



Portage Lakes Rowing Association Safety Manual

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Approved by Board of Directors 8/17/2008

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PURPOSE

The purpose of the Portage Lakes Rowing Association (the Club) Safety Manual is to establish, maintain and disseminate the Club's safety guidelines and ultimately ensure the safe operation of the Club at all times; i.e., all boat handling and on-the-water rowing at any facility that members use while sanctioned by the Club. The Safety Manual is maintained by the Board of Directors. The policies and procedures in this manual shall be adhered to in all respects nevertheless; blind adherence shall not replace the exercise of sound judgment.

The Safety Committee is composed of a Safety Officer (if no Safety Officer is appointed then the President shall act as Safety Officer) appointed by the Board of Directors.

Portage Lakes Rowing Association considers safety to be the number one priority of all rowers, coxswains and coaches. The policies and procedures in this Safety Manual are written for everyone's benefit.

Throughout the manual the use of the following terms are as follows:

Note: An operating procedure, practice, or condition, etc., that must be emphasized.

Shall: A procedure that is mandatory.

Should: A procedure that is recommended.

May or Need Not: A procedure that is optional.

Will: Indicates futurity and never indicates any degree of requirement for application of a procedure.

Experienced: Means the rower has completed at least one Learn to Row session/program with PLRA, WRRR or another recognized rowing club.

Novice: Means the rower has never rowed before or is currently enrolled in his/her first Learn to Row session/program.

RESPONSIBILITIES

All Members (who participate in any Club sanctioned rowing activities) and coaches:

- **Shall** familiarize themselves with all the contents of this Safety Manual, and any additional rules, safety guidelines and notices that the Club provides.
- **Shall** follow all the Club rules.
- **Should** follow Portage Lakes Rowing traffic patterns (rowing counterclockwise around all open lakes & channels) at all times.
- **Shall** follow the instructions of the Club coaching staff, coxswains and Safety Committee.
- **Should** consult a physician about engaging in any form of exercise, including rowing.
- **Shall** notify the Safety Committee, coaches and coxswains if they have any medical condition that could impair their ability to row or that requires special attention.

- With special medical/health conditions **shall** take appropriate precautions medications/devices in the boat while rowing (e.g., asthma inhalers).
- **Should** inform the session manager, coaches or a Safety Committee member of any unsafe condition or unsafe equipment they observe.
- Are **encouraged** to share any safety suggestions they may have with the Safety Committee.
- Who anticipate either rowing indoors or on-the-water during the year **should** attend the annual Safety Meeting.
- **Shall** ensure that rowing sessions where novices are present in the boat do not commence or continue without a launch. No safety launch, no row when novices are rowing in a shell! No novice crew or mixed novice-experienced crew should be on the water with out a safety launch close by. A coach sitting in the coxswain's seat does not count as a safety launch!
- **Should** receive proper instruction in waterman ship and technique, including capsized drills, from a qualified coach.
- No one **should** put him or herself or others at risk when on the water. This applies particularly to beginners and to juniors.
- Encouragement **should** be given to athletes to become fully aware of life-saving and resuscitation procedures by attending training courses. In particular, it is highly desirable that Safety Advisers and coaches should be so trained.
- Rowing activities **should** be coordinated with those of other local water users to minimize clashes of interest and the possibility of creating additional water hazards.
- There **should** be a required reporting structure for all non-trivial accidents to the Safety Adviser or higher authority where these events are recorded for further review. This information should be passed on to the regional or national authorities for a comprehensive overview of safety in the sport.
- All members who participate in any on-the-water rowing **should** complete a swim test, certified by an accredited lifeguard.
- Individual members are responsible for their own **medical clearance**; the Portage Lakes Rowing Association waiver clears the Club of liability for individual members.

In the event of emergency on the water, we follow the procedures on the US Rowing safety video (which all members **should** view):

- Swamping: stay with the boat (See appendices B&C)
- Use oars as flotation devices

ACCIDENT LOG

An accident log is to be maintained and be available for inspection at all times, giving time, place and nature of accident, injuries/dam-ages sustained and names and addresses of witnesses. Accident logs should be made available to the proper national authority where required.

ROWER RESPONSIBILITIES

Members are required to comply with the procedures and policies in this Safety Manual. Failure to comply **may** result in: a warning, possible suspension of rowing privileges or, in extreme cases, revocation of membership.

COMMUNICATIONS & COMPLIANCE

Our **safety procedures and policies are documented** on the Club website www.portagelakesrowing.com.

LIABILITY

Liability insurance **shall** always be in force; if for any unforeseen circumstance there is a lapse in coverage all club activities are to be suspended. The Safety Officer is responsible for ensuring that the policy is in force. Where possible, clubs should maintain adequate comprehensive insurance to cover personal injury to club members on and off the water and personal injury and damage to property or liability to third parties. There should be included in these policies adequate cover for the Safety Adviser.

Every member, guest and coach who participates in club-sponsored on-the water rowing or erg sessions **shall** sign a USRowing-developed “**Release of Liability**” every year. This for is posted on the Club website www.portagelakesrowing.com.

The Club maintains a log of signed forms and the original signed copies.

PRE-PRACTICE CHECKS

Each organization should prominently post a “Code of Safety” or its equivalent, such as “Safety Rules and Regulations”, including rules and information on:

- Safe Rowing Equipment
- Boathouse Rules
- Local Code of Practice and navigation rules
- Rowers’, Scullers’, Coaches’ and Coxswains’ Responsibilities
- Emergency Rules/ Capsize and Accident Drills
- Coaching Boats and Safety Boats
- Safety at Regattas
- Log book for unsupervised rowers
- Visual aids on; water safety, lifesaving, hypothermia, hyperthermia, resuscitation procedures
- Telephone number list, to include:
 - Doctor/Ambulance/Police
 - Fire Department
 - Local hospital casualty department
 - Local, river or harbor police
 - If there is no telephone readily available at the boating area, clear directions to the nearest available telephone must also be displayed.

