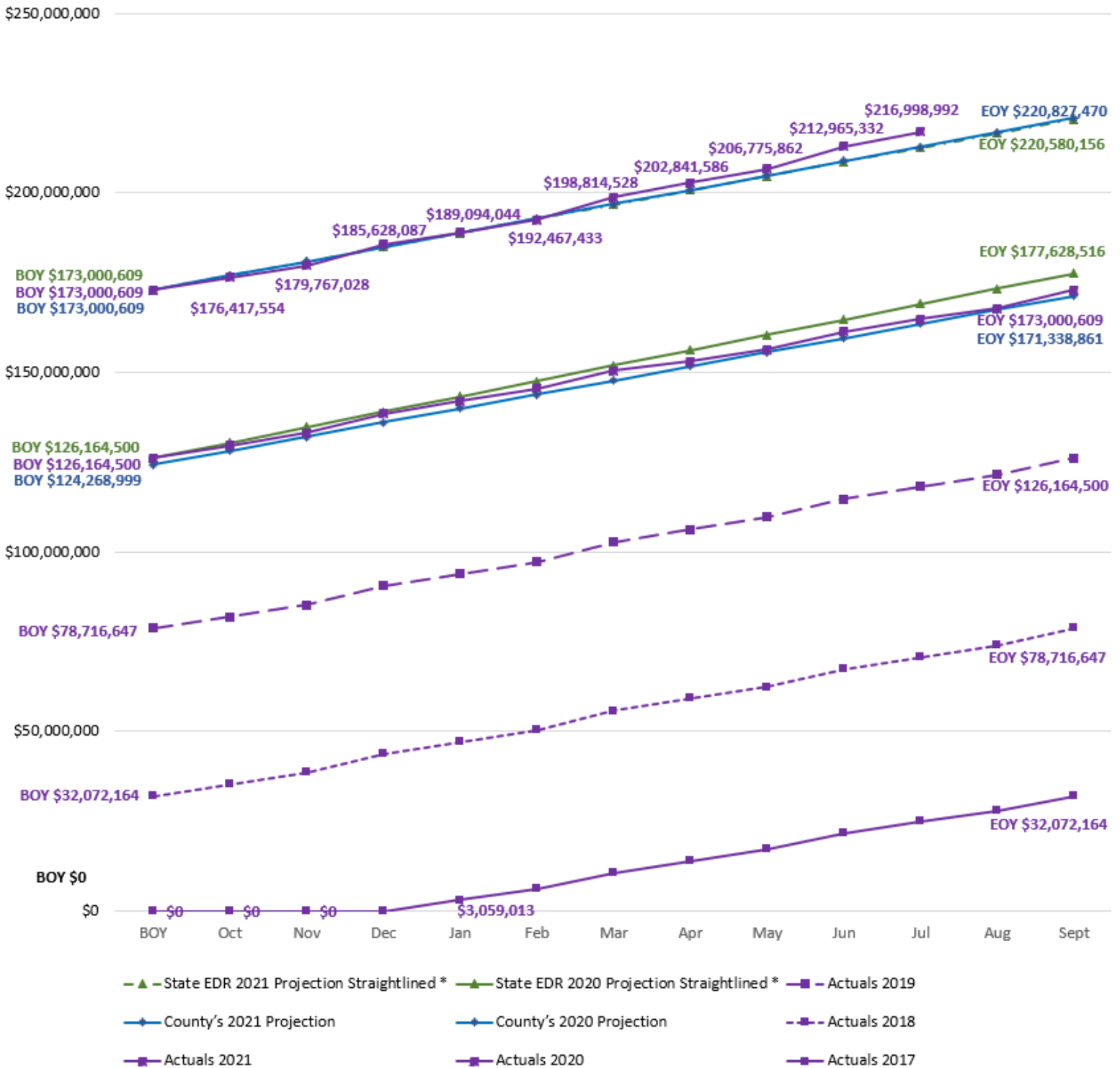
1. Pollution and Algal Bloom Mapping via Satellite Imagery Interpretation
2. Low Impact Development/Resilience – Local examples, efforts and potential opportunities
3. Surface Water Remediation – Phosphorus Free, S.W.I.G., D.T.G., Chemical Tech, HABITATS
4. Nutrient Loading Impacts of Reclaimed Water
5. Completed and Ongoing Muck Research – Florida Tech Research Initiative
6. Lagoon projects managed and funded by other agencies, entities or grant programs
7. Indian River Lagoon Research News: TechCon, Shore, and Harbor Branch Symposium Highlights
8. Water Technology Conference/Industry Day – Economic Development and National Estuary Program
9. Lagoon Fish and Fisheries Research – Dr. Grant Gilmore
10. Project Performance Measurement Results
11. Herbicide Alternatives
12. Microplastics in the Lagoon

