Save Our Indian River Lagoon Funding Application Short Form:

Unincorporated Countywide Vegetation Harvesting 2

Project Details

Entity: Brevard County Stormwater Management

Project Type: Aquatic Vegetation Harvesting

Sub Lagoon: All

Location: Stormwater pond near Sykes Creek

Project Description: Brevard County seeks to expand its aquatic vegetation harvesting program through the acquisition of an amphibious excavator with a specialized aquatic vegetation rake, plus a second work boat with an attachment designed to harvest water lettuce and water hyacinth. Approimately $465,000 of this request is pursuant to the aforementioned acquisitions. The remaining funds will be used for sediment lab analysis and on-site monitoring equipment for a pilot nanobubble generator project at a brackish stormwater pond adjacent to Sykes Creek in order to determine quantify any resulting Total Nitrogen benefits. This request will allow the initial removal of 2,750,000 pounds of excess vegetation from stormwater management sites throughout Brevard situated within the Indian River Lagoon watershed.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 4,147

Total Phosphorus Reduction (lbs/year): 593

Costs

Total Project Cost: $472,758

Estimated Cost per Pound Total Nitrogen Removed: $114

Estimated Cost per Pound Total Phosphorus Removed: $797

Eligible Tax Funding Cost Share: $472,758

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: For decades, management of such vegetation relied chiefly on aquatic herbicides, resulting in downstream release of sequestered nutrients and organic matter.

Notes:

Save Our Indian River Lagoon Funding Application Short Form:

Restoration of native clam communities in the Indian River Lagoon for improved water quality - Titusville

Project Details

Entity: Indian River Lagoon Clam Restoration Project

Project Type: Oyster/Clam Restoration

Sub Lagoon: North Indian River Lagoon

Location: 28.519299° -80.737211°

Project Description: The Indian River Lagoon (IRL) is in critical condition and many resource management agencies and non-profits are supporting a myriad of projects and programs to find solutions to our water quality crisis. From muck dredging to septic to sewer conversion to restoring oysters and mangroves, these projects are addressing the fundamental problem of excess nitrogen and phosphorus, however the often underestimated clam has received relatively little attention. Clams have been a significant ecological entity in the Indian River Lagoon for centuries, however, due to their life cycle and ecology, they are rarely seen unless one is looking in the sediment to find them. An estimated 9.2 billion clams were removed from the Indian River Lagoon during the 80's and 90's when little regulation was in place on open harvest of wild clams. In the early 2000's clam landings were at an all time low and the population teetered on collapse just prior to the super algal blooms of 2011 and beyond. Today, the Indian River lagoon Clam Restoration Project, a consortium of scientists, sportsmen, private businesses and conservationist are working to bring clams back in numbers that can aid in attenuating the algal blooms that keep our seagrasses from re-establishing. This group has already successfully repatriated 28 million adult clams and 13 million juvenile clams to IRL waters over the last five years. The effort invested in finding superior genetic resiliency in native hard clam varieties and the lessons learned by experimentation in out-planting these clams has provided this group with the tools and knowledge to maximize the effectiveness of restoration dollars. Similar to oyster restoration projects, this work leverages the natural life cycle of clams and their reproductive capacity to exponentially grow the effectiveness of their biofiltration activities.

This project proposes to use new clam restoration techniques that have been tested over the 20 months (Osborne et al. 2024) and have proven effective and significantly lower the cost of clam restoration activities. Using a drone, we will distribute 2-3 mm clam seed at densities needed to achieve 1 million clams per acre over sandy bottom. This technique uses no netting or other protective gear and thus reduces environmental risk while also reducing labor costs for maintaining protective gear. Overall, this technique allows us to restore clams for less than half the cost of our previous work. Seed clams will be distributed on approved grounds and monitored for the duration of the project period to quantify the survival and determine mass of

Nitrogen and Phosphorus removed from the water column. Additionally, this approach helps build ecosystem function by providing much needed energy to the lower trophic levels that in turn support healthy fisheries.

This project will repatriate 24 million clams to the Indian River Lagoon (IRL) adjacent to Titusville (Project Zone A) in the Northern IRL with a target survival of 8 million adult/reproductively capable clams. After one year these clams will be reproductively viable with spawning potential in the 100's of millions of larvae that can continue to colonize the IRL naturally. Because the portal does not allow for calculated costs for clams (oysters only) the relevent statistics are included lbs of Nitrogen removed = 1584; cost per lb of Nitrogen = $172; lbs of Phosphorus removed = 528; cost per lb of Phosphorus = $515.

Education and Outreach: We utilize a diversity of outreach strategies to educate and engage the public about the lagoon and our specific efforts to help its recovery. Through informational spots on television via Blair Wiggins Outdoors, local radio (Jim Ross Catch a Memory show), and routine lectures/presentations in public forums, scientific meetings and K-12 schools, we reached over 300,000 members of the pubic. Public outreach through social media outlets has become the premier avenue for increasing awareness about relevant Lagoon issues. Project partners, Coastal Conservation Association, University of Florida Whitney Laboratory, Lagoon Solutions, New Swell Mangrove and Shoreline Restoration, Florida Oceanographic Society, and several others leveraged social media platforms to reach over 500,000 people last year concerning clam restoration. Outreach through tv and print based news media has also been impactful with numbers of viewers estimated to be in excess of 10 million last year. We will continue these efforts in the years to come as a part of our project performance.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,584

Total Phosphorus Reduction (lbs/year): 528

Costs

Total Project Cost: $272,000

Estimated Cost per Pound Total Nitrogen Removed: $172

Estimated Cost per Pound Total Phosphorus Removed: $515

Eligible Tax Funding Cost Share: $272,000

Project Funding

Is Local Match in Adopted Budget:

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): A $2,000,000 grant has been secured to start this project and offset hatchery and labor costs.

Additional Information

Other Indian River Lagoon Benefits: Seagrasses and clams exhibit a mutually beneficial relationship when grown together. Clams provide nutrients directly to the rooting zone of seagrasses and also alleviate sulfide stress from anaerobic sediments. Seagrass health and performance increases with presence of clams.