Safety and first aid equipment should be readily available in every boating area to include:

- First aid cabinet (to be fully stocked and regularly checked)
- Thermal blankets/exposure bags
- Life rings/buoys and rope line
- Life jackets

PRE-PRACTICE SAFETY CHECKLIST

Before you practice, all of these items **should** be checked off for a safe practice

Coach

- CPR Course

- First Aid Course
- Boating Safety Class (Mandatory for anyone born after 1981)
- Swim Test
- Safe Water Conditions
- Knowledge of Waterway
- Leave note in Boat House as to time of Return
- Proper Clothing
- Practice Plan
- Weather Forecast
- Observer in Launch (safety boat)
- Megaphone
- Tools

Rowers

- Swim Tests
- Physicals
- Safety Talk & video
- Proper Clothing
- Water to Drink

Launch (Safety Boat)

- Life Jackets 1 for each member out on the water & 1 type IV PFD
- Registration & Driver's License of person driving
- Spare Spark Plug, fire extinguisher, attached ladder, rope, anchor
- Spare Seat & parts for the Shell/Shells
- 2 way radio and a working cellular phone
- First Aid Kit
- Safety Lights including flashlight
- Horn or signaling device

Shells

- Lights (if rowing could extend in darkness)
- Rigged properly
- Water Tight Compartments Sealed
- Cox Box or Megaphone
- Equipment Checked (Rudder, fin, etc.)
- Bow Ball

PERSONNEL RESPONSIBILITIES

Safety Officer

Is responsible for ensuring the policies and procedures of this Safety Manual are followed. In the absence of a Safety Officer, the President will be responsible.

- **Should** conduct an annual “Safety Meeting.” Has the authority to cancel rowing activities at any time if it is deemed that policies and procedures are not being followed or if any unsafe condition exists.
- **Shall** ensure all members have acknowledged reading the Safety Manual before participating in on-the-water rowing activities.
- **Should** make sure that for each coach, rower and coxswain that there is on hand at the boathouse a record of the following:
 - Name, and date of birth
 - Address
 - Phone Number
- **Shall** ensure all rowing equipment is maintained with safety in mind and that unsafe equipment be prominently marked and removed from use.

Coaches

Coaches must be responsible for those under their authority and should ensure that they are informed of safety procedures and abide by them. They must evaluate environmental conditions and determine if it is safe for rowers to go out on the water.

- **Shall** be responsible for knowing the number of boats on the water during a rowing session and that all boats have returned to the dock before ending the session.
- **Should** ensure that a Safety Bag is loaded on each launch.
- Ensure safe conduct of operations during a rowing session and that coxswains are observing the traffic patterns.
- Have the authority to cancel rowing activities at any time if it is deemed that procedures and policies are not being followed or if any unsafe condition exists.
- Are responsible for providing assistance to any capsized boat - even if from another sport or a pleasure boat. Coaches are reminded to stop at a safe distance and offer assistance. Approach with caution and in a controlled manner. Be aware of your prop!

Session Manager

- **Shall** provide the coaches with a list of the boats scheduled to launch for the rowing session with a list of names of the crew of each boat.
- **Shall** ensure the Safety Bags are loaded on the coaches’ launch(es)/safety boat(s).

Coxswains

Any Coxswain going out on the water will be responsible for abiding by all local rules, regulations and club created rowing traffic patterns. They should be in good health and properly attired for the present and potential conditions. All Coxswains should demonstrate the ability to swim 50 meters (54yards) in light clothing and to demonstrate within that test competence under water and in treading water. If a person cannot meet the requirements of the swimming test for physical or other reasons, an approved lifejacket or buoyancy aid should be worn when in a boat. In case of accident, stay with your boat rather than attempting to swim to the shore. Your boat, unless seriously damaged, is your life raft.

- Are responsible for the safety of the crew, the shell and others around the shell from the moment the shell is lifted from the racks until it is returned to the racks. To help ensure the capability of our coxswains (most of whom are rowers rather than dedicated coxes), the Club **shall** hold a mandatory introduction to coxing clinic, emphasizing that a coxswain’s first responsibility is safety.

Before shoving away, the Coxswains should ensure that:

- all plugs are in
- the radio is in a dry bag snugly fitted around their neck
- that the radio works by testing communications with the safety/launch driver
- the safety launch should be on the water or it can be tied to the dock if the safety/launch driver has already started the engine once and is on board
- test that the Cox Box is working
- count down from bow to ensure all rowers are ready

The Coxswain Captain

- **Should** conduct annual coxing clinics for new members and any continuing members who need a refresher.
- **Shall** review coxing performance to make sure everyone has the basic capabilities and thorough knowledge of safety procedures to keep the crew and boat safe. Occasionally, a coxswain may be relieved of coxing duty if s/he is deemed a threat to safety.
- **Should** receive a full explanation on handling the boat, all relevant safety procedures and boat handling. Inexperienced coxswains should be allowed out in boats only if observed by an experienced coach, preferably in a fully equipped coach boat. They must also be familiar with navigation rules.
- **Should** ensure that all Cox kits are properly equipped.
- **Shall** ensure bow and stern ports/hatches are secure before launching.
- Ensure that a properly outfitted Cox kit is in the boat when it leaves the dock.
- Ensure that heel tie-downs are in place and the heel of shoes cannot be raised more than three inches.
- Are responsible for following the rowing traffic pattern at all times. The coxswain is responsible for being aware of and avoiding other traffic, which may or may not be following the traffic pattern.
- When rowing at facilities other than Portage Lakes, become thoroughly familiar with and adhere to the local traffic patterns and safety procedures.

Crew

Any rower going out on the water will be responsible for abiding by all local rules, regulations and traffic patterns. They should be in good health and properly attired for the present and potential conditions. All rowers should demonstrate the ability to swim 50 meters (54yards) in light clothing and to demonstrate within that test competence under water and in treading water. If a person cannot meet the requirements of the swimming test for physical or other reasons, an approved lifejacket or buoyancy aid should be worn when in a boat. In case of accident, stay with your boat rather than attempting to swim to the shore. Your boat, unless seriously damaged, is your life raft.

- **Should** not talk while the boat is moving: it makes it harder to hear commands and distracts the coxswain from their primary job: the safe guidance of the boat.
- **Shall** notify the coxswain immediately if they see a hazard or possible collision that they believe the coxswain does not see, or if the coxswain is in violation of adhering to the standard traffic pattern without explaining to the crew their intentions. An emergency supersedes the rule for a crew member not to speak in a moving boat!
- **Shall** inform the coxswain or coach if they believe they hear thunder or see lightning.

Man Overboard

- Anyone can give the command: "Weigh enough, hold water!"
- The stroke removes their oar and gets it to the person in the water.

