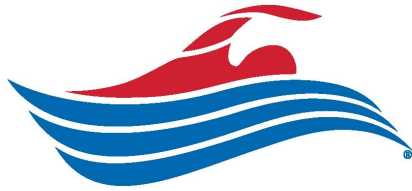


South



**U.S. MASTERS
SWIMMING**
OPEN WATER

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 Bill Roach will send you a copy of the approved safety plan. Contact Bill at wfroach@att.net or 317-989-3164.

Open Water Safety Plan Application

Event Information

General Information

Name of Host: **Knoxville Open Water Swimmers**
Name of Event: **Bridges to Bluffs**
Event Location: **Knoxville, TN**
City: **Knoxville** State: **TN** LMSC: **Southeastern**
Event Dates: **9/10/2022 (briefing) through 9/11/2022 (race)**
Length of Swim(s): **10k Open Water**
Dual Sanctioned with USA-Swimming: **No**

Key Event Personnel

Director(s): **Jack McAfee**
Event Director: **Jack McAfee** Phone: **770.401.1007** E-mail: **knox.ows@gmail.com**
Event Dir / Referee: **Kevin McDonald** Phone: **865.312.1852** E-mail: **knox.ows@gmail.com**
Certified Safety Dir: **Larry Brede** Phone: **865.621.0752** E-mail: **knox.ows@gmail.com**

Pre-Race Officials Meeting (required) all officials and safety personnel must attend

Tentative date: **9/11/2022** Time: **7:00am**
Tentative agenda: **Discuss swimmer and pilot briefing details. Discuss weather and contingency plans. Discuss swimmer evacuation and special needs if any medical conditions exist.**

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

Tentative date: **9/10/2022** Time: **6:00pm**
Tentative agenda: **Give overview of course, safety information, pilot information, plans for inclement weather.**

Course & Event Conditions

The Course

Body of water: **River** Water type: **Fresh Water** Water depth from: **3ft to: 100+ft**

Course: **Open - non-event watercraft allowed near swim course**

If open course, please indicate the agency used to control the traffic while swimmers are on the course.

Agency name: **US Coast Guard** How to contact during event: **USCG MSD Nashville/ 220 Great Circle Road, Suite 148 / Nashville, TN 37228 /Phone: 615-736-5421 Fax: 615-736-7315**

Expected water conditions for the swimmers: (marine life, tides, currents, underwater hazards) There will be a downstream current. Marine life will be minimal. Various underwater hazards may present themselves, but there are no known hazards on the course. Swimmers will be starting off of the Paddleboat “Star of Knoxville”, which includes a 5-foot feet first entry into the water from the bow of the boat. Swimmers will be seeded according to their entry time, and their times will not begin until they jump from the boat. It is estimated that each swimmer will begin roughly 10 seconds apart, in order to allow for the previous swimmer to surface and begin swimming. The depth of the water where the race will begin is estimated to be over 50+ feet deep, so diving will be allowed.

How is the course marked?

- Turn buoy(s): Height(s) **4 ft** Color(s) **Orange & Yellow** Shape(s) **Triangle**
- Guide buoy(s): Height(s) **4 ft** Color(s) **Orange & Yellow** Shape(s) **Triangle**
- Approximate Distance between Guide buoys: **Buoys will be placed along the curves of the river to prevent swimmers from swimming in the middle of the channel.**

Number of Feeding Stations: **0**

Type of structure(s) used as feeding station(s): **It is required for each swimmer to have a kayaker who will feed each swimmer as necessary.**

Number of people the structure(s) can safely hold: **Each kayak will hold a single person.**

Water & Air Temperatures

Expected air temp range: **70-95** Expected water temp range: **70-80** Wetsuits: **Swimmers wearing wetsuits for the 10K swim will not be eligible for awards.** USMS safety guidelines will be followed with regard to any use of wetsuits. If expected conditions occur, wetsuits for the 10K will not be **Not allowed**

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.

Unfortunately, there is no live link to water temperature anywhere along the Tennessee River. However, our counterpart race in Chattanooga (Swim the Suck) has recorded their race temperatures each October during their race, which an average over 7 years being 75 degrees. Knoxville water temperatures are generally 5-10 degrees cooler than Chattanooga water temperatures, last year we recorded the temperature on race day at 73 degrees.

Current on the Tennessee River presents the same challenges. Bridges to Bluffs is a downstream swim on a dam-controlled river. The release is controlled by TVA Douglas dam. While we cannot predict what the current will be for a particular day in the future, we will be given an estimated release 2 days in advance. On the day of the swim, there could be zero CFS being released over the Douglas dam, or, there could be an excess of water if there has been ample rainfall in previous days. Throughout the summer of our swims last year, there was a fairly consistent average of 10,000 CFS release from the dam each day during the morning and the evening. For comparison, 10,000 CFS is roughly equivalent to an increase in speed of 1 mph while swimming.

| 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. |

Micobat has over 25 locations across the United States and tests a variety of environments, including bodies of water. We will have our river water conditions tested approximately one week before the race. All swimmers will be notified if the water conditions are unsafe for swimming before the event takes place. (<https://www.microbac.com/about>). The last 5 years, our water conditions were well in the safe zone for recreational swimming.