Juvenile clams also benefit the complex food web of the IRL estuary. While attrition is natural in shellfish beds, we see benefit from this predation by crabs and fish which then supplies higher trophic levels with a food source ultimately providing lift to the entire ecosystem.

Beyond Nitrogen and Phosphorus removal, the ability to reduce turbidity in the water column is tremendously helpful to catalyze seagrass return. Further, the constant removal of algal biomass can further reduce available nutrients in these areas as filtration process couples algal particles with the sediment, effectively slowing the nutrient recycling process. Five million clams filter fifty million gallons of water per day!

Projecting this project out five years suggests 128 million clams sequestering 115,200 kilograms of Nitrogen and 3,840 kilograms of P while filtering over 1 trillion gallons of water per day!

Notes:

Save Our Indian River Lagoon Funding Application Short Form:

Restoration of native clam communities in the Indian River Lagoon for improved water quality - Hog Point Cove

Project Details

Entity: Indian River Lagoon Clam Restoration Project

Project Type: Oyster/Clam Restoration

Sub Lagoon: Central Indian River Lagoon

Location: 27.997808° -80.527443°

Project Description: The Indian River Lagoon (IRL) is in critical condition and many resource management agencies and non-profits are supporting a myriad of projects and programs to find solutions to our water quality crisis. From muck dredging to septic to sewer conversion to restoring oysters and mangroves, these projects are addressing the fundamental problem of excess nitrogen and phosphorus, however the often underestimated clam has received relatively little attention. Clams have been a significant ecological entity in the Indian River Lagoon for centuries, however, due to their life cycle and ecology, they are rarely seen unless one is looking in the sediment to find them. An estimated 9.2 billion clams were removed from the Indian River Lagoon during the 80's and 90's when little regulation was in place on open harvest of wild clams. In the early 2000's clam landings were at an all time low and the population teetered on collapse just prior to the super algal blooms of 2011 and beyond. Today, the Indian River lagoon Clam Restoration Project, a consortium of scientists, sportsmen, private businesses and conservationist are working to bring clams back in numbers that can aid in attenuating the algal blooms that keep our seagrasses from re-establishing. This group has already successfully repatriated 28 million adult clams and 13 million juvenile clams to IRL waters over the last five years. The effort invested in finding superior genetic resiliency in native hard clam varieties and the lessons learned by experimentation in out-planting these clams has provided this group with the tools and knowledge to maximize the effectiveness of restoration dollars. Similar to oyster restoration projects, this work leverages the natural life cycle of clams and their reproductive capacity to exponentially grow the effectiveness of their biofiltration activities.

This project proposes to use new clam restoration techniques that have been tested over the 20 months (Osborne et al. 2024) and have proven effective and significantly lower the cost of clam restoration activities. Using a drone, we will distribute 2-3 mm clam seed at densities needed to achieve 1 million clams per acre over sandy bottom. This technique uses no netting or other protective gear and thus reduces environmental risk while also reducing labor costs for maintaining protective gear. Overall, this technique allows us to restore clams for less than half the cost of our previous work. Seed clams will be distributed on approved grounds and monitored for the duration of the project period to quantify the survival and determine mass of

Nitrogen and Phosphorus removed from the water column. Additionally, this approach helps build ecosystem function by providing much needed energy to the lower trophic levels that in turn support healthy fisheries.

This project will repatriate 15 million clams to the Indian River Lagoon (IRL) in Hog's Point Cove in the Central IRL with a target survival of 5 million adult/reproductively capable clams. After one year these clams will be reproductively viable with spawning potential in the 100's of millions of larvae that can continue to colonize the IRL naturally. Because the portal does not allow entry of calculated numbers (clams are different from oysters) they are provided here lbs of Nitrogen removed = 990; cost per lb of Nitrogen = $172; lbs of Phosphorus removed = 330; cost per lb of Phosphorus = $515.

Education and Outreach: We utilize a diversity of outreach strategies to educate and engage the public about the lagoon and our specific efforts to help its recovery. Through informational spots on television via Blair Wiggins Outdoors, local radio (Jim Ross Catch a Memory show), and routine lectures/ presentations in public forums, scientific meetings and K-12 schools, we reached over 300,000 members of the pubic. Public outreach through social media outlets has become the premier avenue for increasing awareness about relevant Lagoon issues. Project partners, Coastal Conservation Association, University of Florida Whitney Laboratory, Lagoon Solutions, New Swell Mangrove and Shoreline Restoration, Florida Oceanographic Society, and several others leveraged social media platforms to reach over 500,000 people last year concerning clam restoration. Outreach through tv and print based news media has also been impactful with numbers of viewers estimated to be in excess of 10 million last year. We will continue these efforts in the years to come as a part of our project performance.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 990

Total Phosphorus Reduction (lbs/year): 330

Costs

Total Project Cost: $170,000

Estimated Cost per Pound Total Nitrogen Removed: $172

Estimated Cost per Pound Total Phosphorus Removed: $515

Eligible Tax Funding Cost Share: $170,000

Project Funding

Is Local Match in Adopted Budget:

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): A $2,000,000 grant has been secured to start this project and offset hatchery and labor costs.

Additional Information

Other Indian River Lagoon Benefits: Seagrasses and clams exhibit a mutually beneficial relationship when grown together. Clams provide nutrients directly to the rooting zone of seagrasses and also alleviate sulfide stress from anaerobic sediments. Seagrass health and performance increases with presence of clams.

Juvenile clams also benefit the complex food web of the IRL estuary. While attrition is natural in shellfish beds, we see benefit from this predation by crabs and fish which then supplies higher trophic levels with a food source ultimately providing lift to the entire ecosystem.

Beyond Nitrogen and Phosphorus removal, the ability to reduce turbidity in the water column is tremendously helpful to catalyze seagrass return. Further, the constant removal of algal biomass can further reduce available nutrients in these areas as filtration process couples algal particles with the sediment, effectively slowing the nutrient recycling process. Five million clams filter fifty million gallons of water per day!

