



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

July 19, 2019 – 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. Monthly Progress and Fiscal Reports
 - a. July 2019 Progress Report – Virginia Barker, Director
 - b. Revenue Graph and Financial Statement – Crystal Melton, Fiscal Analyst
- VI. Other Reports and Special Presentations
 - a. Sewer line inspections – Chris Little, Utilities Director, City of Palm Bay; Adam Marrara, Florida Home Inspection Bureau; and Stephen Rowe, Anchor Plumbing
 - b. Story Map – Matt Badolato
 - c. Muck video – Dylan Hansen
- VII. Old Business
- VIII. New Business
 - a. Palm Bay cost share request – Chris Little, PE, Palm Bay Utilities Director
 - b. City Workshop cost share – Virginia Barker, Director
 - c. Annual Plan Update schedule – Virginia Barker, Director
 - d. Grass Clippings Outreach Proposal – Leesa Souto, Executive Director, Marine Resources Council
- IX. General Public Comments
- X. Final Comments by Chair and Committee Members
- XI. Adjournment

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

May 17, 2019 – 8:30 a.m. – 11:30 a.m.
2725 Judge Fran Jamieson Way,
Bldg. C, 3rd Floor, Florida Room
Viera, FL 32940

Members Present:

Expertise	Member	Present	Alternate	Present
Science	Lorraine Koss	Yes	Charles Venuto	Yes
Technology	John Luznar	No	Vinnie Taranto	Yes
Education	Stephany Eley	Yes	Melissa Martin	Yes
Finance	Courtney Barker	Yes	Todd Swingle	Yes
Tourism	David Lane - Chair	No	Laurilee Thompson	Yes
Real Estate	Danielle Bowden	No	Dennis Basile	No
Lagoon Advocacy	John Windsor - Vice Chair	Yes	Terry Casto	Yes

Staff Present:

Virginia Barker, Brevard County Natural Resources Management Director
Christine Valliere, Brevard County Assistant County Attorney
Carol Gerundo, Executive Secretary
Walker Dawson, Engineer III, Muck Dredging
Courtney Maier, Engineer I, Stormwater
Anthony Gubler, Environmental Specialist
Brandon Smith, Environmental Specialist
Matt Culver, Brevard County Boating & Waterways Program Coordinator
Crystal Melton, Fiscal Analyst

I. Call to Order

II. Roll Call

A quorum was established.

III. Approval of the Agenda

Vinnie Taranto moved to approve the Agenda as written: Seconded by Melissa Martin. Motion was unanimously approved.

IV. Approval of Minutes

Courtney Barker moved to approve the April 19, 2019 Minutes as written; Seconded by Laurilee Thompson. Motion was unanimously approved.

V. Monthly Progress and Fiscal Reports – Virginia Barker, Director

a. May 2019 Progress Report

The Monthly Progress and Fiscal Reports were given by Virginia Barker. Discussion ensued.

The Committee's questions were answered by Ms. Barker.

b. **Save Our Indian River Lagoon Project Performance Table.**

Brandon Smith, Courtney Maier, and Walker Dawson gave status updates on each of the projects listed on the Save Our Indian River Lagoon Project Performance Table.

The Committee's questions were answered by Virginia Barker, Brandon Smith, and Walker Dawson.

c. **Revenue Graph and Financial Statement**

The Committee was provided with copies of the Revenue Graph and Financial Statement.

VI. Other Reports and Special Presentations

a. **Lagoon Loyalty Outreach and Engagement – Walter C. Wood, President, Marketing Talent Network Advertising and Susan Sperling, Media Director, Marketing Talent Network Advertising**

Walter Wood and Susan Sperling gave a power point presentation on Lagoon Loyalty Outreach and Engagement. Mr. Wood noted that the basic goal was to increase public awareness in compliance with the fertilizer regulations and to educate the community on the negative affects the mis-use of fertilizer has on the lagoon. Objectives included: 1) Educate and convince target audiences to know fertilizer ordinances, practice safe application, and potentially adopt/promote Lagoon-friendly lawns; and, 2) Educate community members that septic system mis-use has a negative effect on the Indian Rive Lagoon. Mr. Wood discussed target audiences and surveys that were used in creating the Lagoon Loyal Incentive Program. Mr. Wood gave a summary of the program which included: 1) Lagoon Loyal Logo; 2) Core Message (Let's Be Clear...); 3) How the program works; 4) Business Recruitment; 5) Citizen Participation; 6) Converting Actions to Points; 7) Converting Points to Rewards; 8) Lagoon Loyal.com launch date and digital outreach; 9) Retail Signage and training; and 10) Billboard messaging and focus groups.

