

# PINELLAS COUNTY RESTORE ACT DIRECT COMPONENT PROJECT PROPOSAL SUBMITTAL FORM

Based on the Transocean settlement and until the BP trial ends, it is estimated by March 31, 2015, \$1,542,888 will be available in the Gulf Coast Restoration Trust fund for distribution to Pinellas County under the Direct Component allocation.

As a guideline, Pinellas County anticipates funding 3 to 7 projects not to exceed a total of \$1,542,888 as part of the initial multiyear implementation plan (MYIP). It's anticipated that projects selected for MYIP inclusion that receive funding would not begin until after December 2015.

Please read through all the questions before beginning.

- Submitted projects must address one or more of the five Gulf Coast Ecosystem Restoration Council goals and one or more RESTORE Act-eligible activities.
- Projects submitted by FEBRUARY 6, 2015 will be eligible for inclusion in the initial Multiyear Implementation Plan (MYIP)
- The "Steps" and "Criteria" numbers in the application refer to questions that address the steps and criteria for selection and ranking projects. The selection and ranking criteria can be viewed at [www.pinellascounty.org/restore/pdf/project-selection.pdf](http://www.pinellascounty.org/restore/pdf/project-selection.pdf)
- Answer each of the 29 questions as completely as possible, but keep responses focused.
- Submit one form per project.
- Once the form is successfully submitted, you will be contacted by Pinellas County.
- Send associated maps, charts, images, and budget information along with the title of your project in a Portable Document File (PDF) to [restore@pinellascounty.org](mailto:restore@pinellascounty.org).
- Direct questions to [restore@pinellascounty.org](mailto:restore@pinellascounty.org)

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**Applicant Name:** *(Include at least one Point of Contact (POC), phone number, email address, and organization name, if applicable):*

1. **POC Name:** Holly Greening
2. **POC Organization:** Tampa Bay Estuary Program
3. **POC Title:** Executive Director
4. **POC Email:** [hgreening@tbep.org](mailto:hgreening@tbep.org)
5. **POC Phone:** 727-893-2765
6. **Proposed Activity Name:** 2016 Tampa Bay Environmental Restoration Fund

## **7. Restoration Council Goals Addressed:**

(Step 1 and Step 2 - Criteria 1 and 2)

*List which of the following goal(s) will be addressed and how each goal will be addressed.*

- A. Restore and Conserve Habitat
- B. Restore Water Quality
- C. Replenish and Protect Living Coastal and Marine Resources
- D. Enhance Community Resilience
- E. Build and Revitalize the Gulf Economy

This project will address goals A, B, C, D and E, with particular emphasis on goals A, B and C. The Tampa Bay Environmental Restoration Fund (TBERF) is an annual competitive grants program with goals to restore Tampa Bay and watershed. Any one, or several, of the Restoration Council Goals could be addressed by projects selected for inclusion in the 2016 Pinellas County-funded TBERF projects. Pinellas County-funded TBERF projects would be selected for cost-effective projects that help to revitalize the Gulf economy through creation and support of natural resources and/or construction jobs. Projects will implement the coastal, estuarine and freshwater wetland habitat and water quality restoration priorities that are vital to coastal and marine wildlife. These priorities have been developed by the Tampa Bay Estuary Program and its partners including Pinellas County, and have been adopted by the TBEP partners through approval of the Tampa Bay Comprehensive Conservation and Management Plan (CCMP).

This proposal would support TBERF projects conducted within Pinellas County in 2016. All funds contributed by Pinellas County will be matched at least 1:1, doubling the funds awarded to projects within Pinellas County at a minimum. In addition, each TBERF proposal is required to have a dollar-for-dollar match, further leveraging the impact of funds contributed by Pinellas County.

TBERF objectives include:

**Restoring and protecting vital wildlife habitats (Goals A and C)**, including tidal wetlands, forested and non-forested freshwater wetlands, in-stream fish habitat, tidal tributaries and upstream freshwaters, waterbird nesting islands, and oyster reefs and subtidal hard bottom habitats.

**Improving stormwater management (Goal B)**, implementing Low Impact Development, bioretention and rain water harvesting, and encouraging the reduction of runoff from residential landscapes.

Preference will be given to projects that are located within Pinellas County and include the following: 1) Measurable resource benefits linked to priority activities (i.e. restore 10 acres of salt marsh; reduce nitrogen loading by 2 tons/year; etc.); 2) Activities consistent with the priorities and goals of the County; 3) Education, training, and public outreach components to enhance the community benefits of the project; 4) Creation of new partnerships and innovative solutions to natural resource challenges in Pinellas County; and 5) Specific provisions for long-term maintenance, management, and protection, as appropriate.

A Pinellas County representative has been a member of the competitive projects Review Committee in 2013, 2014 and 2015 and would be encouraged to participate in 2016. In addition, as in past years Pinellas County departments would be eligible to receive grant funds from TBERF in 2016.

**8. RESTORE Act Eligible Activities Addressed:**

(Step 1 and Step 2 - Criteria 3 and 4)

*List which of the following activities will be addressed and how each activity will be addressed.*

1. Restoration/protection of natural resources, ecosystems, fisheries, marine wildlife habitats, beaches, and coastal wetlands
2. Mitigation of damage to fish, wildlife, and natural resources
3. Implementation of Federally-approved marine, coastal, or comprehensive conservation management plan, including fisheries monitoring
4. Workforce development and job creation
5. Improvements to or on State parks in coastal areas affected by Deepwater Horizon oil spill
6. Infrastructure projects benefitting the economy or ecological resources, including port infrastructure
7. Coastal flood protection and related infrastructure
8. Promotion of Gulf Coast Region tourism, including recreational fishing
9. Promotion of the consumption of seafood harvesting from the Gulf Coast Region
10. Planning assistance

TBERF projects will address activities 1, 2 and 3. TBERF objectives and selection criteria directly support activities 1 and 2 above-- funded projects within Pinellas County would be consistent with restoration/protection of natural resources and mitigation of damage to fish, wildlife and natural resources. The Tampa Bay Estuary Program Comprehensive Conservation and Management Plan is a Federally-approved comprehensive conservation and management plan, directly addressing #3.

**9. Previous Claim:**

Is the proposed activity included in any claim for compensation paid out by the Oil Spill Liability Trust Fund after July 6, 2012? If yes, this activity is not eligible for Direct Component grant.

