Open Water Safety Plan

Application Instructions

- Before applying for a USMS open water sanction, event hosts must review their event information and safety plans with their LMSC Sanctioning Officer. Upon approval from the LMSC Sanctioning Officer, the event host is then ready to apply for sanction.

- When applying for a USMS open water sanction, event hosts are required to submit their safety plan for review and approval by the Open Water Compliance Coordinator (OWCC) ON THIS APPLICATION through the online sanction process. We welcome additional supporting information—after all, many event hosts have developed extensive safety plans over years of hosting events—but everyone must submit this completed application to ensure that all pertinent points are covered in safety planning.

- Using a Google Earth map or equivalent, event hosts are also required to upload a map of the venue and course with the safety plan application. Maps must include locations of start & finish, guide & turn buoys, feeding stations, safety craft, lifeguards/first responders, on-site medical care, and evacuation points.

- In the best scenario, the Safety Director should assist the event host in the developing the event safety plan. If the Safety Director did not take part in developing of the safety plan (usually in the case of appointment after the sanction request or in the case of a substantially unchanged safety plan developed over years of experience), the event host must give the Safety Director a copy of the approved safety plan.

    - Upon request, USMS OWCC David Miner will send you a copy of the approved safety plan. Contact David at openwateradvisor@usmastersswimming.org or 941-545-9709.

Open Water Safety Plan Application

Event Information

General Information

Name of Host: **Epic Races, LLC.**
Name of Event: **Swim to the Moon**
Event Location: **8725 Hankerd Rd**
City: **Gregory** State: **MI** LMSC: **MI-Great Lakes Zone**
Event Dates: **August 17, 2024 through August 18, 2024**
Length of Swim(s): **.5 mile, 1 mile, 1.2 mile, 2.4 mile, 5K, 10K, 15K**
Dual Sanctioned with USA-Swimming: **No**

Key Event Personnel

Event Director: **Eva Solomon** Phone: **734-678-5045** E-mail: **eva@epicraces.com**
Referee: **Angela Carron** Phone: **734-620-5771** E-mail: **angela@epicraces.com**
Certified Safety Director: **Doug Pontious** Phone: **248-703-9564** E-mail: **doug@epicraces.com**

Pre-Race Safety Meeting (required): all officials & safety personnel must attend

Tentative date: **Estimated August 13, 2024** Time: **TBD**
Tentative agenda:
Course setup
Event overview
Distress signals
EAP including:
- whistle signals
- guard placement
- volunteer placement

Pre-Race Swimmer Meeting (required): all officials & swimmers must attend to participate in race

Tentative date: **August 17, 2024 and August 18, 2024** Time: **15 minutes before start of each event**
Tentative agenda:
A mandatory meeting will begin fifteen minutes prior to the first wave of the swim start. The meeting will cover start, turn and sighting buoys, all safety rules, etiquette, protocol, and potential issues during the swim. Swimmers will be instructed to use the universal distress signal of waving their arms up and down if needing assistance. Potential hazards, protocol for swimmers who do not finish the race, cancellation & evacuation signals, and exit locations.