Discussion ensued. The Committee's questions were answered by Mr. Wood, Ms. Sperling and Virginia Barker.

b. **Using Science to Guide Educational Communications: Grass Clippings Campaign – Leesa Souto, PhD, Executive Director, Marine Resources Council**

Dr. Leesa Souto gave a power point presentation on Using Science to Guide Educational Communications – Grass Clippings Campaign. Topics included: 1) Accomplishing Behavior Change; 2) Defining and Understanding Behaviors; 3) Research Methods; 4) Grass Clippings are a Problem; 5) Regulations alone aren't working; 6) Polluting Behaviors; 7) Non-polluting behaviors; 8) Grass clippings survey; 9) Survey

Demographics; and, 10) Next Steps.

c. **Mosquito Control – Joe Faella, Director**

Joe Faella, Brevard County Mosquito Control, gave a power point presentation. Topics included: 1) Mosquitoes; 2) Mosquito Borne Diseases; 3) Managing Mosquito Habitats; 4) Biological Control; 5) EPA Approved Pesticides; 6) Monitoring Adult Populations and Diseases; and, 7) Educational Outreach.

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

VII. Old Business

None.

VIII. New Business

IX. Septic Upgrade Media Evaluation Memorandum of Understanding with Florida Department of Health – Anthony Gubler, Environmental Specialist

It was noted that an agenda item, Memorandum of Understanding with the Florida Department of Health to Evaluate Alternative Nitrogen-Reducing Media for Septic Drainfields, would be considered at the May 21, 2019 Brevard County Board of County Commissioners Meeting. The Committee was provided with a draft motion for recommendation to the County Commission.

Anthony Gubler, Environmental Specialist, gave a brief summary explanation and background of the Agenda Item and Memorandum of Understanding.

Stephany Eley moved to recommend approval to the Brevard County Commission of the Memorandum of Understanding with Florida Department of Health to Evaluate Alternative Nitrogen Reducing Media for Septic Drainfields; Seconded by Lorraine Koss. Motion was unanimously approved.

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

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**

May 31, 2019 – 8:30 a.m. – 10:30 a.m.
Veterans Memorial Center, 400 S Sykes Creek Parkway,
Merritt Island, FL 32952
Viera, FL 32940

Members Present:

Expertise	Member	Present	Alternate	Present
Science	Lorraine Koss	Yes	Charles Venuto	Yes
Technology	John Luznar	Yes	Vinnie Taranto	No
Education	Stephany Eley	Yes	Melissa Martin	Yes
Finance	Courtney Barker	No	Todd Swingle	No
Tourism	David Lane - Chair	Yes	Laurilee Thompson	Yes
Real Estate	Danielle Bowden	No	Dennis Basile	No
Lagoon Advocacy	John Windsor - Vice Chair	Yes	Terry Casto	Yes

Staff Present:

Virginia Barker, Brevard County Natural Resources Management Director
Walker Dawson, Engineer III, Muck Dredging
Courtney Maier, Engineer I, Stormwater
Anthony Gubler, Environmental Specialist
Brandon Smith, Environmental Specialist
Matthew Badolato, Environmental Specialist

Public Present:

Lew Kontnik
Bo Platt

Call to Order

- I. Roll Call**
- II. Approval of the Agenda**
- III. Approval of Minutes**
- IV. Monthly Progress and Fiscal Reports – Virginia Barker, Director**
- V. Other Reports and Special Presentations**
 - a. Cone Road Project Tour – Merritt Island**

Members of the Save Our Indian River Lagoon Citizens Oversight Committee, Brevard County staff and members of the Public toured the Cone Road Project Site.
- VI. Old Business**
- VII. New Business**
- VIII. General Public Comment**
- IX. Final Comments by Chair and Committee Members.**
- X. Adjournment**



Save Our Indian River Lagoon Project Plan July 2019 Progress Report

WORK COMPLETED THIS MONTH:

- \$500,000 Legislative Appropriation for Septic to Sewer project match approved by the Governor
- Submitted Tourism + Lagoon grant applications for 4 projects totaling \$299,000
- Fertilizer Notice to Consumers sign and training materials produced and distributed to 44 sales outlets
- Beaches Leaking Sewer Laterals – 2nd month of sampling completed for 8 participating property owners
- Florida Department of Health Memorandum of Understanding approved to test septic drainfield media
- Post Cards created to notify owners eligible for grants to upgrade their septic or connect to sewer
- Grand Canal Muck Dredging – County Commission approved contract award to Gator Dredging
- Cocoa Beach - Muck Dredging Phase IIb and Water Reclamation Facility Upgrades contracts complete
- Brevard Zoo - Gitlin Oyster Bar constructed; Marina Isles and Central Indian River Lagoon contracted
- University of Central Florida researchers conducted monitoring at Bomalaski and Bettinger oyster sites
- Breeze Swept Septic to Sewer Conversion - Project Analysis Final Report (performance measurement)
- Derelict Vessels – 5 additional derelict vessels removed
- Story Map of all projects in the Updated Plan posted at www.brevardfl.gov/SaveOurLagoon/maps
- Videos - Cocoa Beach Muck Dredging filmed and edited
- Provided files for auditors to review capital project and municipal grant processes

WORK UNDERWAY THIS MONTH:

- Education, Outreach and Public Engagement - “LagoonLoyal.com” website live
- Sykes Creek Zones N Septic-to-Sewer – Utility Services reviewing final design
- South Central C Septic-to-Sewer – Utility Services reviewing 60% design
- Micco Sewer – Awaiting final design submittal, drafting permit applications
- Micco Sewer – National Estuary Program grant contract drafted, submitted 2 grant applications
- Sykes Creek Zone M and T- Consultant is finalizing 30% submittal
- West Melbourne - Sylvan Estates Amendment I for new cost share circulating for signatures
- Received septic drainfield media testing agreement signed by Florida Department of Health
- Titusville - South Street Baffle Boxes installation 90% complete, La Paloma installation 60% complete, St Teresa construction contract awarded on 3/12, Coleman Pond and Titusville High in design
- Receiving and reviewing designs for Basin 1349, Basin 1409, John’s Road and Flounder Creek
- Performance monitoring underway for Central Boulevard and Church Street Baffle Box upgrades
- Cocoa Beach - Muck Dredging Phase III contract is approximately 82% complete
- Grand Canal Muck Dredging – pre-construction meetings scheduled July 16, 17, and 18
- Grand Canal Muck Dredging – continuing to collect dredge waivers
- Sykes Creek Muck Dredging – Phase I bid document revisions underway
- Merritt Island Muck Dredging – Response to 2nd state Request for Additional Information underway
- Mathers Bridge Area Muck Removal – Surveying an expansion of the project area
- Brevard Zoo –Marina Isles construction underway. Oliver withdrawn due to seagrass recovery
- University of Central Florida Living Shoreline Monitoring Task Order 2 with UCF for final signatures
- Filming videos - Lateral Line Repairs
- Fiscal Year 18-19 budget change requests to update county budget to match the 2019 Plan Update



PRESENTATIONS THIS MONTH:

- July 13 – Oyster Gardening Workshop – Brevard Zoo and Matt Badolato
July 14 – Plan Progress Presentation at Unitarian Universalist Church of Brevard – Brandon
July 29 – Oyster Gardening Workshop – Brevard Zoo and Matt Badolato
July 31 – Indian River Lagoon Community Voices, Informed Choices (CIVIC) Forum- Anthony and Brandon
August 22 – Oyster Gardening Workshop – Brevard Zoo and Matt Badolato

WEBSITE AND SOCIAL MEDIA LINKS:

- New Outreach and Engagement Landing Page: <https://lagoonloyal.com/>
Website: <http://www.brevardfl.gov/SaveOurLagoon>
Facebook: <https://www.facebook.com/BrevardCountySaveOurLagoon>;
Instagram: <https://www.instagram.com/saveourlagoon/>
YouTube: <https://goo.gl/GBh6xU>

UPCOMING LAGOON SCIENCE FORUMS AND PUBLIC EVENTS:

- Brevard Zoo Oyster Gardening Workshop, 7/13, 7/29, & 8/22; Adopt-A-Mangrove 7/24; -
<https://restoreourshores.org/volunteer-we-need-you/>
Marine Resources Council Brown Bag Lunch: Horseshoe Crabs and Shoreline Nesting 8/6 -
<https://savetheirl.org/brown-bag-lunch/>
Marine Resources Council International Mangrove Day Celebration 7/20
<https://www.facebook.com/events/384898715453470/>

UPCOMING VOLUNTEER PARTICIPATION OPPORTUNITIES:

- Brevard Zoo – Youth Shoreline Planting, 7/20; Youth Mangrove Propagule Collection 8/3 -
<https://restoreourshores.org/volunteer-we-need-you/>
Keep Brevard Beautiful- Summer Series Cleanups, 7/13 & 7/27
Lagoon Friendly Lawns – contact Kaylyn Palmer of Keep Brevard Beautiful at 321-631-0501
Fish Kill Response Cleanup: contact Desiree Lesko of Keep Brevard Beautiful at 321-631-0501
Marine Resources Council Lagoon Watch, Mangrove, or Lagoon Literacy <https://savetheirl.org/volunteer/>

FUTURE TOPICS FOR SPECIAL PRESENTATIONS:

1. Recreational Fishing – Captains Frank Catino and Billy Rotne
2. Harvesting of Aquatic Weeds – Melbourne Tillman Water Control District, Patrick Air Force Base
3. Ongoing Research on Charismatic Critters of the Lagoon – Hubbs SeaWorld Research Institute
4. New Enhanced Lagoon Circulation Research – Florida Tech Research Initiative
5. Low Impact Development – Local examples
6. Indian River Lagoon Research News: TechCon, ShORE, and Harbor Branch Symposium Highlights
7. Completed and Ongoing Muck Research – Florida Tech Research Initiative
8. Coordinating Spoil Management with Florida Inland Navigation District
9. Water Technology Conference/Industry Day – Economic Development and Indian River Lagoon National Estuary Program
10. Re-use/Reclaimed Water – Nutrient Loading Impacts and Opportunities
11. Surface Water Remediation Technologies
12. Oyster histories in Brevard County - University of Central Florida
13. Project Monitoring Results
14. Package Plants

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

Month	State EDR 2019 Projection Straightlined *	County's 2019 Projection	Actuals 2019	State EDR 2018 Projection Straightlined *	County's Revised 2018 Projection	Actuals 2018	State EDR 2017 Projection Straightlined *	County's Original 2017 Projection	Actuals 2017
BOY	\$83,292,436	\$77,199,143	\$78,716,647	\$33,913,852	\$31,992,064	\$32,072,164	\$0	\$0	\$0
Oct	\$87,549,685	\$81,121,631	\$81,926,390	\$38,028,734	\$35,832,746	\$35,300,032	\$0	\$0	\$0
Nov	\$91,806,934	\$85,044,119	\$85,225,970	\$42,143,616	\$39,593,327	\$38,647,632	\$0	\$0	\$0
Dec	\$96,064,183	\$88,966,607	\$90,640,944	\$46,258,498	\$43,353,909	\$43,870,270	\$0	\$0	\$0
Jan	\$100,321,432	\$92,889,095	\$93,950,291	\$50,373,380	\$47,114,490	\$47,150,412	\$3,768,206	\$2,777,778	\$3,059,013
Feb	\$104,578,681	\$96,811,583	\$97,296,142	\$54,488,262	\$50,875,072	\$50,484,322	\$7,536,412	\$5,555,556	\$6,217,230
Mar	\$108,835,930	\$100,734,071	\$102,671,360	\$58,603,144	\$54,635,653	\$55,782,660	\$11,304,617	\$8,333,334	\$10,686,395
Apr	\$113,093,179	\$104,656,559	\$106,219,161	\$62,718,026	\$58,396,235	\$59,191,675	\$15,072,823	\$11,111,112	\$13,941,510
May	\$117,350,428	\$108,579,047		\$66,832,908	\$62,156,817	\$62,444,639	\$18,841,029	\$13,888,890	\$17,177,137
Jun	\$121,607,677	\$112,501,535		\$70,947,790	\$65,917,398	\$67,409,450	\$22,609,235	\$16,666,668	\$21,754,009
Jul	\$125,864,926	\$116,424,023		\$75,062,672	\$69,677,980	\$70,776,206	\$26,377,441	\$19,444,446	\$24,898,729
Aug	\$130,122,175	\$120,346,511		\$79,177,554	\$73,438,561	\$74,021,947	\$30,145,647	\$22,222,224	\$27,890,034
Sept	\$134,379,424	\$124,268,999		\$83,292,436	\$77,199,143	\$78,716,647	\$33,913,852	\$25,500,000	\$32,072,164



Save Our Indian River Lagoon
Citizen Oversight Committee
July 19, 2019

Agenda Item:

VIII. a. New Business

Title:

Request for Additional Funding for the City of Palm Bay North Regional Water Reclamation Facility Nutrient Removal Project

Requested Action:

Motion to recommend to the Brevard County Commission approval of additional funding for the Palm Bay North Regional Reclamation Facility Nutrient Removal Project

Summary Explanation and Background:

Upgrade of the Palm Bay North Regional Water Reclamation Facility Nutrient Removal Project was included in the original 2016 Save Our Indian River Lagoon Project Plan. At that time, the best available cost estimate was a conceptual cost of \$1,400,000 to reduce nitrogen concentrations in the reclaimed water from 29.4 mg/L to 7.5 mg/L. The load reduction benefit to the lagoon, after factoring in soil attenuation, was estimated in 2016 to be 17,790 pounds of nitrogen per year. The process improvements would also reduce phosphorus, but there is no reliable tool to estimate the amount of phosphorus load reduction to the lagoon.

The City of Palm Bay has moved forward with the project -- completing the design, securing state and local approvals, and they anticipate receipt of state permits by October. Some design changes were made to extend the operating lifespan of the proposed improvements. Per the attached letter request, the updated project cost estimate is \$3,634,900. According to the attached letter request from the City, this cost increase is due mostly to changes in the market but partially to the design improvements.

The 2019 update to the Save Our Indian River Lagoon Project Plan updated the load reduction estimate for this project from 17,790 to 20,240 pounds of nitrogen per year and estimated the phosphorus load reduction benefit as 102 pounds. At a revised cost of \$3,634,900 and a revised benefit of 20,240 pounds, the project is still very cost effective. At a revised cost of \$180 per pound of nitrogen reduction, the project is still the most cost-effective reclaimed water project in the plan and more cost effective than septic upgrades, septic to sewer projects, muck removal or living shoreline projects. If fully funded, the project can go to bid this fall. If not, the project will be delayed indefinitely while the City pursues other grants or loans and ranks it against their other critical needs.



www.palmbayflorida.org

July 3, 2019

Virginia Barker
Brevard County Natural Resources Management Director
2725 Judge Fran Jamieson Way
Melbourne, FL 32940

Re: Request for Additional Funding for Agreement Number: SOIRL 18 17
City of Palm Bay North Regional Water Reclamation Facility Nutrient Removal Project

Dear Ms. Barker:

Please accept this letter as our formal request for additional funding from the Save Our Indian River Lagoon Program for the Nutrient Removal project at the North Regional Water Reclamation Facility. The Utilities Department's Engineer of Record, Wade Trim Inc., has provided a detailed justification outlining the circumstances related to this request. If accepted and approved, the total project funding will increase from \$1,400,000 to \$3,634,900.

The drastic increase in the funding request can be attributed to the rapidly rising cost of construction since the project was first considered and scoped for funding in 2015. Many materials of construction have sharply spiked in price due to the demand in the market and due to the tariffs and trade restrictions implemented by the US Government in the past year.

Permitting for the project is nearly complete. The Florida Department of Environmental Protection has commented on our design and intends to incorporate the construction permit into the renewal of our Wastewater Treatment Plant Operating Permit (FLA103357). We anticipate our Operating Permit to be renewed by October 2019. If we acquire the additional funding from the Save Our Indian River Lagoon program, we can place the project for bid as soon as the permit is issued.

If we are unable to acquire the additional funding through the Save Our Indian River Lagoon program, we will evaluate the implementation of the project for Fiscal Year 2021 (October 2020 to September 2021) due to current budgetary constraints and critical needs. The project would be incorporated into our Capital Improvement Program and ranked based criteria such as imminent failure, critical need, compliance, and cost.