- Crew **should** try to ascertain if the “man overboard” needs immediate assistance. Another rower may be required to enter the water to assist the “man overboard”.
- Person in the water **should** lie across the oar and remain close to the shell.
- The launch/safety boat picks up the person and the coach determines if the rower returns to the shell.

Rower Injured / Equipment Broken

- Anyone give the command: “Weigh enough, hold water!”
- Coxswain signal launch for help if assistance is needed.

WEATHER AND OUTDOOR CONDITIONS

The greatest danger while rowing is collision caused by limited vision or carelessness. Great care **should** be taken when rowing in darkness, near darkness or fog. Take extra care to look and listen. Minimize conversation. Be careful not to get too close to shore or known hazards. Since morning rowing activities often begin in the dark:

- We encourage all rowers to walk with a buddy and a flashlight from the parking lot to the boathouse.
- All boats launching during hours of darkness **shall** launch with a working bow and stern light.

When there is inclement weather or debris (e.g., lightning, wind, fog, cold, flotsam/jetsam), the Club conforms to USRowing standards as to whether it is safe to go on the water. Decisions to launch are made by the coach in consultation with the session manager.

Cold Weather Rowing

- Rowing when the water temperature is below 59 degrees Farenheit **should** be done with great consideration. Hypothermia is a swift and incapacitating killer that strikes when the combination of cold weather and moisture work to decrease the body temperature. It can take mere minutes before an adult is incapable of helping themselves once hypothermia has set in. Keep in mind you don’t have to fall in the water to get hypothermia! Cold air temperatures and any moisture on the body (from being splashed, rain, sleet, snow) can lead to hypothermia (see Emergency Conditions).
- The only true safety device or practice other than common sense is a support/coaching launch. In the event of an emergency a well prepared safety launch can assist the individuals in question and transport them to safety. Even then hypothermia is an issue. All individuals should ask themselves before launching if being on the water is the best and only way to train. See Appendix A for information on hypothermia and other weather-related emergencies.

Fog

- Obviously limits visibility, but also mutes sounds. If caught in fog it is recommended that crews proceed with extreme caution and appropriately slower speeds in the direction of the boathouse. Be prepared to stop quickly. If the fog is too extreme it may be better to sit still. Be sure to make some noise so that others on the lake can be alerted to your presence. Do not assume fog that appears to be thinning will continue to do so!

Lightning / Thunderstorms

- Very dangerous. Crews **shall** return immediately to the dock, or proceed immediately to shore if the boathouse is too distant. There does not have to be rain or thunder to have lightning. If the sky begins to look bad, it probably is. The crew **shall** radio the launch/safety boat if possible in the event of lightning/Thunder.

EQUIPMENT

Rowing Session

The Club will schedule rowing on Portage Lakes from late March through Thanksgiving.

All sessions –outdoors – **shall** be scheduled & organized. Supervision will be given to Novices or crews rowing with novices in the boat.

During rowing sessions on Portage Lakes:

The ratio of boats per coach **should** be no more than three, but **shall** never exceed four boats per coach.

All boats **should** remain with the responsible coach/safety launch at an appropriate distance so that they can be supervised/observed and immediate assistance can be rendered if required; USE SOUND JUDGMENT. Normally there **will** not be more than three sweep boats on the water during a regular session.

Members and guests (who are high school age or older) who have signed a waiver may ride in a launch with the coach's permission. Riders **shall** carry a life preserver. Minors riding on the launch/safety boat will be required to wear an approved PFD and be supervised by an adult other than the driver.

Safety in the Boat

- Before entering the boat ensure all outboard oars are on the water.
- Rowers **should** be quiet and attentive to the Coxswain or Coach.
- Rowers **shall** comply with instructions given by the Coxswain or Coach.
- Rowers normally **should** keep at least one hand on the oar while on the water.
- After docking do not pull an outboard oar in until everyone is out of the boat.
- Oarlocks **shall** remain locked until everyone is out of the shell.

Areas of the Portage Lakes that you can row on & under what conditions:

- Experienced crews are allowed to row on approved areas of the Portage Lakes without a coaching launch/safety boat only if all of the following three conditions are met: 1) the boat has approved PFD's (life jackets) in it for each rower plus the Coxswain, 2) the crew **shall** be required to have a cellular phone in a dry bag and have emergency numbers along with them, and 3) the water temperature must be at least 59 degrees fahrenheit or greater.
- 400 HP Max Speed Zone times in Turkeyfoot Lake and East Reservoir go from 9AM until 8PM daily, with the exception of Sundays and Holidays from 10AM until 2PM when no speeding is allowed. At these times no rowing shell or boat **shall** enter these speed zones (or get close to them) as the risk of swamping would be almost guaranteed. These areas are buoyed and the buoys say "Speed/Ski Zone."
- Travel through the "Iron Channel" (from West to East Reservoir) is allowed **only** if the following five (5) conditions are met: 1) the safety launch has gone through the "Iron Channel" first and stops traffic from coming through the opposite direction. (The safety launch can then radio the shell and let them know it is safe to proceed through), 2) all rowers in the shell are experienced, and 3) the Coxswain is experienced (has Coxed sweep boats on a number of occasions before) and 4) the rowers row in pairs at paddle pressure. 5) water temperature is above 59 degrees Fahrenheit.
- During a supervised practice rowing shells can get out of radio contact with the safety boat **only** if the following five (5) conditions are met: 1) they are equipped with PFD's for everyone in the boat, 2) they have a cellular phone on board in a dry bag with the number to the coaching launch/safety boat, 3) the coaching launch has a cellular phone, 4) all rowers aboard are experienced, and 5) the water temperature is above 59 degrees Fahrenheit.

Safety

For the safety of all concerned, rowing equipment should be maintained in good working order. Particular attention must be paid to the following:

- Every boat must have a firmly attached ball of not less than 4 cm (1.5 inches) diameter on its bow. Where the construction or nature of the boat is such that the bow is properly protected or its shape does not represent a hazard then this requirement need not apply.
- Heel restraints and “quick-release” mechanisms must be in proper and effective working order in all boats equipped with fitted shoes. These restraints should not allow the heel to lift more than 5cm (2 inches).
- For rowing in reduced daylight, boats shall be fitted with lights as required by the local and national waterway authorities. At the least, all boats should have a light forward and aft.
- All oars and sculls should be checked to ensure that “buttons” are secure and properly set.
- Bow and stern compartments should function as individual buoyancy compartments and must be checked to ensure that they will function as intended.

