

**SAFETY RULES AND
GUIDELINES
FOR THE
DES MOINES RIVER**



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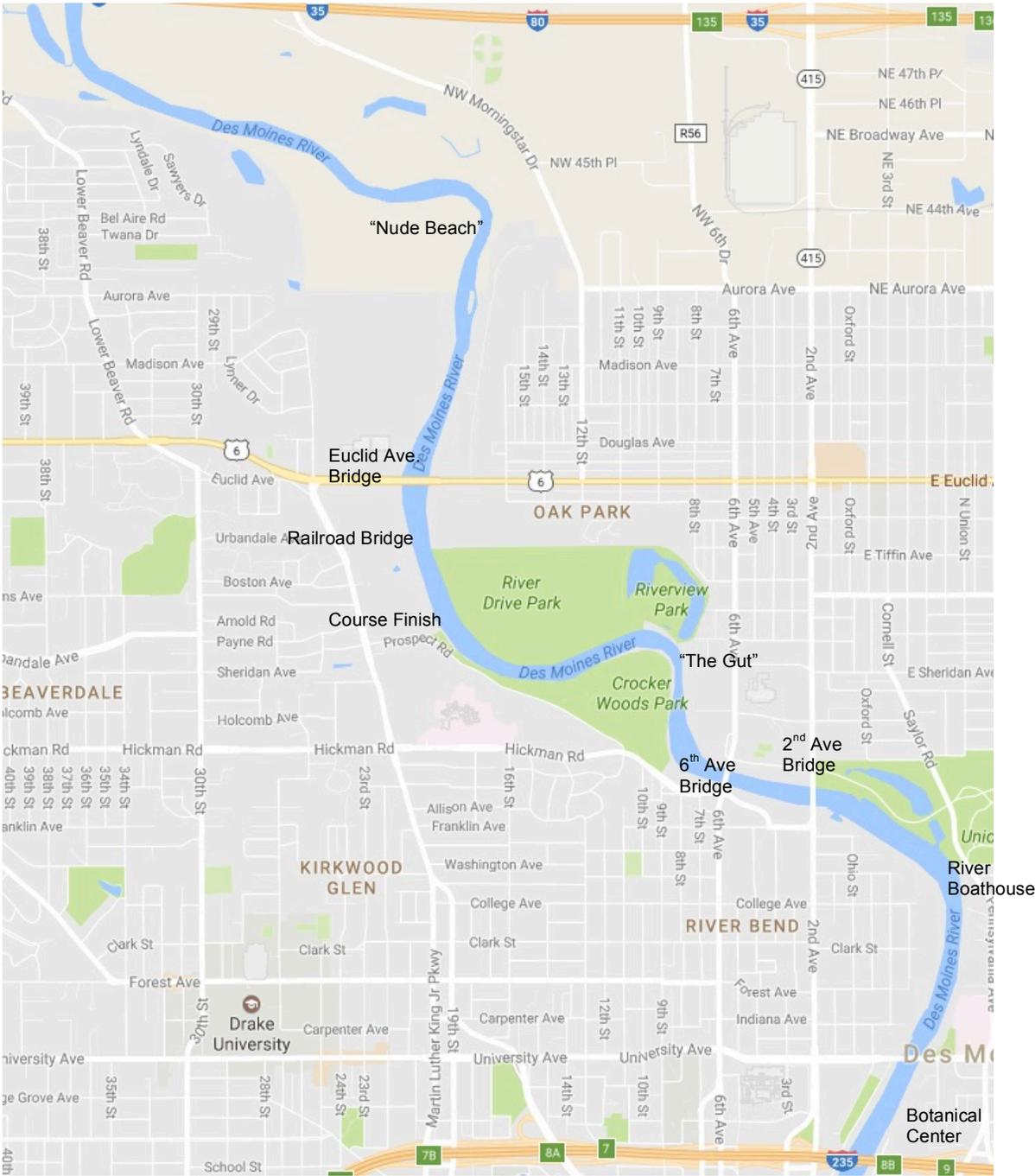
Introduction

The sport of rowing has a long history of ensuring safety above all else and the Des Moines Rowing Club wholly embraces this emphasis. Our club policy recommends following a comprehensive plan in accordance with safety guidelines set forth by USRowing (<http://www.usrowing.org/safety-expectations/>). These guidelines provide an excellent knowledge base and should be read and practiced by all club members at all times.