Notes:

Save Our Indian River Lagoon Funding Application Short Form:

Restoration of native clam communities in the Indian River Lagoon for improved water quality - Grant Island

Project Details

Entity: Indian River Lagoon Clam Restoration Project

Project Type: Oyster/Clam Restoration

Sub Lagoon: Central Indian River Lagoon

Location: 27.925064° -80.506793° (on state aquaculture lease owned by Blair Wiggins)

Project Description: The Indian River Lagoon (IRL) is in critical condition and many resource management agencies and non-profits are supporting a myriad of projects and programs to find solutions to our water quality crisis. From muck dredging to septic to sewer conversion to restoring oysters and mangroves, these projects are addressing the fundamental problem of excess nitrogen and phosphorus, however the often underestimated clam has received relatively little attention. Clams have been a significant ecological entity in the Indian River Lagoon for centuries, however, due to their life cycle and ecology, they are rarely seen unless one is looking in the sediment to find them. An estimated 9.2 billion clams were removed from the IRL during the 80's and 90's when little regulation was in place on open harvest of wild clams. In the early 2000's clam landings were at an all time low and the population teetered on collapse just prior to the super algal blooms of 2011 and beyond. Today, the Indian River lagoon Clam Restoration Project, a consortium of scientists, sportsmen, private businesses and conservationist are working to bring clams back in numbers that can aid in attenuating the algal blooms that keep our seagrasses from re-establishing. This group has already successfully repatriated 28 million adult clams and 13 million juvenile clams to IRL waters over the last five years. The effort invested in finding superior genetic resiliency in native hard clam varieties and the lessons learned by experimentation in out-planting these clams has provided this group with the tools and knowledge to maximize the effectiveness of restoration dollars. Similar to oyster restoration projects, this work leverages the natural life cycle of clams and their reproductive capacity to exponentially grow the effectiveness of their biofiltration activities.

This project proposes to use new clam restoration techniques that have been tested over the 20 months (Osborne et al. 2024) and have proven effective and significantly lower the cost of clam restoration activities. Using a drone, we will distribute 2-3 mm clam seed at densities needed to achieve 1 million clams per acre over sandy bottom. This technique uses no netting or other protective gear and thus reduces environmental risk while also reducing labor costs for maintaining protective gear. Overall, this technique allows us to restore clams for less than half the cost of our previous work. Seed clams will be distributed on approved grounds and monitored for the duration of the project period to quantify the survival and determine mass of Nitrogen and Phosphorus removed from the water column. Additionally, this approach helps

build ecosystem function by providing much needed energy to the lower trophic levels that in turn support healthy fisheries.

This project will repatriate 15 million clams to the Indian River Lagoon (IRL) adjacent to Grant Island in the Central IRL with a target survival of 5 million adult/reproductively capable clams. After one year these clams will be reproductively viable with spawning potential in the 100's of millions of larvae that can continue to colonize the IRL naturally. Because the online submission does not allow for entering the specific N and P data (self calculated for oysters only), it is included here lbs of Nitrogen removed = 990; cost per lb of Nitrogen =$172; lbs of Phosphorus removed = 330 cost per lb of Phosphorus = $515.

Education and Outreach: We utilize a diversity of outreach strategies to educate and engage the public about the lagoon and our specific efforts to help its recovery. Through informational spots on television via Blair Wiggins Outdoors, local radio (Jim Ross Catch a Memory show), and routine lectures/ presentations in public forums, scientific meetings and K-12 schools, we reached over 300,000 members of the pubic. Public outreach through social media outlets has become the premier avenue for increasing awareness about relevant Lagoon issues. Project partners, Coastal Conservation Association, University of Florida Whitney Laboratory, Lagoon Solutions, New Swell Mangrove and Shoreline Restoration, Florida Oceanographic Society, and several others leveraged social media platforms to reach over 700,000 people last year concerning clam restoration. Outreach through tv and print based news media has also been impactful with numbers of viewers estimated to be in excess of 10 million last year. We will continue these efforts in the years to come as a part of our project performance.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 990

Total Phosphorus Reduction (lbs/year): 330

Costs

Total Project Cost: $170,000

Estimated Cost per Pound Total Nitrogen Removed: $172

Estimated Cost per Pound Total Phosphorus Removed: $515

Eligible Tax Funding Cost Share: $170,000

Project Funding

Is Local Match in Adopted Budget:

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): A $2,000,000 grant has been secured to start this project and offset hatchery and labor costs.

Additional Information

Other Indian River Lagoon Benefits: Seagrasses and clams exhibit a mutually beneficial relationship when grown together. Clams provide nutrients directly to the rooting zone of seagrasses and also alleviate sulfide stress from anaerobic sediments. Seagrass health and performance increases with presence of clams.

Juvenile clams also benefit the complex food web of the IRL estuary. While attrition is natural in shellfish beds, we see benefit from this predation by crabs and fish which then supplies higher trophic levels with a food source ultimately providing lift to the entire ecosystem.

Beyond Nitrogen and Phosphorus removal, the ability to reduce turbidity in the water column is tremendously helpful to catalyze seagrass return. Further, the constant removal of algal biomass can further reduce available nutrients in these areas as filtration process couples algal particles with the sediment, effectively slowing the nutrient recycling process. Five million clams filter fifty million gallons of water per day!

