



# NORTH INLET – WINYAH BAY NATIONAL ESTUARINE RESEARCH RESERVE

## VOLUNTEER HANDBOOK

Updated January, 2021



# Contact Information

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**For general questions about the volunteer program:**

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**For questions about volunteering with educational programs:**

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**Mailing address:**

NI-WB NERR, USC Baruch Marine Field Lab, PO Box 1630, Georgetown, SC 29440

## Emergency Contact Information

### Fire, Medical, Police CALL 911

**Work Hours (M – F, 8:30 am – 4:30 pm) – please call the front office:**

Jan Blakely 843-904-9023

JoAnn Jarman 843-904-9024

**Non-work hours – please call in this order:**

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Matt Kimball 908-227-6955

Bruce Pfirrmann 757-903-9936

**Emergency (911) addresses:**

BUILDING

Baruch Marine Field Lab / NI-WB NERR

Maintenance Shop / Boat Shed

Oyster Landing

Clambank Landing

Hobcaw Barony Discovery Center

Kimbel Lodge / Pond Shelter

EMERGENCY ADDRESS

2306 Crab Hall Road

133 Oyster Landing Road

290 Oyster Landing Road

1602 Clambank Landing Road

22 Hobcaw Road

147 Pondpine Road

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# Welcome

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On behalf of the North Inlet-Winyah Bay National Estuarine Research Reserve, we would like to welcome you to our community and extend our thanks for your interest in volunteering. Perhaps like us, you're concerned about coastal development and the loss of wildlife habitats, the effects of climate change and sea level rise on human and natural communities, and the loss of biodiversity. Perhaps you would like to help protect native species and diverse coastal ecosystems, and ensure that there is clean water for current and future generations.

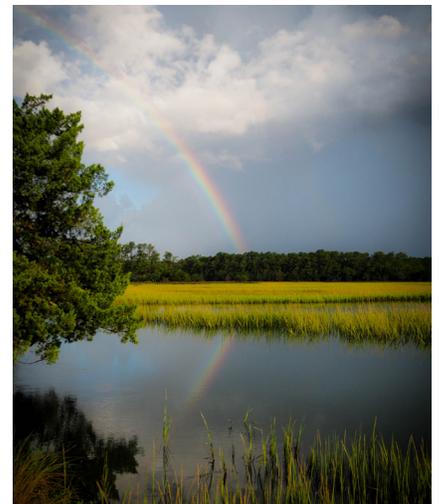
The enthusiasm, commitment and collaboration of volunteers like you are vital to the mission of the North Inlet-Winyah Bay Reserve "To promote stewardship in the North Inlet and Winyah Bay watersheds through science and education". Community support and engagement is essential to achieving our goals of understanding and protecting coastal ecosystems. We believe that inviting community members to participate in research, monitoring, and education programs at the Reserve will build a stronger coalition of support for the conservation of our coastal ecosystems.

We are currently developing and growing our volunteer and community science programs at the Reserve. It is our intent to offer a diversity of opportunities for various interests, skill levels and time commitments. Examples could include volunteer stewardship projects, such as beach and marsh clean-ups, long-term research and monitoring projects such as water quality and phytoplankton monitoring, assisting with educational programs, and helping to lead public programs such as marsh walks. We are seeking to build a volunteer program that address critical research, monitoring and education needs at the Reserve and that also provides educational, social, and fun opportunities for our community to work with us.

The following materials provide an overview of the National Estuarine Research Reserve System and an introduction to the people and programs at the North Inlet-Winyah Bay Reserve. Information about how to become involved in projects, and policies and procedures for volunteers can be found in this Volunteer Handbook. Because most volunteer activities will take place on Hobcaw Barony, there are also some important things to know about the property, use of the facilities, and basic safety.

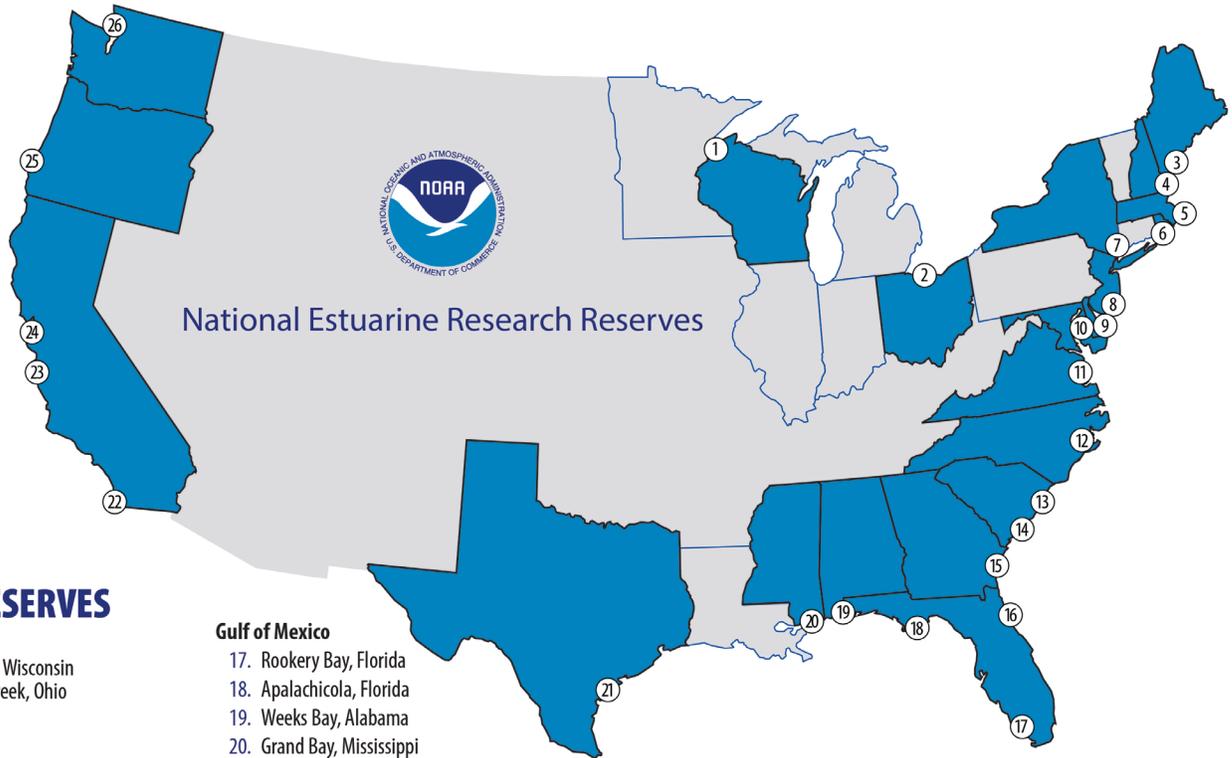
We hope this information will be helpful as you join us on an exciting volunteer project at North Inlet-Winyah Bay. We truly appreciate your interest and support of our programs.

