GML Tropical Storm and Hurricane Preparedness Plan

The Grice Marine Laboratory (GML) Director (“Lab Director”), in response to instructions from the CofC Director of Emergency Management, will oversee the activation of hurricane (or storm) emergency procedures. These procedures may include the securing of offices, teaching and research laboratories, the aquarium room, the computer room, housing facility, boats, outdoor equipment and storage sheds as well as the installation of hurricane shutters. The Lab Director will keep personnel updated on conditions and provide information about whether the housing facility should be evacuated.

Responsibilities

Pre-season. Hurricane season is Jun 1 - Nov 30. In May, the Lab Director and Lab Manager will review hurricane plans/procedures, inventory hurricane preparation supplies, and make updates and purchases as needed. Special attention should be given to the availability of the following: plastic, tape, extension cords, tie-down straps, flashlights and batteries. The Lab Manager should document for insurance purposes using photos and/or video any major changes over the last year to buildings, equipment, and other possessions of the lab. Locations should be confirmed for movement of boats and vehicles in the event of a major storm.

During an event. In preparation for a potential storm, faculty members have responsibility for securing their own offices, research laboratories, and equipment in common spaces in or outside of the GML building or in the field. GML staff have responsibility for securing the remainder of the facility, including classrooms, hallways, and common use spaces. The Molecular Core Manager is responsible for equipment in the Molecular Core Facility (room 210), and the Collections Curator is responsible for the Collections Room (room 105). Faculty may be called upon for additional help with securing the facility.

Alert Levels

The following alert levels are general guidelines that will be activated for a storm of sufficient size and potentially destructive intensity. More specific instructions may come from the CofC Director of Emergency Management.

Level 1 Alert - Storm Monitoring and Planning

There is tropical storm or hurricane activity with a potential for landfall along the southeastern United States.

1. The Director of Emergency Management will notify the campus of the storm activity.
2. Personnel should make plans to back up computer data and to secure any equipment, papers, lab materials and organisms as needed.
3. The Lab Manager should coordinate with Physical Plant to contact any contractors working on site about the potential need to remove or secure equipment.
4. All individuals should plan for potential activities associated with Levels 2, 3, and 4.

Level 2 Alert - Storm Monitoring and Preparation

The tropical storm or hurricane is approaching the southeastern coast of the US with a possibility of striking South Carolina, but landfall is still 3 or more days away. Personnel should make plans for possible evacuation.

1. The Director of Emergency Management will continue to provide updates. The Lab Director will keep personnel aware of the potential impact of the storm on GML.
2. Computer data backup should be completed.
3. Plans for securing materials needing refrigeration or freezing should be completed.
4. The **Lab Manager** will make plastic sheeting (currently stored in room 126) available in room 113 for covering electronic equipment and important paperwork.

5. **Boats.** The **Marine Operations Manager** will coordinate with personnel at DNR to secure the boats. They will be moved to higher ground (currently the HML gravel back parking lot for lesser storms, or areas near the west end of the CCEHBR building for stronger storms) or some other appropriate and secure location.

6. **Outdoor Equipment and Outbuildings.** The **Lab Manager** will secure all materials outside of GML.

7. All individuals should plan for potential activities associated with Levels 3 and 4.

**Level 3 Alert - Hurricane Watch**

A hurricane watch is issued for the Charleston area. The storm continues its approach toward the South Carolina coast and there is a significant possibility that it will make landfall in the Charleston region within 48 hours.

1. **Hurricane Shutters.** The **Lab Manager** will coordinate with Physical Plant to install shutters on the East side of GML.

2. **Vehicles.** The **Marine Operations Manager** will fill the GML truck with fuel and move it and the CoC shuttle van to a safe and secure location, currently as defined for boats.

3. **Computers and Electrical Equipment.** All computers and electronic equipment will be unplugged (including internet cables), covered with plastic and placed on a table or lab bench away from any windows. Equipment and papers should be picked up from the floor. Faculty and staff are responsible for their own offices and labs.

4. **Collections.** The **Collections Curator** will secure the Collections Room, including the storage of chemical containers to prevent spillage. The door to the collections should be closed.

5. **Classrooms.** The **Lab Manager** will be responsible for unplugging and covering with plastic sheeting all equipment in (1) the Computer Lab, (2) the four classrooms (101, 201, 202, and 113), and (3) the Conference Room (106). Microscopes will be put away and the cabinets locked.

6. **Freezers.** The **Lab Manager** will inventory and document available freezer space should the need to relocate samples arise.

