



# Dartmouth Yacht Club

## EXTREME WEATHER (HURRICANE) PREPAREDNESS AND PLAN

August 19, 2025

### INTRODUCTION

Since the devastating impact of Hurricane Juan in 2003, when the Dartmouth Yacht Club (DYC) suffered extensive damage from wind and storm surge, we have recognized the critical importance of taking all hurricane warnings seriously.

This Hurricane Preparedness Plan has been developed to help ensure that DYC is as resilient as possible in the face of severe weather. It outlines proactive measures to protect our infrastructure, members' property, and overall operations.

While this plan is designed with hurricanes in mind, portions of it may also be activated in advance of any significant weather event that could pose a risk to the Club's facilities or member assets.

### HURRICANE ACTION COMMITTEE

A hurricane action committee will be established by the General Manager as needed with an impending storm. The General Manager will chair the Hurricane Committee and be in charge of the plan and its execution. During an activation of the Plan the General Manager is the one who will oversee activities and communications.

The Committee will be made up of the General Manager, Commodore, Yard Foreman, Dockmaster, Management Committee members responsible for the marina and safety, and member(s) at large at the invitation of Management.

This committee will review the plan, expectations and role of members, ensuring tools necessary are in place, listing boats for movement off the marina, etc.

### DEFINITIONS

#### Hurricane Classification by Wind Velocity

Hurricanes are categorized based on sustained wind speeds, which indicate the potential level of damage they may cause. The five categories are as follows:

- **Category One** – Winds between 64–82 knots (119–153 km/h, 74–95 mph)
- **Category Two** – Winds between 83–95 knots (154–177 km/h, 96–110 mph)
- **Category Three** – Winds between 96–112 knots (178–208 km/h, 111–129 mph)
- **Category Four** – Winds between 113–136 knots (209–251 km/h, 130–156 mph)
- **Category Five** – Winds exceeding 136 knots (251+ km/h, 156+ mph)

### **Sub-Hurricane Storm Classifications**

When sustained wind speeds are below hurricane force (less than 64 knots), the following classifications apply:

#### **Tropical Storm**

Winds range from 34–63 knots (63–118 km/h, 39–73 mph).

Tropical storms are named and can still pose serious threats, particularly with heavy rainfall and strong gusts. While they generally cause less structural damage than hurricanes, they have the potential to drop 5–6 inches of rain in a single day. Winds at the upper end of this range can significantly impact vessels in the marina, especially depending on their strength and direction.

#### **Tropical Depression**

Winds are typically less than 34 knots (63 km/h, 39 mph).

These systems are not named. Once onshore, wind speeds tend to decrease rapidly, but they can still bring heavy rainfall. In some cases, mild tornadoes may develop as a result of these systems.

## **CRITERIA FOR DYC ACTION**

The Dartmouth Yacht Club Hurricane Plan will be activated by the General Manager when forecasts predict sustained winds of 60 knots or greater in the DYC area. Because wind direction will shift during a hurricane (as winds rotate counter-clockwise), activation decisions will be based on **wind velocity alone**.

A key principle of the plan is timing. Action must be taken late enough to avoid unnecessary work if conditions change, but early enough to allow sufficient time for all required preparations to be completed to a high standard.

## **PRIORITY ACTION**

All hurricane-related actions are guided by the overriding objective of protecting the DYC marina and its infrastructure. While these actions may also provide protection to members' boats, the mandatory relocation of vessels is determined solely by what best safeguards the marina as a whole. Reducing both windage and weight on the marina is critical—it helps protect the marina itself, the boats removed from it, and the vessels that remain.

Cradles, trailers, and jack stands for boats identified as priority for removal will be staged together in the yard in a location that is easily accessible for yard staff. This ensures readiness for efficient haul-out operations when a storm is imminent.

Boats designated for mandatory relocation off the marina will receive first priority for haul-out in the days leading up to a storm. Voluntary haul-outs will then be prioritized as follows:

1. Boats on the south side of F Dock
2. Other boats currently on the marina
3. Boats in the mooring field (unless hauling one creates an available marina spot for a vessel under mandatory relocation)

## **ACTION TIMELINE**

The day the hurricane is forecast to reach Dartmouth is designated as **H-Day**. The following outlines the key actions in the lead-up and aftermath:

### **H-5 (Five Days Before Landfall)**

- Begin communications of hurricane warnings and member preparation measures.
- Commence mandatory and voluntary boat haul-outs.
- Yard and marina staff prepare for upcoming measures: staging cradles, marking chains, checking tool bags, etc.
- Set up a Hurricane Warning Board in the clubhouse for members without email access.

### **H-4 (Four Days Before)**

- Continue communications and voluntary haul-outs.
- Confirm readiness of hurricane response teams.
- Plan duty watches for H-Day.
- Hurricane Action Committee (HAC) meets as needed.