Jennifer Plunket  
Stewardship Coordinator  
North Inlet-Winyah Bay National Estuarine Research Reserve



# The National Estuarine Research Reserve System

Congress created the **National Estuarine Research Reserve System** in 1972 to protect and enhance important coastal resources and communities through research, stewardship, education, and training. This program consists of voluntary partnerships between NOAA and coastal states and territories. The network of 29 protected sites promotes conservation and scientific study, and provides programs that help children, teachers, and the community understand the multitude of benefits derived from this spectacular natural resource.



## LIST OF RESERVES

### Great Lakes

1. Lake Superior, Wisconsin
2. Old Woman Creek, Ohio

### Northeast

3. Wells, Maine
4. Great Bay, New Hampshire
5. Waquoit Bay, Massachusetts
6. Narragansett Bay, Rhode Island

### Mid-Atlantic

7. Hudson River, New York
8. Jacques Cousteau, New Jersey
9. Delaware
10. Chesapeake Bay, Maryland
11. Chesapeake Bay, Virginia

### Southeast

12. North Carolina
13. North Inlet-Winyah Bay, South Carolina
14. ACE Basin, South Carolina
15. Sapelo Island, Georgia
16. Guana Tolomato Matanzas, Florida

### Gulf of Mexico

17. Rookery Bay, Florida
18. Apalachicola, Florida
19. Weeks Bay, Alabama
20. Grand Bay, Mississippi
21. Mission-Aransas, Texas

### West

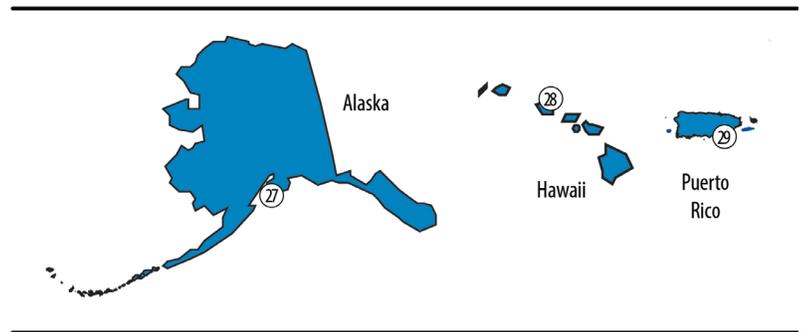
22. Tijuana River, California
23. Elkhorn Slough, California
24. San Francisco Bay, California
25. South Slough, Oregon
26. Padilla Bay, Washington
27. Kachemak Bay, Alaska

### Pacific

28. He'eia, Hawai'i

### Caribbean

29. Jobos Bay, Puerto Rico



Over 1.3 million acres are protected through the Research Reserve system. Management activities undertaken to ensure the health of these ecosystems include controlled burns, programs to eradicate invasive species, and environment-friendly shoreline protection measures.

Each Reserve is a living classroom that advances estuary literacy and generates meaningful experiences for adults, children, and teachers. Reserve staff members are involved with the community, helping leaders interject local environmental data and information into local planning and decision-making.

# The North Inlet-Winyah Bay NERR

The North Inlet – Winyah Bay National Estuarine Research Reserve encompasses 18,000 acres of tidal marshes and estuarine waters along the north coast of South Carolina. Most of the Reserve is located on Hobcaw Barony, a 16,000 acre property of the Belle W. Baruch Foundation, a private, 501 (c) (3) operating foundation that manages its land in perpetuity for conservation, research and education. The Reserve represents a state-federal partnership between the National Oceanic and Atmospheric Administration (NOAA) and the University of South Carolina (USC). It is administered by USC’s Belle W. Baruch Institute for Marine and Coastal Sciences that also operates the Baruch Marine Field Laboratory on the Hobcaw Barony property.

## North Inlet-Winyah Bay National Estuarine Research Reserve Quick Facts

- ▶ Year established: 1992, the 20<sup>th</sup> of the now 29 reserves.
- ▶ State Partner: University of South Carolina
- ▶ The Reserve encompasses about 18,916 acres of tidal marshes and wetlands.
- ▶ North Inlet is an ocean-dominated, bar built estuary,
- ▶ Winyah Bay is a brackish river dominated estuary.
- ▶ The Winyah Bay watershed is the third largest in the eastern US.
- ▶ Four major rivers drain into Winyah Bay- the Waccamaw, Sampit, Black, and Pee Dee
- ▶ North Inlet is designated by the state as having “outstanding resource waters” with unique ecological qualities. It is one of the cleanest and most studied estuaries in the world, with some long-term studies spanning more than 35 years.
- ▶ Annually, more than 80 different projects are conducted in the reserve.
- ▶ Over 15,000 people visit the Hobcaw Barony Discovery Center each year and participate in educational programs.

## Inlet & Bay Stewards



Inlet & Bay Stewards

Supporting the North Inlet-Winyah Bay National Estuarine Research Reserve

The Inlet & Bay Stewards (IBIS) is a volunteer organization that supports the North Inlet-Winyah Bay National Estuarine Research Reserve. Members play an active role in Reserve school programs, helping children discover the wonder of fiddler crabs and snails, while enhancing their science education, and educate and energize community members through events like the Carolina Beach and River Clean Up and workshops on topics including how to build your own rain barrel.

For more information about IBIS, please visit the web site <https://www.inletandbaystewards.org/> or contact [inletandbaystewards@gmail.com](mailto:inletandbaystewards@gmail.com).