Notes:

Save Our Indian River Lagoon Funding Application Short Form:

Restoration of native clam communities in the Indian River Lagoon for improved water quality - Rockledge

Project Details

Entity: Indian River Lagoon Clam Restoration Project

Project Type: Oyster/Clam Restoration

Sub Lagoon: North Indian River Lagoon

Location: 28.231322° -80.671708° 6485 south US-1, Rockledge, FL 32955

Project Description: The Indian River Lagoon (IRL) is in critical condition and many resource management agencies and non-profits are supporting a myriad of projects and programs to find solutions to our water quality crisis. From muck dredging to septic to sewer conversion to restoring oysters and mangroves, these projects are addressing the fundamental problem of excess nitrogen and phosphorus, however the often underestimated clam has received relatively little attention. Clams have been a significant ecological entity in the Indian River Lagoon for centuries, however, due to their life cycle and ecology, they are rarely seen unless one is looking in the sediment to find them. An estimated 9.2 billion clams were removed from the IRL during the 80's and 90's when little regulation was in place on open harvest of wild clams. In the early 2000's clam landings were at an all time low and the population teetered on collapse just prior to the super algal blooms of 2011 and beyond. Today, the Indian River lagoon Clam Restoration Project, a consortium of scientists, sportsmen, private businesses and conservationist are working to bring clams back in numbers that can aid in attenuating the algal blooms that keep our seagrasses from re-establishing. This group has already successfully repatriated 28 million adult clams and 13 million juvenile clams to IRL waters over the last five years. The effort invested in finding superior genetic resiliency in native hard clam varieties and the lessons learned by experimentation in out-planting these clams has provided this group with the tools and knowledge to maximize the effectiveness of restoration dollars. Similar to oyster restoration projects, this work leverages the natural life cycle of clams and their reproductive capacity to exponentially grow the effectiveness of their biofiltration activities.

This project proposes to use new clam restoration techniques that have been tested over the 20 months (Osborne et al. 2024) and have proven effective and significantly lower the cost of clam restoration activities. Using a drone, we will distribute 2-3mm clam seed at densities needed to achieve 1 million clams per acre over sandy bottom. This technique uses no netting or other protective gear and thus reduces environmental risk while also reducing labor costs for maintaining protective gear. Overall, this technique allows us to restore clams for less than half the cost of our previous work. Seed clams will be distributed on approved grounds and monitored for the duration of the project period to quantify the survival and determine mass of N and P removed from the water column. Additionally, this approach helps build ecosystem

function by providing much needed energy to the lower trophic levels that in turn support healthy fisheries.

This project will repatriate 9 mil clams to the Indian River Lagoon (IRL) in the Rockledge area (Project zone B) in the Northern IRL with a target survival of 3 mil adult/ reproductively capable clams. After one year these clams will be reproductively viable with spawning potential in the 100's of millions of larvae that can continue to colonize the IRL naturally. Because the portal does not allow for calculated costs for clams (oysters only) the relevant statistics are included lbs of Nitrogen removed = 594; cost per lb of Nitrogen = $172; lbs of Phosphorus removed = 198, cost per lb of Phosphorus = $515.

Education and Outreach: We utilize a diversity of outreach strategies to educate and engage the public about the lagoon and our specific efforts to help its recovery. Through informational spots on television via Blair Wiggins Outdoors, local radio (Jim Ross Catch a Memory show), and routine lectures/ presentations in public forums, scientific meetings and K-12 schools, we reached over 300,000 members of the pubic. Public outreach through social media outlets has become the premier avenue for increasing awareness about relevant Lagoon issues. Project partners, Coastal Conservation Association, University of Florida Whitney Laboratory, Lagoon Solutions, New Swell Mangrove and Shoreline Restoration, Florida Oceanographic Society, and several others leveraged social media platforms to reach over 500,000 people last year concerning clam restoration. Outreach through tv and print based news media has also been impactful with numbers of viewers estimated to be in excess of 10 million last year. We will continue these efforts in the years to come as a part of our project performance.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 594

Total Phosphorus Reduction (lbs/year): 198

Costs

Total Project Cost: $102,000

Estimated Cost per Pound Total Nitrogen Removed: $172

Estimated Cost per Pound Total Phosphorus Removed: $515

Eligible Tax Funding Cost Share: $102,000

Project Funding

Is Local Match in Adopted Budget:

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): A $2,000,000 grant has been secured to start this project and offset hatchery and labor costs.

Additional Information

Other Indian River Lagoon Benefits: Seagrasses and clams exhibit a mutually beneficial relationship when grown together. Clams provide nutrients directly to the rooting zone of seagrasses and also alleviate sulfide stress from anaerobic sediments. Seagrass health and performance increases with presence of clams.

Juvenile clams also benefit the complex food web of the IRL estuary. While attrition is natural in shellfish beds, we see benefit from this predation by crabs and fish which then supplies higher trophic levels with a food source ultimately providing lift to the entire ecosystem.

Beyond Nitrogen and Phosphorus removal, the ability to reduce turbidity in the water column is tremendously helpful to catalyze seagrass return. Further, the constant removal of algal biomass can further reduce available nutrients in these areas as filtration process couples algal particles with the sediment, effectively slowing the nutrient recycling process. Three million clams filter thirty million gallons of water per day!

Five year growth of clam population suggest after 5 years there could be 48 million clams, sequestering 4,320 lbs of Nitrogen and 1,440 lbs of Phosphorus all while filtering 480 million gallons of water!

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Coleman Pond Circulator**

Project Details

Entity: City of Titusville

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28.630326; -80.826648

Project Description: Installation of a pond circulator device in conjunction with already installed floating wetland islands. This project will install a pond circulator to increase the nutrient uptake by 10% as shown in Brevard County's pilot study.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 353

Total Phosphorus Reduction (lbs/year): 55

Costs

Total Project Cost: $126,021

Estimated Cost per Pound Total Nitrogen Removed: $357

Estimated Cost per Pound Total Phosphorus Removed: $2,291

Eligible Tax Funding Cost Share: $126,021

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:

Save Our Indian River Lagoon Funding Application Short Form:

Tennessee St Baffle Box

Project Details

Entity: City of Titusville

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28.629917, -80.827499; Tennessee St & Georgia Ave

Project Description: Installation of a second generation baffle box fitted with nutrient reducing biosorption filtration media at Tennessee St within the Chain of Lakes Basin. This baffle box will treat 673 acres of highly developed land prior to the water discharging into the Indian River Lagoon. This project will remove 1,442 lbs/year of total nitrogen and 191 lbs/year of total phosphorus.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,442

Total Phosphorus Reduction (lbs/year): 191

Costs

Total Project Cost: $535,000

Estimated Cost per Pound Total Nitrogen Removed: $371

Estimated Cost per Pound Total Phosphorus Removed: $2,801

Eligible Tax Funding Cost Share: $514,794

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:

Save Our Indian River Lagoon Funding Application Short Form: **Osprey Pond Circulator**

Project Details

Entity: City of Titusville

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28.622834; -0.814727

Project Description: Installation of a pond circulator device in conjunction with already installed floating wetland islands. This project will install a pond circulator to increase the nutrient uptake by 10% as shown in Brevard County's pilot study.