Course & Event Conditions

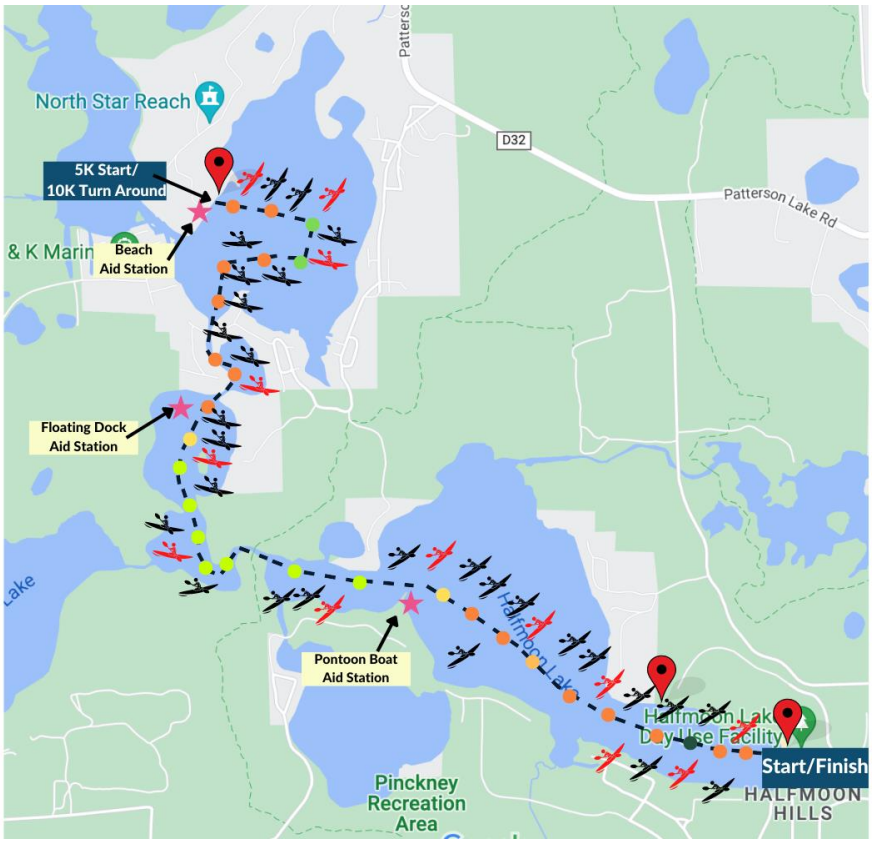
The Course

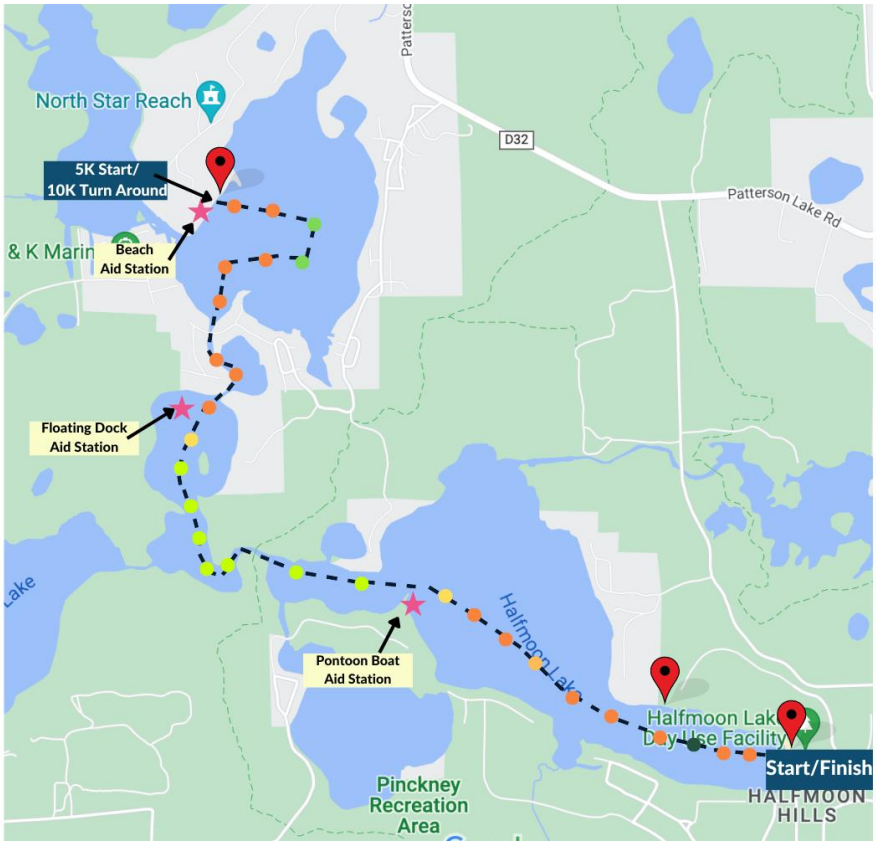
Body of water: **Hiland Chain of Lakes** Water type: **Lake** Water depth from: **0 to: 60ft**
If open course, indicate the agency used to control the traffic while swimmers are on the course.
Agency name: **Marine Sheriff and Epic Races staff**. How to contact during event: **Cell Phone / Channel 1**

Expected water conditions for the swimmers: (marine life, tides, currents, underwater hazards): **Freshwater swim with freshwater life such as fish. No expected tide. Little to no expected current (if a current exists,**

it will be most noticeable through the culvert). There are some areas along the course where swimmers can stand, which also means rocks may be present. There is invasive algae as well that those who live on the lake do their best to keep it cleared out.