### **H-3 (Three Days Before)**

- Continue voluntary boat haul-outs.
- Issue updates on storm progress.
- Complete and confirm the Watch Plan.
- HAC meeting.

### **H-2 (Two Days Before)**

- Haul out all mandatory boats from the marina or move them to assigned moorings (see Mandatory Move List).
- Continue communications updates.
- HAC meeting.

### **H-1 (One Day Before)**

- Complete mandatory haul-outs.
- Final securing of all yard equipment.
- Continue communications updates.
- HAC meeting.
- Relocate boats on F Dock to more protected slips as required.

### **H-Day (Storm Day)**

- Cut power and water to the marina if required.
- During a major storm, lock the marina gate; access permitted only once conditions are safe.

### **H+1 and Beyond (Post-Storm)**

- Begin restoring DYC to pre-hurricane status.
- Re-launch boats, with mandatory haul-outs given priority.
- Inspect mooring blocks for integrity and perform necessary repairs.

## **MANDATORY BOAT HAULING/ MOVES TO MOORING FIELD**

Annex A contains the list of boats assessed to have the greatest windage, weight, and potential threat to the marina system. These vessels are subject to mandatory relocation in order to reduce load on the marina. Owners of these boats will be required to either move to an available mooring ball or haul out of the water. Mandatory lifts—both out of and back into the water—will not count toward the four free lifts provided annually.

Owners of boats on the mandatory list must provide an alternate contact person who can authorize and coordinate a move if the owner cannot be reached. Boats not on the mandatory list but identified as vulnerable in major storms (for example, vessels on the south side of F Dock) are also required to designate an alternate contact.

The mandatory list will be updated annually by the Dockmaster and General Manager and revised as necessary.

## **VOLUNTARY HAUL-OUTS**

Boats on the marina that are not included on the Mandatory List, but are of significant size, may be hauled out on a voluntary basis between H-5 and H-3 to reduce overall weight and windage on the marina. These lifts will be carried out on a first-come, first-served basis.

Voluntary haul-outs will count toward the four free lifts included with the annual boating fee. Members who have already used all four free lifts will be charged for the additional lift, both for hauling out and re-launching.

Boats in more exposed positions—such as those located on the outside of F Dock—may be requested to move to a more sheltered slip or given priority for voluntary haul-out at no additional charge, in order to minimize potential impact on the marina.

## **MEMBER PREPARATIONS**

Annex C is a list of individual member preparations for boats to face a hurricane.

## **PROTECTION AGAINST SURGE**

The following is a list of actions that will reduce the risk of storm surge damage:

- Keep boats on land as far back as possible from the waterfront.
- Keep loose boats, zodiacs, ladders, wood, etc. back from the water's edge.
- Keep cars parked back from the waterfront.
- Turn off marina power.
- Secure the Junior Sail building contents. Keep equipment off the floor.
- Move Junior Sail boats and dollies away from expected surge height and secure them
- Secure the Fuel Shed, keeping equipment off the floor.
- Move wheelbarrows to the garage.

## **PROTECTION AGAINST WIND DAMAGE**

The following is a partial list of actions that will reduce wind damage:

- Secure wheelbarrows in the garage.
- Move all dinghies to high ground and secure them.
- Remove umbrellas from picnic tables and secure them in the clubhouse.
- Secure all picnic tables and chairs.
- Lash down masts on the mast rack.
- Pick up any loose debris that might become a missile in high winds.



## **ANNEX B EXTREME WEATHER (HURRICANE) PREPAREDNESS AND PLAN**

### **INDIVIDUAL MEMBER PREPARATIONS**

- Ensure your insurance is current and documentation is accessible.
- Remove all canopies or secure a net tightly over them to prevent the wind from catching corners.
- Remove self-furling sails and tie down or remove mainsails to reduce windage.
- Stow anything loose or wind-catching below decks.
- Set as many fenders as possible to protect both your boat and the dock.
- For moored boats:
  - Double-check bridles—they should be attached to the chain (not the ring) on mooring balls #1–5.
  - For other mooring balls, using the ring is acceptable.
  - Consider lengthening bridles by at least 2M (5–6 ft) if a surge is expected.
- Do NOT plan to stay with your boat, either at dock or on a mooring.
- Empty your fridge and freezer in case of extended power outages.
- Boats in exposed slips (e.g., H-1): You may request relocation to more protected slips (e.g., F Dock). Priority will be given to the most vulnerable boats.
- Triple up all dock and mooring lines.
- Run an extra line from the outboard side to a main dock trunk or adjacent finger.
- Inspect all lines:
  - Ensure they are in good condition.
  - Use chafe protection at wear points (chocks, cleats, etc.).
- Coordinate with your neighbours—you may be able to cross lines for added security.
- Use line snubbers to reduce shock on cleats and lines, especially if you are on F Dock.
- If your boat is on land, double-check cradles, jack stands, ladders, and all personal materials to ensure they are properly secured.