# Reserve Goals and Objectives

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**The mission of the Reserve is to promote stewardship in the North Inlet and Winyah Bay watersheds through science and education.**

**GOAL Scientific understanding of the impacts of coastal development on water quality and coastal ecosystems is increased and used to guide management practices and natural resource conservation.**

*Objectives*

- Collect and analyze long-term data necessary to detect impacts of coastal development on water quality and coastal ecosystems.
- Facilitate and conduct targeted research that improves understanding of how development and stormwater practices affect water quality and coastal resources.
- Provide education, training and resources on water quality, impacts of land use, and natural resource issues to inform best management practices and sustainable development.

**GOAL The capacity of communities to respond to severe weather events and adapt to changing climate is increased.**

*Objectives*

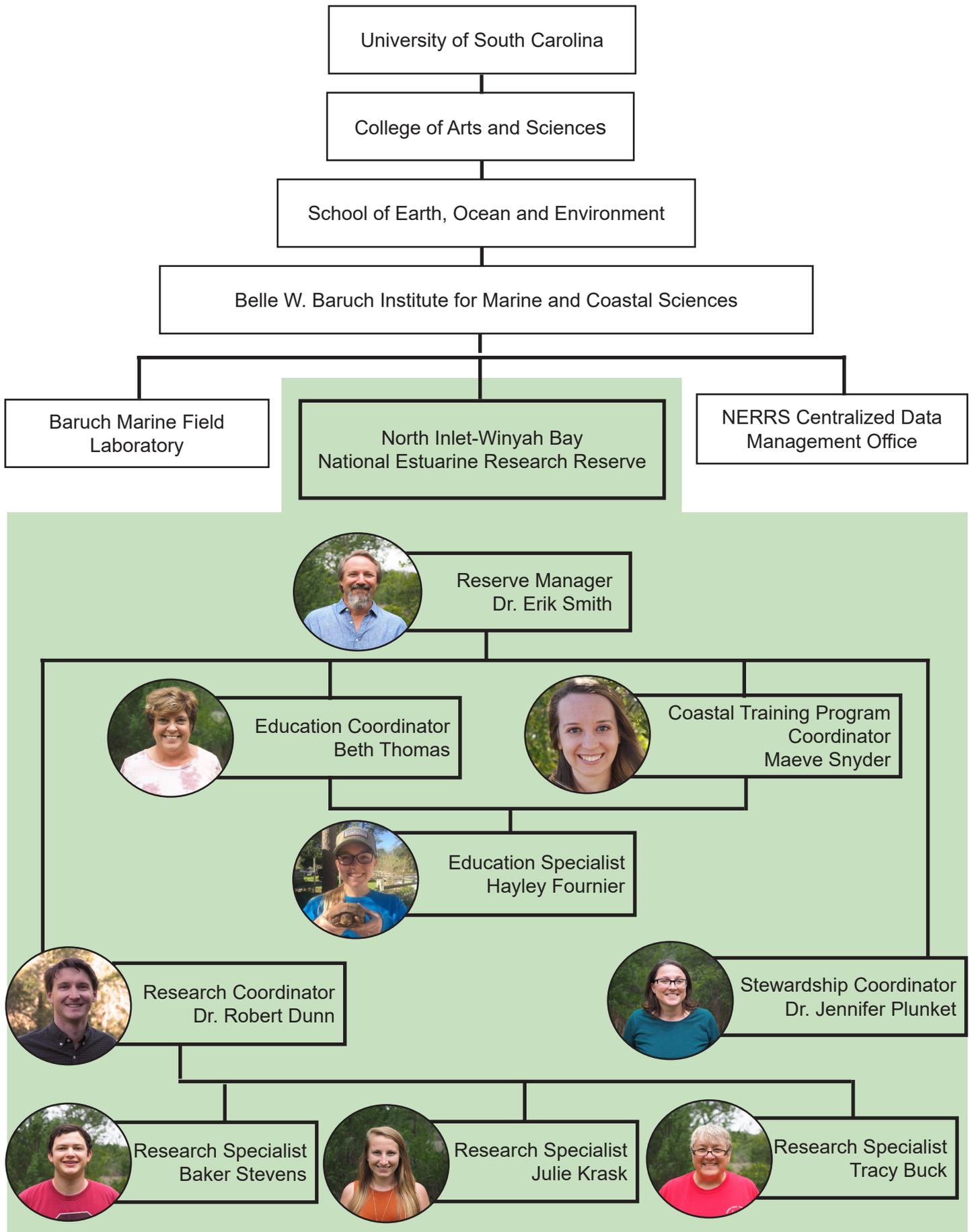
- Collect and analyze long-term data that enhances understanding of weather and climate effects on coastal ecosystems and human communities.
- Facilitate and conduct targeted research that informs strategies to mitigate and adapt to effects of the changing climate.
- Provide coastal decision-makers and community members with information, tools and skills needed to prepare strategies to address major weather events and long-term changes in climate.

**GOAL Environmental conservation and stewardship are fostered in the North Inlet – Winyah Bay Reserve watershed.**

*Objectives*

- Collect and analyze data on targeted species and habitats to inform conservation and management practices.
- Provide education, training and resources on conservation issues and actions to promote coastal stewardship.
- Provide opportunities for K-12 and community members to actively engage in resource conservation activities.

# Organization



# Volunteer Program

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## Types of volunteer opportunities

Opportunities to volunteer with the Reserve fall into two general categories: short-term or one-time Volunteer Stewardship events, education programs, and long-term community science projects. Volunteer Stewardship events include activities such as litter clean-ups, invasive species mapping and removal, and bio-blitz events. Participation in these activities is open and does not require an application to the volunteer program or participation in orientation and training.

*Community science* (also known as citizen science) is the collection and analysis of data by members of the general public, typically as part of a collaborative project with researchers. These projects may involve the collection and assessment of samples in the field or lab, data entry and record keeping, data analysis, and providing input on methodology. These projects usually follow a regular schedule and may involve being present at the Reserve at specific times. Some community science projects at the Reserve are part of larger national projects, such as the [Phytoplankton Monitoring Network](#). Other projects are designed to address data needs specific to the Reserve. These opportunities require a longer-term commitment and those wishing to participate in these projects should submit a volunteer application and complete the on-line orientation.

There are also opportunities for volunteers to work with the education program by developing or leading public education programs such as marsh walks.