Education and Outreach:

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 242

Total Phosphorus Reduction (lbs/year): 35

Costs

Total Project Cost: $100,000

Estimated Cost per Pound Total Nitrogen Removed: $413

Estimated Cost per Pound Total Phosphorus Removed: $2,857

Eligible Tax Funding Cost Share: $86,394

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:

Save Our Indian River Lagoon Funding Application Short Form: **Brevard Zoo North IRL Oyster Project 4**

Project Details

Entity: Brevard Zoo

Project Type: Oyster/Clam Restoration

Sub Lagoon: North Indian River Lagoon

Location: Proposed sites, substitutions will be selected as needed: 28.156461454678997, -80.63919330062829; 28.15969103679429, -80.64063024338961; 28.106605990843182, -80.61494431751252; 28.101114473501195, -80.61239488218364

Project Description: Brevard Zoo intends to construct 43,560 square feet of oyster projects in the North Basin of the Indian River Lagoon. The designs will be site specific and will be approved by the County before construction begins. We will consult with the County to determine whether or not live oysters need to be added to each specific location.

Education and Outreach: Brevard Zoo regularly engages the community in restoration efforts and education. We attend community events, hold presentations in schools, host volunteer opportunities and bring people into the Zoo to learn about the state of the lagoon and current conservation efforts, including oyster projects. We are not asking for any additional funding to continue this effort.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,742

Total Phosphorus Reduction (lbs/year): 44

Costs

Total Project Cost: $827,450

Estimated Cost per Pound Total Nitrogen Removed: $475

Estimated Cost per Pound Total Phosphorus Removed: $18,806

Eligible Tax Funding Cost Share: $827,450

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: $0

Dollar Amount Secured Grant(s): $0

Additional Information

Other Indian River Lagoon Benefits: Oyster reef installations not only reduce nutrients, but they also support hundreds of species in the Indian River Lagoon, including many fish and crab species.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Brevard Zoo Central IRL Oyster Project 5**

Project Details

Entity: Brevard Zoo

Project Type: Oyster/Clam Restoration

Sub Lagoon: Central Indian River Lagoon

Location: Proposed sites, substitutions will be selected as needed: 27.9700325618981, -80.54414975969682; 27.967937252575382, -80.54275771368124; 27.83845550179957, -80.49711947985077

Project Description: Brevard Zoo intends to construct 37,602 square feet of oyster projects in the Central Basin of the Indian River Lagoon (IRL) . This project is scalable. The design will be site specific and will be approved by the County before construction begins. We will consult with the County to determine whether or not live oysters need to be added to each specific location.

Education and Outreach: Brevard Zoo regularly engages the community in restoration efforts and education. We attend community events, hold presentations in schools, host volunteer opportunities and bring people into the Zoo to learn about the state of the lagoon and current conservation efforts, including oyster projects. We are not asking for any additional funding to continue this effort.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,504

Total Phosphorus Reduction (lbs/year): 38

Costs

Total Project Cost: $714,400

Estimated Cost per Pound Total Nitrogen Removed: $475

Estimated Cost per Pound Total Phosphorus Removed: $18,800

Eligible Tax Funding Cost Share: $714,400

Project Funding

Is Local Match in Adopted Budget: No

Dollar Amount of Local Cost Share: $0

Dollar Amount Secured Grant(s): $0

Additional Information

Other Indian River Lagoon Benefits: Oyster reef installations not only reduce nutrients, but they also support hundreds of species in the IRL, including many species of fish and crabs.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Waelti Drive Pond Retrofit**

Project Details

Entity: Brevard County Natural Resources

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28°13'53.2"N 80°40'38.7"W

Project Description: The proposed stormwater retrofit to the Waelti Drive wet pond utilizes the Martin Treatment Wetland System paired with turbidity curtains to optimize nutrient removal. The Floating Treatment Wetlands provides an additional 12% removal of total phosphorus and total nitrogen in existing wet detention pond and is designed to have a durable eight-inch platform for plants and root protection. The root zone and media produced from the Floating Treatment Wetlands creates habitat for Periphyton which successfully removes harmful nutrients such as phosphorus and nitrogen from stormwater. In addition, these floating treatment wetlands will act as hangers for the turbidity curtains. The Floating Treatment Wetlands paired with the turbidity curtains would act as baffles in the wet pond to increase the ponds flow path. The extended flow path will result in increased volumetric utilization and residence time to enhance nutrient removal. Wet ponds main source of nutrient removal is sediment settling, and pollutant uptake, through biological activity in the pond. With this system in place the total removal of nitrogen and phosphorus in the pond will increase by 27%.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 274

Total Phosphorus Reduction (lbs/year): 40

Costs

Total Project Cost: $235,000

Estimated Cost per Pound Total Nitrogen Removed: $858

Estimated Cost per Pound Total Phosphorus Removed: $5,875

Eligible Tax Funding Cost Share: $97,818

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): $137,182

Additional Information

Other Indian River Lagoon Benefits:

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Lake Washington & Croton Road Pond Retrofit**

Project Details

Entity: Brevard County Natural Resources

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28° 8'50.29"N 80°39'13.87"W

Project Description: The proposed stormwater retrofit to the Lake Washington and Croton Road wet pond utilizes the Martin Treatment Wetland System paired with turbidity curtains to optimize nutrient removal. The Floating Treatment Wetlands provides an additional 12% removal of total phosphorus and total nitrogen in existing wet detention pond and is designed to have a durable eight-inch platform for plants and root protection. The root zone and media produced from the Floating Treatment Wetlands creates habitat for Periphyton which successfully removes harmful nutrients such as phosphorus and nitrogen from stormwater. In addition, these floating treatment wetlands will act as hangers for the turbidity curtains. The Floating Treatment Wetlands paired with the turbidity curtains would act as baffles in the wet pond to increase the ponds flow path. The extended flow path will result in increased volumetric utilization and residence time to enhance nutrient removal. Wet ponds main source of nutrient removal is sediment settling, and pollutant uptake, through biological activity in the pond. With this system in place the total removal of nitrogen and phosphorus in the pond will increase by 27%.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 158