Yes: ☐

No: ☒

**10. RESTORE Act Pinellas County priorities addressed:**

(Step 2 - Criteria 5 and 6)

*List which of the following priorities will be addressed and how each priority will be addressed.*

- a. Protect and restore native habitats
- b. Provide stormwater quality improvements
- c. Create policies, programs, and/or mechanisms to remediate environmental and/or economic damages

- d. Create policies, programs, and/or mechanisms to protect against future environmental and/or economic vulnerability
- e. Provide climate change/sea-level rise planning, adaptation and/or related community engagement
- f. Provide flood and storm protection to infrastructure and other publically owned assets that consider resilience and changing sea levels
- g. Implement or further actions in the Pinellas County Post Disaster Redevelopment Plan  
Link to Plan: <http://www.postdisasterplan.org/pdrp.shtml>
- h. Diversify and improve the economy including tourism
- i. Promote sustainable recreational fishing and consumption of seafood dependent on Gulf ecosystem, and/or protect or promote working waterfronts

Selected TBERF projects in Pinellas County could support Pinellas County priorities a, b, c, d and e. In addition, a recent economic evaluation conducted by the Tampa Bay Regional Planning Council and TBEP has found that, by improving the health of Tampa Bay, the bay area's economy has also benefitted, so h. above would also be addressed.

As an example of the environmental benefits from TBERF projects which have been funded in TBERF's first two years (2013 and 2014), 12 contributors provided \$1.5M, funding 18 projects. These projects collectively will provide 1,500 acres of coastal habitat restoration; 3,900 linear feet of oyster reefs; treat urban runoff from 500+ acres; protect colonial waterbird islands; and assess harmful algal blooms, carbon sequestration from restored habitats, and hard bottom habitat. TBERF 2015 projects will be awarded in May 2015.

This proposal is to provide funding for TBERF-awarded projects located within Pinellas County in May 2016.

## **11. Project Location**

(Step 1)

*As applicable, describe the location, attach a map and indicate the address, city, zip code, longitude/latitude, and watershed:*

Proposals eligible for Pinellas County-funded TBERF projects could be restricted to those located within Pinellas County, or bay-wide projects which include Pinellas County. Pinellas County would make the final decision on which proposals would be eligible to receive Pinellas County TBERF funds.

## **12. Region or Geographic Area Impacted by Project**

(Step 1 and Step 2 - Criterion 7)

*Provide a description of the project area or region in which environmental or economic benefits will be realized. Be as specific as possible by listing cities or geographical boundaries and why.*

Projects funded by TBERF are located throughout the Tampa Bay watershed. Habitat restoration or water quality improvement projects conducted within the TBERF geographic area impact not

only those areas within the project boundary, but can support fish and wildlife populations throughout Tampa Bay and the Gulf which utilize restored and enhanced resources.

As an example, TBERF projects awarded to date benefit Pinellas County, Tampa Bay and the Gulf. The restoration objectives for TBERF are virtually identical to those of Pinellas County and the Gulf of Mexico. In particular, restoration of coastal habitats, oyster reefs and tidal tributaries improve the quality of local and Gulf fisheries nursery areas; reduction of pollutants in runoff improve water quality and support seagrass recovery critical to both resident and Gulfwide wildlife stocks; increased understanding of benefits of restoration in Pinellas County and Tampa Bay are relevant to other Gulf coastal areas; and improved management of waterbird nesting colonies in Tampa Bay provide protection for Pinellas County and Gulfwide waterbird populations.

### **Discussion of Specific Activity**

*Describe the project by responding to each of the following topics.*

### **13. Project Description – Discuss the essential elements of the project. Include what is proposed, clearly list major project tasks or program milestones, the project duration, and why it should be done.**

TBERF was initiated by the Tampa Bay Estuary Program and the National Fish and Wildlife Foundation in 2012 to continue the highly-successful (but discontinued) Pinellas County Environmental Fund. The goal of TBERF is to return added value to current and future Tampa Bay conservation initiatives and provides funding through a competitive application process for projects that will protect, restore or enhance the natural resources of Tampa Bay and its contributing watershed. In 2014, the national non-profit organization Restore America's Estuaries replaced NFWF as the non-profit partner to further the national reach of funding partners.

Funding for TBERF has been provided by the National Fish and Wildlife Foundation, Southwest Florida Water Management District, The Mosaic Company Foundation, Manatee County, Hillsborough County, Pinellas County, the Florida Department of Transportation, TECO Energy and the Tampa Port Authority to date. Each proposal is required to have a dollar-for-dollar match, further leveraging the impact of the grant funds. In 2013 and 2014, a total of almost \$1.5M was awarded to 18 projects.

The Tampa Bay Environmental Restoration Fund leverages public funds with private sector contributions to provide new, increased resources for restoring and protecting the natural systems of Tampa Bay and the Gulf of Mexico. By contributing to the non-profit organization (RAE) partner in TBERF, private sector contributors are able to obtain tax benefits. Private contributions provide additional leverage to public dollars available. Competitive awards encourage the best projects from academic, non-profits, local governments and agencies specifically addressing adopted resource goals (i.e, increased habitat, reduced nutrient runoff, education to support attainment of goals). Required monitoring of measurable benefits assures results.

For TBERF 2016, a Request for Proposals will be widely distributed. Project proposals must include detailed timelines, budgets and (most importantly) defined measurable environmental benefits. Criteria for eligible projects are clearly defined in the RFP (see Attachment A; TBERF Call for Proposals). Highest priority will be given to projects that:

- Clearly describe activities that help meet the goals of one or more of the listed conservation priorities;
- Demonstrate its cost effectiveness relative to other conservation practices (i.e., cost per acre restored);
- Provide measurable resource benefits and meaningful conservation outcomes linked to the goals of the above priorities;
- Build on existing conservation efforts for these issues;
- Demonstrate its technical feasibility, is carefully planned, and involves qualified technical experts, agencies and/or organizations in their design and execution;
- Build new, or enhance existing, partnerships. Applicants are encouraged to leverage diverse organization strengths and resources to enhance project sustainability through partnerships and collaborations;
- Provide other ancillary benefits that could benefit others working on the recovery of the Bay and its watershed (e.g., serves as a model for others to replicate; shares methodologies developed with other practitioners; creates new partnerships; etc.);
- Address the long-term sustainability of the project by providing a monitoring and maintenance plan and describing how future funding will be secured; and
- Develop community stewardship through hands-on participation/volunteerism and/or innovative education and outreach associated with the project, if appropriate.

Applied research that addresses habitat restoration or species recovery needs of the above-listed priorities must demonstrate coordination with key organizations, academic institutions and agencies performing similar or complementary work and describe how the results of the research will be used to enhance the work of on-the-ground practitioners.

A Review Committee comprised of scientists and resource managers will evaluate and rank each proposal, using criteria as stated in the RFP. A critical element of a proposal is the definition of ***measurable environmental benefits (i.e., number of acres restored; lbs of pollutant removed, etc) for each phase of the project.*** Findings from the Review Committee are provided by the TBEP Executive Director to the TBEP Policy Board for approval. Contracts are negotiated with the winning proposal team lead. Projects typically are started within 3-6 months of approval, for durations from 1 to 3 years depending upon the nature of the project.

