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**Steven Jenkins, Mobeen Rathore, M.D., Lucinda Sonnenberg, Ph.D., Michelle Tappouni**

Public Hearing  
Funding Request – Jax Zoo Living Shoreline Project  
Monday, November 14, 2016  
5:00 p.m.  
Ed Ball Building  
214 N. Hogan Street  
5th Floor – Conference Room West

## **AGENDA**

CALL TO ORDER MICHELLE TAPPOUNI

I. CERTIFICATION OF PUBLIC NOTICE

JAMES RICHARDSON

II. PRESENTATION BY PETITIONER

JAMES RICHARDSON

III. COMMENTS FROM PUBLIC

IV. BOARD DISCUSSION AND STAFF CLARIFICATION

V. BOARD VOTE

*EPB Education & Public Outreach Committee recommendation – Approve the funding request of an amount not to exceed \$140,000.00.*

VI. PROCEDURAL SUMMARY

SONDRA FETNER

VII. ADJOURNMENT



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Wetland Delineation • Permitting • Gopher Tortoise Authorized Agent • ASTM Phase 1 and 2 • Mitigation • Expert Witness

September 1, 2016

Attn: Mr. James Richardson II  
Environmental Protection Board Administrator, City of Jacksonville  
214 N Hogan Street, Suite 500  
Jacksonville, Florida 32202

RE: Extended Funding for the Jacksonville Zoo Living Shoreline Demonstration Project  
2012-438 – JACKSONVILLE ZOO LIVING SHORLINE PROJECT

Dear Mr. Richardson and members of the City of Jacksonville Environmental Protection Board (EPB):

Since 2012, the EPB has shown my firm, Onsite Environmental Consulting (OEC), strong support and enthusiasm for the Jacksonville Zoo Living Shoreline Project as it continues to move forward.

**The goal:**

In summary, the Living Shoreline (LSL) demonstration project to be located on the Trout River at the south boundary of the Jacksonville Zoo & Gardens (Zoo) is designed to feature alternative shoreline stabilization practices, promote nature habitats, and educate the public about the importance of living shorelines.

**The opportunity:**

With nearly a million visitors to the Zoo annually, the opportunity to showcase this important development alternative far surpasses any other shoreline demonstration site extant on the east coast of the United States. Moreover, the 180-foot linear shoreline area is more in keeping with what single-family homeowners would relate to. Therefore, the scale of this project brings it down to the consumer level, rather than to miles-long stretches of state shoreline park areas as many other demonstration sites are. Also key to the design is educational/community partnership where three years of progress monitoring of the LSL will be conducted in cooperation with the JU Marine Science Center and the Terry Parker Academy of Coastal and Environmental Sciences (ACES).

**Advances in the design:**

Since attending the South Atlantic's first regional summit on Living Shoreline in April 2016, hosted in Jacksonville by the Governors' South Atlantic Alliance with support from the EPA Region IV and The Nature Conservancy, OEC has found new wave attenuation technologies such as alternative

shaped reef balls, gabions, fiber logs, and so on to reconsider the original wave attenuation devices in the 2012 design.

We also found new support and partnership for more advanced ways to construct and monitor the project.

Key among those new partnerships are:

- Cheryl Mannel and Andrea Noel (Restoration Coordinators of NE FL Aquatic Preserve @ FDEP) who have overseen installation of a LSL demonstration site at the Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNEER) in South Ponte Vedra. They have provided, and continue to provide, invaluable advice based on their experience, missteps, and best practices.
- Paul J. Haydt of the SJRWMD, and his professional associates with the Northeast Florida Estuary Restoration Initiative (NERT).
- Ana Zivanovic Nenadovic with the North Carolina-based Living Shoreline Academy, an online resource promoting the exchange of information, research training modules, policies, and practices to advance the use of Living Shorelines.

The result has allowed us to change the design and reduce the cost significantly. The original total project cost projection was to be approximately \$350,000 for construction and monitoring, but now, we have been able to reduce that cost significantly (nearly 22%) to \$278,000 by use of newer materials and by designing a smaller observation deck in lieu of a full length boardwalk. This is a feature the Zoo wants and we are intending to honor that, as we agree that it will create a unique way to see the progress of the Living Shoreline from above while keeping visitors off the physical shoreline and our scientific control area.

### **Challenges with funding:**

In 2012, OEC was awarded a \$25,000 provisional grant that would only be released upon securing of 1:1 matching funds. City of Jacksonville Ord.2015-663 provided an extension of the EPB funding (\$25,000) through Sept 30, 2017. To date, we have only raised \$2,925.00

The release of the grant would stage in three milestones:

#### **Milestone 1**

- \$10,000 may be released upon demonstration of \$25,000 in matching funds being received

#### **Milestone 2**

- \$10,000 may be released upon demonstration that FDEP and USACE permits have been issued

#### **Milestone 3**

- \$5,000 may be released upon demonstration of project completion

Though I have sought matching funds from the community, I have been less successful as I'd hoped. So even though I have found a wealth of professionals to assist with information and design, as well as to give discounts on product, I have not been able to secure the critically needed cash dollars to release the first stage of the grant.

Therefore, I have been self-funding the project in-house here at OEC. To date, my staff and I have logged 252.47 hours on this project (and that only covers record keeping over the past two years). The design is 90% complete and I am meeting with the state and federal regulators on Monday, August 29, 2016 regarding the final permitting and design needs before launch.

**Expanded funding request:**

Funding is what I need to launch I have been unable to spend extra time fund-raising while at the same time self-funding the design of the project since 2012.

Therefore, I would respectfully request a partnership with the EPB to fund the entire cash needs of the project as dictated by the attached budget, approximately \$139,578.75 (see attached budget, with summary of funding needs at the bottom).

A budget and PPT presentation of this project is included in this letter.

I am available for any questions you may have or any further presentations to any committees.

I remain respectfully yours,



Janet Herrick  
CEO/President

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Attch: Budget

**PROJECT BUDGET**

	A	B	C	D	E	F	G
1		<b>Jacksonville Zoo Living Shoreline Project (revised SEPT 01, 2016)</b>					
2		<b>Funding Source</b>	<b>Estimated Cost</b>	<b>Cash raised + in-kind donations pledged</b>	<b>% Don.</b>	<b>Estimated Cash Needs</b>	<b>Notes</b>
3		<b>I. Planning</b>					
4		Onsite Environmental Consulting (OEC)	\$40,000.00	\$20,000.00	50%	\$20,000.00	planning, monitoring, analysis
5		<b>Total Cash Needed for Planning:</b>				<b>\$20,000.00</b>	
6							
7		<b>II. Permitting</b>					
8		OEC Permitting & Project Mgmt	\$50,000.00	\$40,000.00	80%	\$10,000.00	Incl. prep of permit app, site visits, & RAIs
9		Surveying	\$4,475.00	\$671.25	15%	\$3,803.75	Initial surveying & monitoring annually 3 years
10		<b>Total Cash Needed for Permitting:</b>				<b>\$13,803.75</b>	
11							
12		<b>III. Living Shoreline</b>					
13		Removal of riprap (separate from observation boardwalk listed below)	\$10,000.00	\$1,000.00	10%	\$9,000.00	Marine contractor to shape shoreline ~400 soil bags (~\$4/bag) product & installation
14		Filling and Grading	\$2,000.00	\$400.00	15%	\$1,600.00	product, installation & irrigation
15		Plants	\$26,000.00	\$3,900.00	15%	\$22,100.00	product & installation - oyster bag, reef ball
16		Wave Attenuation	\$70,000.00	\$35,000.00	50%	\$35,000.00	
17		<b>Total Cash Needed for Living Shoreline:</b>				<b>\$67,700.00</b>	
18							
19		<b>IV. Monitoring</b>					
20		Equipment	\$15,000.00	\$7,500.00	50%	\$7,500.00	Partners are providing most for use in project
21		Labor	\$15,000.00	\$15,000.00	100%	\$0.00	volunteers & students, quarterly for 3 years
22		<b>Total Cash Needed for Monitoring:</b>				<b>\$7,500.00</b>	
23							
24		<b>V. Publicity</b>					
25		Signage and Lighting	\$6,000.00	\$3,000.00	50%	\$3,000.00	Zoo
26		<b>Total Cash Needed for Publicity:</b>				<b>\$3,000.00</b>	
27							
28		<b>VII. Funding</b>					
29		OEC Grant writing	\$10,000.00	\$5,000.00	50%	\$5,000.00	grant writing expenses
30		<b>Total Cash Needed for Grant Writing:</b>				<b>\$5,000.00</b>	
31							
32		<b>VIII. Observation Deck</b>					
33		Materials & Installation	\$30,000.00	\$4,500.00	15%	\$25,500.00	Dock: ~500 sq/ft Boardwalk: \$200/linear foot assume ~200' & nice handrails. Possible Canoe Launch.
34		<b>Total Cash Needed for Boardwalk:</b>				<b>\$25,500.00</b>	
35							
36		<b>Total Development Goal (with Observation Deck)</b>	<b>\$278,475.00</b>	<b>\$135,971.25</b>	<b>49%</b>	<b>\$142,503.75</b>	
37		<b>Total Development Goal (no Obs.Deck)</b>	<b>\$248,475.00</b>	<b>\$131,471.25</b>	<b>53%</b>	<b>\$117,003.75</b>	
38							
39		<b>FUNDRAISING EFFORTS TO OFFSET CASH NEEDS</b>					
40				<b>\$ Applied for / Pledged</b>		<b>\$ RECEIVED / RAISED</b>	
41		COJ EPB Grant	Requires 1:1 match	\$25,000.00			Provisional awarded pending matching monies of equal amount received
42		Mitgation Fund				\$2,925.00	Cash R'cvd to date (FIND monies)
43		USFWS Grant		\$0.00			submitting
44		FIND		\$0.00			requesting
45		Coastal Partnership Initiative (FDEP)		\$45,000.00			In progress (Due Oct. 30) - potential award APRIL 2017
46		NOAA Grant		TBD			TBD
47		Anheuser Busch		TBD			TBD
48		Zoo/Riverkeeper Donations		TBD			TBD
49		FDEP Consent Orders		\$0.00			estimated
50		<b>TOTALS</b>		<b>\$70,000.00</b>		<b>\$2,925.00</b>	
51		<b>Total Development Goal (with Observation Deck)</b>				<b>\$139,578.75</b>	<b>TO DATE - CASH AMOUNT REQUIRED TO COMPLETE</b>
52		<b>Total Development Goal (no Obs.Deck)</b>				<b>\$114,078.75</b>	<b>TO DATE - CASH AMOUNT REQUIRED TO COMPLETE</b>