Course:
This map shows the 5K start and the 10K Start/Finish and turn-around. The 15K will start at the top left icon south of North Start Reach, 2.4 Mile, 1.2 Mile, 1 Mile and .5 Mile will start at the bottom right icon near Halfmoon Hills, where the Start/Finish label is.





How is the course marked?

- .5 mile Turn buoy: Height(s) **3 feet** Color(s) **Green** Shape(s) **Turtle**
- 1.2 mile Turn buoy: Height(s) **6 feet** Color(s) **yellow** Shape(s) **Cylinder**
- 10K Turn buoy: Height(s) **5 feet** Color(s) **yellow** Shape(s) **Tetrahedron**
- Guide buoy(s): Height(s) **3 feet** Color(s) **Orange** Shape(s) **circle**
  Neon Yellow
- Approximate Distance between Guide buoys: 200m

Number of Feeding Stations: **5K- 2, 10K – 3, 15K - 3**
Type of structure(s) used as feeding station(s): **Pontoon Boat, Floating Dock, Shore**
Number of people the structure(s) can safely hold: **Feeding stations are in shallow water where all swimmers can stand**

Water & Air Temperatures

Expected air temp range: **73-80 Deg. F** Expected water temp range: **74-82 Deg. F** Wetsuits: **Optional, not eligible for awards**

USMS Water Temperature Index for sanctioned open water events:

- **Below 57°F (Very Cold) – heat retaining swimwear and a Thermal Plan for Cold Water Swims is REQUIRED**
- **57°F-60°F (Cold) - heat-retaining swimwear is required or a Thermal Plan for Cold Water Swims is REQUIRED**
- **60°F-66°F (Quite cool) - Thermal Plan for Cold Water Swims is RECOMMENDED**
- **66°F-72°F (Fairly cool) - Thermal Plan for Cold Water Swims is ENCOURAGED**
- **72°F-78°F (Cool) - No Thermal Plan required**
- **78°F-82°F (Optimal) - Heat-retaining swimwear & neoprene caps are not permitted above 78°F.**
- **82°F-85°F (Warm) - Thermal Plan for Warm Water Swims is RECOMMENDED**
- **85°F-87.8°F (Very warm) - Thermal Plan for Warm Water Swims is REQUIRED**
- **87.8°F-95°F (Hot) - Sanctioned open water swims cannot be held**
- **Over 95°F (Extremely hot) - Any swimming is ill-advised**

USMS Water Temperature Measurement Procedure: Using an accurate thermometer, the event host should take three to five measurements at various places on the course—12 to 18 inches below the water surface and no closer to the shore than 25 meters (if possible)—within one hour before the start of an open water swim. The host should average these measurements, post and/or announce the resulting average temperature at least 30 minutes before the start of the swim, and announce it during the pre-race staff safety and swimmers' meetings.

Water Quality

It is recommended that one week before the event, check water quality. If results returned are inconsistent with the local governing body's standards, notify swimmers who participated in the event of any known exposures post-race. If an exceptional event such as heavy rain or flooding affects the water quality, the Event Director, Referee, or Safety Director shall have the authority to postpone or cancel the race. It is recommended to take and retain water samples on race day and retain for reference.

Swim to the Moon is held at a Michigan State Park with a public beach that has regular water testing.