Each project is required to submit quarterly progress reports to the TBEP project manager. Invoicing can occur at the end of a project phase, but invoices must include documentation that the approved measurable environmental benefit defined for that project phase has been accomplished before the invoice is approved and paid. The TBEP project manager will obtain approval from the Pinellas County project manager prior to paying an invoice. All project work is on a reimbursable basis.

The Timeline for TBERF 2016 is shown in response to #26 below.

## **RESULTS to date**

In 2013, 10 agencies and organizations received \$900,000 in grants for projects that restored more than 1,000 acres of coastal habitats and created 2,900 feet of oyster reefs; treated 500 acres of urban runoff; provided community education to support reduced residential runoff; and assessed fisheries habitat requirements.

In 2014, nearly \$625,000 in grants was awarded to nine recipients that will restore 8,500 feet of oyster reefs, 26 acres of coastal wetland habitat and almost 200 acres of freshwater marsh habitat; provide community education; protect colonial nesting waterbirds on 13 bird islands; determine the extent and quality of hard bottom habitat within the bay; and assess the climate mitigation benefits of restoring coastal habitats in Tampa Bay. A summary of the projects awarded in 2013 and 2014 is shown in Attachment B and a map showing project locations can be found at <https://www.estuaries.org/tampa-bay-environmental-restoration-fund>.

### **14. Project Manager and Key Project Team Members - include credentials and experience doing similar work.**

The 2016 TBERF program will be managed by the TBEP Executive Director, Holly Greening. Holly successfully initiated and has maintained the annual TBERF program since 2012, and will continue to be the key contact and team member for TBEP. Holly has been with TBEP since its inception in 1991, initially as the program's Senior Scientist, then selected as Director in 2008. Her primary duties will be to ensure that TBERF 2016 is fully funded by public and private sectors; that the solicitation and selection of high-quality projects is appropriately conducted; that approved measurable benefits are met; and that TBERF's accomplishments are known to Tampa Bay and wider Gulf and national communities. Holly's resume is included as Attachment C.

### **15. Environmental and/or Economic Benefits - Describe environmental and/or economic benefits of the project.**

Project proposals are required to identify the measurable resource benefits to be achieved, and metrics used to measure progress towards attainment. The proposal must describe the monitoring approach that will be used. To ensure success, invoices are only approved following documentation that defined measurable resource benefits have been met. Pinellas County would have the opportunity to review proposals for projects located within the County, and approve the selection of projects with highly-ranked environmental benefits.

As noted above, restoring Tampa Bay and its watershed provides economic benefits as well as environmental benefits. A healthy and clean Tampa Bay provides an added economic benefit of \$22M per year to Tampa Bay's economy. See the Tampa Bay Business Journal article from Friday, Jan 16 2015 for a summary of the assessment and the value of clean water to Tampa Bay's economy.

**16. Technical Feasibility** - Describe technologies and relevant past experience or proven success with similar projects.

Winning applications to TBERF must provide evidence that the technologies and techniques proposed will be successful. As noted above, to ensure success, invoices are only approved following documentation that defined measurable resource benefits have been met.

TBERF 2016 will be the fourth consecutive year of this Fund. TBEP staff have been involved with the successful implementation of TBERF 2013 and 2014, and will be initiating TBERF 2015 in February 2015. Effective contract and reporting templates have been developed and revised as new information is acquired, and the number and diversity of funding entities has increased.

**17. Public Acceptance** - Describe any known or potential public approval or opposition to the project.

There has been no public opposition to projects awarded in the first two years of TBERF. The multiple public and private sector funding contributors, as well as the wide range of types of winning applicants, helps to ensure broad public and private sector approval.

**18. Project Activity Budget Justification:**

*Provide the total project cost and costs by identified tasks for the following items. Provide specific justification for all that apply.*

***TOTAL REQUEST for Pinellas County-funded TBERF 2016 projects: \$100,000***

- Personnel and fringe:  
TBEP program and project management personnel and fringe costs will not exceed 7% (\$7,000) of the requested amount over the three-year project period (\$2,333 per year).
- Travel including the number of trips and estimated cost per trip:  
No travel costs are included in this proposal.
- All equipment greater than \$1,000:  
No equipment costs are included in this proposal.
- Supplies including a list of major types of supplies:  
No supplies are included in this proposal.
- Contractual costs:  
\$90,000 to competitively-awarded projects located in Pinellas County
- Administrative costs not to exceed 3% of the total award:



TBEP legal and contract administration will not exceed 3% (\$3,000) over the three year project period (an average of \$1000 per year).

- Future costs related to maintaining the project, the funding source, and responsible entity:

Awarded project proposals must include a description of how the project will be maintained after completion. Maintenance is the responsibility of the applicant for TBERF-funded awards.

**19. Describe how the project will utilize a collaborative approach that incorporates partnerships, if applicable.**

(Step 2 - Criterion 8)

*List any project partners and briefly describe their involvement and contribution to the project.*

TBERF is a collaboration of public and private contributors, partnering to fund projects submitted by multiple entities to support Tampa Bay community restoration goals identified through the Tampa Bay Estuary Program partners. Business funding partners include the Mosaic Company and Tampa Electric Company; public partners include three Counties, Southwest Florida Water Management District, the Florida Department of Transportation, and the Tampa Port Authority.

Criteria for competitive applications stress projects which build new, or enhance existing, partnerships. Applicants are encouraged to leverage diverse organization strengths and resources to enhance project sustainability through partnerships and collaborations.

For TBERF 2016, we anticipate continued partnerships with our current contributors, including SWFWMD (Cooperative Funding Initiative), Hillsborough County, Manatee County, The Mosaic Company Foundation, TECO Energy, FDOT, and Port Tampa Bay at a minimum. Pinellas County's contribution of \$100,000 would allow us to match SWFWMD's Cooperative Funding Initiative, with expected funds for projects totaling between \$500,000 - \$800,000. Expected funds for projects within Pinellas County would be \$200,000+, depending upon the proposals received.

**20. Describe how the project will support, further, or help implement one or more Pinellas County Comprehensive Plan Element goal(s) as identified in the overarching project goals, if applicable. Clearly list each Comprehensive Plan Element goal addressed.**

(Step 2 - Criterion 9)

*Link to Applicable Comprehensive Plan Element Goals:*

[www.pinellascounty.org/restore/pdf/comp-plan-goals.pdf](http://www.pinellascounty.org/restore/pdf/comp-plan-goals.pdf)

TBERF objectives and criteria directly support a number of Pinellas County's Comprehensive Plan Element Goals (see Attachment A, TBERF Call for Proposals). Primary among the Comp Plan Goals which eligible TBERF projects support are:

**Natural systems and living resources Goal Two:** Pinellas County will conserve, protect, restore and appropriately manage its natural systems and living resources ensure the highest environmental quality possible.