In addition to the basic safety guidelines associated with our sport, we also need to be familiar with the watercraft rules set by our state. When we are out rowing on the river, we are considered “boats” and are subject to state laws and responsibilities. These are described in the Iowa DNR’s Boating Handbook (https://www.boat-ed.com/assets/pdf/handbook/ia_handbook_entire.pdf). This handbook also helps rowers know what to expect from boats sharing our waterway. If you observe gross safety infractions by other watercraft while you are out, please don’t hesitate to report the incidents. This is particularly applicable if you consider the safety of your crew to be compromised by such infractions.

Obviously, each waterway has its own nuances and safety hazards. As such, this guide will serve to supplement the foundational guidelines set by USRowing with our Club’s local rules and guidelines. The overarching goal of this handbook is to provide education intended to protect the safety of all of our members under all conditions and to assist us in being good stewards of our equipment. Please familiarize yourself with this information as we are all personal stakeholders when it comes to safety. If you have any questions, please don’t hesitate to contact the Club’s Safety Director.

Map of Des Moines River



Safety Rules

I. River Traffic Patterns and River Hazards

A. River Lanes

Just as when we operate vehicles on land, we must observe a traffic pattern on the river. When launching from the boathouse dock and heading upstream, remain on the east side of the river. If you launch from the dock and head downstream, you must first check for cross traffic and then move your boat to the west side of the river. In the boat, this means that you will always be on the side of the river nearest the starboard shoreline.

Although we share the river with many other users (power boaters, skiers, fishermen, jet skiers, etc.) who may not always observe the river traffic pattern, try to maintain the proper lane at all times. This makes your smaller craft movement more predictable. Obviously, if you feel your adherence to the traffic pattern is endangering your safety and that of your crew because of the non-conformance of others, move to a safe place immediately. Be prepared to describe offending watercraft to police if you are put in serious jeopardy due to their negligence or non-observance of basic safety practices.

B. Bridge Spans

Most rowing practices will take a crew beneath at least 2 or 3 bridges. Each bridge has its own current anomalies and hazards, so we specify which spans are safe to row beneath. Please observe these guidelines and use only the specified spans.

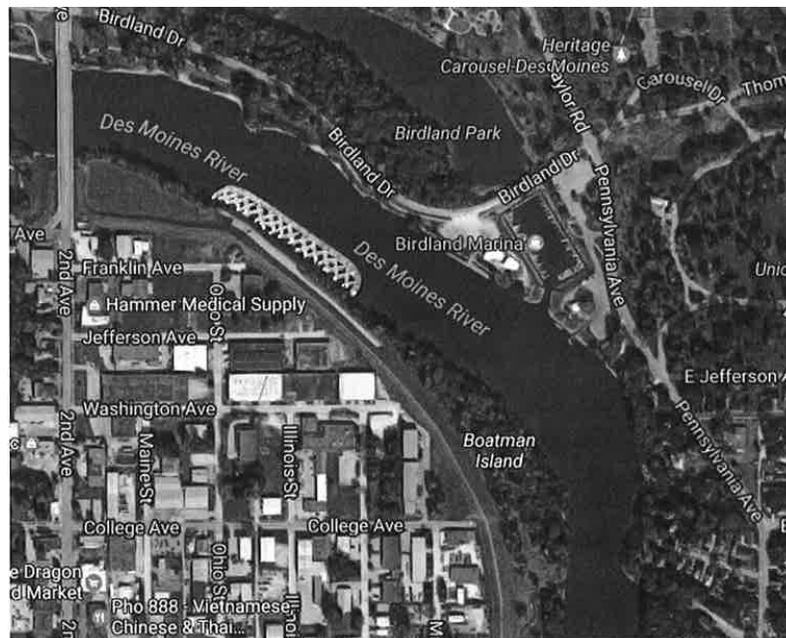
- 1.) **University Avenue Bridge (3 spans):** When rowing downstream, always use the west span. Returning upstream, row through the center span. The east side span is fraught with hazards and should be avoided.
- 2.) **2nd Avenue Bridge (3 spans):** When rowing upstream during practices, use the east bridge span. Use of the center span is allowed when rowing upstream, but is discouraged in the busy summer months when river traffic is at its peak. During regatta, when the course is essentially closed, the center span is often used because it affords a shorter route. If you use the center span during practices, please be aware that downstream traffic has the right of way in this span. Please yield to any downstream traffic immediately. Downstream rowing follows similar guidelines – use the west span as a rule, knowing that the center is available, if necessary.
- 3.) **6th Avenue Bridge (2 spans):** With only two spans, this bridge is the simplest one to navigate. Always use the span in your river lane. Upstream, this is the east side span and, downstream, it's the west span. Current eddies around the bridge supports at 6th Avenue, so be mindful when rowing close to the center support.