Each project or program has a Project Coordinator that will be responsible for the direct management of volunteers with that project or program who is responsible for day-to-day management and guidance of the work of the volunteer, and shall be available to the volunteer for consultation and assistance

**Stewardship Volunteer events are advertised on [www.northinlet.sc.edu/upcoming-events/](http://www.northinlet.sc.edu/upcoming-events/)**

**Descriptions of and updates about community science projects, the volunteer application, and a link to the on-line orientation can be found at [www.northinlet.sc.edu/volunteer/](http://www.northinlet.sc.edu/volunteer/)**

**For information about participating in education programs, please email [beth@baruch.sc.edu](mailto:beth@baruch.sc.edu).**

## Orientation and Training

The training type and volunteer time commitment will vary by project. Those wishing to participate in community science projects or education programs should complete the online orientation and submit a volunteer application. Volunteers will receive training necessary to independently carry out field collections, field and lab analysis, data recording, and equipment maintenance as necessary for the project. Training may be presented through online courses, at workshops, or through small group or individual field instruction. New volunteers may also 'intern' with current volunteers on a project.

Volunteers will receive a written position description before beginning a project. The position description includes the purpose and duties of the position, contact info for the Project Coordinator, a sampling/lab schedule, a listing of skills needed and any physical requirements or restrictions, and training requirements. Every effort is made to include volunteers in projects matching their abilities and interests. Further training opportunities and skill building workshops and professional development opportunities will also be offered.

# Volunteer Program

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## Rights and Responsibilities

### Volunteers have the following rights:

- ☑ To be provided orientation, training, support, supervision, and evaluation.
- ☑ To have a clear understanding of the job including duties, responsibilities, and time commitment.
- ☑ To have risks explained.
- ☑ To proper working conditions.
- ☑ To be heard and to contribute to project management.
- ☑ To be treated as a co-worker and not just free help.
- ☑ To have volunteer time used wisely.
- ☑ To be able to freely discuss problems, ask questions, or make suggestions.
- ☑ To receive prompt response and feedback.

### Volunteers have the following responsibilities:

- ☑ To be open and honest regarding intent, goals and skills.
- ☑ To accept only realistic assignments and have a clear understanding of the job.
- ☑ To carry out duties promptly and reliably.
- ☑ To accept the guidance and direction of the Program Coordinator and volunteers.
- ☑ To participate in any training required.
- ☑ To respect confidentiality.
- ☑ To be punctual, and notify the Project Coordinator of absences as much in advance as possible.
- ☑ To be alert, sober and drug free while volunteering.
- ☑ To keep a record of volunteer hours
- ☑ To maintain a respectful and inclusive environment for volunteers and staff.

## Benefits of Volunteering

- ☑ Participate in and help guide research on important conservation issues
- ☑ Advanced training and continuing education opportunities
- ☑ Social/recreational events for volunteers
- ☑ Recognition for time and service
- ☑ Opportunity to explore/develop new interests

## Non-Discrimination Policy

The North Inlet-Winyah Bay Reserve does not discriminate in engaging volunteers on the basis of race, color, religion, sex, gender, national origin, age, disability, sexual orientation, genetics or veteran status. The Reserve welcomes volunteers with disabilities and complies with the Americans with Disabilities Act. Please contact your Project Coordinator if you have special requirements so we may accommodate your needs. The Reserve seeks to create an environment in which volunteers and staff are civil and respectful of individuals and individual differences. The Reserve considers workplace harassment or bullying unacceptable.

## Liability

Liability and accident insurance is not provided for volunteers engaged in Reserve programs. Volunteers are encouraged to consult with their own insurance agents regarding the extension of their personal insurance to include community volunteer work. Volunteers must sign the liability waiver prior to beginning with a project.

# Volunteer Program

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## Evaluation and Feedback

Evaluation is an ongoing process intended to determine if the goals of the volunteer and of the project are being met and includes both formal and informal feedback. All volunteers should have an annual evaluation meeting with the Project Coordinator. This meeting is meant as an opportunity for the volunteer and Project Coordinator to discuss how the project is going, if the project is a good fit for the volunteer, further training or support that may be needed, other roles or responsibilities that may be of interest to the volunteer, and other issues of concern to the volunteer or Project Coordinator. Questions to be considered during the evaluation include:

- ▶ Do you plan to continue to volunteer with the project in the future?
- ▶ What about the project or the Reserve makes want to continue to volunteer?
- ▶ -Or what makes you not want to continue to volunteer?
- ▶ Do you have ideas for improving the project for which you volunteer?
- ▶ Are there specific tasks or responsibilities that make volunteering for the project difficult?
- ▶ Are there specific tasks or responsibilities that make volunteering for the project rewarding?
- ▶ Is there a different project for which you would like to volunteer?
- ▶ After spending time with our organization, how has your perception changed?
- ▶ What could we be doing to help you succeed as a volunteer?
- ▶ What further training/opportunities would you like to see offered?

Volunteers who do not adhere to the rules and procedures of the Reserve volunteer program or who fail to satisfactorily perform their volunteer assignment are subject to dismissal. Possible grounds for dismissal may include, but are not limited to, gross misconduct or insubordination, being under the influence of alcohol or drugs, theft of property or misuse of equipment or materials, and abuse or mistreatment of other volunteers or staff. No volunteer will be dismissed until the volunteer has had an opportunity to discuss the reasons for possible dismissal with supervisory staff.



# Volunteer Program

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## Reporting Concerns

### Policy

The North Inlet-Winyah Bay Reserve recognizes that volunteers have the right to raise concerns about any matter related to their volunteering. This could be in relation to another volunteer, a member of the paid staff, a concern over project requirements or safety issues. The welfare of volunteers is of great importance to the Reserve. The following procedure is in place to ensure that all volunteers concerns are dealt with in a fair manner.

### Procedure

1. If a volunteer has a complaint against a member of staff, another volunteer, or the organization in general, they should first discuss this informally with the Project Coordinator. The volunteer may be accompanied by a colleague at this meeting. The volunteer and Project Coordinator should

- Come to a clear understanding of what the complaint is
- Assess whether it can be dealt with informally or requires recourse
- Consider whether the issue affects other people who need to be informed of the complaint
- Decide what remedial action has to be taken
- Outline what is expected from the people involved
- Plan for what will happen if the situation doesn't improve and recurs

2. If the Project Coordinator is the person who the complaint is against, then the matter should be referred to the Reserve Manager.