Event Safety

Medical Personnel

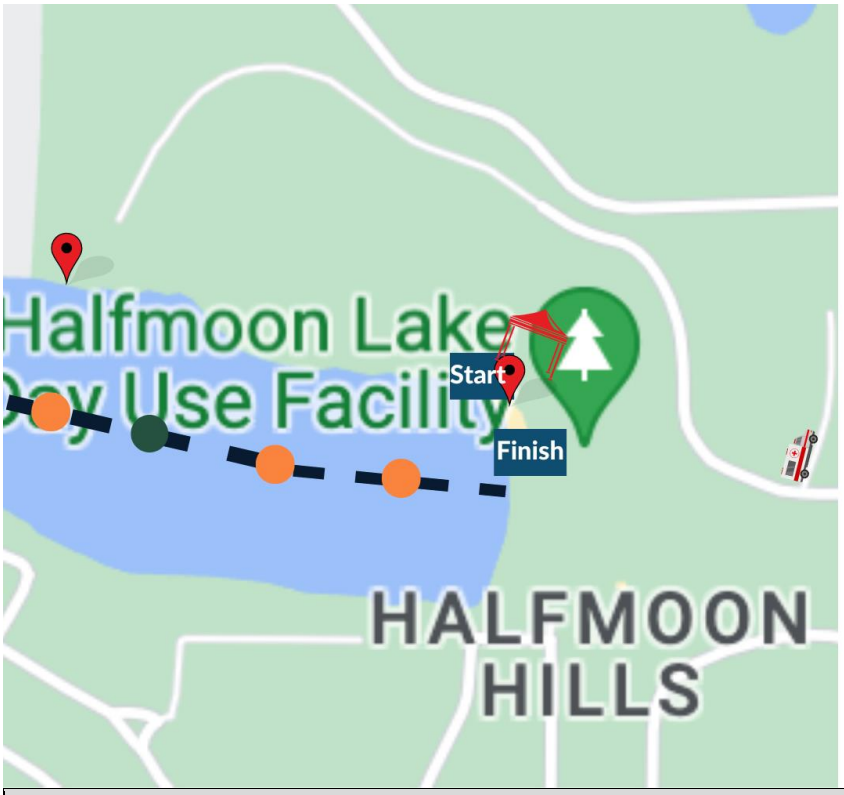
Lead medical personnel (emergency trained) on site: HV, Huron Valley Ambulance
Experience in sporting events (Marathon, Triathlon, Open water swim, etc.): **Yes**
Will medical personnel be located on the course? **At Finish Line**
The number of medical personnel will be dependent on the course layout, number of swimmers in the water, expected conditions, etc. How many medical personnel do you plan to have on site? **2 EMTs**

First Responders/Lifeguards & Monitors

Indicate the qualifications of the first responders: **Certified Lifeguards (Open Water) & Volunteers**
Number on course: **20** Number on land: **2**
Indicate their location on the Race Plan Map. Lifeguards are indicated. **Marine Sheriff (Deputy Jesse Smith, Washtenaw County) will patrol bodies of water and be available for swimmer extraction.**

Onsite Medical Care & Facilities

Describe onsite set up for medical care, such as medical treatment tent, heating/cooling tent or facility. etc., and indicate locations on the Race Plan Map. **There will be a medical tent visible from the finish line. There will also be an ambulance on site.**



KEY

- Green turtle inflatable- .5 mile turn around
- Sighting buoys
- Medical Tent
- Evacuation Point
- Ambulance

Ambulance/Emergency Transportation & Nearby Medical Facilities

Ambulance(s) onsite: **Channel 1** On Call: **911**
Have you spoken with local emergency response agency regarding potential emergencies? **Yes**
Closest medical facility: **Trinity Health Livingston Hospital** Phone: **517-545-6000 / 911**
Type of medical facility (urgent care, hospital, etc.): **Hospital**
Distance to closest medical facility: **18.3** Approximate transport time: **30 minutes**

Watercraft

Motorized Watercraft:

- Owned/operated by government agencies (Coast Guard, police, fire & rescue, etc.): **Marine Sheriff (Deputy Jesse Smith, 734-660-8432, Washtenaw County, MI)**
- Owned/operated by volunteers or hired individuals: **Hired**

Will all motorized watercraft with a propeller owned/operated by volunteers or hired individuals be equipped either with a propeller guard or a swimmer monitor? **Yes**
Other motorized watercraft:

- With propellers fore of the rudder: **1**
- With impeller motor (jet ski, jet boat): **1**
- Anchored from start to finish: **2**

Allocation of Watercraft:

- Safety Watercraft:
  - 1st Responders: Motorized: **1** Non-motorized: **20 (SUPs and Kayaks)**
  - 2nd Responders: Motorized: **0** Non-motorized: **See above**
- Watercraft for race officials: Motorized: **2** Non-motorized:
- Watercraft for race supervision: Motorized: **See above** Non-motorized: **See above**
- Watercraft for feeding stations: Motorized: **1** Non-motorized: 2
- Watercraft for escorted events: Motorized: **N/A** Non-motorized: **1**
- Other event watercraft: **0**

Emergency Signal Flag Color for all watercraft: **Orange**

Communications

Primary method between event officials: **Waterproof two-way radio** Secondary method: **Cell phone**
Primary method between medical personnel, first responders & safety craft: **Waterproof two-way radio**
Secondary method: **Cell phone**

Swimmer Counting & Accountability

Describe method of swimmer body numbering: **Both arms, both shoulder blades, back of hand if long-sleeved wetsuit**
Describe method of electronic identification of swimmer (Recommended): **RFID**
Describe different bright cap colors for various divisions (Recommended): **Neon blue, pink, green. Cap colors do not conflict with buoy colors.**
Describe method of accounting for all swimmers before, during and after swim(s): **Timing mats will be at start and finish, timer keeps track of swimmers in the water. Lifeguards are designated to each of the 5 lakes to keep track of swimmers.**
Describe method of accounting for swimmers who do not finish: **Any swimmer who wishes to withdraw from the race after entering the water will give their number to personnel on the water vessel; the person on the water vessel will then pass along this information to the safety director so he/she is accounted for at the end of the race when comparing the list of who entered and exited the water.**

Warm-up/Warm-down Safety Plan

Describe safety plan for warm-up/warm-down, include number and location of lifeguards and designated watercraft. **Designated swim area set with permanent buoys is open for warm-up/warm down. It is shallow water and has one lifeguard on land.**

Swimmer Management

Maximum number of swimmers on course at a time: **500**

If more swimmers show up on the day of the swim(s), how will you adjust the safety plan to accommodate the increased number of entries? **Registration is closed before the race begins, and registration caps are put into place. Therefore, we will be able to plan for the max number of participants ahead of time.**

How will you deploy the safety staff and crafts distributed to supervise this event to ensure swift recognition, rescue, and treatment of any swimmer? **Safety staff consisting of swim volunteers, certified lifeguards, and the Epic Safety Director each utilizing their respective SUPs, kayaks, and Sea Doo watercrafts will be assigned to a body of water and a specific surveillance zone prior to race day along with instructions, timing, and which beach location to launch from as well as closest exit points for treating a swimmer.**

All safety staff will arrive for a pre-race safety meeting on each race morning scheduled 45 minutes prior to the start of the earliest race for each day. The safety meeting will ensure the safety staff is properly briefed and prepared to be in their assigned zones prior to the start of each race. The expressed goal for all safety staff is to perform preventive lifeguarding and communicate early identification of all potential distressed swimmers and immediately intervene to prevent an active drowning scenario.

As the safety staff surveys their zones for distressed swimmers as the race progresses, they will follow a hierarchical protocol designed for expedient Open Water drowning recognition, rescue, and appropriate treatment. All safety staff will provide continuous scanning throughout the swim event. As volunteers and lifeguards recognize a potential emergency situation, the observer will activate an Emergency Activation Plan (EAP) with three loud whistle blasts that includes immediate escalation from volunteers to certified lifeguards to perform necessary rescue, resuscitation, and/or trained first aid assistance. The

EAP activation will also initiate assists, backup zone coverage, and escalated onsite or 911 medical care as appropriate.

How will you deploy the safety staff to maximize rapid response to a troubled swimmer? **The hierarchical Open Water protocol will formulate surveillance zones based upon inherent risk factors including area sizes, visibility, water conditions, and traffic volumes. Safety staff will be appointed zones with a balanced mix of volunteers and certified lifeguards to maximize area compression, optimize risk coverage, and expedite speed of response.**

Certified lifeguards assisted by watercraft personnel will evaluate the condition of the distressed swimmer and initiate the appropriate aid and/or transport swimmer to receive escalated medical attention. Certified guards and watercraft volunteers will be stationed on both sides of the race route to facilitate quickly being able to reach the troubled swimmer. A series of three whistle blasts will notify the swimmers a rescue is taking place and to make way for the rescuing staff.