- 4.) **Railroad Bridge (Bike Path; 3 spans):** For experienced crews and coxswains rowing upstream of Prospect Park, use the center span under this bridge. The east span is too shallow to safely navigate and should be avoided. Rowing downstream, use the west span.
- 5.) **Euclid Avenue Bridge (4 spans):** For experienced rowers and coxswains rowing upstream of the old trestle bridge, use the two center spans to navigate this bridge. In both directions (upstream and downstream), row under the center right span. The outside spans in either direction (east going upstream and west going downstream) are too hazardous to navigate. When rowing downstream, be aware that the current tends to push your shell towards port and set up your approach accordingly.

C. River Hazards

As is typical, the Des Moines River is full of hazards. Some are always visible – such as felled trees - and some are only visible when water levels are particularly low. It is important that all rowers are aware of hazard areas so they can steer clear of them. There are a number of sandbars along the shoreline in the areas of the river that are typically rowed. These sandbars vary in height and size and become more prominent as you progress upstream. For this reason, we issue safety rules regarding how far upstream rowers should proceed at given river heights. The following photographs are marked with crosshatching to illustrate these hazards. Please review these photos and make sure you clearly understand where each area of concern is located.

- 1.) **River Boathouse Area:** There is a sandbar hazard just across the river and slightly upstream from our dock. This area should be avoided when rowing the downstream river lane.



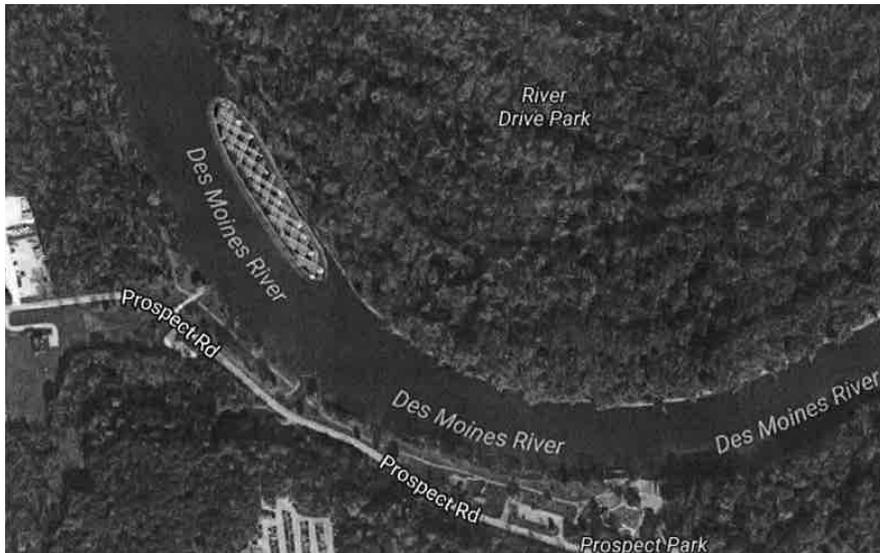
2.) Upstream of 6th Avenue Bridge: There is a sandbar on the eastern shoreline just north of the 6th Avenue Bridge. When passing through the east side span as you head upstream, be aware that this area can be shallow when the river is very low.