Total Phosphorus Reduction (lbs/year): 24

Costs

Total Project Cost: $198,000

Estimated Cost per Pound Total Nitrogen Removed: $1,253

Estimated Cost per Pound Total Phosphorus Removed: $8,250

Eligible Tax Funding Cost Share: $56,406

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): $143,594

Additional Information
Other Indian River Lagoon Benefits:

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **N. Wickham & Conservation Place Wet Pond Retrofit**

Project Details

Entity: Brevard County Natural Resources

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28°10'42.03"N 80°40'21.33"W

Project Description: The proposed stormwater retrofit to the N. Wickham & Conservation Place Wet Pond wet pond utilizes the Martin Treatment Wetland System paired with turbidity curtains to optimize nutrient removal. The Floating Treatment Wetlands provides an additional 12% removal of total phosphorus and total nitrogen in existing wet detention pond and is designed to have a durable eight-inch platform for plants and root protection. The root zone and media produced from the Floating Treatment Wetlands creates habitat for Periphyton which successfully removes harmful nutrients such as phosphorus and nitrogen from stormwater. In addition, these floating treatment wetlands will act as hangers for the turbidity curtains. The Floating Treatment Wetlands paired with the turbidity curtains would act as baffles in the wet pond to increase the ponds flow path. The extended flow path will result in increased volumetric utilization and residence time to enhance nutrient removal. Wet ponds main source of nutrient removal is sediment settling, and pollutant uptake, through biological activity in the pond. With this system in place the total removal of nitrogen and phosphorus in the pond will increase by 27%.

Education and Outreach: N/A

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 261

Total Phosphorus Reduction (lbs/year): 38

Costs

Total Project Cost: $392,925

Estimated Cost per Pound Total Nitrogen Removed: $1,505

Estimated Cost per Pound Total Phosphorus Removed: $10,340

Eligible Tax Funding Cost Share: $93,177

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s): $219,224

Additional Information

Other Indian River Lagoon Benefits:

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Darrow Baffle Box**

Project Details

Entity: City of Melbourne

Project Type: Stormwater

Sub Lagoon: Central Indian River Lagoon

Location: 28.071582, -80.614863

Project Description: Installation of a third generation baffle box near the Darrow Avenue in south Melbourne to serve a drainage basin to be finalized during design. This baffle box will be on a drainage ditch collection runoff that outfalls to Crane Creek and then into the Indian River Lagoon. The basin is mostly made up of a variety of very old residential uses. This basin has little to no stormwater treatment and this baffle box will provide treatment where there is none. This project shall be funded for design in FY26 with construction scheduled for FY27. If grant funding becomes available, the project would be accelerated.

Education and Outreach: A flyer explaining what a baffle box is and how it works will be sent to the residents within the basin.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 536

Total Phosphorus Reduction (lbs/year): 87

Costs

Total Project Cost: $851,500

Estimated Cost per Pound Total Nitrogen Removed: $1,589

Estimated Cost per Pound Total Phosphorus Removed: $9,787

Eligible Tax Funding Cost Share: $191,352

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $660,148

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The baffle box will remove sediment and trash from the system.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Line Street Cemetery Baffle Box**

Project Details

Entity: City of Melbourne

Project Type: Stormwater

Sub Lagoon: Central Indian River Lagoon

Location: 28.07168846957472, -80.6077372837633

Project Description: Installation of a third generation baffle box near the Line Street Cemetery in south Melbourne to serve a drainage basin to be finalized during design. This baffle box will be on a drainage ditch collection runoff that outfalls to Crane Creek and then into the Indian River Lagoon. The basin is mostly made up of a variety of very old residential uses. This basin has little to no stormwater treatment and this baffle box will provide treatment where their is none. This project shall be funded for design in FY26 with construction scheduled for FY27. If grant funding becomes available, the project would be accelerated.

Education and Outreach: A flyer explaining what a baffle box is and how it works will be sent to the residents within the basin. An informational sign will be installed at the project adjacent to the City historical cemetery.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 770

Total Phosphorus Reduction (lbs/year): 122

Costs

Total Project Cost: $1,855,000

Estimated Cost per Pound Total Nitrogen Removed: $2,409

Estimated Cost per Pound Total Phosphorus Removed: $15,205

Eligible Tax Funding Cost Share: $274,890

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $505,110

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The baffle box will remove sediment and trash from the system.

Notes:

Save Our Indian River Lagoon Funding Application Short Form:

Melbourne Cemetery Baffle Box

Project Details

Entity: City of Melbourne

Project Type: Stormwater

Sub Lagoon: North Indian River Lagoon

Location: 28.085502642934607, -80.61048527753879

Project Description: Installation of a third generation baffle box near the Melbourne Cemetery to serve a drainage basin to be finalized during design. This baffle box will be on a drainage ditch collection runoff that outfalls to the Indian River Lagoon. The basin is mostly made up of a variety of very old residential, commercial and institutional uses. This basin has little to no stormwater treatment and this baffle box will provide treatment where their is none. This project shall be funded for design in FY27 with construction scheduled for FY28. If grant funding becomes available, the project would be accelerated.