3. If the matter is not resolved at this initial meeting, the complaint should be made in writing to the Project Coordinator, or the Reserve Manager if the complaint is against the Project Coordinator. The written complaint should include the following information:

- Name and contact information (email or mailing address for written response)
- Date(s) of incident, name(s) of person(s) involved
- A description of the complaint
- The desired remediation for the situation

4. The Project Coordinator or Reserve Manager will give a written response within 5 working days outlining how the complaint will be responded to. If the complaint is against another member of staff or volunteer, or requires further investigation, the 5 working days limit above may be extended.

Volunteers who choose to file a complaint will not be disciplined or otherwise prejudiced for exercising rights or testifying under the provisions of this policy. Volunteers have the right to withdraw complaints at any time. Where criminal, or potentially criminal, behavior is involved volunteers will be alerted to this along with their right to pursue the matter with police.

# General Policies

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**All visitors to Hobcaw Barony are guests on the private property of the Belle W. Baruch Foundation, and must abide by their policies, including:** (see *Hobcaw Regulations for Access*)

- ▶ No firearms on the property
  - ▶ Following posted speed limits (20 mph or less)
  - ▶ Refraining from unguided tours of the property
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- All visitors should park in the main staff/visitor parking lot (see Facility Map) and check in with the BMFL front office upon arrival, unless told otherwise by Project Coordinator.
  - Please do not enter laboratories (including the seawater lab facilities) unless otherwise approved/trained to do so.
  - Volunteer activities outside of weekly business hours (8:30 am - 4:30 pm, Mon-Fri) should be approved in advance.

**All volunteers must check in with the front office upon arrival. This is for safety purposes (who is using the site when) as well as for documenting site usage.**

**Field Plans:** Volunteers conducting field activities must file a field plan. Field plans will be written on the large white board to the left of the boat/vehicle reservation boards, in the hall behind the front office. Each field plan will consist of

- participants name(s)
- vehicle description
- location(s) of activity
- cell phone number
- start time, and intended end time

During weekly business hours (8:30 am - 4:30 pm, Mon-Fri), volunteers must close their field plan by striking through (not erasing) the plan and checking in with front office staff. If a field activity will last longer than anticipated, volunteers must alter their written field plan or call the BMFL front office to inform them of their change of plans. Outside of weekly business hours and on weekends, volunteers must text the designated field plan monitor (noted on white board) before beginning and after finishing their activity, or with any changes to their plan.

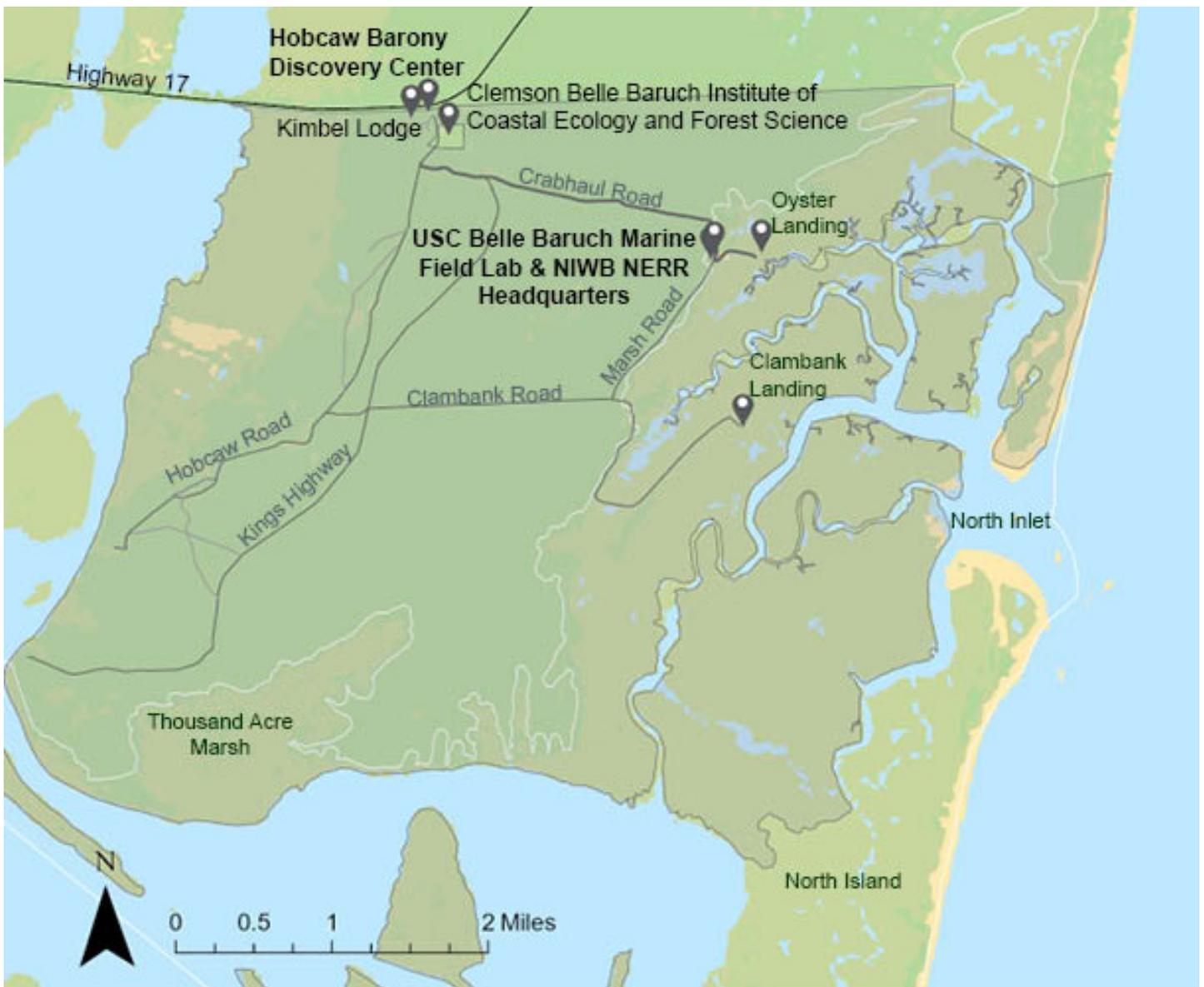
## **Safety In the field:**

- ☑ Use the “buddy system” when working in the field and sample with another volunteer.
- ☑ If working alone is necessary, carry a cell phone- be aware that service might not be available.
- ☑ Always leave a field plan with someone else of where you will be and when you should return.
- ☑ Wear proper clothing to protect your body from brush, insects, and UV rays.
- ☑ Wear appropriate shoes- closed-toe for marsh and boat work.
- ☑ Be aware of signs of heat stroke and hypothermia and how to treat these conditions.
- ☑ Stay hydrated. Bring snacks for long days.
- ☑ Always be aware of your surroundings, including poisonous plants, stinging insects, slippery surfaces, oysters, pluff mud, and animals.
- ☑ Check the weather radar before heading out and stop work in inclement weather.
- ☑ Use proper lifting and bending techniques.
- ☑ Perform only assigned duties while on the job, using only equipment you are trained to use.