7. **Emergency power.** The **Lab Manager** will verify that all refrigerator and freezer equipment is plugged into outlets supplied with emergency power. The **Marine Operations Manager** will verify that all equipment holding live animals is plugged into outlets supplied with emergency power. Extra extension cords are available in room 112. The following equipment should be plugged into emergency circuits: the spare -80C freezer in the connecting hallway (plug in via special extension cord to wet lab emergency outlet); refrigerator on back wall of GML 205 (plug in to emergency outlet in GML 207B).

   In case of loss of power, GML operates on emergency power delivered only through outlets that are labeled “EM” or “Emergency Power.” Faculty may opt to move critical samples or organisms to more secure locations, or to store them by other means of controlling temperature (e.g., dry ice, liquid N2, etc.).

8. **Files.** The **Administrative Coordinator** will be responsible for securing files and equipment in the Main Office. Hardcopies of sensitive files will be moved to room 201. Boxes with materials will be clearly labeled to facilitate their return to their original location once the storm has passed.

9. **Projectors, Laptops etc.** The **Lab Manager** will relocate applicable electronic equipment to room 201. Ceiling projectors in the classrooms and the Visix display monitor across from the front office will be unplugged and covered with plastic.

10. **Animals.** Plans should be in place to release, relocate or provide organisms with the necessary conditions for survival over a period of several days without care.

11. All individuals should plan for potential activities associated with Level 4.
Level 4 Alert - Hurricane Warning and Evacuation

A hurricane warning is issued for the Charleston area. The storm continues its approach toward the South Carolina coast and there is a high probability that the storm will make landfall within approximately 36 hours and threaten the GML facility and personnel.

1. **Organisms.** If the facility is under threat of inundation, the *Lab Director* will destroy all non-indigenous species held at GML that are deemed a threat of being released, as per operating protocols. Other organisms may be retained, relocated, released or otherwise disposed of in consultation with the person responsible for the collected material. Containment doors of the aquarium room will be shut.

2. **Power.** Individual faculty or staff members should turn off, unplug and cover all remaining non-essential equipment excluding refrigerators and freezers.

3. **Personnel.** All personnel must evacuate the GML property. Residents of the GML housing facility will be informed of evacuation plans relevant to residents of other CofC housing.

4. **Doors.** The *Lab Director* will lock all outside doors to the building. From this point forward, CofC Public Safety will assume responsibility for GML buildings and property.

**Returning to GML after the Storm**

Employees should return to GML only when the College has reopened and all employees have been given permission to return to work. Faculty and staff are not considered "essential personnel" under the College's Hurricane and Tropical Storm Preparedness Plan and should not return during times when only essential personnel are required to be present. The President and College's Emergency Management Team will determine when employees can return to work. Employees should check the College's emergency webpage (http://emergency.cofc.edu) or call 843-752-7246 for information and updates.

The *Lab Director* will attempt, through email, to keep GML personnel informed of conditions at the facility and when GML will reopen. As an alternative to email, call the GML main office (843-953-9200) to speak to someone or hear a recorded message. If the GML phones are not operational, you may call the *Lab Director*.

**Personnel Emergency Phone Numbers**

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Cell</th>
<th>Home or alternate</th>
<th>Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Director</td>
<td>Jack DiTullio</td>
<td>843-607-9196</td>
<td></td>
<td>843-953-9196</td>
</tr>
<tr>
<td>Lab Manager</td>
<td>Greg Townsley</td>
<td>843-737-2821</td>
<td></td>
<td>843-953-9174</td>
</tr>
<tr>
<td>Marine Operations Manager</td>
<td>Pete Meier</td>
<td>843-330-9392</td>
<td></td>
<td>843-953-9218</td>
</tr>
<tr>
<td>GPMB Director</td>
<td>Craig Plante</td>
<td>843-276-4690</td>
<td>843-795-3317</td>
<td>843-953-9187</td>
</tr>
<tr>
<td>Molecular Core Manager</td>
<td>Kristy Hill-Spanik</td>
<td>336-324-5021</td>
<td></td>
<td>843-953-9193</td>
</tr>
<tr>
<td>Administrative Coordinator</td>
<td>Norma Salcedo</td>
<td>843-647-9426</td>
<td></td>
<td>843-953-9174</td>
</tr>
<tr>
<td>Collections Curator</td>
<td>Tony Harold</td>
<td>843-460-2057</td>
<td></td>
<td>843-953-9180</td>
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