How will you alter the event if insufficient safety personnel/craft are available on the day of the swim(s)? **Cancel**

Describe your missing swimmer plan:
We have an accountability system which tabulates the number of swimmers entering and exiting the water. All swimmers will be identified by number and if a person is missing we will begin a search which will include contacting the emergency contact of the participant. We will do a missing person notification as they may have simply been a DNF or DNS. If they are still missing, we will enlist the Washtenaw County Marine Sheriff (Deputy Jesse Smith) to search for search and rescue.

Severe Weather Plan

Is a lightning detector or weather radio available on site? **No**

Describe your plan for severe weather or natural disaster: **In the event of unsafe weather before the start of the event, the following plan will be put in place:**
A safety assessment of the current weather at race time will be determined by the race director. If the race director feels it is unsafe to compete, the race will be delayed 15 minutes. After the 15 minutes has passed another assessment will be conducted. If the race director feels it is safe the race will then be started.
In the event that the weather does not allow the event to start after the first 15 minute delay 15 minutes delays will continue until the delay time has reached one hour. If after one hour, running and biking conditions are safe, the event will be changed to either a duathlon or a running race. If after one hour thirty minutes swimming would not be safe, the race will be canceled.
Upon the cancellation of the event it will not be rescheduled for that calendar year. Refunds will not be offered due to an event being canceled because of weather.

In the event of unsafe weather after the start of the event, the following plan will be put in place:
Three long blasts of an air horn will signal that the event has been stopped.
If only the swim is stopped, swimmers will be directed to shore and given further instruction.
If water and land are both unsafe, all will evacuate to the nearby parking areas and get into cars (not convertibles) or into clumps of shrubs. All will stay away from metal objects. The race director will begin a phone chain to let all key personnel and volunteers know the status of the event and how to assist participants.

Describe your course and site evacuation plan, including accounting for all swimmers and other participants:

- **Radio communication and/or cell phone communication to referee and safety personnel.**
- **All lifeguards issue a 3 loud short blast whistle command and instruct all swimmers to evacuate the course.**
- **Announcer instructs all swimmers, safety personnel, and officials to exit the course. In the case of inclement weather, all will be instructed to seek shelter per the inclement weather plan.**

Thermal Plan for Cold Water Swims

General Information
Thermal Plan for Cold Water Swims: USMS Rules for Open Water Swims state: 302.2.2A (1) A swim shall not begin if the water temperature is less than 60° F. (15.6° C.), unless heat-retaining swimwear is required of all swimmers or a USMS-approved thermal plan is in place. 302.2.2A (2) A swim in which heat retaining swimwear is required of all swimmers shall not begin if the water temperature is less than 57° F. (13.9° C.), unless a USMS-approved thermal plan is in place.
Remember that the average masters swimmer does little or no acclimatization to cold water, so even a small drop in water temperature—especially in the colder ranges—dramatically increases the odds of thermal issues: Cold Shock Response, Cold Incapacitation, Hypothermia, and Circum-rescue Collapse). Be Prepared!
- If your swim course has a remote chance of water temperature less than 60° F., you are **REQUIRED** to complete the thermal plan below, showing your specific commitment to increased swimmer preparation before the event, reduced swimmer exposure during the event, and maximize mitigation & treatment of thermal issues during & after the event. - If your swim course has a chance of water temperature between 60° F & 66° F., a thermal plan is **RECOMMENDED**. - If your swim course has a chance of water temperature between 66° F & 72° F., a thermal plan is **ENCOURAGED**.

How will you assist swimmer preparation before the event:

The following methods are among the ways you can do this:

1. Emphasize & stress on entry information of possible cold water swim conditions.
2. Require prior cold water swim experience.
3. Require swimmer cold water preparation plan.
4. Refuse entry if swimmer is not acclimated to cold water swimming.