# Facilities

## Hobcaw Barony Property Map

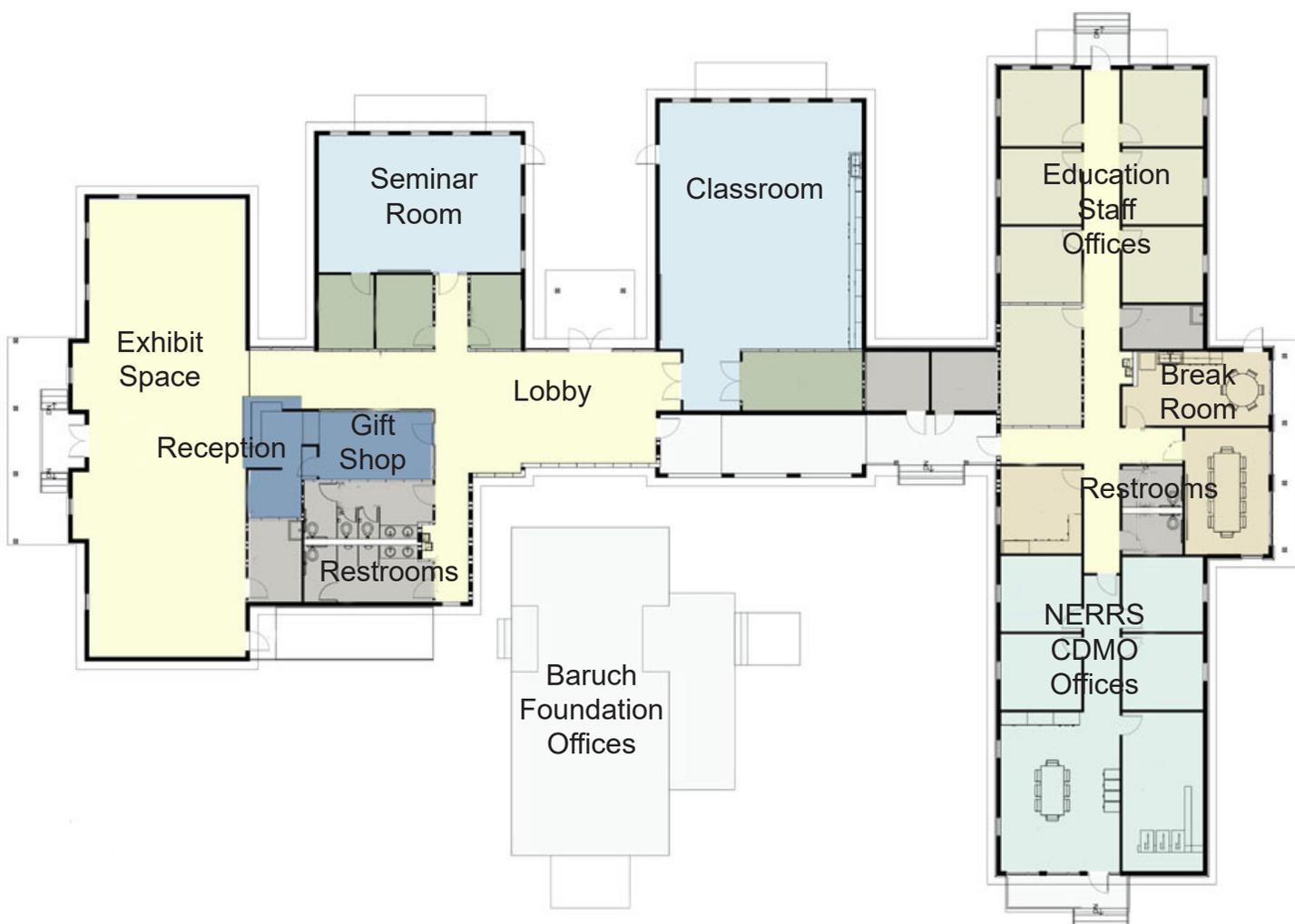
Hobcaw Barony's 16,000 acres are owned and managed by the The Belle W. Baruch Foundation, a private nonprofit organization. The foundation's primary mission is to conserve Hobcaw Barony's unique natural and cultural resources for research and education. The University of South Carolina, Clemson University, Coastal Carolina University and Francis Marion University have permanent research institutes located on Hobcaw Barony. The Oyster Landing meteorological and water quality monitoring site is located near the western, upland edge of the North Inlet basin. Clambank Landing, located on Town Creek, serves as the main boat access for researchers in the reserve.



# Facilities

## Hobcaw Barony Discovery Center

The Hobcaw Barony Discovery Center is an education center operated as a partnership between the North Inlet Winyah Bay National Estuarine Research Reserve and the Belle W. Baruch Foundation. The Discovery Center houses over 1,800 square feet of exhibits specific to the Reserve and Hobcaw Barony and its unique history and ecology. Exhibits incorporate photographs, objects, artifacts and recordings that provide information on the history, ecology and research occurring on the property. Reserve exhibits include a 1,200 gallon saltwater aquarium, displays on a variety of coastal ecosystems-including salt marshes, barrier beaches, and a shell midden, and a real-time data display. Tours and programs conducted by the Foundation and NERR staff originate from the Discovery Center. A dedicated classroom space is also located at the Discovery Center offering educational displays and artifacts, a salt water touch tank, live animal exhibits (turtles, snakes, alligator), smart board technology, and microscopes. Offices of the Reserve Education staff, a kitchen and conference room are located in the back wing of the Discovery Center.