Boats should meet minimum flotation requirements:

- When full of water a boat with the crew seated in the rowing position should float in such a way that the top of the seat is a maximum of 5 cm (2 inches) below the static waterline. Older boats not designed to meet this requirement may use inflatable buoyancy bags, foam blocks or other materials.

Rowing Shell Equipment

It is the Coxswain’s responsibility that their shell **should** not leave the dock unless the following equipment is either installed or onboard:

- Bow ball.
- Coxswain kit bag.
- Quick-release shoes with Velcro closure and heel tie-downs.
- A sound making device (i.e. horn or whistle).

It is the coxswain’s responsibility that their shell **shall** not leave the dock unless the following equipment is either installed or onboard:

- Working bow and stern light if launched in hours of darkness or the possibility exists the shell might not return to the dock before dark.

Lost Skeg

If a shell has lost a Skeg/Fin while on the water return to the dock immediately.

Coaching Boat

The coach must drive safely, always consider the safety of those on board, and consider the effect upon other water users. Remember that the majority of the Portage Lakes is no wake.

Training Coaching Boat Operators

To take out an engine-powered boat without previous instruction is to put the driver, any passengers and other water users at risk. At the very least the club shall ensure that an experienced driver goes out with a new driver until he has shown that he is fully in control of the launch.

The manner in which coaching boats are driven may create unnecessary problems for other water users.

Excessive washes and waves create difficult rowing conditions and can cause accidents to smaller boats.

Thoughtless driving often causes damage to moored boats. To use coaching boats for coaching, rescue and other purposes all on the same water, requires drivers to be fully aware of the effect of the wake they cause and the risk that the very sport they are seeking to assist cannot take place because their manner of driving their boat has made the water unusable.

Coaching Boat Requirements All coaching and safety boats should carry the following safety aids:

- A bailer
- A horn or similar warning device, capable of attracting attention over a distance of at least 300 yards.
- A grab line at least 50 feet long with a large knot tied in one end to assist throwing. Ideally a purpose made rescue/heaving line throwbag.
- Thermal/exposure blankets to reduce wind-chill and counteract hypothermia. Make use of proprietary items but not woolen blankets that only absorb moisture and do not then retain heat. In the absence of recognized equipment, polyethylene sheet cut to the size of a commercially available exposure bag will provide the necessary level of heat retention until proper treatment can begin.
- PDF or Life jackets. These are essential when several people are in the water and the launch can attend to only one at a time.
- A basic first aid kit (list contents and check regularly as before).
- A sharp knife with carrying sheath.
- A paddle.
- Simple handholds fixed to the side of a launch to give help to any person being rescued, and provide self-help should the driver fall overboard.
- Engine, cutout lanyard device.
- An anchor and line.
- Low Light Conditions When it is necessary for outings to take place in the dark or in poor visibility the coaching boat must carry a waterproof flashlight and sound signaling system as a means of signaling for assistance. The boat must be fitted with lights as required by local/national authorities.

Lifejackets

- It is advisable that buoyancy aids or life jackets be worn at all times by all on board a coaching boat and are essential when going out on very wide stretches of water. Life jackets that depend on oral inflation **should** be worn partly inflated; those that have auto inflation must be checked at intervals suggested by the manufacturers.

Coaching Boat Maintenance

- Maintenance of the boat and its engine is vital since the possible consequences of failure are great. A tool/spare parts box should be kept dry and checked regularly (an extra can of pre-mixed fuel is also a vital spare). It is a wise precaution to check that the engine is securely fixed to the hull and that the secondary safety fixing exists and is properly effective every time the boat is used.

SAFETY MATERIALS, PRACTICES & PREPAREDNESS

The Club owns a Safety Bag that **shall** go out on the coaches' launches at each session. This Safety Bag may be kept under the front port side seat of the coaching launch (pontoon) Each bag contains:

- Mobile/Cellular 911 Phone
- First Aid Kit in Waterproof Box
- 11 USCG-Approved Personal Flotation Devices Type II, 1 Type IV
- Hand Bilge Pump
- Rescue Throw Bag
- Waterproof High Intensity Flashlight
- Air Horn
- 10 Emergency Mylar Rescue Blankets
- Fire Extinguisher
- Safety Whistle
- 2 Way Motorola Radio (used to talk w/rowing shell)

The session manager **shall** be responsible for ensuring the bags are loaded onto the coaches' launches prior to an on-the-water session. If someone's health or life is in danger on the water, coaches or anyone **shall** call 911, using either their own cell phone or the 911-phone in the Safety Bag. On land, use the nearest available phone

The Club maintains a first aid kit in the boathouse.

All members **should** be cognizant of basic safety practices – including hydration, blood on the oar handles, dressing appropriately for the weather.

APPENDICES

A: Temperature Related Medical Conditions

B: Boating Emergencies

C: Resuscitation

APPENDIX A – TEMPERATURE RELATED MEDICAL CONDITIONS

Hypothermia Background

Most experts in immersion hypothermia and cold water near drowning / drowning define cold water as temperatures below 20° C (68°F) (It is also recognized that colder temperatures increase the rate of body cooling and increase the risk of cold shock and swimming failure. The majority of persons dying from immersion succumb in the early stages of the incident due to a range of physiological responses including gasping, hyperventilation and rapid peripheral cooling, resulting in aspiration, reduced breath-hold and incapacitation.

Preparation and prevention are essential to protect against the effects of the cold-water environment. This should include emergency drills with the equipment that would be used. Acclimatization to the cold is also shown to lessen the negative physiological responses.

Guidelines

1. Conditions

- Environmental conditions should be monitored, including water temperature, wind, precipitation and sea state, and appropriate safety directions such as those set out in #3 below should be issued.

2. Clothing

- Protective clothing should be worn which is appropriate for the conditions. The activity with the objective is to keep the body dry and to insulate against heat loss.

3. Precautions

- When the water temperature is at 10° C (50° F) or below or when the environmental conditions warrant, special safety precautions should be considered. Possibilities should include:
- Warning members against going on the water;
 - Advising members to go on the water only if carrying a personal flotation device (PFD) or lifejacket of appropriate size for each member of the crew, a sound-signaling device and, if it is after sunset and before sunrise, navigation lights as set out in the Collision Regulations, and;
 - Where appropriate, only if attended by a safety boat carrying a PFD or lifejacket of appropriate size for each member of the crew of the largest vessel being attended.

