



GULF SPECIMEN MARINE LABORATORIES, INC.

**TRIUMPH GULF COAST FUNDING APPLICATION  
FOR  
GULF SPECIMEN MARINE LABORATORY  
EXPANSION, ECOTOURISM AND AQUACULTURE  
PROJECT**

**SEPTEMBER 7, 2018**

Proud Member of



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# GULF SPECIMEN MARINE LABORATORIES, INC.

*a non profit/tax exempt organization*

September 7, 2018

Honorable Don Gaetz, Chairman  
Triumph Gulf Coast, Inc.  
Attn: Susan Skelton, Executive Director  
P.O. Box 12007  
Tallahassee, Florida 32317

Dear Chairman Gaetz:

Enclosed is Gulf Specimen Marine Laboratory's (GSML) application for Triumph funds to expand its existing programs, and implement a Master Plan, designed by the former Vice President of Ripley's Aquariums. GSML, located in the impoverished town of Panacea, Florida has been in continuous operation since 1964 and we are requesting \$4.9 million to expand its aquarium, and our highly successful aquaculture training program. These efforts will transform the region by creating new jobs, increasing existing markets for marine organisms to scientific and educational institutions, and become a destination for ecotourism.

By expanding its popular, renowned ecotourism program and school field trips, using its extensive facilities and traveling SeaMobile, the local businesses in the region will benefit economically. GSML has historically contributed much to the local economy, starting the fisheries markets for rock shrimp, bulldozer lobsters and cannonball jellyfish, and now plans to develop a seaweed culture program.

GSML has successfully placed volunteers and interns in jobs within government, industry and academia because of the intensive marine biology program hands-on training they attained while working at the lab and learning skills in aquaculture techniques, aquarium maintenance, and how to collect and ship live specimens. They also gain communication and hospitality skills while leading tour groups.

Gulf Specimen Marine Laboratory is requesting \$4,950,000 for upgrading and expanding the existing aquarium, aquaculture facilities, dock facilities, educational center for our K-12 field trips, Intern and Certificate programs. **This is a 3-year proposal with GSML being self-sustaining by year 4. Triumph would contribute 47.19% of total project costs.** The requested funds will be used to purchase equipment, upgrade the facilities, build a much needed educational center, and implement the aquarium's Master Plan designed by Ripley's aquarium.

Sincerely,

Jack Rudloe  
President, GSML

**P.O. Box 237 • Panacea, Florida 32346 • 850-984-5297**

Fax 850-984-5233 • [www.gulfspecimen.org](http://www.gulfspecimen.org) • [gspecimen@sprintmail.com](mailto:gspecimen@sprintmail.com)

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# **Triumph Gulf Coast, Inc. Trust Fund Application for Funds**

Proposal Instructions: The Triumph Gulf Coast, Inc. Trust Fund Grant Application (this document) must be completed by the entity applying for the grant and signed, as applicable, by either the individual applying for funds, an individual authorized to bind the entity applying for funds, a chief elected official, the administrator for the governmental entity or their designee. Please read the Application carefully as some questions may require a separate narrative to be completed. In addition, please complete all Addendums that may be applicable to the proposed project or program.

Triumph Gulf Coast, Inc. will make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. Triumph Gulf Coast, Inc. may make awards for:

- Ad valorem tax rate reduction within disproportionately affected counties;
- Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education; encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.

Pursuant to Florida Law, Triumph Gulf Coast, Inc. will provide priority consideration to Applications for projects or programs that:

- Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
- Increase household income in the disproportionately affected counties above national average household income.
- Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.
- Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
- Benefit the environment, in addition to the economy.
- Provide outcome measures.
- Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- Are recommended by the board of county commissioners of the county in which the project or program will be located.
- Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

Additionally, the Board of Triumph Gulf Coast, Inc. may provide discretionary priority to consideration of Applications for projects and programs that:

- Are considered transformational for the future of the Northwest Florida region.
- May be consummated quickly and efficiently.
- Promote net-new jobs in the private sector with an income above regional average household income.
- Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation.
- Create net-new jobs in targeted industries to include: aerospace and defense, financial services/shared services, water transportation, artificial intelligence, cybersecurity, information technology, manufacturing, and robotics.
- Promote industry cluster impact for unique targeted industries.
- Create net-new jobs with wages above national average wage (*e.g.*, similar to EFI QTI program, measured on graduated scale).
- Are located in Rural Area of Opportunity as defined by the State of Florida (DEO).
- Provide a wider regional impact versus solely local impact.
- Align with other similar programs across the regions for greater regional impact, and not be duplicative of other existing projects or programs.
- Enhance research and innovative technologies in the region.
- Enhance a targeted industry cluster or create a Center of Excellence unique to Northwest Florida.

- Create a unique asset in the region that can be leveraged for regional growth of targeted industries.
- Demonstrate long-term financial sustainability following Triumph Gulf Coast, Inc. funding.
- Leverage funding from other government and private entity sources.
- Provide local investment and spending.
- Are supported by more than one governmental entity and/or private sector companies, in particular proposed projects or programs supported by more than one county in the region.
- Provide clear performance metrics over duration of project or program.
- Include deliverables-based payment system dependent upon achievement of interim performance metrics.
- Provide capacity building support for regional economic growth.
- Are environmentally conscious and business focused.
- Include Applicant and selected partners/vendors located in Northwest Florida.

Applications will be evaluated and scored based on compliance with the statutory requirements of the Triumph Gulf Coast legislation, including but not limited to the priorities identified therein and the geographic region served by the proposed project or program.

**Applicant Information**

Name of Individual (if applying in individual capacity): \_\_\_\_\_

Name of Entity/Organization: \_\_\_\_\_

Background of Applicant Individual/Entity/Organization: \_\_\_\_\_

**SEE ATTACHMENT A**

(If additional space is needed, please attach a Word document with your entire answer.)

Federal Employer Identification Number: \_\_\_\_\_

Contact Information:

Primary Contact Information: \_\_\_\_\_

Title: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Website: \_\_\_\_\_

Identify any co-applicants, partners, or other entities or organizations that will have a role in the proposed project or program and such partners proposed roles.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(If additional space is needed, please attach a Word document with your entire answer.)

Total amount of funding requested from Triumph Gulf Coast: \_\_\_\_\_

\_\_\_\_\_

Has the applicant in the past requested or applied for funds for all or part of the proposed project/program?

Yes       No

If yes, please provide detailed information concerning the prior request for funding, including:

- the date the request/application for funding was made;
- the source to which the request/application for funding was made,
- the results of the request/application for funding, and
- projected or realized results and/or outcomes from prior funding.

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(If additional space is needed, please attach a Word document with your entire answer.)

Describe the financial status of the applicant and any co-applicants or partners:

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

In a separate attachment, please provide financial statements or information that details the financial status of the applicant and any co-applicants or partners.

Has the applicant or any co-applicants, partners or any associated or affiliated entities or individuals filed for bankruptcy in the last ten (10) years?

Yes       No

If yes, please identify the entity or individual that filed for bankruptcy and the date of filing.

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(If additional space is needed, please attach a Word document with your entire answer.)

## **Eligibility**

Pursuant to Section 288.8017, Triumph Gulf Coast, Inc. was created to make awards from available funds to projects or programs that meet the priorities for economic recovery, diversification, and enhancement of the disproportionately affected counties. The disproportionately affected counties are: Bay County, Escambia County, Franklin County, Gulf County, Okaloosa County, Santa Rosa County, Walton County, or Wakulla County. *See*, Section 288.08012.

1. From the choices below, please check the box that describes the purpose of the proposed project or program (check all that apply):

- Ad valorem tax rate reduction within disproportionately affected counties;
- Local match requirements of s. 288.0655 for projects in the disproportionately affected counties;
- Public infrastructure projects for construction, expansion, or maintenance which are shown to enhance economic recovery, diversification, and enhancement of the disproportionately affected counties;
- Grants to local governments in the disproportionately affected counties to establish and maintain equipment and trained personnel for local action plans of response to respond to disasters, such as plans created for the Coastal Impacts Assistance Program;
- Grants to support programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties. Eligible programs include those that increase students' technology skills and knowledge; encourage industry certifications; provide rigorous, alternative pathways for students to meet high school graduation requirements; strengthen career readiness initiatives; fund high-demand programs of emphasis at the bachelor's and master's level designated by the Board of Governors; and, similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission of Education, encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties;
- Grants to support programs that provide participants in the disproportionately affected counties with transferable, sustainable workforce skills that are not confined to a single employer; and
- Grants to the tourism entity created under s. 288.1226 for the purpose of advertising and promoting tourism and Fresh From Florida, and grants to promote workforce and infrastructure, on behalf of all of the disproportionately affected counties.



3. Explain how the proposed project or program is considered transformational and how it will effect the disproportionately affected counties in the next ten (10) years.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

4. Describe data or information available to demonstrate the viability of the proposed project or program.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

5. Describe how the impacts to the disproportionately affected counties will be measured long term.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

6. Describe how the proposed project or program is sustainable. (Note: Sustainable means how the proposed project or program will remain financially viable and continue to perform in the long-term after Triumph Gulf Coast, Inc. funding.)

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

7. Describe how the deliverables for the proposed project or program will be measured.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

### **Priorities**

1. Please check the box if the proposed project or program will meet any of the following priorities (check all that apply):

- Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analyses, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.
- Increase household income in the disproportionately affected counties above national average household income.
- Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.

- Partner with local governments to provide funds, infrastructure, land, or other assistance for the project.
- Benefit the environment, in addition to the economy.
- Provide outcome measures.
- Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.
- Are recommended by the board of county commissioners of the county in which the project or program will be located.
- Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.

2. Please explain how the proposed project meets the priorities identified above.

[SEE ATTACHMENT E](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

3. Please explain how the proposed project or program meets the discretionary priorities identified by the Board.

[SEE ATTACHMENT F](#)

(If additional space is needed, please attach a Word document with your entire answer.)

4. In which of the eight disproportionately affected county/counties is the proposed project or program located? (Circle all that apply)

Escambia   Santa Rosa   Okaloosa   Walton   Bay   Gulf   Franklin   **Wakulla**

5. Was this proposed project or program on a list of proposed projects and programs submitted to Triumph Gulf Coast, Inc., by one (or more) of the eight disproportionately affected Counties as a project and program located within its county?

Yes  No

If yes, list all Counties that apply: \_\_\_\_\_  
\_\_\_\_\_

6. Does the Board of County Commissioners for each County listed in response to question 5, above, recommend this project or program to Triumph?

Yes  No

\*\*Please attach proof of recommendation(s) from each County identified.

### **Approvals and Authority**

1. If the Applicant is awarded grant funds based on this proposal, what approvals must be obtained before Applicant can execute an agreement with Triumph Gulf Coast, Inc.?

\_\_\_\_\_  
(If additional space is needed, please attach a Word document with your entire answer.)

2. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the entity and Triumph Gulf Coast:

- A. Provide the schedule of upcoming meetings for the group for a period of at least six months.  
B. State whether that group can hold special meetings, and if so, upon how many days' notice.

\_\_\_\_\_  
(If additional space is needed, please attach a Word document with your entire answer.)

3. Describe the timeline for the proposed project or program if an award of funding is approved, including milestones that will be achieved following an award through completion of the proposed project or program.

[SEE ATTACHMENT D](#)

\_\_\_\_\_  
(If additional space is needed, please attach a Word document with your entire answer.)

4. Attach evidence that the undersigned has all necessary authority to execute this proposal on behalf of the entity applying for funding. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy documents, etc. In addition, please attach any support letters from partners.

**Funding and Budget:**

Pursuant to Section 288.8017, awards may not be used to finance 100 percent of any project or program. An awardee may not receive all of the funds available in any given year.

1. Identify the amount of funding sought from Triumph Gulf Coast, Inc. and the time period over which funding is requested.

4,950,000 3 years

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(If additional space is needed, please attach a Word document with your entire answer.)

2. What percentage of total program or project costs does the requested award from Triumph Gulf Coast, Inc. represent? (Please note that an award of funding will be for a defined monetary amount and will not be based on percentage of projected project costs.)

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(If additional space is needed, please attach a Word document with your entire answer.)

3. Please describe the types and number of jobs expected from the proposed project or program and the expected average wage.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

4. Does the potential award supplement but not supplant existing funding sources? If yes, describe how the potential award supplements existing funding sources.

Yes  No

See attachment G

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(If additional space is needed, please attach a Word document with your entire answer.)

5. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.

A. Project/Program Costs:

Example Costs (Note: Not exhaustive list of possible Cost categories.)

Construction \$ \_\_\_\_\_

Reconstruction \$ \_\_\_\_\_

Design & Engineering \$ \_\_\_\_\_

Land Acquisition \$ \_\_\_\_\_

Land Improvement \$ \_\_\_\_\_

Equipment \$ \_\_\_\_\_

Supplies \$ \_\_\_\_\_

Salaries \$ \_\_\_\_\_

Other (specify) \$ \_\_\_\_\_  
Total Project Costs: \$ \_\_\_\_\_

B. Other Project Funding Sources:

Example Funding Sources (Note: Not an exhaustive list of possible Funding Sources.)

City/County \$ \_\_\_\_\_  
Private Sources \$ \_\_\_\_\_  
Other (e.g., grants, etc.) \$ \_\_\_\_\_  
Total Other Funding \$ \_\_\_\_\_  
**Total Amount Requested:** \$ \_\_\_\_\_

Note: The total amount requested must equal the difference between the costs in 3A. and the other project funding sources in 3.B.

C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding and any other pertinent budget-related information.

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[SEE ATTACHMENT H - Cash Flow Table/Budget](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

Applicant understands that the Triumph Gulf Coast, Inc. statute requires that the award contract must include provisions requiring a performance report on the contracted activities, must account for the proper use of funds provided under the contract, and must include provisions for recovery of awards in the event the award was based upon fraudulent information or the awardee is not meeting the performance requirements of the award.

Yes       No

Applicant understands that awardees must regularly report to Triumph Gulf Coast, Inc. the expenditure of funds and the status of the project or program on a schedule determined by Triumph Gulf Coast, Inc.

Yes       No

Applicant acknowledges that Applicant and any co-Applicants will make books and records and other financial data available to Triumph Gulf Coast, Inc. as necessary to measure and confirm performance metrics and deliverables.

Yes       No

Applicant acknowledges that Triumph Gulf Coast, Inc. reserves the right to request additional information from Applicant concerning the proposed project or program.

Yes       No

**ADDENDUM FOR INFRASTRUCTURE PROPOSALS:**

1. Program Requirements

- A. Is the infrastructure owned by the public?  
 Yes       No
  
- B. Is the infrastructure for public use or does it predominately benefit the public?  
 Yes       No
  
- C. Will the public infrastructure improvements be for the exclusive benefit of any single company, corporation or business entity?  
 Yes       No
  
- D. Provide a detailed explanation of how the public infrastructure improvements will connect to a broader economic development vision for the community and benefit additional current and future businesses.

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(If additional space is needed, please attach a Word document with your entire answer.)

- E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed public infrastructure project will promote:
  - o Economic recovery,
  - o Economic Diversification,
  - o Enhancement of the disproportionately affected counties,
  - o Enhancement of a Targeted Industry.

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(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. Is this project an expansion of existing infrastructure project?  
 Yes       No
  
- B. Provide the proposed beginning commencement date and number of days required to complete construction of the infrastructure project.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. What is the location of the public infrastructure? (Provide the road number, if applicable.)

---

(If additional space is needed, please attach a Word document with your entire answer.)

- D. Who is responsible for maintenance and upkeep? (Indicate if more than one are applicable.)

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(If additional space is needed, please attach a Word document with your entire answer.)

- E. What permits are necessary for the infrastructure project?

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(If additional space is needed, please attach a Word document with your entire answer.)

Detail whether required permits have been secured, and if not, detail the timeline for securing these permits. Additionally, if any required permits are local permits, will these permits be prioritized?

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(If additional space is needed, please attach a Word document with your entire answer.)

- F. What is the future land use and zoning designation on the proposed site of the Infrastructure improvement, and will the improvements conform to those uses?

---

(If additional space is needed, please attach a Word document with your entire answer.)

- G. Will an amendment to the local comprehensive plan or a development order be required on the site of the proposed project or on adjacent property to accommodate the infrastructure and potential current or future job creation opportunities? If yes, please detail the timeline  
 Yes       No

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(If additional space is needed, please attach a Word document with your entire answer.)

- H. Does this project have a local match amount? If yes, please describe the entity providing the match and the amount.  
 Yes       No

---

(If additional space is needed, please attach a Word document with your entire answer.)

- I. Provide any additional information or attachments to be considered for this proposal.

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(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR WORKFORCE TRAINING PROPOSALS**

1. Program Requirements

- A. Will this proposal supports programs that prepare students for future occupations and careers at K-20 institutions that have campuses in the disproportionately affected counties? If yes, please identify where the campuses are located and provide details on how the proposed programs will prepare students for future occupations and at which K-20 institutions that programs will be provided.

Yes       No

[SEE ATTACHMENT J](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Will the proposed program (check all that apply):
- Increase students’ technology skills and knowledge
  - Encourage industry certifications
  - Provide rigorous, alternative pathways for students to meet high school graduation requirements
  - Strengthen career readiness initiatives
  - Fund high-demand programs of emphasis at the bachelor’s and master’s level designated by the Board of Governors
  - Encourage students with interest or aptitude for science, technology, engineering, mathematics, and medical disciplines to pursue postsecondary education at a state university or a Florida College System institution within the disproportionately affected counties (similar to or the same as talent retention programs created by the Chancellor of the State University System and the Commission on Education)

For each item checked above, describe how the proposed program will achieve these goals

[SEE ATTACHMENT J](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Will this proposal provide participants in the disproportionately affected counties with transferable, sustainable workforce skills but not confined to a single employer? If yes, please provide details.

Yes       No

[SEE ATTACHMENT J](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- D. Identify the disproportionately affected counties where the proposed programs will operate or provide participants with workforce skills.

---

(If additional space is needed, please attach a Word document with your entire answer.)

- E. Provide a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote:
- Economic recovery,
  - Economic Diversification,
  - Enhancement of the disproportionately affected counties,
  - Enhancement of a Targeted Industry.

[SEE ATTACHMENT D FSU Pages16-26](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. Is this an expansion of an existing training program? Is yes, describe how the proposed program will enhance or improve the existing program and how the proposal program will supplements but not supplant existing funding sources.
- Yes       No

---

(If additional space is needed, please attach a Word document with your entire answer.)

- B. Indicate how the training will be delivered (e.g., classroom-based, computer based, other).  
If in-person, identify the location(s) (e.g., city, campus, etc.) where the training will be available.

If computer-based, identify the targeted location(s) (e.g., city, county) where the training will be available.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Identify the number of anticipated enrolled students and completers.

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(If additional space is needed, please attach a Word document with your entire answer.)

- D. Indicate the length of the program (e.g, quarters, semesters, weeks, months, etc.) including anticipated beginning and ending dates.

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(If additional space is needed, please attach a Word document with your entire answer.)

- E. Describe the plan to support the sustainability of the proposed program.

[SEE ATTACHMENT D](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- F. Identify any certifications, degrees, etc. that will result from the completion of the program.

[SEE ATTACHMENT I - Letters of Support, Lively](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

G. Does this project have a local match amount? If yes, please describe the entity providing the match and the amount.

Yes  No

---

(If additional space is needed, please attach a Word document with your entire answer.)

H. Provide any additional information or attachments to be considered for this proposal.

[SEE ATTACHMENT J](#)

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[SEE ATTACHMENT I](#) "Letters of Support"

(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR AD VALOREM TAX RATE REDUCTION:**

1. Program Requirements

- A. Describe the property or transaction that will be supported by the ad valorem tax rate reduction.

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Provide a detailed explanation of how the ad valorem tax rate reduction will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

---

(If additional space is needed, please attach a Word document with your entire answer.)

- C. Provide a detailed description of the quantitative evidence demonstrating how the proposed ad valorem tax reduction will promote:
- Economic recovery,
  - Economic Diversification,
  - Enhancement of the disproportionately affected counties,
  - Enhancement of a Targeted Industry.

---

(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. What is the location of the property or transaction that will be supported by the ad valorem tax rate reduction?

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Detail the current status of the property or transaction that will be supported by the ad valorem tax rate reduction and provide a detailed description of when and how the ad valorem tax rate reduction will be implemented.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Does this proposed project have a local match amount? If yes, please describe the entity providing the match and the amount.  
 Yes       No

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(If additional space is needed, please attach a Word document with your entire answer.)

- D. Provide any additional information or attachments to be considered for this proposal.

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(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR LOCAL MATCH REQUIREMENTS OF SECTION 288.0655, FLORIDA STATUTES**

1. Program Requirements

- A. Describe the local match requirements of Section 288.0655 and the underlying project, program or transaction that will be funded by the proposed award.

---

(If additional space is needed, please attach a Word document with your entire answer.)

- B. Provide a detailed explanation of how the local match requirements and the underlying project or program will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Provide a detailed description of, and quantitative evidence demonstrating how the proposed local match requirements will promote:
- Economic recovery,
  - Economic Diversification,
  - Enhancement of the disproportionately affected counties,
  - Enhancement of a Targeted Industry.

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(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. What is the location of the property or transaction that will be supported by the local match requirements?

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Detail the current status of the property or transaction that will be supported by the local match requirement and provide a detailed description of when and how the local match requirement will be implemented.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Provide any additional information or attachments to be considered for this proposal.

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(If additional space is needed, please attach a Word document with your entire answer.)

**ADDENDUM FOR LOCAL ACTION PLAN**

1. Program Requirements

- A. Describe how the proposed award will establish and maintain equipment and trained personnel for local action plans of response to respond to disasters.
- B. Describe the type and amount of equipment and trained personnel that will be established or maintained by the proposed award.
- C. Identify the specific local action plans (*e.g.*, Coastal Impacts Assistance Program) that will benefit from the proposed award.
- D. Provide a detailed explanation of how the proposed award will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

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(If additional space is needed, please attach a Word document with your entire answer.)

- E. Provide a detailed description of the quantitative evidence demonstrating how the proposed will promote:
  - o Economic recovery,
  - o Economic Diversification,
  - o Enhancement of the disproportionately affected counties,
  - o Enhancement of a Targeted Industry.

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(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. What is the location of the local action program that will be supported by the proposed award?

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Detail the current status of the local action plans (*e.g.*, new plans, existing plans, etc.) that will be supported by the proposed award and provide a detailed description of when and how the proposed award will be implemented.

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Provide any additional information or attachments to be considered for this proposal.

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(If additional space is needed, please attach a Word document with your entire answer.)

## ADDENDUM FOR ADVERTISING/PROMOTION

### 1. Program Requirements

A. Is the applicant a tourism entity created under s. 288.1226, Florida Statutes?  
 Yes       No

B. Does the applicant advertise and promote tourism and Fresh From Florida? If yes, provide details on how it advertises and promotes tourism and Fresh From Florida.  
 Yes       No

[SEE ATTACHMENT K](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

C. Does the proposed award promote workforce and infrastructure on behalf of the disproportionately affected counties? If yes, describe how workforce and infrastructure is promoted on behalf of the disproportionately affected counties.  
 Yes       No

[SEE ATTACHMENT K](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

D. Provide a detailed explanation of how the proposed award will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry.

[SEE ATTACHMENT K](#)

---

(If additional space is needed, please attach a Word document with your entire answer.)

E. Provide a detailed description of the quantitative evidence demonstrating how the proposed will promote:

- Economic recovery,
- Economic Diversification,
- Enhancement of the disproportionately affected counties,
- Enhancement of a Targeted Industry.

[SEE ATTACHMENT K](#)

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[SEE ATTACHMENT K](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

2. Additional Information

- A. Describe the advertising and promotion mediums and locations where the advertising and promotion will occur.

[SEE ATTACHMENT K](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- B. Detail the current status of the advertising and promotion (*e.g.*, new plans, existing plans, etc.) that will be supported by the proposed award and provide a detailed description of when and how the proposed award will be implemented.

[SEE ATTACHMENT K](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

- C. Provide any additional information or attachments to be considered for this proposal.

[SEE ATTACHMENT Q](#)

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(If additional space is needed, please attach a Word document with your entire answer.)

I, the undersigned, do hereby certify that I have express authority to sign this proposal on my behalf or on behalf of the above-described entity, organization, or governmental entity:

Name of Applicant: \_\_\_\_\_

Name and Title of Authorized Representative: \_\_\_\_\_

Representative Signature: \_\_\_\_\_

Signature Date: \_\_\_\_\_

## Attachment A: Applicant Information

Gulf Specimen is a 56-year-old environmental education center located in Panacea, Florida (Wakulla County) that markets marine life to schools, research laboratories and aquariums. In addition the GSML host over 500 school field trips per averaging 10,000 kids from around the state and Georgia, operates a public touch tank aquarium, a certified sea turtle rehabilitation facility and manages an Intern program with over 50 students per year from FSU, FAMU, TCC and Thomas University.

Since 1962, GSML has provided live marine animals to thousands of the foremost research laboratories and universities in the United States, Canada, Europe and Japan. Over 700 scientific publications cite us as their source of research specimens. G S M L presently collects and markets over 300 marine invertebrates, fish and algae to over 1300 scientific and educational institutions.

In 1980, Gulf Specimen Company became Gulf Specimen Marine Laboratories, Inc. (GSML), a not-for-profit corporation with a tax exempt IRS 501(c)(3) status. GSML is a licensed sea turtle rescue and rehabilitation center with a specially equipped hospital and turtle ambulance. All required permits and licenses from the FWC, Florida Department of Agriculture, and NOAA fisheries are maintained, and we have a 2 acre off shore lease for culturing live rock for aquariums.



# 2018 Florida Annual Resale Certificate for Sales Tax

DR-13  
R. 10/17

THIS CERTIFICATE EXPIRES ON DECEMBER 31, 2018

Business Name and Location Address

Certificate Number

GULF SPECIMEN MARINE LABORATORIES INC  
GULF SPECIMEN GIFT SHOP  
222 CLARK DR  
PANACEA, FL 32346-2340

75-8012089966-3

By extending this certificate or the certificate number to a selling dealer to make eligible purchases of taxable property or services exempt from sales tax and discretionary sales surtax, the person or business named above certifies that the taxable property or services purchased or rented will be resold or re-rented for one or more of the following purposes:

- Resale as tangible personal property.
- Re-rental as tangible personal property.
- Resale of services.
- Re-rental as commercial real property.
- Incorporation into tangible personal property being repaired.
- Re-rental as transient rental property.
- Incorporation as a material, ingredient, or component part of tangible personal property that is being produced for sale by manufacturing, compounding, or processing.

0000074 11/16/16



# Consumer's Certificate of Exemption

DR-14  
R. 10/15

Issued Pursuant to Chapter 212, Florida Statutes

85-8012586480C-1	01/31/2017	01/31/2022	501(C)(3) ORGANIZATION
Certificate Number	Effective Date	Expiration Date	Exemption Category

This certifies that

GULF SPECIMEN MARINE LABORATORIES INC  
222 CLARK DR # C  
PANACEA FL 32346-2340

is exempt from the payment of Florida sales and use tax on real property rented, transient rental property rented, tangible personal property purchased or rented, or services purchased.

## Gulf Specimen Marine Laboratory

## Balance Sheet

08/09/18

As of December 31, 2017

Accrual Basis

	Dec 31, 17
<b>ASSETS</b>	
<b>Current Assets</b>	
<b>Checking/Savings</b>	
Cap City Bank Operating Acc	7,807.84
Cash in Drawer	3,909.80
Centennial Bank Spec Proj.	5,696.37
Money Market Account	73,159.52
Seamobile Acct. - Capital City	13,400.69
<b>Total Checking/Savings</b>	103,974.22
<b>Accounts Receivable</b>	
Accounts receivable	15,435.10
<b>Total Accounts Receivable</b>	15,435.10
<b>Other Current Assets</b>	
Employee & trustee receivables	4,560.28
Inventory Asset	10,930.45
POS Inventory Adjustments	6,632.58
Undeposited Funds	75.00
<b>Total Other Current Assets</b>	22,198.31
<b>Total Current Assets</b>	141,607.63
<b>Fixed Assets</b>	
Accum Depr - Building	-35,955.00
Accum Depr - Furn and Equip	-77,416.00
Accum Depr - Leasehold Imps	-45,629.00
Accum Depr - Vehicles	-7,646.00
Accumulated Depreciation	-833,932.00
<b>Aquarium Facility</b>	
Algae Feeding System	2,558.78
C5 Shark Tank	37,653.06
Dormatory/Jellyfish	10,714.38
Generator	13,670.48
Improvements	89,170.96
Kitchen Improvements	586.55
Octopus Behavior Tank	6,242.10
Ozonator	
Ozonator Shed	1,553.00
Ozonator - Other	63,536.70
<b>Total Ozonator</b>	65,089.70
Pipe Shed	10,083.26
Plankton Exhibit	27,768.00
Protein Skimmer	4,820.23
Quarantine	17,914.34
Seawater System	178,408.91
Turtle Rehab Hospital	15,597.55
Turtle Tank	60,232.73
Aquarium Facility - Other	3,940.00
<b>Total Aquarium Facility</b>	544,451.03
<b>Buildings &amp; Grounds***</b>	
Building Renovations	94,246.22
Dock Rebuild	67,579.65
Gift Shop Renovation	35,139.31
Landscape Project	153,308.00
<b>Total Buildings &amp; Grounds***</b>	350,273.18
<b>Collecting Equipment</b>	3,898.00

## Gulf Specimen Marine Laboratory

## Balance Sheet

08/09/18

As of December 31, 2017

Accrual Basis

	<u>Dec 31, 17</u>
Collecting Vessel	
Boat Motors	42,992.00
Collecting Vessel - Other	52,484.38
	<hr/>
Total Collecting Vessel	95,476.38
Equipment	
Cameras	1,025.13
Computer Equipment	
Computer - Phenon II Core 4	569.98
HP Computer-POS	566.62
HP Pavillion 23	668.94
HP Touchsmart Computer	1,074.99
Toshiba Satellite C70-B Laptop	555.76
Computer Equipment - Other	3,408.89
	<hr/>
Total Computer Equipment	6,845.18
Underwater Camera	721.95
Equipment - Other	287,588.21
	<hr/>
Total Equipment	296,180.47
Furniture & Fixtures	4,977.95
Furniture and Equipment	5,636.34
Graphic Display & Signage	19,423.36
Mississippi St. Property	6,499.20
New Baywater System	31,951.82
Quarentine Building	23,291.70
Sea-Mobile	101,745.39
Signage	18,122.75
Software	684.85
Sound System	15,492.79
Trucks & Vehicles	
2006 Chevy 2500 Silverado	5,000.00
2006 Dodge Ram	14,475.75
2006 Dodge Sprinter Van	7,700.00
2006 Ford F250	11,500.00
Trailer Hitch	673.43
	<hr/>
Total Trucks & Vehicles	39,349.18
Turtle Exhibit	47,354.00
Turtle grant 2004	17,072.91
Turtle grant 2008	11,704.94
Turtle Kiosk/Guest Book	20,499.00
	<hr/>
Total Fixed Assets	653,507.24
<b>TOTAL ASSETS</b>	<b>795,114.87</b>
	<hr/> <hr/>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts payable	20,361.67
	<hr/>
Total Accounts Payable	20,361.67
Credit Cards	
Capital City Bank Credit Card	30,766.73
	<hr/>
Total Credit Cards	30,766.73

## Gulf Specimen Marine Laboratory

## Balance Sheet

08/09/18

As of December 31, 2017

Accrual Basis

	Dec 31, 17
Other Current Liabilities	
Direct Deposit Liabilities	-3,442.52
Gift Cards Outstanding	19.95
N/P-CCB for Boat Motors	12,833.41
Payroll Liabilities	-66.93
Sales Taxes Payable	373.87
Unbilled Purchases	138.00
<b>Total Other Current Liabilities</b>	<b>9,855.78</b>
<b>Total Current Liabilities</b>	<b>60,984.18</b>
<b>Total Liabilities</b>	<b>60,984.18</b>
Equity	
Unrestrict (retained earnings)	665,360.30
Unrestricted net assets	12,541.20
Net Income	56,229.19
<b>Total Equity</b>	<b>734,130.69</b>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>795,114.87</b>

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

08/09/18

January through December 2017

Accrual Basis

	Jan - Dec 17
Ordinary Income/Expense	
Income	
Aquarium Revenue*****	
Aquarium Admission*****	
Weekday visitor	93,594.83
Weekend visitor	59,520.60
Total Aquarium Admission*****	153,115.43
Gift Shop Merchandise	100,666.62
Membership	32,177.78
Total Aquarium Revenue*****	285,959.83
Contributed support	
Restricted*****	
FEMA Reimbursement	132,758.31
Grants-Restricted	32,074.25
Large Donations \$1000 or more	9,936.86
Small Donations Less than \$1000	305.00
Total Restricted*****	175,074.42
Unrestricted*****	
Gifts in Kind - Goods	332.05
Gifts in Kind - Services	3,302.94
Large Donations \$1000 or more	8,000.00
Small donations Less than \$1000	7,987.15
Total Unrestricted*****	19,622.14
Total Contributed support	194,696.56
Earned revenues*****	
Marine Research Support*****	
Specimen Sales	
Credit Card Charge Income	3,963.00
Freight charges-income	102,942.00
Handling Charge	23,506.75
Shipping Containers-Income	13,722.55
Specimen Sales - Other	160,184.17
Total Specimen Sales	304,318.47
Total Marine Research Support*****	304,318.47
Merchandise Sales	0.00
Total Earned revenues*****	304,318.47
Educational Outreach*****	
Field Trips & Group tours	65,694.00
Sea-Mobile	18,615.00
Summer Camp	5,643.02
Total Educational Outreach*****	89,952.02
Other Income*****	
Interest earned	19.37
Pepsi Machine	162.23
Refunds/Discounts received	187.71
Total Other Income*****	369.31

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

08/09/18

January through December 2017

Accrual Basis

	Jan - Dec 17
Special Events Income	
Special Events Contributions	2,683.00
Special Events Sales (Nongift)	5,521.57
Sponsorship	4,500.00
Tickets	3,157.04
<b>Total Special Events Income</b>	<b>15,861.61</b>
<b>Total Income</b>	<b>891,157.80</b>
Cost of Goods Sold	
Cost of Aquarium*****	
Aquarium Design & Consulting	9,337.20
Aquarium Facility Repair/Maint	30,547.80
Aquarium supplies & equipment	25,229.99
Medications	71.70
Other Program Expense	1,857.91
Sea Turtle Rescue-Rehab Expense	2,052.07
Tank Repair & Maintenance	19,459.75
<b>Total Cost of Aquarium*****</b>	<b>88,556.42</b>
Cost of Educational Outreach***	
Summer Camp Expense	5.00
Tour expense	30.00
<b>Total Cost of Educational Outreach***</b>	<b>35.00</b>
Cost of Goods Sold*****	
Costs of Collecting*****	
Boat expense-beagle	3,399.12
Boat expense-carolina skiff	333.30
Boat expense-Proline	2,396.87
Boat expenses	2,037.78
Boat Gas	7,150.63
Collecting equipment	1,275.83
Collecting expense	3,786.09
Travel Meals	460.15
<b>Total Costs of Collecting*****</b>	<b>20,839.77</b>
Costs of Gift Shop*****	
Credit Card Fees	613.17
Freight and Shipping Costs	3,070.16
Purchases - Resale Items	44,837.26
<b>Total Costs of Gift Shop*****</b>	<b>48,520.59</b>
Costs of Specimen Sales*****	
Contract Labor-Packing	50.00
Dry ice-expense	624.83
Freight Charges Expense	68,256.97
Merchant Service Charges	14,376.51
Shipping Containers	7,153.95
Specimen food expense	4,729.91
Specimen purchase	5,207.29
<b>Total Costs of Specimen Sales*****</b>	<b>100,399.46</b>
<b>Cost of Goods Sold***** - Other</b>	<b>0.00</b>
<b>Total Cost of Goods Sold*****</b>	<b>169,759.82</b>

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

08/09/18

January through December 2017

Accrual Basis

	Jan - Dec 17
<b>Cost of Sea-Mobile*****</b>	
Sea-Mobile Expenses	854.32
Sea-Mobile Gas	628.48
Seamobile Maintenance	151.16
SeaMobile Travel	126.79
<b>Total Cost of Sea-Mobile*****</b>	1,760.75
<b>Total COGS</b>	260,111.99
<b>Gross Profit</b>	631,045.81
<b>Expense</b>	
<b>Fundraising*****</b>	
Fundraiser Expense	8,187.17
<b>Total Fundraising*****</b>	8,187.17
<b>Management &amp; General*****</b>	
<b>Advertising*****</b>	
Billboards	100.00
Flyers, Brochures, & Maps	6,687.95
Other Promotional Costs	2,245.00
Print Ads	5,541.39
Radio	1,500.00
Road Signs	275.00
Social Media	7,626.88
Television Advertising	2,200.00
Videography	1,764.00
Website	666.94
<b>Total Advertising*****</b>	28,607.16
<b>Auto &amp; Truck*****</b>	
Auto & Truck Repairs & Maint	7,378.67
Fuel	10,479.73
Tags & Registration	672.55
Vehicle Insurance	6,020.51
<b>Total Auto &amp; Truck*****</b>	24,551.46
Bank Service Charges	136.78
Charitable Contributions	345.00
Contract labor(Non Capital Prj)	19,162.57
Depreciation	89,378.00
Dues and Subscriptions	1,420.40
Entertainment	2,304.94
<b>Insurance*****</b>	
Accident Policy	1,500.00
Flood Insurance	2,322.00
Liability Insurance	3,725.27
Wind Insurance	1,919.00
<b>Total Insurance*****</b>	9,466.27
Interest Expense	1,434.66
Legal & Accounting	13,178.02
Licenses & Permits	2,305.71
Miscellaneous	0.00
<b>Office Expenses*****</b>	
Books, Subscriptions, Reference	113.53
Office Equipment Rental	2,260.92
Office expense - General	10,043.83
Postage	3,375.28
Printing and Copying	1,173.32
<b>Total Office Expenses*****</b>	16,966.88

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

08/09/18

January through December 2017

Accrual Basis

	Jan - Dec 17
<b>Property Costs*****</b>	
Janitorial service & yard work	2,589.49
Land Taxes	621.74
Maintenance & Repair	5,495.94
Property Insurance	1,996.00
Rent	19,000.00
<b>Utilities*****</b>	
Electricity	30,242.40
Garbage	430.47
Heating Gas	887.00
Security	5,499.42
Telephone/Internet	4,638.22
Water	2,146.68
<b>Total Utilities*****</b>	43,844.19
<b>Total Property Costs*****</b>	73,547.36
<b>Salaries &amp; related expenses****</b>	
Direct Deposit Fee	537.25
<b>Earnings &amp; Taxes*****</b>	
Membership Commissions	855.00
Officers & directors salaries	82,923.61
Overtime	2,868.39
Pay Additive	5,019.90
Payroll Taxes	19,089.04
Salaries & Wages	158,437.17
<b>Total Earnings &amp; Taxes*****</b>	269,193.11
Employee Morale	82.37
Health Insurance - Employee	5,735.25
Other Employment Benefits	393.95
Payroll Fees	83.71
Recruiting Expense	285.09
<b>Total Salaries &amp; related expenses****</b>	276,310.73
Small tools and supplies	1,893.58
Travel	2,834.47
Uniforms	905.85
<b>Total Management &amp; General*****</b>	564,749.84
<b>Travel and Meetings</b>	
Conference, Convention, Meeting	1,276.36
Travel	603.25
<b>Total Travel and Meetings</b>	1,879.61
<b>Void</b>	0.00
<b>Total Expense</b>	574,816.62
<b>Net Ordinary Income</b>	56,229.19
<b>Other Income/Expense</b>	
Other Expense	
Balancing Adjustments	0.00
<b>Total Other Expense</b>	0.00
<b>Net Other Income</b>	0.00
<b>Net Income</b>	<b>56,229.19</b>

## Gulf Specimen Marine Laboratory

## Balance Sheet

As of August 9, 2018

	Aug 9, 18
<b>ASSETS</b>	
<b>Current Assets</b>	
<b>Checking/Savings</b>	
Cap City Bank Operating Acc	12,687.79
Cash in Drawer	3,045.09
Centennial Bank Spec Proj.	5,751.66
Money Market Account	74,187.53
Petty cash	334.30
Seamobile Acct. - Capital City	18,107.82
<b>Total Checking/Savings</b>	114,114.19
<b>Accounts Receivable</b>	
Accounts receivable	8,648.35
<b>Total Accounts Receivable</b>	8,648.35
<b>Other Current Assets</b>	
Employee & trustee receivables	5,390.05
Inventory Asset	14,183.25
POS Inventory Adjustments	7,212.24
<b>Total Other Current Assets</b>	26,785.54
<b>Total Current Assets</b>	149,548.08
<b>Fixed Assets</b>	
Accum Depr - Building	-35,955.00
Accum Depr - Furn and Equip	-77,416.00
Accum Depr - Leasehold Imps	-45,629.00
Accum Depr - Vehicles	-7,646.00
Accumulated Depreciation	-833,932.00
<b>Aquarium Facility</b>	
Algae Feeding System	2,558.78
C5 Shark Tank	37,653.06
Dormatory/Jellyfish	10,714.38
Generator	13,670.48
Improvements	89,039.06
Kitchen Improvements	586.55
Octopus Behavior Tank	6,242.10
Ozonator	
Ozonator Shed	1,553.00
Ozonator - Other	63,536.70
<b>Total Ozonator</b>	65,089.70
Pipe Shed	10,083.26
Plankton Exhibit	27,768.00
Protein Skimmer	4,820.23
Quarantine	17,914.34
Seawater System	183,336.69
Turtle Rehab Hospital	15,597.55
Turtle Tank	60,232.73
Aquarium Facility - Other	4,221.42
<b>Total Aquarium Facility</b>	549,528.33
<b>Buildings &amp; Grounds***</b>	
Building Renovations	94,246.22
Dock Rebuild	67,579.65
Gift Shop Renovation	35,139.31
Landscape Project	153,308.00
<b>Total Buildings &amp; Grounds***</b>	350,273.18
<b>Collecting Equipment</b>	4,028.14

## Gulf Specimen Marine Laboratory

## Balance Sheet

As of August 9, 2018

	<u>Aug 9, 18</u>
Collecting Vessel	
Boat Motors	42,992.00
Collecting Vessel - Other	74,156.73
	<hr/>
Total Collecting Vessel	117,148.73
Equipment	
Cameras	1,025.13
Computer Equipment	
Computer - Phenon II Core 4	569.98
HP Computer-POS	566.62
HP Pavillion 23	668.94
HP Pavillion TS All-in-One	934.72
HP Touchsmart Computer	1,074.99
Toshiba Satellite C70-B Laptop	555.76
Computer Equipment - Other	3,860.12
	<hr/>
Total Computer Equipment	8,231.13
Underwater Camera	721.95
Equipment - Other	294,283.32
	<hr/>
Total Equipment	304,261.53
Furniture & Fixtures	4,977.95
Furniture and Equipment	5,636.34
Graphic Display & Signage	19,663.36
Jellyfish Tank	179.37
Leatherback Turtle Exhibit	2,223.59
Lionfish Display	1,464.99
Mississippi St. Property	6,499.20
New Baywater System	31,951.82
Quarentine Building	23,291.70
Sea-Mobile	104,665.39
Signage	23,410.58
Software	1,574.80
Sound System	16,742.56
Trucks & Vehicles	
2006 Chevy 2500 Silverado	5,000.00
2006 Dodge Ram	14,475.75
2006 Dodge Sprinter Van	7,700.00
2006 Ford F250	11,500.00
Summercamp Van	3,250.00
Trailer Hitch	673.43
	<hr/>
Total Trucks & Vehicles	42,599.18
Turtle Exhibit	48,901.44
Turtle grant 2004	17,072.91
Turtle grant 2008	11,704.94
Turtle Kiosk/Guest Book	21,954.35
	<hr/>
Total Fixed Assets	709,176.38
<b>TOTAL ASSETS</b>	<b>858,724.46</b>
	<hr/> <hr/>
<b>LIABILITIES &amp; EQUITY</b>	
Liabilities	
Current Liabilities	
Accounts Payable	
Accounts payable	11,048.45
	<hr/>
Total Accounts Payable	11,048.45
Credit Cards	
Capital City Bank Credit Card	5,487.59
	<hr/>
Total Credit Cards	5,487.59

## Gulf Specimen Marine Laboratory

## Balance Sheet

As of August 9, 2018

	<u>Aug 9, 18</u>
<b>Other Current Liabilities</b>	
Gift Cards Outstanding	19.95
N/P-CCB for Boat Motors	8,701.63
Payroll Liabilities	804.38
Sales Taxes Payable	1,335.40
Unbilled Purchases	138.00
	<hr/>
<b>Total Other Current Liabilities</b>	10,999.36
	<hr/>
<b>Total Current Liabilities</b>	27,535.40
	<hr/>
<b>Total Liabilities</b>	27,535.40
<b>Equity</b>	
Unrestrict (retained earnings)	721,589.49
Unrestricted net assets	12,541.20
Net Income	97,058.37
	<hr/>
<b>Total Equity</b>	831,189.06
	<hr/>
<b>TOTAL LIABILITIES &amp; EQUITY</b>	<b>858,724.46</b>
	<hr/> <hr/>

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

January 1 through August 9, 2018

	Jan 1 - Aug 9, 18
Ordinary Income/Expense	
Income	
Aquarium Revenue*****	
Aquarium Admission*****	
Weekday visitor	76,180.13
Weekend visitor	38,575.41
Aquarium Admission***** - Other	1,285.05
Total Aquarium Admission*****	116,040.59
Gift Shop Merchandise	71,311.91
Membership	17,497.65
Total Aquarium Revenue*****	204,850.15
Contributed support	
Restricted*****	
Donations-restricted purpose	2,032.00
Grants-Restricted	7,863.65
Large Donations \$1000 or more	44,784.00
Small Donations Less than \$1000	725.00
Total Restricted*****	55,404.65
Unrestricted*****	
Gifts in Kind - Services	350.00
Small donations Less than \$1000	15,373.40
Total Unrestricted*****	15,723.40
Total Contributed support	71,128.05
Earned revenues*****	
Marine Research Support*****	
Specimen Sales	
Credit Card Charge Income	2,028.58
Freight charges-income	57,396.00
Handling Charge	13,566.25
Shipping Containers-Income	7,540.00
Specimen Sales - Other	97,868.92
Total Specimen Sales	178,399.75
Total Marine Research Support*****	178,399.75
Merchandise Sales	235.70
Earned revenues***** - Other	155.80
Total Earned revenues*****	178,791.25
Educational Outreach*****	
Field Trips & Group tours	56,078.01
Sea-Mobile	3,000.00
Summer Camp	12,100.00
Total Educational Outreach*****	71,178.01
Other Income*****	
Interest earned	6.13
Pepsi Machine	67.05
Refunds/Discounts received	81.74
Total Other Income*****	154.92

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

08/09/18

January 1 through August 9, 2018

Accrual Basis

	Jan 1 - Aug 9, 18
<b>Special Events Income</b>	
Special Events Contributions	1,681.03
Special Events Sales (Nongift)	2,788.00
Sponsorship	3,500.00
Tickets	2,725.15
<b>Total Special Events Income</b>	<b>10,694.18</b>
<b>Total Income</b>	<b>536,796.56</b>
<b>Cost of Goods Sold</b>	
<b>Cost of Aquarium*****</b>	
Aquarium Design & Consulting	102.31
Aquarium Facility Repair/Maint	13,691.52
Aquarium supplies & equipment	7,271.67
Medications	1,093.04
Other Program Expense	43.00
Sea Turtle Rescue-Rehab Expense	1,442.73
Tank Repair & Maintenance	8,486.19
Cost of Aquarium***** - Other	749.86
<b>Total Cost of Aquarium*****</b>	<b>32,880.32</b>
<b>Cost of Educational Outreach***</b>	
Summer Camp Expense	1,204.55
Tour expense	9.50
<b>Total Cost of Educational Outreach***</b>	<b>1,214.05</b>
<b>Cost of Goods Sold*****</b>	
<b>Costs of Collecting*****</b>	
Boat expense-beagle	2,030.31
Boat expense-C-Hawk	2,787.81
Boat expense-Proline	2,865.31
Boat expenses	3,329.43
Boat Gas	4,024.60
Collecting equipment	780.28
Collecting expense	613.03
Travel Meals	214.41
<b>Total Costs of Collecting*****</b>	<b>16,645.18</b>
<b>Costs of Gift Shop*****</b>	
Credit Card Fees	4,792.99
Freight and Shipping Costs	1,872.25
Purchases - Resale Items	23,868.59
Costs of Gift Shop***** - Other	-569.11
<b>Total Costs of Gift Shop*****</b>	<b>29,964.72</b>
<b>Costs of Specimen Sales*****</b>	
Dry ice-expense	29.66
Freight Charges Expense	38,648.76
Merchant Service Charges	5,567.02
Shipping Containers	3,718.01
Specimen food expense	4,569.50
Specimen purchase	3,443.65
Costs of Specimen Sales***** - Other	137.07
<b>Total Costs of Specimen Sales*****</b>	<b>56,113.67</b>
<b>Cost of Goods Sold***** - Other</b>	<b>6,248.87</b>
<b>Total Cost of Goods Sold*****</b>	<b>108,972.44</b>

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

January 1 through August 9, 2018

	Jan 1 - Aug 9, 18
<b>Cost of Sea-Mobile****</b>	
Sea-Mobile Expenses	539.38
Seamobile Maintenance	-2,562.18
<b>Total Cost of Sea-Mobile****</b>	-2,022.80
<b>Costs of Grants****</b>	
Grant Expense	75.00
<b>Total Costs of Grants****</b>	75.00
<b>Total COGS</b>	141,119.01
<b>Gross Profit</b>	395,677.55
<b>Expense</b>	
<b>Fundraising****</b>	
Fundraiser Expense	7,264.83
<b>Total Fundraising****</b>	7,264.83
<b>general operating expenses</b>	314.47
<b>Management &amp; General****</b>	
<b>Advertising****</b>	
Flyers, Brochures, & Maps	2,650.56
Other Promotionals Costs	1,936.15
Print Ads	3,705.64
Radio	1,250.00
Road Signs	100.00
Social Media	5,292.89
Specimen Sales Marketing	2,654.62
Videography	108.00
Website	350.00
Advertising**** - Other	94.43
<b>Total Advertising****</b>	18,142.29
<b>Auto &amp; Truck****</b>	
Auto & Truck Repairs & Maint	1,969.45
Fuel	7,046.74
Tags & Registration	545.10
Vehicle Insurance	2,301.49
<b>Total Auto &amp; Truck****</b>	11,862.78
Bank Service Charges	27.01
Continuing Education	53.19
Contract labor(Non Capital Prj)	15,315.43
Dues and Subscriptions	948.51
Entertainment	1,449.09
<b>Insurance****</b>	
Accident Policy	1,500.00
Flood Insurance	3,043.00
Liability Insurance	2,324.26
Wind Insurance	2,145.00
Insurance**** - Other	199.00
<b>Total Insurance****</b>	9,211.26
Interest Expense	2,212.89
Legal & Accounting	9,846.87
Licenses & Permits	2,753.50
Miscellaneous	554.49

## Gulf Specimen Marine Laboratory

## Profit &amp; Loss

January 1 through August 9, 2018

	Jan 1 - Aug 9, 18
<b>Office Expenses*****</b>	
Office Equipment Rental	768.74
Office expense - General	6,850.46
Postage	1,571.58
Printing and Copying	336.14
<b>Total Office Expenses*****</b>	9,526.92
<b>Property Costs*****</b>	
Janitorial service & yard work	1,786.87
Maintenance & Repair	1,947.93
Property Insurance	996.00
Rent	8,000.00
<b>Utilities*****</b>	
Electricity	23,629.79
Garbage	143.64
Heating Gas	51.36
Pest Control	205.00
Security	1,653.18
Telephone/Internet	2,345.64
Water	2,121.52
<b>Total Utilities*****</b>	30,150.13
<b>Property Costs***** - Other</b>	1,250.00
<b>Total Property Costs*****</b>	44,130.93
<b>Salaries &amp; related expenses****</b>	
Direct Deposit Fee	196.00
<b>Earnings &amp; Taxes*****</b>	
Membership Commissions	420.00
Officers & directors salaries	50,751.95
Pay Additive	1,820.62
Payroll Taxes	10,409.87
Salaries & Wages	84,729.30
<b>Total Earnings &amp; Taxes*****</b>	148,131.74
Employee Morale	112.84
Health Insurance - Employee	8,998.87
Recruiting Expense	934.32
<b>Total Salaries &amp; related expenses****</b>	158,373.77
Small tools and supplies	1,105.37
Travel	1,055.86
Uniforms	912.59
<b>Total Management &amp; General*****</b>	287,482.75
Reimbursement	19.61
Travel and Meetings	
Conference, Convention, Meeting	2,748.50
Travel	388.70
<b>Total Travel and Meetings</b>	3,137.20
Void	0.00
<b>Total Expense</b>	298,218.86
<b>Net Ordinary Income</b>	97,458.69

**Gulf Specimen Marine Laboratory**

**Profit & Loss**

January 1 through August 9, 2018

---

	<u>Jan 1 - Aug 9, 18</u>
Other Income/Expense	
Other Expense	
Ask my Accountant	400.32
Balancing Adjustments	0.00
Total Other Expense	<u>400.32</u>
Net Other Income	<u>-400.32</u>
Net Income	<u><u>97,058.37</u></u>

Attachment C: Eligibility- Question 2

**Provide the title and a detailed description of the proposed project or program, including the location of the proposed project or program, a detailed description of, and quantitative evidence demonstrating how the proposed project or program will promote economic recovery, diversification, and enhancement of the disproportionately affected counties, a proposed timeline for the proposed project or program, and the disproportionately affected counties that will be impacted by the proposed project or program.**

Gulf Specimen Marine Laboratory Expansion, Ecotourism and  
Aquaculture Project

Gulf Specimen Marine Laboratory, Inc. is best described in the February March 2015 issue of *850 Business Magazine*:

“The Gulf Specimen Marine Laboratories (GSML) in Panacea has traveled far from its origins, when it was a struggling startup business in a ramshackle shack and its staff consisted entirely of founder Jack Rudloe, later joined in the enterprise by his wife Anne. Today, it is an internationally recognized biological supply house and environmental education center/aquarium boasting ample interior and pavilion space for exhibitions and programs, and showcasing hundreds of live Gulf specimens, most notably invertebrates and other small marine creatures. Managed by the Rudloe’s’ younger son, Cypress, and operated by a six-member staff plus volunteers and interns, the facility continues its original function of collecting and selling marine specimens to universities, aquariums and museums across the country and abroad for educational and research purposes.”

Since 1990, moreover, part of the GSML’s mission has been advancing marine biology knowledge and promoting protection of marine species and the environment. Which explains the facility’s evolution into a popular tourist/roadside attraction and self-sustaining private nonprofit public aquarium. Its educational outreach has expanded in recent years with the addition of a sea-mobile, an aquarium-on-wheels that travels to area schools and events to teach about marine life and conservation, while its sea turtle research/rehabilitation program is counted among the oldest in the country.

GSML's revenue comes from ecotourism, education, specimen sales, aquarium memberships, donations, Sea Mobile, school field trips, gift shop sales, research contracts, grants, and crowd funding drives and events. We highlight marine life from Wakulla, Franklin and Gulf Counties using displays, artwork, graphics, interactive kiosks and educational videos throughout our campus. **Last year alone the GSML hosted over 300 school field trips bringing 10,000 K-12 students to our facilities.** For our environmental outreach program we take our 20-foot Sea Mobile traveling touch tank system to schools and festivals throughout North Florida, South Georgia and Southern Alabama. Existing facilities include over three acres of land with aquarium buildings, gardens, and tanks that hold 80,000 gallons of sea water supported by state-of-the-art sea water systems, displaying a wide variety of marine life from the Florida panhandle. Additionally GSML has been authorized the use the **"Fresh from Florida"** logo in advertising, and displays the logo on our aquarium premises and in its advertising program.

The following are the economic impact results of the Triumph-GSML project; <sup>1</sup>

- The GSML Ecotourism and Aquaculture Project will initially create temporary construction and construction-related jobs. And it will fully open in Year 3.
- 10.5 FTEs (ongoing effort, including the construction/facilities manager and administrative) will be created at the end of Year 3. With the GSML being self-propelled by year 4 and 19 FTEs permanent jobs will be created by the end of Year 10.
- Employment increases by 55 jobs for the initial three years of operation, before settling at an annual 57 total employment impacts in Year 10. There are 19 direct net new jobs projected over 10 years (i.e., an average of 2 direct net new jobs on an annual basis).
- Output initially spikes to \$7.25 million for the three years of operation primarily due to the effect construction activity eventually stabilizes to about \$8.04 million in Year 10. Output averages \$7.07 on an annual basis. The cumulative output total is \$70.74 million.
- Personal Income increases by \$7.45 million for the three years of operation also primarily due to the effect of construction activity, and by Year 10, has settled at \$2.91 million on an average annual basis. The cumulative personal income total is \$29.13 million over the ten year time period.

This proposal addresses three branches of the GSML; Training/Education, Biological Supply and Tourism. All components work together. When we train and educate students not only receive hands on experience in aquaculture and marine life support but also tourism, public speaking and engagement. In addition to the students learning from us they in turn are also teaching others valuable lessons about the environment we live in.

<sup>1</sup> the Florida State University Center for Economic Forecasting and Analysis (FSU CEFA) Economic Impact Analysis study of a proposed GSML Ecotourism and Aquaculture project 2018

## **Certification Education Component**

The GSML in collaboration with Lively Technical College will offer three courses conducted twice a year, which will produce up to 72 graduates per year earning certificates qualifying them for higher paying jobs in the growing aquarium and aquaculture industries. The project involves research by aquarium staff to improve aquaculture methods and working with Lively Technical College to develop curriculum. This is a 3-year proposal. It will take approximately 1 year to build the new facilities, during which time we will develop the curricula with LTC, and recruit the necessary staff. At the beginning of the second year we will open our first courses.

## **Intern Education Component**

The funds provided by this grant will allow us to expand our public facilities, educational programs, K-12 and adult tourist based activities and programs. As a result of this expansion our intern program will also expand. GSML has run an intern program since 2012 with four to 8 interns per semester. We provide interns with real world work experience in marine education and aquarium technician skills. Interns are juniors and seniors from FSU, University of Florida, Valdosta State, University of South Florida, Florida Gulf Coast University, Thomas University TCC and FAMU.

The GSML internship provides real life job skills. Normal job expectations are required. Interns learn accountability, being on time, calling in, making up work, doing what is required even when conditions are not optimal, (wet, cold, eaten up by gnats and mosquitos), They learn appropriate interaction with co-workers and supervisors, and learn to work with the public. Primary duties involve live specimen collection, tank maintenance, aquatic life support, marine animal husbandry and water system management.

At the completion of their semester long internship students usually receive up to three semester hours of credit through their college or university. The internship prepares them for jobs with fish and wildlife services, aquariums and science centers as well as entry level employment with state or federal parks and environmental regulatory agencies such as DEP and EPA.

Several of our interns have gone on to graduate work at some of our best marine science schools; Rosentiel School of Marine and Atmospheric Science, University of Washington, Duke University, FSU and FAMU. Several of our alumni are now working for Coastal Science Centers around the country, fish and wildlife agencies in Florida and other states and some have gone on to work for politicians, helping to establish policy. GSML interns with very few exceptions, have proven to be outstanding employees. Indeed we have filled several paid positions with former interns.

## **Biological Supply**

The financial mainstay of GSML remains its specimen collecting business, which continues to collect and ship throughout the world, including 47 states, Canada, Germany, and United Kingdom. The marine biological supply operation that supports the laboratory provides a constant flow of animals coming through the lab. A wide variety of invertebrates, fishes and algae are routinely collected and shipped to schools and research laboratories, hence no aquarium or standard marine laboratory with static exhibits can compete with it. <sup>2</sup>Based on FedEx shipment data GSML ships specimens to 47 states. (See map below) Biological supply is a crucial part of the University and college curriculums. Marine life is collected from the eastern Gulf of Mexico, in the 8 affected counties, and shipped live to schools and universities in containers, marked **“Fresh from Florida”**.

Currently GSML is one of the largest suppliers of marine biological specimens to classrooms and research laboratories across the United States. Our customer base ranges from research facilities, to universities, junior colleges and high schools. Marine specimens are required for labs in a variety disciplines that include general biology, invertebrate zoology, physiology, biochemistry and embryology classes. Many of these classes are prerequisites for graduating with a bachelor’s degree in biology, medical and other disciplines.

Over the past fifty years the biological supply market to colleges has proven to be incredibly stable. GSML is known to universities throughout the United States as the “go to” place for marine specimens for their teaching and research needs. Many customers have worked with us and ordered specimens throughout their academic careers and have cited Gulf Specimen as their main sources of marine life in their scientific papers. (see Google Scholar attached list).

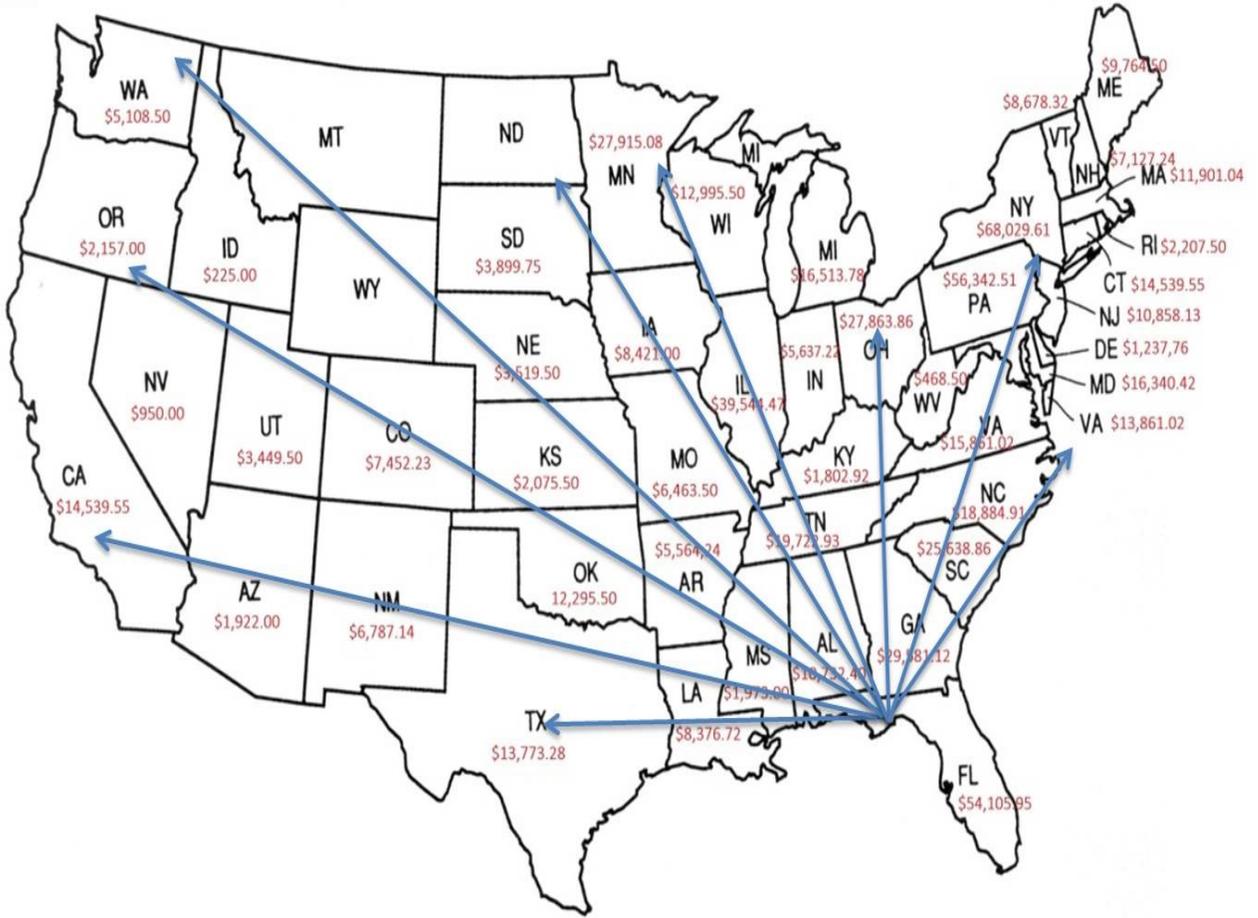
The United States is our primary market. However to meet our goals stated in the financial plan (see FSU attachment) we plan to expand our markets into Canada, Europe and Asia. Marketing to foreign entities with live marine animals requires extensive permitting and paper work, which we have not been able to exploit previously. However with increased man power that will come with Triumph’s funding, we can expand into these markets, which enables us to meet the sales goals set forth in the financial plan.

<sup>2</sup> Shipping information provided by GSML FedEx account years 2016-2018

# US Map of GSML Biological Supply Sales

AK

\$2,086.50



## Tourism/Ecotourism

GSML has become an anchor in Wakulla’s tourism industry. Over the past decade the number of tourists visiting our facilities, field trips, memberships and special events have grown exponentially as our facilities have been upgraded and improved. Expansion and new displays will enable us to capture a much larger market and attract more of the several hundred thousand visitors that visit Wakulla Springs and St. Marks Wildlife refuge every year.<sup>3</sup>

Year (FY)	Wakulla Springs Visitation	St. Marks Refuge Visitation
2012-2013 (2013)	239,270	325,915
2013-2014 (2014)	260,229	321,000
2014-2015 (2015)	270,686	308,000
2015-2016 (2016)	224,725	265,000
2016-2017 (2017)	210,607	262,000
<b>Accumulated Total</b>	<b>1,205,517</b>	<b>1,481,915</b>

Increase in tourism will not only be beneficial to the GSML but to all businesses and restaurants in Panacea. Our application has the full support of local business owners in Panacea and the Wakulla County Tourist Development Council, Wakulla County Chamber of Commerce, Wakulla County BOCC and Panacea Waterfronts Group. Everyone involved recognizes the much needed economic stimulation that this project will bring to our region of Wakulla County and surrounding areas.

The GSML will also expand its ecotourism program. Ecotourism includes a wide range of outdoor recreation activities with far reaching economic benefits. In Florida, “ecotourism” is a diverse mix of activities which includes cycling, camping, fishing, hunting, padding, hiking, birding, visiting scenic byways, and other wildlife viewing. The diversity of wildlife in Florida has attracted tourists and created jobs, contributing \$552.8 million economic benefit in 2009. Florida has recognized the job creating potential of trails and is working to create a statewide system of greenways and trails. In 2011, Florida’s 160 state parks attracted 20.4 million visitors, contributing \$967.3 million to the state economy and creating 19,347 jobs. Specifically, Wakulla Springs brought \$22.2 million economic contribution and created 347 jobs in 2011, ranking the 2nd place in all state parks. The numbers of accumulated visitors since 2012 (FY2013) to 2016 (FY 2017) have reached 1,205,517 and 1,481,915 for Wakulla Springs and St. Marks Refuge respectively. (FSU, 2018)

<sup>3</sup> Information provided by Bureau of Operational Services, Florida Department of Environmental Protection, TLH, FL.



# An Economic Impact Analysis of the GSML Ecotourism, Aquaculture , Infrastructure Upgrades and Operations proposal – Final Report

**Prepared for:**

**Gulf Specimen  
Marine Laboratory  
(GSML)**



**GULF SPECIMEN MARINE LABORATORIES, INC.**

**By: The**

**Center for Economic  
Forecasting and  
Analysis  
Florida State  
University**

**Julie Harrington, Ph.D.  
Shuang Feng, ABD  
July, 2018**

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## Executive Summary for the Triumph Gulf Coast, Inc.

Triumph Gulf Coast, Inc., is a nonprofit corporation organized to oversee the expenditure of 75 percent of all funds recovered by the Florida attorney general for economic damages to the state that resulted from the 2010 Deepwater Horizon oil spill. Triumph Gulf Coast, Inc., is required to administer the distribution of the funds to be used for the recovery, diversification, and enhancement of the eight Northwest Florida counties disproportionately affected by the oil spill. Those counties include Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, Franklin, and Wakulla.

Triumph Gulf Coast was originally created in 2013. The first five board members were appointed by the Governor, the Attorney General, the Chief Financial Officer, the President of the Senate, and the Speaker of the House of Representatives. The board operated in an unofficial capacity until June 2017. On June 2, 2017, Governor Rick Scott signed the legislation that officially appropriated funds to this nonprofit corporation. The original board then took immediate steps to file official Articles of Incorporation and arrange for the transfer and acceptance of the first \$300 million from the oil spill settlement to investment accounts under the control of Triumph Gulf Coast, Inc. On June 30, 2017, the final two board members were appointed from two of the four least populated counties,<sup>1</sup> as required by the new legislation.<sup>2</sup>

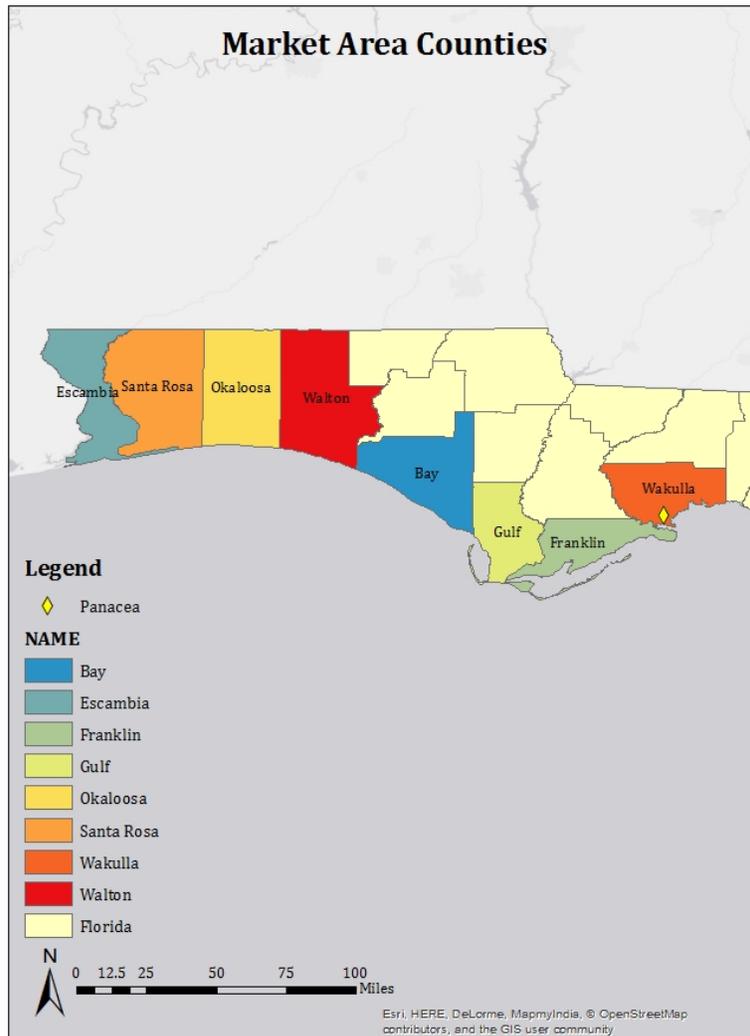
In 2018, the Gulf Specimen Marine Laboratories (GSML), Inc. requested the Florida State University Center for Economic Forecasting and Analysis (FSU CEFA) to conduct an Economic Impact Analysis study of a proposed GSML Ecotourism and Aquaculture project. GSML Ecotourism and Aquaculture Project will be primarily focused on the expansion of infrastructure and operations in ecotourism and aquaculture, and focused on its substantial boost to the regional economy. Associations include Young American Conservation Corps, Florida A&M University (FAMU), Florida State University (FSU), University of Florida (UF), Valdosta State College (VSC), Wakulla High School and GSML's 1300 customer-based scientific and educational institutions.<sup>3</sup> The results of this study will be rolled into a grant application submitted by GSML to Triumph Gulf Coast, Inc. The proposed GSML Ecotourism and Aquaculture project will be mainly located in Panacea, Wakulla County and operate across three counties to also include Franklin and Gulf Counties. Figure ES1 displays Panacea, Wakulla County and the eight Northwest Florida counties in the market area.<sup>4</sup>

<sup>1</sup> The four least populated counties are Franklin County, Gulf County, Wakulla County, and Walton County.

<sup>2</sup> <https://www.myfloridatriumph.com/about/triumph-overview/>

<sup>3</sup> List of Co-applicants and Partners is cited from the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018). Other partners or cooperative personnel include Robins McIntosh, Vice President of CP Foods, Inc., Florida Aquaculture, Inc., and Dr. Brian LaPointe, of the FAU's Harbor Branch Institute.

<sup>4</sup> GIS shapefile data source: [https://www.census.gov/geo/maps-data/data/cbf/cbf\\_counties.html](https://www.census.gov/geo/maps-data/data/cbf/cbf_counties.html);  
<https://www.fgdl.org/metadadataexplorer/explorer.jsp>



**Figure ES1. The GSML Ecotourism and Aquaculture Project Market Area: Eight Northwest Florida Counties and Panacea**

FSU CEFA initially conducted a literature review of the background, development and recent achievements of GSML and the economics of ecotourism and aquaculture in Florida and Wakulla local areas, to determine relevant sociodemographic and economic factors for modeling the economic impacts of the proposed GSML Ecotourism and Aquaculture project. The study team introduced the history as well as recent achievements of GSML. Since its establishment, GSML has provided live marine animals to thousands of the foremost research laboratories and universities. The market reaches not only the United States and Canada but has been expanded to Europe and

Japan. Over 700 scientific publications cite GSML as their source of research specimens. The established success of global specimen business and research and education programs provides a ready environment to support the GSML Ecotourism and Aquaculture project. The main economic contributions from the proposed effort of the GSML Ecotourism and Aquaculture project include job creation, diversification, economic recovery and/or enhancement, tax base expansion, and direct outputs from marine animals-related research, specimen sales, and general programs and education outreach. Literature related to the current development and determinants of eco-tourism, aquaculture and related education programs in Florida and of GSML (especially in Wakulla County) was also reviewed. Based on those studies, the FSU CEFA study team identified the demographic trends and household income, education, labor force, as well as industry and tourism facts in the market area and analyzed the increasing demand for eco-tourism and other aquaculture related general and education programs. The FSU CEFA study team reviewed studies related to the importance of investment in eco-tourism and aquaculture education to show direct comparisons between the GSML Ecotourism and Aquaculture project's investment and economy recovery to the Panhandle community's economy; in terms of job creation, increases in output and income, and tax base expansion.

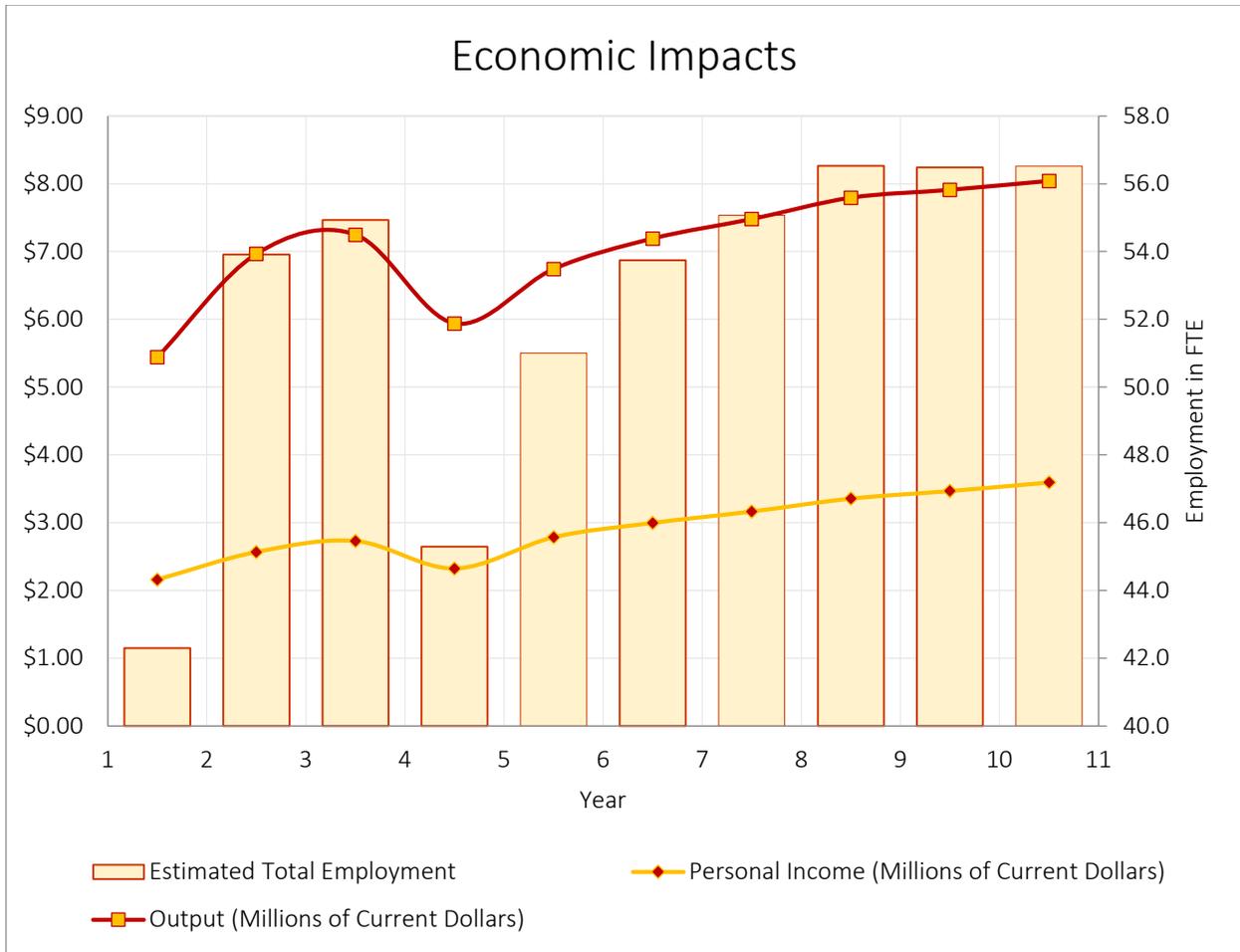
The study team examined data on the demographic and income, education and labor force, as well as industry and tourism patterns of the eight Northwest Florida counties, and the data on the GSML Ecotourism and Aquaculture project's initial financial cashflow, or operating proformas. The economic research team conducted an economic impact analysis, focusing on the demand side of eco-tourism and aquaculture and related education programs, job creation, the growth of economy, and tax base expansion. The study team examined the plans relating to cashflow, or operating proformas, provided by GSML. This data on cashflow and permanent job creation were used as the main inputs in the economic model.

### **Economic Impact Analysis and Conclusions**

The economic impacts presented in Figure ES2 are based on the 10-year financial cashflow, or operating proformas, for the proposed GSML Ecotourism and Aquaculture project. Following are the economic impact results:

- Employment increases by 55 jobs for the initial three years of operation, before settling at an annual 57 total employment impacts in Year 10. There are 19 direct net new jobs projected over 10 years (i.e., an average of 2 direct net new jobs on an annual basis).
- Output initially spikes to \$7.25 million for the three years of operation primarily due to the effect construction activity<sup>5</sup> eventually stabilizes to about \$8.04 million in Year 10. Output averages \$7.07 on an annual basis. The cumulative output total is \$70.74 million.
- Personal Income increases by \$7.45 million for the three years of operation also primarily due to the effect of construction activity, and by Year 10, has settled at \$2.91 million on an average annual basis. The cumulative personal income total is \$29.13 million over the ten year time period.

<sup>5</sup> Including the assumption that there are 10.5 permanent jobs to Year 3. Please see Appendix for further definition of total (direct, indirect and induced) economic impacts.



**Figure ES2. The GSML Ecotourism and Aquaculture Project Estimated Output, Income and Employment by Year**

In summary, the number of new net jobs created over the 10 years is expected to be 57 (or ~6 annually) jobs as a result of the GSML Ecotourism and Aquaculture project. Over the 10 years of analysis, the GSML Ecotourism and Aquaculture project operations would create a cumulative economic output of \$70.74 million to the state of Florida, and \$29.13 million in personal income.

## Introduction

Triumph Gulf Coast, Inc., is a nonprofit corporation organized to oversee the expenditure of 75 percent of all funds recovered by the Florida attorney general for economic damages to the state that resulted from the 2010 Deepwater Horizon oil spill. Triumph Gulf Coast, Inc., is required to administer the distribution of the funds to be used for the recovery, diversification, and enhancement of the eight Northwest Florida counties disproportionately affected by the oil spill. Those counties include Escambia, Santa Rosa, Okaloosa, Walton, Bay, Gulf, Franklin, and Wakulla.

In 2018, the Gulf Specimen Marine Laboratories (GSML), Inc. requested the Florida State University Center for Economic Forecasting and Analysis (FSU CEFA) to conduct an Economic Impact Analysis study relating to a proposed GSML Ecotourism and Aquaculture project. GSML Ecotourism and Aquaculture Project will be focused on the expansion of infrastructure and operations in ecotourism and aquaculture, and focused on its substantial boost to the regional economy. The results of the economic analysis will be rolled into a grant application submitted by GSML to Triumph Gulf Coast, Inc.

Associations include Young American Conservation Corps, Florida A&M University (FAMU), Florida State University (FSU), University of Florida (UF), Valdosta State College (VSC), Wakulla High School and GSML's 1300 customer based scientific and educational institutions.<sup>6</sup> Funds for the proposed GSML Ecotourism and Aquaculture project are sought from two main sources. Based on the GSML Ecotourism and Aquaculture project pre-application form, the first source of funds (in 2018 Nominal Dollars) is a 3-year period investment from Triumph Gulf Coast, Inc. GSML seeks \$4,950,000 from the Triumph Fund, with an initial request of \$3,950,000. The other source of 3-year funding will be provided by GSML and its partners. GSML will contribute over \$5,540,000 during the same 3-year period with income derived from specimen sales, aquarium membership, SeaMobile, school field trips, and donations, etc. After Year 3, GSML will be self-sustaining and fund ongoing operations from Year 4 to Year 10 at an average cost of \$2,572,571 per year in 2018 USD. The proposed GSML Ecotourism and Aquaculture project will operate primarily at Panacea, Wakulla County, with an extended business area of Wakulla, Franklin, and Gulf Counties.<sup>7</sup>

By promoting economic recovery, diversification, and enhancement, the proposed GSML Ecotourism and Aquaculture project will benefit the eight Northwest Florida counties which were disproportionally affected by the oil spill and the entire panhandle area. The main contributions from the proposed efforts include:<sup>8</sup>

- Stimulating regional eco-tourism and aquaculture

<sup>6</sup> List of Co-applicants and Partners is cited from the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018). Other partners or cooperative personnel include Robins McIntosh, Vice President of CP Foods, Inc., Florida Aquaculture, Inc., and Dr. Brian LaPointe, of the FAU's Harbor Branch Institute.

<sup>7</sup> According to the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018), the regional business area covers North Florida, South Georgia, and South Alabama.

<sup>8</sup> GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018).

- Increasing volume of tourists<sup>9</sup>
- Other business opportunities and employment prospects
- New (international and regional) markets for Florida seafood industry
- Creating 19 new paid staff positions
- Adding courses with technical certifications
  - Opening 3 courses twice a year with up to 72 graduates per year with certificates
  - Providing interns opportunities for students from FSU, FAMU and other educational institutions, who target jobs with public aquariums, state government, educational institutions and laboratories

Based on the main contributions of the GSML Ecotourism and Aquaculture project, the FSU CEFA study team conducted an economic impact analysis, focused on the eco-tourism and aquaculture/biological supply markets, education, the economic impact of job creation, the growth of economy, and tax base expansion.

In the Literature Review section, the history/background and recent achievements of GSML, as well as the current development of ecotourism, aquaculture and related education programs in Florida and in the panhandle area was discussed. The long history, social and economic contribution, and sustainable development of GSML provide supportive evidence and environment for the success of the proposed GSML Ecotourism and Aquaculture project. Because of the positive and substantial economic and social values contributed by GSML during the past decades, GSML continues receiving extensive support and grants from various public and private institutions and personnel. The total accumulated amount received by GSML from the year 2008 to present is estimated as \$1,077,187.

Florida's rare ecosystems support diverse animal life, make outdoor activities possible, and create opportunities for travelers to engage in ecotourism. Ecotourism has become one of the major sources of tax revenue in Florida. It is important to focus on the tourism-conservation symbiosis. The GSML Ecotourism and Aquaculture project provides a channel for enhancing and improving those conservation activities, which is the most important part of ecotourism. The investment contributions of ecotourism and aquaculture are also reflected in both the improved local and regional economic growth and in the further benefits brought by general programs and education outreach. Aquaculture education, especially programs that can provide certifications to boost the labor market, will support Florida's marine fisheries, meeting the fast-increasing demand of domestic and global aquaculture market. GSML's achievements and well-established development environment guarantee the success of the sustainable development of GSML Ecotourism and Aquaculture Project.

The Data and Statistical Analysis section examined the service area and general programs and education outreach, actual demographic characteristics, labor force, and tourism industry in the market area of GSML. GSML and its affiliated Aquarium currently host a number of ecotourism activities and propose to offer several others in keeping with the mission to educate people

<sup>9</sup> According to the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018), the number of visitors to Wakulla County is expected up to 40,000 more annually from a current number of 20,000)

concerning the sea life of the northern Gulf of Mexico. Those activities and programs not only satisfy the mission of educating people concerning the sea life of the northern Gulf of Mexico, but generate remarkable income for GSML and tax revenues for state and local governments. For example, the anticipated annual revenue of “Eco Boat Tours” is estimated as \$187,000 per year with capacity being fulfilled.

Based on the recent years’ development of GSML from an economic perspective, the future success of the GSML Ecotourism and Aquaculture project is guaranteed. At the end of this section, the GSML-developed plans regarding financial cashflow and expected permanent job creation were examined. The proposed GSML Ecotourism and Aquaculture project will stimulate the panhandle community economic growth by creating direct and construction (and construction-related) jobs, attracting both public and private foundation grants, generating output and income, and expanding the tax base. The total ten-year investment is estimated as \$27,300,000 in 2018 USD.

The Economic Methodology and Results section presents the projected economic impacts associated with the investment in the GSML Ecotourism and Aquaculture project over the ten years 2018 to 2027. The GSML financial cashflow data (from project start Year 1 to 10) was used as the primary input data for the economic modeling process, using REMI. The economic impact results are presented at the end of this section.

Lastly, the Conclusions section summarizes the results of the study, including the literature review, the data and statistical analysis, and the economic impact results.

## Literature Review

This study examines the economic impacts of the proposed GSML Ecotourism and Aquaculture Project, which is focused on “sustainable ecotourism and aquaculture” and other correlational programs. Three main topical areas are discussed in the literature review.

### History, Development, and Recent Achievements of Gulf Specimen Marine Laboratories (GSML), Inc.

The first goal of literature review relates to introducing the history, development, and recent achievements of GSML, describing the environment of the proposed GSML Ecotourism and Aquaculture Project. The Gulf Specimen Marine Laboratories (GSML), Inc. was founded in 1963 and incorporated in 1980 to support marine research and education, both on site and at universities throughout the U.S. and Canada. It was created primarily through the encouragement and support of Founder Jack Rudloe by taxonomists at the Harvard's Museum of Comparative Zoology; the American Museum of Natural History; the Peabody Museum at Yale and at the Smithsonian Institution. They strongly encouraged the establishment of the institution, because the Gulf of Mexico was poorly known taxonomically. In addition, the author John Steinbeck, an avid amateur marine biologist, also encouraged the creation of GSML and assisted Mr. Rudloe with extensive support and advice.<sup>10</sup>

In recent years, GSML's *mission* is to further through study, research, publication, teaching and public display the knowledge of marine biology; to promote the protection of marine life and marine environment; to collect, classify and disseminate marine biological specimens.<sup>11</sup>



Since the establishment, GSML has provided live marine animals to thousands of the foremost research laboratories and universities in the United States and Canada. And today's biological supply market has been expanded to Europe and Japan. Over 700 scientific publications cite GSML as their source of research specimens. GSML's specimens sales have shown in past surveys (ten years ago, plus) that approximately 50% of the specimen market is from scientific and biomedical institutions, and the rest comes from educational institutions. Sponges and toadfishes collected in the waters of Wakulla County have been flown in the space shuttle. And the local sea urchins eggs are widely used in embryology and pollution research. GSML presently collects and markets over

<sup>10</sup> GSML Proposal for General Operating Support of Florida Department of State, Division of Cultural Affairs (2004)

<sup>11</sup> <http://www.gulfspecimen.org/about-us/>

300 marine invertebrates, fish and algae to over 1300 scientific and educational institutions.<sup>12</sup> GSML not only provides live marine animals to research laboratories and universities, but also has a 110-square feet, air conditioned onsite laboratory available for long-term research use by scientists. Specimens would be provided per our standard rates with no shipping charges. Staff time for feeding research visitors' animals or technical assistance is also provided.<sup>13</sup> Future plan of GSML is to expand their work into the field of biotechnology.

The University of North Carolina, Wilmington LINK reported that the predicted growth rate of marine biotechnology is greater than 5.9% annually. The research and production to bring about this 5.9% annual growth in the marine biotechnology industry will require marine specimens of the type that GSML sells. According to successful examples<sup>14</sup>, the GSML group projects their sales to also grow 5.9% annually over this same time period. The Triumph grant will, in part, fund the increased capacity and the technological upgrades in the collection, live inventory maintenance, and live shipping capabilities to support this growth. Also this grant will fund marketing to insure GSML's participation in this industry growth. In the past GSML has relied upon its reputation and word of mouth within the industry for obtaining orders for products. However with this anticipated growth in the marine biotechnology industry they are also including in this grant proposal funding for marketing activity to ensure their participation in this projected industry growth.

GSML, which became a not-for-profit corporation with a tax exempt IRS 501(c) (3) status in 1980, is also a licensed sea turtle rescue and rehabilitation center with a specially equipped hospital and turtle ambulance. All required permits and licenses from the Florida Fish and Wildlife Conservation (FWC) Commission, Florida Department of Agriculture, and NOAA fisheries are maintained. Moreover, GSML has a 2 acre off shore lease for culturing live rock for aquariums.

According to Rudloe (2018), "Who is Gulf Specimen?", GSML plays a multi-role as an aquarium, a marine lab, a tropical fish shipping plant, as well as a sea turtle rehabilitation facility. GSML's activities and businesses cover education programs (including summer camp programs) in North Florida, South Georgia, and Alabama. It runs tour buses in South and Central Florida as well. Its employment composition covers interns, volunteers, and staff. The long history, social and economic contribution, and sustainable development of GSML provide supportive evidence and environment for the success of the proposed GSML Ecotourism and Aquaculture project.

Following this development path, GSML will expand the current success by renovating the Gulf Specimen Aquarium, developing new classroom buildings and facilities and offering related certification programs, and will further develop affiliations with universities. Partners that will be enrolled in the proposed GSML Ecotourism and Aquaculture Project include: Young American Conservation Corps, Florida A& M University (FAMU), Florida State University (FSU), University of Florida (UF), Valdosta State College (VSC), Wakulla High School and GSML's 1300 customer based

<sup>12</sup> GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018)

<sup>13</sup> GSML "Welcome Long Term Research Visitors" Poster, <http://gulfspecimen.org>

<sup>14</sup> GSML has in the past provided Johns Hopkin's University with horseshoe crabs, which led to the lucrative market for Limulus lysate which is used to test glassware for endotoxins. In the late 1960's, GSML helped develop the drug Bryostatins which is used in cancer research, and more recently we provided the U.S. Navy with hagfish slime which is being developed for anti-submarine warfare.



scientific and educational institutions.<sup>15</sup> Following the goal of Triumph Gulf Coast, Inc., “the recovery, diversification, and enhancement of the eight Northwest Florida counties disproportionately affected by the oil spill”, the GSML Ecotourism and Aquaculture Project will target the prospects of permanent job creation, course and certificates offering, education outreach services expanding, positive economic impacts, and future business and development opportunities creation. The

proposed GSML Ecotourism and Aquaculture Project will directly create 19 permanent FTE jobs and more construction-related jobs, provide public aquariums curriculum and certificates, and attract public research and private foundation grants. The development of retail and other tourism-related businesses is expected. The tax base is expected to be expanded as well. Thus, more residents of the eight Northwest Florida counties and the entire Panhandle region will benefit from the development of regional economy stimulated by the GSML Ecotourism and Aquaculture Project. Because of the positive and substantial economic and social values contributed by the GSML during the past decades, GSML continues receiving extensive support and grants from various public and private institutions and personnel. Table 1 summarizes the various kinds of grants received by GSML from the year 2008 to present. The total accumulated amount is estimated as \$1,077,187.

**Table 1. Gulf Specimen Marine Laboratories (GSML), Inc. - Grants (2008-2018)<sup>16</sup>**

DATE	SOURCE	DESCRIPTION	AMOUNT
2008	MacGowan Memorial	General support	\$15,000.00
	Sea turtle license plate	Turtle grant, kiosk	\$15,700.00
	Public Gate donations	Unrestricted funds	\$8,484.42
2009	George Floyd trust	Video North Fla. Contract	\$10,000.00
	Public gate donations	Unrestricted funds	\$11,966.82
2010	Williams Family Foundation	Construction of SeaMobile	\$40,000.00
	Work force Florida	Trainee reimbursement	\$421.82
	Sea Turtle Conservancy	Turtle grant	\$4,886.50
	Private donor	Operation Noah’s Ark (BP oil GSML retrofit)	-
	William MacGowan Estate	General operating funds	\$43,798.50
	Private donor	Operation Noah’s Ark	\$4,000.00
	Public gate donations		\$25,000.00
			\$5,000.00

<sup>15</sup> List of Co-applicants and Partners is cited from the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018). Other partners or cooperative personnel include Robins McIntosh, Vice President of CP Foods, Inc., Florida Aquaculture, Inc., and Dr. Brian LaPointe, of the FAU’s Harbor Branch Institute.

<sup>16</sup> The table includes grants, donations, contracts and money *other than* routine specimen sale, tourist gate and field trips.

			\$24,447.39
			\$2,475.25
2011	LuLu Buffett One Love One Ocean campaign	Sea Mobile challenge grant	\$20,000.00
	Williams Family Foundation	Sea Mobile challenge grant	\$20,000.00
	Public gate donations	Unrestricted	\$17,755.62
2012	FEMA	TROPICAL STORM DEBBY #4068	\$116,419.59
			\$3,362.92
			\$56,612.55
	Jimmy Buffet Singing for Change Foundation	BP Oil spill recovery donation	\$9,167.68
	BP Claim	Retrofit costs	\$38,000.00
	BP Claim	BP Economic Impact Claim	221,300.00
	Public gate donations		\$32,000.00
			\$14,408.13
2013	Public Gate donations	Unrestricted	\$16,456.91
2014	Duke Energy	SeaMobile bookings	\$2,500.00
	Public Gate donations	Unrestricted funds	\$12,954.38
2015	Private donor	Restricted	\$40,000.00
	Sea Turtle Conservancy	Turtle Grant donation	\$4,440.00
	Public Gate donations	Unrestricted funds, Sharks and Chablis gate	\$27,638.77
2016	Private donor	Quarantine system	\$3,000.00
	Private donor	Restricted	\$50,000.00
	FEMA	HURRICANE HERMINE #4280	\$5,000.00
			\$70,557.80
			\$9,601.92
			\$59,831.72
	Sea turtle grant	Unrestricted funds	30,909.24
	Public gate donations		\$6,573.76
			\$6,102.40
			2,110.00
			\$13,901.22
2017	Private donor	New trash\recycle bin	\$1,641.51
	FEMA	Hurricane Irma	\$132,758.31
	Save the Sea turtle foundation	Graphics grant	\$8,200.00
	Sea Turtle Conservancy	Audio turtle grant	\$12,369.60
	Public gate donations	Chillers for quarantine system	\$11,504.65
		Uncommitted funds	\$7,962.15
2018	US. Charitable Gift Trust	C-Hawk vessel & improvements	\$33,084.00
	Jimmy Allen Sea Turtle Foundation	Purchase centrifuge	\$1,686.71
	Caribbean Conservation Corporation	Cold stunned turtle rescue	\$4,889.61
	Public gate donations	Unrestricted funds	\$7,994.29
<b>Total</b>			<b>\$1,077,187.30</b>

## Ecotourism in Florida

The second topical area of literature review is related to the recent achievements of ecotourism in Florida. We introduce the background of Florida ecotourism development in order to highlight the important impact of the ecotourism of the GSML Ecotourism and Aquaculture Project on Florida, and regional and local economies.

Ecotourism is the practice of touring natural habitats in a manner meant to minimize ecological impact (Webster, 1982). In 2006, outdoor recreation contributed \$730 billion annually to the economy and supported nearly 6.5 million jobs nationally (The Economic Benefits of Ecotourism, 2017). Ecotourism includes a wide range of outdoor recreation activities with far reaching economic benefits. In Florida, “ecotourism” is a diverse mix of activities which includes cycling, camping, fishing, hunting, paddling, hiking, birding, visiting scenic byways, and other wildlife viewing. 12 national parks in Florida are home to 54 threatened and endangered species. The diversity of wildlife attracted tourists and created jobs, contributing \$552.8 million economic benefit in 2009.<sup>17</sup> Florida has recognized the job creating potential of trails and is working to create a statewide system of greenways and trails. In 2011, Florida’s 160 state parks attracted 20.4 million visitors, contributing \$967.3 million to the state economy and creating 19,347 jobs. Specifically, Wakulla Springs brought \$22.2 million economic contribution and created 347 jobs in 2011, ranking the 2nd place in all state parks. Table 2 reports the visitation of Wakulla Springs and St. Marks Refuge since 2012 (FY2013).<sup>18</sup> The numbers of accumulated visitors since 2012 (FY2013) to 2016 (FY 2017) have reached 1,205,517 and 1,481,915 for Wakulla Springs and St. Marks Refuge respectively.

**Table 2. Visitation of Wakulla Springs and St. Marks Refuge since 2012 (FY2013)**

Year (FY)	Wakulla Springs Visitation	St. Marks Refuge Visitation
2012-2013 (2013)	239,270	325,915
2013-2014 (2014)	260,229	321,000
2014-2015 (2015)	270,686	308,000
2015-2016 (2016)	224,725	265,000
2016-2017 (2017)	210,607	262,000
<b>Accumulated Total</b>	<b>1,205,517</b>	<b>1,481,915</b>

Alonso (2018) summarized the ecotourism programs and initiatives in Florida. Florida’s rare ecosystems support diverse animal life, make outdoor activities possible, and create opportunities for travelers to engage in ecotourism. A number of programs and initiatives have been established to help travelers to identify eco-friendly services in Florida, including Everglades National Park, which is the largest subtropical wilderness in North America, the Keys and other destinations like the Canaveral National Seashore, and 160 state parks including the Blackwater River State Park, the

<sup>17</sup> In North Florida, the St. Marks Trail in Tallahassee provides \$ 1.9 million economic benefit to Tallahassee businesses.

<sup>18</sup> Data source: Amy Conyers, Park Manager at the Edward Ball Wakulla Springs State Park; Robin M. Will, Supervisory Refuge Ranger at the St. Marks National Wildlife Refuge

Florida Caverns State Park on the Panhandle, and the Homosassa Springs State Park. By introducing two representative programs/plans and other efforts throughout the state, Sustainable Travel & Ecotourism in Florida (2018) showed ecotourism is a trendy catchphrase when it comes to the tourism in Florida. Both articles mentioned above highlighted the Florida Green Lodging Program – a voluntary initiative of the Florida Department of Environmental Protection (FDEP). The Florida Green Lodging Program designates and recognizes lodging facilities making a commitment to conserving and protecting Florida’s natural resources. Memberships must educate customers, employees, and the public on conservation; participate in waste reduction, reuse, recycling, water conservation, and energy efficiency; and provide eco-friendly transportation. The membership is valid for 3 years and all properties are required to submit environmental performance data every year and perform at least two new environmental practices. According to Alonso (2018), there are 680 hotels, inns and other accommodations participate into the Green Lodging Program, aiming at conserving water, reducing waste, using energy efficiently and educating patrons about the importance of protecting. And Wakulla Springs State Park is the only one with a lodge that has a Green Lodging membership.

Tourism has become one of the major sources of tax revenue in Florida. It is important to focus on the tourism-conservation symbiosis, because Florida has the greatest share of wetland loss but at the same time, it is one of the most popular nature-based tourism destinations with rich biodiversity and valued ecosystems. Lin (2012) tested whether ecotourism involvement and different groups of perceived benefits can encourage tour operators’ pro-environmental behaviors in Florida. Ecotourism has been considered as an alternative tool of environmental management. Thus, it is important to assess whether ecotourism involvement is significantly associated with major stakeholders’ conservation contribution and it is critical to know what incentives drive major stakeholders’ active engagement in natural resource management. In Lin (2012), the author showed the degree of ecotourism involvement is a significant predictor of respondents’ wetland conservation actions. Participation in active wetland planning and management activities is significantly associated with perceived *economic, socio-cultural, and conservation benefits*. And socio-cultural benefits are proved to have greater effects. The author concluded that the degree of ecotourism involvement would influence the activeness of tour operators’ environmentally responsible behaviors in Florida and suggested that continuously promoting the concepts and practices of sustainable tourism and ecotourism among the industry is critical through the collaborative efforts of agencies, departments and organizations. Because conservation activities is more knowledge-centered and requires long-term commitments attached, land and nature resource management agencies or departments need to expand their partnerships with major shareholders through sharing information, providing professional knowledge and skill training, and creating more ecological volunteer programs. Thus, through enhancing community-based conservation initiatives and improving disclosure and interpretation of scientific information, they can promote participation ecological governance. This emphasizes the important role of ecotourism and aquaculture related education programs. The proposed GSML Ecotourism and Aquaculture Project provides such a channel for enhancing and improving those conservation activities which are the most important part of ecotourism. The next subsection reviews the current development of aquaculture (which is GSML is specialized at) and related education programs in Florida.

## Aquaculture and Related Education Programs in Florida

As illustrated in the first subsection of literature review, the GSML Ecotourism and Aquaculture Project will benefit the entire Panhandle community in various aspects. The investment contributions of ecotourism and aquaculture are reflected in both the improved local and regional economic growth and in the further benefits brought by general programs and education outreach.

Aquaculture is the process of farming or growing animals and plants in a controlled water environment.<sup>19</sup> Florida plays an important role in the production of tropical fish and aquatic plants and it is the 1st producer of aquarium fish in the United States. In the perspective of the global market of aquaculture, because of the increasing demand, edible farm-raised aquatic products are the fastest growing sector in the world food production. NOAA predicts that there will be 40 million tons of farm-raised products per year by 2030. One of the aquaculture business advantages is that the supply of products can be easier to maintain to help achieve a desirable price structure by controlling a uniform size and quantity.

On the other hand, aquaculture education brings a lot of benefits. From the aspect of *labor*



*investment*, it provides students with a sense of ownership and responsibility, helps students gain technical and hands-on skills, offers opportunities for field trips and lab work community involvement, and reinforces students' science, math, business and marketing skills.<sup>20</sup> There have been several successful aquaculture education programs in Florida schools, including the Riverview High School in Sarasota County and the Eastbay High School in Hillsborough County as well as the FWC Fish and Wildlife Research Institute's (FWRI) Aquaculture in the Classroom program which began in 2001. Table 3 provides the details of aquaculture education programs in the Riverview High

School in Sarasota County and the Eastbay High School in Hillsborough County. FWRI Aquaculture in the Classroom program is designed for students ranging from 5th grad through college, which engages students in activities that help them learn about stock enhancement, teaches students the basic principles of aquaculture, marine research and how to become stewards of natural resources. There are 12 schools actively participating in the program. FWC staff members and teachers design a curriculum satisfying Florida Sunshine State Standards. And fingerlings are collected and returned for outreach and education exhibits.<sup>21</sup>

<sup>19</sup> Discover Florida Aquaculture (Marketing and Development - Education - For Educators). Florida Department of Agriculture and Consumer Services. Retrieved from <https://www.freshfromflorida.com/Divisions-Offices/Marketing-and-Development/Education/For-Educators/Discover-Florida-Aquaculture>

<sup>20</sup> School Success Stories (Education - For Educators - Aquaculture Education Resources). Florida Department of Agriculture and Consumer Services.

<sup>21</sup> Aquaculture in the Classroom. Florida Fish and Wildlife Conservation Commission.

**Table 3. Successful Aquaculture Education Programs in Florida Schools**

School Name	County	Program Name and Starting Year	Feature
Riverview High School	Sarasota	The Stars to Starfish Program, 2011	§ Clownfish and Coral Propagation
			§ Snook Research
			§ Redfish Aquaculture
			§ Pizza Garden
			§ Marine Club
Eastbay High School	Hillsborough	1999, funded internally	§ Koi breeding program
			§ Clownfish breeding program
			§ Independent research projects

Aquaculture education, especially programs that can provide certifications to boost the labor market, will support Florida’s marine fisheries, meeting the fast-increasing demand of domestic and global aquaculture market. In the next section, CEFA study team provides a detailed analysis of the existing and planned general programs and education outreach activities of the GSML Ecotourism and Aquaculture Project.

## Data and Statistical Analysis

### General Ecotourism and Proposed Education Outreach Programs

GSML and the affiliated Aquarium currently host a number of ecotourism activities and propose to offer several others in keeping with the mission to educate people concerning the sea life of the northern Gulf of Mexico. Table 4(a) lists the existing and proposed ecotourism activities with their main features.

The existing ecotourism programs/activities include “Public Aquarium” where tourists can get an up close look at sharks, sting rays, octopus, sea horses, red drum, trigger fish, remoras, cobia, and jacks and extended tours such as “Guided Aquarium Tours”, “Guided Aquarium and Dock Tours”, and “Guided Aquarium, Dock and Salt Marsh Seining Excursion”. Tourists are also able to rent kayaks by the hour to explore the shallow waters of Dickerson Bay a portion of the Apalachee Bay estuary in the “Kayak Rentals” program. “Aquatic Adventure Camp” and “Summer Science Saturday” provides opportunities for 6 through 12 year olds to better understand the marine life and participate into education and research activities.

The proposed educational ecotourism activities include: “Boat Tours”, which is focused on the education of the history of the seafood in Panacea; “Kayak Tours” which takes visitors on a marked kayak and canoe trail, discussing the importance of estuarine habitats; and “Coastal Bike Tours and Wade into Coastal Wetlands of Mashas Sands” which is focused on the history and geology of the Northern Gulf Coast or coastal habitats. Other proposed possible educational tourism covers several of topics and tourism seasons, such as “Lecture Series/Classes”, “Its Wet and its Dark

(Nighttime Wet Walks)”, “Adult Aquatic Adventure Camp”, “School Holiday Camps”, “Story Time at the Aquarium”, “Annual Tourist Opportunities”, “Christmas Open House”, “Halloween Costume Adventure”, “Coast Weeks”, and “World Oceans Day”.

**Table 4(a). The Category of General Programs and Proposed Education Outreach**

Existing Ecotourism Activities	Features
<b>Public Aquarium</b>	Tourists can get an up close look at and touch marine animals
<b>Guided Aquarium Tours</b>	A pantheon of changing specimens is showed and their unique features are commented
<b>Guided Aquarium and Dock Tours</b>	Experience is extended by visiting the living dock at Panacea, and exploring the fouling community
<b>Guided Aquarium, Dock and Salt Marsh Seining Excursion</b>	The dock tour plus visit a sandy bottom location where they seine for small fish, and shellfish in the salt marsh the Gulf’s nursery of seafood
<b>Kayak Rentals</b>	Tourists rent kayaks by the hour to explore the shallow waters of Dickerson Bay
<b>Aquatic Adventure Camp</b>	Each June, GSML hosts four one week day camps for 6 through 12 year olds
<b>Summer Science Saturday</b>	Classes centered on marine life each weekend during the summer for 6 to 12 year olds, including both instruction and a craft activity
Proposed Education Tourism Activities	Features
<b>Boat Tours</b>	Educational Theme: History of Seafood in Panacea. Educational Activities: Oyster Tonging, Check Crab Traps, Cast Net for Mullet, Pull Shrimp Trawl, Rig a Pole for Grouper fishing, and Recreational Fishing
<b>Kayak Tours</b>	Educational Theme: Estuarine Habitats. Take visitors on a marked kayak and canoe trail.
<b>Coastal Bike Tours and Wade into Coastal Wetlands of Mashas Sands</b>	Educational Theme: History and Geology Northern Gulf Coast or Coastal Habitats. Take advantage of shared use trail system from the Tallahassee to St. Marks Trail to the Ochlocknee Bay Trail.

Ecotourism and education programs not only satisfy the mission of educating people concerning the sea life of the northern Gulf of Mexico, but generate remarkable income for GSML and tax revenues for state and local governments. Table 4(b) lists the anticipated annual revenues of some of the expected ecotourism programs by the GSML. Among the programs, the “Eco Boat Tours” is anticipated to bring the highest estimate annual revenues of \$187,000 per year.<sup>22</sup>

<sup>22</sup> Revenues are estimated based on information provided by Amy Conyers, the park manager of Edward Ball Wakulla Springs State Park. More information sees: Appendix, Table A1. Boat Tour Attendance at Edward Ball Wakulla Springs State Park.

**Table 4(b). Marine Ecotourism Anticipated Revenues**

Marine Ecotourism Anticipated Annual Revenues Table				
Program Name	Number of Tour/Year	Capacity/Tour	Rate	Revenue
Aquatic Adventure Summer Camp	4	20	\$160	\$12,800
Summer Science Saturday	10	20	\$15	\$3,000
Kayak Tours	40	12	\$40	\$19,200
Coastal Bike Tours	24	12	\$40	\$11,520
Eco Boat Tours	208	60	\$15	\$187,200

**GSML Visitor and Membership Composition**

Table 5(a) lists the geographic composition of visitors of GSML by region and year. The sample data of visitors was drawn from people who signed the paper guest book during their visiting.<sup>23</sup> Columns 2 and 3 show the number of visitors in the sample; including the total number of visitors and the number of visitors from Alabama, Florida, and Georgia, the three states highlighted as the broad service area defined in the GSML Triumph Gulf Coast, Inc. Pre-Application Form (April, 2018). Based on the sample data over the period 2013-2016, around 60% registered visitors are from Alabama, Florida, and Georgia. The market area specified in the Pre-Application Form targets the geographic composition of visitors. Table 5(b) lists the number and composition of GSML membership over the period 2012-2017. Family Membership takes the majority portion. The average percentage in the total number is 86%. Individual Membership comprises 10% of the total number. Patron Level, Corporate, and Other Type Membership to Total percentage remains stable at 4% over the last two years. Figure 1 displays Table 5(b), in average percentages.

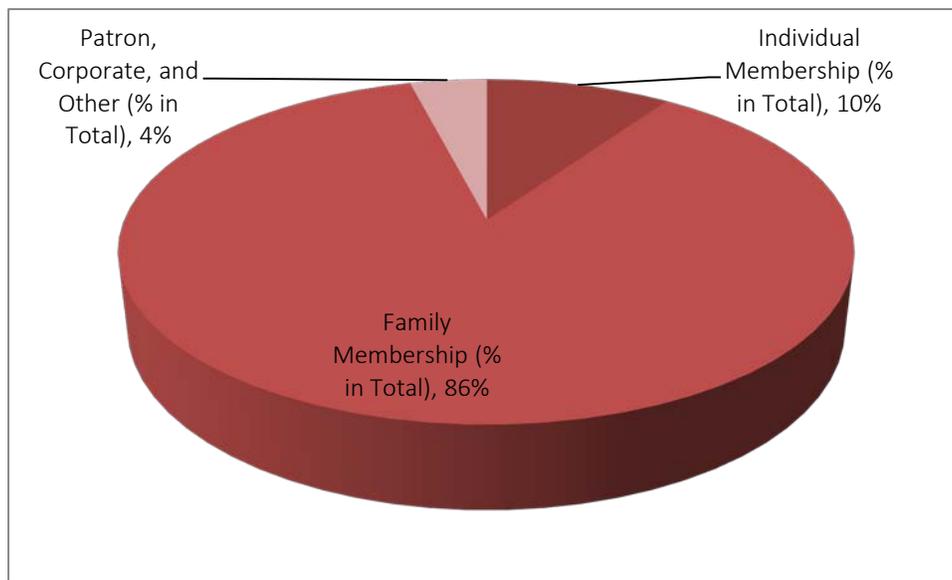
**Table 5(a). Visitor Composition by Region and Year**

Year	Total Visitors in the Sample	Visitors from Alabama, Florida, and Georgia	Percentage of Visitors from Alabama, Florida, and Georgia
2013	423	243	57%
2014	398	239	60%
2015	132	82	62%
2016	149	99	66%

<sup>23</sup> Information was provided by the GSML, Inc. It should be noted that the guest book system was updated ~ year 2017, from a paper format to an on-line electronic format.

**Table 5(b). Membership Composition by Type and Year**

Year	Total	Individual	Individual (% in Total)	Family	Family (% in Total)	Patron, Corporate, and Other	Patron, Corporate, and Other (% in Total)
2012	161	29	18%	126	78%	6	4%
2013	175	27	15%	135	77%	13	7%
2014	256	31	12%	217	85%	8	3%
2015	513	27	5%	477	93%	9	2%
2016	535	15	3%	498	93%	22	4%
2017	422	19	5%	386	91%	17	4%
<b>Average</b>			<b>10%</b>		<b>86%</b>		<b>4%</b>



**Figure 1. Membership Composition by Type**

### Demographics

This subsection shows characteristics of demographics of *population, education, and labor force* of the eight counties in the market area, providing corresponding data statistics of Florida for the purpose of comparison.

**Table 6. Population Projections and as a Percentage of the Total Market Area Population, by County and Year**

County	Population_2017	TPct_2017	Population_2020	TPct_2020	Population_2025	TPct_2025
Bay	178,820	18.17%	185,964	18.18%	196,229	18.12%
Escambia	313,381	31.84%	320,293	31.30%	330,332	30.51%
Franklin	12,161	1.24%	12,448	1.22%	12,863	1.19%
Gulf	16,297	1.66%	16,788	1.64%	17,215	1.59%
Okaloosa	195,488	19.86%	201,228	19.67%	209,795	19.38%
Santa Rosa	170,835	17.36%	182,141	17.80%	199,930	18.47%
Wakulla	31,909	3.24%	33,086	3.23%	35,456	3.27%
Walton	65,301	6.63%	71,210	6.96%	80,871	7.47%
<b>Mkt. Area</b>	<b>984,192</b>	<b>100.00%</b>	<b>1,023,158</b>	<b>100.00%</b>	<b>1,082,691</b>	<b>100.00%</b>
<b>Florida</b>	<b>20,484,142</b>		<b>21,526,547</b>		<b>23,061,892</b>	

Table 6 shows the population projections and population projections as a percentage of total market area population of eight Northwest Florida counties, in the year 2017, 2020, and 2025, respectively.<sup>24</sup>

The four least populated counties are Franklin County, Gulf County, Wakulla County, and Walton County, including the three main counties (which are highlighted by gold color) impacted by the GSML Ecotourism and Aquaculture Project. The population percentages of these counties in the market area are only 12.77%, 13.05%, and 13.52% for the years 2017, 2020, and 2025, respectively.

Table 7 lists the average annual growth rate of the projected population. The annual growth rate of population of the entire market area is 1.32% over the period 2017-2020. The average growth rate is expected to decrease to 1.16% over the period 2020-2025. Among the eight counties, Walton County has the highest projected annual growth rates: 3.02% over the period 2017-2020 and 2.71% over the period 2020-2025. Compared with data in Table 6, although Escambia County has the largest population proportion in the market area, its estimated annual growth rates of population are relatively low at 0.74% and 0.63% over the two periods, respectively.

<sup>24</sup> Data source: <http://edr.state.fl.us/Content/population-demographics/data/index-floridaproducts.cfm>

**Table 7. Average Annual Growth Rate of Projected Population by County and Year**

County	Population_2017	Population_2020	Annual Increase Rate (2017-2020)	Population_2025	Annual Increase Rate (2020-2025)
Bay	178,820	185,964	1.33%	196,229	1.10%
Escambia	313,381	320,293	0.74%	330,332	0.63%
Franklin	12,161	12,448	0.79%	12,863	0.67%
Gulf	16,297	16,788	1.00%	17,215	0.51%
Okaloosa	195,488	201,228	0.98%	209,795	0.85%
Santa Rosa	170,835	182,141	2.21%	199,930	1.95%
Wakulla	31,909	33,086	1.23%	35,456	1.43%
Walton	65,301	71,210	3.02%	80,871	2.71%
<b>Mkt. Area</b>	<b>984,192</b>	<b>1,023,158</b>	<b>1.32%</b>	<b>1,082,691</b>	<b>1.16%</b>
<b>Florida</b>	<b>20,484,142</b>	<b>21,526,547</b>		<b>23,061,892</b>	

Table 8(a) and 8(b) provide the information of 2012-2016 American Community Survey 5-year estimates of educational attainment in the market area. For Population 18-24 years (shown as Table 8(a)), the percentage of people who are high school graduate (includes equivalency) and have some college or associate’s degree is 75.7% for Florida. The value for the market area is 77.9% which is higher due to a relative high proportion of high school graduate (or equivalency). However, for Franklin, Gulf, and Wakulla Counties, which are three of the four least populated counties, the percentage of high school graduate (or equivalency) and some college or associate’s degrees among population 18 to 24 years are lower. They are 65.0%, 67.2%, and 70.2% respectively.

**Table 8(a). Education Attainment for Population 18-24 Years**

County	Total Est. Population 18 to 24 years	Total Est. Population 18 to 24 years - Less than high school graduate with %		Total Est. Population 18 to 24 years - High school graduate (includes equivalency) with %		Total Est. Population 18 to 24 years - Some college or associate's degree with %		Total Est. Population 18 to 24 years - Bachelor's degree or higher with %	
Bay	15,734	2,984	19.0	4,958	31.5	6,853	43.6	939	6.0
Escambia	39,778	4,762	12.0	12,204	30.7	19,774	49.7	3,038	7.6
Franklin	819	273	33.3	230	28.1	302	36.9	14	1.7
Gulf	1,222	368	30.1	388	31.8	432	35.4	34	2.8
Okaloosa	19,236	2,331	12.1	6,406	33.3	9,051	47.1	1,448	7.5
Santa Rosa	14,094	2,298	16.3	5,260	37.3	5,388	38.2	1,148	8.1
Wakulla	2,425	723	29.8	752	31.0	950	39.2	-	0.0
Walton	4,164	1,033	24.8	1,657	39.8	1,274	30.6	200	4.8
<b>Mkt. Area</b>	<b>97,472</b>	<b>14,772</b>	<b>15.2</b>	<b>31,855</b>	<b>32.7</b>	<b>44,024</b>	<b>45.2</b>	<b>6,821</b>	<b>7.0</b>
<b>Florida</b>	<b>1,774,488</b>	<b>283,726</b>	<b>16.0</b>	<b>535,190</b>	<b>30.2</b>	<b>807,487</b>	<b>45.5</b>	<b>148,085</b>	<b>8.3</b>

**Table 8(b). Education Attainment for Population 25 Years and Above**

County	Total Est. Population 25 years and over	Total Est. Population 25 years and over - High school graduate (includes equivalency) with %		Total Est. Population 25 years and over - Some college, no degree with %		Total Est. Population 25 years and over - Associate's degree with %		Total Est. Population 25 years and over - Bachelor's degree with %		Total Est. Population 25 years and over - Graduate or professional degree with %	
Bay	124,142	37,958	30.6	31,094	25.0	13,063	10.5	18,379	14.8	9,595	7.7
Escambia	204,939	57,693	28.2	46,619	22.7	29,028	14.2	34,088	16.6	16,907	8.2
Franklin	8,952	3,204	35.8	1,831	20.5	593	6.6	929	10.4	569	6.4
Gulf	12,106	4,327	35.7	2,812	23.2	829	6.8	1,437	11.9	586	4.8
Okaloosa	133,072	33,974	25.5	34,442	25.9	13,884	10.4	23,974	18.0	15,204	11.4
Santa Rosa	112,777	30,844	27.3	26,462	23.5	14,060	12.5	20,301	18.0	10,023	8.9
Wakulla	22,313	8,337	37.4	5,406	24.2	2,109	9.5	2,590	11.6	1,123	5.0
Walton	44,776	11,849	26.5	10,918	24.4	3,475	7.8	8,009	17.9	3,771	8.4
<b>Mkt. Area</b>	<b>663,077</b>	<b>188,186</b>	<b>28.4</b>	<b>159,584</b>	<b>24.1</b>	<b>77,041</b>	<b>11.6</b>	<b>109,707</b>	<b>16.5</b>	<b>57,778</b>	<b>8.7</b>
<b>Florida</b>	<b>14,093,687</b>	<b>4,111,029</b>	<b>29.2</b>	<b>2,897,250</b>	<b>20.6</b>	<b>1,348,226</b>	<b>9.6</b>	<b>2,514,297</b>	<b>17.8</b>	<b>1,415,499</b>	<b>10.0</b>

Table 8(b) reports the information of educational attainment for Population 25 years and above. The 5-year estimates show that, the percentage of the population people who are high school graduate (includes equivalency) and who have some college or associate's degree is 59.4% for Florida, compared with 64.1% for the market area. Notably, Franklin, Gulf and Wakulla Counties, the three least populated counties, have the higher proportion of high school graduates, but lower proportion of Associate's degrees.

In addition to educational attainment, labor force participation is another important aspect to the demand side of investment of general and education programs. Table 9(a)-(c) list the 2012-2016 American Community Survey 5-Year Estimates of labor force participation, employment and unemployment for Group Age 16-19 Years, Age 20-24 Years, and Population 16 Years and above.

There are three main ratios/rates which are used to analyze the labor market: participation rate, employment-to-population ratio, and unemployment rate. Table 9(a) shows the statistics of the three variables for the group of Age 16-19 Years. Compared with the participation rate 32.1% of Florida, the market area has a much higher labor force participation rate, which is 44.0% for young people. Similarly, the employment-to-population ratio is higher in the market area, which is 29.0%. For Franklin, Gulf, and Wakulla Counties, all have higher participation rates and employment-to-population ratios than Florida estimates. Notably, Franklin County's labor participation rate is 50.9%, and the employment-to-population ratio is 46.2%. Correspondingly, the unemployment rates of the three counties are relatively lower compared with the estimate of Florida. They are 9.3%, 25.2%, and 21.7% respectively.

**Table 9(a). Labor Force Participation, Employment, and Unemployment for Age 16-19 Years**

County	Total Est. AGE - 16 to 19 years	Labor Force Participation; Estimate; AGE - 16 to 19 years	Labor Force Participation Rate; Estimate; AGE - 16 to 19 years	Employment/Population Ratio; Estimate; AGE - 16 to 19 years	Unemployment rate; Estimate; AGE - 16 to 19 years
Bay	8,214	3,458	42.1	30.7	24.4
Escambia	19,278	9,311	48.3	26.2	23.8
Franklin	316	161	50.9	46.2	9.3
Gulf	777	270	34.7	26.0	25.2
Okaloosa	8,425	3,884	46.1	33.6	15.9
Santa Rosa	7,955	2,856	35.9	27.8	22.3
Wakulla	1,384	473	34.2	26.8	21.7
Walton	2,455	1,068	43.5	33.0	24.2
<b>Mkt. Area</b>	<b>48,804</b>	<b>21,481</b>	<b>44.0</b>	<b>29.0</b>	<b>N/A</b>
<b>Florida</b>	<b>946,962</b>	<b>303,975</b>	<b>32.1</b>	<b>23.4</b>	<b>26.0</b>

However, those features are quite different for the group of Age 20-24 Years. Though the market area has a relative higher participation rate, which is 77.4%, the participation rates and employment-to-population ratio of Franklin, Gulf, and Wakulla Counties are below the Florida averages, which are 72.5% and 61.4% respectively. The unemployment rate of Florida is 14.0% and the values of Franklin, Gulf, and Wakulla Counties are 14.6%, 15.1%, and 13.1% respectively.

**Table 9(b). Labor force Participation, Employment, and Unemployment for Age 20-24 Years**

County	Total Est. AGE - 20 to 24 years	Labor Force Participation; Estimate; AGE - 20 to 24 years	Labor Force Participation Rate; Estimate; AGE - 20 to 24 years	Employment/Population Ratio; Estimate; AGE - 20 to 24 years	Unemployment rate; Estimate; AGE - 20 to 24 years
Bay	11,741	9,346	79.6	65.7	11.5
Escambia	27,709	20,920	75.5	53.4	11.8
Franklin	647	444	68.6	58.6	14.6
Gulf	856	484	56.5	48.0	15.1
Okaloosa	15,092	12,451	82.5	56.1	10.3
Santa Rosa	10,387	7,894	76.0	63.0	10.1
Wakulla	1,895	1,290	68.1	59.2	13.1
Walton	2,997	2,362	78.8	62.1	21.2
<b>Mkt. Area</b>	<b>71,324</b>	<b>55,191</b>	<b>77.4</b>	<b>57.9</b>	<b>N/A</b>
<b>Florida</b>	<b>1,298,650</b>	<b>941,521</b>	<b>72.5</b>	<b>61.4</b>	<b>14.0</b>

Table 9(c) summarizes the 2012-2016 American Community Survey 5-Year estimates of labor force participation rate, employment-to-population ratio, and unemployment rate for Population 16 years and above. The market area still has a higher labor participation rate 60.6%, indicating a higher supply of labor. While compared with the estimate of employment-to-population ratio of Florida, which is 53.6%, the employment-to-population ratio in the market area is 52.9%. Those values for Franklin, Gulf, and Wakulla Counties are 43.3%, 40.8%, and 52.5% respectively. Franklin and Gulf Counties have a similar higher unemployment rate 9.2% which is higher than Florida which is 8.4%.

**Table 9(c). Labor Force Participation, Employment, and Unemployment for Population 16 Years and Above**

County	Total Est. Population 16 years and over	Labor Force Participation; Estimate; Population 16 years and over	Labor Force Participation Rate; Estimate; Population 16 years and over	Employment/Population Ratio; Estimate; Population 16 years and over	Unemployment rate; Estimate; Population 16 years and over
Bay	144,097	88,620	61.5	55.2	7.5
Escambia	251,926	153,675	61.0	52.2	8.3
Franklin	9,915	4,729	47.7	43.3	9.2
Gulf	13,739	6,210	45.2	40.8	9.2
Okaloosa	156,589	100,374	64.1	54.4	6.5
Santa Rosa	131,119	77,622	59.2	52.3	7.1
Wakulla	25,592	14,485	56.6	52.5	7.1
Walton	50,228	28,630	57.0	52.5	7.3
<b>Mkt. Area</b>	<b>783,205</b>	<b>474,345</b>	<b>60.6</b>	<b>52.9</b>	<b>N/A</b>
<b>Florida</b>	<b>16,339,299</b>	<b>9,607,508</b>	<b>58.8</b>	<b>53.6</b>	<b>8.4</b>

### Industry Pattern in Market Area and Tourism

Based on NAICS codes, the study team also analyzed the industry pattern of eight counties in the market area, focusing on three tourism related industry and services. They are: arts, entertainment, and recreation; accommodation and food services; and other services (except public administration). Table 10(a) shows the number of establishments and Table 10(b) shows the number of paid employees for pay period in March, 2016. Both tables list the corresponding total numbers for all sectors and the proportion of those three tourism-related sectors in the last column.

In Table 10(a), for the market area, the numbers of establishments of arts, entertainment, and recreation sector, accommodation and food services sector, and other services (except public administration) sector are 334, 2,117, and 2,090 respectively, which comprise about 20% of all establishments. The proportions of tourism-related establishments of Franklin, Gulf, and Wakulla Counties are much higher than the market area average, which are 26.2%, 24.1%, and 25.2% respectively.

In 2016, the total number of paid employees of arts, entertainment, and recreation; accommodation and food services; and other services (except public administration) sectors in the market area is 65,476. 23.5% of paid employees in the market area have jobs related to visitation and tourism. Except for missing data in Gulf County, the proportions of employees in arts, entertainment, and recreation, accommodation and food services, and other services (except public administration) sectors in Franklin and Wakulla Counties are 29.1% and 25.0%, respectively.

**Table 10(a). Industry Pattern of Tourism-Related Services (Number of Establishments)**

County	Arts, entertainment, and recreation	Accommodation and food services	Other services (except public administration)	Total for all sectors	%, Three sectors-to-total
Bay	70	506	421	4,627	21.5%
Escambia	84	559	652	6,813	19.0%
Franklin	14	40	28	313	26.2%
Gulf	3	32	34	286	24.1%
Okaloosa	96	506	489	5,280	20.7%
Santa Rosa	34	207	264	2,622	19.3%
Wakulla	8	43	60	440	25.2%
Walton	25	224	142	2,157	18.1%
<b>Mkt. Area</b>	<b>334</b>	<b>2,117</b>	<b>2,090</b>	<b>22,538</b>	<b>20.1%</b>

**Table 10(b). Industry Pattern of Tourism-Related Services (Number of Paid Employees for Pay Period Including March 12)**

County	Arts, entertainment, and recreation	Accommodation and food services	Other services (except public administration)	Total for all sectors	%, Three sectors-to-total
Bay	743	11,630	2,776	61,535	24.60%
Escambia	1,478	13,463	4,729	104,620	18.80%
Franklin	57	514	87	2,265	29.10%
Gulf	N/A	394	133	2,749	19.20%
Okaloosa	986	11,179	4,046	59,443	27.30%
Santa Rosa	431	4,313	1,342	24,931	24.40%
Wakulla	57	623	210	3,566	25.00%
Walton	105	5,443	737	19,652	32.00%
<b>Mkt. Area</b>	<b>3,857</b>	<b>47,559</b>	<b>14,060</b>	<b>278,761</b>	<b>23.50%</b>

Table 11 gives a detailed breakdown on the number of visitors to Florida from 2007 to 2016 and lists estimated direct tourism spending over the period 2012-2016 (see the last column). The domestic visitors compose the majority: except during 2012-2014, when over 85% of visitors were domestic visitors. Both the volume and proportion of overseas visitors were increasing to peaks during 2013-2014 and remained at a stable level. The flow of Canadian visitors, both the volume and proportion, were increasing and peaked in 2013, but with a slight drop in 2016. The direct tourism spending kept growing in recent years, from \$91.5 billion in 2012, to \$111.7 billion in 2016, increasing over 22.1% the five year period.

**Table 11. Florida Historical Visitor Estimates<sup>25</sup>**

Year	Domestic	Domestic % in Total	Overseas	Overseas % in Total	Canadian	Canadian % in Total	Total	Direct Tourism Spending (in billions)
2007	77.3	91.5%	4.7	5.6%	2.5	3.0%	84.5	N/A
2008	76.1	90.4%	5.2	6.2%	2.9	3.4%	84.2	N/A
2009	71.2	88.1%	7.0	8.7%	2.6	3.2%	80.8	N/A
2010	71.2	86.5%	8.0	9.7%	3.1	3.8%	82.3	N/A
2011	74.7	85.6%	9.3	10.7%	3.3	3.8%	87.3	N/A
2012	77.6	84.7%	10.4	11.4%	3.6	3.9%	91.6	91.5
2013	78.8	83.7%	11.2	11.9%	4.2	4.5%	94.2	98.5
2014	83.2	84.5%	11.3	11.5%	4.0	4.1%	98.5	104.7
2015	91.3	85.7%	11.4	10.7%	3.8	3.6%	106.5	108.8
2016	97.9	87.1%	11.2	10.0%	3.3	2.9%	112.4	111.7

<sup>25</sup> Data Source: <http://www.visitfloridamediablog.com/home/florida-facts/research/>

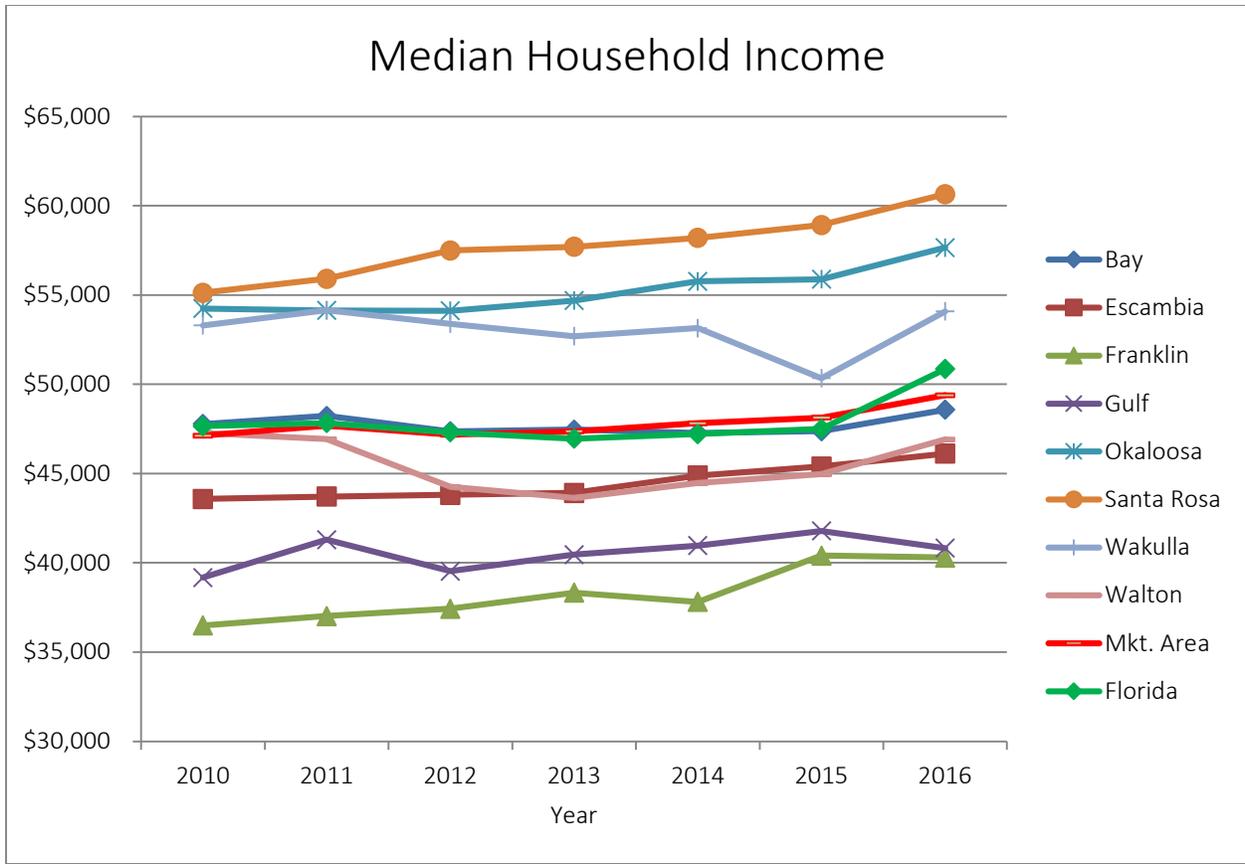
## Median Household Income

**Table 12. Median Household Income by County and Year**

County	In 2015 Inflation-Adjusted Dollars						In 2016 Inflation-Adjusted Dollars
	2010	2011	2012	2013	2014	2015	2016
Bay	\$47,770	\$48,225	\$47,364	\$47,461	\$47,274	\$47,368	\$48,577
Escambia	\$43,573	\$43,707	\$43,806	\$43,918	\$44,883	\$45,390	\$46,117
Franklin	\$36,490	\$37,017	\$37,428	\$38,328	\$37,815	\$40,401	\$40,301
Gulf	\$39,178	\$41,291	\$39,535	\$40,455	\$40,964	\$41,788	\$40,822
Okaloosa	\$54,242	\$54,140	\$54,118	\$54,684	\$55,768	\$55,880	\$57,655
Santa Rosa	\$55,129	\$55,913	\$57,491	\$57,703	\$58,199	\$58,923	\$60,652
Wakulla	\$53,301	\$54,151	\$53,385	\$52,691	\$53,143	\$50,340	\$54,078
Walton	\$47,273	\$46,926	\$44,254	\$43,640	\$44,468	\$44,966	\$46,910
<b>Mkt. Area</b>	<b>\$47,120</b>	<b>\$47,671</b>	<b>\$47,173</b>	<b>\$47,360</b>	<b>\$47,814</b>	<b>\$48,132</b>	<b>\$49,389</b>
<b>Florida</b>	<b>\$47,661</b>	<b>\$47,827</b>	<b>\$47,309</b>	<b>\$46,956</b>	<b>\$47,212</b>	<b>\$47,507</b>	<b>\$50,860</b>

Table 12 lists the median household income over the time period ranging from years 2010 to 2016 for the eight Northwest Florida counties, as well as for the entire market area, and the state of Florida.<sup>26</sup> The median household income of the market area shows an overall growth trend, except from 2011 to 2012. In 2016, the median household income of the market area reached \$49,389, which is 2.90% lower than that of the state (\$50,860). Figure 2 plots the time series data from Table 12. The median household incomes of Okaloosa County, Santa Rosa County, and Wakulla County are above the market area average and state levels over the time period. Bay County's median household income corresponds to similar levels as that of the market area and the state. Franklin County, Gulf County, Escambia County, and Walton County's median household incomes are below the level of the market area and the state.

<sup>26</sup> According to the latest data at <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>, the median household income over the time period ranging from years 2010 to 2015 is in 2015 inflation-adjusted dollars. The median household income of the year 2016 is in 2016 inflation-adjusted dollars.



**Figure 2. GSML Ecotourism and Aquaculture Project Market Area Median Household Income by County and Year**

The proposed GSML Ecotourism and Aquaculture Project will stimulate the economic growth of the panhandle community by creating direct and construction (and construction-related) jobs, attracting both public and private foundation grants, increasing output and income, and expanding the tax base.

### Financial Cash Flow, Investment and Permanent Job Creation<sup>27</sup>

In this section, the research team first describes the proposed funding amounts (in 2018 Real Dollars) provided by the GSML, and as outlined in Table 13. There are two phases and two proposed funding sources for the GSML Ecotourism and Aquaculture Project. The first phase is a 3-year period which begins during fiscal year 2018-19. The second phase is the post-3-year period (Year 4-Year 10). The two funding sources are the Triumph Gulf Coast, Inc. and GSML, Inc. (with its partners as well as other grant revenues).

<sup>27</sup> 10-Year Plan for Design, Construction, and Operation of New Facilities (2018). Florida State University Center for Economic Forecasting and Analysis (FSU CEFA) and Gulf Specimen Marine Lab (GSML)

During the first 3-year period, it is expected that all the partners will invest in the GSML Ecotourism and Aquaculture Project in a variety of forms. The Triumph Gulf Coast, Inc. will invest \$4,950,000 in total over the first 3-year period. The initial request for Year 1 is \$3,950,000, which will be used for pre-construction and construction activities. Subsequent construction and other expenditures in Year 2 and Year 3 require approximately \$650,000 and \$350,000 annually and respectively. In the same first 3-year period, GSM (including other grant revenues contribution) will contribute \$5,540,000 in total, which includes \$1,050,000 revenues from membership dues, ticket sales, and various camp activities and tours, \$3,778,000 revenues from specimen sales, education outreach and tuitions, and \$712,000 benefits from other sales and cumulative grant support.

During the second phase (Year 4-Year 10), GSML will fund the GSML Ecotourism and Aquaculture Project at an annual cost of an estimated average value of \$2,572,571 in 2018 USD, which includes all ongoing annual operations costs. Table 13 reports the details of the 10-year plan of the project.

**Table 13. The Amount and Identity of Funds for the GSML Ecotourism and Aquaculture Project**

Entity	The 3-Year Period			Year 4-10 Period
	Year 1	Year 2	Year 3	Post 3-Year Period
<b>The Triumph Gulf Coast, Inc. Fund</b>	<b>Total: \$4,950,000</b>			N.A.
	Initial request: <b>\$3,950,000</b>	Annual request: <b>\$650,000</b>	Annual request: <b>\$350,000</b>	
<b>Gulf Specimen Marine Laboratories (GSML), Inc. &amp; its Co-Applicants and Partners</b>	<b>Total: \$5,540,000</b>			Average annual request: Est. <b>\$2,572,571</b> - including ongoing annual operation at a cost of <b>\$1,814,286</b> in 2018 USD - Self-sustaining
	Revenues from membership dues, ticket sales, and various camp activities and tours, etc.: <b>\$1,050,000</b>			
	Revenues from specimen sales, education outreach and tuitions: <b>\$3,778,000</b>			
	Benefits from other sales and cumulative grant support: <b>\$712,000</b>			

Next, the financial cashflow, investment/construction and permanent job creation plans provided by GSML were analyzed. The data on financial cashflow, investment/construction and permanent job creation was used as the main data input(s) in the economic model.

The construction work will last for three years. The Year 1 project cost on construction activities is estimated at \$3,698,000, including \$2,189,000 for construction work and labor fee and \$1,509,000 building and facilities renovation costs. Post construction activities in Year 2 and Year 3 will cost \$454,000. Table 14 displays the timeline of the planned construction activities. Construction work will be imposed on the “Ecotourism and Specimen” and “Building and Education” sections. Project elements in “Ecotourism and Specimen” include hammerhead exhibit, wilderness coast (wade in ray exhibit, turtle pool, and peacock bass pool), living dock complex, and front/back seawater system upgrades. Project elements in “Building and Education” include facilities restrooms, turtle building renovation, removing existing building, demo existing pumps, building new living dock exhibit, enclosing existing pavilion, relocating jelly fish tank and renovating building, buying new hammerhead shark tank, architect and engineering, new educational center/teaching classroom (including marketing activities), and playground and picnic area, and purchasing computers.

**Table 14. Planned Construction Expenditures and Activities Timeline**

Step	Year 1	Year 2	Year 3
Construction work on the “Ecotourism and Specimen”	\$2,189,000		
The design of the facilities, construction work on “Building and Education”, and curricula development	\$1,509,000	\$254,000	
Construction work on “Building and Education” – Open in year 2			\$200,000
<b>Total Construction Expenditures</b>	\$3,698,000	\$254,000	\$200,000

The GSML Ecotourism and Aquaculture Project will initially create temporary construction and construction-related jobs. And it will fully open in Year 3. 10.5 FTEs (ongoing effort, including the construction/facilities manager and administrative) will be created at the end of Year 3. And 19 FTEs permanent jobs will be created by the end of Year 10.

The total direct permanent employment will be about 19 jobs. All will be funded long-term by new dollars brought into the region primarily by GSML, Federal, Foundation grants, and private donations (as discussed earlier in literature review). The 19 permanent jobs, including 16 staff members with aquaculture expertise, are classified into three categories: “Education”, “Specimen Sales”, and “Aquarium Operations”. Table 15 lists the classifications in each category. “Education” includes two marine educators (specialized in marine life support and science) and one director of education for the new-developed certification program. “Specimen Sales” has 6 new positions of collection specialist, aquatic technicians and administrative for the expected expanding traditional and biotechnical businesses. For ecotourism and other education outreach activities, 10 new positions will be created at the end of Year 10.

**Table 15. 19 (FTEs) Direct Permanent Jobs Created by the Investment of the Proposed GSML Ecotourism and Aquaculture Project**

Job Title	FTEs
<b>Education</b>	
Marine Educator - Life Support	1
Marine Educator - Science	1
Director of Education	1
<b>Specimen Sales</b>	
Collection Specialist	2.5
Aquatic Technicians	2.5
Administrative	1
<b>Aquarium Operations</b>	
Construction/Facilities Manager	1
Gift Shop	1
Marketing/PR Coordinator	1
Outreach Coordinator	1
Tour Boat Operator (100 ton)	1
Tour Boat Technician/Hand	1
SeaMobile Coordinator	2
Bookkeeper/ Purchasing Manager	1
Janitorial/ Landscape Technician	1
<b>Total</b>	<b>19</b>

Table 16 summarizes the estimated breakdown and total values of expenditures on the proposed GSML Ecotourism and Aquaculture project over the ten years. Beside the expenditure on construction investment and 19 FTEs salary, the estimated expenditure on operation, maintenance and other activities including specimen collection, purchasing and curricula development is \$16,786,000 in total for the ten-year plan. The total project expenditures for each year and for the ten-year plan are summarized in Column 4. The total expenditure is estimated as \$27,300,000 (in 2018 USD).

**Table 16. The Proposed GSML Ecotourism and Aquaculture Project’s Expected Annual Expenditures for Employees and Capital Outlay over Ten Years**

Year	Labor, Direct Permanent Employees	Labor and Equipment, Construction	Office Operations, Maintenance, and other	Total Expenditures
1	\$252,000	\$3,698,000	\$1,087,000	\$5,037,000
2	\$396,000	\$254,000	\$1,455,000	\$2,105,000
3	\$406,000	\$200,000	\$1,544,000	\$2,150,000
4	\$605,000	\$0	\$1,642,000	\$2,247,000
5	\$692,000	\$0	\$1,705,000	\$2,397,000
6	\$741,000	\$0	\$1,762,000	\$2,503,000
7	\$778,000	\$0	\$1,816,000	\$2,594,000
8	\$812,000	\$0	\$1,873,000	\$2,685,000
9	\$830,000	\$0	\$1,925,000	\$2,755,000
10	\$850,000	\$0	\$1,977,000	\$2,827,000
<b>Total</b>	<b>\$6,362,000</b>	<b>\$4,152,000</b>	<b>\$16,786,000</b>	<b>\$27,300,000</b>

## Economic Methodology and Results

The research team conducted an economic impact analysis of the proposed GSML Ecotourism and Aquaculture project over the next ten years. The Regional Economic Models Inc. (REMI<sup>28</sup>) dynamic integrated input-output and econometric model was used to determine the longer term economic impacts of the GSML Ecotourism and Aquaculture Project to the state of Florida. REMI, a dynamic (multiple time-period) integrated input-output and econometric model licensed from Regional Economic Models, Inc. (REMI PI+ v2.1.1) 2018-2019 (160 sector model) was used to determine the economic impact to the state of Florida based on the expected GSML Ecotourism and Aquaculture project expenditures over the next ten years of operations.

### Economic Input Data

In Spring 2018, GSML provided the relevant GSML-specific economic data to the FSU CEFA research team. The input data, as described earlier in this report, included expected cashflow expenditures associated with the GSML project, over the next ten years of operation. The expenditures data, based on the GMSL cash flow and expense data described earlier, were then input into the REMI PI+ model into its’ respective NAICS code<sup>29</sup> category, or policy variable. There was no duplication of any category or numbers provided in the input data. The economic impact results over the next ten years, based on the GSML cashflow/expense input data (e.g., personnel salaries, construction and equipment costs, among others), show the economic impacts of the GMSL project in Florida,

<sup>28</sup> See: <http://www.remi.com>: The maximum year of the current REMI software forecast is Year 2060.

<sup>29</sup> NAICS: North American Industrial Classification System. See: <https://www.census.gov/eos/www/naics/>

relative to the baseline economy. The following economic impact results reveal that the impacts on the Florida economy will be positive, on Employment, Income and Output, over the next ten years.

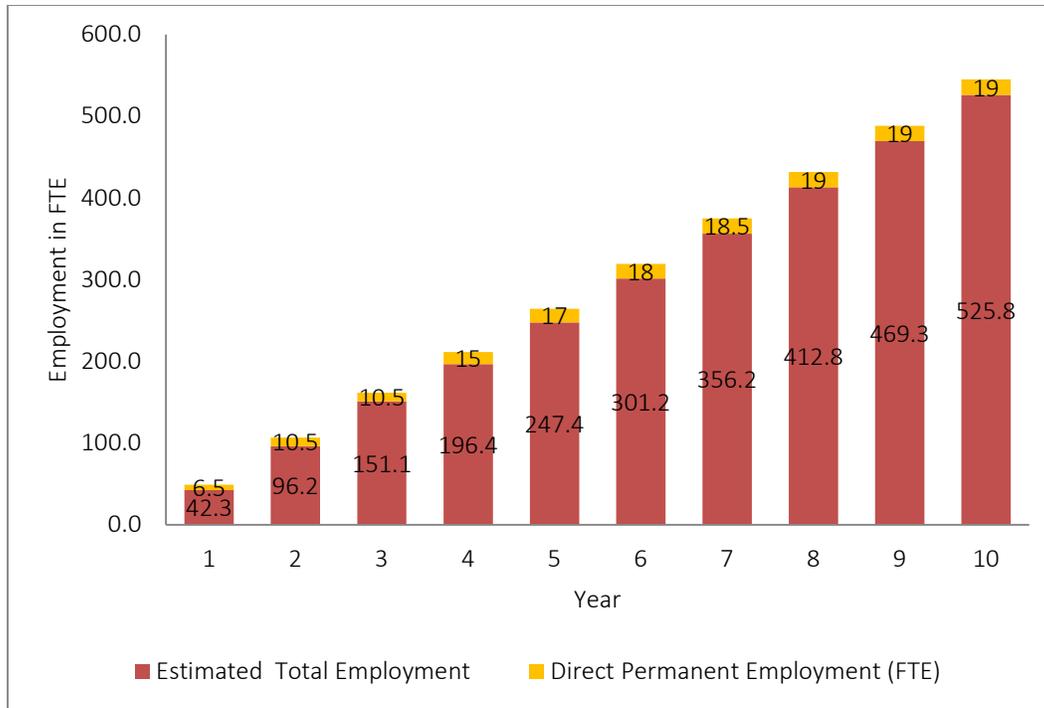
**Economic Impact Analysis Results**

The economic impact findings (e.g., jobs, income and output) are summarized in the following narrative in this section.

**Table 17. The Estimated Total Employment and the Direct Permanent Employment (FTE)**

Year	The Estimated Total Employment	Annual Growth in the Estimated Total Employment	Direct Permanent Employment (FTE)
1	42.3	42.3	6.5
2	96.2	53.9	10.5
3	151.1	54.9	10.5
4	196.4	45.3	15
5	247.4	51.0	17
6	301.2	53.7	18
7	356.2	55.1	18.5
8	412.8	56.5	19
9	469.3	56.5	19
10	525.8	56.5	19

Table 17 lists the estimated total employment (cumulative number shown), including the annual growth in the total employment, and the direct permanent employment of the ten-year plan. Employment increases by 151 jobs for the initial three years of operation, before settling at an accumulated 523 total employment impacts in Year 10. There are 19 direct net new jobs projected over 10 years (i.e., an average of 2 direct net new jobs on an annual basis). The change of annual growth employment of Year 4 captures the completion of the construction activities. Figure 3 displays the impact of job creations.



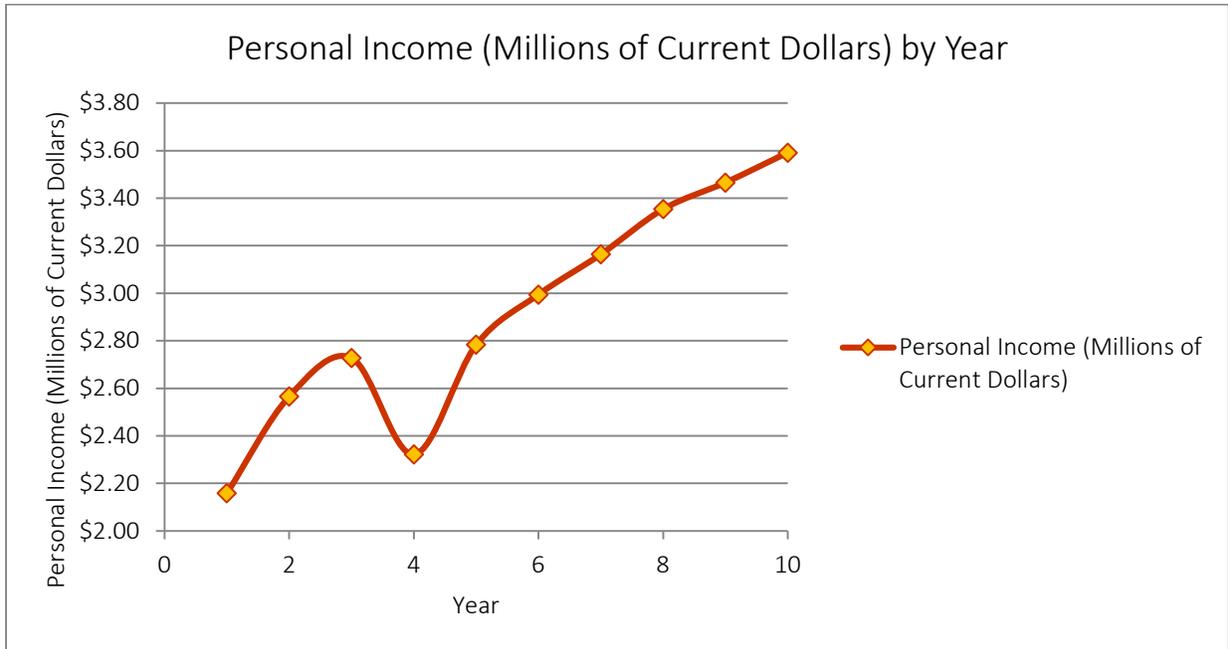
**Figure 3. The GSML Project Estimated Total Employment and the Direct Permanent Employment (FTE)**

**Table 18. The Estimated Annual Personal Income and Disposable Personal Income**

Year	Total Personal Income (Millions of Current Dollars)	Annual Personal Income (Millions of Current Dollars)	Total Disposable Personal Income (Millions of Current Dollars)	Annual Disposable Personal Income (Millions of Current Dollars)
1	\$2.16	\$2.16	\$1.86	\$1.86
2	\$4.73	\$2.57	\$4.08	\$2.21
3	\$7.45	\$2.73	\$6.43	\$2.36
4	\$9.78	\$2.32	\$8.44	\$2.01
5	\$12.56	\$2.78	\$10.85	\$2.41
6	\$15.55	\$3.00	\$13.45	\$2.60
7	\$18.72	\$3.16	\$16.20	\$2.75
8	\$22.07	\$3.35	\$19.11	\$2.91
9	\$25.54	\$3.47	\$22.12	\$3.01
10	\$29.13	\$3.59	\$25.24	\$3.12

Table 18 reports the personal income in millions of current USD (including the disposable personal income in Column 3 and 4 for cumulative effect and annual effect respectively) generated by the GSML Ecotourism and Aquaculture Project. Personal income increases by \$7.45 million for the

three years of, and by Year 10, has settled at \$2.91 million on an average annual basis. The cumulative personal income total is \$29.13 million over the ten year time period. Disposable personal income is \$2.52 million on an annual basis, which is 87% of the annual value of personal income. Figure 4 plots the trending of the annual personal income over the ten-year period. Same with the annual growth of the total employment, the personal income of Year 4 implicates the completion of construction activities. After Year 4, the personal income increases by 7.27% annually.<sup>30</sup>



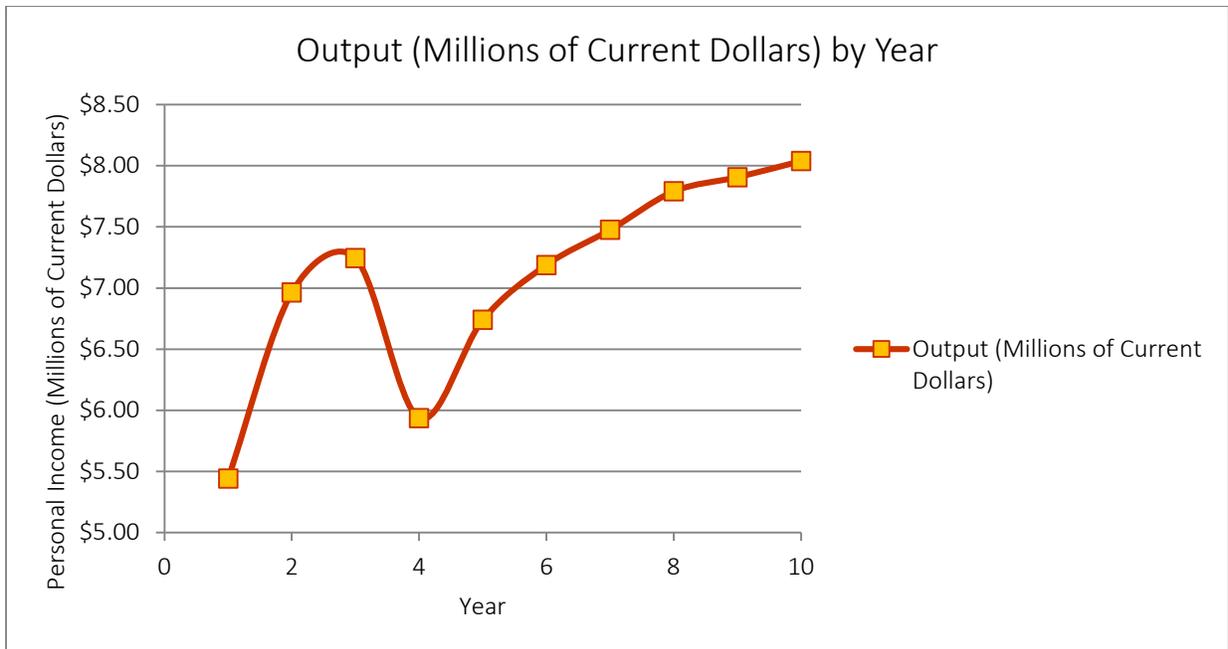
**Figure 4. The GSML Project Estimated Personal Income by Year**

<sup>30</sup> The annual increase rate is calculated by the average natural log difference from Year 4 to Year 10.

**Table 19. The Estimated Increased Annual Gross Domestic Product and Output**

Year	Total Gross Domestic Product (Millions of Current Dollars)	Annual Gross Domestic Product (Millions of Current Dollars)	Total Output (Millions of Current Dollars)	Annual Output (Millions of Current Dollars)
1	\$3.21	\$3.21	\$5.44	\$5.44
2	\$7.32	\$4.11	\$12.41	\$6.96
3	\$11.60	\$4.29	\$19.65	\$7.25
4	\$15.19	\$3.58	\$25.59	\$5.94
5	\$19.24	\$4.05	\$32.33	\$6.74
6	\$23.55	\$4.31	\$39.52	\$7.19
7	\$28.03	\$4.48	\$47.00	\$7.48
8	\$32.68	\$4.66	\$54.79	\$7.79
9	\$37.41	\$4.72	\$62.70	\$7.91
10	\$42.21	\$4.80	\$70.74	\$8.04

Table 19 reports the economic impact of the Gross Domestic Product (GDP) and output of the ten-year plan. Output initially spikes to \$7.25 million at Year 3 primarily due to the effect construction activity and eventually stabilizes to about \$8.04 million in Year 10. Output averages \$7.07 on an annual basis. The cumulative output total is \$70.74 million. The GDP is estimated at \$4.22 million on average, with an average annual increase rate of 4.48%.<sup>31</sup>



**Figure 5. The GSML Project Estimated Output by Year**

<sup>31</sup> The annual increase rate is calculated by the average natural log difference from Year 1 to Year 10. The changes of GDP and output in Year 4 capture the completion of the construction activities.

The economic impacts presented in the aforementioned tables and figures are based on the 10-year financial cash flow, or operating proformas, for the GSML Ecotourism and Aquaculture project. In summary:

- Employment increases by 55 jobs for the initial three years of operation, before settling at an annual 57 total employment impacts in year 10. There are 19 direct net new jobs projected over 10 years (i.e., an average of 2 net new jobs on an annual basis).
- Output initially spikes to \$7.25 million for the three years of operation primarily due to the effect construction activity<sup>32</sup> eventually stabilizes to about \$8.04 million in year 10. Output averages \$7.07 on an annual basis. The cumulative output total is \$70.74 million.
- Personal Income increases by \$7.45 million for the three years of operation also primarily due to the effect of construction activity, and by Year 10, has settled at \$2.91 million on an annual basis. The cumulative personal income total is \$29.13 million over the ten year time period.

## Conclusions

In 2018, the Gulf Specimen Marine Lab (GSML) requested the Florida State University Center for Economic Forecasting and Analysis (FSU CEFA) to conduct an Economic Impact Analysis study relating to a proposed GSML Ecotourism and Aquaculture Project. The results of this economic analysis will be rolled into a grant application submitted by the GSML to Triumph Gulf Coast, Inc.

The Gulf Specimen Marine Lab (GSML) and its affiliated Aquarium is an independent not-for-profit marine research and education organization and public aquarium located in Panacea, Florida. It serves approximately 27,000 visitors annually including local area students, members, research programs, and tourists and contributes to the state and local economy in a various aspects such as ecotourism and aquaculture education, and specimen sales businesses.

By promoting economic recovery, diversification, and enhancement, the proposed Ecotourism and Aquaculture project will benefit the eight Northwest Florida counties which were disproportionately affected by the oil spill and the entire panhandle area. Main contributions of the proposed efforts include: the further development of GSML, permanent jobs and other construction-related jobs creation, additional course and certificate offerings, education outreach services creation, and positive economic impacts (including increasing retail and other businesses, creating additional new jobs, and expanding the tourism market). The development of those factors will increase the tax base, especially sales taxes, and thus create future and development opportunities.

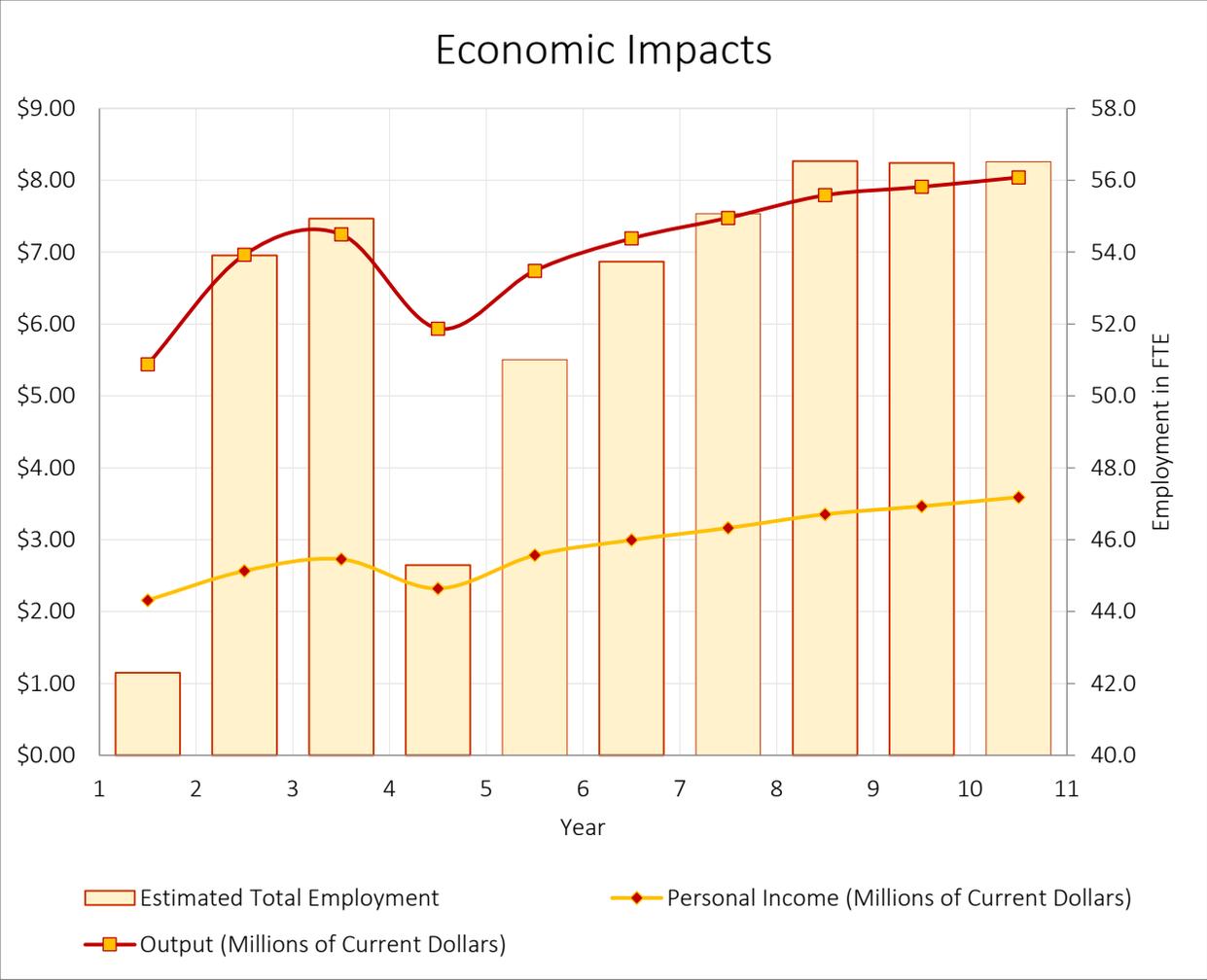
<sup>32</sup> Including the assumption that there are 10.5 permanent jobs to Year 3. Please see Appendix for further definition of total (direct, indirect and induced) economic impacts.

The FSU CEFA research team examined the estimated and projected demographic characteristics, personal income, industry and employment structure in the market area for a 10-year period over 2018-2027. The economic research team conducted an economic impact analysis, focusing on the demand side of eco-tourism and aquaculture and related programs, job creation, the growth of economy, and tax base expansion. The study team examined the plans relating to cashflow, or operating proformas, provided by GMSL. This data on cashflow and permanent job creation were used as the main inputs in the economic model.

The following economic impact results are outlined below:

- Employment increases by 55 jobs for the initial three years of operation, before settling at an annual 57 total employment impacts in year 10. There are 19 direct net new jobs projected over 10 years (i.e., an average of 2 net new jobs on an annual basis).
- Output initially spikes to \$7.25 million for the three years of operation primarily due to the effect construction activity<sup>33</sup> eventually stabilizes to about \$8.04 million in year 10. Output averages \$7.07 on an annual basis. The cumulative output total is \$70.74 million.
- Personal Income increases by \$7.45 million for the three years of operation also primarily due to the effect of construction activity, and by Year 10, has settled at \$2.91 million on an annual basis. The cumulative personal income total is \$29.13 million over the ten year time period.

<sup>33</sup> Including the assumption that there are 10.5 permanent jobs to Year 3. Please see Appendices for further definition of total (direct, indirect and induced) economic impacts.



**Figure 6. The GSML Project Estimated Output, Income and Employment by Year**

In summary, the number of new net jobs created over the 10 years is expected to be 57 (or ~6 annually) jobs as a result of the GSML Ecotourism and Aquaculture project. Over the 10 years of analysis, the GSML Ecotourism and Aquaculture project operations would create a cumulative economic output of \$70.74 million to the state of Florida, and \$29.13 million in personal income.

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## Appendix

### Measuring Economic Impact

In order to measure economic impact, economists trace the course of spending through an economy to determine the total effect of that spending. One of the first steps in economic impact analysis is to decide what the area of impact is where the economic impact is to be measured. These areas often include: the local economy, the state-level economy or even the national economy.

### Indirect and Induced Impact

The total economic impact from an activity thus includes its direct spending as well as indirect and induced effects of its spending.

The direct spending of an activity includes such spending as payroll, goods and services, and construction.

The indirect and induced effects, or impacts, consist of such things as spending by employees, spending by employees of businesses to which direct spending is made, and purchases made by businesses to which direct spending is made.

A chain reaction of indirect and induced spending continues, with subsequent rounds of additional spending gradually diminished through savings, taxes, and expenditures made outside the region.

This economic ripple effect is measured by an economic impact model, which uses a series of “multipliers” to provide estimates of the number of times each dollar of “input,” or direct spending, cycles through the economy in terms of “indirect and induced output,” or additional spending, personal income, and employment.

### Summary of Economic Impact Terms Pertaining to this Study

- ⊕ *Direct effect (or impact)*: production changes associated with changes in demand for the good itself; it is an initial impact on the economy.
- ⊕ *Indirect effect (or impact)*: the secondary impact caused by changing input needs of directly affected industries (e.g., additional input purchases to produce additional output).
- ⊕ *Induced effect (or impact)*: caused by changes in household spending due to the additional employment generated by direct and indirect effects.
- ⊕ *Personal income*: another term is: “before-tax income”, which is the total annual gross earnings of an individual from all income sources, such as: salaries and wages, investment interest and dividends, employer contributions to pension plans, and rental properties.
- ⊕ *Output*: industry output is a measure of the value of goods and services produced in the study area.

**Table A1. Boat Tour Attendance at Edward Ball Wakulla Springs State Park.**

<b>Fiscal Year</b>	<b>Boat Tour Attendance</b>	<b>Revenue</b>
<b>2017-2018</b>	77,869	\$534,000
<b>2016-2017</b>	68,205	-
<b>2015-2016</b>	83,504	-
<b>2014-2015</b>	84,116	-
<b>2013-2014</b>	76,100	-
<b>2012-2013</b>	80,575	-

## Attachment E: Priorities, Question 2

- ✓ **Generate maximum estimated economic benefits, based on tools and models not generally employed by economic input-output analysis, including cost-benefit, return-on-investment, or dynamic scoring techniques to determine how the long-term economic growth potential of the disproportionately affected counties may be enhanced by the investment.**

See Attachment D- Economic Analysis

- ✓ **Increase household income in the disproportionately affected counties above national average household income.**

See Attachment D- Economic Analysis

- ✓ **Leverage or further enhance key regional assets, including educational institutions, research facilities, and military bases.**

GSML developed partnerships with DARPA (US Defense Advanced Research Projects Agency) on research with electric rays and the U.S. Navy on deep sea hagfish (NAVY) with Valdosta State University on the development of cancer drugs from marine life; with Florida A & M University on marine science education, and with the Trust for Public Lands in long term planning for the future of GSML.

GSML provides a teaching platform for other academic institutions in the region. The Florida State University Marine Laboratory is not open to the public on a regular basis, so they send curious visitors to Gulf Specimen to get a hands on view of the diversity of the ocean. In addition our interns come from FSU, FAMU, Lively Technical, TCC and Thomas University

Biological Supply in domestic and foreign markets:

Patterned after the Marine Biological Laboratory's Supply Department in Woods Hole, in 1962 Gulf Specimen's founder Jack Rudloe began supplying marine life to schools and research laboratories. While the organization has morphed into an environmental educational center and public aquarium, biological supply remains the backbone that provides stability, income and contacts with hundreds of scientists and educators throughout the world. We presently collect and market over 300 marine invertebrates, fish and algae to over 1300 scientific and educational institutions.

Over the past fifty years GSML has become a significant arm of cutting edge marine biological research. Many of our clients have purchased specimens from us throughout their academic careers. We have provided live marine animals to thousands of the foremost research laboratories and universities in the United States, Canada, Europe and Japan. NASA has purchased sponges and toadfishes that were collected in the waters of Wakulla and Franklin Counties and flown them into outer space aboard the Space Shuttle. Our local sea urchins eggs are widely used in embryology, testing for pollution and biomedical research.

Our customer base ranges from research facilities, to college level in universities, junior colleges and high schools. Marine specimens are required for labs in a variety of disciplines that include general biology, invertebrate zoology, physiology, biochemistry and embryology classes. Many of these classes are prerequisites for students to graduate with a bachelor's degrees in biology, medical and other disciplines.

GSML has made significant contributions to medical research. In 1968 we provided a bryozoan, *Bugula neritina* to the National Cancer Institute which led to the development of the anti-cancer, anti-Alzheimer's drug Bryostatin.

## Bryostatin - Wikipedia Bugula & Bryostatin

GSML provides specimens to over 2,400 research customers in over 1300 schools and research laboratories. According to Google Scholar, over **300** scientific publications cite us as their source of research specimens.

The discovery that horseshoe crab blood can be used to detect endotoxins, partly came from crabs that we provided to Johns Hopkins, as did the electric rays that scientists at the Howard Hughes Medical Institute used to model brain degenerative diseases. Last year we provided the Naval Research Lab in Panama City with live hagfish slime, which was used in anti-submarine warfare and a reinforcement agent for protective gear.

## Hagfish Slime at Gulf Specimen Marine Lab

Today the biological supply business remains crucial to our survival, generating nearly half our income, and has become the backbone of our popular marine aquarium. The collections of marine fish and invertebrates and algae gathered from the 8 affected counties in the eastern Gulf of Mexico that we display at our aquarium facility in Panama City has substantially increased our cash flow and become an economic anchor to the local economy.

With an infusion of capital, which will aid in advertising, we plan to expand our markets into Canada, Europe and Asia. Because of Marketing to foreign entities with live marine animals requires complex permitting and regulations dealing with both domestic and international customs agencies. Because of our small staff and lack of resources, we've made little effort to expand into the international market. However with increased man power that will come with Triumph's funding we will expand both our domestic and international markets. Additional locally hired staff, will enable us to handle the paperwork, using international brokers and shippers.

Gulf Specimen's existing small international market comes from word of mouth, and our excellent reputation among scientists that we've achieved over the past fifty years. However,

with funding we will be able to expand our biological supply service to both domestic and foreign markets, advertising with direct mail, print ads, catalogs, exhibiting marine life at trade show booths, attending conferences and delivering lectures. We also plan to expand into the scientific tourism market bringing scientists to our laboratory to work on their research projects.

<https://www.youtube.com/watch?v=PVrijqFnkZg>

**See attachment I- Letters of Support, Santella Ph.D.**

✓ **Benefit the environment in addition to the economy**

In addition to improving the local economy, GSML benefits the environment by instilling public appreciation and knowledge about the woods and waters of the Florida panhandle and the eastern Gulf of Mexico, which is world famous for its biological diversity. The aquarium's sea turtle program has not only rehabilitated hundreds of endangered Kemp's Ridleys and other sea turtles but created a great awareness in the general public and with commercial fishermen who once considered them part of their dinner fare.

With funding GSML can increase its positive impact on children and adults through education. By bringing critical information in regards to the protection of our environment and sea life into the schools in a dynamic fashion, we eliminate the obstacles to understanding the need for conservation and conscious stewardship: school budget deficiencies, distance from the ocean, lack of access, lack of information.

For 50 years, the founders of Gulf Specimen Marine Lab have promoted sea turtle conservation in the Florida Panhandle through publication of multiple books, widely-distributed popular magazine articles and scientific peer review journals, as well as television appearances and local lectures. During this time, Jack Rudloe and the late Anne Rudloe became the area's foremost experts on sea turtle conservation and habitat protection. GSML staff work tirelessly to promote coastal conservation and awareness of human impact on fragile ecosystems, building relationships with school administrations, festival promoters and media outlets. The lab holds a certificate for sea turtle rehabilitation and uses social media to keep the public aware and involved in stewardship and restoration efforts.

In addition to providing marine specimens to schools and research facilities, maintaining a popular marine environmental education center, rehabilitating sick and wounded sea turtles, and publishing material on sea turtle biology and coastal conservation, the GSML also has a mobile marine display called the Sea Mobile <http://www.gulfspecimen.org/sea-mobile/>

With this interactive display, the GSML can interest generations of Florida panhandle citizens in protecting sea turtles, habitats and food sources, and help young people to understand how human actions impact our fragile coastal ecosystem at a time when they are forming ideas about the world around them.

Awareness of the critical issues facing our endangered sea turtle populations can best be addressed through interactive media and hands-on displays, as people, especially children, are more likely to engage with information they can touch. With the decreasing ability of schools and parents to offer such opportunities, the Sea Mobile has become an essential vehicle for providing and promoting the knowledge necessary to establish a mindset of stewardship and conservation that can protect Florida's marine turtles and their habitats for generations to come.

✓ **Provide outcome measures.**

See Attachment D- Economic Analysis

✓ **Partner with K-20 educational institutions or school districts located within the disproportionately affected counties as of January 1, 2017.**

GSML hosted over 10,000 K-20 field trips in 2017-2018. Students come from the disproportionately affected counties and all over Florida and Georgia.

✓ **Are recommended by the board of county commissioners of the county in which the project or program will be located.**

See attachment I – Letters of Support

✓ **Partner with convention and visitor bureaus, tourist development councils, or chambers of commerce located within the disproportionately affected counties.**

GSML is partners with VISIT FLORIDA, Wakulla County Chamber of Commerce, Wakulla County Tourist Development Council, Franklin County Chamber of Commerce and Franklin County Tourist Development Council.

## Attachment F: Discretionary Priorities, Question 3

✓ **Are considered transformational for the future of the Northwest Florida region.**

As the oceans are becoming depleted of seafood, aquaculture is becoming of prime importance. Oyster aquaculture has already transformed much of Wakulla County from a commercial wild stock harvesting to cage culture. GSML's aquaculture training programs, will enable students to open new avenues of fish farming, algae culture and biotechnology in the surrounding counties, as well as worldwide.

See attachment I- Letters of Support, McIntosh

Robins McIntosh, Vice President of CP Foods, Inc. the largest shrimp farms in Thailand will consult on the design of the facilities and the development of curricula. Florida Aquaculture, Inc. which grows native shrimp for bait, will also participate. Dr. Brian LaPointe, of the FAU's Harbor Branch Institute will assist in the construction of algae tumble tanks.

Seaweed the new kale?

✓ **May be consummated quickly and efficiently.**

Much of the equipment and technology to grow seaweeds, and train technicians is being practiced on a small scale at GSML. This is a 3-year proposal. It will take approximately 1 year to build the new facilities, during which time we will develop the curricula, and recruit the necessary staff. At the beginning of the second year, we will open our first courses. By the end of the 4th year the program will be self-sustaining. It will take between one and three years to scale up production and start marketing more "Fresh from Florida" locally grown products.

✓ **Promote net-new jobs in the private sector with an income above regional average household income.**

See Attachment D- Economic Analysis

✓ **Align with Northwest Florida FORWARD, the regional strategic initiative for Northwest Florida economic transformation**

Almost every aspect of GSML's operation corresponds to the directives of Northwest Florida Florida's initiative, from training to technology development and entrepreneurship. The GSML continues to expand the work based learning and career exploration for students in the fields of science, sea farming and technology.

✓ **Create net-new jobs in targeted industries to include: aerospace and defense, financial services/shared services, water transportation, artificial intelligence, cybersecurity,**

**information technology, manufacturing, and robotics.**

GSML is on the forefront of the growing field of Biomimetics, - the study of the formation, structure, or function of biologically produced substances and material by providing specimens used in a wide range of technologies. As markets for marine biotechnology products develop, students will gain knowledge and background that is transferrable to a multiple of disciplines. For example, GSML has provided ghost crabs to Cal Tech who used them as models to develop robots that climb could mountainous terrain that wheeled and tracked vehicles were unable to climb. The U.S. Navy used hagfish provided by GSML to develop weapons. (NAVY) GSML provides electric rays, which have served as models to produce biological batteries and provided live remoras, or shark suckers to the Georgia Institute of Technology to produce medical adhesion devices.

Close cooperation with the researchers is required, giving students and interns direct exposure to scientists and professionals who come to GSML to pick up materials, or get directly involved with collecting and culture operations. Students and volunteers are periodically involved in collecting pen shells from St. Joe Bay, which are shipped to the University of Florida and Israel to develop a bone grafting materials in medical research. Without the GSML involved with the collecting, preparation and shipping specimens to scientists and other professionals that they would not be in contact with otherwise.

✓ **Promote industry cluster impact for unique targeted industries.**

Oyster and clam aquaculture is a growing field in the Florida panhandle. Although TCC, FSU and other groups are developing aquaculture programs, and have hatcheries and grow out facilities in their planning stages. Until those facilities come on line, GSML's advanced aquarium water systems can be used to demonstrate methodologies in cooperation with other academic groups and agencies can aide in the development of new aquaculture facilities in the eight affected counties.

✓ **Create net-new jobs with wages above national average wage (e.g., similar to EFI QTI program, measured on graduated scale).**

See Attachment D- Economic Analysis

✓ **Are located in Rural Area of Opportunity as defined by the State of Florida (DEO).**

Wakulla County has been designated as a Northwest Florida Rural Area of Opportunity

✓ **Provide a wider regional impact versus solely local impact.**

GSML already has a regional impact with over 300 schools from North Florida and South Georgia visiting on field trips to the aquarium. It also ships marine specimens to 2400 scientists and educators around the nation, Canada and overseas.

- ✓ **Align with other similar programs across the regions for greater regional impact, and not be duplicative of other existing projects or programs.**

GSML'S facilities are unique and completely different from other scientific and educational institutions in the region, that exist or in the planning stages. The Apalachicola National Estuarine Research Reserve has aquariums and excellent museum displays, but none have touch tanks which draw people to the region. Gulf World in Panama City focuses on marine mammals and large fish, but not invertebrates which are featured at GSML which will also have the world's first Marine Botanical Garden. (PARTNERS) **See attachment L**

- ✓ **Enhance research and innovative technologies in the region.**

In addition to its ongoing support of university research and education through its biological supply program, GSML's externally funded research programs have focused largely on the fields of sea turtle research and aquaculture of marine species for laboratory use. They have included tag and release studies of the endangered Kemp's Ridley sea turtle (National Marine Fisheries Service); ecology and aquaculture methods for the electric ray, a biomedical model species (Howard Hughes Medical Institution); aquaculture of bryozoans as a source of anticancer drugs (National Cancer Institute); migratory patterns of blue crabs (Florida Department of Environmental Protection); ecology and pharmaceutical use of horseshoe crabs (U.S. Food and Drug Administration). Gulf Specimen Marine Laboratory has been active in campaigns to protect coastal wetlands, sea turtles, marine resources and public lands since the early 1970s. **See attachment M**

- ✓ **Enhance a targeted industry cluster or create a Center of Excellence unique to Northwest Florida.**

GSML has expanded its visibility throughout its service region of North Florida and South Georgia significantly. In the last Division of Cultural Affairs funding cycle, goals were to improve interpretive services by enhancing the volunteer program and to improve promotion. This was achieved by using paid staff to better organize and expand the volunteers program. Since then, approximately 50 volunteers have participated in GSML programs, working as docents, in leading field trips, and in helping to write new promotional material and grant applications.

GSML received numerous awards over the years which align with the goals of Center of Excellence. It has helped disadvantaged youth and received the Governor's Community Investment Award from Governor Jeb Bush and the Department of Juvenile Justice for the at risk youth program; and 2.Environmental Protection Agency's Gulf Guardian Award for our marine educational program, along with the Chevron Texaco's Conservation awards. **See attachment N**

To expose students to technology, GSML highlights the use of marine life in scientific and biomedical research, particularly cancer research, providing a unique venue for broader aspects of science education and the immediate concrete value of marine biodiversity to human well-being in fields such as medicine and to communicate both the practical benefits of scientific research and the intellectual excitement, adventure and discovery involved in doing science. <https://www.youtube.com/watch?v=4-Ylrj5sLVY>

- ✓ **Create a unique asset in the region that can be leveraged for regional growth of targeted industries.**

The project is pivotal to the future growth and economic viability of Panacea, FL. (Wakulla County) and will most certainly be a unique asset in the region. With TRIUMPH funding the GSML will build out its Master Plan adding 8 new marine displays, a much needed education and training center and upgrade all facilities. In turn GSML's anticipates tripling its tourism which will bring a much needed economic boost to Panacea, a small unincorporated town in Wakulla County. In such a town as Panacea, all businesses work together for the greater good. Recently Wakulla County has resurfaced and striped Hwy 98 through Panacea, installed sidewalks, improved storm water ditches and has a new overlay for the waterfront County Park just a couple blocks from the GSML. Wakulla County also has a heavily used public dock and boat launch 1 block from GSML that was just recently expanded and improved.

**See attachment H**

- ✓ **Demonstrate long-term financial sustainability following Triumph Gulf Coast, Inc. funding.**

See Attachment D Economic Analysis

- ✓ **Leverage funding from other government and private entity sources.**

See attachment D Economic Analysis

- ✓ **Provide local investment and spending.**

The permanent staff of GSML live in Wakulla County, and volunteers and interns come from Tallahassee. GSML has a wide array of local vendors. GSML purchases building supplies, fuel, bait, hardware, chemicals from local vendors whenever possible.

- ✓ **Are supported by more than one governmental entity and/or private sector companies, in particular proposed projects or programs supported by more than one county in the region.**

See attachment L

- ✓ **Provide clear performance metrics over duration of project or program.**  
See attachment D Economic Analysis
- ✓ **Include deliverables-based payment system dependent upon achievement of interim performance metrics.**  
See attachment D Economic Analysis
- ✓ **Provide capacity building support for regional economic growth.**  
The GSML grew from a single house to a thriving facility and has remained stable for over 50 years. GSML will continue to expand and improve creating new opportunities and developing new products
- ✓ **Are environmentally conscious and business focused**  
The GSML has taught generations of children environmental stewardship and has operated a sea turtle rescue facility for many years. All of this while balancing a successful business.
- ✓ **Include Applicant and selected partners/vendors located in Northwest Florida.**

See attachment L (PARTNERS)

**2012 NOT-FOR-PROFIT CORPORATION ANNUAL REPORT**

DOCUMENT# 752423

**FILED**  
**Jan 19, 2012**  
**Secretary of State**

**Entity Name:** GULF SPECIMEN MARINE LABORATORIES, INC.

**Current Principal Place of Business:**

**New Principal Place of Business:**

222 CLARK DRIVE  
PANACEA, FL 32346 US

**Current Mailing Address:**

**New Mailing Address:**

222 CLARK DRIVE  
P.O. BOX 237  
PANACEA, FL 32346 US

**FEI Number:** 59-2021454      **FEI Number Applied For ( )**      **FEI Number Not Applicable ( )**      **Certificate of Status Desired ( )**

**Name and Address of Current Registered Agent:**

**Name and Address of New Registered Agent:**

RUDLOE, JACK  
222 CLARK DRIVE  
PANACEA, FL 32346 US

The above named entity submits this statement for the purpose of changing its registered office or registered agent, or both, in the State of Florida.

SIGNATURE: \_\_\_\_\_

Electronic Signature of Registered Agent

\_\_\_\_\_ Date

**OFFICERS AND DIRECTORS:**

**Title:** DV  
**Name:** RUDLOE, CYPRESS  
**Address:** 151 CLARK DRIVE  
**City-St-Zip:** PANACEA, FL 32346

**Title:** P  
**Name:** RUDLOE, JACK J.  
**Address:** 151 CLARK DRIVE  
**City-St-Zip:** PANACEA, FL

**Title:** D  
**Name:** FRISBY, DAVID  
**Address:** 265 MADISON STREET  
**City-St-Zip:** MONTICELLO, FL 32345

**Title:** STD  
**Name:** RUDLOE, SKY  
**Address:** 2312 DOZIER DR  
**City-St-Zip:** TALLAHASSEE, FL 32301

I hereby certify that the information indicated on this report or supplemental report is true and accurate and that my electronic signature shall have the same legal effect as if made under oath; that I am an officer or director of the corporation or the receiver or trustee empowered to execute this report as required by Chapter 617, Florida Statutes; and that my name appears above, or on an attachment with all other like empowered.

SIGNATURE: JACK RUDLOE

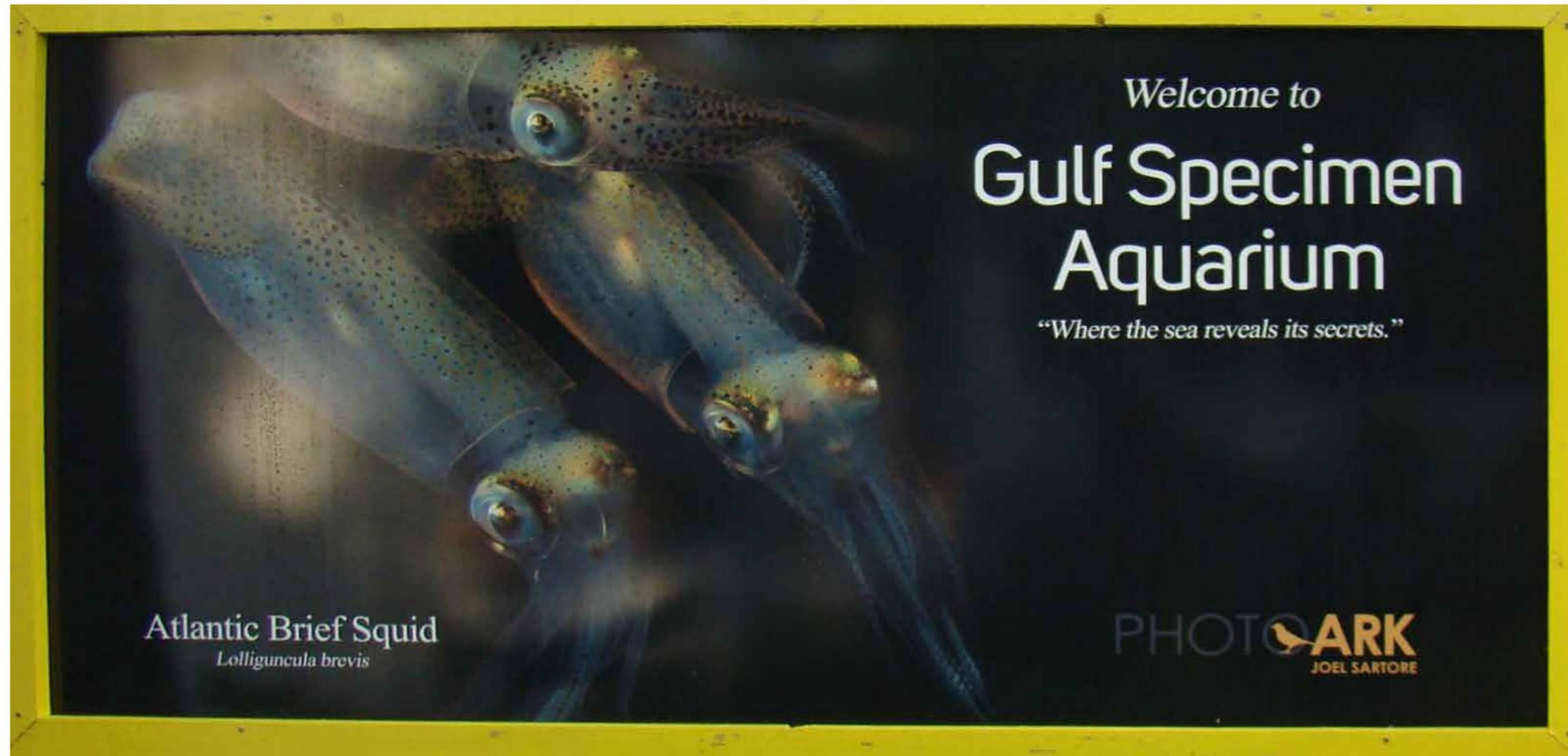
PRES

01/19/2012

\_\_\_\_\_  
Electronic Signature of Signing Officer or Director

\_\_\_\_\_  
Date

# Gulf Specimen Aquarium



## Masterplan

# Introduction

The Gulf Specimen Marine Laboratories, Inc. was started in 1963 as a non-profit tax exempt organization engaged in marine education, research, and coastal conservation, but primarily involved with supplying living, custom collected marine species for use in university research and teaching. In the early 1990's, the lab shifted focus to become more of a public aquarium by allowing paid guests and school groups to tour the laboratory grounds and view their captive live specimens and preserved artifacts. Toward this end, the laboratory grounds have been improved with the addition of both wayfinding and informational graphics, videos, some limited guest amenities and an air conditioned gift shop. And they added "and Aquarium" to their name. This public viewing component of the Labs has also allowed for the pursuit of additional funding in the form of grants from a variety of sources.

The GSML&A leadership has determined that expanding and improving the Aquarium portion of their business is critical to their future successful growth and provides needed diversity to their income streams. This document is intended to provide ideas and possibilities for this growth as well as suggested enhancements to existing exhibits.

The aquarium's focus on local species allows the opportunity to display animals out of doors. The first section shows the design of four new areas:

1. A Hammerhead shark exhibit in a 20,000 gallon tank
2. The Living Dock display with a series of smaller and larger cut-away tanks
3. The Wilderness Coast: native plants and landscaping with a wade-in ray tank, a play area and several smaller tanks.
4. The Gulf Coast Nature Trail: a discovery walk through the land adjacent to the aquarium

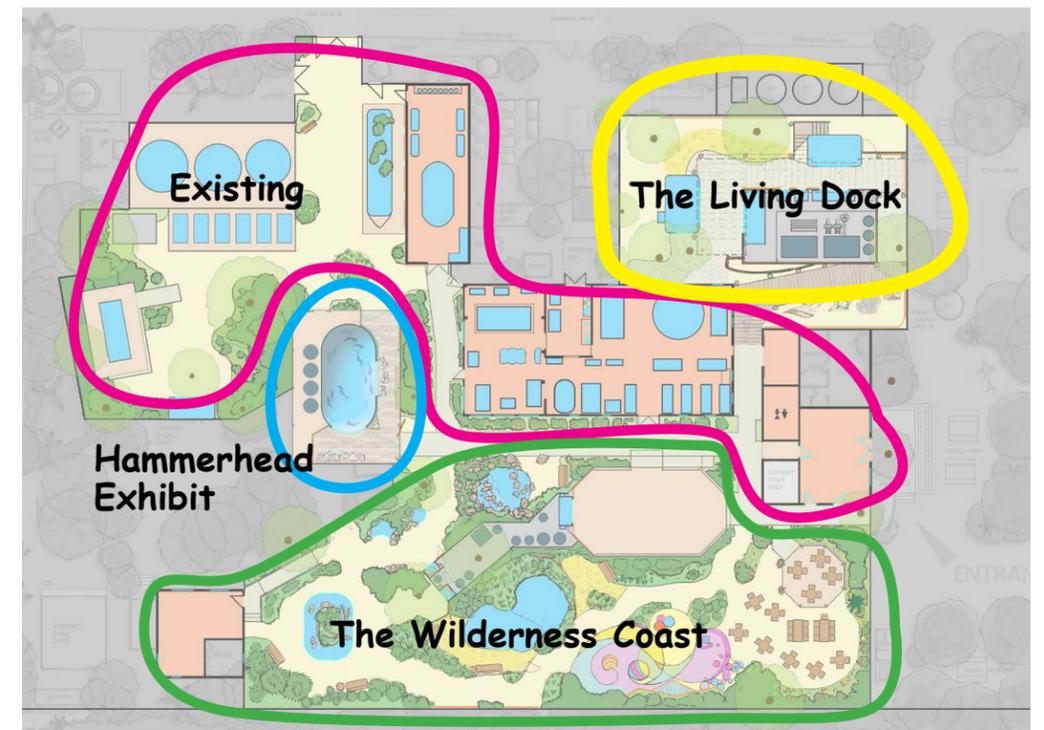
An integral part of the design for new and existing areas is the addition of plantings to create beautiful grounds. Planting islands and gardens with native plants will give visitors the chance to experience and enjoy the nature unique to this area. New exhibits are planned to be low-impact with construction sensitive to existing trees and their root systems.

The second part of the brochure makes suggestions for enhancing the existing aquarium and facilities while highlighting the role they have played in supplying schools and research programs with sea life for study. Visitors will have a view of a wide and changing range of sea life of the Gulf Coast and learn about collecting and shipping these animals.

These pages were prepared by Martin Schuchert (wild-design) with Joe Choromanski (Serviette LCC).

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## New Exhibit Areas

Hammerhead Shark Tank.....	4—7
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## Renovation to Existing

Underwater Viewing.....	33—34
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# Hammerhead exhibit

Every visitor has certain basic expectations when they visit an aquarium. Some want to see Nemo the clownfish and his friends, others want to view seahorses and sea turtles, but everyone wants to see a shark! Although GSML&A currently does have a nurse shark on display, it is in a relatively small tank that is somewhat poorly viewed from above. Since the GSML&A logo has been a hammerhead shark for so many years, appearing on each and every Styrofoam shipping cooler shipped all over the world, it seems fitting that the Aquarium have its own purpose-built hammerhead shark exhibit! The scalloped hammerhead shark (used on the logo) while native to the Gulf of Mexico, grows large and would require a larger exhibit than the campus could accommodate, but a closely related cousin, the Bonnethead shark (*Sphyrna tiburo*) is an excellent alternative.

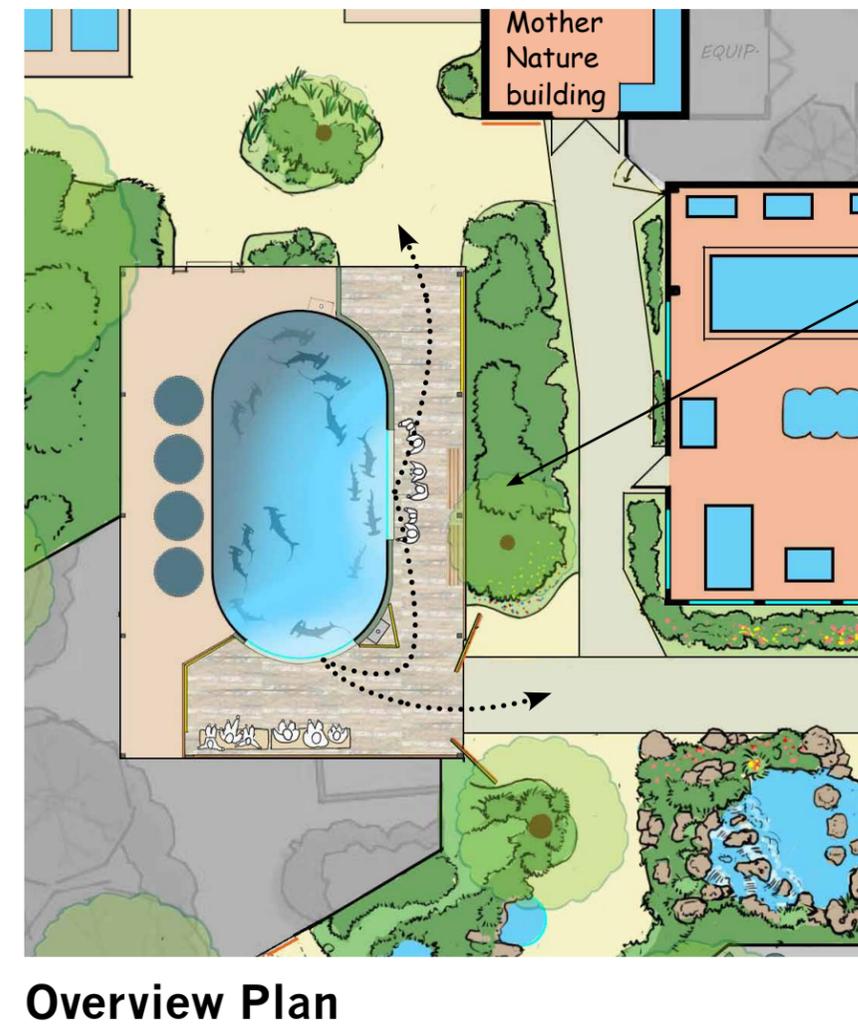
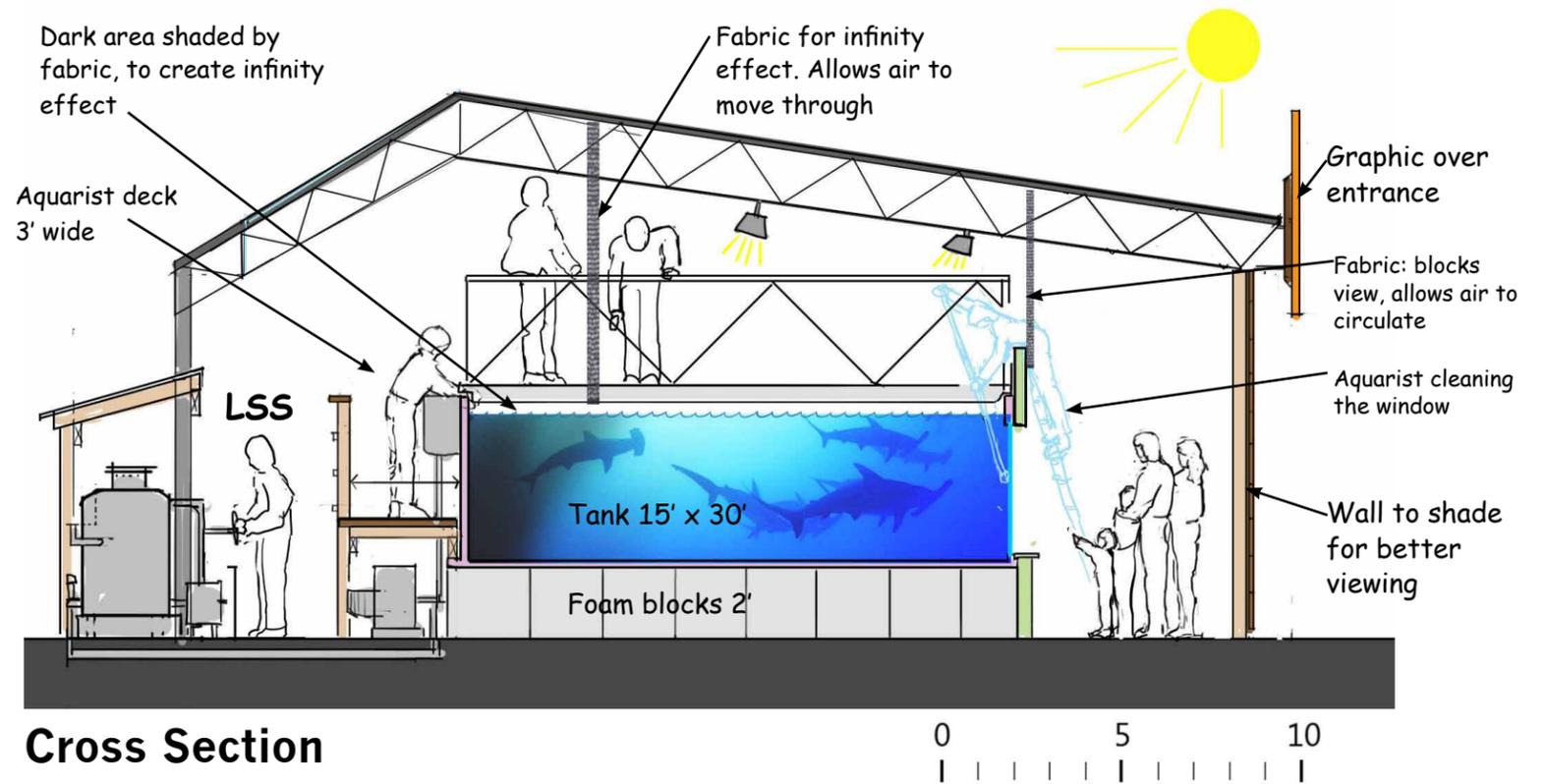
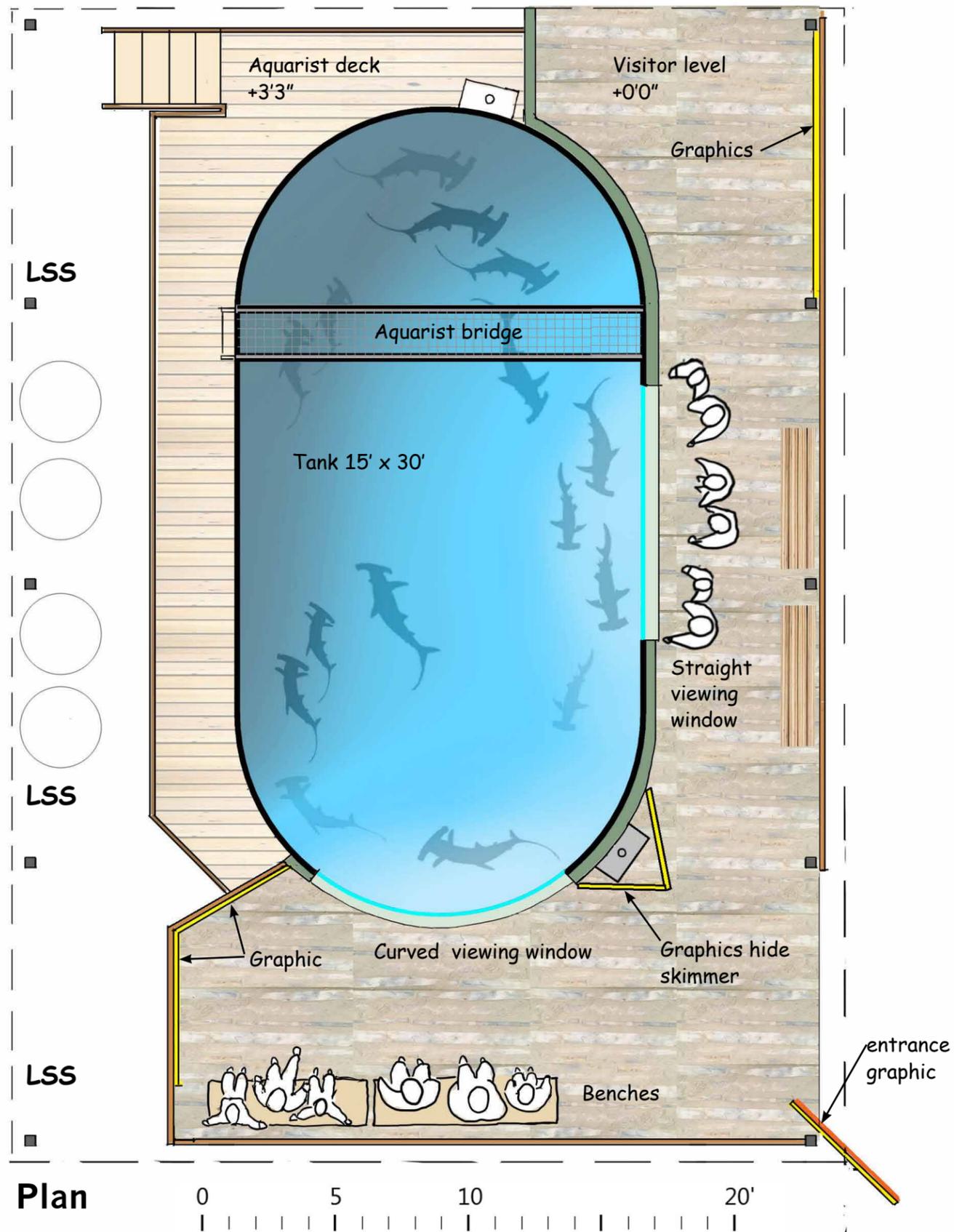
We chose the location for this new exhibit based primarily on the best point in the visitor path but also keeping it nearer to the sources of power and make-up seawater (although this exhibit will definitely have its own dedicated recirculating Life Support System). Currently, the trailer home of the on-site staff night watchperson is located here but this is planned to be relocated soon.



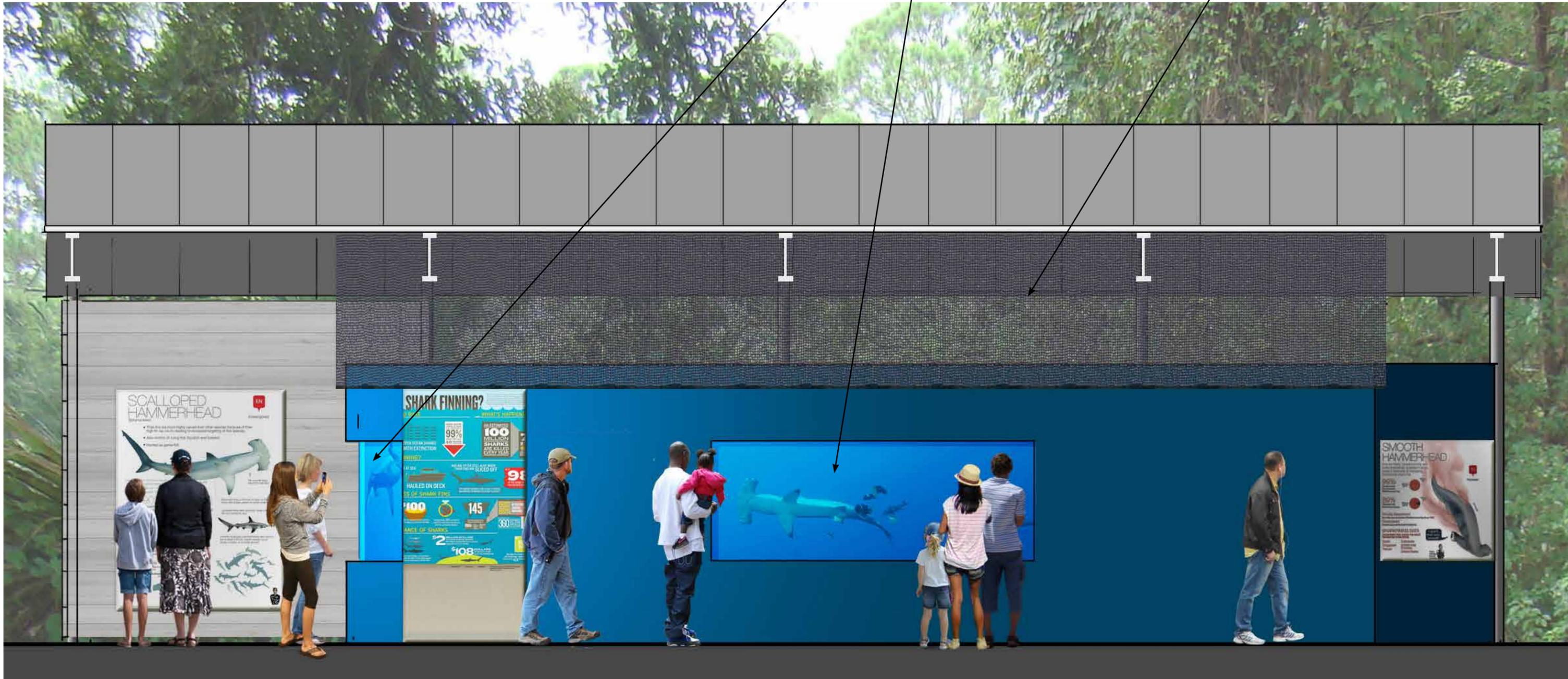
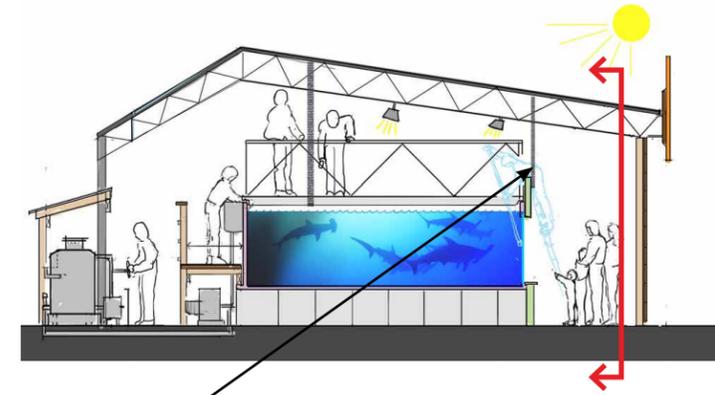
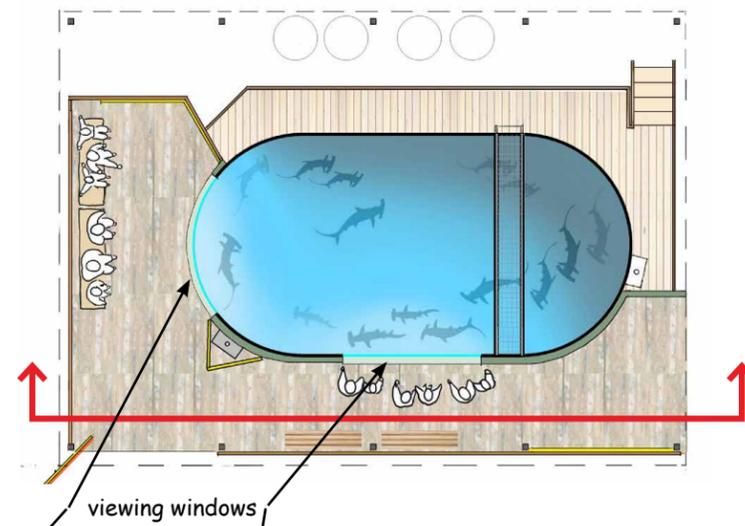
View along the path to the Hammerhead Shark Exhibit entrance



# Hammerhead Plan and Section



# Hammerhead Section Elevation



# Hammerhead

## Reference photos

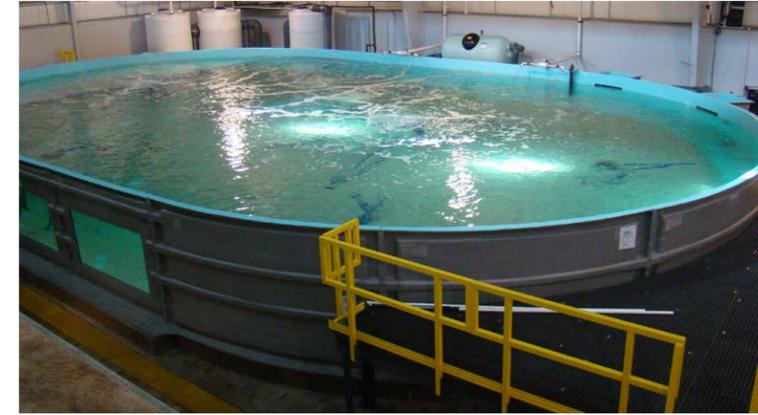
Pole structures. Photos from the internet by Panhandle construction companies.



Substructure under tank: 2' foam blocks.  
Bottom row: Aquarist deck behind tank.  
Reference photos: Oklahoma Aquarium, Tulsa



Fiberglass tank reference photos



# The Living Dock

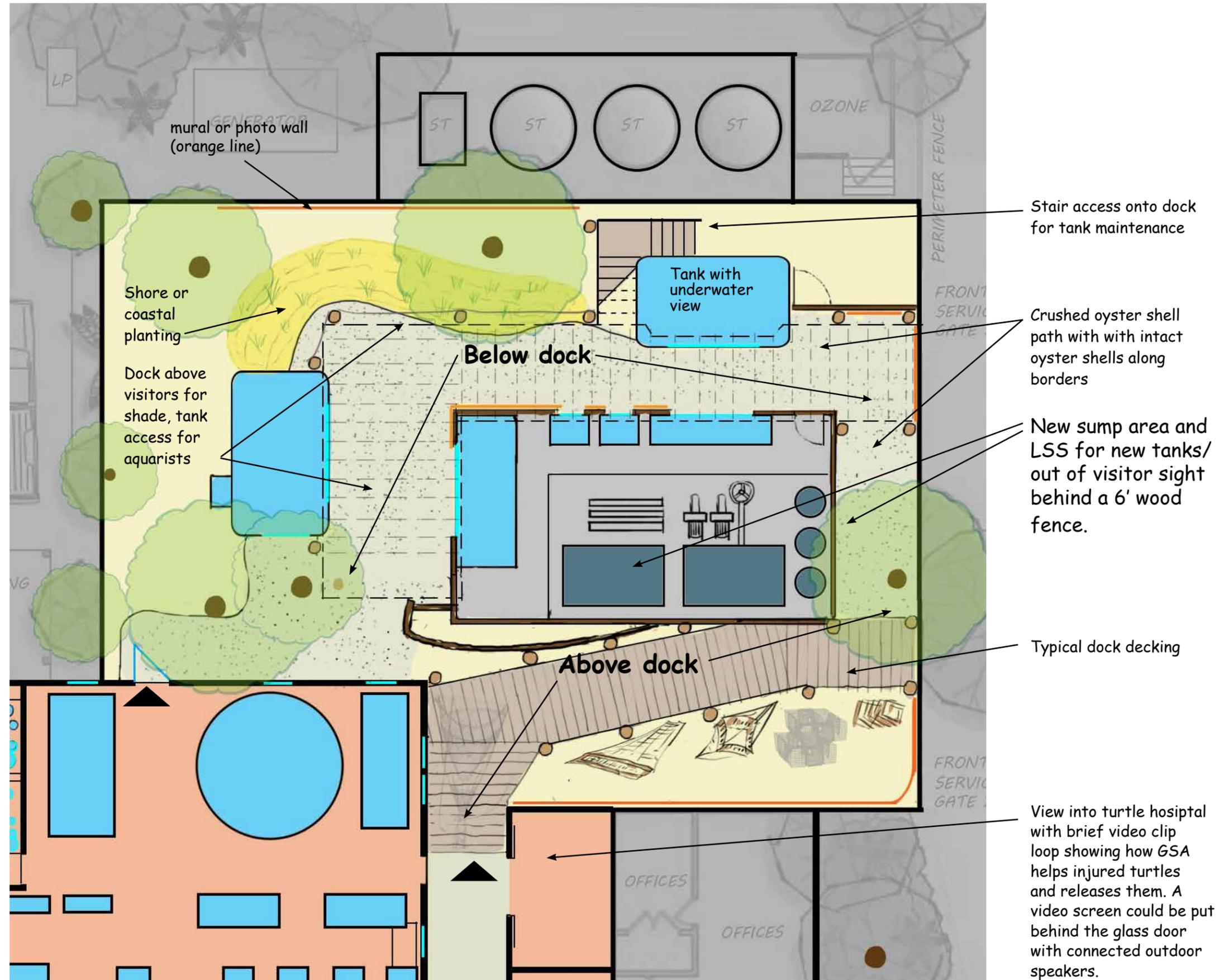
## Fish, Fishing and Fisheries

This area in the northeast corner of the campus is a prime location for redevelopment into an exhibit space while also allowing for some much needed main Life Support System (LSS) upgrades. Currently, there is an old unusable building and the existing old main LSS. By demolishing the building, this creates space to rebuild a new main LSS (with new larger/deeper return reservoirs for system stability) just north of its current location so that the new LSS can be installed while the old LSS is still operating. After the old LSS is removed, space is created for this new exhibit "gallery" path. This design also requires the removal of a small seahorse exhibit in the main building to allow for a new door/passageway which provides a circular path in the new exhibit area.

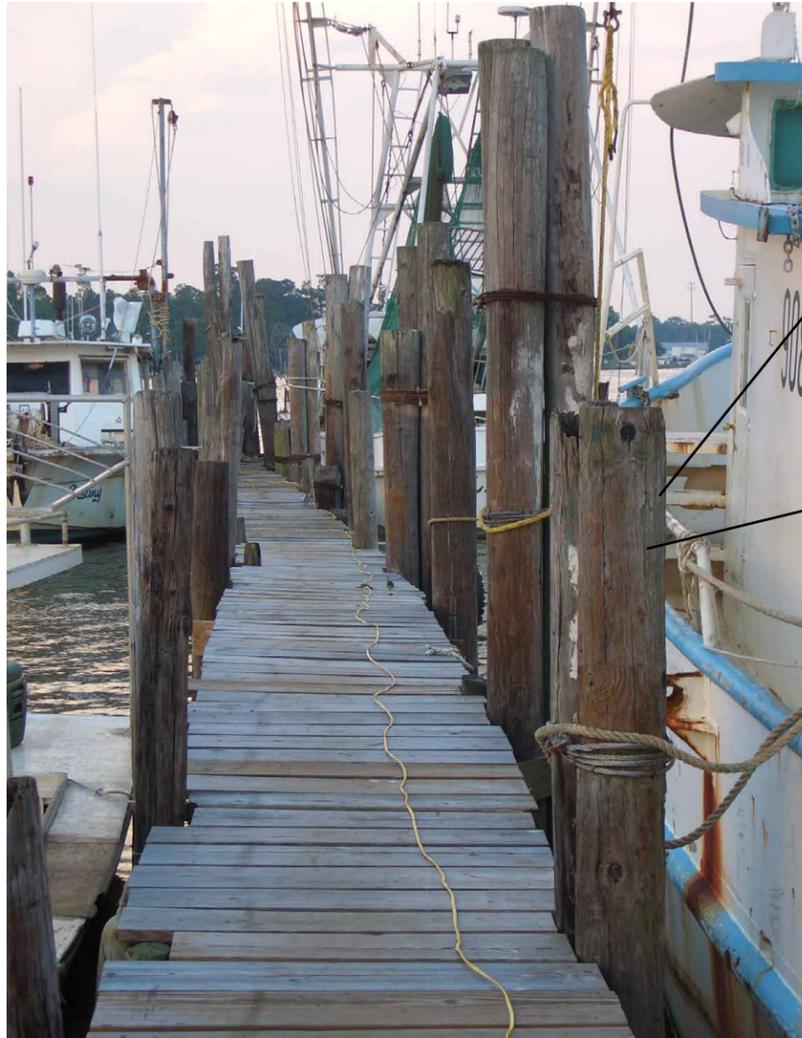
These exhibits focus on fishing in Panacea: the history, the industry and conservation.

The exhibit begins on a wooden dock decorated with commercial fishing equipment and information. The path continues on crushed oyster shell to an area under a dock where the visitor can see several tanks. The dock serves as a shade structure for the visitors, allows better tank viewing and enables the aquarist to service the tanks from above.

The tanks may be stocked with mixed species or with a single species. They may change according to what is available and what can safely and healthily survive the season. Some species that are currently inside in tanks with limited views (only from above) could move out here if the temperature is suitable.



# The Living Dock *Above the dock*



Boardwalk path: framed by pilings riddled with wormholes, themed with fishing ropes and equipment



Commercial fishing gear

Part of the hull of the ship "Panacea"; a fishing net hangs over the visitors' heads.



Below: Wood decking either level with the ground as shown below or 6" above the ground, to keep visitors on the path. Also consider a low rope railing.

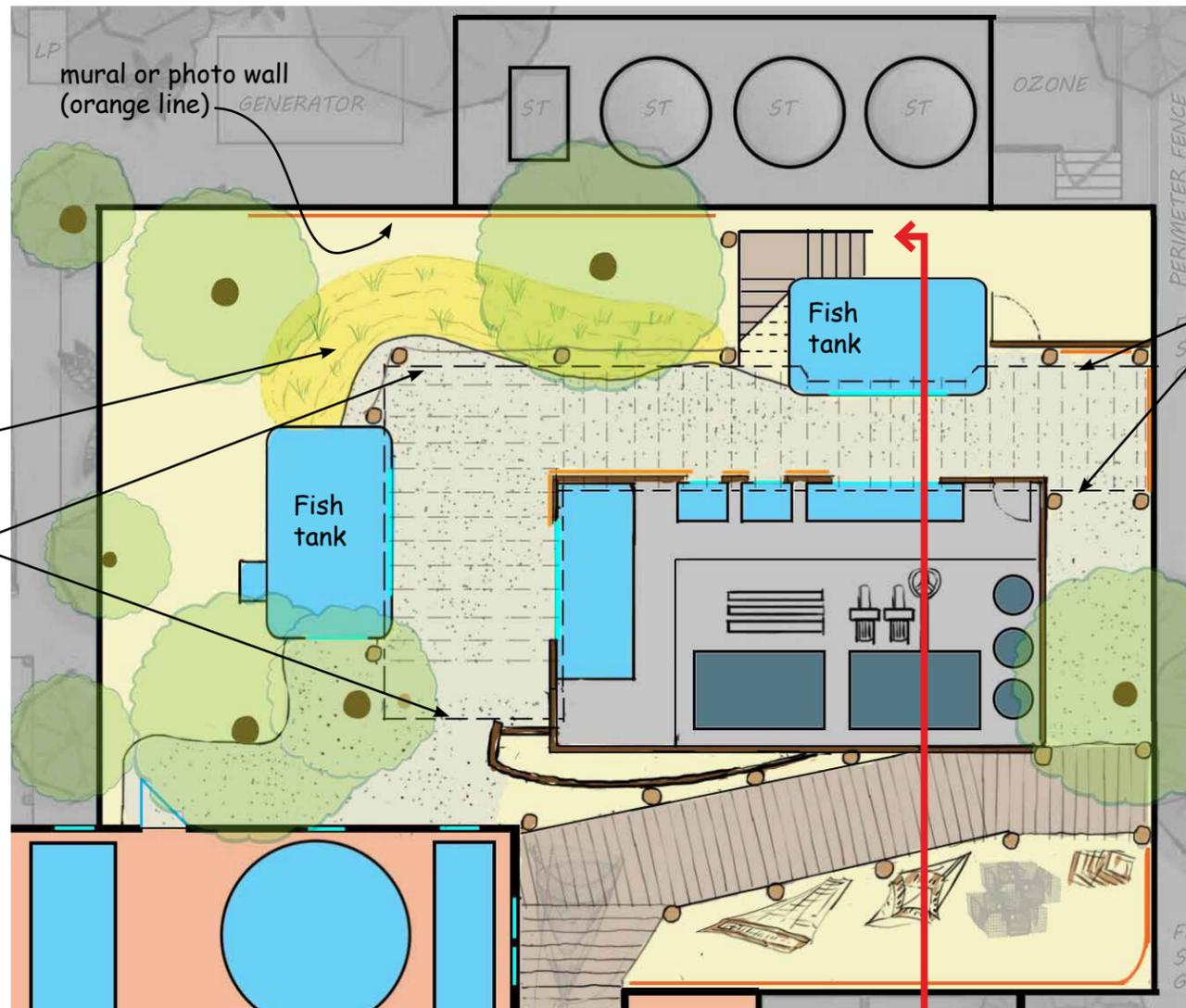


# The Living Dock Below dock

## Plan



Landscaping in front of mural or photo wall: native grasses or shrubs that create a coastal feel.

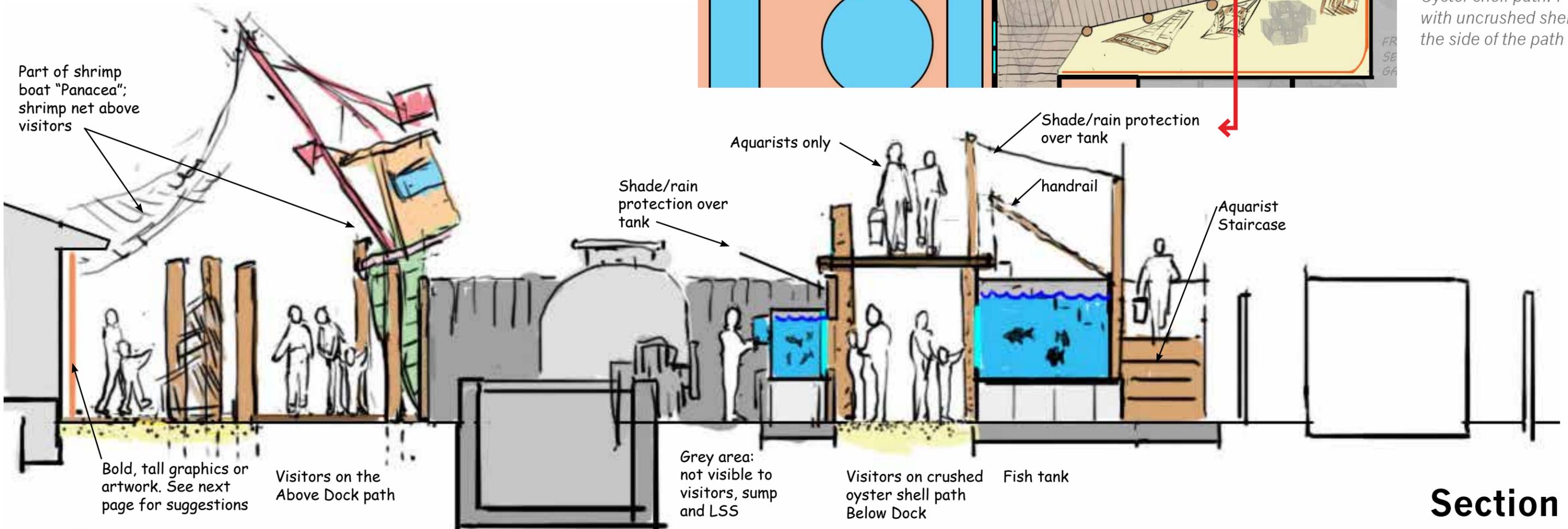


Limit of wood dock above visitor path

Limit of wood dock above visitor path



Oyster shell path. Possibly with uncrushed shells along the side of the path



## Section



# The Living Dock Art

The Living Dock is surrounded by wooden fencing; the sump in the center is also enclosed. This wall space can be used to exhibit art, murals or photography. Some possibilities include art replicas or prints from Walter Inglis Anderson, fine art photos of commercial fishing, photos from collecting trips, or historic prints.



# The Living Dock

## Shrimp Tank



Reference photos: Oklahoma Aquarium, Tulsa, OK



Alternative to exhibiting fishing gear along the boardwalk of the Living Dock: an open shrimp tank.

Reference photos are from the Oklahoma Aquarium in Tulsa. (GSA tank would preferably be without feeding)

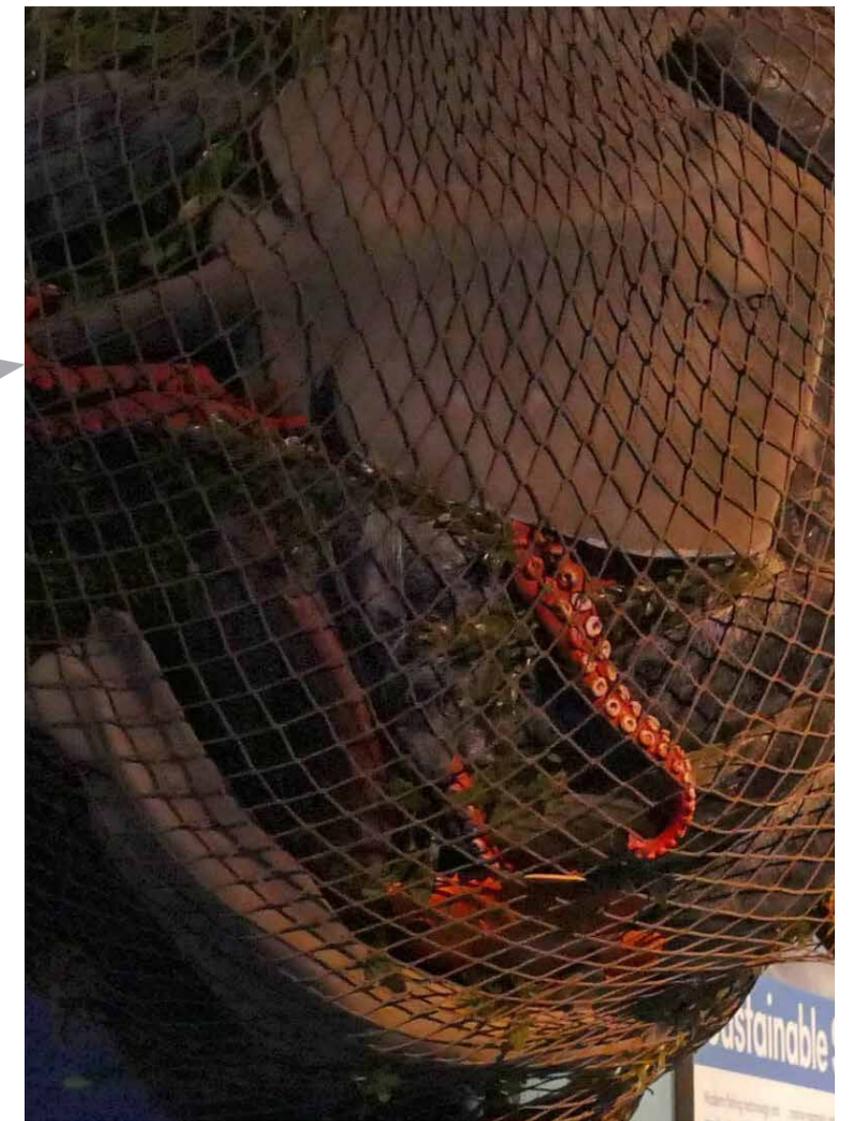
# The Living Dock

The impact of shrimping.

Educational signage display



Signage with models showing how much bycatch comes with one pan of shrimp, including an explanation of overfishing and choosing sustainable fish to eat. Additional text explaining GSA's beginnings and use of bycatch.



Reference photos: display at the Arizona Sonora Desert Museum



# The Wilderness Coast Fish, Flowers, Fun

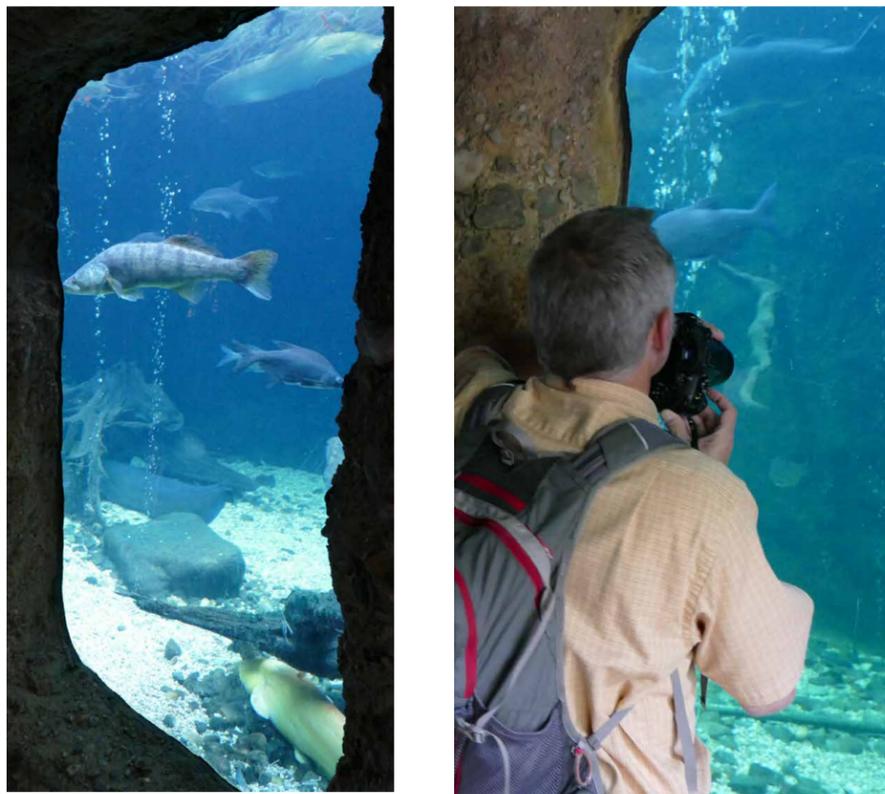
This area offers visitors an active aquarium experience. It includes a wade-in ray tank, play area and picnic area. Additional tanks may display baby alligators and turtles. This area should be heavily landscaped with a focus on flowering plants. The landscaping and seating will create a space that is desirable for social functions (weddings, fundraising events, etc.)

## Plan Overview



# The Wilderness Coast Outdoor Tanks

reference photos



These reference photos show tanks that are located outside - some with covered visitor viewing. The tanks are located in Florida, Texas, Missouri, Oregon, the Czech Republic, Switzerland, Singapore and Japan.



By using local species GSA can expand its displayed collection without the need for climatized construction. Some species may only be displayed seasonally. Tanks might need rain or sun protection.



Many of the tank viewing panels shown here are made of glass, not acrylic.

# The Wilderness Coast Native plant landscapes



Landscaping can play a huge role in helping to create the relaxing atmosphere and natural environment that aquarium visitors enjoy, especially at outdoor facilities, which is why the big animal parks like Sea World, Bush Gardens and Disney World (Living Seas) spend much time and effort planting and maintaining these landscapes.

We are big fans of native plants. They require less water once established, and provide food and shelter for insects, birds and mammals. A large majority of the plants used in Walt Disney World Resort landscapes are native species. They consult regularly with horticulturists and botanists from several universities and other institutions to select appropriate species.

It would be ideal if you could find a Florida Nursery, Growers and Landscape Association (FNGLA) Certified horticulturist to help you. Parks that use these include Atlantis Resorts and Baha Mar (Bahamas), Sea World Orlando, Walt Disney World and Busch Gardens Tampa.

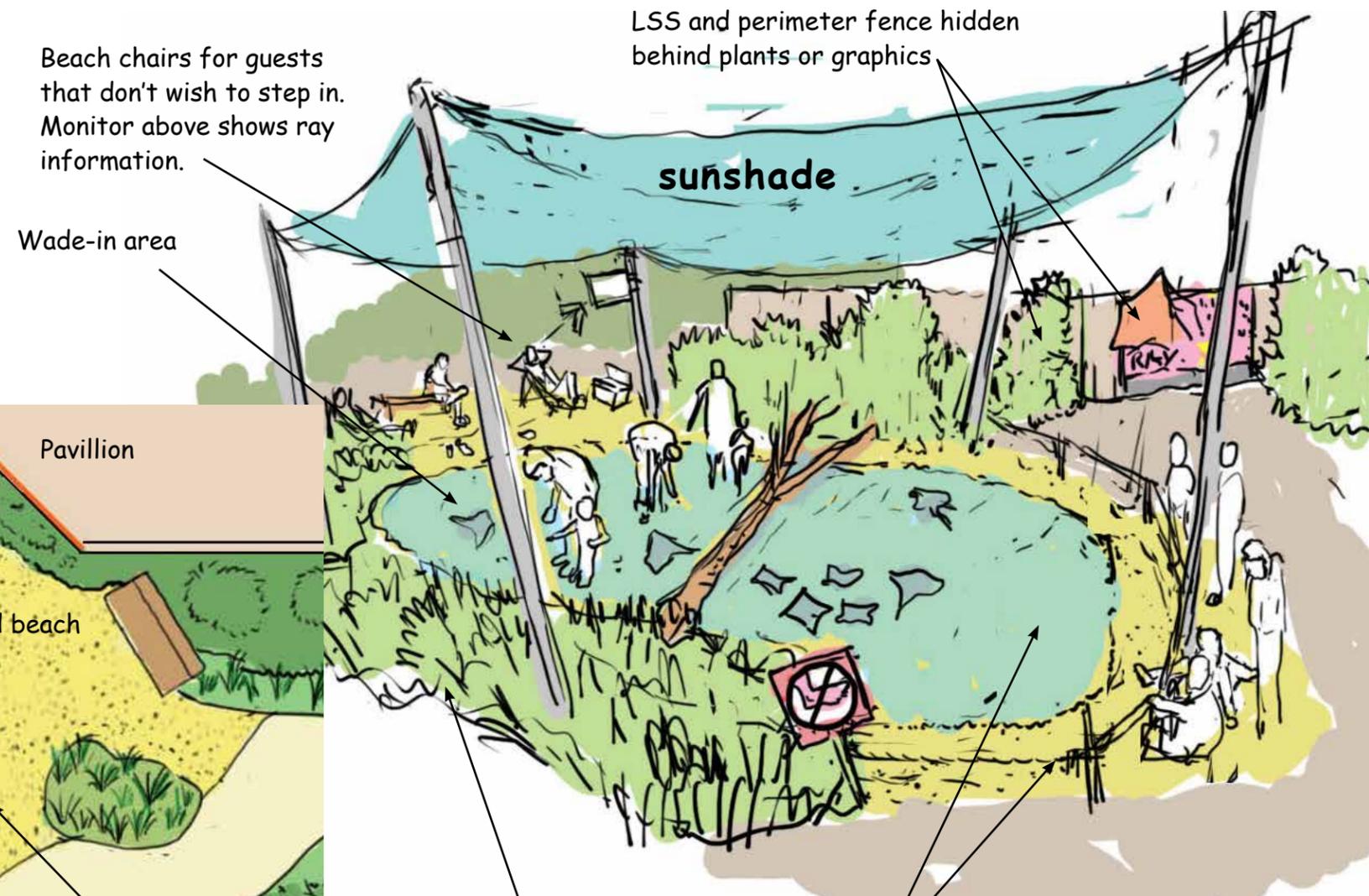
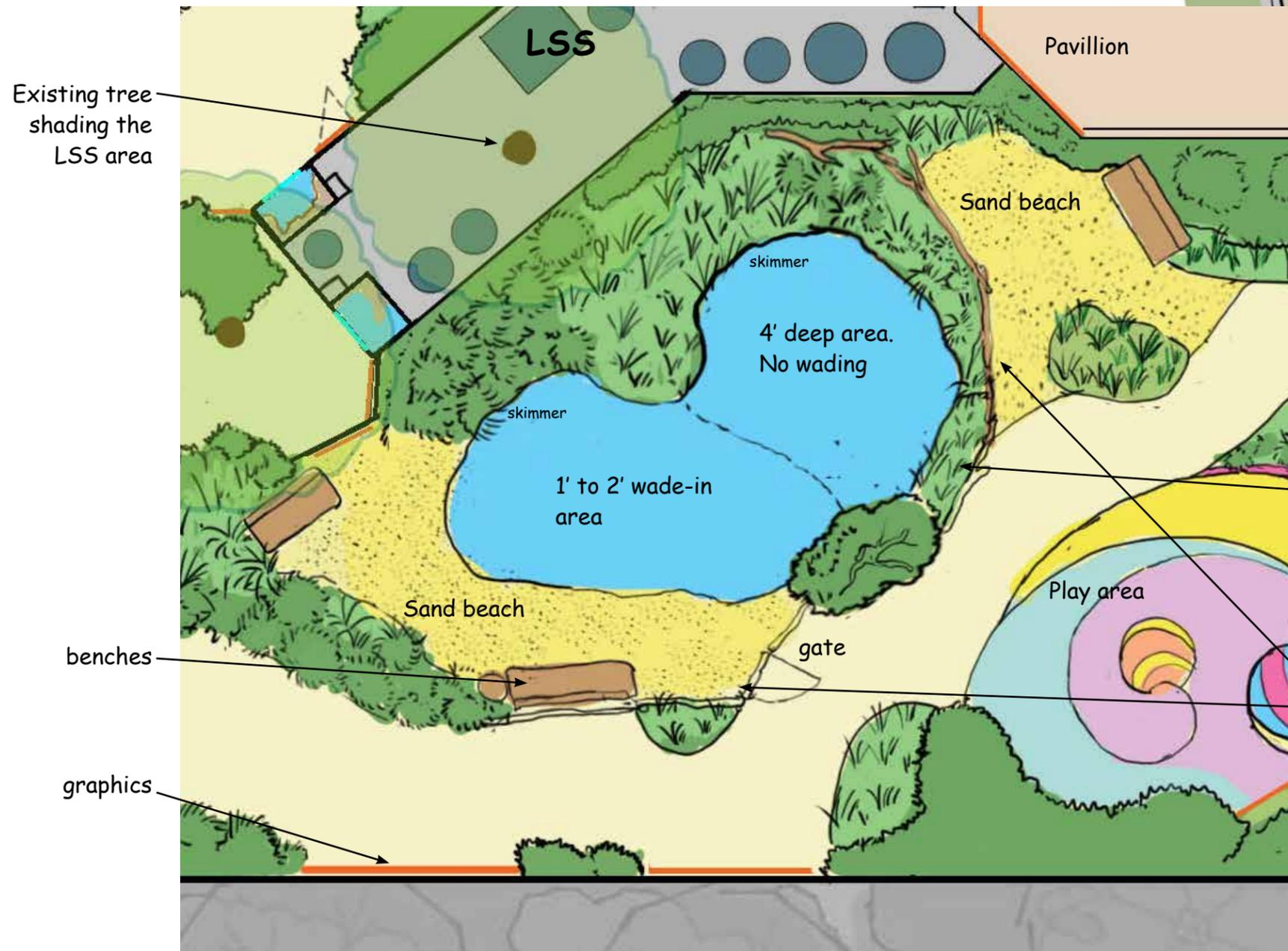
As the most inexpensive building material, plants-should be used extensively throughout The Wilderness Coast area to hide structures, frame tanks and border paths. All exhibits are to be respectful of existing trees. Most fences, that are not covered by graphics, should have climbing plants and other plantings to make them disappear.

Native plants of the Florida Panhandle (<http://floridayards.org/index.php>)



# The Wilderness Coast Ray Touch Wade-in Pool

Immersion is the new trend in aquariums and a “wade-in” touch tank is one of the best examples of this and well suited for an outdoor campus. This can be as simple as a shin-deep or knee-deep pool with horseshoe crabs, skates and benthic stingrays (barbs removed of course), or this can be and even more immersive waist deep exhibit with schooling cownose or spotted eagle rays. This could be a fee-based exhibit to participate or it could be free with fee-based feeding options. These exhibits are wildly popular!



Plantings

Deep water area fenced off. See next page for fence suggestion

This sketch shows the design intent of the adjacent plan.

Fence (see next page for suggestions)

Reference photo: Rays in shallow water of wade-in pool at SeaWorld Texas



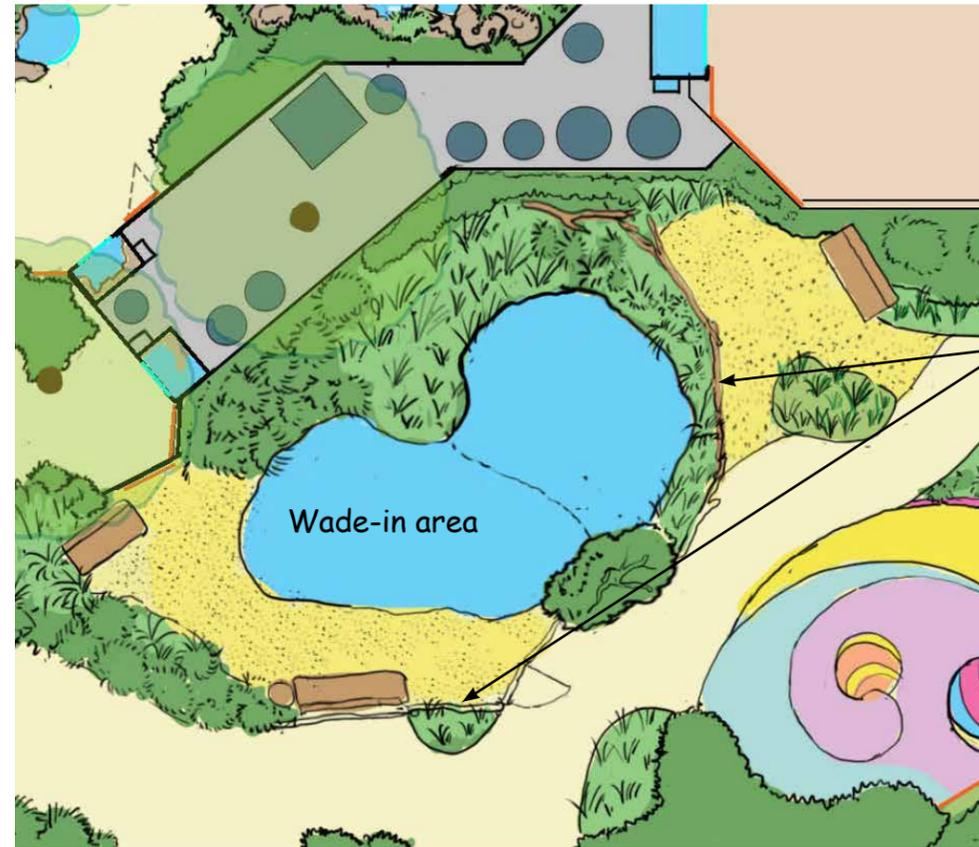
# The Wilderness Coast

## Ray Touch Wade-in Pool

Reference photos



Shade structure and wade-in area  
Atlantis Aquarium, Long Island, NY



Beach fence

Wade-in area



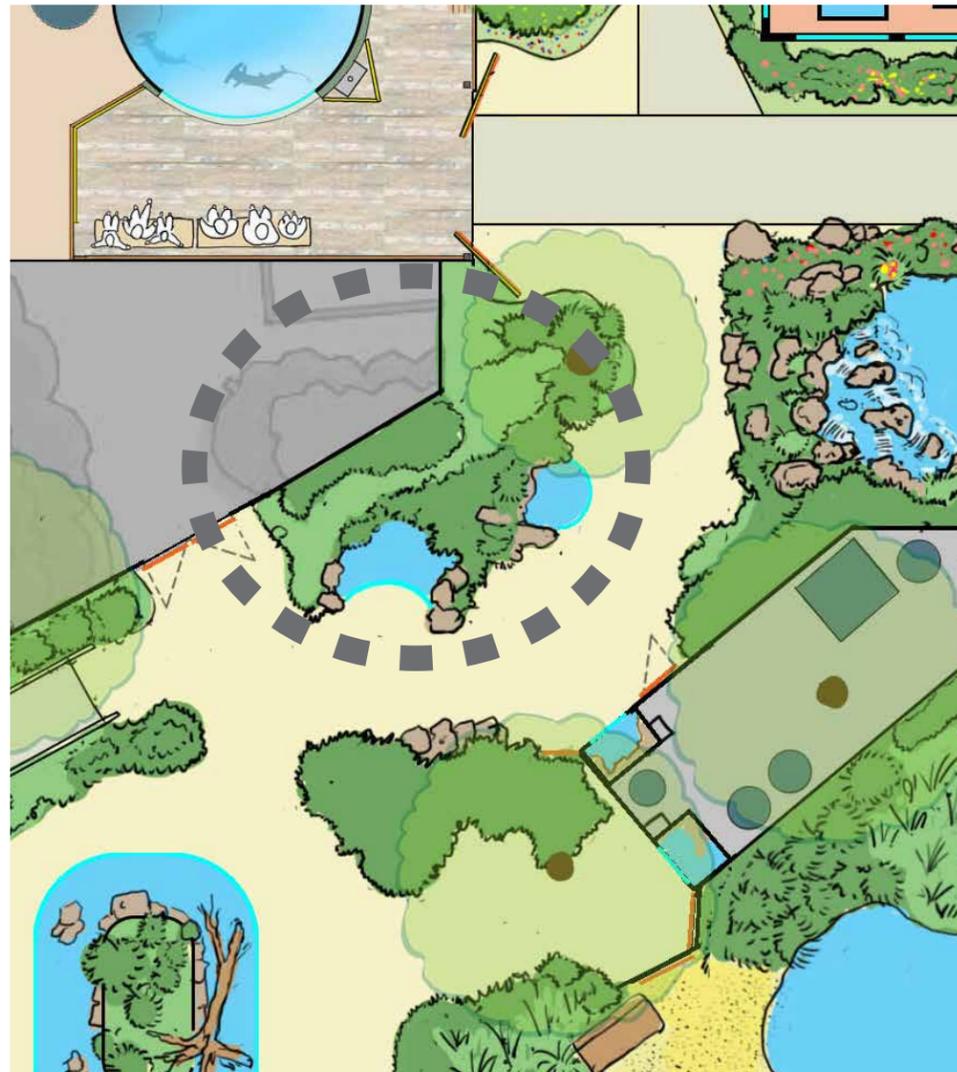
Native coastal grasses and shrubs  
Beach/ sand fencing

Wade-in ray touch



# The Wilderness Coast Reptiles

Outdoor displays of reptiles and amphibians will show visitors other local aquatic animals. The exhibits can be heavily planted without the threat that the plants will be destroyed.



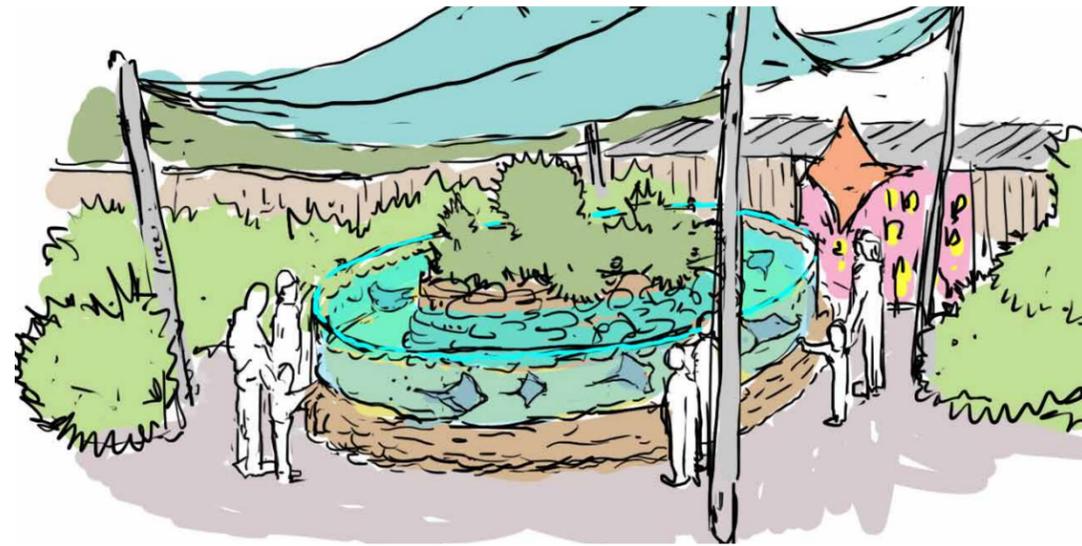
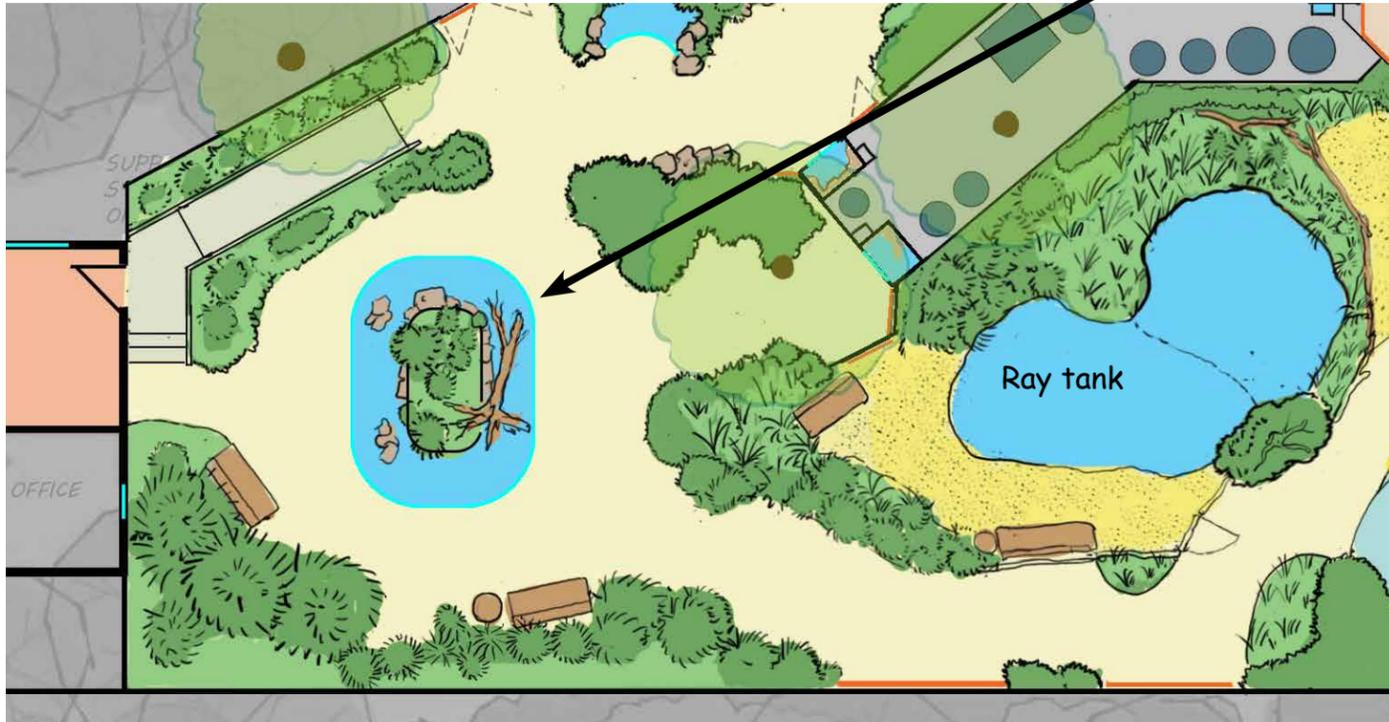
*Large, richly landscaped rattlesnake exhibit with water and land areas. Unique because of: large size, proximity to animals, beautiful plantings  
Tennessee Aquarium*



*Baby alligators are appealing and don't need large exhibit space. This exhibit has logs, rocks, sand patches, hiding places, running water and a larger pool.*

*San Diego Zoo*

# The Wilderness Coast Turtles



Alternative to the sun shade construction shown here, consider shade trees within the tank and surrounding the exhibit area.



Turtle exhibit Tennessee Aquarium



Turtle feeding for special tours or birthday events.  
Carrot peelings clamped in clothespins on poles  
Oklahoma Aquarium, Jenks OK





# The Wilderness Coast Peacock Bass Pond

The peacock bass pond is located along the path to the Hammerhead Tank. The sound of cascading water at the exhibit will add ambience to the area and create a garden-like experience.



Cascading water

# The Wilderness Coast

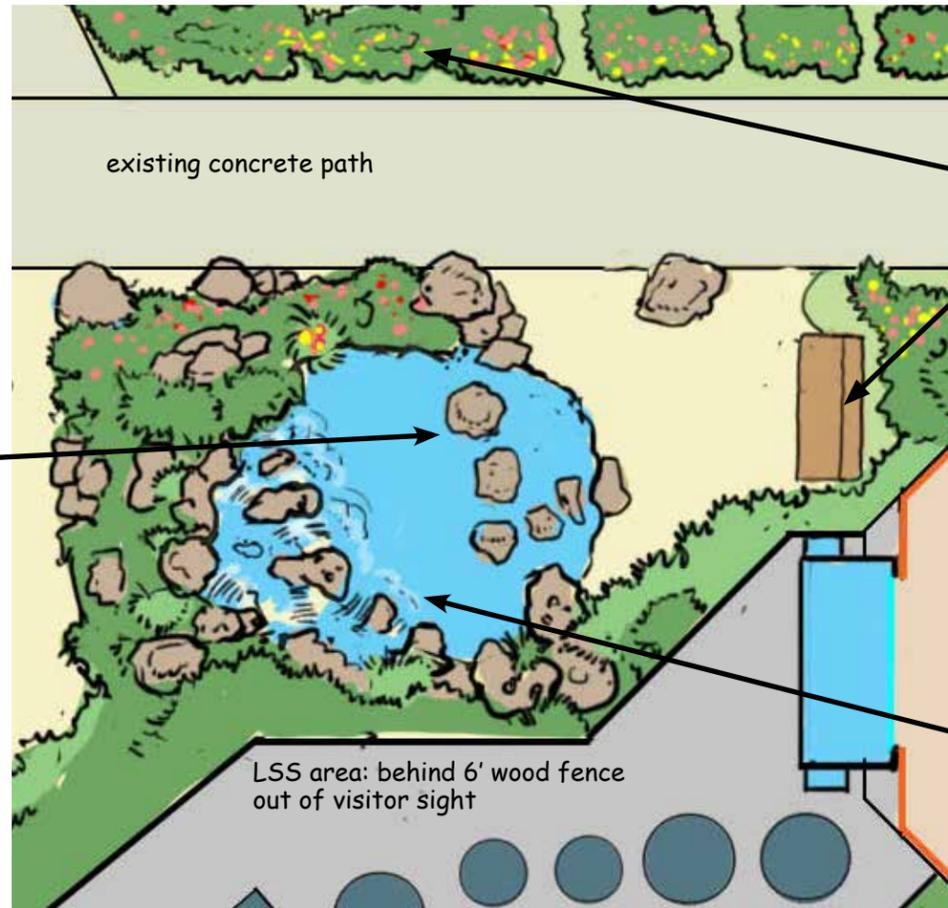
## Peacock Bass Pond Features



Stepping stones through shallow water



Periscope to observe the fish under water



Landscaping with native flowers and shaded benches

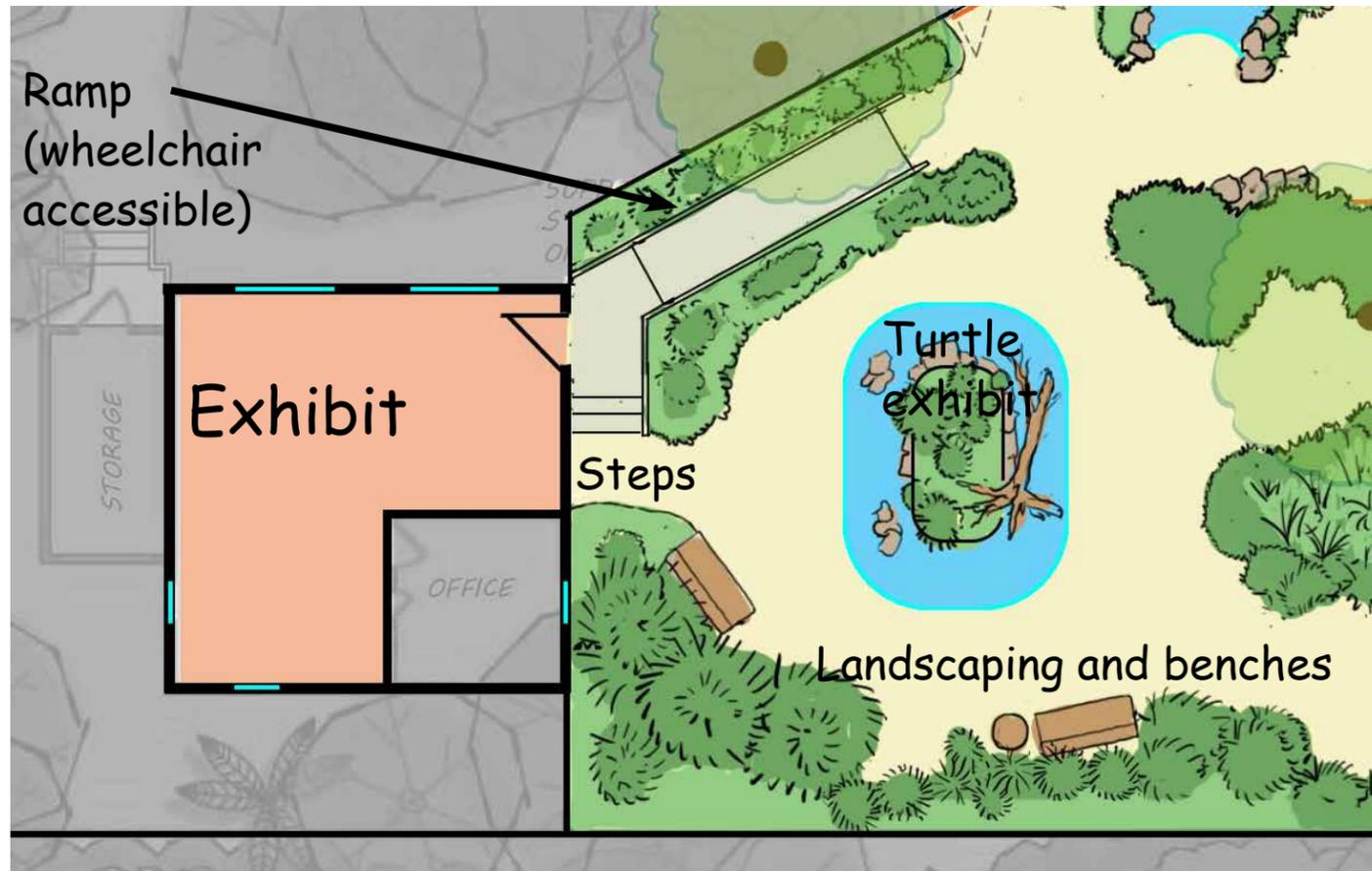


Cascading water and flowering plants



Educational signage : Introduced species

# The Wilderness Coast Exhibit Space



Although this building is used as a secondary office for some staff, it might be better repurposed as a public exhibit (and if so, handicap-access would likely need to be added as shown). The Lab has a plethora of historic information and preserved specimens that might make a great “dry” exhibit display similar to Doc Ricketts Lab of Cannery Row fame. Indeed, Jack Rudloe has correspondence from John Steinbeck who encouraged the creation of Gulf Specimen. Alternatively, this space could be used for temporary exhibitions of local artists or small exhibits on loan from other small museums or aquariums. This provides a regular “new” topic to market each year.

*Wall of ocean related movie posters  
Odysea Aquarium, Phoenix*

**This movie wall could be adapted for the GSA to a book wall with titles about the sea, oceans, and fish including:**

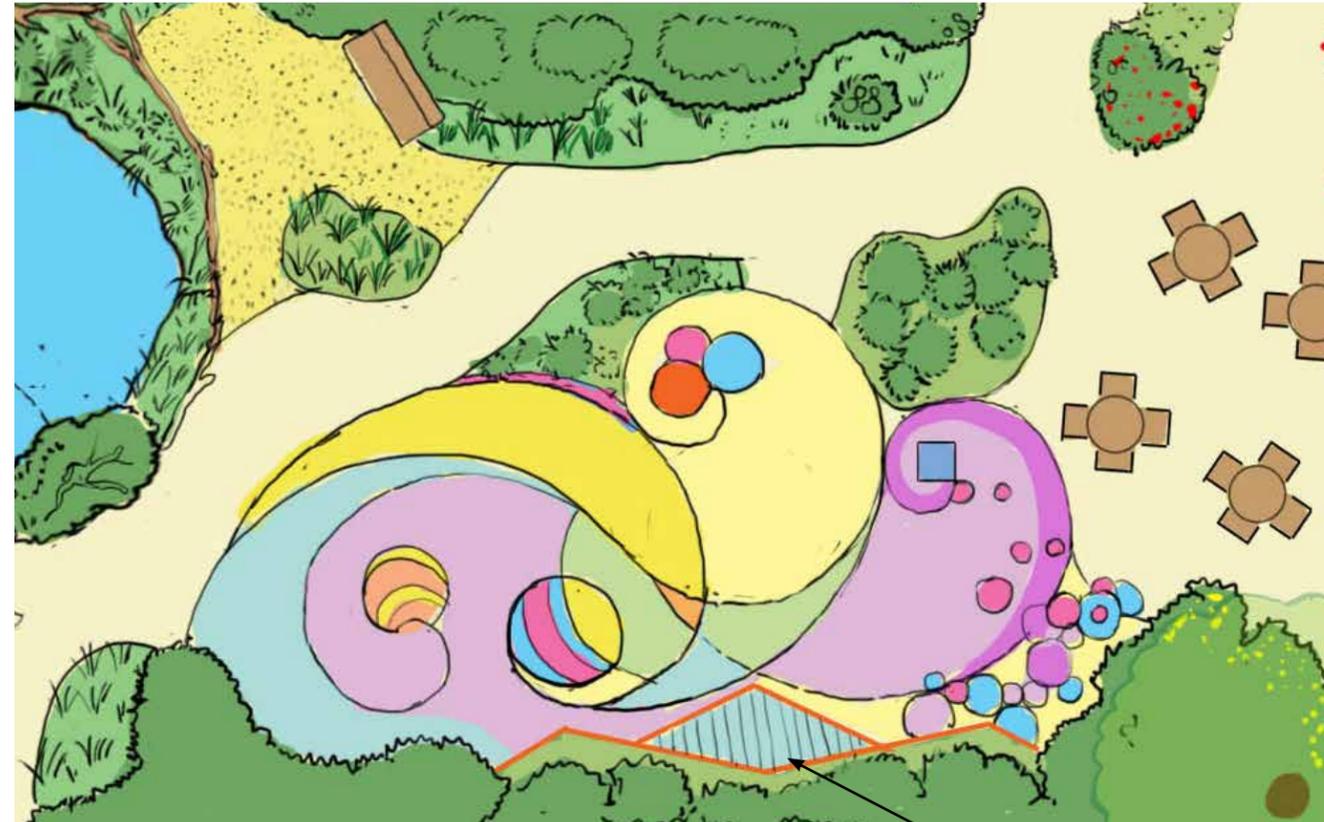
The Old Man and the Sea, Moby Dick, 20,000 Leagues Below the Sea, In The Heart of the Sea, The Rime of the Ancient Mariner, The Perfect Storm, The Sea Brings Forth, The Wilderness Coast, The Living Dock etc...



# The Wilderness Coast Play area

This area gives kids the chance to have active fun outside and will extend the duration of the family's visit.

Climbing structures allow for play in all seasons. Sand lets kids dig, discover and build. Water sprays and jets are cooling in the summer.

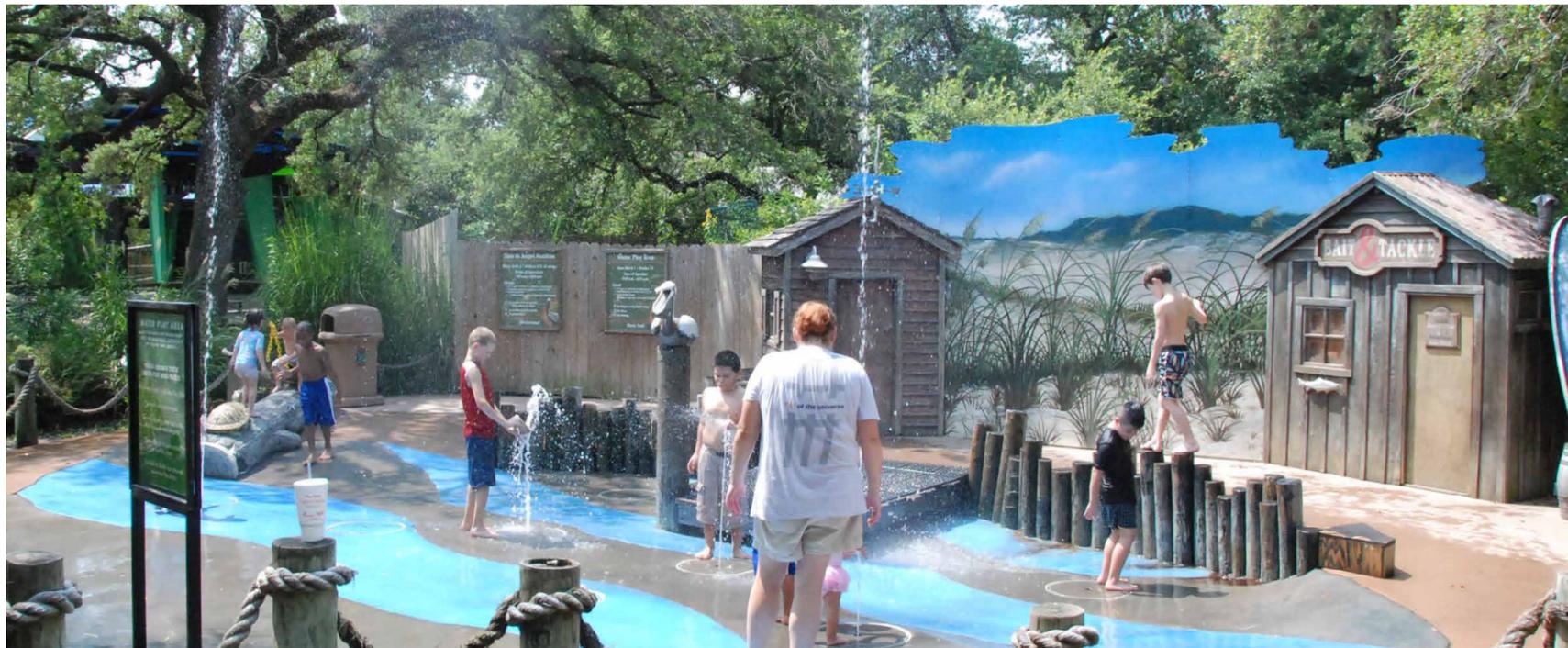


Informative, fun graphics along the back of the playground



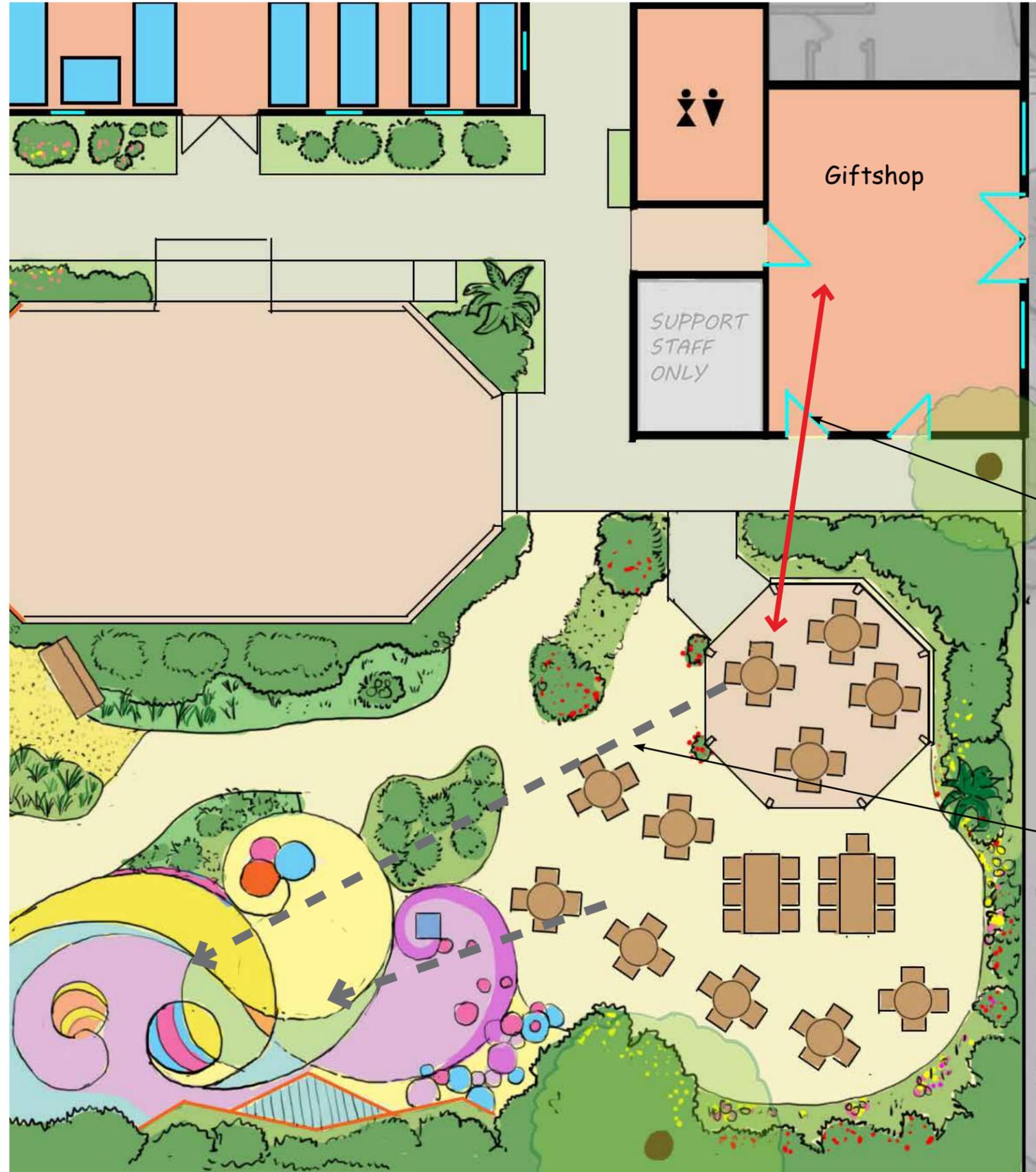
Nuremberg Zoo, Germany  
Visitors take off their shoes to dig and play in the sand

below: kids use tools to excavate "bones"



# The Wilderness Coast Picnic area

Picnic and cafe area with beautiful, native plantings. The gazebo provides weather-protected seating and could serve as a special area for weddings or social events.



Proximity between picnic and sales.

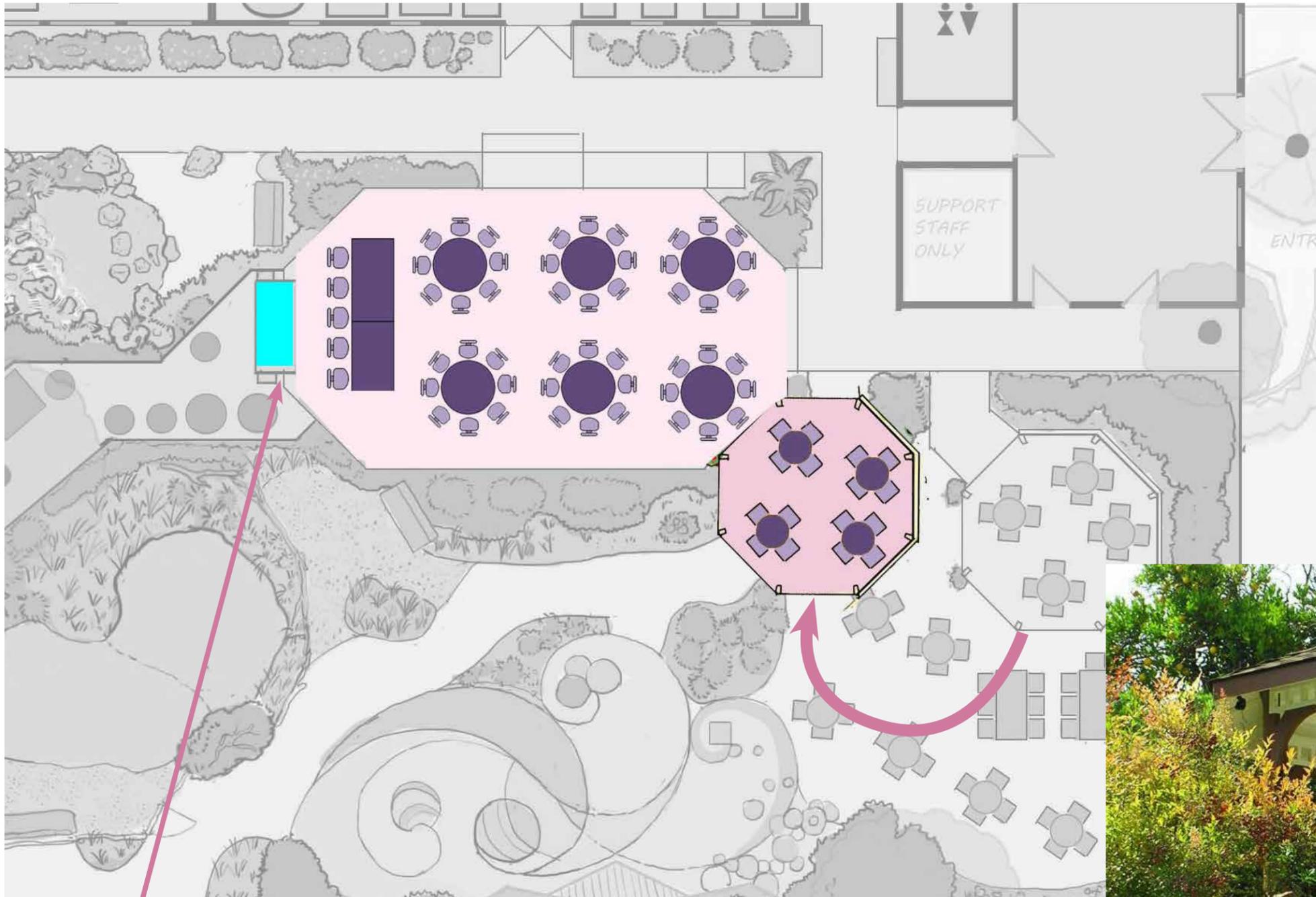
Parents can sit and see children at play



Depending on the location and type of construction, the gazebo may be attached to the pavilion to allow events to be independent of the weather



# The Wilderness Coast Event area



Weddings and other events may usually happen in the picnic area under open skies. By making some minor improvements to the pavillion and adding a larger tank this exisiting construction could become an event facility to be used in inclement weather.



*Above : pavillion drecorated for wedding event.*

*Below: pavillion with lush, beautiful plantings*

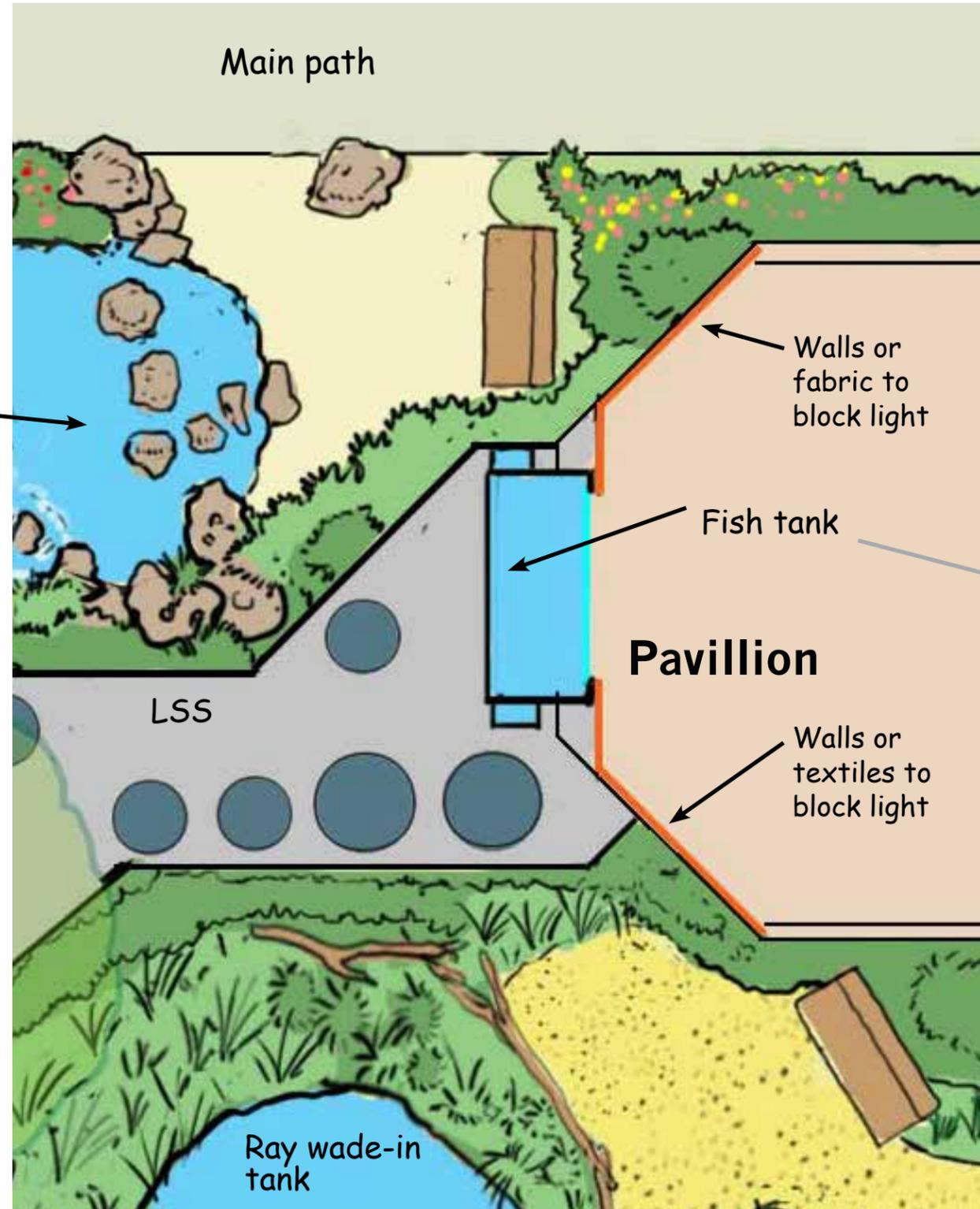


**Fish tank (new)**

By moving the gazebo towards the pavillion it can be made part of an event space. The gazebo could be used for ceremonies, as band space or for seating.

# The Wilderness Coast Fish tank in Pavillion

Original Photo



Below: Photomontage of pavillion with fish tank and wedding decor. The content of the monitors can easily be adjusted for events.



# The Wilderness Coast Butterfly Garden

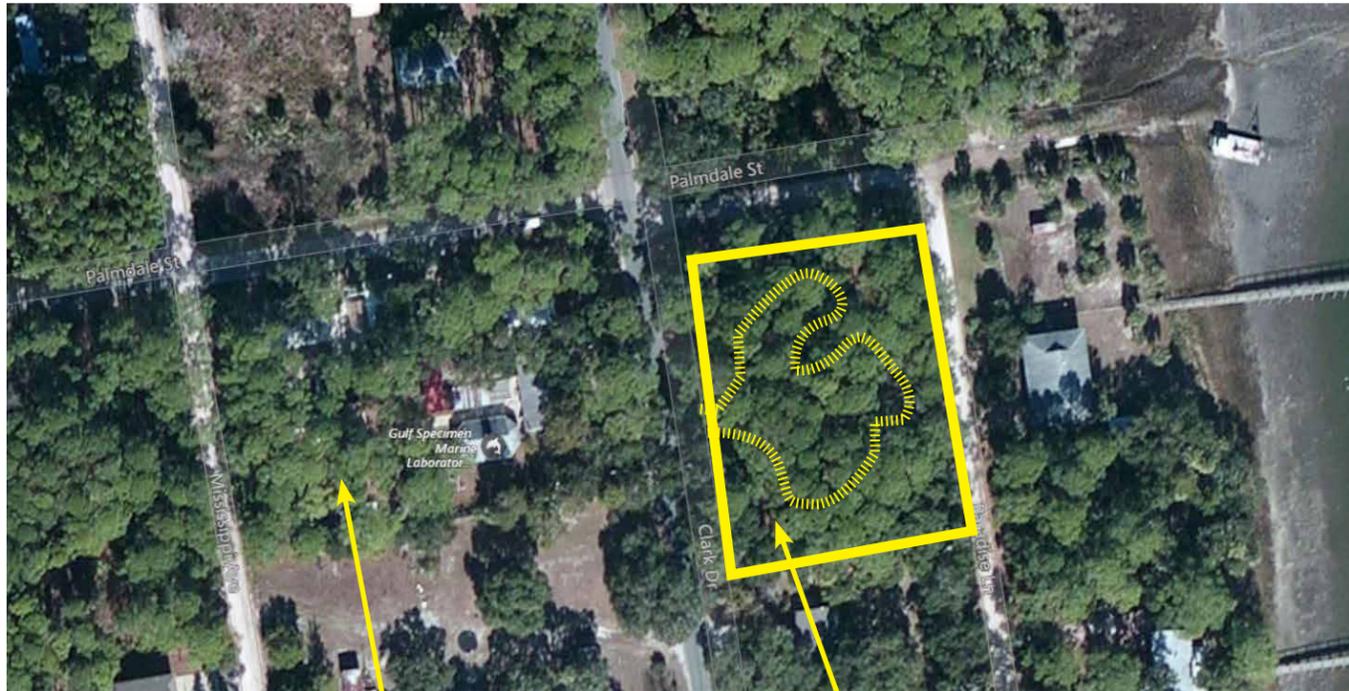
Florida has 180 species of butterflies - 170 are native. Using native flowering plants create a pollinator garden to attract butterflies, hummingbirds and wedding guests.

The University of Florida IFAS website (<http://edis.ifas.ufl.edu/uw057>) gives information on nectar plants to attract butterflies by specific region.



*Left: Flowering plantings with small plant identification signs*

# Gulf Coast Nature Trail



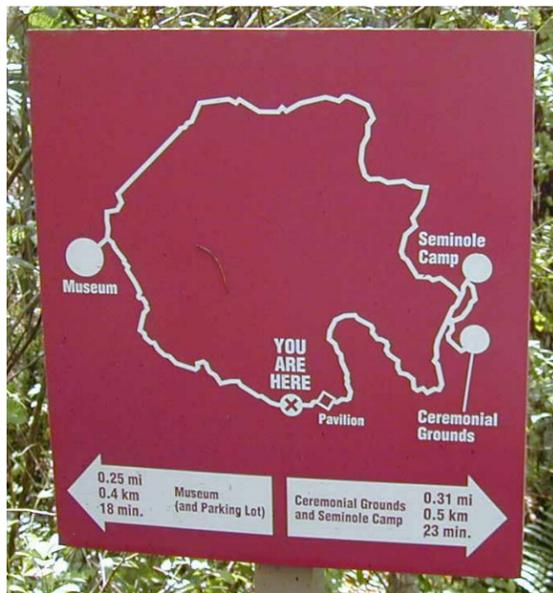
Gulf Specimen Aquarium grounds

Nature Trail area (path to be determined)

As a pre-emptive move to preserve access to the GSL&A, and because the parcels directly adjacent to the lab to the south within the same block were not affordable, two connected lots totaling 0.86 acres were purchased directly across the street (Clark Drive) from the Lab/Aquarium. Currently the perimeter sides of this property on Clark Drive and Palmdale Street are used for visitor parking. Because this property is physically separated from the main Lab/Aquarium campus by a city street, its development as additional aquarium exhibit space is unlikely. As such, it is envisioned that this property be used as an adjunct low impact second “free” campus consisting of a new Gulf Coast Nature Trail. In addition to its educational purpose, this trail can also serve as a “flow control” when more than one classroom bus arrives at the same time.

A .25 mile interpretive path through the property gives visitors an impression of the nature of the area. The path can be a boardwalk, a partial boardwalk, crushed shell or cleared ground.

A map at the beginning of the path will show highlights and the length of the trail. Another sign shows the birds and animals that may be in the area. Small plant and tree identification signs can be placed at points of interest.



# Gulf Coast Nature Trail Artifacts



*Objects to discover and pick up or touch can be placed (or fastened) along the path.*

*Several signs along the path explain that objects along the path may be picked up, but should be returned for others to enjoy.*

*Small signs next to animal habitats in the ground, in trees or at unique elements (fallen tree, ephemeral pool, etc) can explain what visitors are seeing*



# Gulf Coast Nature Trail Discovery

*For nests or views that are further away a stationary telescope pointed at the object, with an explanation of what is seen written inside.*



*A mirror mounted above a nest gives a view into the nest.*



*A metal ring set close to the object that is highlighted helps the visitor look through to see where the focus is.*

# 2<sup>nd</sup> Part

## Renovation Existing Facility



These pages are suggestions for changes to existing aquarium tanks to give the facility a cohesive look and enhance the appearance of guest areas.

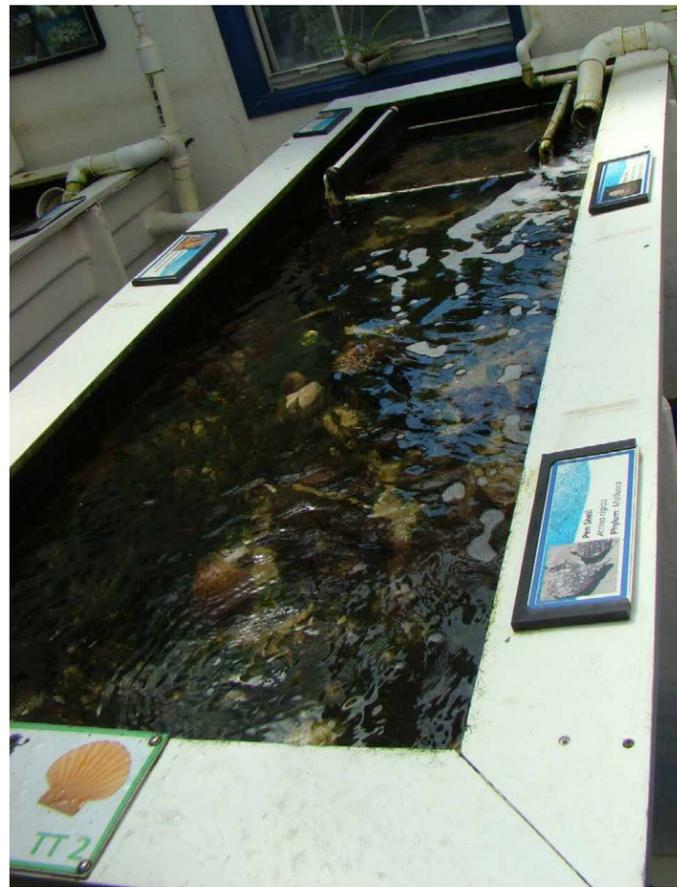
We also suggest that:

- specimen packing becomes part of the visitor experience
- the turtle hospital becomes part of the visitor experience.
- a wheelchair/family restroom be added to the grounds
- improved landscaping, and plantings be implemented throughout the visitor areas

# Renovation Limited Underwater Viewing

Because of the lab's original purpose of supplying marine animals to universities and other clients, most of the original holding tanks (and now also display tanks) are relatively shallow for easy access but possess no underwater viewing windows. As such, aquarium visitors must view most of the animals from above through the water surface which is problematic because the surface is disrupted by water flows in and out of the tank and the presence of oxygenating airstones.

Reflection and glare are also issues with surface only viewing, especially at the outdoor tanks.

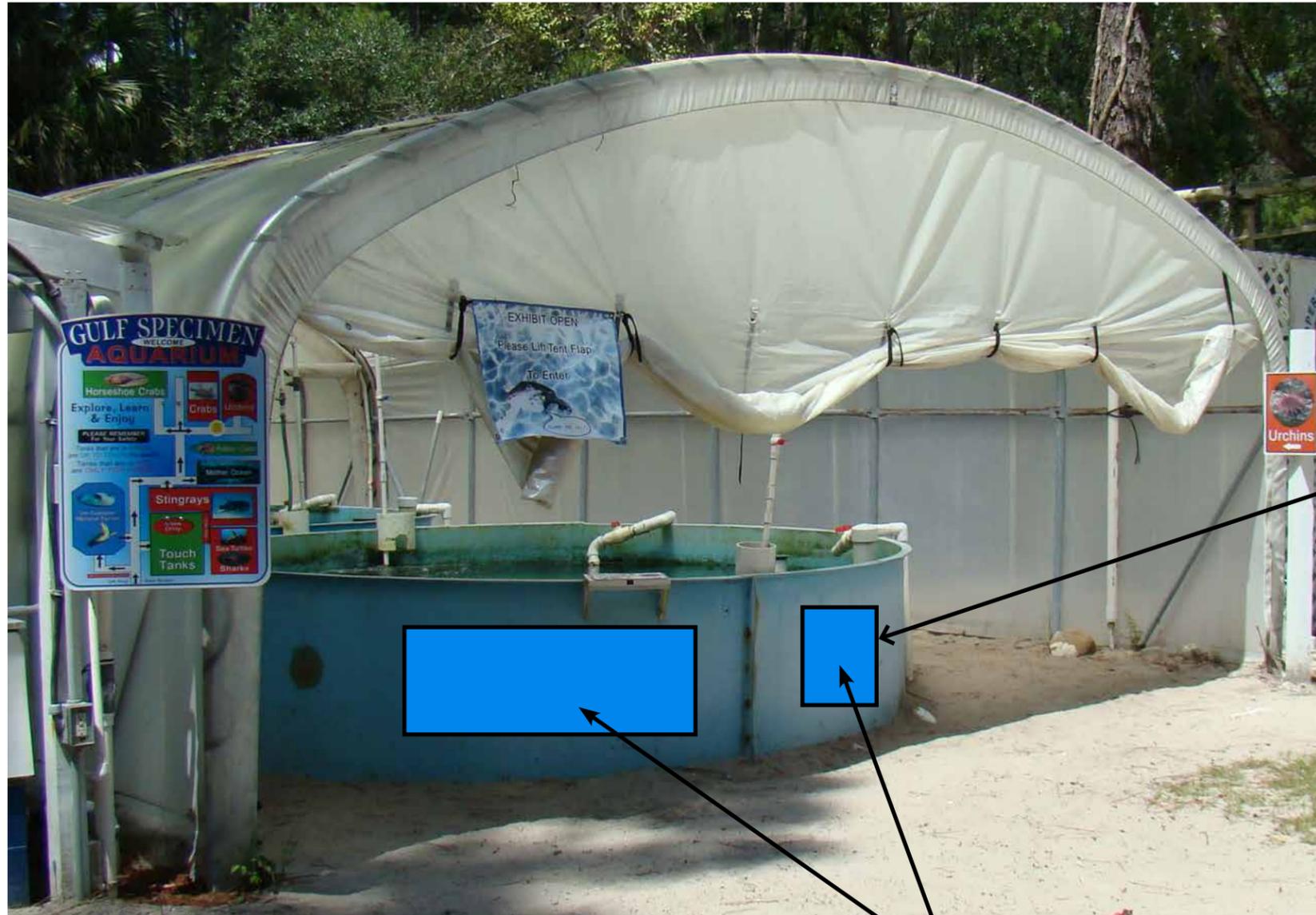


One solution for this (already in progress with the Octopus touch tank) is the addition of floating magnifiers.



# Renovation Limited Underwater Viewing - Solutions

This can also be rectified with certain of the existing tanks (i.e., those that are plastic or FRP and are deep enough to warrant) by simply cutting out a section of tank wall and adding an acrylic viewing panel.



Add pre-curved acrylic viewing panels to all FRP tanks

# Renovation Tanks



Original photo

Block view of background. In this photosketch the mirror is similar to the mirrors in the SEAMOBILE.

The blue distracts from what matters: the content of the tanks, the graphics or monitors. Color should mainly come from them.

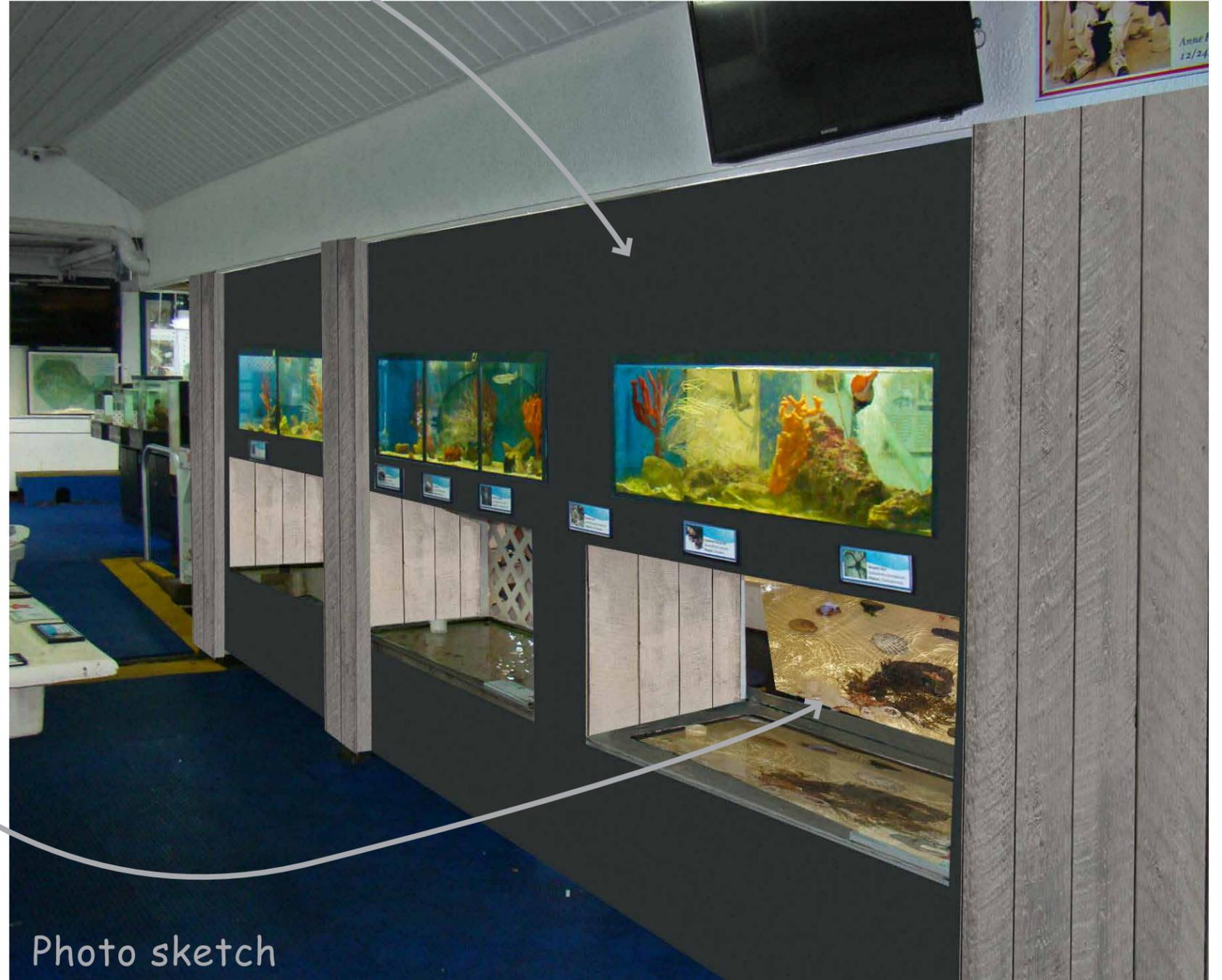


Photo sketch

# Renovation Tank ledge frames

Original photo



Frame from blue to a neutral color

Darker frame brings out the content. (think of a picture frame)

Larger graphic. Adds visual interest

Photo sketch



# Renovation Color scheme

The color scheme needs more thought and any preferences should be tested with large sample areas.

A darker color will better highlight foreground plants. Ideally minimal amounts of the fences or buildings will be visible.

Hiding them behind beautiful landscaping with climbing flowering plants is preferable.

*Further Photoshop testing needed.*



Original photo



Samples of various color schemes. Notice how darker colors make plants and graphics pop out.



Photo sketches

# Renovation Color scheme

Here, too, the color scheme needs more thought and any preferences should be tested with large sample areas.

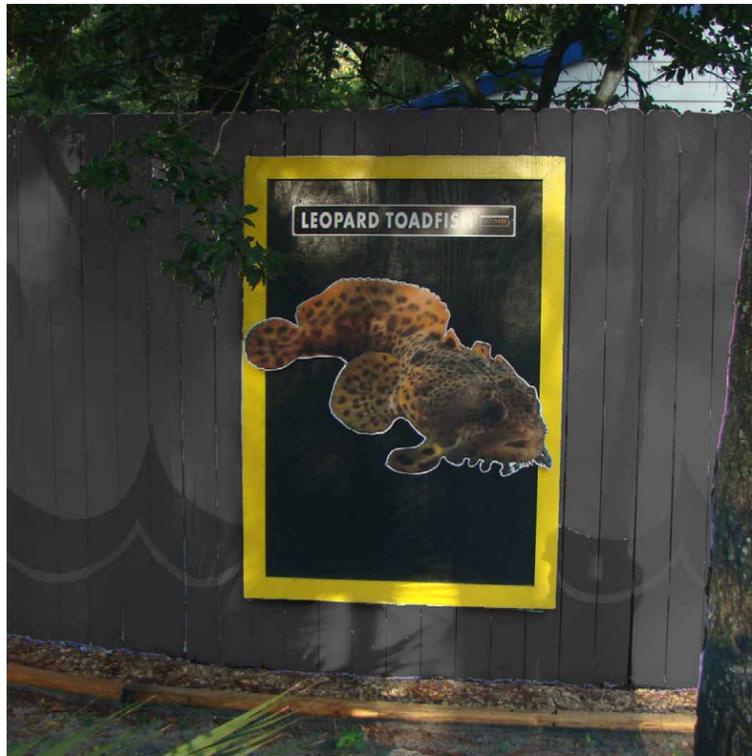
Notice how the yellow frame is brighter with darker background colors on the fence.

And again, little of the fences or buildings will be visible. Hiding them behind beautiful landscaping with climbing flowering plants is preferable.

*Further Photoshop testing needed.*

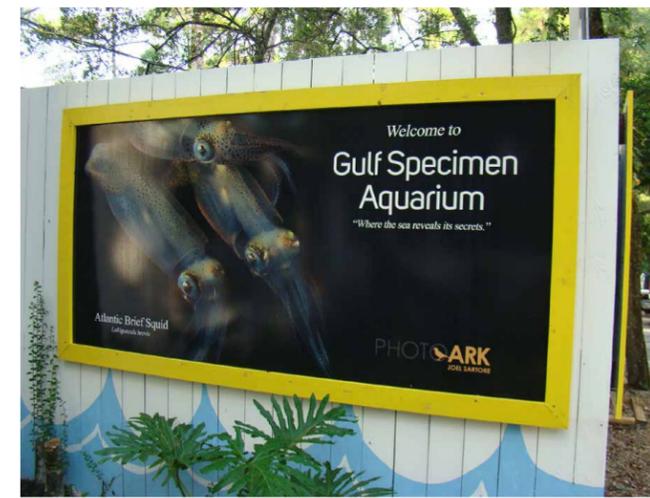


Original photo

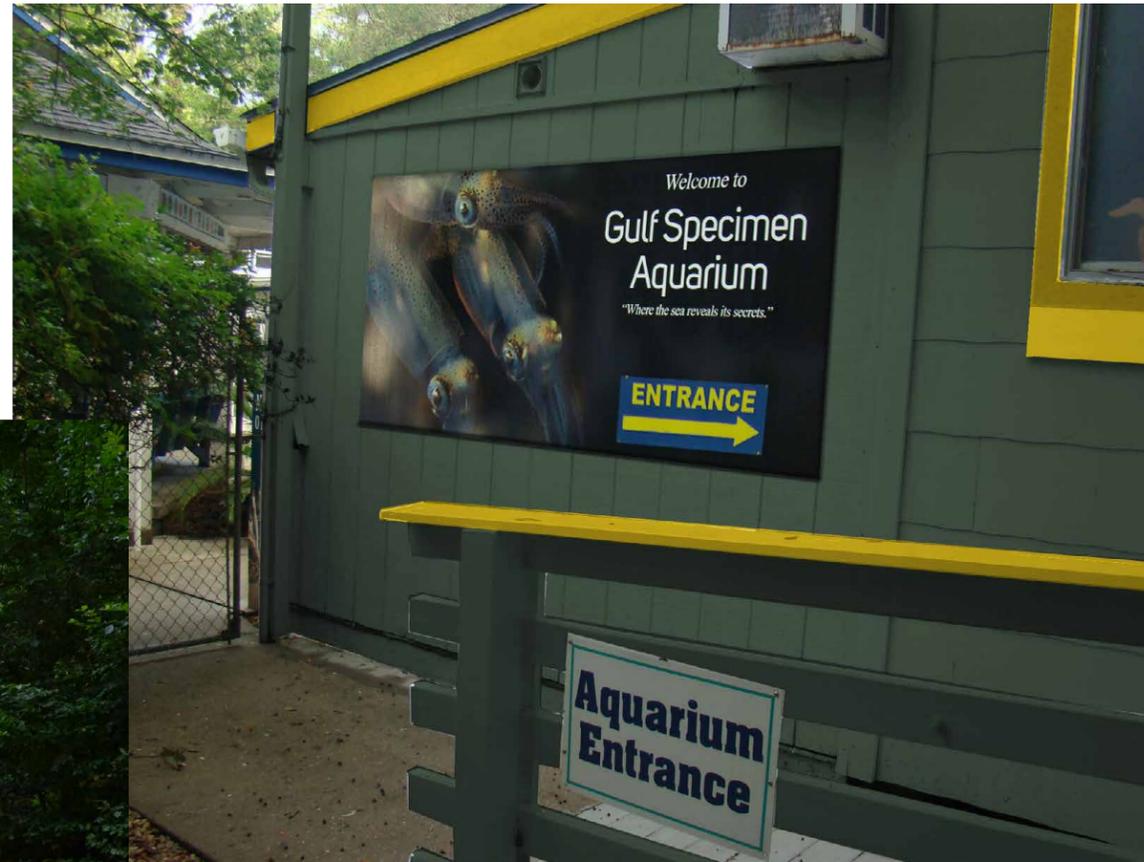


# Renovation Color scheme

Here: examples showing consistent use of a color scheme. Yellow is already used at the aquarium and could be part of the new color scheme.



Reference photo above: existing facility



Reference photo below: Tank at Vancouver Aquarium

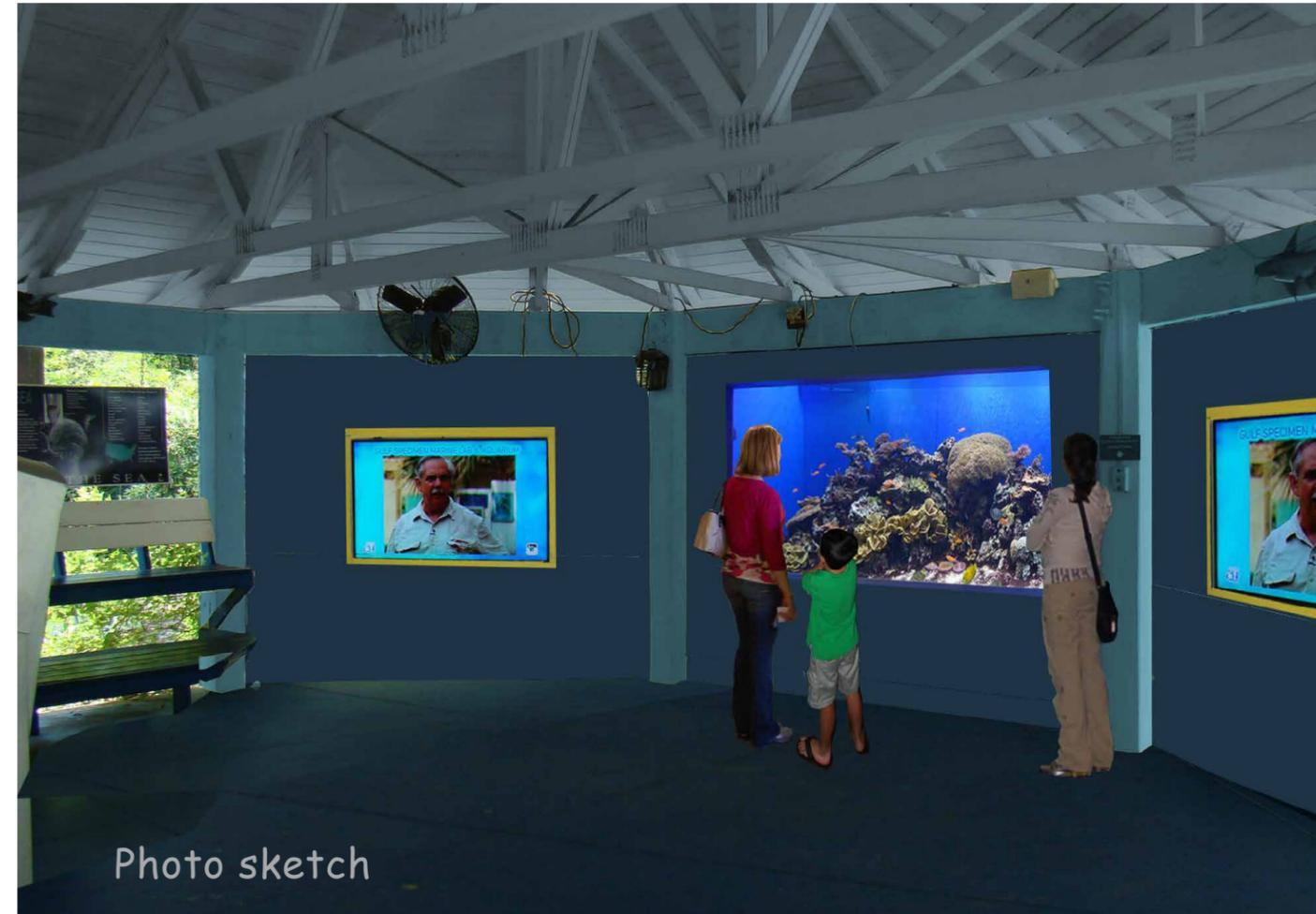
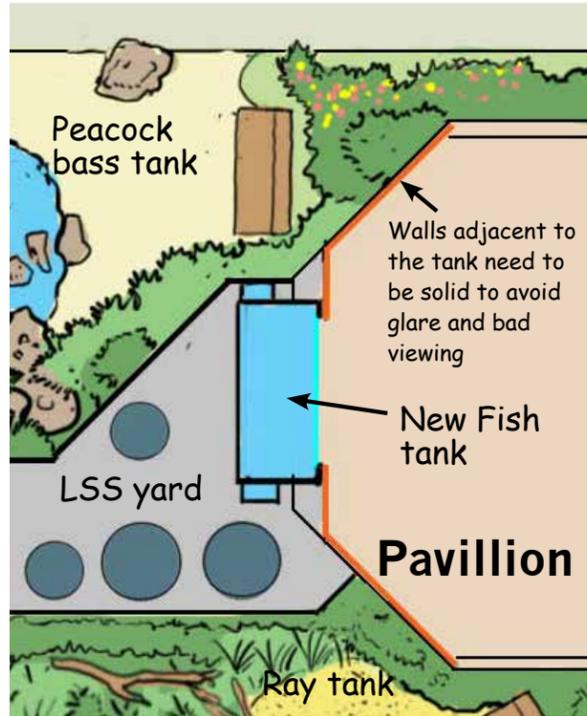


Left: A yellow frame, with a logo or some educational information could become a photo op for visitors.

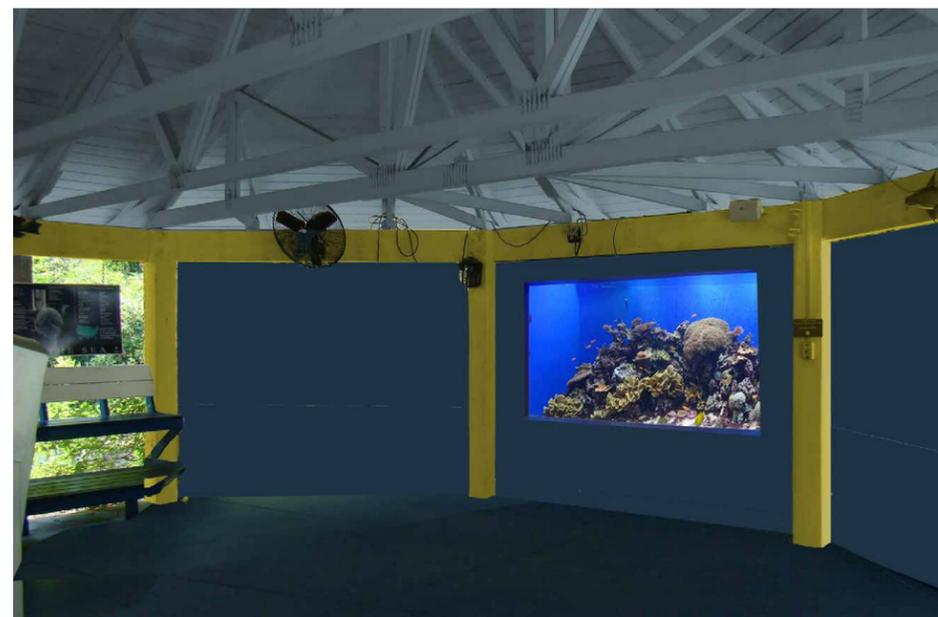
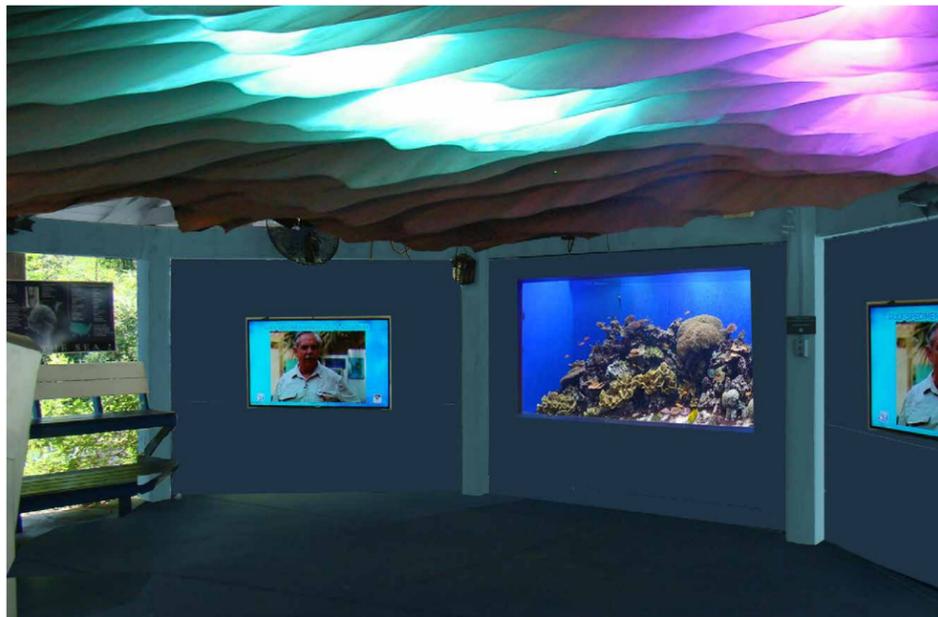


# Renovation Color scheme and a new tank at the Pavillion

An outdoor tank at the pavillion would add interest to the visitor path and create a highlight for event rentals.



A new tank in the center and two monitors right and left with video and/ or graphics and information.

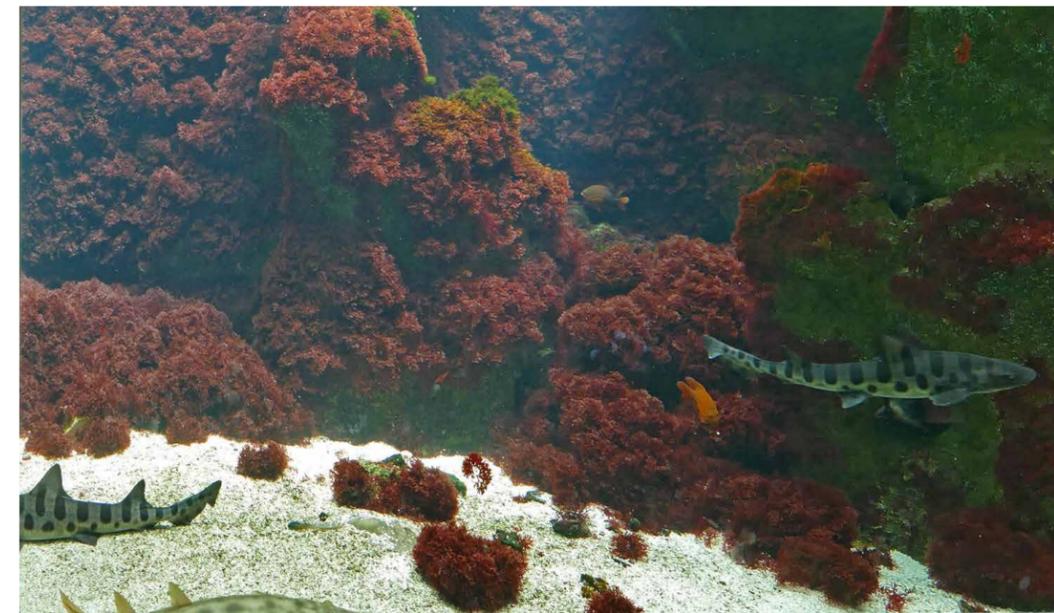
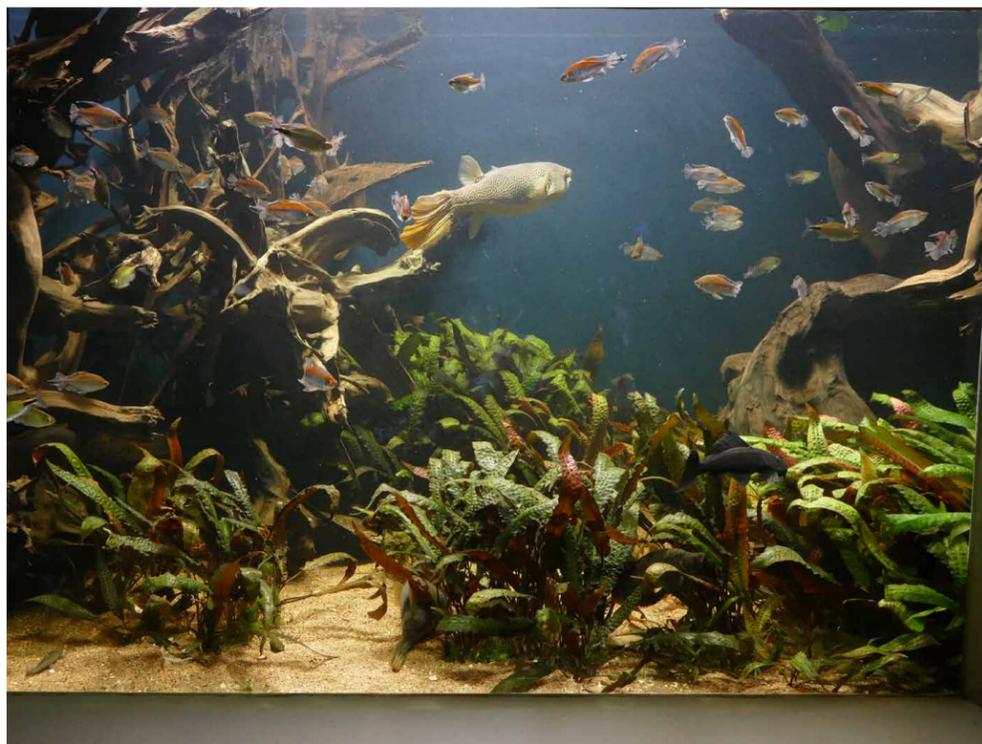
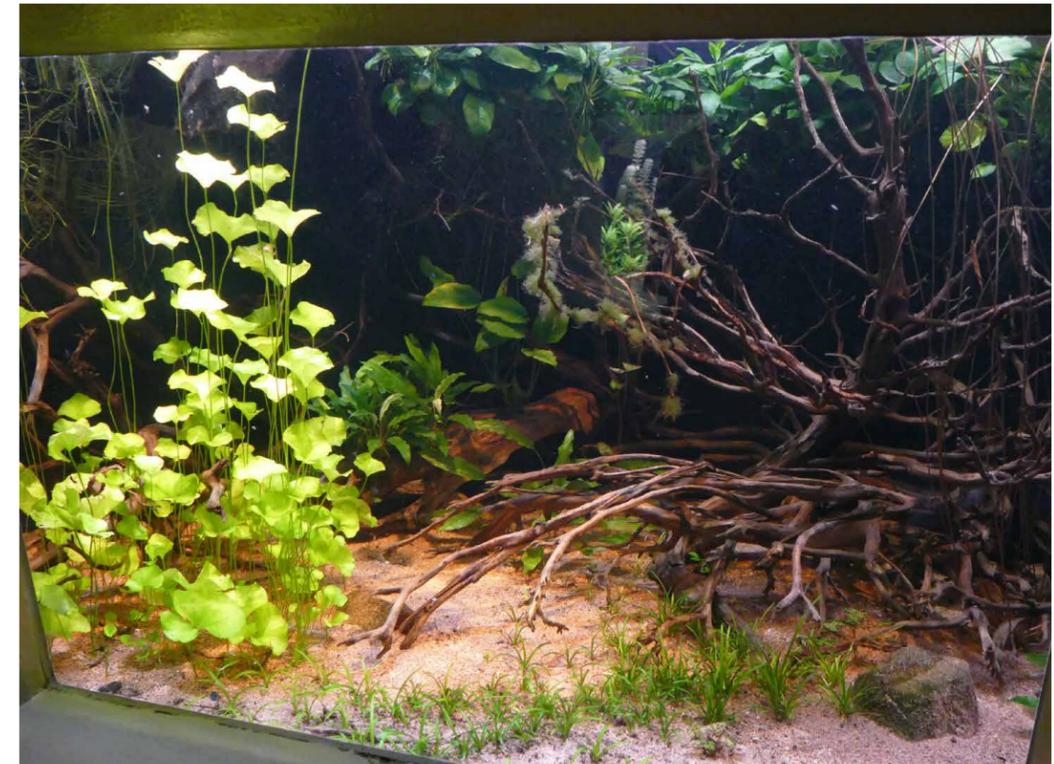




# Renovation

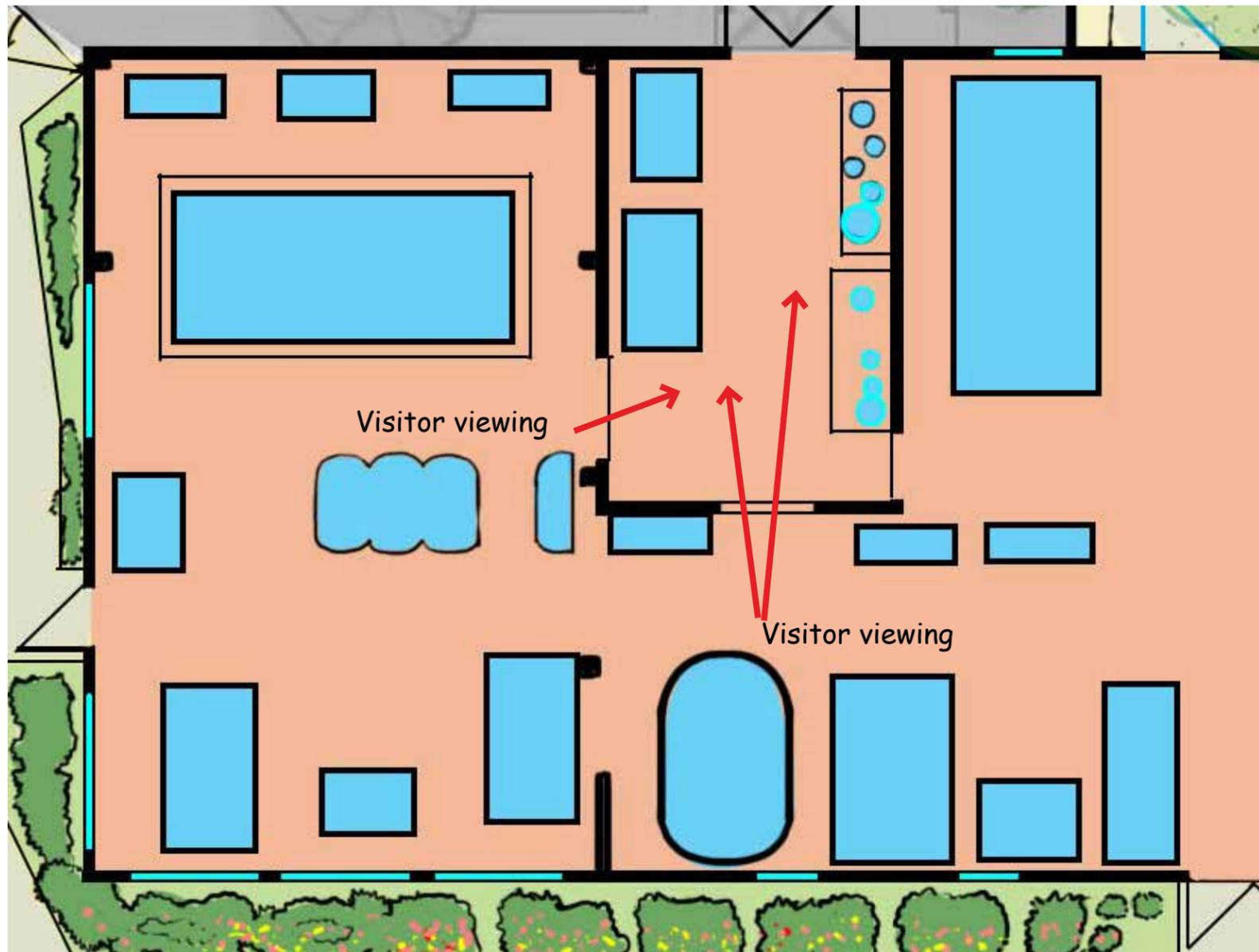
## New tank at Pavillion

This page shows beautifully decorated freshwater tanks (one tank is saltwater) as an alternative to the reef tank shown on the page before. Rain and sun might hit the tank and provide enrichment for the fish



# Renovation Packing

Located in the center of the main exhibit building lies the heart of the original specimen collecting and shipping business...The Packing Room! Presently this room is empty of activity much of the day and, although the visitor has side views into this room, its purpose is not explained at all or celebrated. This room too, because of its daily use, is showing much more “wear and tear” than other parts of the public aquarium. Our suggestion is to spruce up this room with new paint and new equipment, better lighting and trying best to eliminate all sources of rusting metal, to present a modern, scientific and aesthetically pleasing living and working exhibit! We suggest the relocation of the existing small aquariums which are blocking the direct view of the room and adding ID signage and graphics, along with a cool and narrated video of the packing process for those times during public hours when packing and shipping is not occurring live. This is an exhibit that will be unique to this Aquarium!





# Renovation

## Mother Ocean Building

Whereas the Main Building (Shark / Stingray / Touch Tanks) is very open air with a clerestory and many windows and doorways, which creates a nice well lit airy atmosphere, it makes aquarium viewing somewhat problematic with ambient light coming in from all directions. The Mother Ocean Building on the other hand, albeit smaller, only has two doors, one on each end and no windows. As such, this room can be better used for the addition of new live exhibits in a light controlled space. The room lighting in this room should only be used for cleaning and maintenance and should be turned OFF during public hours. The existing Octopus touch tank should remain but should only be illuminated by exhibit specific drop lighting.



Likewise, the also concrete-based tray exhibit on the far right could stay but the tanks swapped out for better enclosures, preferably those with return skimmers or piping to eliminate the overflow approach. This could be a good location for a mini jellies culture area. This tray might also be used as a new shallow touch tank for invertebrates.

# Renovation Mother Ocean Building (2)

The remaining exhibits however, which are mostly conventional glass aquariums on stands without any shrouds or masking or backing (allowing the less aesthetic aspects to be seen), should be replaced or remodeled as a gallery with aquariums viewed from one (or occasionally 2 or 3) sides, enclosed behind façade walls with all lighting and equipment hidden (accessed from the rear or from front panels).



This exhibit especially should be removed and replaced with a better exhibit that is more aquarium-like and more aesthetically pleasing.

# Renovation Monsters of the Deep

This is an exhibit of preserved deep sea animals in jars which are located inside a room but are viewed from the outside via fake “ship portholes”. The specimens are backlit or lit from above and can be rotated by the visitor by turning a crank which turns a small turntable upon which the specimen jar sits.



This is a very cool interactive but suffers from several easily-correctable mistakes:

1. The lighting of the specimens is much too dim. Since these are viewed from the outside, typically during daylight hours, the illumination of the specimens must overcome this outside ambient light. Replacing the existing dim and warm lighting with new aquarium-style LED lighting will make a huge difference. And the LED lighting will not impart any heat to the specimens as the current incandescent lighting is doing which may be affecting the clarity of the preservative (which should also be replaced with new, clear preservative).

2. The specimens are located inside an air conditioned room but are viewed from the outside, typically on a hot day. This causes the porthole viewing panel to condense on the outside which makes viewing the specimens very difficult. This can be rectified by swapping out these viewing panels with panes of insulated glass (two panes with a sealed airspace for insulation) or even a thick piece (3/4" or thicker) of acrylic which has good insulation properties at this thickness and above.



*Photos taken on a cooler February day with no condensation. Viewing panels might be crystal lenses for magnification but can still benefit from an insulated pane*

# Renovation Crab tanks



Graphics block view of underside of roof

Graphics block view to construction beyond

Landscaping added for beauty, education and screening

# Renovation Aquarium



Packing room monitor

Guard rails to block visitors from entering room

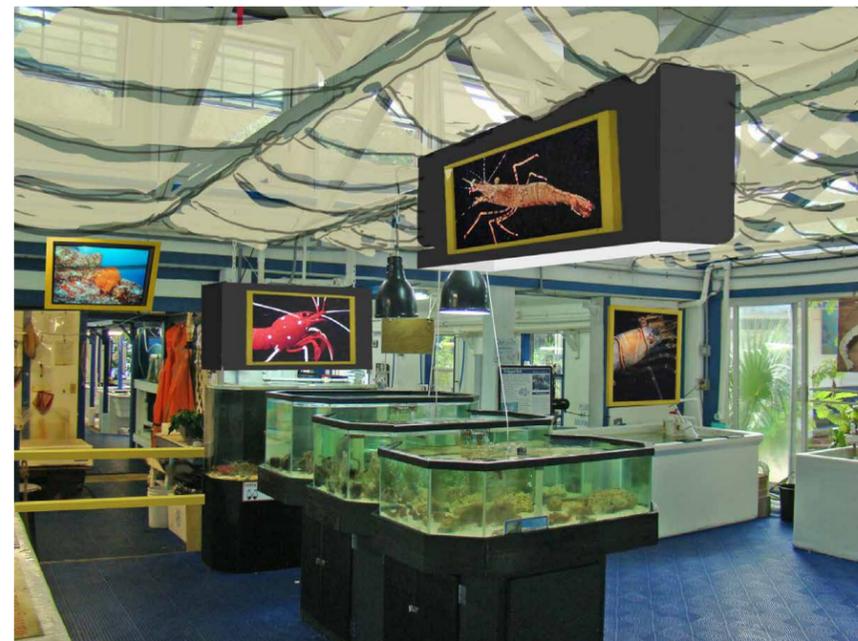
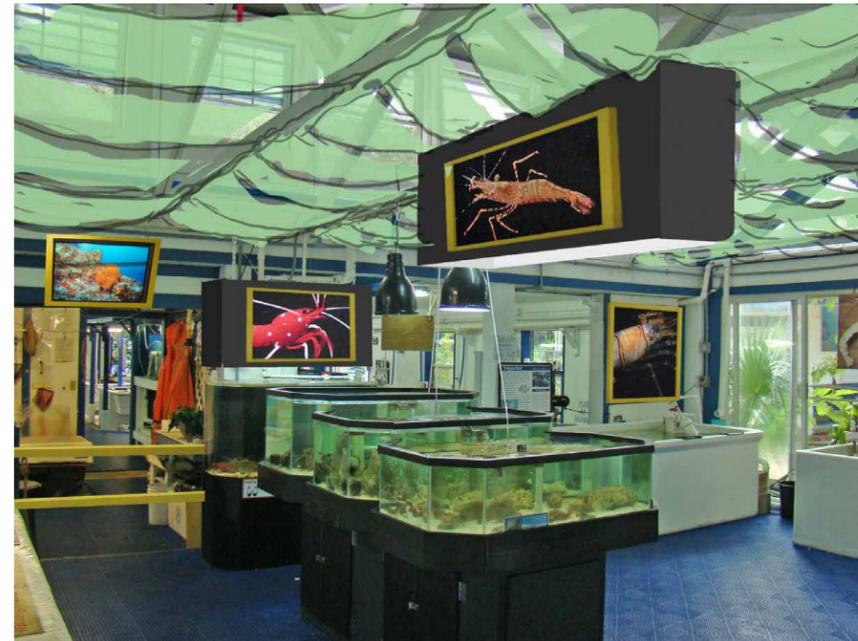
Screen the lighting so that it is not a distraction for visitors

# Renovation Aquarium



Photos from Sea World and Busch Gardens

Fabric will diffuse the light entering from the clerestory windows, prevent reflection in the tanks and allow air circulation.



GSMI PROJECT CASHFLOW MODEL - EXAMPLE TABLE

10 year plan for design, construction, and operation of new facilities

\$ 3,959,000 \$ 650,000 \$ 350,000

\$4,950,000

Table 1. Timeline and Personnel

FTE Equivalent	NACS Code	FTE Equivalent (based on NACS code)	Year												
			2018	2019	2020	2021	2022	2023	2024	2025	2026	2027			
Academic Technicians	712	0.57120914	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Collection Specialist	712	0.57120914	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Director of Education	61	0.70282207	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marine Educator-Life Support	61	0.70282207	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Marine Educator-Science	61	0.70282207	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Construction/Facilities Manager	55	0.80078905	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Janitor/Landscaping Technician	567	0.80078905	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tour Boat Operator (120 ton)	487	0.83407694	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Tour Boat Technician/Hand	487	0.83407694	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Marketing/PR Coordinator	5416	0.80078905	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Outreach Coordinator	5416	0.80078905	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
GIS Shop	44-45	0.79225494	0.0	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Seamobile Coordinator	5416	0.80078905	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Administrative	5613, 5612	0.80078905	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Bookkeeper/Purchasing Manager	5412	0.80078905	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
<b>Total Personnel (FTE)</b>			<b>6.5</b>	<b>12.5</b>											

Salary Structure (Dollar)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	
Academic Technicians	30,000	30,000	30,000	31,951	32,113	32,847	33,000	34,370	35,158	35,946	36,734
Collection Specialist	30,000	30,000	30,000	31,951	32,113	32,847	33,000	34,370	35,158	35,946	36,734
Director of Education	60,000	60,000	60,000	61,716	62,761	64,598	65,200	68,761	70,117	71,529	72,991
Marine Educator-Life Support	40,000	40,000	40,000	40,517	41,855	42,813	43,796	44,800	45,827	46,878	47,953
Marine Educator-Science	40,000	40,000	40,000	40,517	41,855	42,813	43,796	44,800	45,827	46,878	47,953
Construction/Facilities Manager	52,500	52,500	52,500	54,448	54,713	55,927	57,209	58,120	59,882	61,234	62,818
Janitor/Landscaping Technician	25,000	25,000	25,000	26,413	27,000	27,701	28,310	29,566	30,000	30,500	31,000
Tour Boat Operator (120 ton)	48,200	48,200	48,200	49,316	51,024	52,807	54,018	55,256	56,529	57,819	59,144
Tour Boat Technician/Hand	31,800	31,800	31,800	32,613	33,424	34,236	35,048	35,861	36,674	37,487	38,300
Marketing/PR Coordinator	42,400	42,400	42,400	44,806	45,813	46,824	47,915	49,058	50,183	51,313	52,450
Outreach Coordinator	38,800	38,800	37,725	38,500	39,475	40,380	41,295	42,210	43,125	44,040	44,955
GIS Shop	26,000	26,000	26,506	27,206	27,929	28,652	29,380	30,112	30,849	31,591	32,338
Seamobile Coordinator	31,800	31,800	32,613	33,424	34,236	35,048	35,790	36,542	37,294	38,046	38,798
Administrative	38,000	38,000	38,263	38,526	38,789	39,052	39,315	39,578	39,841	40,104	40,367
Bookkeeper/Purchasing Manager	38,000	38,000	38,263	38,526	38,789	39,052	39,315	39,578	39,841	40,104	40,367
<b>Salary Structure (Thousands of Dollar)</b>	<b>38,000</b>	<b>38,000</b>	<b>38,263</b>	<b>38,526</b>	<b>38,789</b>	<b>39,052</b>	<b>39,315</b>	<b>39,578</b>	<b>39,841</b>	<b>40,104</b>	<b>40,367</b>

Table 2. Expenditures

Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Academic Technicians	15,000	15,000	15,000	15,975	16,056	16,423	16,500	17,185	17,579	17,973
Collection Specialist	15,000	15,000	15,000	15,975	16,056	16,423	16,500	17,185	17,579	17,973
Director of Education	30,000	30,000	30,000	30,858	31,180	31,744	31,800	33,370	33,834	34,300
Marine Educator-Life Support	20,000	20,000	20,000	20,258	20,927	21,400	21,400	21,912	22,424	22,936
Marine Educator-Science	20,000	20,000	20,000	20,258	20,927	21,400	21,400	21,912	22,424	22,936
Construction/Facilities Manager	26,250	26,250	26,250	27,000	27,350	27,700	28,050	28,400	28,750	29,100
Janitor/Landscaping Technician	12,500	12,500	12,500	13,206	13,500	13,850	14,150	14,450	14,750	15,050
Tour Boat Operator (120 ton)	24,100	24,100	24,100	24,552	25,200	25,850	26,500	27,150	27,800	28,450
Tour Boat Technician/Hand	15,900	15,900	15,900	16,352	16,700	17,050	17,400	17,750	18,100	18,450
Marketing/PR Coordinator	21,200	21,200	21,200	22,406	22,900	23,400	23,900	24,400	24,900	25,400
Outreach Coordinator	19,400	19,400	18,362	18,900	19,400	19,900	20,400	20,900	21,400	21,900
GIS Shop	13,000	13,000	13,253	13,600	13,950	14,300	14,650	15,000	15,350	15,700
Seamobile Coordinator	15,900	15,900	16,352	16,700	17,050	17,400	17,750	18,100	18,450	18,800
Administrative	19,000	19,000	19,131	19,262	19,393	19,524	19,655	19,786	19,917	20,048
Bookkeeper/Purchasing Manager	19,000	19,000	19,131	19,262	19,393	19,524	19,655	19,786	19,917	20,048
<b>Subtotal</b>	<b>220,000</b>	<b>200,000</b>								

Project Description	NACS Code	CONSTRUCTION	LABOR	TOTAL Costs	Budget
Whittemore Exhibit	23	\$ 351,762	\$ 142,296	\$ 494,058	\$ 500,000
Whittemore Coast Walk to Rex Exhibit	23	\$ 222,880	\$ 86,352	\$ 309,232	\$ 300,000
Whittemore Coast Walk to Rex Pool	23	\$ 99,873	\$ 39,891	\$ 139,764	\$ 150,000
Whittemore Coast Ponds Beach Pool	23	\$ 103,853	\$ 41,381	\$ 145,234	\$ 150,000
Leahy Deck Complete	23	\$ 222,880	\$ 86,352	\$ 309,232	\$ 300,000
Frank Sawyer System Upgrade	23	\$ 235,480	\$ 84,382	\$ 319,862	\$ 355,000
Beck Sawyer System Upgrade	23	\$ 147,536	\$ 54,434	\$ 201,970	\$ 225,000
<b>SubTOTAL</b>		<b>\$ 1,580,000</b>	<b>\$ 645,000</b>	<b>\$ 2,225,000</b>	<b>\$ 2,225,000</b>

Operational Expenditures	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Management - O&M	92,000	92,000	92,000	92,000	92,000	92,000	92,000	92,000	92,000	92,000
Salaries and Wages	174,000	180,000	186,000	192,000	198,000	204,000	210,000	216,000	222,000	228,000
Travel	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Accounting Fees	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Insurance	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Advertising	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Other	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000
<b>Total Expenditures</b>	<b>2,837,000</b>	<b>2,885,000</b>	<b>2,933,000</b>	<b>2,981,000</b>	<b>3,029,000</b>	<b>3,077,000</b>	<b>3,125,000</b>	<b>3,173,000</b>	<b>3,221,000</b>	<b>3,269,000</b>

Table 3. Revenues (The Amount and Source of Funds)

Revenue Source	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Membership dues	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000	\$145,000
Academic Adventures Summer Camp/Summer Science Saturday/Coastal Bike Tours	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000	\$125,000
Specimen Sales	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000	\$316,000
Specimen Sales (scientific and biomedical)	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000	\$28,000
Tuition (based on 90 students)	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000	\$52,000
Program Service Revenue	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000	\$92,000
Good Sales	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000	\$117,000
Less cost of goods sold	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000	\$67,000
<b>Total Revenue (incl. Tuition)</b>	<b>\$1,242,000</b>									
<b>Total Revenue</b>	<b>\$2,210,000</b>									
Depreciation	\$275,000	\$441,000	\$562,000	\$683,000	\$804,000	\$925,000	\$1,046,000	\$1,167,000	\$1,288,000	\$1,409,000
<b>Overall Cash Flow Balance</b>	<b>\$935,000</b>	<b>\$769,000</b>	<b>648,000</b>	<b>527,000</b>	<b>406,000</b>	<b>285,000</b>	<b>164,000</b>	<b>43,000</b>	<b>\$1,000</b>	<b>\$1,000</b>



	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	SUM
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	
1. Please provide a Project/Program Budget. Include all applicable costs and other funding sources available to support the proposal.											
A. Project/Program Costs:											
Example Costs (Note: Not exhaustive list of possible Cost categories.)											
Construction	\$	\$ 3,724,000	\$ 254,000	\$ 200,000							\$ 4,178,000
Reconstruction	\$										
Design-Build-Engineering	\$										
Land-Acquisition	\$										
Land-Improvement	\$										
Equipment	\$										
Supplies	\$										
Salaries	\$	\$ 226,000	\$ 396,000	\$ 150,000							\$ 772,000
B. Other Funding Sources:											
Example Funding Sources (Note: Not an exhaustive list of possible Funding Sources.)											
City/County	\$										
Private Sources	\$										
Other (e.g., grants, etc.)	\$										
Total Other Funding		\$ 256,000	\$ 605,000	\$ 692,000	\$ 741,000	\$ 778,000	\$ 812,000	\$ 830,000	\$ 830,000	\$ 850,000	\$ 5,564,000
Total Amount Requested:											\$ 4,950,000
Project Total Amount											\$ 10,214,000
Total Expenditures	\$	\$ 378,000	\$ 462,000	\$ 663,000	\$ 813,000	\$ 864,000	\$ 866,000	\$ 866,000	\$ 862,000	\$ 868,000	\$ 468,000
Total Revenues (incl Triumph)	\$	\$ 5,037,000	\$ 2,105,000	\$ 2,139,000	\$ 2,221,000	\$ 2,372,000	\$ 2,476,000	\$ 2,566,000	\$ 2,656,000	\$ 2,725,000	\$ 2,798,000
Total Revenues (excl Triumph)	\$	\$ 3,361,000	\$ 1,641,000	\$ 1,805,000	\$ 2,172,000	\$ 2,332,000	\$ 2,477,000	\$ 2,567,000	\$ 2,657,000	\$ 2,726,000	\$ 2,799,000
Total Revenues	\$	\$ 6,812,000	\$ 3,566,000	\$ 3,702,000	\$ 3,794,000	\$ 3,936,000	\$ 3,981,000	\$ 4,023,000	\$ 4,113,000	\$ 4,181,000	\$ 4,266,000
	\$	\$ 276,000	\$ 464,000	\$ 569,000	\$ 613,000	\$ 666,000	\$ 669,000	\$ 669,000	\$ 669,000	\$ 669,000	\$ 468,000

match in cost match compensated out of Revenue requested



## **Addendum for Work Force Training Proposals**



### **GSML Intern Program**

The monies provided by this grant will allow us to expand both our public facilities and our training programs. As a result of this expansion we anticipate that our intern program will also expand. GSML has run an intern program since 2012 with 8-12 interns per semester (4). GSML provides interns with real world work experience in marine education, collecting and aquatic technician skills. Interns are juniors and seniors from FSU, FSU Panama City, FAMU, TCC, Valdosta State, University of South Florida, and Florida Gulf Coast University.

## **General Requirements:**

250 hours of onsite supervised work experience (two days per week 9-5)

12 completed academic assignments that are designed to increase knowledge of local habitats, invertebrate organisms, and fish health.

An onsite lab that covers sponge reaggregation, sea urchin embryology, and bioluminescence.

The GSML internships provide real life job skills. Normal job expectations are required. Interns learn accountability, calling in, making up work, doing what is required even when conditions are not optimal, (wet, cold, eaten up by gnats and mosquitos), They learn appropriate interaction with co-workers and supervisors, learn to take responsibility for the work and learn to work with the public. Most of their duties come from:

### **Live Specimen Collection**

Collection of marine organisms (at least four places and methods: tidal flats and sea grass beds, dockside fouling community, salt marsh seining, scallop dredge and/or shrimp trawl from boat).

Source and pack marine specimens for shipment to colleges, universities, and other aquariums around the country.

Participate in rescue, rehabilitation, and release of injured sea turtles following guidelines established by Florida Fish and Wildlife.

### **Education and Outreach**

- 1) Identify and discuss the over 250 marine organisms found at the aquarium on a regular basis.
- 2) Lead discussions of threats to the local habitats and organisms
- 3) Gain knowledge of local fisheries and history of seafood industry

4) Lead field trips that may include tour of aquarium only, aquarium and dock, or aquarium, dock, and a trip to salt marsh

5) Sea-Mobile Guide

6) Serve as docents helping the aquarium visitors to learn about the animals and habitats exhibited.

### **Tank Maintenance and Marine Animal Husbandry**

Cleaning and maintenance of a wide variety of aquariums from glass, acrylic, and fiberglass. Duties include: 1) siphoning detritus, 2) scrubbing algae off interior walls, 3) cleaning outside glass or Plexiglas, 4) ensuring that water flow and air flow are adequate, 5) regulating lighting, 6) arranging interior décor so organisms are visible but feel protected and secure, 7) using a swimming pool vacuum to clean large tanks, 8) daily inspection and removal of dead or diseased organisms. 9) breakdown and redo tanks as needed.

Supervised work involving maintenance of quarantine system for collected fish and shellfish. Prophylactic treatment of collected organisms before introduction into tanks. Introduction to treatment of diseased or injured fish or shellfish. Maintenance and cleaning of protein skimmers. Use of diatom filters. Check ozonator and ultraviolet light sterilization of water.

### **Water System Management**

Supervised work on water system including: simple PVC plumbing, , mixing of artificial sea salts, back flushing of filtration systems, maintenance of sand filters, protein skimmers, diatom filters, swimming pool filter, and sump.

Daily water quality assessment for salinity, pH, dissolved oxygen, nitrates and ammonia using both electronic probes and chemical test kits.

## Advantages

At the completion of their semester long internship in addition to their work experience; students usually receive up to three semester hours of credit through their college or university, we also provide a Marine Aquarist Technician certificate of completion that details the duties listed above, a family membership to the GSML for a year and sincere gratitude for all that they bring to the program and for their many hours of hard work. The internship prepares them for jobs with fish and wildlife services, aquariums and science centers, entry level employment with state or federal parks, environmental regulatory agencies such as DEP and EPA.

Several of our interns have gone on to graduate work at some of our best marine science schools (Rosentiel School of Marine and Atmospheric Science, University of Washington, Duke University and, of course, FSU and FAMU). Several of our alumni are now working for Coastal Science Centers around the country, fish and wildlife agencies in Florida and other states and some have gone on to work for politicians, helping to establish policy. Our interns with very few exception, have proven to be exceptional employees. Indeed we have filled several paid positions with former interns,

## Needs

These students need an intern center, somewhere they can eat lunch, put a spare set of dry clothes, house a library of field guides and reference books, and be set up with an area to meet with students individually and a conference table and projector to do classes and orientations. The center should house the intern coordinator's office, lockers for the interns to keep their personal belongings, a refrigerator and microwave, a computer to research things, and air conditioning.



## **GSML Marine and Ocean Technologies Internship Timeline**

### Week 1

Assignment 1: Learn GSML Flashcards

Pumping Systems: Types, Operation & maintenance, Limitations & performance

### Week 2

Assignment 2: Tour Outline

Electrical Systems: System requirements, safety, maintenance.

### Week 3

Assignment 3: Seaside Naturalists: 1, 2, & 15 Living in the Sea & Turtles

PVC Piping Systems: pipe sizing, valve types, laminar flow & instruments

### Week 4

Assignment 4: Fish Health Videos and Quizzes

Water Treatment Systems: Sand Media Filters—Operation, Backwashing, Media

### Week 5

Assignment 5 Dock Tour Outline

Water Treatment Systems: Ultraviolet Sterilizers—UV lamps, Lamp replacement

### Week 6

Assignment 6: Seaside Naturalist Chapters 3, 4, 5 & 6 Sponges, Cnidarian

Water Treatment Systems: Ozone Generators: Safety, Use in Seawater systems

### Week 7

Assignment 7: Seaside Naturalist Chapter 8 Worms

Water Treatment Systems: Protein Fractionators: Function & purpose, Flow

### Week 8

Assignment 8: Seaside Naturalist Chapter 9 Mollusks

Heat Exchangers – Operation & Maintenance, Geothermal / Electrical Heating

### Week 9

Assignment 9- Seaside Naturalist Chapter 10 Arthropods

Water chemistry: Meters, tests strips, titrations, spectrophotometry, Crosscheck

### Week 10

Assignment 10 -Seaside Naturalist Chapter 12 Echinoderms

Analytical Instrumentation: types and limitations, calibration.

Week 11

Assignment 11: Seaside Naturalist: Chapter 14 Fish  
Parameters of Marine System Health: dissolved O<sub>2</sub>, temperature, Nitrates,

Week 12

Assignment 12: Seaside Naturalist: Chapter 16 Marine and Coastal Birds  
Recognizing stress in marine organisms

Week 13

Assignment 13: Labs: Bioluminescence: Sponge Reagregation, Animal Development  
Sea Urchin example  
Lab Practical

Week 14 :Assignment 14 Fish Biology and Identification  
Fish Health



“Internship programs are extremely valuable when interviewing potential candidates for employment. When reviewing applications, we look for areas where potential employees have gone the extra mile - something that will separate them from all the other candidates. Internship programs fall under this category. An internship program is where the candidates can learn the basics of husbandry techniques such as feeding, nutrition, disease assessment, treatment and water quality. The Gulf Specimen Internship program not only includes these basic skills but also includes extras such as boating experience, collecting, and public speaking. These are all valuable experiences for future employment in a public aquarium environment.

As a major asset to this intern program, Jack is a phenomenal educator and author. I have personally observed Jack interact with visitors at Gulf Specimens Marine Laboratory teaching fun facts about each animal. As stated on the back cover of his book, Search for the Great Turtle Mother, "The facility, located in the quiet Florida Panhandle community of Panacea, offers tours of its aquarium to school groups and the public, teaching visitors about hundreds of fascinating creatures and the marine and estuarine habitats where they live." This is a perfect environment for an intern to learn.”

**Gary Vialetta**

**Director of Animal Husbandry SeaWorld Orlando**

[Letter of Support Sea World.pdf](#)

“The students from the GSML intern program interact with aquarium visitors on a regular basis serving as an explainer/educator while carrying out typical job responsibilities. They do daily maintenance, clean exhibits and back areas, make adjustments to water chemistries in exhibits, treat diseased fish, participate in diet preparation, and feed the animals in the exhibits. I understand that they also learn the ins and outs of filtration and water quality. This is basic knowledge necessary in many aspects of aquarium technology, and would be of great help to anyone going into the fields of recirculating aquaculture, aquaponics, mariculture, fish farming, or aquarium operation.

I would highly recommend this program for anyone beginning in a field related to Aquarium and Marine Technology.”

**Richard S. Brown**

**Director Flint River Aquarium**

[Letter of Ref Flint River.pdf](#)

## Addendum for Advertising/Promotion



**A. Is the applicant a tourism entity created under s. 288.1226, Florida Statutes?**

Yes. GSML has been a member of Visit Florida for over 20 years. See attachment I-Visit Florida

**B. Does the applicant advertise and promote tourism and Fresh from Florida? If yes, provide details on how it advertises and promotes tourism and Fresh from Florida. Yes**

GSML is a member of “**Fresh from Florida**” and displays their logo on our aquarium premises and in its advertising program. Working with the State’s Seafood and Marketing, we wrote manuals and created a market for cannonball jellyfish. Moving forward we plan to use the “**Fresh from Florida**” to create a market for “Dragon’s Tongue”, a tasty marine algae that can be sold live to sushi restaurants and gourmet Asian Markets. See example of how “Fresh from Florida” is displayed <http://www.gulfspecimen.org/specimen/mollusca/>

**C. Does the proposed award promote workforce and infrastructure on behalf of the disproportionately affected counties? If yes, describe how workforce infrastructure has been promoted on behalf of the disproportionately affected counties. Yes (If additional space is needed, please attach a Word document with your entire answer.**

GSML has become an anchor in Wakulla’s tourist industry, and has given local businesses and restaurants a substantial boost by marketing our aquarium, gift shop and ecotourism programs. We rely on the local community for our workforce and use local contractors and tradesmen in construction.

Over the past decade the number of tourists visiting our facilities, field trips, memberships and special events have grown exponentially as our facilities have upgraded and improved. \*See Attachment D

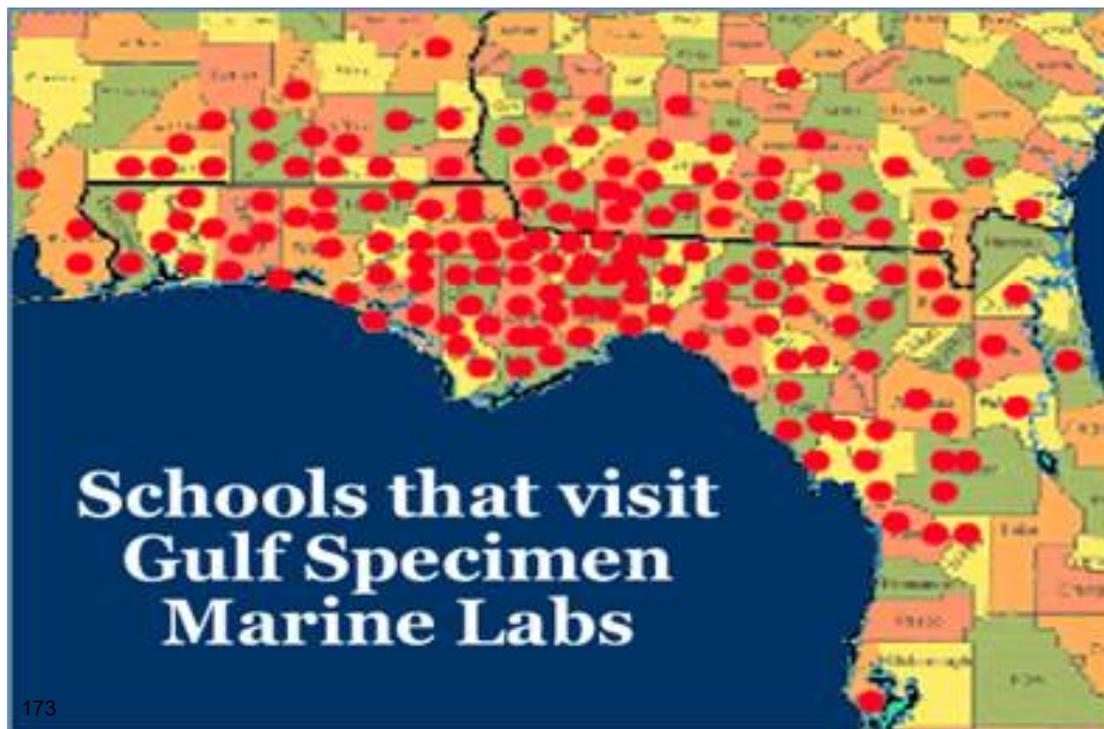
We enhance our community by making our traveling Sea Mobile available to regional schools and festivals. GSML also hosts free during community events such as “Christmas in Panacea”, “Rock the Dock” and Coastal Cleanup. The Sea Mobile brings life from the bays, estuaries and open waters of Wakulla County into local schools where the live specimens and standards-based

curriculum engage students with a unique, hands-on experience in marine science. As part of our environmental outreach program, we take our 20-foot Sea Mobile traveling touch tank system to schools and festivals throughout North Florida, South Georgia and Southern Alabama.

Building out Gulf Specimen Marine Lab's Master Plan into an expanded marine environmental education and entertainment center will increase visitor interest in Wakulla County. In addition to our Master Plan, we plan to have the world's first marine botanical gardens featuring the beautiful, colorful seaweeds which are abundant in the Florida panhandle. They will be used for aquarium display, for food, for beverage production and for research.

GSML plans to help establish the culture, processing and marketing of the locally abundant sea weeds and red algae, *Gracilaria* sp, which is made into a popular "sea moss" drink in the Caribbean and Ireland where it is sold as a health food and a powerful aphrodisiac. We would like to see this drink produced and marketed locally. Dr. Brian LaPointe, of the FAU's Harbor Branch Institute will assist in the construction of algae tumble tanks. Robbins McIntosh, Vice President of CP Foods, Inc. who manages some of the world's largest shrimp farms in Thailand, will consult on the design of the facilities and the development of curricula.

Additionally, GSML promotes the workforce and infrastructure by working closely with Workforce Florida, Career Service, the National Caucus on Black Aging, the Young American Conservation Corps, the Wakulla County Coalition for Youth and Mt. Adam's Institute (putting veterans back to work). Since the lab's conception it has given employment to over a hundred disadvantaged individuals and providing jobs ranging from clerical, janitorial, aquarium maintenance, hurricane clean up, trail blazing and construction. GSML also works closely with the courts and legal system, giving regional offenders the opportunity to work off their required community service hours and has received an award from the Governor's Council on Juvenile Justice. Aquarium field trips are also provided to the Big Brothers/Big Sisters of the Big Bend, the Big Bend Homeless Coalition, the Children's Home Society of Florida, the Lighthouse, the FSU School of Nursing and other organizations for free when funding is not available.



**D. Provide a detailed explanation of how the proposed award will connect to a broader economic recovery, diversification, enhancement of the disproportionately affected counties and/or enhancement of a targeted industry. (If additional space is needed, please attach a Word document with your**

Relatively speaking 19 new jobs in the tiny town of Panacea is huge and will make a major impact on an impoverished community that desperately needs economic stimulation. Improving our exhibits will increase the number of people who visit the aquarium and the average time per visitor spent in the aquarium. Longer visits will result in tourists having longer stays at local hotels, eating at local restaurants and patronizing shops in Panacea.

Upgrading our facilities and drawing more people to the area will bring new jobs to surrounding businesses. GSML has received hundreds of rave reviews in social, print and other media, it is still known as the “best kept secret in North Florida,” See

[https://www.tripadvisor.com/Attraction\\_Review-g34541-d1853110-Reviews-Gulf\\_Specimen\\_Marine\\_Lab\\_Aquarium-Panacea\\_Florida.html#REVIEWS](https://www.tripadvisor.com/Attraction_Review-g34541-d1853110-Reviews-Gulf_Specimen_Marine_Lab_Aquarium-Panacea_Florida.html#REVIEWS) and <https://www.yelp.com/biz/gulf-specimen-marine-laboratories-panacea-2>

The GSML will expand our ecotourism market with tour boats, beach walks and tram rides through our property inholdings on the trails of the St. Marks National Wildlife Refuge and canoeing and kayaking on Alligator Lake.

GSML revenue comes from ecotourism, specimen sales, aquarium memberships, donations, the Sea Mobile, school field trips, gift shop sales, research contracts, grants, and crowd funding drives and events. School field trips conducted on our 23 acres of private inholdings within the St. Mark’s Wildlife Refuge and on the boardwalk across our salt marsh property enables us to demonstrate both fresh water and salt water ecosystems. We highlight marine life from Wakulla, Franklin and Gulf Counties using artwork, graphics, an interactive kiosk and educational videos throughout the GSML facility.

Panacea needs ecotourism. It has the smallest population of Wakulla County. Over the years, it has gone from a boom to a bust economy. Back in the 1920’s it was a tourist attraction, with big hotels and people coming to “take the waters” of the Panacea Mineral Springs and go fishing with local guides After the depression, the town turned into a thriving fishing community, with nine crab houses and hundreds of seafood workers and fishermen. People caught blue crabs, stone crabs, mullet, shrimp and oysters. The crab industry collapsed from overfishing, nets were banned. The rise of imports and fuel prices put an end the commercial fishing way of life, until only a tiny remnant remain. The burgeoning real estate market has proven to be unsustainable and is often in conflict with environmental concerns, as forests and wetlands are destroyed in favor of housing development which damages the remaining commercial and recreation fisheries. Although there are forests of For Sale signs, most of the properties remain unsold largely due to FEMA regulations.

With the exception of Gulf Specimen, all the other attractions like Wakulla Springs and the St. Marks National Wildlife Refuge are located in the eastern part of the county. Wakulla County has two semi-public beaches, Mashas Sands Park and Shell Point are both small and shallow. Most of Wakulla's shoreline is salt marshes, oyster bars, grass and mud flats which are not conducive to swimming and recreation. Hence they are mostly bypassed by tourists, as they head to the popular beaches of Alligator Point, St. George Island and Cape San Blas which lie to the west.

Our existing facilities include over three acres of land with aquarium buildings, gardens, and inventory and display tanks that hold 80,000 gallons of sea water. These live tanks are supported by state-of-the-art sea water systems. GSML also has a 324-foot fixed dock with floating stalls, and a greenhouse used to culture phytoplankton, mysid shrimp and brine shrimp for aquarium food, both in house and for sale.

We own three boats, ranging from 16 to 26 feet, and three trucks. All are used for aquaculture, specimen collection and education. Our staff of eight paid Employees are assisted by numerous volunteers, and interns from FSU, FAMU and TCC.

Funding for Gulf Specimen's Master Plan was produced by the former vice president of Ripley's Aquariums USA and Canada will enable us to draw even more tourists to the area Expanding GSML's existing ecotourism program will be a boom to region, as well as Wakulla County. It will augment programs at Florida State University's Marine laboratory and TCC's Wakulla Environmental Institute. When people come down to the beaches of Franklin and Gulf Counties, having a unique world class nature center in Panacea will encourage them to extend their stays and explore the region. It will give them an additional place to visit and something to do. An upgraded attraction will also encourage them to eat seafood, and buy salt water products from local fish markets as well as eat in restaurants. Improving the exhibits will increase the time that people spend in the aquarium, encouraging them to stay longer, and eat at local restaurants.

Working with local businesses, plans are currently underway to overcome the lack of highway presence by branding Rock Landing road business community as "Fish Town." It will include a new oyster processing facility and a souvenir shop, the Rock Landing Marina, Mad Anthony's Restaurant, Gulf Specimen aquarium and Wakulla County's Commercial docking facilities.

With increased funding, we will be able to upgrade our outreach programs, increase our staff and expand our Sea Mobile program which brings more visitors that help boost the economy. Our goal is to make a strong connection between habitats, ecosystems, the shrimp, crabs and oysters that people love, the dinner plate, and the economy in a compelling, dynamic and unforgettable way.



**First lady Anne Scott looks at a sea urchin in the Sea Mobile**

**E. Provide a detailed description of the quantitative evidence demonstrating how the proposed will promote: Economic recovery, Economic Diversification, Enhancement of the disproportionately affected counties, Enhancement of a Targeted Industry.**

GSML continues to have a profound influence on the economy and sociology of Panacea over the past fifty years, and has remained a guiding force in protecting the environment. Residents have been exposed to visiting scientists, artists and writers that read Jack and Anne Rudloe's books, and came to visit. Working with Sachs Media of Tallahassee, we plan to expand our advertising and outreach programs which will help the disproportionately affected counties.

**2. Additional Information**

**A. Describe the advertising and promotion mediums and locations where the advertising and promotion occur** (If additional space is needed, please attach a Word document with your entire answer.)

Gulf Specimen uses a wide spectrum of advertising methods, which range from social media to highway advertising signs. Our advertising is nationwide however North Florida, Georgia and Alabama is targeted most heavily. Examples of advertising mediums are:

**Brochures and Flyers (Aquarium, Specimen Sales, Group Tours)**

- Semi-annual distribution (via in person delivery and mailings) to schools, daycares, and summer camps advertising Sea Mobile and Group Tours. 600-700 locations targeted.
- Annual mailing to universities and aquariums to market for specimen sales. 2400 locations targeted.
- Distribute at outreach events to advertise for the aquarium and the Sea Mobile. Average of 60 bookings per year.
- Monthly distribution to adjacent counties to advertise for public aquarium. 200- 250 locations are targeted across multiple counties to advertise for aquarium.
- Distributed at sea turtle releases to inform the public about our facility.
- 2000 brochures are sent to Florida Suncoast Tourism Promotions in June to be distributed throughout the year.

**Social Media (Facebook, Twitter, and Instagram)**

- Multiple platforms of social media are used to market for all aspects of the aquarium.
- Sea turtle release are advertised and promoted.
- Sea Mobile bookings and availability are promoted multiple times per year.
- Specimen sales are promoted multiple times per year.
- Promotion of special events. (Sharks and Chablis, Aquatic Adventures Summer Camp, Eco Tours, and other special events).
- New projects and exhibits are shared.

### **Constant Contact**

- Weekly emails are sent informing specimen sales customers about the animals that we have available.
- Sea turtle release information is sent to all members.
- All special event information is sent to all members.
- All new projects and exhibits are shared with members.

### **Phone**

- Calls are made multiple times per year to obtain more bookings for our outreach programs, the Sea Mobile and table displays.

### **Radio/TV**

- Multiple radio ads are played. (Oyster Radio, WFSU Radio, some TV public service.
- Commercials, local news

### **Sea Mobile**

- The Gulf Specimen Marine Lab Sea Mobile marine life educational traveling exhibit is a mobile aquarium complete with state of the art filtration system and able to house a wide variety of live marine life so that we can bring the aquarium to your school, festival, birthday party, or other special event. It holds 450 gallons of saltwater aquariums including 5 touch tanks with starfish, sea urchins, conchs, crabs, sponges and a variety of other interesting and colorful sea life from the Gulf of Mexico that are safe for children to pick up and handle. Also, 7 acrylic aquariums filled with octopus, stone crab, file fish, gorgonians, shrimp, and a variety of fish and invertebrates from the Gulf of Mexico. The Sea Mobile also has 2 Light microscopes with video camera adapters hooked to 2 LCD 46 inch flat screen televisions that allow visitors to see the intricate details of a sponge or tiny creatures such as amphipods swimming across the screen. There are also 2 Blue ray players hooked to the televisions so we can also play informational videos. Gulf Specimen Marine Lab has worked with school teachers to design lesson plans that meet federal and state standards, are formatted to specific grade levels, and teach children of varying ages about sea life, marine biology, and the conservation of our marine resources. Lesson plan topics include: sea turtles and their food webs, marine invertebrates major phylums, and more.
- <http://www.gulfspecimen.org/sea-mobile/>

### **Websites**

- [www.visitflorida.com](http://www.visitflorida.com)
- [www.visitwakulla.com](http://www.visitwakulla.com)
- [www.visittallahassee.com](http://www.visittallahassee.com)
- [www.apalacheebay.org](http://www.apalacheebay.org)
- [www.aaa.com/travelguides](http://www.aaa.com/travelguides)

### **Other advertising**

- Road signs

- Billboards (rented occasionally)
- 850 Magazine
- Tallahassee Magazine
- National Geographic
- Florida Environmental Outreach Magazine
- New York Times
- Tallahassee Democrat

?

**B. Detail the current status of the advertising and promotion that will be supported by the proposed award and provide a detailed description of when and how the proposed award will be implemented. (If additional space is needed, please attach a Word document with your entire answer.) See Attachment O- Media Proposal**

As you can see from the list provided in Question 2,A. The GSML has an extensive ongoing advertising and marketing efforts. With additional funding the GSML will be able to expand our advertising efforts and hire a local firm to implement a 6 month targeted marketing campaign to draw in new visitors, raise donations and increase memberships.

**C. Provide any additional information or attachments to be considered for this proposal. (If additional space is needed, please attach a Word document with your entire answer.)**

See Visit Florida Promotional video of GSML

[https://www.youtube.com/watch?v=LMy4\\_cE4YaU](https://www.youtube.com/watch?v=LMy4_cE4YaU)



[Who is Gulf Specimen.pdf](#)



"Where Recipes Are Born ... Not Copied"

# Hutton's Seafood and More

3096 Coastal Hwy, Medart FL 32327




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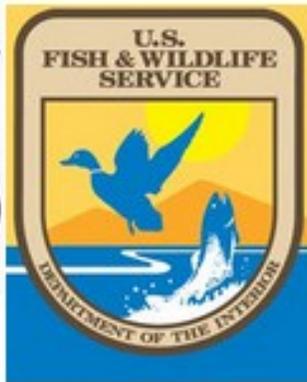
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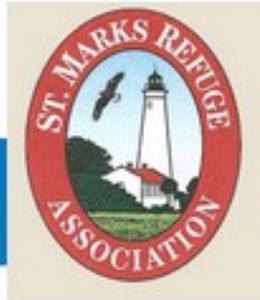


Apalachicola  
National Forest



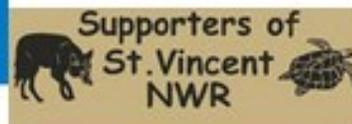
National Wildlife  
Refuge System

St. Marks



National Wildlife  
Refuge System

St. Vincent Island



Supporters of  
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NWR



Edward Ball Wakulla  
Springs State Park



Wakulla Springs State Park



Ochlocknee River  
State Park



St. Joseph Peninsula  
State Park



Dr. Julian G. Bruce  
St. George Island State Park



GSTC on Facebook  
facebook.com/GeorgiaSeaTurtleCenter



# Local & National Recognition For Rudloes' Conservation Efforts



Anne Rudloe, 12/24/1947 to 4/07/2012

*"Protecting the earth gives meaning and wholeness and a sense that you are contributing to a greater good. This earth should not be allowed to disappear. Now it is your turn."*

Anne Rudloe, Co-Founder of Gulf Specimen Marine Lab, in a speech upon receiving the 50th Annual Chevron/Texaco Environmental Award in 2005.



## Gulf Specimen Gets National EPA Award

Jack and Anne Rudloe, owners of Gulf Specimen Marine Lab in Panama, recently learned that the lab has received national recognition as an award winner in the U.S. Environmental Protection Agency's Gulf of Mexico Program.

The Rudloes were notified that Gulf Specimen Marine Lab is the third place winner of the Gulf Guardian Award for 2003 in the Youth and Education category. The award will be presented at the Southern States

tions, government, and partnership efforts.

Gulf Specimen Marine Lab has spent more than 40 years protecting the gulf coast through education and activism. Many of their education campaigns have focused on creating awareness of the importance of healthy estuaries and coastal salt marshes. The lab has made a point of focusing on opportunities for children to experience biology hands-

on through marsh field trips and special "touch tanks."

Jack and Anne Rudloe have published eight books and have had numerous articles printed in major national magazines dealing with protecting the Gulf from pollution. They also have years of experience and have conducted extensive research in sea turtle rehabilitation.

"Our oceans and coasts are

priceless resources," said Jimmy Palmer, U.S. Environmental Protection Agency Regional Administrator in Atlanta. "Coastal and marine waters provide some of the most diverse and biologically productive habitats on the planet," he added. "This year's Gulf Guardian Award winners are doing their part to keep these valuable resources healthy and productive."



[GSML named ChevronTexaco Conservationist of the Year 2004](#)



Jack Rudloe, President & Founder of Gulf Specimen Marine Laboratory, receiving the 2003 Gulf Guardian Award for Youth Education from US EPA Region 4 Administrator Jimmy Palmer, and US EPA Region 6 Administrator Richard E. Greene at the Southern States Environmental Conference in Biloxi, Mississippi.

American Association of University Women

2009

Outstanding Community Women Awards Luncheon

2009

AAUW Outstanding Community Women

Anne Rudloe, Ph.D.



Dr. Rudloe lives in Panama, Florida where she and her husband Jack run the Gulf Specimen Marine Laboratory. She is the Managing Director of the Lab where she has led its transformation into an award winning non-profit environmental center and public aquarium.

She is the author of 18 scientific research publications in the fields of animal behavior, marine ecology and endangered

## Gulf Specimen Receives Environmental Award

The Wakulla County Chamber of Commerce awarded the first annual Environmental Stewardship Award on Monday, Sept. 26, to Gulf Specimen Marine Laboratories, Inc. The award was accepted by Jack Rudloe, vice president, and Anne Rudloe, president.

ment and Wakulla Medical Center.

The criteria used for selection included: use of environmentally sensitive building materials and methods; groundwater protection efforts; limiting use of chemicals and/or pesticides; use of alternative energy sources; and an educational component; and



Mary Ellen Davis With Jack And Anne Rudloe

# Tribute: Anne Activist/Educator

Anne Rudloe's courage and unwavering commitment to the environment, her family, the many students that found enthusiasm for preserving vital wetlands due to her guidance and instruction, is unmatched. Her legacy lives in literary work, scientific research and the educational center she helped found and directed until her death in 2012.



[A Memorial to Anne Rudloe](#)



"We slog through marshes, pull beach seines, snorkel in sea grass meadows, hike across barrier islands, go down the watershed of an undeveloped estuary, and discover the rare, endemic wildflowers blooming in the globally endangered longleaf pine forests that grow behind the salt marshes,' she wrote in the 2002 spring issue of FSU's marine lab newsletter. 'The professor of record—me—is often upstaged by the real teachers of this class—the land and sea themselves.'"

- Anne Rudloe quoted by Elizabeth Bettendorf in "A Place, A Purpose, A Panacea,"  
[Florida State University Research in Review Summer 2009](#) (link to full article)



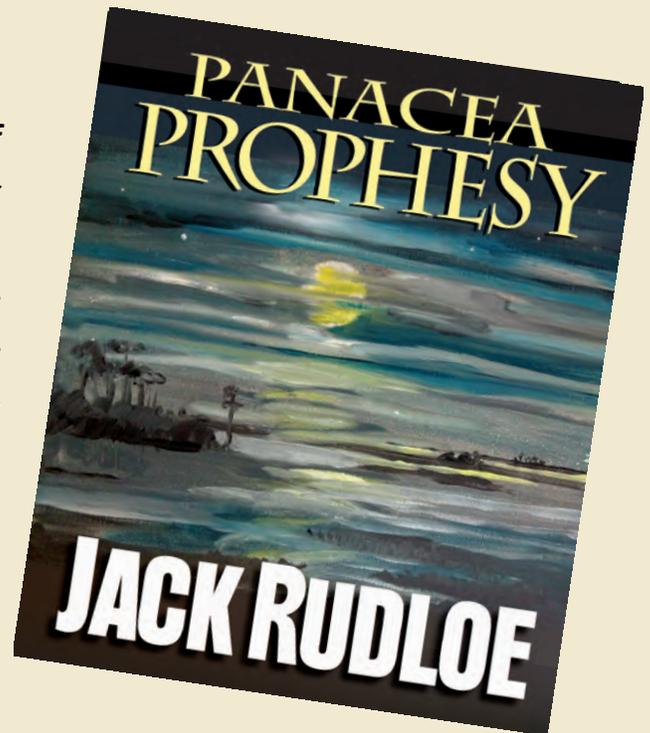
# Still in the Fight

Read the full article and other letters @ [Save Our Wetlands](#)



***“Laden with the author’s customary blend of humor and unapologetic candor, the book chronicles Rudloe’s capers on behalf of his beloved coastal wilderness. Expected release Summer 2014, Panacea Prophecy whispers with the ghosts of dredged marshland begging us this time to take heed.”***

- Preprint Book Summary



Rudloe Reach		
Vehicle	Time Span	People Reached*
Gulf Specimen Aquarium Visitors	1980 - 2013	350,000
SeaMobile Audience	2010 - 2013	175,000
Rudloe Books	1968 - 2010	100,000
<a href="#">Lecture Appearances</a>	1966 - 2014	25,000
<a href="#">Network/Cable TV News Appearances</a>	1976 - 2011	20 million
<b>Total</b>		<b>20,650,000*</b>

# Christopher Still's Paintings at Gulf Specimen



In 1968 I was only seven years old when my dad was studying at Florida State University. We had moved from our home in Dunedin and were far away from the beach that I loved. My dad discovered the Gulf Specimen Marine Laboratory and brought me here for a visit one weekend. What a day that was! Jack Rudloe showed me sea squirts and pulled creatures from the tanks fueling my imagination. It was a lasting and impressionable experience. I would pour over the Rudloe's book, "The Sea Brings Forth" for years to come.

We returned to the Tampa Bay area where I pursued my love for art. After studying at the Pennsylvania Academy of the Fine Arts and in Europe I decided to return to Florida. Now some 40 years later when I heard about the oil spill, I rushed to the Florida panhandle to paint the endangered coastline. On my trip back I was passing through Panacea and saw a once familiar sign and made a stop here.

When I walked into the Gulf Specimen Aquarium and saw the touch tanks and met the founders Anne and Jack Rudloe, all of those memories came back. I realized that the trip to the Laboratory as a child had a great impact on my life. Many of the details in recent works are still distant memories of that day. I decided with the Rudloes that my artwork should be a part of this very special place. So with the concern and generosity of Jimmy Buffet, we made reproductions of the artwork before you. The originals can be viewed in the Florida House of Representatives in Tallahassee and the Sandpearl Resort in Clearwater.





## **MARINE ECOTOURISM COMPONENT**

Gulf Specimen Marine Lab and Aquarium currently hosts a number of ecotourism activities. We would like to offer several others in keeping with our mission to educate people concerning the sea life of the northern Gulf of Mexico. The list below gives existing ecotourism activities first in normal type, followed by proposed ecotourism programs in italics.

**Public Aquarium:** A uniquely open and hands on aquarium facility within 40 minutes of the state capital. An abundance of touch tanks with living invertebrates to pick up and inspect, make the facility a destination for visiting family and friends. Sea stars, snails, crabs, lobsters, sea urchins, sea cucumbers, sea pansies, sea pork, sea squirts, horseshoe crabs, ctenophores, comb jellies, sponges, fiddler crabs, and worms are among the touchable examples of our rich Gulf waters. In “looking only tanks, tourists can get an up close look at sharks, sting rays, octopus, sea horses, red drum, trigger fish, remoras, cobia, and jacks. Touted by fans as “Where the Sea Reveals its Secrets.”

**Guided Aquarium Tours:** A docent, intern, or staff member will take groups around the facility showing a pantheon of changing specimens and commenting on their unique features.

**Guided Aquarium and Dock Tours:** For some groups the Aquarium is not enough, their hand’s on experience is extended by visiting the living dock at Panacea, and exploring the fouling community, passing through the salt marsh and viewing an a forming oyster reef.

**Guided Aquarium, Dock and Salt Marsh Seining Excursion:** The adventure continues for some by taking groups at the end of their dock tour to a sandy bottom location where they seine for small fish, and shellfish in the salt marsh the Gulf’s nursery of seafood.

**Kayak Rentals:** Tourists are able to rent kayaks by the hour to explore the shallow waters of Dickerson Bay a portion of the Apalachee Bay estuary.

**Aquatic Adventure Camp:** Each June, GSML hosts four one week day camps. The camp highlights activities and exploration of Aquatic environments, for 6 through 12 year olds.

**Summer Science Saturday:** The staff at GSML also holds classes centered on marine life each weekend during the summer. These lessons are designed for 6 to 12 year olds as well, and includes both instruction and a craft activity.

*Proposed educational ecotourism activities include:*

**Boat Tours:**

*Educationl Theme: History of Seafood in Panacea.*

*Limited to 30 people (10 person minimum)*

*One hour in duration*

*Cost \$15.00 (Adults);, \$10.00 ( members and groups of 15 or more); \$12.00 (Veterans and Seniors)*

*Educational Activities*

**Oyster Tonging:** *History of Oysterin in area from 1850's to present.*

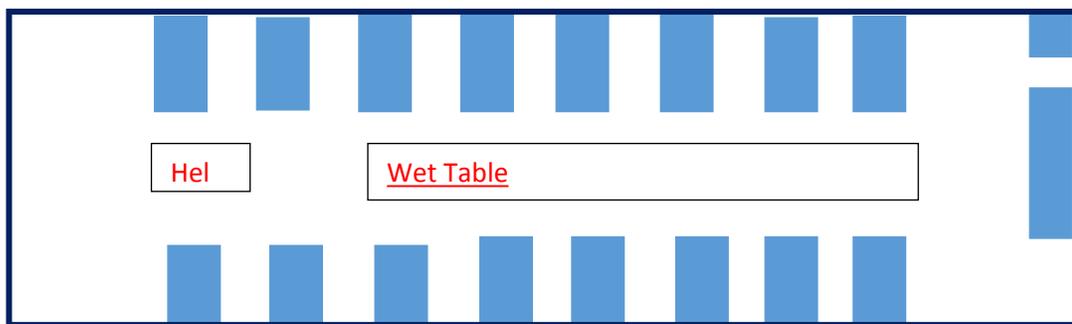
**Check Crab Traps:** *Discussion of crabbing both for blue and stone crab.*

**Cast Net for Mullet:** *Discuss importance of mullet world wide gill net ban, etc.*

**Pull Shrimp Trawl:** *History of local shrimping, show penaeid shrimp, discuss bycatch and turtle exclusion devices.*

**Rig a pole for Grouper fishing:** *Discuss local grouper and where they go to fish.*

**Recreational Fishing:** *Discuss importance of recreational fishing to local economy and note commonly caught recreational species.*



## **Kayak Tours**

*Educational theme:: Estuarine Habitats*

*2.5 to 3 hours*

*Cost \$40.00 (Adults)      \$25.00 (Groups over 10 and children}*

*Limited to 12 people*

*Take visitors on a marked kayak and canoe trail. Discuss importance of estuary, paddle should include saltmarsh, oyster reef, turtle grass bed, sand or mud flat, and shell hash. Guide should take opportunities to identify birds and sealife one trip.*

## **Coastal Bike Tours and Wade into Coastal Wetlands of Mashas Sands**

*Educational Theme: History and Geology Northern Gulf Coast or Coastal Habitats*

*2.5 to 3 hours*

*Cost: \$40:00 (Adults)      \$25:00 (groups over 10 and children)*

*Limited to 12 people.*

*Take advantage of Shared use trail system from the Tallahassee to St.. Marks Trail (Rails to Trails) to the Ochlocknee Bay Trail. Discuss the coastal plain, marshes, woodlands and waterfront habitats of northern Florida. Do a beach walk and wade at Mashas Sands.*

## **Other possible Educational Tourism Possibilities**

*Lecture Series / Classes*

*Its Wet and its Dark (Nighttime Wet Walks)*

*Adult Aquatic Adventure Camp*

*School Holiday Camps*

*Story time at the Aquarium*

*Annual Tourist Opportunities*

*Chrristmas Open House*

*Halloween Costume Adventure*

*Coastweeks (last two full weeks in September)*

*World Oceans Day (June 9, 2018—usually second Saturday in June*

## **NEEDS**

### **Personnel**

Intern Volunteer Coordinator

2 Marine Education Specialists

### **Equipment and Supplies**

Tour Boat (Capacity 30)

Bikes

Classroom Space



**Welcomes Long Term Scientist Visitors**

PLEASE POST



You may be familiar with the vast array of live sea plants or animals that Gulf Specimen Marine Laboratory makes available for research and education. We now have a 110 square feet, air conditioned onsite laboratory available for use by scientists, that you might want to consider occupying for a long term visit: for your next sabbatical, for your



summers of research, or for a week or more during school breaks. We can give you priority access to fresh specimens of most any organism that is in season when you come. You bring your own equipment. We provide continuously processed, clean seawater on tap, high speed WiFi, and staff assistance.

We are located in Panacea, Florida. Short term rentals of homes and motels are available within a few blocks as well as full service RV campgrounds. We also



have a modern, fully equipped, one room furnished guest home that we can rent to you, 2 blocks from GSML, with WiFi, heating and air conditioning. Pets and children are welcome, with supervised access to our touch tanks.



For daily relaxation, you have access to our collecting dock on Dickerson Bay, and our company (<http://tinyurl.com/Jack-Rudloe>) if you wish on dog walks along miles of beautiful, natural dune-rimmed beaches or in woods nearby, all within a 15 minute drive. Sunsets over Ochlockonee Bay are spectacular.

Come stargaze or look down at bioluminescence from our Living Dock on our dark nights and try our lift net as the tide comes in and out.

Rates:

Duration	Lab	Guest home	Wave tank	Glass tank	Isolation tank
Weekly	\$150	\$75	\$100	\$25	\$100
Monthly	\$450	\$225	\$300	\$75	\$300



Specimens would be provided per our standard rates, with, of course, no shipping charges. Staff time for feeding your animals or technical assistance can be provided at \$25 per hour. Our 21' collecting boat is available for \$250/day

including an experienced captain. There are 4 restaurants within walking distance in Panacea, and three 3.5 miles south, near bike paths and an ocean front RV campground with a sand beach. Panacea also has a hardware and fishing tackle store, gasoline, marine supply, liquor store, hair salon, fresh fish market, machine shop, post office, Dollar Store with groceries, public park with a fully equipped playground and fishing pier, a public loading

dock if you bring a boat, and an RV park, again all within walking distance of GSML. Crawfordville is a full service city 20 minutes drive north, and Tallahassee, the capital of Florida, is 40 minutes north. Panacea is part of the Forgotten Coast, with shrimp and oyster fishing villages, national and state parks, all within an hour drive. Wakulla Springs Lodge & State Park offers housing and daily boat rides for observing manatees, alligators and a fantastic array of birds up close. We are only 250 miles from Orlando making a weekend in Disneyworld feasible during your stay. Nearby airports include Orlando, Tallahassee, and an airstrip for small airplanes.

Find dry cleaners, burgers, spas...

Near Sopchoppy, FL 32358

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Write a Review



# Gulf Specimen Marine Laboratories Claimed

★★★★☆ 12 reviews [Details](#)

Aquariums [Edit](#)

**222 Clark Dr**  
Panacea, FL 32346

[Get Directions](#)  
(850) 984-5297  
[gulfspecimen.org](http://gulfspecimen.org)  
[Message the business](#)  
[Send to your Phone](#)



[See all 24 photos](#)

## Ask the Community

Yelp users haven't asked any questions yet about **Gulf Specimen Marine Laboratories**.

## Recommended Reviews for Gulf Specimen Marine Laboratories

Your trust is our top concern, so businesses can't pay to alter or remove their reviews. [Learn more.](#)

Search within the reviews Sort by **Yelp Sort** Language **English (12)**



[Start your review of Gulf Specimen Marine Laboratories.](#)

**Celina K.**  
Nashville, TN  
57 friends  
27 reviews  
4 photos

★★★★☆ 8/1/2018

There is something absolutely wonderful about this place. It is tucked into a nook off of 98, down an improbably road, full of interns and actual work going on while you look and learn about specimens of life from the gulf. I came across a brochure for the lab/aquarium when I stopped at a gas station food mart in Apalachicola or East Point and knew I wanted to visit because the brochure referenced the fact that the lab/aquarium showcased and worked with the non-charismatic life of the gulf--not predominantly sharks, for example, but mostly crabs and sea turtles; eels and fish.

We went today because it was a grey, rainy day and so we weren't going to be able to go to the beach. Our 3.5 year old was over-stimulated and couldn't quite focus so we couldn't stay as last by as wanted. But, our almost-7 year old and my husband and I loved it. We held hermit crabs, watched a tank of seahorses move around; watched a tank to see the mantaray sweep up out of the water; joined a group learning about sea turtle rehab and feeding and

Today 9:00 am - 5:00 pm **Open now**



### Hours

<b>Mon</b>	9:00 am - 5:00 pm
<b>Tue</b>	9:00 am - 5:00 pm
<b>Wed</b>	9:00 am - 5:00 pm
<b>Thu</b>	9:00 am - 5:00 pm
<b>Fri</b>	9:00 am - 5:00 pm <b>Open now</b>
<b>Sat</b>	10:00 am - 4:00 pm
<b>Sun</b>	12:00 pm - 4:00 pm

[Edit business info](#)

### More business info

Bike Parking **Yes**  
Good for Kids **Yes**

**Katie W.**  
First to review

watched the title being fed.

The aquarium has indoor and outdoor areas and since it was raining we didn't spend as much time outside as we might have, but the puddles were fun. They also have a gift shop with some cool kids because oks written by local teachers, authors, and illustrators.

Entrance fee is a bit steep but I am not complaining because of the work they do. Adults, 9.75\$; kids, 7.50.

 **Randi M.**  
 Schaumburg, IL  
 46 friends  
 37 reviews  
 1 photo

★★★★★ 7/28/2018

Horrible and inhumane containment of ocean life. Horrible conditions and not well cared for.

 **Shelli C.**  
 Orange Beach, AL  
 91 friends  
 3 reviews

★★★★★ 12/30/2017

Loved this!! I love the small intimate encounters and the hands on experience they bring. So many fun, hands on exhibits here including starfish, crabs, sea urchins and much more! A relaxed learn at your own pace environment is perfect for those just wanting to walk around and explore. Josh was absolutely amazing and so informative and even let me have a special handshake with an octopus! Incredible experience!! A must see if you're in the area.

 **Stephen M.**  
 Madison, AL  
 25 friends  
 43 reviews  
 7 photos

★★★★★ 11/2/2016

1 check-in

It is a cool place for the kids. Unfortunately, for an adult interested in photography, it is a little lacking. The staff is entirely focused on feeding the creatures and barely aware of the customers except to snap at someone who gets too close to a dangerous tank. The tanks are not very clean and some of the anemones look a bit ill to my untrained eye. This made photography undesirable. The videos arguing that they should have more of my money, either through taxes or donations, made me feel like my \$9.95 wasn't very appreciated. This place is a nice idea, but the implementation could be improved.

 **Jim K.**  
 Loganville, GA  
 6 friends  
 45 reviews  
 4 photos

### From the business

Gulf Specimen Marine Laboratory's mission is to further through study, research, publication, teaching and public display the knowledge of marine biology; to promote protection of ...

[Learn more about Gulf Specimen Marine Laboratories](#)

### Collections including Gulf Specimen Marine Laboratories

#### Florida

By Celina K.

11 Places

[More Collections](#)

### Other Aquariums Nearby

[Find more Aquariums near Gulf Specimen Marine Laboratories](#)

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### People found Gulf Specimen Marine Laboratories by searching for...

[Alligator Farm Panacea](#)

[Kids Activities Panacea](#)

★★★★★ 5/25/2016

Great stop on vacation. I brought my wife, 10 yo boy and teenage girl. We spent about 90 minutes walking and touching the exhibits. Very informative and encouraged us all to be environmentally conscious. I had visited about 11 years ago and it seemed better this time around, progress!



**Jennifer C.**  
Tallahassee, FL  
0 friends  
2 reviews

★★★★★ 2/11/2017

Great experience. Pat was fantastic and made our trip to the marine lab better than we could have expected! Great for adults and kids.



**Jenny B.**  
Altadena, CA  
7 friends  
7 reviews  
3 photos

★★★★★ 8/10/2014

I brought my family here late one Sunday afternoon. The owner, Jack, took time to let my children throw food in the touch tanks and watch the feeding frenzy. He has many small and wonderfully kept touch tank aquariums that are all just large enough to hold the attention of small children. I understand Jack does a lot of work with other labs researching ocean life and he is incredibly knowledgeable about all the specimens he has in the tanks. The display with little crabs that followed the pattern of the tides (low tide there was no water and the crabs all huddled together and high tide the tank was filled) was a really cool interactive tank. I brought my 10, 8, and 5 year old and they all really enjoyed the experience. It's a fun half day excursion for the whole family. We are coming back soon!!!



**Florida G.**  
Tallahassee, FL  
0 friends  
1 review

★☆☆☆☆ 2/26/2017

I visited the marine lab for the first time on a day where you could get in for free. You would think that this is an event that would draw in lots of business for the marine lab, so as a result they would make sure everything was clean and looking it's best. That was not the case here. The tanks were covered in algae. They looked as though they hadn't been cleaned in months. The touch tanks had crabs that would gladly pinch a little ones finger if touched near the claws. The tanks in general were super small for the animals they held. Three nurse sharks in a tank the size of a small above ground pool doesn't seem right to me. Some of the fish tanks were so filthy that I couldn't tell what was even living in there. Most of the tanks have no cover on them so it's hard to decide between what's a touch tank and what's not if you didn' see the tiny sign (or little and can't read the sign). I am from the area and ashamed that the sea life I've grown up seeing in the wild is living in such a terrible environment.



**Misty L.**  
Chesterfield, MO  
3 friends  
44 reviews

★★★★★ 7/12/2012

We went here last year on our family vacation to Alligator Point, FL. This is such a hidden gem. This is a great place to take the kids. Heck, I think the adults in our group had just as much fun. There are numerous "touch" tanks where you actually get to reach in and hold, touch and investigate the sea life in the tank. They had some nurse sharks (not in a touch tank...lol) and sting rays which you could see up close. The new crab area was great. They were all pretty much touch aquariums. The price is cheap considering the

hours of fun you will have. Stop in and check it out. You won't be disappointed.



**Krash T.**

Utrecht, The Netherlands

- 1 friend
- 248 reviews
- 15 photos

★★★★★ 12/3/2014

My family and I spent a wonderful three hours here. The woman at the front desk/gift shop was obviously busy with other things, but she was pleasant throughout, and stopped her own office work to make sure we had everything we needed.

We began our walk through with the first "station", a video by the people who built this. I can't remember the man's name, or his spouse's, but it was obvious that this was initially a privately-funded labor of love. Over the years, we were told later in the day, it's grown and grown, to the point where they now have a mobile unit that goes all over the state teaching children about ecology, the ocean, and how important all the critters - especially sea turtles - are to our continued well-being.

From there we went to the "touching pools". The tanks were all well-marked, with "Touch" and "Do not touch" signs clearly noted. Most had signs also showing what creatures were in them. I'd never picked up a giant razor clam before! The hermit crabs delighted us, the jellyfish displays were odd and awesome.

There were half a dozen volunteers working that day (a Tuesday), and any time one of us had a question, one of them would stop to answer it in full.

Next, we went to the third station, where a sea turtle that had been ill was receiving antibiotics through a small pipe-like thing attached to its head by what looked like duct tape. I asked one of the volunteers about it, and she explained he'd gotten a respiratory infection (!) two weeks ago, but he was doing much, much better. A local fish store had donated a tub of crab that morning, and he'd eaten well, to everyone's relief.

The sting ray would lift its head out of the water, literally, in hope that we were going to feed it!

On to the last station, where a bunch of the current experiments in feeding fish, growing algae or seaweed, etc were on display, as well as a big tank of octopi! You could hold a hand over an octopus and watch it change color! We stopped at the gift shop on our way out, and again, the woman came out of her office and answered all of our questions without demurring.

All in all we found the staff more than helpful, and given that this is a research facility, we were very happy to donate our per person money. The children loved loved LOVED the sea turtles, and the giant statue of one (wearing a helmet no less!), and we were never bored.

Given the state of the ocean and the problems we're having with aquaculture, the desperate need to preserve these species, and how much you pay for lunch or dinner out these days, I'm really shocked that people think this was too expensive. The way we looked at it, we were helping to fund the children's future.



**Carrie S.**

Green Bay, WI

- 22 friends
- 26 reviews
- 39 photos

★★★★★ 4/18/2013

We went here during our family vacation. Great little find, our kids (3&7) loved it. The big sea turtle was the highlight!



**Katie W.**

Atlanta, GA

👤 210 friends

★ 493 reviews

📷 45 photos

★★★★☆ 5/3/2008

📌 First to Review

Fun place, good price, you get to touch lots of things. I liked looking at the various sea life. It is super casual and a great place for kids. It's not super big or anything but it's a good price and it will kill an hour or two. The staff is very friendly and will answer questions. I would return.

Page 1 of 1

2 other reviews that are not currently recommended ▾

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Jack Rudloe is the poet of Florida’s waters and wetlands. *The Wilderness Coast* is a marvelous gathering of marine adventures exploring the shallows and estuaries of Florida’s northwest Gulf Coast. Anyone who loves life in its bewildering and fascinating forms will treasure this book.” —James Dickey

*Shrimp: The Endless Quest for Pink Gold is a deep and expert look not only at an important human food source but also of the fragile complexity of the ecosystem in which it is created.* —E. O. Wilson



[Click here](#) for links to full articles. [Click here](#) for books, book previews and a full bibliography.

We had been involved in endless controversies over the years to slow down the conversion of our wilderness coast into condominiums and trailer parks. The swamp represented 14 acres where the concrete, steel and asphalt could not follow.

— Jack & Anne Rudloe, “Why We Sank Our Money Into a Swamp”

# INNOVATING WETLANDS EDUCATION



## Aquarium, Living Dock & Marsh Tours

***"We consider the vital role of marshes as nursery habitat and look at how tides control the way marshes grow."*** - Gulf Specimen Marine Lab's Aquarium Brochure



## 55,000 Gallons

*"Unlike most public aquariums, we specialize in invertebrates and other small living treasures of the North Florida coast."*



## Videos

***"Your willingness to nurture our students' curiosity about nature and helping them become good stewards of the environment has had positive impact on their views about the natural environment."*** - Jackie High, Principal, Riversink Elementary School, Wakulla County FL



# INNOVATING WETLANDS EDUCATION



*"Five large touch-tanks containing safe to handle colorful starfish, conchs, sea urchins, sponges, hermit crabs and other creatures provide the ultimate hands-on experience."*

*- Sea Mobile Field Trip Brochure*



**"This is not 'extra stuff.' ... It is critical to impart to our children ways they can help out now to avoid problems in the future. Our students want to be proactive, not reactive. They are realizing that the world they will inherit will need help."**

**Pam Bridges, 5th Grade Science  
Seminole Elementary, Donaldson GA**

## Gulf Specimen Marine Lab's SeaMobile



**WATCH THE SEAMOBILE IN ACTION**

## Letters of Support

- ✚ Aquatic Equipment, Mount Dora, FL. Amy Stone
- ✚ Aqua-Tech, Algonquin, IL. Mark Vera
- ✚ CP Foods, Thailand. Robins McIntosh
- ✚ Educational Tours, Inverness, FL. Grant Doyle
- ✚ Flint River Aquarium, Albany, GA. Richard Brown
- ✚ Florida Atlantic University, Fort Pierce, FL. Brian Lapointe
- ✚ Florida Atlantic University, Jeanette Wyneken
- ✚ FDEP, Florida Park Service. Kristin Ebersol
- ✚ Florida Fish and Wildlife, Dr. Robin Trindell
- ✚ Florida State University, Dr. Gary Ostrander
- ✚ Florida State University, Barbara Shoplock
- ✚ Florida State University, Dr. Janie Wulff
- ✚ Florida State University, Dr. Trisha Terebelski
- ✚ Florida Wildlife Commission, Koinski
- ✚ Lively Technical College, Tallahassee, FL. Shelly Bell
- ✚ National Geographic, Joel Sartore
- ✚ Panacea Waterfronts Florida Partnership
- ✚ Rock Landing Marina, Panacea, FL. Robert Lowther
- ✚ Save the Sea Turtle Foundation
- ✚ Sea World, Orlando, FL. Gary Violetta
- ✚ Serviette Equipment, Orlando, FL. Joseph Choromanski
- ✚ University of South Florida, Tampa, FL. Dr. Clifford Merz, PE
- ✚ Visit Florida, Nelson Mongiovi
- ✚ Wakulla County Board of County Commissioners
- ✚ Wakulla County Chamber of Commerce
- ✚ Wakulla County Tourist Development Council
- ✚ Wakulla Commercial Fisherman's Association



**WAKULLA**  
COUNTY

January 8, 2018

**BOARD OF  
COUNTY COMMISSIONERS**

**Ralph Thomas**  
Chairman, District 1

**Charles Hess, Ph.D.**  
Vice-Chairman, District 5

**Randy Merritt**  
District 2

**Mike Stewart**  
District 3

**Jerry Moore**  
District 4

**J. David Edwards**  
County Administrator

**Heather J. Encinosa**  
County Attorney  
(850) 224-4070

Mr. Alan Bense, Chairman  
Triumph Gulf Coast, Inc.  
Post Office Box 12007  
Tallahassee, Florida 32317

Dear Chairman Bense,

The Wakulla County Board of County Commissioners (Board) transmitted a list of recommended projects on or about November 6, 2017. Since then we have received two additional projects from organizations seeking the Board's recommendation for Triumph Gulf Coast, Inc. (Triumph) funding.

On January 8, 2018, the Board met and based upon our review and input from each organization, we have updated our November 6, 2017, Recommended Projects List to include one additional project. The recommended project is from the Gulf Marine Specimen Marine Laboratories, Inc. seeking funds to expand and improve their facilities so that they can increase educational opportunities in various areas of marine life.

It is anticipated that the Board will continue to update its list of recommended projects as funding decisions are made and priorities shift to reflect current needs and conditions. Your consideration of each of our projects is greatly appreciated.

Please contact me if you have any questions or need additional information.

Sincerely,

Ralph Thomas  
Chairman

RT/stk

Enclosure

Cc:  
Mr. Jack Rudloe, Gulf Specimen Marine Laboratories, Inc.

Administration – Human Resources  
Post Office Box 1263  
Crawfordville, FL 32326  
(850) 926-0919 x 707  
(850) 926-0940 FAX

**WAKULLA COUNTY LIST OF RECOMMENDED PROJECTS FOR TRIUMPH GULF COAST, INC. FUNDING**  
Revised on January 8, 2018, (Original Submitted on November 6, 2017)

<i>Organization</i>	<i>Project Title/Brief Description</i>	<i>Est. Project Cost</i>	<i>Board Priority</i>
Wakulla County Board of County Commissioners	<b>First Responder Communication System:</b> Replace existing aging and unrepairable first responder communication system with one that can communicate with all federal, state and local first responder agencies as well as extending the range of communication within the County, i.e., national/state forest, metal building, etc. Our County is working with other 7-counties for potential regional project – with each County submitting their own application.	\$2 M	#3
	<b>New Library:</b> Construct a new, larger more centrally located library at the community center to meet the growing demands for new programs and provide space for participation at current and new events. The existing library will be repurposed and used for a much-needed Fire/EMS station in the Medart area, south of Crawfordville. A new library also has the potential to provide virtual classes not provided elsewhere in the County and could target underprivileged populations needing workforce skills. The County owns the property. Funds are needed for design, permitting, construction and furnishings.	\$3.5 M	#4
	<b>Medart Rec Park Improvements:</b> Improve the parking lot, restroom and concession facilities, and sports fields of Wakulla County’s only recreation park for organized outdoor youth and adult sports. The County owns the Park. Funds are needed for any design, permitting and construction.	\$2.0 M	
	<b>Realignment of County Road 61/Shell Point:</b> The County has only two north-south bound highways from Capital Circle (Leon County) to US 98 (Wakulla County): US 319 is on the eastern side of the County and US 27 is on the western side. High traffic on both of these highways is attributed mainly to travelers working in Tallahassee and living in Wakulla. Internal arterial roads off of these highways leading to residential areas become clogged at peak times creating extremely hazardous conditions. Additionally, these highways provide the only access to Wakulla’s coast, rivers, forest, etc. creating heavy traffic conditions on weekends and holidays. This proposed realignment would provide a north-south bound County Road centrally located in Wakulla County and would ease congestion and increase safety conditions. Funds are needed for design, permitting and construction.	\$2.5 M	
	<b>Camp Indian Springs Campground Partnership:</b> This project proposes a partnership with Department of Environment Protection (DEP), in the event they purchase the Camp Indian Springs Property. The County proposes seeking funds for the improvement of existing buildings on the Camp Indian Springs Campground property and the design, permitting and construction of a RV/Tent camp ground.	TBD	
	<b>New Rec Park – US 319:</b> The County is in need of land to design, permit and construct a larger outdoor multi-use recreational Park on the north side of the County. This park has the potential to serve the region for youth and adult outdoor sports, i.e., softball tournaments, soccer tournaments, etc. Funds are needed for land acquisition, planning, design, construction and furnishings.	\$20 M	

WAKULLA COUNTY LIST OF RECOMMENDED PROJECTS FOR TRIUMPH GULF COAST, INC. FUNDING  
Revised on January 8, 2018, (Original Submitted on November 6, 2017)

Wakulla County School Board	<b>Wakulla Career and Technical Education Center:</b> This project would provide training and job skills for the non-degree seeking student for emerging or high-demand jobs. WCSB owns the property and will staff the center once constructed. Funds are requested for design, permitting, construction and furnishings.	\$5.7 M	#1
	<b>Wakulla County Learning Center:</b> This project proposes a partnership with TCC for a campus in Wakulla County where students and adults may pursue an AA degree. WCSB owns the property and will staff the center once constructed in partnership with TCC. Funds are requested for design, permitting, construction and furnishings.	\$3.4 M	#2
City of St. Marks,	<b>ADA Compliant Kayak/Canoe Launch:</b> To provide kayak/canoe access to the Wakulla River via the City Park. Increase recreational opportunities and enhanced visitor experience. Will also relieve kayak/canoe launching at the St. Marks Boat Ramp. The City of St. Marks owns the property. Funds are requested for design, permitting and construction.	\$65 K	#5
	<b>St. Marks WWTP – Conversion of Grinders to Gravity Sewer:</b> First a feasibility study (i.e., preliminary engineer report) will need to be conducted to determine if conversion is feasible and probable cost. Funds are needed for feasibility study/preliminary engineering report.	\$350 K	
	<b>St. Marks Board Walk:</b> Construct a boardwalk that will connect to the terminus of the St. Marks Bike Trail and provide an off-road multi-use pedestrian to the Fort, St. Marks Board Ramp, and back to the St. Marks Bike Trail terminus. The City of St. Marks own the property and the project is designed and permitted. Funds are requested for construction.	\$900 K	
Wakulla Commercial Fishermen's Assoc, Inc.	<b>A Partnership Reviving Apalachee Bay Oyster Reefs:</b> Shoreline restoration on oyster reefs to enhance commercial and recreational fishing; provide tidal, storm surge and coastal erosion protection, improve water quality; strengthen economy, social and environmental capital. Funds are requested for all stages of the project.	\$2.6 M	
Wakulla Environmental Institute	<b>Marine Manufacturing Training Center:</b> A state of the art multi-purpose facility that will function as an auditorium, conference center, manufacturing center, oyster seed hatchery and commercial kitchen for processing local Gulf Coast seafood products. WEI owns the property. Funds are needed for design, permitting, construction and furnishings. Total estimated project cost is \$22.7 M, seeking \$15M Triumph funds.	\$15 M	
Gulf Specimen Marine Laboratories, Inc. (GSML) (added to list 1/8/2018)	<b>GSML expansion of infrastructure and operations</b> for adding courses that will lead to technical certificates in an array of marine subjects as well as marketing new local marine products. Funds will be used to upgrade/expand the existing facilities, purchase of two vessels, and salaries and benefits for 11 planned new positions. It is anticipated that after three-years the course will be self-sustaining	\$3.9 M	



July 25, 2018

Gulf Specimen Marine Laboratory  
Attn: Cypress Rudloe  
PO Box 237  
Panacea, FL 32346

RE: Employee and/or Intern Recruitment

Dear Cypress,

I am writing this letter to express my support for your intern program. We have had a long term working relationship and have been on-site to review the operations. For the past 20 plus years, we have been working in this industry and touring facilities. Along the way, we have seen the good, the bad and the ugly in terms of employee quality and knowledge base.

When searching for new employees, we always look for those who have experience. Our recruitment procedure focuses on several key items within the applicants CV. We are interested in finding applicants that have made an effort to gain experience either by internships or volunteering in our field while still in school. We have found that those who have completed a program have more drive, more knowledge and are better employees.

The GSML internship and location is highly favorable for making sure these interns and employees have a thorough understanding of the equipment and the animals it is supporting. That relationship is crucial for everyone entering or working in our field to understand. The facility's size and age allow the intern to see several different filtration methods in action as well as allows them to learn how to work with these varied systems.

The management team at GSML is very hands-on which allows the intern to learn all sides of the operation. This understanding of how the overall operation functions allows the interns to really understand their role and how it impacts the rest of the facility. This isn't so obvious in a larger facility where the jobs are more compartmentalized.

We look forward to recruiting past interns from your facility because we know they will have the tools we need them to have to succeed with us.

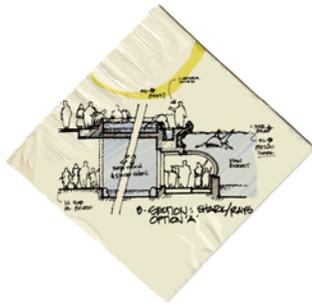
All the best!

Amy Stone  
President

Phone: 407-995-6490  
Fax: 407-641-9172

18981 US HWY 441 #329  
Mount Dora, FL 32757

[www.AquaticED.com](http://www.AquaticED.com)  
[info@AquaticED.com](mailto:info@AquaticED.com)



July 25, 2018

To Whom It May Concern:

This letter is being written in support of the Gulf Specimen Marine Lab and Aquarium in their application for Triumph Grant funds to expand their intern program. The management staff of the lab requested that I specifically comment on the fitness and hireability of their interns in the public aquarium profession.

While I do not have any direct experience with the Lab's interns, I am very familiar with the Laboratory and Aquarium facilities and operations. As a 35-year Public Aquarium Professional and former Vice President simultaneously in charge of three aquarium operations, I can state unequivocally that aquarist candidates with previous hands-on experience always perform higher and make better aquarium husbandry employees than those with only academic training or credentials. From what I have learned about the intern program and the interns, I believe that they would be successful aquarists at any aquarium from which they sought employment.

Sincerely,

Joseph M. Choromanski  
President, Serviette, LLC

352-344-3589  
800-343-9003  
Fax: 352-344-0067  
E-mail: [info@myedtours.com](mailto:info@myedtours.com)  
Web site: [www.myedtours.com](http://www.myedtours.com)

1123 Sterling Road  
Inverness, FL 34450



Gulf Specimen Marine Laboratory  
222 Clarks Drive  
Panacea, FL 32346

To whom it may concern,

We are a student travel company. We have been in business since 1985. We have schools throughout the state that travel with us to various locations. Tallahassee is one of the most requested destinations from teachers. Civics teachers have always been interested in taking their classes to Tallahassee to see government in action. It goes along with their lesson plans.

Our company discovered GSML in 2006. We were looking for an educational program that would enhance the tour. The addition of GSML opened up a new subject for teachers. Science teachers became excited to take their classes along on the tour.

Since January of 2018 we've taken 921 students to GSML along with their teachers and parents that go on the tours as chaperones. By the end of this school year we will have taken over 1300 students to GSML. The staff there are professional and knowledgeable. They are able to structure a program to an age group. They work well with students of various ages.

I've been told on multiple occasions that GSML was a highlight of the tour. Students come away with an educational experience that they probably will never get again. Teachers come away with a similar experience. We are very satisfied with the staff and the programs that GSML provide to students. I would highly recommend GSML to any educator that wants to provide a unique experience to their students.

Best regards

  
Grant Doyle  
352/344-3589  
[gdoyle@myedtours.com](mailto:gdoyle@myedtours.com)



# FLINT RIVERQUARIUM

## ENVIRONMENTAL EDUCATION CENTER

July 23, 2015

To Whom It May Concern:

This letter is in support of the Gulf Specimen Marine Laboratory (GSML) Internship Program. I have been associated with GSML for several years not only as a customer, but as a colleague in a similar business. The Flint RiverQuarium also has an intern program that is similar to GSML's and I have associated with their interns as they packed up animals and gave us information and advice about the animal's care and handling. I was always impressed with how much these individuals had learned, how much responsibility they were given, and how helpful they were.

In comparing intern programs with Jack and Cypress Rudloe, I have learned that their programs were similar to ours in that they instruct their interns in the proper care of marine life as well as care and maintenance of the equipment associated with life support. They also teach their interns how to properly collect and transport live specimens from their natural habitat to captive closed systems.

The students from the GSML intern program interact with aquarium visitors on a regular basis serving as an explainer/educator while carrying out typical job responsibilities. They do daily maintenance, clean exhibits and back areas, make adjustments to water chemistries in exhibits, treat diseased fish, participate in diet preparation, and feed the animals in the exhibits. I understand that they also learn the ins and outs of filtration and water quality. This is basic knowledge necessary in many aspects of aquarium technology, and would be of great help to anyone going into the fields of recirculating aquaculture, aquaponics, mariculture, fish farming, or aquarium operation.

I would highly recommend this program for anyone beginning in a field related to Aquarium and Marine Technology.

Please feel free to contact me in person for verbal confirmation of this recommendation.

Sincerely,



Richard S. Brown

Director  
Flint RiverQuarium  
117 Pine Ave  
Albany, GA 31701

# HARBOR BRANCH

FLORIDA ATLANTIC UNIVERSITY

*Ocean Science for a Better World*

July 26, 2018

Triumph Grant Program

Subject: Gulf Specimen Marine Lab Triumph Grant Pre-Proposal

To Whom it May Concern,

It gives me great pleasure to recommend Gulf Specimen Marine Lab (GSML) for a Triumph Grant award. I have visited this facility several times in the past year and have become familiar with their outstanding educational and outreach programs. I was particularly interested to learn of their interest in training students in the field of seaweed aquaculture. The global seaweed industry has an estimated value of US \$6 billion, and is now expanding in coastal waters of New England and the Pacific Northwest. The industry has great potential for development along Florida's Gulf Coast, which has year-round light and temperature levels needed to support high yields of target seaweed species.

The GSML has a proven track record of developing new seafood markets. They were pioneers in the rock shrimp and bulldozer lobster markets, as well as the Asian jellyfish market, which resulted in a multi-million dollar market for cannonball jellyfish in the Florida panhandle. GSML now plans to pioneer the culture, processing, and marketing of locally abundant seaweeds, especially the local red macroalga *Gracilaria* that is used to make a popular "sea moss" drink in the Caribbean region. Other species of local red algae, such as *Agardhiella* and *Halymenia*, could also be considered as potential target species.

I am excited to assist GSML as a consultant on this project if funded. I would not only be involved in the design and operation of the land-based seaweed aquaculture system, but also training students in seaweed aquaculture and nutrition. I envision an integrated, flowing seaweed culture system at GSML that would recycle nutrients generated by intensive shrimp and/or fish cultures, a design that would prevent nutrient pollution and eutrophication of adjacent coastal waters. This project would also lead to development of the first Marine Botanical Garden at GSML. The overall program will provide training that will lead to jobs in seaweed aquaculture in the region, as well as public education and outreach about the ecology and nutritional benefits of eating seaweeds.

Should you have any questions or need more information, please do not hesitate to contact me at your earliest convenience.

Sincerely,

Brian E. Lapointe

Harbor Branch Oceanographic Institute

5600 U.S. 1 North, Fort Pierce, FL 34946 • tel: 772.465.2400 • [www.hboi.fau.edu](http://www.hboi.fau.edu)

*An Equal Opportunity/Equal Access Institution*



Shelly Bell  
Director of Career, Technical and Adult Education

Randy Free  
Assistant Director

500 North Appleyard Drive • Tallahassee, FL 32304 • Phone: 850.487.7555 • Fax: 850.922.3880 • [www.livelytech.com](http://www.livelytech.com)

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July 20, 2018

To Whom It May Concern,

Lively Tech is committed to working with Gulf Specimen Marine Laboratories, Inc. to establish a program aimed at providing instruction and certification for Aquaculture Technicians. Part of Lively's mission is to work with community organizations to train and provide a skilled workforce. Due to habitat destruction and overfishing, aquaculture has become a necessary segment of the agriculture industry and an industry that is on the rise in our community. Lively recognizes the importance of establishing a partnership with Gulf Specimen Marine Laboratories, Inc. and the positive impact it will have on our community.

Sincerely,

Shelly L. Bell  
Director of Career, Technical and Adult Education

July 29, 2018

Triumph Grant Program

Subject: Gulf Specimen Marine Lab Triumph Grant Pre-Proposal

To Whom it May Concern:

I can fully recommend the Gulf Specimen and Marine Lab for a Triumph Grant Award. I have known Jack Rudloe through his writing on the marine animals since I was a teenager; and it to the credit of those books that contributed to me becoming the aqua culturist I am today. Today I am involved in commercial aquaculture; raising both shrimp and fish in Asia and South America. In my past life I was involved in the growing of marine algae for both fuels and chemicals. And for the past ten years I have become reacquainted with Jack and his son Cypress at the Gulf Specimen and Marine Lab. Always on visits I am very impressed with the dedication to the marine environment and with their desire to pass on their gained knowledge to the next generation through many types of activities supported through the GSML. I know the spirit of these two is contagious and as I stated; I personally owe my being hooked on the marine environment and aquaculture to this same spirit that captured me forty years ago.

Today the United States has no or very little capacity for inland mariculture. The future is inland mariculture for both shrimp and fish. I have spoken to many politicians and NGOs in the past year; and they all support creating that inland mariculture industry. But without capacity this will not happen. There are very few place where you can go and gain this experience that will be required in building this new industry; but Jack and Cypress Rudloe have such a place and this idea of an intern program conducted at the GSML is perfect. Interns will learn and be exposed to recirculating marine aquaculture systems. They will be involved in keeping marine animals healthy, and about the very animals in those systems. This is basic, but it is the basics the United States will require if an inland mariculture industry in to be a reality. I know when it is time to discuss investment and time to discuss how to build even one farm in the United States; one of the areas of concern is: where will we find Americans that can do this work. Interns that have an opportunity to learn about systems, about animal health, and about the animals themselves; will develop a same enthusiasm and dedication that Jack Rudloe through his writing provided me with. I can only imagine how much better of aquaculturist I might have become if I had been given the opportunity to intern at the GSML.

In the past I have assisted in the trouble shooting and design of Recirculating Aquaculture Systems and equipment at the GSML. I look forward to continuing this relationship as I find it very rewarding to contribute to the mission of this established Gulf Coast Marine Institution.

Best Regards,  
Robins McIntosh  
CP Foods, Thailand  
Executive Vice President



July 16, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

I am pleased to provide this letter in support of the Gulf Specimen Marine Laboratories, Inc. (GSML) efforts to obtain funding for infrastructure upgrades and expansion for the Gulf Specimen Marine Laboratory and Aquarium from the Florida Gulf Triumph Fund.

GSML seeks 3.9 million to fund much needed infrastructure upgrades and expansion of their 50 year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center that will not only provide interactive education for visiting schools but will also be the hub of the Aquatic and Marine Technician Certification Program. Currently the GSML host up to 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20 new jobs, certify 72 technicians (per year) and triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

I encourage your consideration of this worthy cause and support the much needed long term economic impact this will have on the community. If I can be of further assistance in this matter, please do not hesitate to contact me at the address below.

Sincerely,

A handwritten signature in black ink, appearing to read "Clifford R. Merz", written in a cursive style.

Dr. Clifford R. Merz, PE

Program and HF Radar Operations Director, Coastal Ocean Monitoring and Prediction System (COMPS)

University of South Florida/College of Marine Science  
140 Seventh Avenue South, MSL Room 136-M  
St. Petersburg, FL 33701  
(727) 553-3729 (Office)  
(727) 553-1189 (Fax)  
(727) 409-0770 (Mobile)  
cmerz@usf.edu

TAMPA ST. PETERSBURG SARASOTA LAKELAND



June 12, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

We are writing to you today to provide our support for Gulf Specimen Marine Laboratories, Inc. project for funding infrastructure upgrades and expansion for Gulf Specimen Marine Laboratory & Aquarium from the Florida Gulf Triumph Fund.

GSML seeks 3.9 million to fund much needed infrastructure upgrades and expansion of their 50 year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center that will not only provide interactive education for visiting schools but will also be the hub of our Aquatic and Marine Technician Certification Program. Currently GSML host up to 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20 new jobs, certify 72 technicians (per year) and triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

Panacea Waterfronts fully supports this application for funding and looks forward to the much needed long term economic impact this will have on the community.

Sincerely,

A handwritten signature in black ink that reads "Mark S. Mitchell".

Mark Mitchell, Chairman  
Panacea Waterfronts Florida Partnership, Inc.  
PO Box 212  
Panacea, FL 32346



July 17, 2018

To Whom it May Concern.

I wanted to follow up with you regarding the economic impact of the GSML Ecotourism & Agriculture Project as it relates to Rock Landing Marina and Mad Anthony's Waterfront Grille. We are uniquely located on Dickerson Bay with direct Gulf access in a few minutes for our boating customers. The marinas to our east and west both require long boating commutes to the Gulf. In addition, both GSML, RLM & MA are only 2 blocks from a major transportation artery highway 98. Therefore, providing easy access for visitors of all demographics. While we have easy access we have difficulty being found because of the State and Federal government blocking the installation of professional signage on our own property to both GSML and Mad Anthony's Waterfront Grille.

As a result of your proposed expansion which would dovetail with ours we are projecting 5-6 additional marina personnel and 22-30 additional restaurant personnel. We are also projecting an additional \$2.4 million of construction investment.

Obviously, there is a direct connection between GSML, RLM & Mad Anthony's Waterfront Grille. We currently support events at the lab like Sharks & Chablis. You and your staff routinely bring guests or visitors to Mad Anthony's for lunch or dinner. When we look at the demographics of the region it is easy to see an aggressive increase in visitors to GSML if your plans come to fruition. Likewise this directly correlates to an increase in MA/RLM business/customers. Additionally, a tour boat service providing educational and recreation opportunities related to GSML will generate additional visitation to the lab and potentially to the restaurant.

One area of concern is available housing for new employees moving to the area. We have plans to develop housing in the Panacea market to address this issue as needed. We have property available to develop affordable housing. The model for this development is already been proven elsewhere in the region.

My final concern which I mentioned earlier is the State and Federal government blocking the installation of professional signage on our property adjacent to highway 98. GSML and Mad Anthony's Waterfront Grille currently miss hundreds of drive-by customers/visitors each week. We have a monumental opportunity to make a profound impact on the community and the region as a whole. I welcome your comments.

Respectfully,

A handwritten signature in blue ink, appearing to read "Robert J. Lowther, Jr.", written over a light blue background.

Robert J. Lowther, Jr.

99 Rock Landing Road ♦ P.O. Box 653 ♦ Panacea, FL 32346 ♦ 850.984.5844

rocklandingmarina.com

## TO WHOM IT MAY CONCERN



As a visiting scientist, I had a great pleasure of working for 10 days (from 9 to - 19 February, 2018) at Gulf Specimen Marine Lab & Aquarium in Panacea, Florida. During my stay, the kind invitation from President Jack Rudloe has given me the chance to use the local sea urchin (*Arbacia punctulata*) to perform *in vitro* fertilization experiments to correlate the fertilization response of this American sea urchin with that of the Mediterranean species *Paracentrotus lividus*. For more than 150 years, sea urchin eggs have provided a large body of information on the structural and biochemical changes regulating successful fertilization, and are still used as a favorite model system to demonstrate this fundamental process to the students of the advanced high school and university biology laboratory courses. At Gulf Specimen Marine Lab & Aquarium in Panacea, owing to the excellent organization and performance of the facility, large quantity of animals are kept in the tanks that recreate the natural environmental conditions. The possibility to use a large number of animals has offered me the exceptional opportunity to follow the spatio-temporal series of morphological changes that take place on the egg surface following fertilization in their physiological and experimental conditions.

During my stay, I particularly enjoyed the comfortable work environment and the gracious hospitality, and I was very much impressed by the high level of technical competence, professionalism and enthusiasm of the staff of the facility.

Napoli, March 19, 2018

Sincerely,

Dr. Luigia Santella

Research Director  
Coordinator Morpho-Functional Analysis &  
Bioimaging Unit  
Stazione Zoologica Anton Dohrn  
Villa Comunale 80121  
Napoli, Italy  
santella@szn.it  
www.szn.it

June 30, 2018

Florida Triumph Gulf Coast Inc.  
P.O. Box 12007, Tallahassee, Florida 32317

Dear Members of the Florida Triumph Gulf Coast Inc.

The Wakulla Commercial Fishermen's Association Inc. is eager to support the Gulf Specimen Marine Lab in its efforts to conduct research and development of methods for increasing the commercial seafood industry in Wakulla County.

Over the years, the GSML has worked with the academic community to identify a means for growing harvestable oysters on trees. This is especially beneficial to members of the WCFA because it could afford an opportunity for wild oyster harvesters to increase their earning power not only by harvesting oysters, but also in developing the areas that would produce oysters.

Presently oyster farming is being conducted in Wakulla's waters, but with mixed reviews. State records show that oyster farming in these waters has not produced a living income for leaseholders. In addition, in a series of meetings, commercial fishermen and oyster farmers reached a conclusion that expansion of that project in Wakulla waters was unlikely since there are no remaining areas for submerged land leases that comply with state and federal regulations. And regrettably, the triploid oyster spat being used in order to avoid diseases being introduced in our waters has been criticized by local seafood sellers for having a less desirable taste than wild oysters or farmed oysters in other areas.

If Florida Triumph Gulf Coast is committed to improving the overall living standards of this seacoast community with projects that would continue to benefit the area, it would be appropriate for a serious consideration of GSML's proposal.

Thank you,

***John Taylor***

John Taylor, president, Wakulla Commercial Fishermen's Association Inc.



July 20, 2018

**TO:** The Honorable Don Gaetz; Florida Triumph Gulf Coast, Inc.  
**FROM:** Trisha (Spears) Terebelski, Ph.D.  
**RE:** Letter of support on behalf of Gulf Specimen Marine Lab

I am a faculty member in the Biology Department of Florida State University located in Tallahassee, and I am writing to attest to the important role that Gulf Specimen Marine Lab (GSML) plays in the education of my students and the significant impact the lab has had on the lives and future careers of many of them. Among the courses that I teach, two specifically address biological diversity: Eukaryotic Diversity (BSC3016) and Animal Diversity Lab (ZOO3141-L). As such, I strongly encourage my students to make the one-hour drive from campus to the lab so they may observe first hand living representatives of the marine organisms we discuss in lecture. Even college students get excited interacting with the touch tanks!

I estimate that each year since 2014 I have had between 100 and 240 college students visit the lab, after which they submit a short report based on their experience. Not only do they write about the various animals they have observed, but they always comment on how knowledgeable and approachable the staff is. They especially enjoy the openness and accessibility of the displays, and how they are encouraged by staff to linger as long as they want and make the most of the experience. During their visit, my students connect with and interact with marine organisms and come to view them in a new light, leaving with a greater appreciation for marine diversity and the need to preserve it. Truly, GSML enhances the education my students receive in ways that my showing mere videos of organisms in class could never achieve.

Each semester I always have some students who have had such a positive experience with GSML that they apply for internships to work at the lab. Because of the close proximity of the lab to our campus, students can serve their internships for entire semesters while also taking classes. GSML not only gives my student interns a unique and valuable opportunity to expand their knowledge of marine life, but it also provides them with opportunities to interact with and educate the public. My students grow as individuals because of this, and many end up deciding to apply to graduate school for marine biology, to study marine veterinary science, or to become educators themselves.

GSML serves many vital and worthwhile scientific and community functions, but I am especially thankful for the role it plays in the lives and education of so many of my college students.

Sincerely,



Trisha (Spears) Terebelski, Ph.D.

*University Distinguished Teacher  
Teaching Faculty III  
Coordinator of Introductory Biology Lecture Courses*

Department of Biological Science  
Florida State University  
Tallahassee, FL 32306-4295

phone: (850) 644-1847  
[terebelski@bio.fsu.edu](mailto:terebelski@bio.fsu.edu)



July 31, 2018

Florida Triumph Grant Committee  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Committee,

I am writing to confirm that Mr. Cypress Rudloe, Gulf Specimen Marine Laboratory, Inc., holds a Marine Turtle Permit (MTP-18-036) from the Florida Fish and Wildlife Conservation Commission (FWC) to conduct specific activities with threatened and endangered marine turtles. Under this permit, Mr. Rudloe and the Authorized Personnel listed rescue stranded marine turtles and then hold and rehabilitate them for release back into the wild. Mr. Rudloe is also authorized to hold a non-releasable marine turtle for educational display at Gulf Specimen Marine Laboratory, Inc.

Gulf Specimen has been involved in conservation and protection of marine turtles for over twenty years. Over the past five years, they have successfully rehabilitated over 50 injured marine turtles and released them back into the wild. The Lab provides opportunities for individuals listed on their FWC permit to work with marine turtles, gaining valuable experience for pursuit of employment in the field of marine biology and marine turtle conservation. Our staff considered this experience when reviewing applicants for a position in FWC's marine turtle management program. We selected the applicant who had worked with marine turtles during an internship at Gulf Specimen Marine Laboratory.

The location of the Laboratory creates a unique opportunity to educate communities in Wakulla and surrounding counties about the important marine ecosystems in this area. This includes providing factual and accurate information about Florida's threatened and endangered sea turtles.

Please feel free to contact me at [robbin.trindell@myfwc.com](mailto:robbin.trindell@myfwc.com) for additional information about Gulf Specimen Marine Laboratory's work with threatened and endangered marine turtles or the authorizations required to conduct such work.

Sincerely,

A handwritten signature in blue ink that reads "Robbin N. Trindell".

Robbin. N. Trindell, Ph.D.  
Biological Administrator  
Imperiled Species Management



July 9, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

I am writing to you today to express support for Gulf Specimen Marine Laboratories, Inc. project for funding infrastructure upgrades and expansion for Gulf Specimen Marine Laboratory & Aquarium from the Florida Gulf Triumph Fund.

GSML seeks \$3.9 million to fund much needed infrastructure upgrades and expansion of their 50 year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion would include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center that will not only provide interactive education for visiting schools but will also be the hub of the Aquatic and Marine Technician Certification Program.

Currently the GSML host up to 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20 new jobs, certify 72 technicians (per year) and *triple their tourism impact to the town of Panacea* adding much needed economic stimulation to the local economy.

Your consideration of their request for Triumph Funding is sincerely appreciated. Please let me know if I can provide any additional details.

Respectfully,

  
Nelson Mongiovi  
Chief Marketing Officer, VISIT FLORIDA

# WAKULLA COUNTY CHAMBER OF COMMERCE

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P. O. Box 598/23 High Drive, Crawfordville, FL 32326

Telephone: (850) 926.1848

June 6, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

We are writing to you today to provide our support for Gulf Specimen Marine Laboratories, Inc. project for funding infrastructure upgrades and expansion for Gulf Specimen Marine Laboratory & Aquarium from the Florida Gulf Triumph Fund.

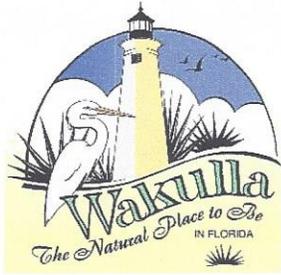
GSML seeks 3.9 million to fund much needed infrastructure upgrades and expansion of their 50 year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center that will not only provide interactive education for visiting schools but will also be the hub of our Aquatic and Marine Technician Certification Program. Currently GSML host up to 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20 new jobs, certify 72 technicians (per year) and triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

The Wakulla County Chamber of Commerce fully supports this application for funding and looks forward to the much needed long term economic impact this will have on the community.

Sincerely,



Courtney Armitage, President



*Wakulla County Tourist Development Council*

*Post Office Box 1263 Crawfordville Florida 32327*

*www.visitwakulla.com*

July 25, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

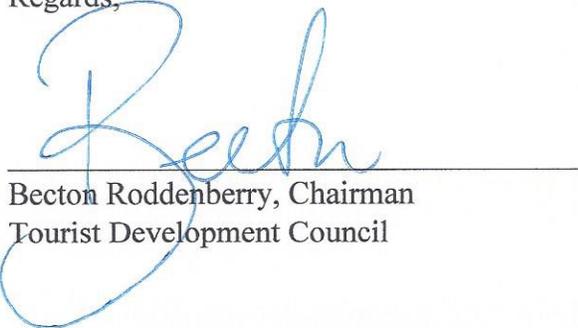
On behalf of the Wakulla County Tourist Development Council I am writing this letter in support of Triumph funding for the Gulf Specimen Marine Laboratories.

The Gulf Specimen Marine Laboratories seeks 3.9 million to fund much needed infrastructure upgrades and expansion of their 50-year-old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center that will not only provide interactive education for visiting schools but will also be the hub of the Aquatic and Marine Technician Certification Program. Currently the GSML host up to 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20 new jobs, certify 72 technicians (per year) and triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

The Wakulla County Tourist Development Council fully supports this application for funding and looks forward to the much needed long term economic impact this will have on the community.

Consideration by the Gulf Coast Triumph, Inc. Board to fund this project is greatly appreciated.

Regards,



---

Becton Roddenberry, Chairman  
Tourist Development Council



August 9, 2018

The Honorable Don Gaetz, Chair  
Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Chair Gaetz,

I write to you today in support of the application of the Gulf Specimen Marine Laboratories, Inc. (GSML) to the Triumph Gulf Coast Inc. Triumph funds are requested for infrastructure upgrades and expansion for Gulf Specimen Marine Laboratory & Aquarium. Currently the GSML hosts approximately 10,000 school children each year on field trips from counties around the state and as far away as southern Georgia. Another 17,000 tourists, from around the United States and abroad, positively impact the local economy when they visit each years. The GSML is critical to the local economy.

Faculty, staff and students from the Florida State University have interacted with the GSML for many years. Students have completed internships that have led to employment in the State of Florida and GSML has provided specimens used in both our teaching laboratories and by our researchers. I have visited the GSML on a number of occasions relative to the ongoing relationship between our two institutions and can speak to the critical role it plays.

We very much support the request of the GSML for \$3.9 million to fund much needed infrastructure upgrades and expansion of their 50-year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, upgrades to seawater and filtrations systems and a new educational center. The educational center will provide interactive education for visiting schools and will be the hub of the planned *Aquatic and Marine Technician Certification Program*. It is anticipated that the successful completion of the activities proposed to Triumph will add 20 new jobs, certify 72 technicians (per year) and triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

I and my colleagues are pleased to support this application and we look forward to the long-term positive economic impact this will have on the community.

Sincerely,

A handwritten signature in cursive script, appearing to read "Gary K. Ostrander".

Gary K. Ostrander  
Vice President for Research  
Florida State University

# PHOTOARK

JOEL SARTORE

To Whom it May Concern,

This letter is to sing the praises of Jack Rudloe and his staff at Gulf Specimen, a remarkable scientific organization in Panacea, FL.

Known around the world for providing fish and marine invertebrates to be studied at hundreds of colleges and research facilities, Gulf Specimen has also worked tirelessly to educate school children about the wonders of all life forms in the Gulf of Mexico. Since 1980, they've hosted literally tens of thousands of kids at their education center.

Jack and his team especially relish teaching about the small, overlooked species like sea cucumbers, starfish and mussels. In a series of shallow display tanks, children can literally touch many species they never could have even imagined. This has a lasting impact, especially for local kids that would never otherwise be able to learn about the biodiversity just under the surface out in the bay.

Indeed, one of the most remarkable effects is how many lives are profoundly changed once they leave this special place. Interns and volunteers alike receive professional training there, and carry that with them all their lives. Many go on to have successful careers in the biological sciences, driven by the inspiration they got at Gulf Specimen.

Jack has had a big impact on me as well. I've visited several times over the years, each time photographing dozens of species for the National Geographic Photo Ark. From sponges to squid, crabs to hagfish, the wonders of the sea never cease to amaze me. Jack even ships creatures up to Nebraska to photograph, something nobody else has ever taken the time, trouble or expense to do.

Thanks to Jack's boundless enthusiasm, we learn that all creatures, great and small, have value. As he once famously said, "Whether they sizzle, hiss, pop, etc, etc., I love them all". This sums up the attitude of the entire team at Gulf Specimen. It's this passion that landed him a recent National Geographic book and exhibition on the Photo Ark, where he is featured as an environmental hero of mine.

I'm proud to add my voice to those supporting Gulf Specimen's latest endeavor, and can attest that your grant funding could not be better spent. Please do not hesitate to contact me for any more information about this remarkable place. <https://www.youtube.com/watch?v=Lz31zsTYWYU>

Sincerely,



Joel Sartore  
Photographer and Fellow, National Geographic Society  
Founder, National Geographic Photo Ark  
Cell: 402.326.1150



Charles E. Schmidt College of Science  
Department of Biological Sciences  
777 Glades Road  
Boca Raton, FL 33431  
tel: 561.297-3320  
fax: 561.297-2749  
31 July 2018

Triumph Grant Program  
Gulf Specimen Marine Lab Triumph Grant Pre-proposal

Dear Sir or Madam:

I am delighted to write in strong support of the application by the Gulf Specimen Marine Lab's Pre-proposal to the Triumph Grant Program. I have been familiar with the President of Gulf Specimen for several decades and respect what he established and has developed. Recently, I became familiar with the amazingly effective and productive internship program the Lab runs and learned of their more expansive public outreach. They are the go-to facility for healthy marine organisms for science for decades, but they have added, many educational components to their mission, and their public outreach as grown and matured from tours of the specimens to diverse and exceptional public education about the marine world.

To give you some perspective on my background, I am the Director of the FAU Marine Lab at Gumbo Limbo Environmental Complex and have more than 20 years of experience in training undergraduate students at the lab in both marine biological skills, as well as public outreach.

Recently, I hired one of their former interns and can say with complete confidence that the training she got at Gulf Specimen Marine Lab was responsible for her rising to the top of the applicants. She came to me well-versed in the basics of managing seawater quality, understanding diverse tanks and species, how to work with novices and train them, skills in completing and filing required reports, how to talk with the public effectively, and with a sense that she is a public face of our University. She takes pride in doing her job well and being effective. She seeks out help when needed and brings up things she learned at Gulf Specimen Marine Lab when we are trouble-shooting. Much of our work is with marine turtles. While she worked with just a few marine turtle species in their sea turtle rehabilitation facility, those skills also translated well. It was her internship experience there that made her the well-rounded marine biologist that she is and, now, an essential part of my team.

It is for these reasons that I strongly encourage support of this lab and its highly effective teaching.

Sincerely,

A handwritten signature in black ink that reads 'Jeanette Wyneken'. The signature is fluid and cursive, with a long, sweeping underline.

Jeanette Wyneken  
Professor  
Director, FAU marine Lab at Gumbo Limbo Environmental Complex



NATIONAL  
**SAVE THE SEA TURTLE**  
FOUNDATION

*"Help Save A Life and Generate Hope For Our Endangered Species"*

July 12, 2018

The Honorable Don Gaetz, Chair  
Florida Triumph Gulf Coast, Inc.  
P.O. Box 12007  
Tallahassee, FL 32317

Dear Senator Gaetz,

We are writing to you today to provide our support for Gulf Specimen Marine Laboratories, Inc. project for funding infrastructure upgrades and expansion for Gulf Specimen Marine Laboratory & Aquarium from the Florida Gulf Triumph Fund.

GSML seeks 3.9 million to fund much needed infrastructure upgrades and expansion of their 50 year old Marine Laboratory and Aquarium located in Panacea, FL. Expansion will include 8 new marine displays, a new turtle rehabilitation facility, holding pools, upgrades to seawater and filtrations systems and a new educational center that will provide interactive education for visiting schools and special programs on environmental education. Currently GSML host over 10,000 school children per year visiting on field trips from counties around the state and Georgia. Another 17,000 tourists come through the lab annually from all over the United States. With approved funding the GSML will be able to add 20-30 new jobs, expand the existing marine intern program to accommodate 72 students per year, from FSU, FAMU, TCC and Thomas University. In the first 3 years it is the Gulf Specimen Marine Lab's goal to triple their tourism impact to the town of Panacea adding much needed tourism dollars and economic stimulation to the local economy.

National Save The Sea Turtle Foundation, Inc. fully supports this application for funding and looks forward to the much needed long term economic and environmental impact this will have on the community.

Sincerely,

Frank Wojcik  
Executive Director

**4419 W. Tradewinds Avenue • Fort Lauderdale, Florida 33308**  
**Phone: 954-351-9333 • Fax: 954-351-5549 • Toll Free: 877-887-8533**  
**Website: [www.savetheseaturtle.org](http://www.savetheseaturtle.org) • Email: [savetheseaturtle@bellsouth.net](mailto:savetheseaturtle@bellsouth.net)**

July 31, 2018

Gulf Specimen Marine Laboratory  
Attn: Jack Rudloe  
P.O. Box 237  
Panacea, FL 32346

Subject: Gulf Specimens Aquarist Internship

To Whom It May Concern:

I am writing this letter in support of the Gulf Specimen Marine Laboratory Aquarist Internship program. I have worked with and known Jack Rudloe for well over 25 years. Several years ago, I had the opportunity to transport an endangered sea turtle the Gulf Specimens for one of his displays. After the transport I was able to tour his facility. I found the aquariums to be in great shape: water quality was clear, specimens were robust and healthy and the animals were displayed in natural environments.

Internship programs are extremely valuable when interviewing potential candidates for employment. When reviewing applications, we look for areas where potential employees have gone the extra mile – something that will separate them from all the other candidates. Internship programs fall under this category. An internship program is where the candidates can learn the basics of husbandry techniques such as feeding, nutrition, disease assessment, treatment and water quality. The Gulf Specimen Internship program not only includes these basic skills but also includes extras such as boating experience, collecting, and public speaking. These are all valuable experiences for future employment in a public aquarium environment.

As a major asset to this intern program, Jack is a phenomenal educator and author. I have personally observed Jack interact with visitors at Gulf Specimens Marine Laboratory teaching fun facts about each animal. As stated on the back cover of his book, Search for the Great Turtle Mother, “The facility, located in the quiet Florida Panhandle community of Panacea, offers tours of its aquarium to school groups and the public, teaching visitors about hundreds of fascinating creatures and the marine and estuarine habitats where they live.” This is a perfect environment for an intern to learn.

With that being said, I fully support Gulf Specimens internship program and would recommend it to any future students interested in the aquarium field.

Sincerely,



Gary Violetta  
Director of Animal Husbandry  
SeaWorld Orlando

## **MEMORANDUM**

**TO:** Gulf Specimen Marine Lab & Aquarium  
**FROM:** Sachs Media Group  
**DATE:** July 3, 2018  
**RE:** Public Relations and Design Services

The Gulf Specimen Marine Lab & Aquarium (GSML&A) is an independent not-for-profit marine research and education organization and public aquarium located in Panacea, Florida. It serves approximately 27,000 visitors a year including local area students, members, research programs, and tourists. Its three primary fundraising goals are increasing lab visits, raising donations, and increasing memberships by 10 percent, respectively. With a budget of \$50,000, GSML&A has selected Sachs Media Group, a strategic communications firm, to serve as its partner and assist in meeting its goals.

Sachs Media Group will implement a six-month targeted marketing campaign to meet and likely exceed GSML&A's goals. In order to draw in new visitors, raise donations, and increase its memberships, Sachs Media will design a marketing kit that will inspire people to want to learn more, donate, explore the amazing assets the lab has to offer, and renew or become a new member of this important community resource.

Sachs Media Group will also produce a series of up to three animated web videos, Facebook and digital display ads to use on social media with a targeted paid placement promotion. Using earned media tactics, Sachs Media will craft and pitch news-related items (advisories, news releases, media avails, and expert interviews) to media tied to specific news-hooks during key points of the campaign.

### **MARKETING KIT**

An electronic marketing kit will provide a highly-visible, cost effective, and easily transferable option to attract new visitors, members, and potential donations to the lab. The kit may include, but is not limited to:

- Legacy piece / History
- One pager / Mission
- Fact sheet / Q&A
- Vision / Next phase / Why and how to donate

## DIGITAL ADVERTISING

Digital advertising provides the most efficient targeting options while also being cost-effective. We will place ads across a mix of digital platforms to reach targeted audiences.

**Facebook Ads:** Promoted post ads in the personal news feeds of targeted users, such as parents who live or are visiting the Big Bend region, teachers, and recent visitors of the GSML&A website to promote memberships and fundraising.

**Google Search Ads:** Text ads placed at the top of search results for aquatic and marine-life related keywords, such as “sea turtles,” “starfish,” and “sharks,” as well as attraction-related keywords, such as “kids activities near Tallahassee.”

**Digital Display Ads:** Banner ads, placed on hundreds of popular websites, targeting parents of young children in the Big Bend.

**YouTube Video Ads:** Pre-roll video ads that would appear before videos about parenting, watersports, aquarium, and marine life, targeting people who live in the Big Bend.

## EARNED MEDIA

- Marine/aquatic expert interview (TV, radio, newspaper, magazines)
- Guest on a TV segment (local affiliate TV stations and local access channel)
- Leverage news-hooks for coverage (all-mediums)
- Leverage existing partner websites, emails, and newsletters

## METRICS

Implementing tactics that are measurable is a top priority for this campaign. Each method outlined in this memo will be measured and evaluated as follows:

MEDIA	METRICS
Digital/Video Advertising	Impressions; Visits to key pages on website; Video views; Membership sign-ups
Social Media Advertising	Impressions; Visits to key pages on website; Video views; Social shares; Membership sign-ups
Earned Media	Impressions; Website visits

## **BUDGET**

We recommend allocating a budget of \$50,000 as follows:

<b>SERVICE</b>	<b>BUDGET</b>
Creative and Design (marketing kit; social media and digital display ad designs)	\$6,000
Up to three animated videos (15-second YouTube; 45-second Facebook)	\$6,000
Digital Ad Placement (includes reduced agency commission of 15%)	\$20,000
Earned Media (six months)	\$18,000
<b>TOTAL BUDGET</b>	<b>\$50,000</b>

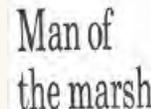
# MISSION or CRUSADE?

## Rudloe Angers Developers

“Everybody has a favorite cause, but for some people the cause becomes an all consuming effort. Sometimes, these people are just tilting at windmills: sometimes they end up changing a nation.”

- “Lonely Causes,” Wall Street Journal

Click images to read full articles



# US Navy Synthetically Recreates Biomaterial to Assist Military Personnel

Story Number: NNS170124-04 Release Date: 1/24/2017 8:50:00 AM

A A A [Email] [Print]

By Katherine Mapp, Naval Surface Warfare Center, Panama City Division Office of Congressional and Public Affairs

PANAMA CITY, Fla. (NNS) -- A team of U.S. Navy scientists and engineers at Naval Surface Warfare Center, Panama City Division (NSWC PCD) have successfully recreated a natural material used for marine wildlife defense to assist military personnel.

Biochemist Dr. Josh Kogot and Materials Engineer Dr. Ryan Kincer have produced a synthetic component of hagfish slime from the alpha and gamma proteins of the Pacific hagfish.

The Pacific hagfish, also known as slime eels, are bottom-dwelling scavengers which live on the ocean floor. The hagfish can secrete slime to protect themselves by obstructing the gills of predators which come into contact with the slime.

According to Kincer, hagfish slime consists of two protein-based components -- a thread and a mucin.

"The coiled up thread behaves like a spring and quickly unravels upon contact with water due to stored energy," said Kincer. "The mucin binds to water and constrains the flow between the micro channels created by the thread dispersion. The interaction between the thread, mucin, and seawater creates a three-dimensional, viscoelastic network. Over time, the thread begins to collapse on itself, causing the slime to slowly dissipate. Studies have shown the hagfish secretion can expand up to 10,000 times its initial volume."

The hagfish slime thread has been compared to spider silk. Both are natural, renewable materials which could one day replace synthetic products derived from petroleum-based precursors. Kogot said the slime thread has comparable mechanical properties to Kevlar, a synthetic fiber used as a reinforcing agent for rubber products and protective gear.

During synthetic recreation, alpha and gamma proteins were produced in an Escherichia coli bacteria, or E.coli, where each protein was recovered from the bacteria after a series of isolation and purification steps. The alpha and gamma proteins were later combined together and rapidly assembled in a crosslinking solution. A sample of natural and synthetic hagfish threads were compared using a scanning electron microscope to visually confirm the production of the synthetic threads.

The intended use of the synthetic slime is to provide non-lethal and non-kinetic defense to the fleet.

"The synthetic hagfish slime may be used for ballistics protection, firefighting, anti-fouling, diver protection, or anti-shark spray," said Kogot. "The possibilities are endless. Our goal is to produce a substance that can act as non-lethal and non-kinetic defense to protect the warfighter."

Kincer said the addition of using a material such as the slime will be valuable to the U.S. Navy.

"Researchers have called the hagfish slime one of the most unique biomaterials known," said Kincer. "For the U.S. Navy to have its hands on it or a material that acts similar would be beneficial. From a tactical standpoint, it would be interesting to have a material that can change the properties of the water at dilute concentrations in a matter of seconds."

The effort to create new synthetic means to behave like the natural hagfish slime is supported by Navy Innovative Science and Engineering (NISE) funding and the Office of Naval Research Code 32, ocean battlespace sensing department. The team is researching ways to increase the slime's surface attachment capability, potential delivery systems, and enhanced stability in various environments. From there, Kogot and Kincer will continue to look for innovative applications and explore different variations and properties of the material.

They are currently working to increase the slime protein scale and improve protein assembly.

For more information, visit <http://www.navy.mil/>, <http://www.facebook.com/usnavy/>, or <http://www.twitter.com/usnavy/>.

For more news from Naval Surface Warfare Center, Panama City Division, visit <http://www.navy.mil/local/NSWC/>.

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Naval Surface Warfare Panama City Division (NSWC PCD) scientist and engineers demonstrate the elasticity of the hagfish slime secreted from the Pacific hagfish in a lab aboard NSWC PCD Nov. 29, 2016. Pictured from left to right: Dr. Josh Kogot, Dr. Michelle Kincer and Dr. Ryan Kincer. U.S. Navy photo by Ron Newsome (Released) 161129-N-PB086-020

January 11, 2017

## Navy Social Media



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## Jack Rudloe

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**From:** Kincer, Matthew R CIV NAVSEA <matthew.kincer@navy.mil>  
**Sent:** Monday, March 19, 2018 11:06 AM  
**To:** Jack Rudloe  
**Subject:** FW: [Non-DoD Source] Letter of recommendation

Hello Jack,

Sorry for not getting back to you last week, but unfortunately I will not be able to help with the recommendation letter. After our initial conversation, my boss told me to speak with our base legal counsel. As noted below, the counsel informed me of a regulation which restricts government employees from endorsing a non-Federal entity. After further discussing with him about just providing a letter highlighting our past experience, he is afraid that could be considered an implied endorsement since we know what the intent of the letter is being used for. I apologize for not being able to help as you and GSML were a big help in getting our research project started.

Regards,

Matthew "Ryan" Kincer Ph.D.  
Materials Engineer  
Naval Surface Warfare Center - Panama City Division Intelligent Sensing & Irregular Warfare Branch (Code X12)  
Office: (850)235-5174  
matthew.kincer@navy.mil

-----Original Message-----

From: Shepherd, James T CIV NSWC PC  
Sent: Monday, March 19, 2018 9:49 AM  
To: Kincer, Matthew R CIV NAVSEA  
Subject: RE: [Non-DoD Source] Letter of recommendation

Matthew,

I recommend that you do NOT provide the letter. Per the DoD Joint Ethics Regulation, Section 3-209, "endorsement of a non-Federal entity, event, product, service, or enterprise may be neither stated nor implied by DoD or DoD employees in their official capacities."

- Jim

James T. Shepherd  
Counsel  
Naval Surface Warfare Center  
Panama City Division, Code 00L  
110 Vernon Ave.  
Panama City, FL 32407  
(850)234-4646  
james.t.shepherd@navy.mil

-----Original Message-----

From: Kincer, Matthew R CIV NAVSEA  
Sent: Friday, March 16, 2018 12:31 PM  
To: Shepherd, James T CIV NSW PC  
Subject: FW: [Non-DoD Source] Letter of recommendation

Hello Jim,

I'm an employee at NSW PC and got a request for a letter of recommendation this morning from a previous contactor Gulf Specimen Marine Lab which is in Panama, FL. They provided us help in housing and taking care of live hagfish while we were starting a project on trying to replicate the slime material the fish secrete. My branch head suggested I check with you to determine if there were any legal reasons I couldn't provide a letter. The letter would focus on the services they provided for us and the professionalism and expertise we found valuable for the project. I wouldn't include any language that would come across as campaigning or recommending they get any of the BP settlement money. I envision the letter would be fairly short so if you needed to review prior to me sending it out that would be no issue.

Thanks,

Matthew "Ryan" Kincer Ph.D.  
Materials Engineer  
Naval Surface Warfare Center - Panama City Division Intelligent Sensing & Irregular Warfare Branch (Code X12)  
Office: (850)235-5174  
matthew.kincer@navy.mil

-----Original Message-----

From: Jack Rudloe [mailto:jrudloe@earthlink.net]  
Sent: Friday, March 16, 2018 1:41 AM  
To: Kincer, Matthew R CIV NAVSEA  
Subject: [Non-DoD Source] Letter of recommendation

Hi Ryan,

I enjoyed our phone conversation last week, and was glad to hear that the hagfish project has moved on. As I mentioned we are applying for funding from the Triumph Gulf Coast Funds, which resulted from a settlement from the BP Deep Water Horizon oil spill.

It would be most useful to our proposal if you could write a letter of recommendation, spelling out our role in the Navy's research on that programs, and if you were pleased with our work and if another opportunity working with sea life comes along, that you'd consider using our services again. We are getting a good collection of letters, including from National Geographic, (their hagfish photo attached) but your's will be especially valuable.

I want to thank you for the business, and the great opportunity to work with hagfish and their slime.

# The Steinbeck Papers

"Remember the Land of Oz? Maybe we could help to colonize the World of Is. It is more fantastic than the moon and littler known than Mars and it has the curious advantage of being here."

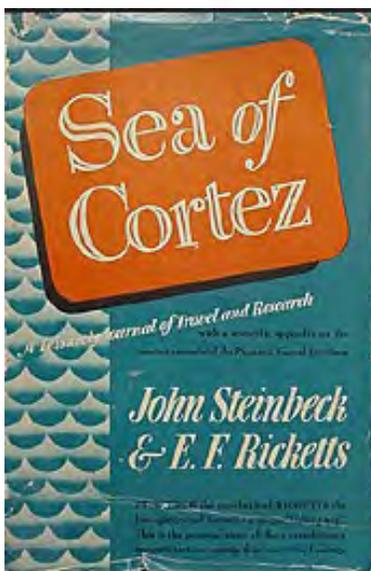
In the winter of 1962 I began a correspondence with John Steinbeck, one of America's most famous novelists. Among his most noted works were *The Grapes of Wrath*, *East of Eden*, *Tortilla Flat* and many others. But at the time, two of his works, "*Cannery Row*" and the "*Log of the Sea of Cortez*" were the most important to me because I was starting in business of collecting marine life in Panacea.

Long before I ever picked up the book, people were telling me I was Doc in *Cannery Row*. Doc was a biologist who had a small commercial laboratory that sold pickled sea creatures, embalmed cats and rattlesnakes to schools and research laboratories. Next door to "*Western Biological*" was a whore house, a sardine cannery, and a Chinese Grocery store. Doc was a real person, Edward F. Ricketts, owner of Pacific Biological Laboratories and John Steinbeck was a partner at one point in time, and his wife Carole was Ed's secretary. Together Ricketts and Steinbeck wrote the *Log of the Sea of Cortez*, about their expedition into the Gulf of California to collect marine invertebrates and bring them back to study. They were traveling around uncharted ground at the time in a purse seiner called the "*Western Flier*"



I read both books, and I was particularly interested in the difficulties they encountered with academia. At the time I was having my troubles with Florida State University, having just been booted out, and I wrote Steinbeck a letter telling him that things hadn't changed since the book was written in 1941; that some of the professors were still antagonistic to individual scientific pursuits outside of the university and hostile to entrepreneur. I was nineteen years old, my esteem was at its lowest point ever. I didn't expect an answer because I knew he got tons of mail, but it was the beginning of a long correspondence. Through his letters, and during our visits John Steinbeck encouraged me to go on with my dream, to build Gulf Specimen Marine Lab and go on with my writing.

But one time when I was visiting him in New York, I complained about how hard it is to get published. He got angry, "Don't give me that crap, Jack. If you're worth a damn you'll get published; it may take a long time but sooner or later you will. And if you're not, you won't."



# The Steinbeck Letters

[Jack's First Letter to Steinbeck](#)  
[Steinbeck's Reply](#)

[Rudloe to Steinbeck 4/9/63](#)

[Steinbeck's Reply 5/16/63](#)

[Steinbeck's first postcard to Jack](#)

[Rudloe to Stienbeck 8/19/63](#)

[Steinbeck to Rudloe Delivered in Person 9/25/63](#)

[Steinbeck to Rudloe 2/7/64](#)

[Rudloe to Steinbeck 11/24/64](#)

[Steinbeck to Rudloe 2/17/65](#)

[Rudloe to Steinbeck 2/28/65](#)

[Rudloe to Steinbeck 3/19/65](#)

[Steinbeck to Rudloe 3/22/65](#)

[Rudloe to Steinbeck 4/10/65](#)

[Steinbeck to Rudloe 4/26/65](#)

[Rudloe to Steinbeck 9/22/65](#)

[Steinbeck to Rudloe 4??/65](#)

[Rudloe to Steinbeck 1/21/66](#)

[Steinbeck's postcard to Rudloe 3/5/66](#)

[Steinbeck to Rudloe 3/18/66](#)

[Steinbeck's postcard to Rudloe 5/24/66](#)

[Steinbeck's postcard to Rudloe 6/3/66](#)

[Steinbeck's final postcard to Rudloe](#)

[Rudloe to Steinbeck 9/11/67](#)

[Steinbeck's final letter to Jack 9/14/67](#)



John Steinbeck  
190 East Seventy-second St.  
New York 21, New York

Dear Jack Rudloe:

It was a great pleasure to get your letter of April 1 (P). As you must know, my mail has become a matter of horror to me. It is like the smooth wave and compound of flatterers (they think) people who want something, women who have confessed pride and see, plus a large group of just plain busy house-wives. Your letter made my day.

I wish I could see your part of the country. The name panacea is charming. Your letter head (name, head short and a moray unless I take sleeping) very good.

Your restlessness with the specialists is not unknown to me. Ed and I had some of it, except for the great ones. They were always friendly and easy and open. Only the half-arsed are priestly. You see they aren't very secure. They are fighting for positions, and for promotions. They are usually pretty dull people. Be kind to them. They are as vain as actors and flattery will get you any place with them. But they do have value in identification under our rotten taxonomic structure.

Of course there is a way of joining the club - a degree and a grant of some kind come from an institution - your name to insert - will work. And still, there are some awfully good people working in the field. There's a tagging station on St. John's also studying the panacea factors about how some algae and the people there are fine and friendly.

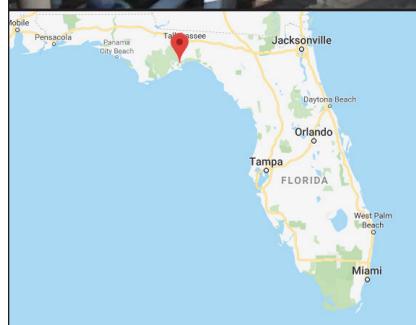
You say your name suffers especially much identification. We have found some at certain times from the ...

Who Is

# GULF SPECIMEN?



Jack Rudloe  
Co-Founder and President,  
Gulf Specimen Marine Laboratory and Aquarium



Who is Gulf Specimen Marine Laboratory and Aquarium? It is not just an aquarium, nor is it just a marine lab, nor a tropical fish shipping plant, nor strictly a sea turtle rehabilitation facility. There is no other aquarium or marine laboratory like it anywhere in the world. It is a tiny, unique facility located in the quiet backwater town of Panacea on the Gulf of Mexico in the Florida panhandle.

School buses arrive daily from north Florida, south Georgia and Alabama; tour buses come from south and central Florida; all bringing hundreds of happy excited kids who stream in to the touch tanks to pick up horseshoe crabs and starfish. They watch our interns and volunteers feed sharks, sea turtles and moray eels. Nothing is more energizing than the laughter of children as they pick up a scallop and watch it open and close its valves, or see a nurse shark snap up a fish. One teacher told us, "Gulf Specimen is the only place where my students don't use their cell phones for anything but taking pictures."

They watch our staff busily gathering, boxing and shipping crabs, starfish, urchins and algae to schools, universities and biomedical institutions, and learn about their importance to science. We tell them how we helped to discover anticancer drugs and provided red beard sponges and toadfish that were sent up in the space shuttle. With phones ringing incessantly as scientists and educators order urchins for embryology, and fiddler crabs, sponges and tunicates for their classes, it looks like chaos.

But it's not. It takes a lot to keep the place running. The staff has to assess water quality to make sure the fish are happy and safe for children to handle. They check the gauges on the pumps, the ultra violet sterilization and ozone units, tweak the protein skimmers to make sure they're working properly and back flush the sand filters. Our collectors gather specimens with our small boats by diving, trawling and dredging. We grow barnacles and sea squirts off our "Living Dock" and use a lift net to gather jellyfish, squid and anchovies. We also have a very popular and growing summer camp program.

Gulf Specimen is a state licensed sea turtle rehabilitation center. Calls for stranded or hooked sea turtles that require trips to the local veterinarian for care are increasing yearly. During the hard freeze this year, our resources were strained when thousands of turtles washed up along the Florida panhandle. In the course of two days, nearly fifty young green turtles and Kemp's ridleys were brought into our lab to warm up and get veterinary care. Donations from sea turtle lovers helped to offset some of the expenses. When the waters warmed, hundreds of well-wishers came to St. George Island and cheered as they watched the turtles crawl back into the sea.



It was a glorious thing to do, we love turtles. I have written two books about them, and over the years my late wife Anne Rudloe and I published both scientific and popular articles about them. But caring for them is expensive. Gulf Specimen is not part of the money pipeline that flows into schools and universities. No “line item funding” for us: if anything, we survive on the drips and leaks of the funding pipeline. Our employees are mostly paid in sunsets and the opportunity to wade over freezing mud flats to rescue a frozen turtle or stranded dolphin.

Considering that GSML started in a shack in a remote fishing village with a population of 350, we have come a long way over the past half century. Much has been done. We have added new buildings, including the Mother Ocean building which Jimmy Buffett and others helped fund. We now have a new sea turtle hospital section with quarantine tanks. The aquarium abounds with exhibits and artwork, some from Florida’s renowned artist Christopher Still, who said that Gulf Specimen piqued his interest in sea life when he was eleven and first saw sea squirts squirt.

Large prints of sea creatures from the famous artist Walter Anderson, who lived on Home Island in Mississippi and drew every creature he ever saw, adorn the walls of our teaching pavilion. Life-like fiberglass models of sharks, fish and sea turtles, and collections of preserved specimens are on display. Through generous donations of our supporters, we have become a popular environmental education center with nearly 20,000 visitors each year. Philanthropists have funded our traveling SeaMobile, with its touch tanks filled with live sea creatures, which enables us to take the sea to classrooms and festivals. Donors have also helped us rebuild and recover from four hurricanes.



Gulf Specimen Co-Founder and President Jack Rudloe and his staff ready some Kemp's Ridley sea turtles for release.

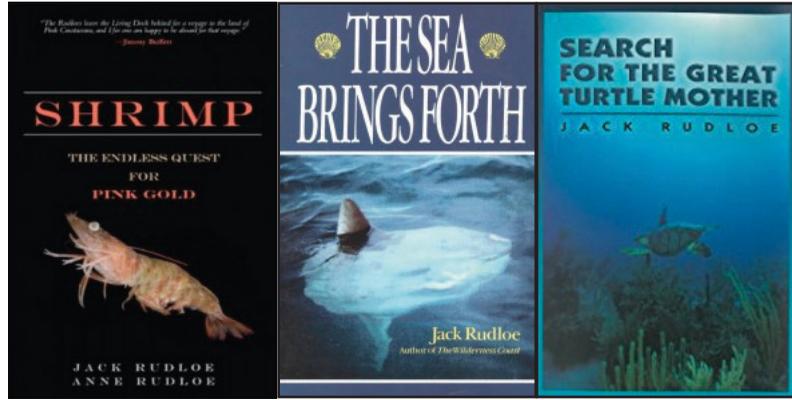
So the question is where do we go from here?

We begin with a master plan. Joe Chromanski, the former vice president of Ripley’s Aquariums, has designed one for us to expand and modernize our facilities and still retain our old-fashioned Florida roadside attraction appeal.

Upgrading our sea water system, will enable us to keep more fish and invertebrates to further entertain and educate our growing number of visitors. We also plan a new classroom and auditorium that will display the works of National Geographic’s famous photographer, Joel Sartore, who has taken hundreds of pictures of ma-

rine life at Gulf Specimen for his Photo-Ark project. Visitors will be able to see the 8,000 creatures he's photographed, including those taken at Gulf Specimen. There will also be a new display highlighting the books and articles written by co-founders, Jack and Anne Rudloe, as well as correspondence from John Steinbeck and other renowned authors.

To accomplish all of this, we need a new collecting vessel that will take us farther out into the Gulf to get a greater diversity of marine animals from deeper



waters and to rescue distressed turtles at sea. This larger vessel is also needed to go far offshore to trap octopuses. Visitors tell us that when those in our touch tanks wrap their tentacles and sucker disks around their fingers, it's a life changing experience. It's even more fun when we give octopuses a choice box with crabs representing the opposing teams, and watch them successfully pick the winners of the Super Bowl. But it all comes to an end when the octopuses mate and lay eggs and die. They have a short life cycle of only one year, so we have to collect new ones.



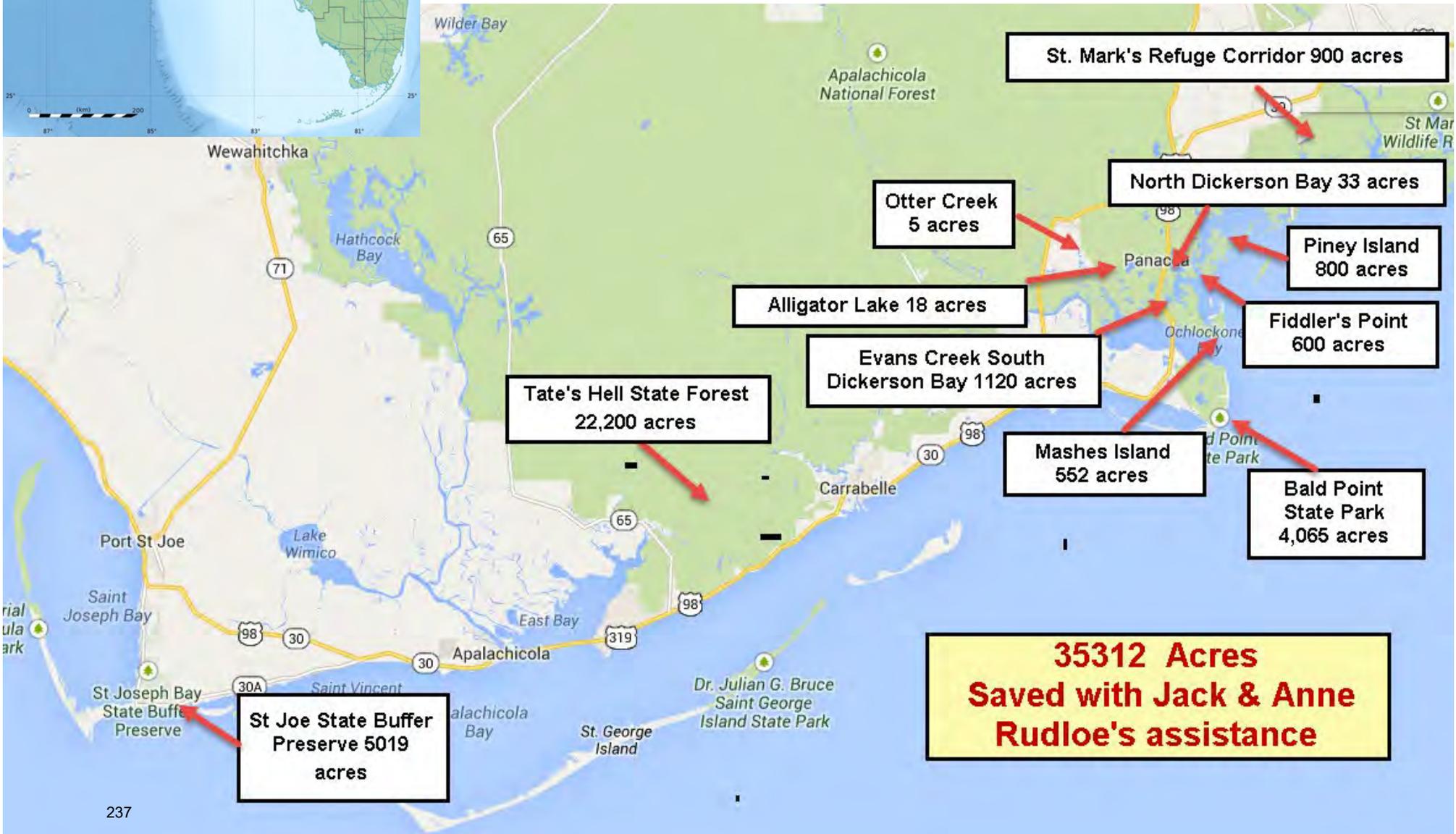
We have been here for over fifty years and hope to be here for another fifty. Generations of kids have come and gone, and now bring their kids and grandkids to Gulf Specimen. There has always been one overriding rule, and that is to "have fun with it."



Visit [www.gulfspecimen.org](http://www.gulfspecimen.org) to learn more and plan your visit!



# Area of Detail: Wetland Acquisitions Made/Influenced by Rudloes



# IN ACTION



## Gulf Specimen "Through the Years"

<http://www.youtube.com/watch?v=DDsX4t7TWx4>



## Tides and Marshes

<http://www.youtube.com/watch?v=OlcxUGWEqNk>



## The Estuary

[http://www.youtube.com/watch?v=s1XBG\\_bj0ws](http://www.youtube.com/watch?v=s1XBG_bj0ws)



## Mud is Good Stuff

<http://www.youtube.com/watch?v=iAWbIMFjNtI>



## Sea Grasses

<http://www.youtube.com/watch?v=FHTluEXoEXQ>



## Seamobile

<http://www.youtube.com/watch?v=JidGwow0Dj0>

## Learn more about Gulf Specimen Marine Laboratory



[FWC Florida Fish & Wild Life presents at Gulf Specimen Marine Lab](#)

[Cold-Stunned Turtles at the Gulf Specimen Marine Lab](#)

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[Little Girl's Sea Turtle release video preview 1](#)

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[SeaWorld brings new resident sea turtle to Gulf Specimen Aquarium](#)