# Facilities

## Kimbel Living and Learning Center

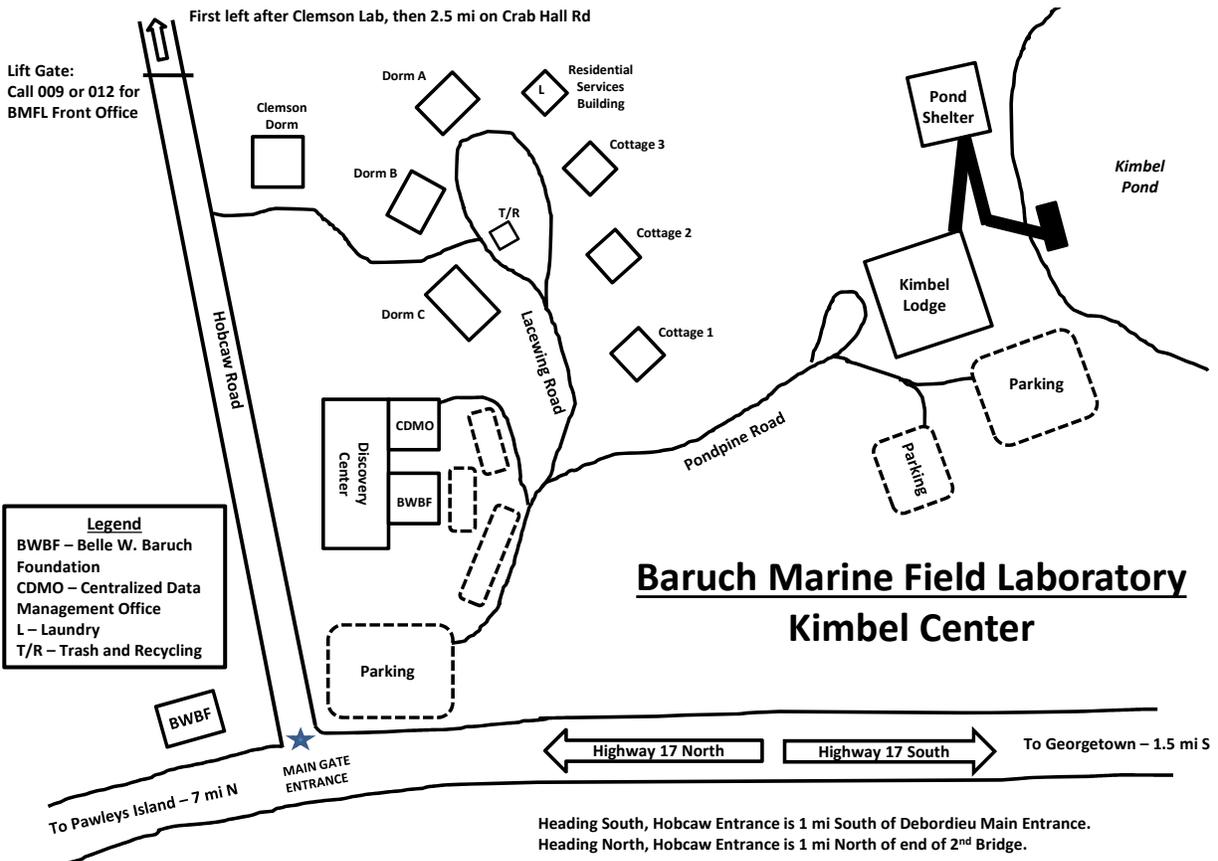
The Kimbel Living and Learning Center is a lodging and conference facility located near the entrance to Hobcaw Barony. The lodge is used for workshops, trainings and small conferences and has a large main room with a podium with sound and projection controls and lecture style seating for about 60 persons, two break-out meeting rooms, and a fully equipped kitchen. The screened Pond Shelter provides an outdoor classroom space next to the pond. When not being used for internal programs and activities, the Kimbel Lodge and Pond Shelter can be rented by public and private (not for profit) groups for educational meetings and events. Three dormitories and three cottages provide lodging for students, researchers, and educators while conducting activities.