Education and Outreach: A flyer explaining what a baffle box is and how it works will be sent to the residents within the basin. An informational sign will be installed at the Civic Center across the street from the Cemetery. This will allow for a large audience to see the sign.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 606

Total Phosphorus Reduction (lbs/year): 105

Costs

Total Project Cost: $2,180,000

Estimated Cost per Pound Total Nitrogen Removed: $3,597

Estimated Cost per Pound Total Phosphorus Removed: $20,762

Eligible Tax Funding Cost Share: $216,342

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $1,783,658

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The baffle box will remove sediment and trash from the system.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Westside Basin Water Quality Improvements**

Project Details

Entity: City of Satellite Beach

Project Type: Stormwater

Sub Lagoon: Banana River

Location: 28.179416201697197, -80.60808695159598

Project Description: Satellite Beach is addressing stormwater management in 66 acres of its 119-acre Westside Basin. The developed residential and commercial area lacks treatment, with many small basins draining through individual outfalls. To improve water quality, stormwater will flow into 26 tree wells with biosorption activated media (BAM) filters placed at key stormwater inlets. Moreover, 9 BAM-lined bioswales draining 18 sub-basins will be installed upstream. Lastly, 53 inlet baskets will be installed to capture 5 tons of debris and sediment (muck contributors) annually. All best management practices (BMPs) will enhance removal of Total Nitrogen and Total Phosphorus from stormwater flows into the Banana River Lagoon.

Education and Outreach: The construction of a water quality improvement project in the Westside Basin represents a crucial effort to enhance the ecological health of the Banana River Lagoon. This initiative specifically targets the reduction of nitrogen and phosphorous levels, which are significant pollutants affecting water quality and marine life in the lagoon. To ensure the success of this project and encourage community involvement, comprehensive public outreach efforts will be implemented.

Key messages of the outreach campaign will focus on educating the public about how the Westside Basin Water Quality Improvements project intends to remove nitrogen and phosphorous from the lagoon through green infrastructure, thereby improving water quality and restoring ecosystem balance. Additionally, the campaign will emphasize the impact of individual actions on water quality in the lagoon, including proper waste management and litter control. It will also highlight the direct benefits of improved water quality on marine habitats, recreational activities, and the overall health of the fragile Banana River Lagoon ecosystem. The community will also be educated on the role of nutrients in algal blooms and seagrass health.

The target audience for these outreach efforts includes residents, commercial business owners, and the community at large. They will directly receive information through workshops and the distribution of door-to-door educational materials. These efforts will encourage the community to adopt responsible practices such as proper fertilizer use and minimizing stormwater runoff.

The outreach strategy will employ a multi-channel approach, leveraging traditional media such as newsletters and brochures alongside digital platforms like social media and the city website to reach diverse audiences effectively. Continuous engagement will be maintained through ongoing project updates, success stories, and interactive Question and Answer sessions to address community concerns and gather feedback. Regular evaluation of the outreach efforts will ensure their effectiveness, allowing for adjustments to strategies as necessary to maximize engagement and understanding among all stakeholders.

In conclusion, through robust public outreach efforts, the City aims to empower residents, businesses, and stakeholders to actively participate in and support the water quality improvement project in the Banana River Lagoon. By fostering a shared understanding of the project's goals and benefits, the City and the community can work together to achieve sustainable environmental stewardship and preserve natural resources.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 137

Total Phosphorus Reduction (lbs/year): 24

Costs

Total Project Cost: $1,650,960

Estimated Cost per Pound Total Nitrogen Removed: $12,051

Estimated Cost per Pound Total Phosphorus Removed: $68,790

Eligible Tax Funding Cost Share: $56,033

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: The biosorption activate media (BAM) material utilized in bioswales and tree wells can remove up to 90% of bacteria from stormwater flows to the Indian River Lagoon. The project also identifies 53 locations for the installation of inlet baskets. These baskets are designed to capture and retain vegetative debris, sediments, and other particulate matter that would otherwise flow unchecked into the lagoon, exacerbating its nutrient imbalance and contributing to the accumulation of nutrient-laden muck. This muck, composed of clay, sand, silt, minerals, and decaying organic matter, not only compromises water clarity and oxygen levels but also hinders the growth of seagrasses and fosters conditions conducive to harmful algal blooms. According to the Florida Stormwater Association Municpal Separate

Storm Sewer System (MS4) Load Reduction Assessment Tool, the baskets also remove a small amount of Total Nitrogen and Total Phosphorus contained within the sediment and debris.

Furthermore, baskets prevent unsightly plastic-containing litter that contributes to microplastics from entering the lagoon. Studies show high levels of microplastics in the surface water and shellfish species. While the full extent of microplastic impacts to human health and the environment are still being examined, research has demonstrated that microorganisms ingest microplastics when they mistake them for food, resulting in bioaccumulation in the lagoon fauna tissues over time. This may impact Indian River Lagoon fisheries, which are estimated to generate $30 million in annual revenue for the region. Microplastics can also transport pollutants and are durable and resistant to degradation, perpetually persisting in the environment.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **Cocoa Isles Blvd Dry Pond**

Project Details

Entity: City of Cocoa Beach

Project Type: Stormwater

Sub Lagoon: Banana River

Location: 28.32951676142842, -80.61643602498961

Project Description: There is a small area at the end of Cocoa isles Blvd to install a bioretention area to treat and infiltrate runoff from a low-density residential area. Treatment will be enhanced by lining the retention area with bioactivated media (BAM) and planted with Florida native plants. This system greatly reduces nutrient/pollutant loading to the receiving water while also protecting the barrier island's surficial aquifer. This project will benefit the Banana River Lagoon and this project is being implemented to reduce the pollutant load.

Education and Outreach: The target audience is the residents and visitors of Cocoa Beach. The City will post about the improvements and benefits of the bioretention area to the Banana River Lagoon and aquifer on the City's website and social media pages.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 14

Total Phosphorus Reduction (lbs/year): 2

Costs

Total Project Cost: $570,000

Estimated Cost per Pound Total Nitrogen Removed: $40,714

Estimated Cost per Pound Total Phosphorus Removed: $285,000

Eligible Tax Funding Cost Share: $5,726

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share:

Dollar Amount Secured Grant(s):

Additional Information

Other Indian River Lagoon Benefits: The project is about to go into the design phase and at that point BMPTrains will be used to determine the Total Nitrogen and Total Phosphorus reductions.