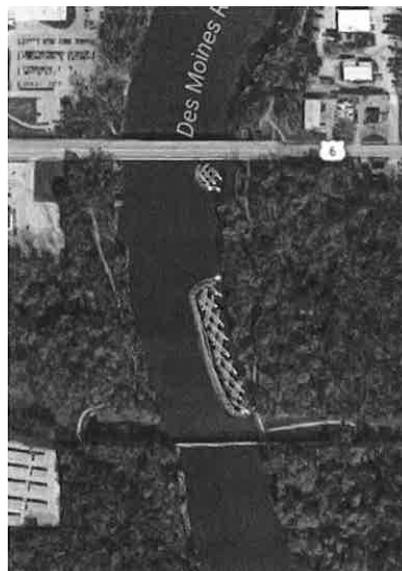
3.) The Gut – West Bank: As you approach the Gut heading upstream, be aware that the current tends to eddy on the east bank adjacent the rock retaining wall. This is particularly true when the flow rate is high. This area also holds residual wake, so it can get a bit wavy if you are rowing into it directly behind a powerboat. In addition, there is a sandbar on the west bank, as shown in the below photograph. This area should be avoided as you row downstream, particularly when the river is low. It is critical to maintain your river lane throughout the Gut and make sure you have good visibility (and are visible to others) as you navigate this extended turn.



- 4.) Upstream of Prospect Park – East Bank:** As you row upstream past Prospect Park, be aware of a sandbar on the east bank as the river turns back to the north. Avoid this area, as it can also be rife with submerged hazards.



- 5.) Between Railroad & Euclid Avenue Bridges:** There is a rather large sandbar just beyond the Railroad Bridge (bike path) on the east bank. As previously mentioned, you should never row upstream beneath the east side span of the Railroad Bridge as the water is generally too shallow and fraught with unseen hazards. As you row upstream through the center span, hold your line until you are beyond the pictured sandbar. Similarly, avoid the high spot just downstream of the Euclid Avenue Bridge on the east bank. Since you will be lining up to take the center right span as you approach, you just need to be aware of this sandbar should you be required to move for traffic or in the even that you are working against aggressive current.



6.) **“Nude Beach”**: Very experienced crews rowing upstream of Euclid Avenue should be aware of hazards near the area colloquially referred to as the “Nude Beach”. The actual beach area is on the west bank of the river across from the Saylor Creek inlet. Saylor Creek runs into the river from the east bank. Just beyond the beach area, the river makes a direct westward turn. The photograph below indicates sandbar hazards by the beach itself and all along the north shore after making the westward turn. The current in this area can be strong and is affected by the geography. Do not sit in this area for any extended period of time as the current can push you towards the eastern shore rather quickly. Coxswains should choose a line that avoids hazards and turn as sharply and quickly as possible. If you must arrest your forward progress through the westward bend for any reason, execute a river turn in your shell as quickly and efficiently as possible and head back downstream.



Because of the existence of the aforementioned river hazards, the club issues some general guidelines to assure safety at various river levels. When the river gauge height is at 13 feet, you are generally safe up to the Railroad Bridge. At 14 feet of gauge height, you can safely row about 300 meters upstream of the Euclid Avenue Bridge. If you are out with a very experienced coxswain, you may safely row to the “Nude Beach” when the river gauge height is 15 feet or higher. Gauge height must be above 16 feet for any outings upstream of the “Nude Beach” and only very experienced coxswains and rowers should attempt rowing club equipment this far.

II. Rowing in Low Light Conditions

While the river may be rowable during several winter months, the club does not permit evening rowing until Daylight Savings Time “springs forward”. This is entirely due to the lack of evening daylight throughout the winter months. Even following the DST move ahead in the spring, evening crews will encounter waning daylight much earlier than in the middle of summer. Morning crews in early spring and late fall suffer this same issue. Daylight breaks quite late during these seasons and very early rowing is only to be done by experienced crews with very experienced coxswains. After Daylight Savings Time “falls back” in autumn, evening rowing is, once again, suspended. If in doubt, please check sunrise and sunset times so you have a clear understanding of the light conditions you will be rowing in. This is a great source of information that should help you make wise decisions: <https://www.timeanddate.com/astronomy/usa/des-moines>

Regardless of time of day or season, rowing in low light conditions always requires the use of a functional bow light on your rowing shell. If you are being coached from a launch, the launch must also have lights for visibility. Coxswains and coaches need to see and be seen. Reflective clothing, vests, etc. are all encouraged for coxswains, coaches, and crew when rowing in low light.