If we can justify the need for the project in Fiscal Year 2021 and still address the major rehabilitation needs at each wastewater treatment plant, then we will pursue Clean Water State Revolving Fund financing. We would submit the Request for Inclusion as early as possible and then work to submit the State-required Facility Plan and Readiness to Proceed documents by the end of this year so that we can be considered for funding at the State's April 2020 or August 2020 hearing. If we were to receive the full commitment from the State Revolving Fund and can carry the debt service, we would place the project for bid and have a notice to proceed ready for a contractor as early as October 2020.

Thank you for your consideration in this matter. We look forward to proceeding with the construction of the project and implementing the changes necessary to greatly reduce the excessive quantities of Nitrogen and Phosphorus in our reclaimed water. Should you have any questions or comments, please do not hesitate to contact me at 321-952-3410.

Sincerely,

s/ Christopher A. Little, P E
Utilities Director

cc: Brandon Smith, Environmental Specialist, Brevard County
Lisa Morrell, City Manager, City of Palm Bay
Suzanne Sherman, Deputy City Manager, City of Palm Bay
Bob Hinkel, Assistant Utilities Director, City of Palm Bay

**Wade Trim, Inc.**

3790 Dixie Highway NE, Suite D • Palm Bay, FL 32905
321.728.3389 • www.wadetrim.com

July 1, 2019

Christopher A. Little, P E
Utilities Director
City of Palm Bay Utilities Department
250 Osmosis Drive SE
Palm Bay, FL 32909

Re: Request for Additional Funding
North Regional Water Reclamation Facility Nutrient Removal Project
Save Our Indian River Lagoon Project Cost Sharing Agreement SOIRL 18 17

Dear Mr. Little:

Wade Trim completed the design for the subject project and submitted the Construction Documents (Plans and Technical Specifications) to the City of Palm Bay Utilities Department on March 7, 2019. By the completion of the final design, the construction costs for the project increased substantially, thereby delaying the overall project schedule.

The conceptual construction costs for this project were originally estimated to equal \$1.2M in early 2015; this estimated construction cost was used by the City as a basis for the funding request with Brevard County's Save Our Indian River Lagoon (SOIRL) program. The Engineer's Notice to Proceed for the project was received by Wade Trim on May 4, 2018. In July 2018, Wade Trim completed the Project Basis of Design Report which included an estimated construction cost of \$2.3M. Based on the completion of final design in March 2019, the engineer's estimated construction cost was \$3.4M which included a 10% contingency.

The increase in the estimated construction cost is associated with several contributing factors. First, the treatment process structure for the proposed improvements was modified from utilizing an existing steel ring tank to replacing the existing steel ring tank with two (2) new concrete basins. This decision was given by the City's former senior staff at the project kickoff meeting held in May 2018. Steel ring tanks were commonly used for construction of wastewater facilities back in the 1970s by developers because they were quick to assemble and had a relatively low capital cost. Unfortunately, these tanks are known to have a short to mid-range service life and generally have a high maintenance cost. While concrete basins are more expensive to construct, concrete basins have a longer service life and relatively low maintenance costs in comparison. Concrete construction costs have increased at double digit annual rates since 2017.

Finally, the costs of all goods used in construction have seen the largest increases in the past seven (7) years. These costs have been further impacted by the ongoing U.S.-imposed steel and aluminum tariffs on imports from Canada, Mexico, and the European Union. The threat of tariffs on material prices and demand will likely increase more as new trade restrictions are set in place.

These factors have an impact on the costs of all construction materials such as steel, concrete, copper, brass, lumber, and diesel fuel.

This increased project cost has resulted in delaying the construction phase as the City does not have the available funding to proceed with construction. This information has been shared with the Director of Brevard County's Natural Resources Management Department with an informal inquiry as to whether the City can request additional grant funding for the project to the SOIRL Committee later this year (4th quarter 2019). Because of the lack of funding, the City must delay bidding of the project until Fall 2020 at which time additional grant funding may be available for constructing the project.

Summary of Original Project Costs

The City received an original grant in the amount of \$1,400,000 which was eligible for the Lagoon Tax Cost Share. The Project Cost-Share amounts are shown in **Table 1** below.