Based on the City's Stormwater Master Plan, it is estimated that 14.33 lbs/year of Total Nitrogen and 2.26 lbs/year of Total Phosphorus will be removed.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **South Beaches Wastewater Treatment Plant Upgrade**

Project Details

Entity: Brevard County Utility Services Department

Project Type: Wastewater Treatment Facility Upgrade

Sub Lagoon: Central Indian River Lagoon

Location: South Beaches WWTF - 2800 S Hwy A1A, Melbourne Beach, FL 32951

Project Description: This project is for the conversion of the existing 2 Million Gallon per Day (MGD) Activated Sludge Treatment Train and 6 MGD Carrousel Treatment System to Advanced Wastewater Treatment (AWT). Only High Level Disinfection (HLD) is currently required to meet permit requirements, but the higher treatment level of AWT will allow a redution in nutrient loading to reuse customers. The Save Our Indian River Lagoon grant money would be put towards the cost of construction.

Education and Outreach: None.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 5,734

Total Phosphorus Reduction (lbs/year): 1,147

Costs

Total Project Cost: $43,305,079

Estimated Cost per Pound Total Nitrogen Removed: $7,552

Estimated Cost per Pound Total Phosphorus Removed: $37,755

Eligible Tax Funding Cost Share: $2,471,354

Project Funding

Is Local Match in Adopted Budget: N/A

Dollar Amount of Local Cost Share: N/A

Dollar Amount Secured Grant(s): $14,200,000

Additional Information

Other Indian River Lagoon Benefits:

Notes: Project will reduce total nitrogen concentration to 2 mg/L and total phosphorus concentration to 1 mg/L.

Save Our Indian River Lagoon Funding Application Short Form: **Port Saint John Wastewater Treatment Plant Replacement**

Project Details

Entity: Brevard County Utility Services Department

Project Type: Wastewater Treatment Facility Upgrade

Sub Lagoon: North Indian River Lagoon

Location: Current plant is at 3910 Juanita St., Cocoa FL. New site has not been purchased.

Project Description: Advanced water treatment component of the design to replace the existing wastewater treatment facility in Port Saint John. Current plant does not meet Basin Management Action Plan (BMAP) requirements.

Education and Outreach: N/a

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 2,278

Total Phosphorus Reduction (lbs/year): 2,278

Costs

Total Project Cost: $40,000,000

Estimated Cost per Pound Total Nitrogen Removed: $17,559

Estimated Cost per Pound Total Phosphorus Removed: $17,559

Eligible Tax Funding Cost Share: $981,818

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: This new plant will allow for increased plant capacity for potential future septic to sewer conversion projects in the the Port Saint John area. The existing wastewater treatment facility is at capacity and not rated for additional flows.

Notes:

Save Our Indian River Lagoon Funding Application Short Form: **City of Palm Septic to Sewer Conversion Project - Sewer Available Not Connected (SANC) Phase 2**

Project Details

Entity: City of Palm Bay

Project Type: Quick Connection

Sub Lagoon: Central Indian River Lagoon

Location: 80.6613225°W, 28.0049701°N

Project Description: The City of Palm Bay will be moving forward with Phase Two of its "Sewer Available Not Connected (SANC) Multi Phased – Multi Year Plan," a septic-to-sewer conversion initiative focused on improving water quality in the Indian River Lagoon, if awarded Florida Department of Environmental Protection Water Quality Improvement grant funds, in 2025. This phase targets 416 properties that will transition from Onsite Sewage Treatment and Disposal Systems (OSTDS) to the City's sanitary sewer system currently serving the area. If pending grant funds are received, Mandatory connection notifications will begin in July 2025. Grant funding is critical to support the financial costs of connecting these 416 priority properties, ensuring the successful execution of this phase and reinforcing Palm Bay's commitment to the long-term protection of the Indian River Lagoon.

Education and Outreach: The City of Palm Bay's public outreach program began in response to growing concerns about the environmental and health impacts of septic systems within the rapidly growing community. The City's septic-to-sewer conversion program includes a public outreach component utilizing community meetings, informational materials, digital communications, and direct mailings aimed at educating and engaging residents. The City has expanded its outreach efforts to include more targeted communication and support for residents in low-income areas, as highlighted by the recent septic-to-sewer program funded by the American Rescue Plan Act (ARPA). The City plans to continue prioritizing outreach efforts to facilitate a smooth implementation of septic-to-sewer connections, address challenges, and ensure broad community support as the project progresses. Last November, the public outreach efforts resulted in the City adopting a mandatory ordinance requiring all residents with sewer availability to connect to the sewer system. This ordinance clearly demonstrates the City's unwavering commitment to upgrading its infrastructure and ensuring all eligible properties comply with the new standards. KEY MESSAGES: 1. Health and Environmental Benefits: Protects the environment (Indian River Lagoon and Turkey Creek Estuaries) and improves public health. 2. Financial Assistance: City's Council already authorized wavers of utilities fees. 3. Mandatory Compliance: Last November new mandatory ordinance 4. Streamlined Process: The city provides support and clear information to make the transition as smooth as possible. TARGET AUDIENCE: 1. Low-Income Residents: Eligible for financial

assistance and priority in the program. 2. Residents with Sewer Access: Required to connect under the new ordinance. 3. Community Members with Septic Systems: Impacted by health and environmental risks.

Estimated Water Quality Benefits

Total Nitrogen Reduction (lbs/year): 1,011

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

Costs

Total Project Cost: $7,072,000

Estimated Cost per Pound Total Nitrogen Removed: $6,998

Estimated Cost per Pound Total Phosphorus Removed: N/A

Eligible Tax Funding Cost Share: $1,616,992

Project Funding

Is Local Match in Adopted Budget: Yes

Dollar Amount of Local Cost Share: $2,072,000

Dollar Amount Secured Grant(s): $0

Additional Information

Other Indian River Lagoon Benefits: Implementation of this program will improve Indian River Lagoon (IRL) vital signs evaluated as part of the IRL restoration program including seagrasses, filter feeders, contaminants, legacy loads, wastewater, impaired waters, biodiversity, species of concern, forage fishes, fisheries, harmful algal blooms, and the overall state of the IRL.

Notes: