



DEPARTMENT OF NATURAL RESOURCES  
COASTAL RESOURCES DIVISION  
ONE CONSERVATION WAY • BRUNSWICK, GA 31520 • 912.264.7218  
COASTALGADNR.ORG

MARK WILLIAMS  
COMMISSIONER

DOUG HAYMANS  
DIRECTOR

**JAN 31 2019**

Jacob Shalack  
University of Georgia Marine Institute  
Sapelo Island, GA 31327

**Re: Letter of Permission (LOP) for Replacing a Walkway, Coastal Marshlands Protection Act (CMPA) Permit #673, Factory Creek Tributary, Sapelo Island, McIntosh County, Georgia. (GPS 31.444083N/-81.283458W)**

Dear Mr. Shalack:

This Letter of Permission (LOP) is in response to your request dated January 17, 2019 to repair the existing the Eddy Covariance Flux Tower. The flux tower was permitted under CMPA Permit #673 and includes an approximately 30 ft. tall tower on a 5 ft. x 5 ft. platform supported by 6 in. x 6 in. foundation posts and powered by two solar panel structures (24 sq. ft.). The platform is accessed by a 722 ft. x 14 in. walkway. The proposed repairs involve replacing approximately 560ft. of the permitted walkway that was damaged during Hurricane Matthew. The walkway will be re-constructed in its originally permitted footprint. The project will begin no sooner than 15 days from the date of this letter and will be completed no later than six (6) months from the date of this letter.

The Department authorizes the repairs to the walkway as depicted in the attached description provided all Best Management Practices (BMPs) are used as may be required in McIntosh County to prevent erosion and sedimentation at the site and to protect coastal marshlands. **Remnants of or debris from the previous structure must be removed from jurisdictional coastal marshlands.** All work shall be done using small hand tools to minimize impacts to coastal marshlands. No unauthorized equipment, materials, or debris may be placed in, disposed of, or stored in marsh jurisdictional areas. Any visible alterations in marsh topography will be restored immediately using low-impact hand tools. Any damage to the marsh vegetation that has not recovered naturally during the next growing season will be repaired by a method acceptable to the Department.

This authorization does not relieve you from obtaining any other required federal, state, or local permits. Tidal water bottoms and marshlands of coastal Georgia are public trust lands controlled by the State, except for such lands where a validated Crown Grant or State Grant exists. If you have any questions you may contact Sam LaBarba at (912) 264-7218.

Sincerely,

Jill Andrews  
Chief, Coastal Management Section

**JAN 31 2019**

**Enclosures: Project Description, Location Map, CMPC Permit #673**

**cc: USACOE, McIntosh County Building Inspector**

**File: LOP20190015**

## Tobler, Paul

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**From:** Jacob Shalack <shalack@uga.edu>  
**Sent:** Thursday, January 17, 2019 11:33 AM  
**To:** Tobler, Paul  
**Subject:** Re: UGAMI Boardwalk  
**Attachments:** Permit 673 Flux Tower.jpg

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Paul,

As you have probably seen from the the previous email, we would like to repair our catwalk/boardwalk that we use to access the flux tower in the marsh. A large section of it was damaged during Hurricane Matthew. After which, we requested a repair authorization. Skye referred our case to you as she was leaving DNR in Aug 2017. As you know, Irma came through shortly after that. During Irma we lost a little more of the boardwalk. We have been working on many Irma recover issues and are now ready to address the lost boardwalk.

I have attached a google earth view of the flux tower showing what is left of the boardwalk. You can see some of the boardwalk near the tower itself and the rest of it on the right side of the picture. Obviously, we are missing the sections that connect those two. We have located much of the lost boardwalk in some adjacent marsh. Therefore, we should be able to reuse those sections.

We are seeking a repair authorization on Permit 673. We can begin as soon as we are issued the authorization and should be able to complete the repairs within 2 to 3 months. We don't expect much damage to the marsh as we will be carry things by hand to their locations. The only equipment will be small hand tools to screw it together. Thanks for your assistance with this. Please let me know if you need anymore information.

Jacob Shalack  
Sapelo Field Research Coordinator  
Georgia Coastal Ecosystems LTER  
Assistant Director for Operations  
University of Georgia Marine Institute  
Sapelo Island, GA 31327  
GCE Office (912) 485-2204  
UGAMI Office (912) 485-2221 ext 2225  
shalack@uga.edu

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**From:** Leiker, Sheldon <sheldon.leiker@dnr.ga.gov>  
**Sent:** Thursday, January 17, 2019 8:22 AM  
**To:** Jacob Shalack  
**Cc:** Tobler, Paul  
**Subject:** UGAMI Boardwalk

Hey Jacob,

## Labarba, Sam

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**From:** Jacob Shalack <shalack@uga.edu>  
**Sent:** Tuesday, January 22, 2019 2:49 PM  
**To:** Labarba, Sam  
**Subject:** Re: LOP for Boardwalk Repairs

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Sam,

Thank you for the response. We are looking to repair about 560ft of the boardwalk. The boardwalk is 1ft in width.

Jacob Shalack  
Sapelo Field Research Coordinator  
Georgia Coastal Ecosystems LTER  
Assistant Director for Operations  
University of Georgia Marine Institute  
Sapelo Island, GA 31327  
GCE Office (912) 485-2204  
UGAMI Office (912) 485-2221 ext 2225  
shalack@uga.edu

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**From:** Labarba, Sam <sam.labarba@dnr.ga.gov>  
**Sent:** Tuesday, January 22, 2019 8:53 AM  
**To:** Jacob Shalack  
**Subject:** LOP for Boardwalk Repairs

Jacob,

I will be handling the LOP for the boardwalk maintenance you requested. Just a quick question, what is the total length that needs to be repaired?

Thank you,

*Sam LaBarba*  
Coastal Permit Coordinator  
Marsh and Shore Management Program  
**Coastal Resources Division**  
O: (912) 264-7218 | M: (912) 266-0277  
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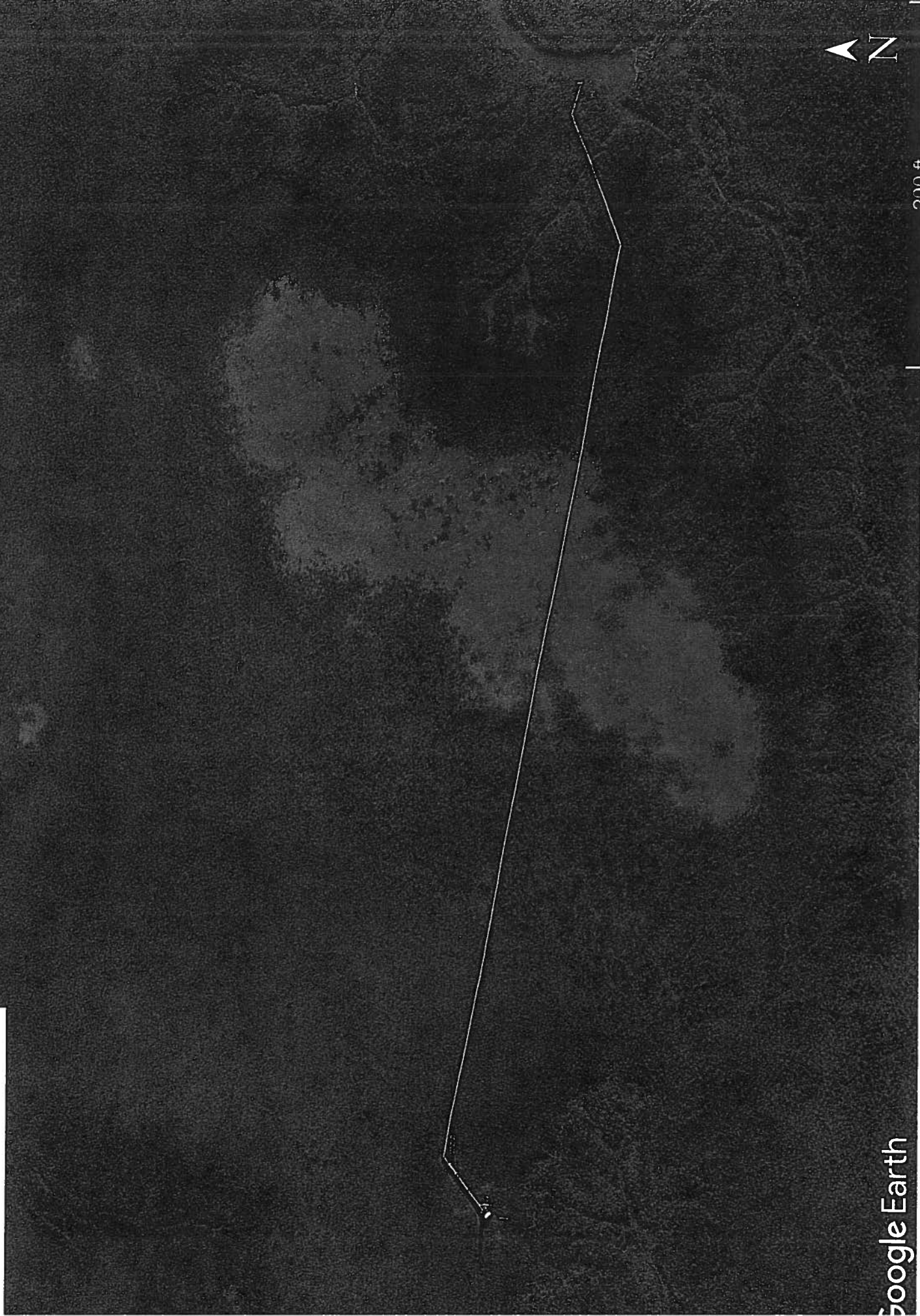
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A division of the  
GEORGIA DEPARTMENT OF NATURAL RESOURCES

# Pre-Storm Damage

Sapelo Flux Tower

# Legend



# Post-Storm Damage

Sapelo Flux Tower

# Legend





MARK WILLIAMS  
COMMISSIONER

A.G. 'SPUD' WOODWARD  
DIRECTOR

DEC 26 2012

Dr. Daniela DiIorio  
Dep't of Marine Sciences, UGA  
250 Marine Sciences Bldg.  
Athens, GA 30602-3636

**RE: Coastal Marshlands Protection Act Permit# 673, State of Georgia,  
Installation and Maintenance of Scientific Monitoring Equipment, Sapelo  
Island National Estuarine Research Reserve, Duplin River, McIntosh County,  
Georgia. SAS 2012-00542, NWP #5.**

Dear Dr. DiIorio,

The Coastal Marshlands Protection Committee considered and approved permit #673 referenced above under the Coastal Marshlands Protection Act O.C.G.A. 12-5-280 *et seq.* The permit and permit conditions are attached to this letter. All decision documents, as well as all other plans, documents and materials submitted during the application process become terms of this permit and are now enforceable conditions.

This letter and attachments are to be held by you for your files and for inspection by any authorized persons. The expiration date for the permit is five (5) years from the date of issuance. However, no construction may commence within the area of jurisdiction of the Act until the expiration of thirty (30) days following the date of issuance, provided there is no legal appeal of this permit, you have all other necessary federal, state and local authorizations and you have met all of the standard and special conditions as required by this permit.

Permitted Project Description:

Installation and maintenance of an Eddy Covariance Flux Tower ("flux tower") approximately 30' tall erected on a 5' x 5' (25 sq. ft.) platform supported by 6" x 6" foundation posts and powered by two solar panel structures approximately 2' x 12' (24 sq. ft.). The platform will be accessed by a 722' by 14" (843 sq. ft.) boardwalk. Total impacts to jurisdictional coastal marshlands from all structures are approximately 892 sq. ft. (0.02 acre). **and Special conditions apply to this permit.**

Marsh Component:

The marsh component of the project is the 30' tall "flux tower" erected on a 5' x 5' (25 sq. ft.) platform supported by 6" x 6" foundation posts, the two solar panel structures approximately 2' x 12' (24 sq. ft.) and the approximately 722' by 14" (843 sq. ft.) access boardwalk.

DEC 26 2012

Permit Placard:

Enclosed is the permit placard to be posted at the work site (within 24 hours) for the duration of the construction activity.

Post Construction Requirements: Compliance Certification and File Maintenance

Also enclosed is a *Certification of Compliance* that must be submitted to us within 30 days following completion of the permitted activity. Please include this compliance form with the post-construction survey, if required under the special conditions. Department staff will assess compliance and provide you with a written verification of project completion and compliance.

Conveyance of Ownership Interest:

If you as the permit holder sell, lease, rent, or otherwise convey the land or any portion of the land for which the permit was issued, you must notify the Department within 30 days of this transfer or conveyance. The permit shall continue in force in favor of the new owner, lessee, tenant, or other assignee so long as there is no change in the use of the land as set forth in the original application. The Department will transfer the permit to the new owner with all of the original terms and conditions.

We ask that you carefully read through this document and attachments and comply with the terms and conditions of this permit. Feel free to contact me if you need clarification of any of these conditions or for assistance with this project.

Sincerely,



Brad Gane  
Chief  
Ecological Services Section

Enclosures: CMPC Permit #673 and Permit Conditions, Compliance Certificate, Permit Placard, Drawings

cc: Mr. Mark Padgett, Savannah District Corps of Engineers  
PO Box 889  
Savannah, GA 3140

File #(051612.0000am\_CMPA#673)





MARK WILLIAMS  
COMMISSIONER

A.G. 'SPUD' WOODWARD  
DIRECTOR

**Coastal Marshlands Protection Committee Permit # 673  
Final Conditions  
December 19, 2012**

**State of Georgia  
Installation and Maintenance of Scientific Monitoring Equipment  
Sapelo Island National Estuarine Research Reserve  
Duplin River, McIntosh County, Georgia**

**Project Description:** Installation and maintenance of an Eddy Covariance Flux Tower ("flux tower") approximately 30' tall erected on a 5' x 5' (25 sq. ft.) platform supported by 6" x 6" foundation posts and powered by two solar panel structures approximately 2' x 12' (24 sq. ft.). The platform will be accessed by a 722' by 14" (843 sq. ft.) boardwalk. Total impacts to jurisdictional coastal marshlands from all structures are approximately 892 sq. ft. (0.02 acre). **Standard and Special conditions apply to this permit.**

**Marsh Component:**

The marsh component of the project is the 30' tall "flux tower" erected on a 5' x 5' (25 sq. ft.) platform supported by 6" x 6" foundation posts, the two solar panel structures approximately 2' x 12' (24 sq. ft.) and the approximately 722' by 14" (843 sq. ft.) access boardwalk.

**COASTAL MARSHLANDS PROTECTION ACT STANDARD CONDITIONS**

1. The project must comply, as applicable, for areas permitted herein, with all other federal, state, and local statutes, ordinances, and regulations and the applicant must obtain all licenses and permits prior to commencement of construction.
2. This permit does not resolve actual or potential disputes regarding ownership of, rights in or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests.
3. All plans, documents and materials contained in this permit application, required by Coastal Marshlands Protection Act of 1970, as amended O.C.G.A. § 12-5-280 *et seq.* are a part of this permit and conformance to such plans, documents, and materials are a condition of this permit. No change or deviation from these plans, documents, and materials shall be permitted without prior notification and approval by the Department or CMPC.
4. No further encroachment or construction shall take place within state jurisdiction, except as permitted by the CMPC. Any modification of the plans or structure in the jurisdictional area must be reviewed and approved by the Department or the CMPC, as necessary, prior to construction.

5. No construction or alteration of a project may commence until the expiration of 30 days following the date on which the application is approved; provided however that if a timely appeal is filed, no construction or alteration may commence until all administrative and judicial proceedings are terminated.
6. The permit must be posted onsite within twenty-four (24) hours of beginning construction.
7. A copy of these and all permit conditions must be supplied to the person in charge of construction. All contractors and subcontractors are responsible for strict adherence to all permit conditions.
8. All Best Management Practices (BMPs) should be used to prevent any erosion and sedimentation at the site. No equipment, materials, or debris may be placed in, disposed of, or stored in jurisdictional areas. Any visible alterations in the marsh topography will be restored immediately using low-impact hand tools. Any damage to the marsh vegetation that has not recovered naturally during the next growing season will be repaired by a method acceptable to the Department.
9. If the permitted improvements are damaged, fall into disrepair, become dilapidated, or are not meeting their expected usefulness and are not maintained at a serviceable level, it is the responsibility of the owner to remove the improvements. A new permit will be required to retain and repair the structure, improvement, or asset if it loses its structural integrity and is no longer serviceable.
10. The CMPC is not bound in the future to protect any improvement or asset authorized by the permit.

#### **SPECIAL CONDITIONS**

1. The permittee shall adhere to standard manatee conditions and procedures for aquatic construction as approved by the Savannah District Office of the US Army Corps of Engineers, US Fish and Wildlife Service, and the Georgia Department of Natural Resources.
2. Should unreasonable damage to the marsh surface occur, preexisting elevations shall be restored using hand tools. Such restoration must be coordinated with the Department prior to conducting.
3. There shall be no disposal of excavated material in coastal marshlands.
4. Permittee may be required to provide a post-construction survey to the Georgia Department of Natural Resources, Coastal Resources Division within 30 days of completion of the permitted activity. Such survey shall comply with the Georgia Plat Act O.C.G.A. 15-6-67 *et seq.*

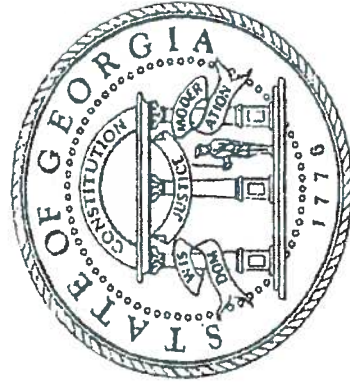
# Georgia Coastal Marshlands Protection Committee

## PERMIT

Issued Pursuant to O.C.G.A. 12-5-280

To: State of Georgia

For: Installation and maintenance of an Eddy Covariance Flux Tower ("flux tower") approximately 30' tall erected on a 5' x 5' (25 sq. ft.) platform supported by 6" x 6" foundation posts and powered by two solar panel structures approximately 2' x 12' (24 sq. ft.). The platform will be accessed by a 722' by 14" (843 sq. ft.) boardwalk. Total impacts to jurisdictional coastal marshlands from all structures are approximately 892 sq. ft. (0.02 acre). **Standard and Special conditions apply to this permit.**



Date: December 19, 2012

Expiration Date: December 19, 2017

Permit Number: 673

Authorized By: B. Gane

For further information, please contact the DNR Coastal Resources Division at (912) 264-7218



STATE OF GEORGIA  
5-YEAR REVOCABLE LICENSE REQUEST

APPLICANTS NAME(S): Fred Hay

MAILING ADDRESS: PO Box 15 Savannah, GA 31327  
(Street) (City) (State) (Zip)

PROJECT ADDRESS/LOCATION: Sapelo Island

COUNTY:  McIntosh  WATERWAY:  Duplin River  DATE:  5-6-12

LOT, BLOCK & SUBDIVISION NAME FROM DEED: \_\_\_\_\_

Georgia Department of Natural Resources  
Coastal Resources Division  
One Conservation Way  
Brunswick, Georgia 31520-8687

I am making application for a permit with the US Department of the Army, Corps of Engineers, Savannah District. I understand that the issuance of such a permit will not relieve me of the obligation to obtain authorization from the State of Georgia since the proposed project would constitute an encroachment on the beds of tidewaters which are State-owned property. Accordingly, I hereby request that I be granted a revocable license from the State of Georgia. Attached hereto and made a part of this request is a copy of the plans and description of the project that will be the subject of such a license. I certify that all information submitted is true and correct to the best of my knowledge and understand that willful misrepresentation or falsification is punishable by law.

I understand that if permission from the State is granted, it will be a revocable license and will not constitute a license coupled with an interest. I acknowledge that this revocable license does not resolve any actual or potential disputes regarding the ownership of, or rights in, or over the property upon which the subject project is proposed, and shall not be construed as recognizing or denying any such rights or interests. I acknowledge that such a license would relate only to the property interests of the State and would not obviate the necessity of obtaining any other State license, permit or authorization required by State law. I further acknowledge that I will have no liveaboards, nor allow them to occur, at this structure. I recognize that I waive my right of expectation of privacy and I do not have the permission of the State of Georgia to proceed with such project until the Commissioner of DNR has signed a copy of this request.

Sincerely,

By: Fred Hay, Sapelo Island Mgr. / GA DNR/WFD  
(Applicant), title if applicable

By: \_\_\_\_\_  
(Applicant), title if applicable

Attachment

The State of Georgia hereby grants you a revocable license not coupled with an interest as provided in your request. This area may now or in the future be utilized by boats employing power drawn nets under the provisions for commercial or sport bait shrimping. In its occupancy and use of the premises, licensee shall not discriminate against any person on the basis of race, gender, color, national origin, religion, age, or disability. This covenant by licensee may be enforced by termination of this license, by injunction, and by any other remedy available at law to the Department. The project proposed for this license must be completed within 5 years of the date of issuance of the license and must be maintained in serviceable condition. Otherwise, action will be initiated to revoke this license and all structure must be removed immediately at the licensee's expense.

GA DNR / HMP

MAY 14 2012

STATE OF GEORGIA  
Office of the Governor

By: B. Greene  
For: Mark Williams, Commissioner-DNR

DATE: DEC 19 2012



MARK WILLIAMS  
COMMISSIONER

A.G. SPUD WOODWARD  
DIRECTOR

CERTIFICATION OF COMPLIANCE  
FOR THE CONSTRUCTION AND MAINTENANCE  
OF PROJECTS PERMITTED UNDER  
THE COASTAL MARSHLAND PROTECTION ACT

PERMITTEE:

Name: State of Georgia  
City or Town: Sapelo Island National Estuarine Research Reserve  
Island or Waterway: Duplin River  
County: McIntosh  
Permit Number: 673

Within 30 days of completion of the activity authorized by this permit, sign this certification and return to the Habitat Management Program of the Ecological Services Section at the address listed below.

Please note that your permitted activity is subject to compliance inspections by DNR representatives before and after completion of the project. If you fail to comply with the permit terms and conditions it may be subject to suspension, modification, or revocation.

Permittee Statement

*"I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit."*

Signature of Permittee:

\_\_\_\_\_

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

Site Overhead View

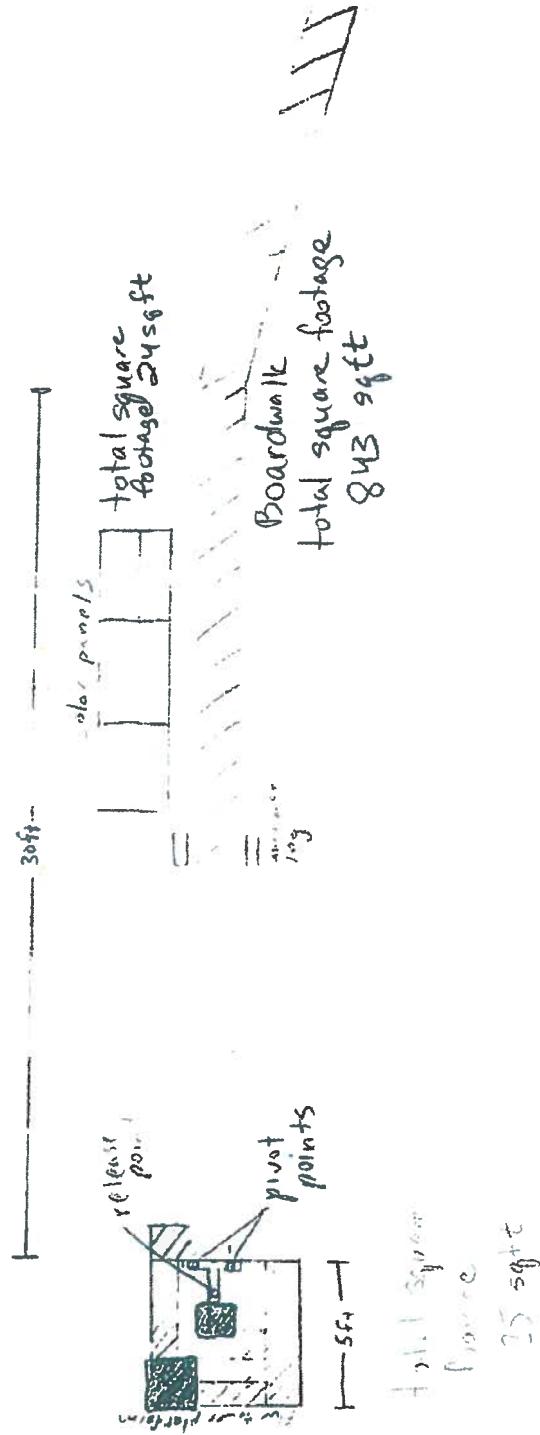


Fig 3a Flux tower installation design  
Overhead view  
Total area over marsh surface is  
approximately 892 sqft

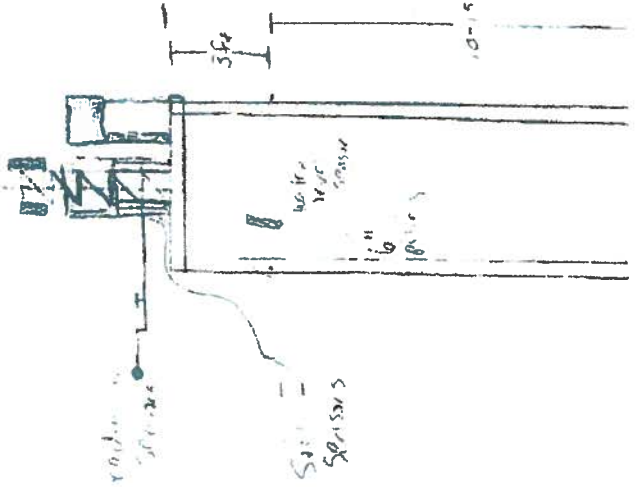
GA DNR / HMP  
MAY 14 2012

GA DNR / HMP

MAY 14 2012

Site Side View

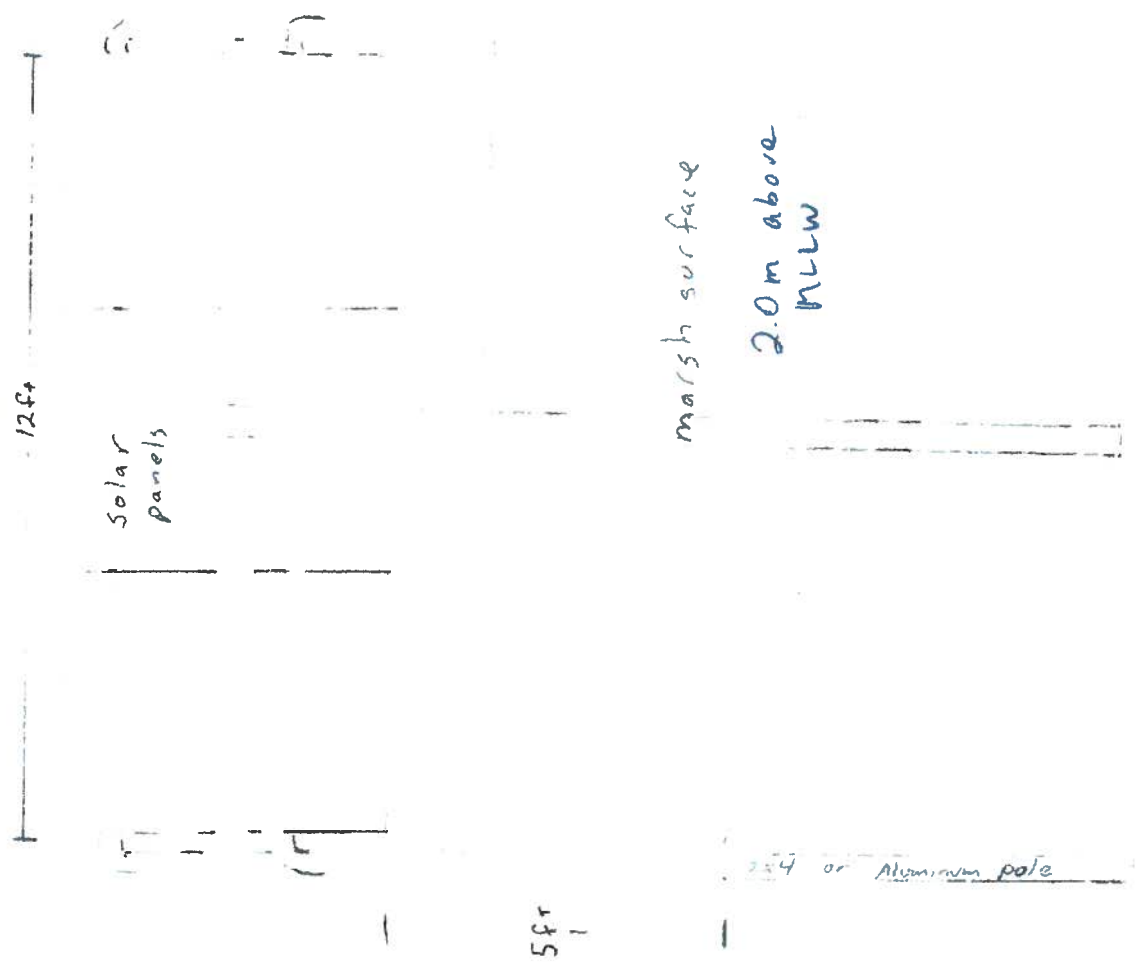
→ North



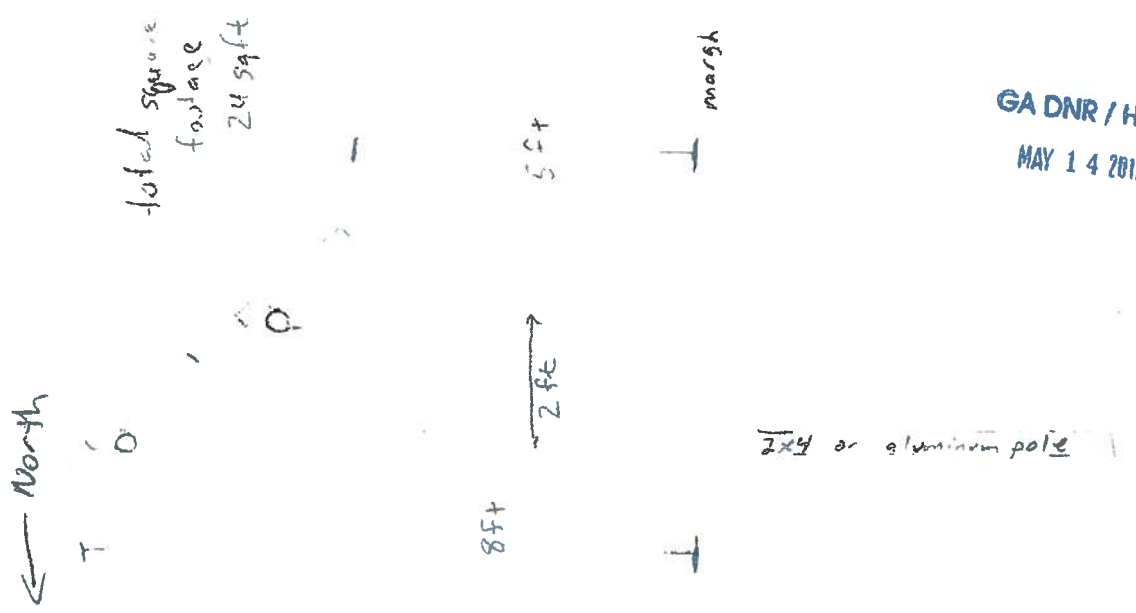
Marsh surface  
2.0m above MLLW

Fig 36 Flux tower installation design  
Side view  
Some sensors are shown

Solar Panel front view



Solar Panel - Side View

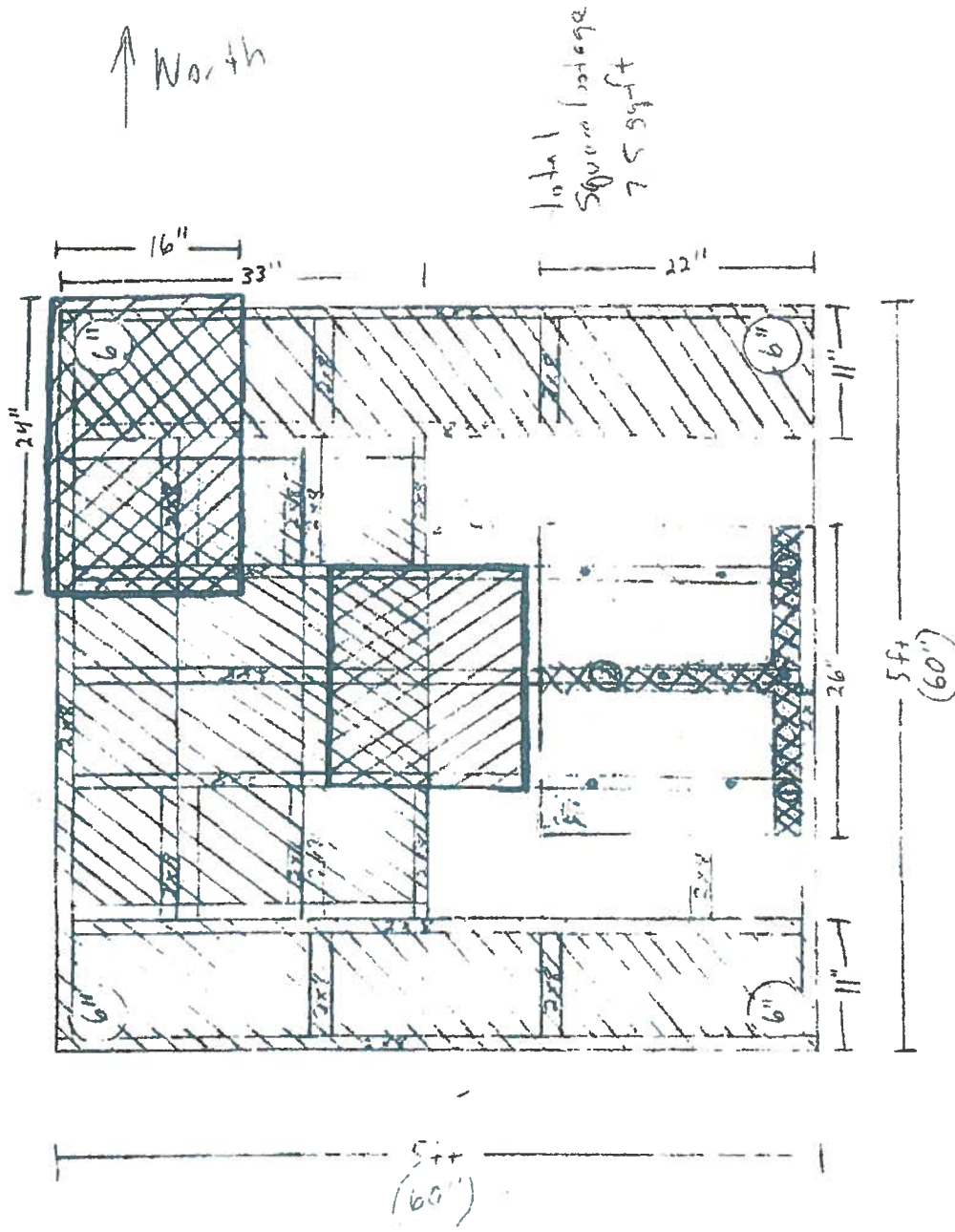


total square footage  
24 sqft

GA DNR / HMP  
MAY 14 2012

Fig. 3e. Solar Panel mounting frame - front and side views









-  Thin Flow decking
-  Five tower base plate
-  Stainless steel plate
-  Battery box and gas cylinder housings

Fig 3c Flux Tower Platform  
Overhead structural view

50

3ft

6" pipe