**Environmental lands and resource-based parks Goal Three:** Pinellas County's environmental lands and resource-based parks are the hallmark of this county's environmental commitment, and these lands are to be protected and managed in perpetuity for their contribution to the biodiversity and biological sustainability of the region, as a means of providing respite from urban life and because they instill future generations with a sense of appreciation for Florida's natural heritage.

**Strengthened connections to the water Goal Four:** Pinellas County will remain a leader in the protection and restoration of its surface waters and the dependent habitats and resources which are essential to this county's character, economy and quality of life.

**Promoting environmental stewardship Goal Five:** Pinellas County will be a recognized leader in environmental education and local environmental stewardship.

**Floodplains and floodplain management Goal Six:** Pinellas County will preserve, protect, restore and manage the natural resources of its floodplains to maintain or enhance water quality, plant and animal diversity, and aquatic productivity, to protect the flood storage value and purpose, and to protect the public and minimize property damage.

**Environmental sustainability in every-day practice Goal Seven:** Pinellas County will be a leader in environmentally sustainable government operations, a proponent of smart and sustainable growth management practices and will have a strong economy supported by sound environmental principles, programs and practices.

**Economic Goal One:** to facilitate a strong and robust local economy that provides growth opportunities for existing businesses, attracts new high-wage primary employers and promotes a diverse range of industries through innovative, sustainable methods that, in a responsible manner, enhance the county's vitality and the quality of life for residents and visitors.

**21. Describe the benefits the project will provide, for how long, and why:**

(Step 2 - Criterion 10)

*Benefits may be economic, social, and/or environmental. Explain how the benefits will or could be identified, assessed, and/or measured. Describe and quantify environmental and/or economic benefits as applicable [e.g., area restored (acres, linear feet), improved ecosystem services, jobs created/preserved, pollutants and/or nutrients removed (e.g., kg, pounds, tons)].*

As noted above, project proposals are required to identify the measurable resource benefits to be achieved, and metrics used to measure progress towards attainment. A critical element of a proposal is the definition of *measurable environmental benefits (i.e., number of acres restored; lbs of pollutant removed, etc) for each phase of the project*. The proposal must describe the monitoring approach that will be used. To ensure success, invoices are only approved following documentation that defined measurable resource benefits have been met. Pinellas County would have the opportunity to review proposals for projects located within the County, and approve the selection of projects with highly-ranked environmental benefits.

In TBERF's first two years (2013 and 2014), 12 contributors provided \$1.5M, funding 18 projects. These projects will provide 1,500 acres of coastal habitat restoration; 3,900 linear feet of oyster reefs; treat urban runoff from 500+ acres; protect colonial waterbird islands; and assess harmful algal blooms, carbon sequestration from restored habitats, and hard bottom habitat.

**22. Possible material risks to implement and maintain the proposed activity:**

*List possible material risks, e.g., operational, legal, regulatory, budgetary or ecological. Include brief description of mitigation strategy to address each identified risk.*

The applicants for TBERF funding are responsible for ensuring that operational, legal, regulatory, budgetary or ecological risks are minimized. Mitigation of risks is the responsibility of the applicant.

**23. Best Available Science:**

*Only answer if proposed activity will serve to protect or restore natural resources, otherwise, indicate "Not Applicable." Briefly describe how the project will use best available science with respect to peer reviewed literature, objective(s), and methodologically sound literature sources that support the scope of work, when available.*

Each TBERF application is required to describe methods and analyses proposed to accomplish the objectives stated in their proposal. Applicants are encouraged to use advanced technologies supported by peer-reviewed literature. The TBERF Review Committee is comprised of leading scientists and resource managers from throughout the Tampa Bay region and includes at least one national reviewer. Selection and ranking criteria focuses heavily on the scientific/technical merits of the proposed project. See Attachment A , the Call for Proposals for a description of the technical criteria used to evaluate proposals.

As an example, a project funding by TBERF 2014 to map hardbottom habitats in Tampa Bay incorporates sidescan sonar, sub-bottom profilers and underwater video which will be used to develop sophisticated benthic habitat maps throughout the bay, including Pinellas County's bay bottom habitat.

**24. Matching/Other funding**

(Step 2 - Criterion 11)

*Indicate:*

- The amount and percent of the total project cost secured and the source of each matching fund secured. Restore Act funds can be matched with other federal sources of funding.
- If matching funds are not secured, specify the amount of matching funds requested or expected.
- The date the amount of secured funds will be known.

For TBERF 2016, we anticipate continued partnerships with our current contributors as follows:

SWFWMD (Cooperative Funding Initiative) CFI submitted, decision in Sept 2015	\$350,000
Hillsborough County (Phosphate Severance funds) Funds requested, decision in Sept 2015	\$100,000
Manatee County (Phosphate Severance funds) Funds requested, decision in Sept 2015	\$ 75,000
The Mosaic Company Foundation (Partnership Grant) Will be requested in spring 2015, decision by summer 2015	\$ 100,000
FL Department of Transportation (Stormwater Improvement Fund) Will be requested in Jan 2016, decision by summer 2016	\$ 35,000
TECO Energy (Community Grants Program) Will be requested in late 2015, decision in early 2016	\$ 25,000
Port Tampa Bay (Community Partnership Minigrants) Will be requested in late 2015, decision in early 2016	\$ 2,500 (max allowed)
Pinellas County RESTORE grant This proposal	\$100,000

Other private sector grants and foundations are being pursued by our NGO partner, Restore America's Estuaries. In addition, TBEP is updating our Interlocal Agreement, which includes provisions for reduced Member Dues with a contribution to TBERF, which may increase incentives for our local government partners to contribute to TBERF.

### **Readiness for Implementation**

*(Step 3)*

*Complete the following:*

**25. Will the project be completed within 5 years from date funding is confirmed?**

Yes:   X  

No:       

**26. Identify each project milestones and proposed duration (no. of months) to complete each step and the total number of months or years to complete the project.**

February 2016	RFP announced
March 2016	Proposals due
April 2016	Review Committee evaluates proposals
May 2016	TBERF Policy Board approves TBERF 2016 projects and budgets
June-Aug 2016	Contracts executed with winning project team lead
Sept 2016	Projects initiated
Sept 2017-Sept 2019	Projects expected to be completed and measurable benefits documented.

**27. How long before the project can start after funds are available (months)?**

As noted above, TBERF 2016 request for proposals will be issued in Feb 2016 (one month after Pinellas County-funded TBERF funds are available). The awarded projects could be initiated upon contract approval starting in summer 2016.