Coxswains and at least one member of sculling crews should carry a whistle or other noisemaker to generate audible warnings, should the need arise. An audible alert is intended to warn other crews or crafts of impending danger or collision.

III. Cold Weather / Winter Rowing

Rowing when the cumulative air and water temperatures are below 100 degrees Fahrenheit should be approached with great caution. Hypothermia can set in very quickly when the combination of cold weather and moisture work together to lower core body temperatures. In only a matter of minutes, an adult can become incapacitated by hypothermia. You don't have to have capsized your shell to be at risk. Moisture from splashing or cold rain can stress your body enough to lower your core temperature and put you at significant risk.

Crews rowing in this kind of weather should always carry at least one mobile phone, in case of emergency. They should also consider being accompanied by a coach or safety launch loaded with the club's safety equipment kit. If fewer than 4 oars propel your shell, you should consider rowing only with others in sight. Single scullers should always use the 'buddy system' and go out in pairs or larger groups. In the absence of a safety launch, crews should take care to stay as close to shore as the river allows (see above section specifying River Hazards).

Symptoms of early hypothermia include rapid, constant shivering, loss of strength and coordination, slurred speech, general confusion and poor decision-making. Anyone suffering from these symptoms should be transferred to a warm environment as quickly as possible. Assure an open airway is maintained. Remove wet clothing immediately upon reaching a safe, warm place and use

blankets to raise the core body temperature. Focus on warming the torso area first and seek medical attention.

Symptoms of profound hypothermia are pale, cold skin and stiffness. The victim will be unresponsive to stimuli and may be unconscious. You may be unable to ascertain evidence of cardio or respiratory activity. Move victim very gently, only as necessary. Prevent further heat loss, but do not attempt to warm victim. Maintain an open airway and proceed with emergency medical care (CPR, etc.). Call for emergency help immediately.

IV. Inclement Weather / River Conditions

Crews should use appropriate caution when faced with inclement weather. Fast currents, high winds, large or heavy amounts of debris, extreme temperatures, lightning storms and fog are all reasons for not practicing on the water. The club has instituted rules regarding river conditions that all rowers must adhere to when using club equipment. These safety guidelines are presented using the flow rate of the river in cubic feet per second. This metric provides a measure of how quickly and strongly the river is flowing at any given time. The flow rate safety guidelines are to be compared to readings taken by the USGS at the Second Avenue river gauge (https://waterdata.usgs.gov/nwis/uv?site_no=05482000). Failure to observe these guidelines could result in suspension of club privileges.

Caution Level	Flow Rate	Dock Status
Red	>13,000 cfs	Closed; no launching of club equipment
Yellow	10,000 cfs - 12,999 cfs	Open with caution; experienced crews
Green	<10,000 cfs	Open without restrictions

Winds: Excessive winds are a fact of life in Central Iowa and can adversely impact the quality and safety of an outing. If the wind is strong enough to be generating whitecaps on the river, refrain from rowing. Single sculls are advised to refrain from rowing when wind speeds reach 15 mph. If you have forgotten your mobile device or don't know what the actual wind speed is when you arrive at the boathouse, use the Beaufort Wind Scale to assess local conditions (<http://www.spc.noaa.gov/faq/tornado/beaufort.html>). If local conditions suggest you are at force level 4 or greater, refrain from launching. High winds can catch and push lightweight blades and/or the hulls of smaller shells, increasing the risk of capsizing. The fewer oars you have propelling your shell, the higher your risk in windy conditions. Use wisdom before launching and consider the wind direction, its impact on river conditions and its potential impact on your ability to dock safely. Excessive winds from the Southeast direction tend to present more challenges to a safe outing.

Storms: Storms can roll in very quickly and without notice. Pay attention to the forecast and always check it before launching. In the event of thunder and lightning that arises while you are out on the water, move to the closest shoreline that allows a safe exit and wait for the thunder and lightning to stop before proceeding. Given the shortage of safe docking locations along the section of

river the club frequents, this suggests that you should always row in close proximity of the boathouse when weather conditions are tenuous or uncertain. If you hear thunder or spot lightning prior to launching, you must wait 30 minutes after the last instance before putting your shell in the water. This is a standard guideline for all outdoor athletic activities and not unique to rowing.