What method(s) of swimmer preparation will you take: **We will encourage wetsuits if the temperature is below 72. All swimmers will be eligible for awards. If the temperature is under 66, wetsuits will be mandatory. If the temperature is below 62, the event will be canceled.**

What action will you take to reduce swimmer exposure to thermal issues:

The following methods are among the ways you can do this:

1. Cancel the swim(s).
2. Shorten swim(s) or institute/shorten time limits.
3. Encourage wetsuits for all swimmers.
4. Require wetsuits for all swimmers.

Explain your plan of action: **Wetsuits will be required if the water temp is below 66.**

What extra medical care will you provide to mitigate & treat symptoms of thermal issues:

The following methods are among the ways you can do this:

1. Bring in more emergency trained medical personnel and/or ambulances.
2. Bring in more volunteers to assist medical personnel.
3. Bring in more emergency craft and first responders on the course.
4. Increase warm beverages before the swim and at feeding stations.
5. Have special procedures (different than normal) for removing swimmers from the water & venue.
6. Increase warm beverages after the swim.
7. Increase thermal treatment gear (blankets, hot water bottles, etc.)
8. Make warm showers available on-site.
9. Make warming facilities (buildings, tents, vehicles, etc.) available on-site.

10. Other:

Specify what extra listed items you will provide: **We always have thermal blankets on site.**

Comment on how you will be prepared to care for multiple medical issues: **We have an ambulance and multiple medical professionals on site. Our medical team is prepared for a mass disaster.**

If the water temperature is below 72° F, will you be prepared to deal with cold water medical issues: **Wetsuits will be encouraged and our medical team is prepared for a mass disaster.**

Thermal Plan for Warm Water Swims

General Information
Thermal Plan for Warm Water Swims: USMS Rule 302.2.2A(3) for Open Water Swims states: "A swim of 5K or greater shall not begin if the water temperature exceeds 29.45° C. (85°F.). A swim of less than 5K shall not begin if the water temperature exceeds 31° C. (87.8°F.)."
Remember that the average masters swimmer does little or no acclimatization to warm water, so even a small increase in water temperature—especially in the warmer ranges—dramatically increases the odds of thermal issues: Dehydration, Heat Stroke, and Hyperthermia. Be Prepared!
- If your swim course has a chance of water temperature from 85° F to 87.8° F, you are **REQUIRED** to complete the thermal plan below, showing your specific commitment to increased swimmer preparation before the event, reduced swimmer exposure during the event, and maximize mitigation & treatment of thermal issues during & after the event. - If your swim course has a chance of water temperature between 82° F & 85° F., a thermal plan is **RECOMMENDED**.

How will you assist swimmer preparation before the event:

The following methods are among the ways you can do this:

1. Emphasize & stress on entry information of possible warm water swim conditions.
2. Require prior warm water swim experience.
3. Require swimmer warm water preparation plan.

What method(s) of swimmer preparation will you take: **Education and encourage wetsuits.**

What action will you take to reduce swimmer, official, and staff exposure to heat-related issues:

The following methods are among the ways you can do this:

1. Cancel the swim(s).
2. Shorten swim(s) or institute/shorten time limits.
3. Remind all participants to stay well hydrated.
4. Remind swimmers to select appropriate pace.
5. Make swim caps optional or use Lycra swim caps.

Explain your plan of action: **Shorten the swim, remind participants to stay well hydrated and use an appropriate pace.**

What extra medical care will you provide to mitigate & treat symptoms of heat-related issues:

The following methods are among the ways you can do this:

1. Bring in more emergency trained medical personnel and/or ambulances.
2. Bring in more volunteers to assist medical personnel.
3. Bring in more emergency craft and first responders on the course.
4. Increase cool beverages before, during and after the swim (for swimmers and staff, including extra cool beverages on watercraft and feeding stations)
5. Increase heat exhaustion and heat stroke treatment gear (iced water, ice chips, cold water bottles, misting tents/fans, etc.)
6. Make cool showers available on-site.
7. Make shade and cooling facilities (buildings, tents, etc.) available on-site.
8. Other:

Specify what extra listed items you will need to provide: **ice, cooling towels**

Comment on how you will be prepared to care for multiple medical issues: **We will call in additional medical personnel from University of Michigan.**

If the water temperature is above 82° F, will you be prepared to deal with heat-related medical issues: **If the temperature is above 82, we will shorten the swim.**