Hypothermia

Hypothermia is a condition that occurs when the temperature of the human body is lowered to a dangerous point due to exposure to cold and/or wet conditions. Cold temperatures and wet conditions work together to pull heat away from the body lowering the body's core temperature. Even in mild conditions, the addition of rain or submersion in cold water and can sufficiently reduce body warmth to trigger hypothermic conditions in the body. A person's condition can degrade rapidly impairing breathing and coordination making it impossible to swim or keep one's head above water. Emergency action needs to be taken no matter what the level of hypothermia.

- “Dress to beat the cold” - Layers of clothing are more effective than one warm garment. The outer layer should be wind and waterproof.
- Do not take or give alcohol in cold conditions. Alcohol accelerates heat loss as well as impairing judgment.
- Sudden immersion in cold water can have a shock effect that can disrupt normal breathing, reducing even a proficient swimmer to incompetence. Confusion and an inability to respond to simple instructions will become evident.
- When hypothermia is suspected; try to prevent further loss of body heat and re-warm the affected victim.
- Send for help. Hypothermia is a medical emergency whether the patient is conscious or unconscious.
- If conscious the victim should be actively re-warmed under careful observation.
- If unconscious the victim must get medical aid as soon as possible.

Early Hypothermia

Symptoms: rapid shivering, numbness, loss of strength and coordination, semi-consciousness. Action: Maintain open airway. Transfer to a warm environment as soon as possible. Remove wet clothing. Use blankets to help warm individual or if available a warm shower. Warm torso area first. Seek medical attention.

The following are the most usual symptoms and signs, but all may not be present:

- Unexpected and unreasonable behavior possibly accompanied by complaints of coldness and tiredness.
- Physical and mental lethargy with failure to understand a question or orders.
- Slurring of speech.
- Violent outburst of unexpected energy and violent language, becoming uncooperative.
- Failure of, or abnormality in, vision.
- Twitching, lack of control of limbs, unsteadiness and complaining of numbness and cramp.
- General shock with pallor and blueness of lips and nails.
- Slow weak pulse, wheezing and coughing.

Profound Hypothermia

Symptoms: Person will be pale, stiff, and cold. Unresponsive to stimuli, and possibly unconscious. Little or no cardiac or respiratory activity will be present. Action: Move or manipulate as gently as possible. Prevent further heat loss, but Do Not attempt to re-warm. Maintain open airway, and activate EMS procedures. Call for emergency help immediately!

A very dangerous situation is still present when a person who has been in the water for some time is taken out of the water. Further heat loss must be prevented. The victim should be protected against wind and rain if possible.

Re-warming can be carried out by:

- Wrapping the victim in a thermal/exposure blanket.
- Others placing their warm bodies against the victim.
- Giving hot drinks (if conscious), but not alcohol.

HOT Weather Guidelines - HYPERTHERMIA

Where rowing training and racing take place in a warm climate, participants may be subject to health risks. Organizers and other responsible persons should be prepared to evaluate the potential risks and to take precautions.

This section represents the conclusions reached by the FISA Sports Medicine Commission in their paper “Hot weather and safety guidelines” which gives more detailed information on heat related problems and safety measures.

The main medical problems in warm and hot environments are related to:

- Air temperatures
- Air humidity
- Heat Radiation from sun and warm environments
- Exercise induced heat production
- Impaired heat reduction (Clothing, ventilation, hydration) The main strategies to prevent heat-induced illnesses are
- Acclimatization
- Adequate hydration
- Postponement of exercise to cooler time periods of the day.

Heat-Related Emergencies

Higher temperatures and high humidity can lead to heat-related illnesses that coaches and rowers need to keep in mind. As humidity rises, the body’s ability to cool off through sweating is diminished since evaporation is limited. The best way to avoid heat-related injuries is to practice at cooler times of the day: early morning or late afternoon. The body needs time to acclimate to increased temperatures. Intake of fluids is also key and **should** be encouraged. Dehydration further impairs the body’s ability to cool off. There are two major heat-related illnesses to be aware of: heat exhaustion and heat stroke.

Heat Exhaustion

Early Symptoms: heavy sweating, cramps, tiredness, weakness, malaise, mild decrease in performance.

Action: rest and fluid replacement.

Advanced Symptoms: profuse sweating, impaired judgment, emotional changes. Action: If there is mild temperature elevation, an ice pack may be used to help cool the body to normal temperatures. Several days rest may be necessary and re-hydration is a priority.

Heat Stroke

Symptoms: confusion, nausea, vomiting, seizures. The victim loses consciousness. Body temperature rises as high as 106. Skin is dry and clammy. Action: Get medical help immediately! Lower body temp by immersing in water, maintain horizontal position of victim. Stop treatment when victim is conscious.

Basic Medical Issues

High intensity exercise in a hot environment with associated fluid loss and elevation of body temperature can lead to:

Dehydration - Heat Exhaustion - Heat Stroke

The heat related problems always start with dehydration and accompanied by an elevated body core temperature. Exercise further increases heat load on the body. With increased core temperature, energy demands for temperature regulation increase and this further depletes energy resources, particularly glucose stores. These conditions are prerequisites for the heat induced illnesses. However, it should be mentioned, in the case of excessive thermal load, heat exhaustion and heat stroke may occur without dehydration.

The main heat related illnesses are represented in Table 1 with the causes and physical problems, the indications and symptoms, and simple rules for treatment. Any athlete with an elevated temperature above > 104 °F which does not resolve after 30 minutes of cooling and re-hydration is to be considered a medical emergency.

Hot Weather Risk Evaluation

Taking into account the above mentioned factors, three levels of risk can be considered for hot, dry days according to the ambient temperature. When available, “wet bulb globe temperature” (WBGT) should be used to quantify environmental heat stress:

Table: Risk evaluation related to ambient temperature or WBGT

Ambient Dry Temperature Degrees F	WBGT Wet Bulb Globe Temp	Risk of Thermal Injury
77°- 89.4° F	75°- 85° F	Moderate
89.6° – 100° F	85° – 89.9° F	High
> 100° F	> 90° F	Extreme

Water for the crews

Water in rescue launches: Organizers are advised to have water in the rescue launches but to be given out in case of emergency and to provide water near to the victory ceremony.

Personal recommendations

Hydration:

The base fluid need of athletes is 2 liters per day and increases with exercise time (1 liter / hour) and air temperatures (1 liter per 5° C (9° F) temperature increase above 25°C (77° F)). For hydration, water, hypotonic and isotonic fluids may be used.

Radiation

Indirect radiation from the sun or from hot cars or in hot rooms enhances the negative effects of hot temperatures. Shade provides shelter.

Hats

Athletes in direct sunlight should wear hats which should be wetted with water.

Clothing

Clothing should be made with fabrics that minimize heat storage and enhance sweat evaporation. Light colored, loose fitting clothes, made of natural fibers or composite-fabrics with high absorption properties that provide for adequate ventilation are recommended.

Rest

Sleep and rest enhance temperature tolerance.

UV Sun block: decrease radiation damage of the skin and reflect also radiation. This decreases thermal load.

Lying down after races in warm environments may have negative effects on circulation and may provoke collapses. Rowers are advised to cool themselves with water after the races.

Acclimatization

Acclimatization of the participants includes the rowers as well as the umpires, other officials and volunteers and is the most important measure to prevent heat related illnesses. Preparation for exercise under hot conditions should include a period of acclimatization to those conditions, especially if the athlete is traveling from a cool / temperate climate to compete under hot / humid conditions. Acclimatization to hot environments takes usually 7 to 10days.

Information on health risks

- Participants or officials at a high risk of heat illness should inform the medical staff in case of extreme weather conditions.
- Risk increases with medical conditions including asthma, diabetes, pregnancy, heart conditions and epilepsy. Some medications and conditions may need special allowances.

APPENDIX B – BOATING EMERGENCIES

Capsize Procedures & Person Overboard

NOTE: It is the responsibility of any coach boat to provide assistance to any capsized boat -- even if from another sport or a pleasure boat. Coaches are reminded to stop at a safe distance and offer assistance. Approach with caution and in a controlled manner. Be aware of your prop!

All crew members **should** be fully aware of what actions to take when a crew swamps, flips or capsizes.

NOTE If rowers egress from a swamped boat – STAY WITH THE BOAT.

Shell Damaged and NOT Sinking

- Immediate command: “Weigh Enough!”
- Make adjustments and signal or radio launch for assistance.

Shell Swamped

A shell is swamped when the interior water reaches the gunwales. If rowers stay in the boat, the floatation ends (bow and stern) may cause the boat to break apart.

If the shell is swamped or taking excessive water, with rescue imminent:

- Immediate command: “Weigh Enough!”
- Coxswain directs rowers to untie, signals/radios launch and unloads rowers by pairs -- starting in the middle of the boat -- as soon as possible in order to avoid damage to the boat.
- Pairs **should** form “buddies” and keep a watch on each other. The coxswain **should** buddy with the stern pair.
- Until otherwise directed by the coach in the launch, STAY WITH THE BOAT!

If rescue is not imminent, take the following steps:

- Remove oars or place them parallel to the shell. The bow four **should** move to the bow of the boat and the stern four with the coxswain **should** move to the stern of the boat (it is dangerous to roll a shell when near the riggers).
- Attempt to roll the boat in order to form a more stable floatation platform so that rowers can either lie on top of the hull or buddies can hold each other across the hull.
- DO NOT attempt to roll the boat if rescue is on the way. However, be aware that body heat loss occurs as much as 25 times faster in the water.
- The launch **should** shuttle rowers to the nearest shore. Be careful not to overload the launch.

In any of these events the crew **should** remain with the shell! The shell normally will float (an important reason to close bow and stern ports before going on the water). Furthermore the oars will act as flotation devices. If for some reason the shell sinks below the surface, the shell **should** be rolled so the bottom is facing the sky, as this traps air underneath the shell and increases buoyancy. At no time **should** any crew member leave the boat to swim to shore! A short swim can be far longer than it appears due to currents, wind, water temperature, or personal fatigue.

Stay calm. The first thing that **should** be done in a team boat is for the coxswain or bow person to get a head count and make sure all rowers are accounted for. The crew, while holding onto the shell, **should** attempt to get the attention of other crews or coaches on the water. Wave and make as much noise as is necessary to attract attention. If no crews or launches are on the water nearby, the next step is to attract the attention of people on shore.

If the water and air temperatures are low, then the crew members **should** move along the shell and huddle together in pairs near the middle of the shell. Effort **should** be made to keep as much of the body out of the water as possible. This can include draping ones’ self over the top of the hull. A minimum of movement is the key to retaining body heat. Constantly check on crew mates and keep up one-on-one communication.

To recap procedures:

1. Stay calm.
2. Stay with the shell.
3. Take a head count.
4. Pair up and keep communicating with each other.
5. Call launch on 2 way radio or cellular phone, attract attention of launches, crews or people on shore.
6. If need be, roll shell over and drape the body across the hull (sinking shell or cold conditions).
7. Wait for help.

Person Overboard

All crew members **should** be fully aware of what actions to take when there is a person overboard.

A violent crab by an oarsman can throw him/her out of the boat. In this situation, it is up to the ejected rower to stay below the surface of the water till the shell has passed (this avoids getting hit in the head by a fast moving rigger(s)). The crew **should** stop rowing and hold water immediately so they can lend assistance. The crew **should** get the

attention of the coaches' launch while the rower treads water. In the event that a launch is not nearby the crew can back up to the rower in question so the rower can use the shell as a floatation device. It is also feasible to pass an oar to the ejected rower, using the oar as a floatation device. Once removed from the water, the rower **should** be evaluated to determine if the rower is fit to continue or if a medical emergency is present.

On finding a person that requires resuscitation:

- Approach Establish there is no danger to yourself or the victim. If you see someone in difficulties in the water, DO NOT go into the water after him. It is critical that the rescuer handle the emergency in such a way that he himself remains safe. Remember there may be neck or back injuries requiring extra care when moving the victims.
- Find something to help pull him out – a stick, a rope or clothing.
- Prevent yourself from being pulled in.
- If you cannot reach him, throw any floating object - football, plastic bottle - for him to hold on to, then fetch help.
- If you are in a safety launch carefully approach him if it is safe to do so.

Reach - Throw - Tow

- Having rescued the victim - shout immediately for help.