Pond Shelter



Kimbel Lodge

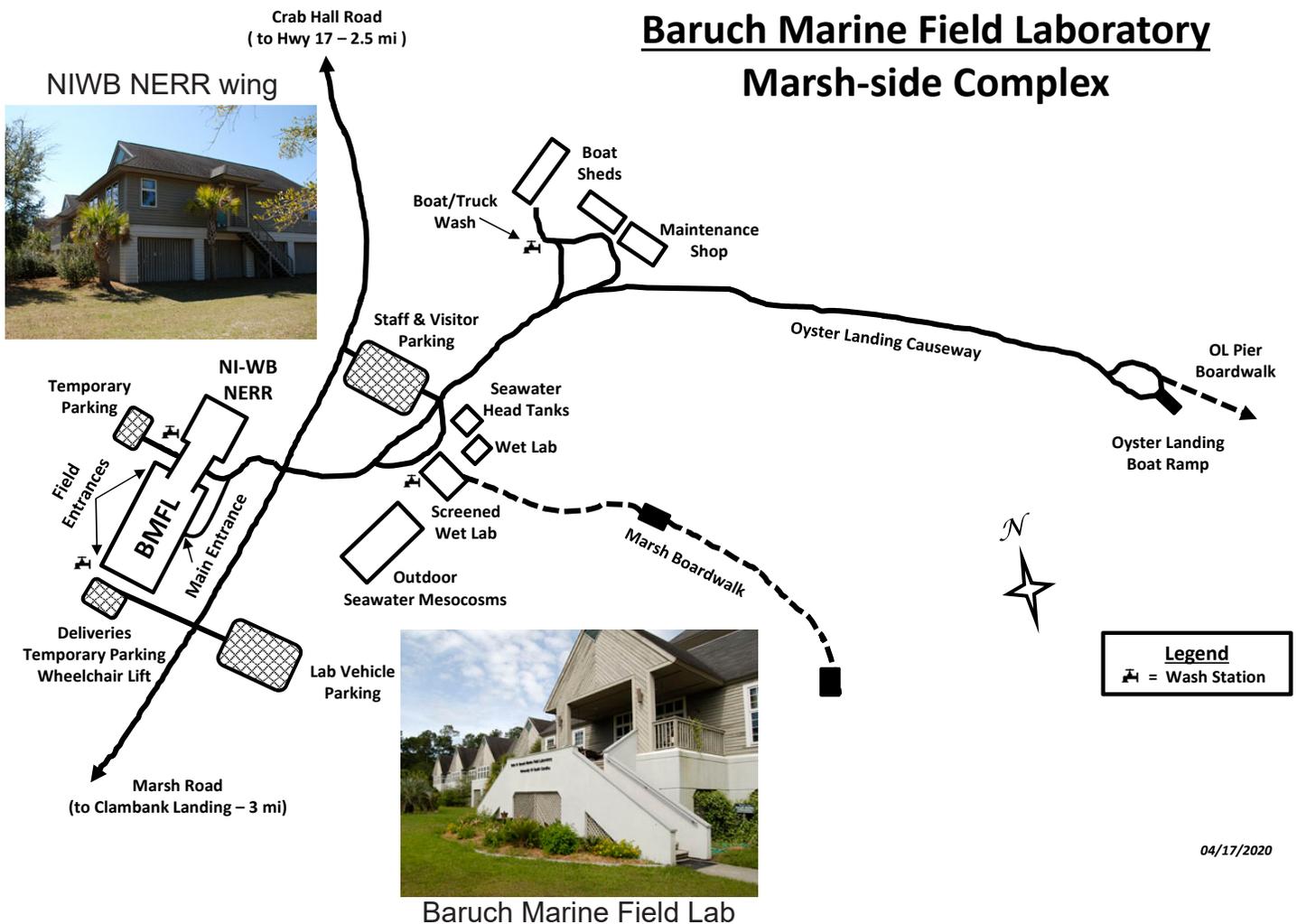


# Facilities

## Baruch Marine Field Laboratory

On an annual basis more than 100 scientists from at least 20 universities and agencies (including USC) work out of the Baruch Marine Field Laboratory located adjacent to the North Inlet marsh. The complex consists of a large building for research and education activities, two seawater buildings, outdoor mesocosms, boardwalks and piers, a maintenance shop, and boat sheds. The main laboratory building contains research laboratories, a seminar room, a kitchen, an archived-sample room, a teaching lab, large screened work areas, and technical and administrative support offices.

The North Inlet-Winyah Bay National Estuarine Research Reserve headquarters is housed in a wing of the main building, where the offices of the Reserve Manager, Stewardship Coordinator, Coastal Training Program Coordinator and the Research Specialist are located. The Reserve Community Lab room is a space in the NERR wing dedicated for use by volunteers working on community science projects.



# Emergencies

**In the event of a fire, medical, or police emergency please call 911.**

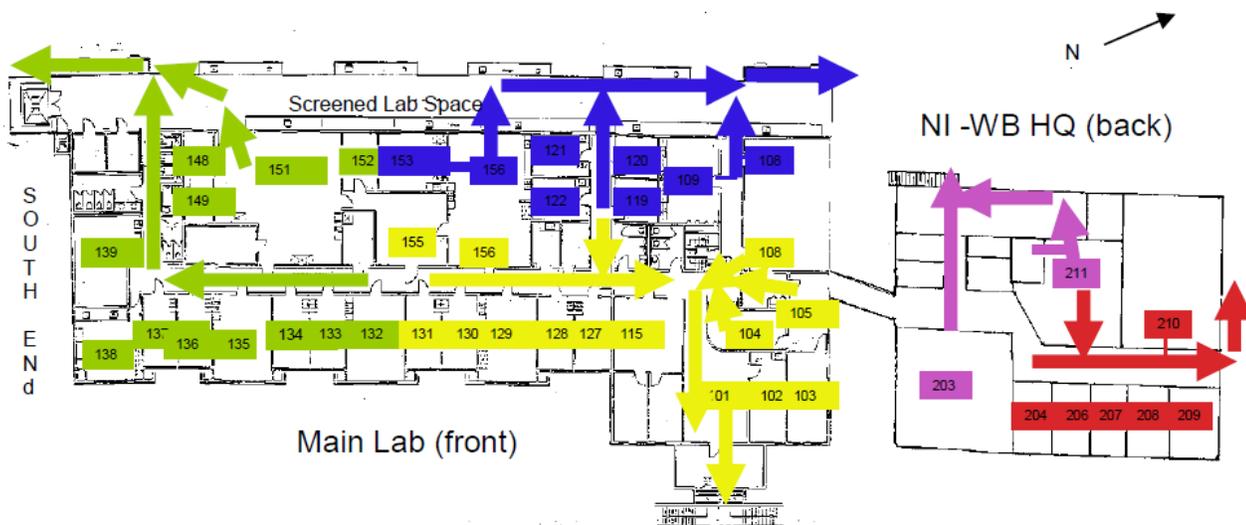
Volunteers should alert their immediate supervisor or the BMFL front office of the situation as soon as possible (see first page for emergency contact information).

During an emergency, volunteers should follow instructions of staff at all times.

**A building evacuation is mandatory whenever the fire alarm sounds.** Building occupants should exit immediately and proceed to the main staff/visitor parking lot. Do not use elevators to exit. Take jackets or other clothing needed for protection from the weather. Close windows and doors but do not lock doors as you leave. Leave room lights on. Do not reenter the building until emergency staff gives the “all clear” signal.

## Recommended Emergency Evacuation Routes

Proceed to the front main parking lot in the event of an emergency for roll call



If an emergency arises that necessitates immediate assistance of medical, fire or law enforcement personnel **call 911** and have with the following information to provide to the emergency dispatcher:

- Your location
- Directions to the site if you are in the field, including landmarks and distance to the nearest road
- Details of the emergency situation
- Emergency contacts

If multiple people are present, have one or more individuals stay with any injured person(s) and send others to the entrance of the property to meet and direct emergency personnel.

# Basic First Aid for the Field

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Field first aid kits are available for check out from the NERRS Community Lab (classroom).

Condition	Symptoms	What to Do
Dehydration	Increased thirst Dry mouth Overly tired Headache Decreased urine output Dizziness	Replace fluids with water, juice, or sports drink. Drink extra (2 quarts) of cool liquids in the next 2 to 4 hours.
Heat Stroke	High body temperature Flushed skin Rapid breathing Headache Alteration in sweating	Call 911 Apply ice packs to the person's armpits, groin, neck, and back. Immerse the person in shower, tub, or pool of cold water.
Hypothermia	Shivering Slurred speech Weak pulse Clumsiness Slow, shallow breathing Confusion	Restore warmth slowly. Bring person indoors. Give warm fluids. Keep body temperature up.