**28. Describe project design work, permit requirements and hurdles (federal, state, or local), and/or permitting that is in progress (*attach applicable permits or design work*).**

Each TBERF applicant is responsible for design, permitting, construction, monitoring and maintenance of their proposed project. Any requirements or hurdles in permitting are the responsibility of the applicant to address.

**29. Describe any issues or reasons that may delay project start or completion.**

Project start dates for awarded TBERF projects are determined by the time needed to complete contract negotiation with the winning proposers. TBERF has a standard contract, but some awardees wish to edit that contract. Delays in contracting can cause delays in the start date of one to two months. No other reasons for project start or completion are anticipated for TBERF 2016 projects.

**ATTACHMENTS:**

Attachment A: TBERF Overview and Call for Proposals

Attachment B: Projects funded in 2013 and 2014

Attachment C: Resume of key project team member

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**END OF QUESTIONS**



## **TAMPA BAY ENVIRONMENTAL RESTORATION FUND – 2015**

### **REQUEST FOR PROPOSALS**

#### **OVERVIEW**

The *Tampa Bay Environmental Restoration Fund – 2015* (TBERF-2015) is a strategic partnership between the Tampa Bay Estuary Program (TBEP) and Restore America's Estuaries (RAE). Funding for the TBERF-2015 has been provided by the Southwest Florida Water Management District, The Mosaic Company Foundation and Hillsborough County to date. The TBERF-2015 is designed to return added value to current and future Tampa Bay conservation initiatives and provides funding through a competitive application process for projects that will protect, restore or enhance the natural resources of Tampa Bay and its contributing watershed.

The TBERF-2015 Request for Proposal documents are available at [www.tbeptech.org](http://www.tbeptech.org).

#### **PROPOSAL DEADLINE**

Proposals must be submitted electronically by **3:00 pm EST, March 20, 2015**. Late applications will not be accepted. Email completed proposals to [ron@tbep.org](mailto:ron@tbep.org).

#### **GEOGRAPHIC FOCUS:**

The geographic focus of TBERF-2015 is the Tampa Bay watershed (map available at [tbeptech.org](http://tbeptech.org)).

#### **CONSERVATION OBJECTIVES**

TBERF-2015 seeks applications for cost-effective projects that will implement the coastal, estuarine and freshwater wetland habitat and water quality restoration priorities that have been developed by the Tampa Bay Estuary Program and its partners, and outlined in the [Tampa Bay Comprehensive Conservation and Management Plan \(CCMP\), Charting the Course](#).

Funding will be focused on achieving measurable conservation and resource benefits that advance the following priorities:

- Recover an additional 3,350 acres of seagrass over 2012 levels, while preserving Tampa Bay's existing grass beds and reducing propeller scarring of seagrasses.
- Prevent increases in nitrogen entering the bay and assist in maintaining nitrogen loading at 2003-2007 levels by implementing innovative stormwater management projects and programs.
- "Restore the historic balance" of coastal wetland habitats by restoring an additional 1,918 acres of salt marsh, including low-salinity tidal marsh, as approved in the [TBEP 2010 Habitat Master Plan Update](#).
- Restore an additional 840 acres of salt barren (saltern) habitat in Tampa Bay.
- Restore an additional 1,615 acres of forested freshwater wetlands and 17,088 acres of non-forested freshwater wetlands, as approved by the TBEP Policy Board in 2013.
- Restore and protect connectivity and function of fisheries habitat in the bay's tidal streams and creeks.

## **CONSERVATION STRATEGIES**

The following are conservation strategies and implementation actions that are priorities of this grant program. In addition to the on the ground work outlined below, funding for applied research that is aligned with the estuary's conservation goals and that helps prioritize restoration actions in the watershed, and improves the methods and outcomes of future on the ground implementation, will be considered.

### **Restoring and protecting vital wildlife habitats.**

- Restore, enhance and create tidal wetlands (e.g., salt marshes, intertidal and subtidal habitats, salterns, etc.) and seagrass beds to maximize benefits for shorebirds and other wildlife habitat and enhance water quality.
- Restore forested and non-forested wetlands to improve benefits for wildlife habitat and water quality.
- Restore channelized and eroding streambanks to improve in-stream fish habitat and reduce sediment loads to the Estuary and its rivers and creeks.
- Restore connectivity between tidal tributaries and upstream freshwaters to improve fisheries movement and habitat.
- Protect and restore Tampa Bay's estuarine islands to provide critical colonial waterbird breeding habitat.
- Restore oyster reefs and subtidal hard bottom habitat to improve habitat for fish, birds and other wildlife and to enhance water quality.

### **Improving stormwater management.**

- Implement low impact development (LID) practices and other innovative stormwater management practices to minimize the water quality impacts of new development, including practices on roads, streets, and highways.
- Retrofit existing development to retain stormwater on-site through stormwater management practices such as bioretention and rain water harvesting.
- Promote and implement innovative techniques that encourage landowners and local governments to reduce their use of fertilizer on lawns and public spaces.

## CRITERIA FOR COMPETITIVE APPLICATIONS

Highest priority will be given to projects that:

- Clearly describe activities that help meet the goals of one or more of the above listed conservation priorities;
- Demonstrate its cost effectiveness relative to other conservation practices (i.e., cost per acre restored);
- Provide measurable resource benefits and meaningful conservation outcomes linked to the goals of the above priorities;
- Build on existing conservation efforts for these issues;
- Demonstrate its technical feasibility, is carefully planned, and involves qualified technical experts, agencies and/or organizations in their design and execution;
- Build new, or enhance existing, partnerships (list all partners involved). Applicants are encouraged to leverage diverse organization strengths and resources to enhance project sustainability through partnerships and collaborations;
- Provide other ancillary benefits that could benefit others working on the recovery of the Bay and its watershed (e.g., serves as a model for others to replicate; shares methodologies developed with other practitioners; creates new partnerships; etc.);
- Address the long-term sustainability of the project by providing a monitoring and maintenance plan and describing how future funding will be secured; and
- Develop community stewardship through hands-on participation/volunteerism and/or innovative education and outreach associated with the project, if appropriate.

Applied research that addresses habitat restoration or species recovery needs of the above-listed priorities must demonstrate coordination with key organizations, academic institutions and agencies performing similar or complementary work and describe how the results of the research will be used to enhance the work of on-the-ground practitioners. **Proposals that are entirely research-focused will not be entertained.**

Proposals including education, training, and/or public outreach as a main component must demonstrate how the project supports conservation goals related to the above-listed priorities, how the project will motivate people to take the desired action(s), and include an evaluation component that measures the success of the project in achieving specific and quantifiable conservation outcomes.

Preference will be given to projects that include the following: 1) Measurable resource benefits linked to priority activities (i.e. restore 10 acres of salt marsh; reduce nitrogen loading by 2 tons/year; etc.); 2) Activities consistent with the priorities and goals of the CCMP including applied research; 3) Education, training, and public outreach components to enhance the community benefits of the project; 4) Creation of new partnerships and innovative solutions to natural resource challenges in Tampa Bay; and 5) Specific provisions for long-term maintenance, management, and protection, as appropriate.



## PROJECT DELIVERABLES

All applications should include specific quantitative performance metrics that will be tracked and measured to evaluate the success of the project in achieving stated conservation goals (degree of change from baseline or pre-project conditions as a result of project activities). If a proposed project has more than one Phase, measurable resource benefits for each project Phase must be clearly defined.

Examples of measurable resource benefits include, but are not limited to, the following:

- Number of acres of priority habitat (seagrass, oyster reefs, salt marsh, freshwater wetlands) restored
- Number of acres of priority habitat protected
- Number of linear feet of shoreline restored
- Pounds of nitrogen reduced, annually
- Number of citizens engaged in public education, training and outreach programs that support above-listed conservation priorities
- Number of landowners receiving directed technical assistance for habitat protection and restoration activities
- Number of volunteers involved in project implementation

Project Phase deliverables for early Phases of a project may include educational materials, construction of stormwater management systems, etc, which contribute to the attainment of final measurable resource benefits by the end of the project.

### **Project deliverables:**

1. Quarterly progress reports
2. Phase reports, documenting measurable resource benefits. **Invoices must be accompanied by documented resource benefits identified for the Phase, and include matching funds documentation.** A Phase report may replace a quarterly progress report if both are due at the same time.
3. Draft final report, documenting final measurable resource benefits for the project, for review by the Project Manager.
4. Final report, addressing any review comments provided by the Project Manager.

## PROJECT EVALUATION

All applications should include a statement describing how the project and its quantifiable results will be evaluated and documented, and a separate statement that describes the plan for long-term monitoring and adaptive management.

## FUNDING AVAILABILITY

Approximately \$500,000- \$700,000 is available for the 2015 cycle.

## **ELIGIBLE APPLICANTS**

Eligible applicants include local, state, and federal governments; non-profit organizations; and educational institutions. Private entities may be partners in a project if the private entity is procured through a competitive process, but applications must be submitted by an eligible entity as listed.

## **GRANT SIZE**

Average grant range is **\$30,000 to \$150,000**.

## **PROJECT PERIOD**

We strongly prefer that projects be completed within 18 months of formal award notification but in any case must be completed within two years.

## **RESTRICTIONS**

Grant funds cannot be used for political advocacy, fundraising, lobbying, and litigation activities or to support projects resulting from legally mandated mitigation projects.

## **MATCH**

A minimum 1:1 match of cash or in-kind/contributed goods and services is required; higher match ratios increase the competitiveness of the proposal. All potential sources and amounts of match should be listed in the proposal. Federal, non-federal and private funds are eligible for use as match.

To be eligible, matching contributions must be:

- Raised and dedicated specifically towards the project;
- Voluntary in nature (mitigation, restitution, or other permit or court-ordered settlements are ineligible);
- The cost of recent land acquisitions may also qualify as match for a project involving work at that site.
- Match contributed up to one year prior to the proposal submittal deadline may be included.

## **INDIRECT COSTS POLICY**

Grant funding for indirect costs shall not exceed 10 percent on a project basis.

## **APPLICATION INSTRUCTIONS**

Download and complete a TBERF – 2015 Project Proposal Application and submit to Ron Hosler at [ron@tbep.org](mailto:ron@tbep.org) by 3:00 PM, EST, March 20, 2015.

All proposals should describe a plan for project implementation, including a timeline and measurable resource benefit resulting from each Project Phase, partnerships, and how the project will be sustained over the long term. Proposals should include maps and, if available, photographs of the site. Maps should clearly identify the project area.

If the funding request is for one element of a larger project, please put in context the element relative to the larger project by stating the goals, outcomes, and timelines for both the element and the larger project (and the extent to which the funding request will help achieve the overall project goals).

## **TIMELINE**

The anticipated timeline for this grant round is as follows:

March 20, 2015: Full proposals are due via email to [ron@tbep.org](mailto:ron@tbep.org).

March – May 2015: Follow-up with applicants for additional information, as necessary

By May 30, 2015: Grant decisions announced

Any applicant awarded a grant will be required to enter into a contract with TBEP or RAE. It is at the sole discretion of TBEP and RAE to determine whether a grantee will enter into a contract with the TBEP or RAE. A key provision of all contracts will be to ensure that the grantee specify then meet agreed-upon measurable resource benefit(s) for each Phase of a project, and provided documentation of required match, prior to receiving payment for invoices for that Phase.

Be advised that all proposals that are received are Public Records under Florida law, and as such proposals may be reviewed and copied by members of the public.

## **QUESTIONS**

Please direct any questions to Holly Greening, Executive Director, Tampa Bay Estuary Program, [hgreening@tbep.org](mailto:hgreening@tbep.org) or 727-893-2765.

## 2013 Recipients: Tampa Bay Environmental Restoration Fund



### **Newman Branch Creek Fisheries Habitat Restoration Phase III (\$60,000)**

Ecosphere Restoration Institute will reconnect the creek to restore tidal flow to adjacent wetlands to provide critical fisheries habitat along 24 acres of the southeast shore of Tampa Bay.

### **Robles Park Water Quality Improvement Project (\$175,000)**

The Southwest Florida Water Management District will enhance stormwater treatment functions and freshwater wetland habitat in a manmade 5-acre pond at this urban park that discharges directly to the Hillsborough River.

### **McKay Bay Oyster Reef Creation and Enhancement (\$80,000)**

Tampa Bay Watch will utilize volunteers to install 2,900 feet of oyster reefs in shallow areas of McKay Bay to filter pollutants from the water and provide fish habitat and shorebird foraging areas.

### **Rock Ponds Ecosystem Restoration (\$200,000)**

The Southwest Florida Water Management District will continue the restoration of more than 1,000 acres of estuarine, freshwater and upland habitats along Hillsborough County's south shore, in what will be the largest coastal habitat restoration to date in Tampa Bay.

### **Which Tidal Tributaries Are The Best Snook Nurseries? (\$100,000)**

The Florida Fish and Wildlife Conservation Commission will attempt to answer this question by studying 20 tidal creeks in the bay watershed to identify common factors that contribute to productive habitat for juvenile snook, a popular sportfish.

### **Reducing Nitrogen Loads to Tampa Bay Using Bioretention Systems (\$105,000)**

The University of South Florida will construct four bio-retention systems in East Tampa and monitor their effectiveness at removing nitrogen from urban runoff.

### **Community-Based Stormwater Nutrient Management (\$100,000)**

The University of Florida will employ water quality sampling and social marketing techniques to inform and involve homeowners in the Lakewood Ranch community of Manatee County in implementing Best Management Practices to reduce nitrogen and improve water quality in their stormwater ponds.

### **East McKay Bay Habitat Restoration and Water Quality (\$100,000)**

The Southwest Florida Water Management District will remove invasive plants and construct three stormwater treatment ponds to treat urban and industrial runoff from 436 acres of surrounding lands.

### **Autonomous Water Quality and Harmful Algal Bloom Monitoring (\$50,000)**

The Florida Fish and Wildlife Conservation Commission will examine the relationship between Harmful Algal Blooms, water quality and bay restoration efforts through autonomous water quality sampling as well as phytoplankton sampling.

## **2014 Recipients: Tampa Bay Environmental Restoration Fund**

### **Colonial Waterbird Management in the Tampa Bay Watershed (\$36,000)**

Audubon's Florida Coastal Islands Sanctuary staff will manage and track population trends and threats in nationally significant waterbird nesting colonies supporting 50,000 pairs of 31 bird species annually.

### **Safety Harbor Waterfront Park Habitat Restoration (\$70,000)**

The City of Safety Harbor will remove invasive plants from a planned passive-use public park and replant with native species to restore 6 acres of marsh/mangrove wetlands.

### **Mapping of Hard-Bottom Habitat in Tampa Bay (\$150,000)**

SWFWMD will inventory and assess the quality of hard bottom reefs, oyster beds, and tidal flats in Tampa Bay to determine historic extent and develop restoration/protection targets for these important habitats.

### **Coastal Blue Carbon Assessment (\$100,000)**

Restore America's Estuaries will assess the climate mitigation benefits associated with restoring salt marshes, mangroves and seagrass beds in the Tampa Bay ecosystem. These three habitat types are collectively called "coastal blue carbon habitats" for their ability to sequester carbon that contributes to climate change.

### **Rock Ponds Coastal Ecosystem Restoration (\$60,000)**

Tampa Bay Watch will plant marsh grasses utilizing community volunteers to enhance or restore 20 acres of tidal wetland habitat over a 2-year period as part of the comprehensive restoration of former shell mining pits on Tampa Bay's southeast shore.

### **Oyster Bar Restoration at Robinson Preserve (\$53,000)**

Manatee County will install 7,500-square-feet of oyster beds as part of the comprehensive restoration of a 651-acre county preserve.

### **Duette Preserve Hydrologic Restoration (\$87,260)**

Manatee County will restore forested and non-forested freshwater wetlands by removing manmade ditches to recreate natural hydrologic flows in the eastern Manatee River watershed.

### **Bay Soundings Environmental Journal (\$25,000)**

The Tampa Bay Regional Planning Council will produce, print and distribute one year (four issues) of this popular environmental journal informing citizens about bay management trends, issues and accomplishments.

### **MacDill Air Force Base Living Shoreline (\$41,000)**

Tampa Bay Watch will place 137 tons of oyster reefs and plant 1,000 linear feet of salt marsh grass using community volunteers as part of a large restoration along the southeastern shoreline of MacDill AFB.



## RESUME SUMMARY

Holly Greening  
Tampa Bay Estuary Program  
Executive Director  
263 13<sup>th</sup> Ave South, Suite 350  
St. Petersburg, FL 33701  
hgreening@tbep.org; 727-893-2765

### EDUCATION:

BS (General Biology) Florida State University; June 1975  
MS (Biology) Florida State University; December 1980

### POSITIONS HELD:

February 2008- present	Executive Director, Tampa Bay Estuary Program, St. Petersburg, FL
March 1991 – Jan 2008	Senior Scientist, Tampa Bay Estuary Program, St. Petersburg, FL
1989 - 1991	Project Biologist, Dames & Moore, Tampa, FL
1987 - 1989	Staff Scientist, International Science & Technology, Inc, Reston, VA
1985 - 1987	Assistant Scientist, Martin Marietta Environmental Systems, Columbia, MD
1981 - 1985	Research Coordinator and Assistant Manager, Okefenokee Swamp Research Group, Institute of Ecology, University of Georgia
1981 and 1983	Scientist, Sea Education Association, Woods Hole, Mass.

### RESPONSIBILITIES AND APPOINTMENTS

Responsibilities and appointments include the following:

- Direct and oversee TBEP scientific and public outreach programs
- Personnel management, financial management, program management
- Maintain strong partnerships to protect and restore Tampa Bay
- Facilitate resource management planning and implementation efforts throughout the bay region and nationally
- Participate in national resource management initiatives, using Tampa Bay experience as an example of a successful resource management program
- Member, National Academy of Sciences National Research Council panels:
  - Causes and Management of Coastal Eutrophication(1998-2000)
  - National Needs for Coastal Mapping and Charting (2002-2003)
  - Evaluation of NOAA's sectoral applications research program to provide climate change information to resource managers (2006-2007)
  - Achieving Nutrient and Sediment Reduction Goals in the Chesapeake Bay (2011)
- Governing Board, Estuarine Research Federation, 2001-2005
- Co-Chair, Pinellas County Environmental Science Forum, 2006-2007
- Co-Chair, Federal-State Task Team advising SIMOR on the National Ocean Research Priorities Plan, 2005-2006
- Member, National Academy of Sciences Ocean Studies Board, 2005-2008
- Co-Chair, Coastal and Estuarine Research Federation 2011 International Conference
- Chair, Association of National Estuary Programs, 2009-2012
- Associate Editor, *Estuaries and Coasts*, 2007-2013
- Member, Florida Oceans and Coast Council, 2007-current

### Selected Technical Publications

Greening, H., A. Janicki, E.T. Sherwood, R. Pribble and J.O.R. Johansson. 2014. Ecosystem responses to long-term nutrient management in an urban estuary: Tampa Bay, Florida, USA. Estuarine, Coastal and Shelf Science 151: A1-A16.

Sherwood, ET and HS Greening. 2014. Potential Impacts and Management Implications of Climate Change on Tampa Bay Estuary Critical Coastal Habitats. Environmental Management 53: 401-415.

Russell, M. and H. Greening. 2013. Estimating Benefits in a Recovering Estuary: Tampa Bay, Florida. Estuaries and Coasts doi: 10.007/s/12237-013-9662-8.

Greening, H.S., L.M. Cross and E.T. Sherwood. 2011. A Multiscale Approach to Seagrass Recovery in Tampa Bay, Florida. Ecological Restoration 29: 82-93.

Morrison, G., Greening, H.S. and Yates, K.K. 2011. Management Case Study: Tampa Bay, Florida. IN: Wolanski, E. and McLusky, D.S. (eds) *Treatise on Estuarine and Coastal Science*, Vol. 11, pp 31-76. Waltham: Academic Press.

Yates, K.K., Greening, H. and Morrison, G., eds. 2011. *Integrating Science and Resource Management in Tampa Bay, Florida*. U.S. Geological Survey Circular 1348, 280 p.

Cicchetti, G. and H. Greening. 2011. Estuarine Biotope Mosaics and Habitat Management Goals: An Application in Tampa Bay, FL, USA. Estuaries and Coasts 34: 1278 – 1292.

National Research Council. 2011. *Achieving Nutrient and Sediment Reduction Goals in the Chesapeake Bay: An Evaluation of Program Strategies and Implementation*. Committee member, Committee on the Evaluation of Chesapeake Bay Program Implementation for Nutrient Reduction to Improve Water Quality. The National Academies Press, Washington D.C. 246 p.

Greening, H.S. and A.J. Janicki. 2010. Nutrient Management and Seagrass Restoration in Tampa Bay, Florida: A Voluntary Program Meeting TMDL Requirements. IN: Stein, S.M. (ed), TMDLs in the Urban Environment: Case Studies. Environmental and Water Resources Institute of the American Society of Civil Engineers, pp 103-131.

Florida Oceans and Coastal Council. 2009. The effects of climate change on Florida's oceans and coastal resources. A special report to the Florida Energy and Climate Commission. Tallahassee, FL. 34 pp.

Atkeson, T., H. Greening and N. Poor. 2007. Bay Regional Atmospheric Chemistry Experiment (BRACE). Editorial in Atmospheric Environment Vol. 41, Issue 20, pp. 4163 -4164.

Greening, H., P. Doering and C. Corbett. 2006. Hurricane Impacts on Coastal Ecosystems. Estuaries and Coasts Vol. 20, No. 6A, pp. 877-879.

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estuary: water quality and seagrass response to nitrogen loading reductions in Tampa Bay, Florida, USA. Environmental Management Vol. 38, No. 2, pp. 163-178.

Tomasko, D.A., C.A. Corbett, H.S.Greening and G.E. Raulerson. 2005. Spatial and Temporal Variations in Seagrass Coverage in Southwest Florida: Assessing the Relative Effects of Anthropogenic Nutrient Load Reductions and Rainfall in Four Contiguous Estuaries. Marine Pollution Bulletin 50(2005) 797-805.

National Research Council of the National Academies. 2004. A Geospatial Framework for the Coastal Zone. Committee member, Committee on National Needs for Coastal Mapping and Charting. Ocean Studies Board and Mapping Science Committee, National Research Council. 149 pages. National Academy Press, Washington, D.C.

MacDonald, D.D., R.A. Lindscoog, D.E. Smorong, H. Greening, R. Pribble, T. Janicki, S. Grabe, C.G. Ingersoll, D. Eckenrod and E.R. Long. 2004. Development of an Ecosystem-Based Framework for Assessing and Managing Sediment Quality Conditions in Tampa Bay, Florida. Archives of Environmental Contamination and Toxicology 46,147-161.

Greening, H. and C. Elfring. 2002. Local, state, regional and federal roles in coastal nutrient management. Estuaries; Vol. 25, No 4b, p 838-847.

Greening, H. and B.D. DeGrove. 2001. Implementing a Voluntary, Nonregulatory Approach to Nitrogen Management in Tampa Bay, FL: A Public/Private Partnership. IN: Optimizing Nitrogen Management in Food and Energy Production and Environmental Protection: Proceedings of the 2<sup>nd</sup> International Nitrogen Conference on Science and Policy. TheScientificWorld; 1(S2), 378-383.

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Stacey, P.E., H.S. Greening, J.N. Kremer, D. Peterson and D. A. Tomasko. 2001. Contributions of Atmospheric Nitrogen Deposition to U.S. Estuaries. IN: Nitrogen Loading in Coastal Water Bodies: An Atmospheric Perspective, Coastal and Estuarine Studies Vol. 57. R. Valigura, editor. American Geophysical Union Books.

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National Research Council. 2000. Clean Coastal Waters: Understanding and Reducing the Effects of Nutrient Pollution. Committee member, Committee on the Causes and Management of Coastal Eutrophication. Ocean Studies Board and Water Science and Technology Board, National Research Council. 405 p. National Academy Press, Washington, D.C.

Johansson, J.O.R. and H.S. Greening. 2000. Seagrass Restoration in Tampa Bay: A Resource-Based Approach to Estuarine Management. IN: Subtropical and Tropical Seagrass Management

Ecology (S.A. Bortone, ed.), Boca Raton, FL. CRC Publication

Long, E.R. and H.S. Greening. 1999. Chemical contamination in the Tampa Bay estuary: Extent, toxicity, potential sources and possible sediment quality management plans. NOAA Special Report 1999.

Greening, H.S. 1997. Information sources and uses in the development of a coastal ecosystem management plan. Pp. 577-585 In: Seeking Balance: Conflict, Resolution & Partnership. Proceedings of the Fifteenth International Conference of the Coastal Society.

Greening, H.S. 1997. Emerging Awareness of Air Quality Impacts on Coastal Waters. Invited Plenary Session: Coastal Change: What Does It Mean for Our Health? Coastal Zone 97. July 1997, Boston, Massachusetts.

Greening, H.S., L.K. Dixon, A. Squires, P. Hessling, T. D'Aquila, and T. Rogers. 1997. Contribution of atmospheric deposition to nitrogen and toxic materials loadings to Tampa Bay. Pg. 269-280 In: Proceedings, Tampa Bay Area Scientific Information Symposium 3.

Gerritsen, J. and H.S. Greening. 1989. Marsh seed banks of the Okefenokee Swamp: Effects of hydrologic regime and nutrients. Ecology 70: 750-763.

Janicki, A.J. and H.S. Greening. 1988. The effects of stream liming and water chemistry and anadromous fish spawning success in two Maryland Coastal Plain streams. Water, Air, and Soil Pollution 41: 359-383.

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Leber, K.L. and H.S. Greening. 1986. Community studies in seagrass meadows: a comparison of two sampling methods for macroinvertebrates and fishes. Fish. Bulletin 84: 443-450.

Stoner, A.W. and H.S. Greening. 1984. Geographic variation in the macrofaunal associates of pelagic Sargassum and some biogeographic implications. Marine Ecology Progress Series: 20: 185-192.

Freeman, B.J., H.S. Greening, and J. D. Oliver. 1984. Comparison of three methods of sampling fishes and macroinvertebrates in a vegetated wetland. J. Freshwater Biology: 2: 603-609.

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