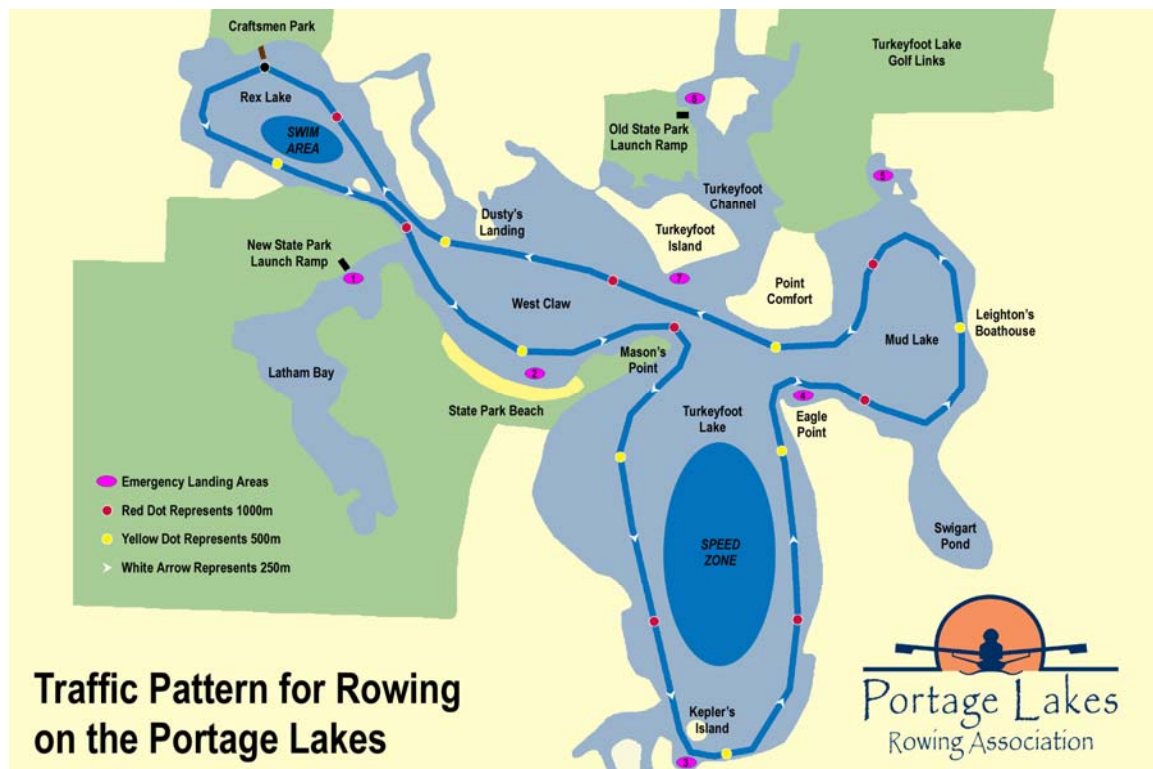
Recovery of a Flipped Shell

Once all the rowers who are involved in a capsized shell or swamping incident are accounted for and properly taken care of, the next step is to recover the shell. Not only is this a valuable piece of gear, but it also creates a traffic hazard for other users of the lake. There are very definite steps to go about getting a shell back to the house and out of the water without creating additional damage. First and foremost, slow down and assess the situation. One person needs to be in charge of the operation and give out direction to other helping parties. Then identify approximate wind speed and direction, current speed and direction, and other hazards. Once these details are in hand, decide how best to move into position to work on the shell. Move slowly! First, recover all gear that has floated away from the shell (e.g., loose oars, Coxboxes, speed coaches, etc.), because recovery at a later time can be difficult. Clothes from the crew are secondary unless needed for emergency survival. An 8 or possibly even a 4 may require two launches and experienced coaches. Determine if the shell is in danger of fully sinking due to damage. Then proceed: If the shell is not already keel down, roll it so it is. Before doing so, remove the oars unless they are acting as floatation for a severely damaged shell. Loop a line through the bow or stroke seat foot stretcher and fasten securely. Alternatively, a line can be attached to the stern- or bow-most riggers (i.e., bow pair). Next, equalize and center the line by looping it around the bow or stern (depending on which foot stretcher you tied off to) and secure. Do this several times. Lead the remaining tow line out and attach to the stern of a launch. At a slow and controlled pace move the launch away and towards the destination. As the launch gets underway make sure that the prop is clear of the tow line. Once the shell is back at the dock, the real work begins. Get as many people along the shell as possible as this will be heavy work. Make sure that everyone lifts from the legs and not from the lower back. Everyone will lay hands on the shell and lift very slowly so that the dock side gunwale tilts up and the water side gunwale tilts towards the water. The idea here is to slowly drain as much water out of the shell as possible before attempting to lift the shell out of the water all the way. The water side gunwale will still be in contact with the water. As people lift, the keel will be oriented so it is parallel to the dock. Once a significant amount of water has been drained in this manner, the shell can be lifted in a regular fashion. Alternatively, the shell can be placed back in the water and a water pumping device can be used to remove more excess water. The shell will still be heavy with water! Be careful. The shell must now be lifted over heads. First open the bow and stern deck ports. Alternating bow and stern, drop one end as low as possible while keeping the other end at heads. This will drain any excess water that is trapped in the boat. People will definitely get wet during this process, so make sure they have rain gear or extra clothing to change into during cold weather times. The same basic procedures for towing the shell can be used for moving a slightly swamped shell (gunnels above water), or dry shell as well.

Alternative Docking Sites

In the event of a sudden weather change or other emergency, rowers and coaches should know where there are alternative docking sites on Portage Lakes. We have identified seven emergency landing areas that all members should be familiar with. These locations are all on or near our normal traffic pattern and are identified by pink ovals on the traffic pattern map. These pink ovals are numbered and the details of each location are as follows:

1. New State Park Launch Ramp in the Portage Lakes State Park. This location is accessible by car by going to the park entrance at 5031 Manchester Rd, making the first left when inside the park and continuing straight until reaching the launch ramps. There are two boat ramps and several docks at this location and members have launched sculls from the shore area.
2. State Park Beach also in the Portage Lakes State Park. This location is accessible by car by going to the park entrance at 5031 Manchester Rd and continuing straight until reaching the beach area. There is a 900 foot long sandy beach at this location.
3. South Shore Yacht Club is located at the southern end of Turkeyfoot Lake. The address of this location is 215 Shrales Hotel Dr, which is where the clubhouse is located on a small island. The closest address on the shore is 213 Shrales Hotel Dr which is less than 150 feet from the island. There are many sailboat docks at this location.
4. PLRA member Michael Boyle and his wife Katy live at 4466 Whyem Dr. There is a large flag pole and statue on the point of their property. Just east of the point on Mud Lake they have a boathouse and boat ramp. The Mud Lake side of their property is more accessible than the Turkeyfoot Lake side.
5. PLRA member Barak Kraus and his wife Susan live at 270 Hedgewood Dr. They are on the north end of Mud Lake, just east of a small channel that separates house from the golf course. Barak has a 10' by 20' rowing dock at his house.
6. Old State Park Launch Ramp is located at the end of State Park Dr which is access by turning south off Rt. 619. There is no address for the park, but the last houses before the park entrance are 4315 and 4316 State Park Dr. There are three boat ramps at this location.
7. Turkeyfoot Island Clubhouse is located at 4528 Lahm Dr. There is a long dock for the Portage Lakes Yacht Club located here, as well as a small beach area.



APPENDIX C – RESUSCITATION

To be effective, resuscitation must be started as soon as possible, even while the patient is in the water. Otherwise irreversible damage or death will occur within a few minutes. Many thousands of lives have been saved by ordinary citizens who have known what to do and have had the courage to do it at the critical time.

The saving of life during a medical emergency depends on the accurate assessment and proper management of the ABC of resuscitation:

A - Airway

B - Breathing

C - Circulation

On finding a person requiring resuscitation:

- Approach Establish there is no danger to yourself or the victim. If you see someone in difficulties in the water, DO NOT go into the water after him. It is critical that the rescuer handle the emergency in such a way that he himself remains safe. Remember there may be neck or back injuries requiring extra care when moving the victims.
- Find something to help pull him out – a stick, a rope or clothing.
- Lie down to prevent yourself from being pulled in.
- If you cannot reach him, throw any floating object - football, plastic bottle - for him to hold on to, then fetch help.
- If you are in a safety launch carefully approach him if it is safe to do so.

Reach – Throw – Tow

- Having rescued the victim - shout immediately for help.

Assess the patient

Responsiveness - Establish responsiveness by shouting “ARE YOU ALL RIGHT” loudly and gently shaking the shoulder. If the patient is unresponsive, i.e., not breathing with no pulse:

- If you are alone leave the patient immediately and summon help. Return to the patient and commence resuscitation.
- If there is more than one rescuer, then at least one party should stay with the victim and one should go for help
 1. Breathing
 - Inspect the airway - remove blood, vomit, loose teeth or broken dentures but leave well fitting dentures in place.
 2. Open the airway
 - The rescuer should place two fingers beneath the point of the patient’s chin, lift the jaw and at the same time place the palm of the other hand on the patient’s forehead. Tilt the head well back by pressing on the forehead and the airway will open.
 3. Check for breathing
 - The rescuer should place her ear close to the patient’s mouth looking down along the line of the chest.
 - Listen for the sound of breathing.
 - Feel for air movement indicating breathing.
 - Look for rising and falling of the chest.

Circulation

Check for the presence of a pulse by feeling for the carotid artery in the neck. The artery lies along each side of the voice box (larynx). If the patient is unresponsive - not breathing with no pulse - leave the patient immediately and go and telephone for help. Return to the patient and commence resuscitation.

If the patient is unresponsive, not breathing but with a pulse – perform ten “mouth to mouth” (expired air resuscitation) breaths, then leave the patient and telephone for help 911. Return to the patient, check for breathing and pulse and continue resuscitation. If the patient is unresponsive but is breathing and has a pulse then turn him on his side into the recovery position.

The Recovery Position

Kneel to one side of the patient. Take the nearest arm and place it at 90° to his body, elbow bent and palm uppermost. Take the farthest arm and place it with the palm outwards held against the casualty’s cheek. Bend the far knee upwards to 90°, keeping the foot flat on the ground.

Supporting the hand on the face, pull gently but firmly on the bent up thigh to roll the patient towards you. Rearrange the far side, now upper leg to 90° and ensure the airway is still open by tilting the head and lifting the chin.

Resuscitation Procedure

This is the provision of artificial ventilation by mouth to mouth breathing, and an artificial circulation by external chest compressions.

Mouth to Mouth Breathing (Expired Air Resuscitation)

Lie the patient on his back. Kneel beside the head of the patient and open the airway by lifting the head and lifting the jaw. Open the patient’s mouth and pinch the nostrils closed. Open your mouth, take a deep breath, seal your mouth firmly over the patient’s mouth and breath out steadily into the patient.

Watch the patient’s chest rise as if he is taking a deep breath 1-2 seconds.

Remove your mouth from the patient’s mouth and allow the chest to fall (4 seconds). Give two breaths.

If mouth to mouth breathing is difficult, check and reposition the airway.

Vomiting may occur if breathing returns, place the patient in the recovery position to prevent him from choking.

Mouth to Nose Breathing

If mouth to mouth breathing fails to give air to the patient mouth to nose breathing is an alternative method. With the patient placed in same position as described above the mouth is sealed firmly over the patients nose and you may breathe out steadily into the patient. Ensure that sealing of your mouth around patient’s nose does not prevent airflow to the nose.

Watch the patient’s chest rise as if he is taking a deep breath 1-2 seconds.

Remove your mouth from the patient’s nose and allow the chest to fall (4 seconds). Give two breaths.

External Chest Compression

Place the patient flat on his back and kneel alongside the chest. Place the heel of one hand on the lower third of the breast bone. Place the heel of your other hand on top of the first hand. With your arms held straight and the hands on the chest all the time, press down on the breast-bone to depress it 4-5 cm (1.5 to 2 inches), then release.

Compress the chest smoothly 30 times at a rate of approximately 80 compressions per minute. After performing 30 compressions give 2 ventilations. Continue the compressions and the ventilations until help arrives. Do not stop to reassess the patient's pulse or breathing until help arrives.

Training

Remember that effective resuscitation training is essential; the foregoing text is only a guide/aide to understanding the practice of resuscitation that you are strongly recommended to learn. Contact your Red Cross or other medical training group for practical instruction in First Aid and resuscitation.