Fog: Fog can roll in at any time of day, but tends to be a more prevalent issue for early morning rowers. If fog is in the local forecast, be aware that it can be much thicker over the river. Never row in fog unless the shoreline is visible from a distance of 100 meters. Always make certain you have a bow light affixed to your shell. Equipping your coxswain with extra lighting and/or high visibility apparel for added safety is also recommended. Since sound is also muffled by fog, make sure you are equipped with a whistle or other noisemaker. If you get caught in fog during an outing, proceed with caution and appropriately slower speeds, especially when docking. If the fog is too thick to navigate, it may be much safer to sit still and wait before attempting to proceed.

Excessive Heat & Humidity: In hot and humid weather, rowers are at risk for dehydration and heat exhaustion. Symptoms of both conditions include dizziness, headache, muscle cramps and nausea. When you know you are going to practice in high heat conditions, start hydrating in advance of your outing. Always carry water with you in the boat. If you tend to perspire heavily, consider treating your water with an additive that will help replace electrolytes throughout your session. Some popular choices are Gatorade powder, NUUN tablets, or Skratch Labs Exercise Hydration Mix. Experiment with one you like and use it to stay hydrated during oppressive summer heat and humidity.

V. General Safety Guidelines

In addition to the aforementioned guidelines, the club has some overarching policies that apply to all rowers, all the time. These are basic rules or guidelines that are in place to ensure the safety of all club members.

- All rowers must know how to swim and have a signed swimming proficiency test or waiver on file with the club. This is typically handled via the registration process each spring.
- All rowers must have a current signed waiver of liability on file, which is renewed annually via the registration process.
- Novice rowers should view the water safety video as part of their initial orientation.
- Minors (under 18) must not be on the water without adult supervision.
- Coxes and scullers must attend the coxing theory clinic at least once.
- Single scullers are encouraged to use the buddy system, regardless of environmental conditions.
- All rowers and coxswains are expected to know and follow the river traffic patterns, rules, and hazard locations.
- All scullers and coxswains must record departures and returns in the boathouse log book.

- All coxswains and rowers should check their equipment before launching (bow ball present; skeg in good shape; rudder functioning; cox box audio working; no loose rigger hardware; foot stretchers, seats, tracks all in good condition; heel ties intact; oars in good condition; etc.). Any issues should be reported in the logbook and to the club's Equipment Director. If equipment is not useable, attach a sign to that effect so other crews do not employ it and put themselves at risk.
- When your crew has a boat on the dock and other crews are lining up to land, either walk your boat up the dock to allow space for the incoming crew to land or accelerate your launch or your carry into the boathouse. Coaches and crews should park equipment on the dock for the minimum amount of time when inbound traffic needs to land.
- If you have a known medical condition that may require special intervention (diabetes, asthma, allergies), always carry appropriate supplies with you in the boat (snacks, inhaler, epi-pen, etc.), in the event they become necessary.
- All rowers should be aware of how to respond to emergency situations.
 - Know distress signals. Wave your arms or shirt in the air. Raise an oar vertical to the boat if you are able to do so safely (larger sweep boats are more conducive).
 - If the shell rolls, stay with it in most cases. If the shell sinks or if a river current is taking you toward a hazard, such as a dam, swim diagonally to the shore with the current.
 - Use the 'buddy system' to account for teammates in any emergency (i.e. pair people up to watch out for one another).
 - When assisting in a boating emergency, approach the site into the wind and from downstream to avoid drifting into the disabled boat.
 - Establish verbal contact with those in the water and assess whether any have sustained injury.
 - Rescue those in greatest distress first.
 - Distribute life vests from the rescue craft(s).
 - All attempts to bring injured parties into the launch should occur in pairs and be executed away from the motor.
 - Conduct a headcount upon both arrival and departure from the accident scene.
 - Complete an accident report and submit it to the board and the Safety Director.

The USRowing Safety Expectations also include instructions on how to handle Emergency Conditions. Familiarize yourself with these response measures and watch the USRowing Safety Video (<http://www.usrowing.org/safety-video/>) online to see demonstrations of a number of possible scenarios.