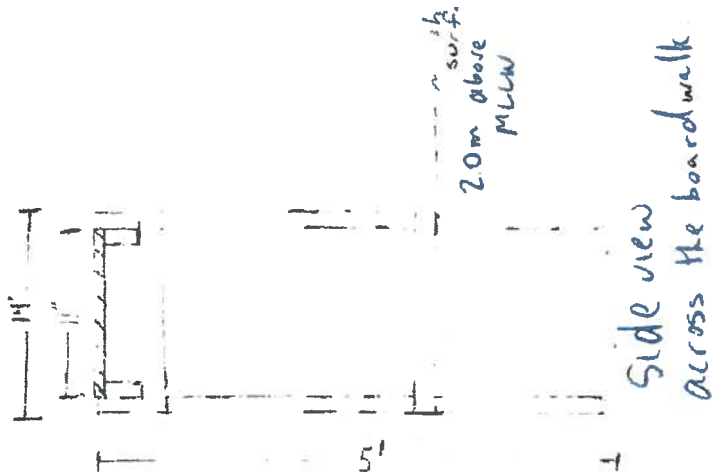
- marsh surface -  
2.0m above MLLW

Fig 3d Flux Tower Platform  
Side structural View

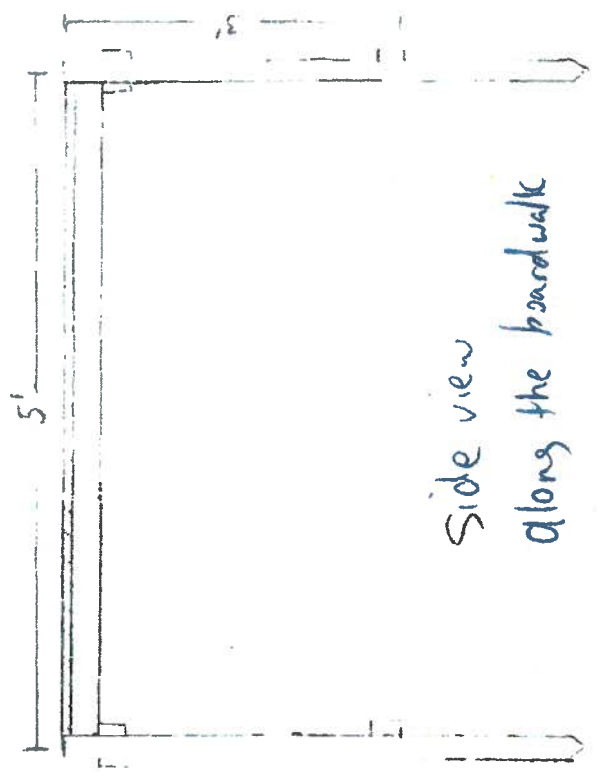
10-15ft

GA DNR / HMP

MAY 14 2012



Side view  
across the boardwalk



Side view  
along the boardwalk

total square footage: 842 sqft

top view



Boardwalk design

Thru Flow decking

Fig 3f. Boardwalk design