Table 1. Palm Bay Utilities Department Project Cost-Share (2018)

Task Number	Task Description	Task Cost	Grant 1 (319)	Grant 2 (Florida Department of Environmental Protection)	Grant 3 (St. Johns Water Management District)	Eligible Lagoon Tax Cost Share, Adjusted	Local Match
1	Permitting	\$20,500	\$0	\$0	\$0	\$20,500	\$0
2	Engineering	\$179,500	\$0	\$0	\$0	\$179,500	\$0
3	Construction	\$1,200,000	\$0	\$0	\$0	\$1,200,000	\$0
	Totals	\$1,400,000	\$0	\$0	\$0	\$1,400,000	\$0

Additional Engineering and Construction Costs

As a result of the design changes in the project, the Utilities Department has incurred increased costs in design which have resulted in two change orders given to Wade Trim to date. Table 2 below summarizes both the design change orders given to date and the anticipated change in construction costs.

Table 2. Additional Design and Construction Costs

Task Number	Task Description	Original Task Cost	Palm Bay Utility Department Task Amendment Costs	Estimated Construction Costs Increase	Total Revised Task Cost
1	Permitting	\$20,500	\$8,600		\$29,100
2	Engineering	\$179,500	\$38,300		\$217,800
3	Estimated Construction Costs	\$1,200,000		\$2,188,000	\$3,388,000¹
	TOTAL COST SUMMARY	\$1,400,000	\$44,900	\$2,188,000	\$3,634,900

¹Engineer's estimated construction cost based on March 2019 Final Design submittal to Palm Bay.

In summary, the total project is estimated to cost approximately \$3.6M which includes a 10 percent contingency. Based on the revised project construction and engineering costs, the City Utilities Department estimates an additional \$2.2M in project funding will be required to complete the project.

Should you require any additional information, please feel free to contact me.

Respectfully,

s/ Daniel G. Burden, Ph.D., P E
Senior Project Manager

DGB:dgb
PBU2127.01L

cc: Tom Brzezinski, P E
Oscar Duarte, P E



Save Our Indian River Lagoon
Citizen Oversight Committee
July 19, 2019

Agenda Item:

VIII. b. New Business

Title:

Schedule for the Save Our Indian River Lagoon Project Plan 2020 Update

Requested Action:

Motion to accept the proposed schedule for developing the Save Our Indian River Lagoon Project Plan 2020 Update

Summary Explanation and Background:

Each year, the Save Our Indian River Lagoon Project Plan is updated. Annual updates allow new information, project opportunities and technologies to be considered and incorporated into the plan.

The process begins by examining updated information on project costs and benefits and determining the cost per pound of nitrogen pollution load reduction that will be offered to recruit new project proposals. This decision is posted on the Save Our Lagoon website and shared with the community through a stakeholder workshop.

New project proposals are submitted to county staff who review them for completeness and work with the applicants to resolve any issues. Summary tables are prepared and provided to the Citizen Oversight Committee and published on the website. The proposed schedule provides 3 weeks for county staff to review proposals, resolve questions and prepare summary tables and then 3 weeks for the Committee to review the proposals.

Once the Committee makes recommendations on which proposed projects to include, the draft Plan Update is completed for the Committee to review. The proposed schedule provides 4 weeks for county staff and its consultant to incorporate the Committee's recommendations into the 2020 draft Plan Update and balance the 10-year costs with 10-year revenue projections. This draft update is posted on the website and brought to the Committee for review. After Committee changes are incorporated, the Committee's recommended 2020 Plan Update must be posted and available for public review for a minimum of 15 days prior to the plan's consideration by the County Commission.



Save Our Indian River Lagoon
 Citizen Oversight Committee
 July 19, 2019

Agenda Item:

VIII. c. New Business

Title:

Proposed cost share eligibility by project type for projects proposed for the 2020 Save Our Indian River Lagoon Project Plan Update

Requested Action:

Motion to recommend offering the proposed cost shares for recruiting project proposals for the 2020 Save Our Indian River Lagoon Project Plan Update

Summary Explanation and Background:

Draft cost shares are based on the average cost of each project type approved in the Save Our Indian River Lagoon Project Plan, as amended, and the Board of County Commissioner's approved rate of up to \$1500 per pound of nitrogen load reduction for septic to sewer projects.

Last year, the Commission asked the Citizen Oversight Committee to consider redirecting \$100 million of funds proposed for environmental muck dredging to reducing the impact of human waste on lagoon water quality. After considering the County Commission's request, the Committee proposed funding all septic to sewer conversion areas that could be completed for less than or equal to \$1500 per pound of nitrogen load reduction for septic to sewer projects.