Save Our Indian River Lagoon Revenues Cumulative Graph

Fiscal Year 16-17 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 16-17 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 Fiscal Year 16-17 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 16-17 to Current Fiscal Year Table

Month	State EDR 2021 Projection Straightlined *	County's 2021 Projection	Actuals 2021	State EDR 2020 Projection Straightlined *	County's 2020 Projection	Actuals 2020
BOY	\$173,000,609	\$173,000,609	\$173,000,609	\$126,164,500	\$124,268,999	\$126,164,500
Oct	\$176,965,571	\$176,986,181	\$176,417,554	\$130,453,168	\$128,191,487	\$129,590,162
Nov	\$180,930,533	\$180,971,752	\$179,767,028	\$134,741,836	\$132,113,976	\$133,089,868
Dec	\$184,895,496	\$184,957,324	\$185,628,087	\$139,030,504	\$136,036,464	\$138,551,296
Jan	\$188,860,458	\$188,942,896	\$189,094,044	\$143,319,172	\$139,958,953	\$142,014,229
Feb	\$192,825,420	\$192,928,467	\$192,467,433	\$147,607,840	\$143,881,441	\$145,518,464
Mar	\$196,790,382	\$196,914,039	\$198,814,528	\$151,896,508	\$147,803,930	\$150,424,958
Apr	\$200,755,345	\$200,899,611	\$202,841,586	\$156,185,176	\$151,726,418	\$153,099,730
May	\$204,720,307	\$204,885,183	\$206,775,862	\$160,473,844	\$155,648,907	\$156,326,096
Jun	\$208,685,269	\$208,870,754	\$212,965,332	\$164,762,512	\$159,571,395	\$161,413,353
Jul	\$212,650,231	\$212,856,326	\$216,998,992	\$169,051,180	\$163,493,884	\$164,827,524
Aug	\$216,615,194	\$216,841,898		\$173,339,848	\$167,416,372	\$167,886,836
Sept	\$220,580,156	\$220,827,470		\$177,628,516	\$171,338,861	\$173,000,609

Month	Actuals 2019	Actuals 2018	Actuals 2017
BOY	\$78,716,647	\$32,072,164	zero
Oct	\$81,926,390	\$35,300,032	zero
Nov	\$85,225,970	\$38,647,632	zero
Dec	\$90,640,944	\$43,870,270	zero
Jan	\$93,950,291	\$47,150,412	\$3,059,013
Feb	\$97,296,142	\$50,484,322	\$6,217,230
Mar	\$102,671,360	\$55,782,660	\$10,686,395
Apr	\$106,219,161	\$59,191,675	\$13,941,510
May	\$109,784,828	\$62,444,639	\$17,177,137
Jun	\$114,720,850	\$67,409,450	\$21,754,009
Jul	\$118,207,520	\$70,776,206	\$24,898,729
Aug	\$121,640,336	\$74,021,947	\$27,890,034
Sept	\$126,164,500	\$78,716,647	\$32,072,164