Project Category	Project Type	Estimated Total Project Cost	Nitrogen Reductions (lbs/yr)	Average Cost per Pound per Year of TN
Reduce	Treatment Upgrades for Reclaimed Water	\$24,071,500	70,064	\$344
Reduce	Sewer Lateral Rehabilitation	\$1,040,000	1,628	\$639
Reduce	Rapid Infiltration Basin/Sprayfield Upgrades	\$3,520,767	48,562	\$73
Reduce	Septic System Removal by Sewer Extension	\$80,674,749	74,930	\$1500 \$1,077
Reduce	Septic System Removal by Sewer Connection	\$11,370,000	21,445	\$500
Reduce	Septic System Upgrades	\$21,701,854	25,248	\$860
Reduce	Stormwater Projects	\$40,045,632	315,490	\$127
Remove	Muck Removal	\$106,345,686	219,460	\$485
Remove	Treatment of Muck Interstitial Water	\$43,887,885	430,245	\$102
Restore	Oyster Bars	\$10,108,723	25,302	\$400
Restore	Planted Shorelines	\$95,255	397	\$240
Total	Total	\$371,686,404	1,263,194	\$294 (average)



Save Our Indian River Lagoon
Citizen Oversight Committee
July 19, 2019

Agenda Item:

VIII. d. New Business

Title:

Proposed Grass Clipping Outreach Proposal from the Marine Resources Council

Requested Action:

Motion to recommend awarding \$15,000 to fund the grass clipping social marketing research proposed by the Marine Resources Council to develop messaging and collateral for a grass clipping campaign.

Summary Explanation and Background:

Last year, the Marine Resources Council coordinated initial social marketing research in Brevard, Volusia and Martin Counties. These prior efforts included conducting field work and surveys to collect baseline information on current practices regarding grass clippings. The surveys also collected private and commercial knowledge and opinions on the link between management of grass clippings and lagoon water quality.

The attached proposal offers to further a multi-county outreach campaign effort along the lagoon to use the data collected last year to develop messaging and collateral pieces specific to our lagoon communities for reducing the negative impacts of grass clipping on the lagoon.



Marine Resources Council of East Florida, Inc.
3275 Dixie Highway, N.E.
Palm Bay, FL 32905

Brevard County Be Floridian Grass Clippings Campaign
Scope of Work
July 12, 2019

Marine Resources Council (MRC) provides this scope of work to conduct social marketing research focused on grass clippings left in the street as a polluting behavior. MRC will continue to work with UpperCase, Inc. (UC) to develop the messaging and collateral pieces for the grass clippings campaign.

Tasks:

1) Grass Clipping Campaign Material Development & Testing

MRC will continue to work with Uppercase, Inc. (UC) to create the media and materials for the new grass clippings campaign. UC will finalize up to 3 logos/campaign brands and 3 creative concepts (billboard, social ad, other outreach) to take to the market for pretesting. UC and MRC will conduct two (2) focus groups in Brevard County. Our team will develop the questions and group protocols, print and prepare needed materials, conduct the sessions, and deliver summary report. MRC will recruit 20 participants total (10 in each group) representing homeowners and landscape professionals and assist with focus group meetings.

Alternative group scenarios may be explored including intercept interviews at homeowner's association meetings, farmer's markets or other community events. Incentives will be provided to participants to encourage participation. Focus group participants will be given \$40 - \$50 for their time, intercept interview participants will be given \$5 - \$10 gift cards for gas, groceries or fast food chains.

- 2) Social marketing analysis & recommendations – Based on the creative pretesting findings, the UC design team will finalize a logo and slogan for a regional grass clippings campaign. These concepts will be the backbone of the campaign, will be research based and come with an explanation of why they will be the most effective. Our goal is to create a cohesive campaign for all three counties. However, if the research suggests different motivators for different areas, we will amend the campaign materials as needed. In addition, UC will provide a “campaign reader” such as a brochure, billboard, social media ads, magazine, newspaper, door hanger, pledge, etc.

Deliverables:

- Question Protocol
- Sign in sheets of participants
- Summary report of findings and final recommendations report

Total Cost: \$15,000

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Resources Council

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