Event Safety

Medical Personnel

Lead medical personnel (emergency trained) on site: **Spencer Long, M.D.**

Experience in sporting events (Marathon, Triathlon, Open water swim, etc.): **Yes**

Will medical personnel be located on the course? **Yes**

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? **1**

First Responders/Lifeguards & Monitors

Indicate the qualifications of the first responders: **YMCA**

Number on course: **1**

Number on land: **0**

Indicate their location. **The lifeguard will be located on the patrol boat, which will also contain the lead M.D., the Safety Director, and the Race Director. The boat will be present at the start of the race, will patrol the river during the race, and will be present at the finish as swimmers finish and begin to exit the water.**

On-site 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. **N/A. We will not have on-site medical care facilities, as professional facilities are only 10 minutes away. We will have plenty of supplies and water on hand at the finish.**

Ambulance/Emergency Transportation

Ambulance(s) onsite: **None onsite**

On Call: **865.573.5799**

Have you spoken with local emergency response agency regarding potential emergencies? **Yes. We have spoken with John Brinkley, Commander of Rural Metro Fire Emergency Response.**

Nearby Medical Facilities

Closest medical facility: **UT Medical Center**

Phone: **865.305.9000**

Type of medical facility (urgent care, hospital, etc.): **Hospital**

Distance to closest medical facility: **2-5 miles**

Approximate transport time: **10 minutes**

Watercraft

Motorized Watercraft:

- Owned/operated by government agencies (Coast Guard, police, fire & rescue, etc.): **1**
- Owned/operated by volunteers or hired individuals: **1-2**

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: **0**
- With impeller motor (jet ski, jet boat): **0**
- Anchored from start to finish: **1 (Timing at Finish)**

Allocation of Watercraft:

- Safety Watercraft: **2**
 - 1st Responders: Motorized: **1** Non-motorized: **0**
 - 2nd Responders: Motorized: **1** Non-motorized: **0**
- Watercraft for race officials: Motorized: **0** Non-motorized: **0**
- Watercraft for race supervision: Motorized: **0** Non-motorized: **0**
- Watercraft for feeding stations: Motorized: **0** Non-motorized: **Same as number of swimmers**
- Watercraft for escorted events: Motorized: **0** Non-motorized: **0**
- Other event watercraft: **There is a 1-1 swimmer to kayak ratio during the event.**

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

Communications

Primary method between event officials: **Cell Phone** Secondary method: **Megaphone/Bullhorn**

Primary method between medical personnel, first responders & safety craft: **Cell Phone**

Secondary method: **Megaphone/Bullhorn**

Swimmer Counting & Accountability

Describe method of swimmer body numbering: **Permanent marker on shoulders and hands.**

Describe method of electronic identification of swimmer (Recommended): **Electronic timing system**

Describe different bright cap colors for various divisions (Recommended): **There will be a variety of bright colored caps, but they will not differentiate divisions.**

Describe method of accounting for all swimmers before, during and after swim(s): **Each swimmer will be marked off a master list according to their body marking number when they 1) board the boat, 2) enter the water, and 3) exit the water.**

Describe method of accounting for swimmers who do not finish: **If a swimmer withdraws from the race, their kayaker will call the Safety Director (provided in contacts) and inform them of the swimmer's decision. They will call the motorboat to come pick the swimmer up.**

Warm-up/Warm-down Safety Plan

Describe safety plan for warm-up/warm-down, include number and location of lifeguards and designated watercraft. **There will be no warmup available.**

Swimmer Management

Maximum number of swimmers on course at a time: **230**

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 will close two weeks before the race, so no additional swimmers will be allowed to race on race day. The event director(s) will have sole discretion on allowing race day entrants.**

How will you deploy the safety staff and crafts distributed to supervise this event to ensure swift recognition, rescue, and treatment of any swimmer? **Each swimmer will have a personal kayaker, ensuring utmost safety. In addition, an M.D. and a lifeguard will be stationed on a motorized patrol boat which will traverse up and down the course for additional coverage.**

How will you deploy the safety staff to maximize rapid response to a troubled swimmer? **The boat will be immediately available to respond to distressed swimmers.**

How will you alter the event if insufficient safety personnel/craft are available on the day of the swim(s)? **If the motorized boat used to carry the lifeguard and MD is not available, alternates will be selected. Every swimmer will have a dedicated kayaker in support. No swimmer will be allowed to participate who does not have a kayaker as escort and support.**

Describe your missing swimmer plan: **Check with timing to see if all swimmers are accounted for. If they are not, alert the motor boat pilots to start a search on the water. Call the swimmer (they could be in their car), call their pilot. If nobody answers, call the swimmer's emergency contact. Leave voicemails and texts.**

Severe Weather Plan

Is a lightning detector or weather radio available on site? **Yes. We will utilize a lightning detector application and have it on the lead boat with the Safety Director, M.D., and Lifeguard.**

Describe your severe weather plan: **In case of lightning or other severe weather, the motor boat will patrol the course and announce with a bull horn to clear the course while kayakers will alert the swimmers with a 3 whistle clear the course. Each kayaker will be given a whistle before the race.**

Describe your course and site evacuation plan, including accounting for all swimmers and other participants: **All swimmers and kayakers to exit the water on downstream left side and wait on land. Swimmers should have some warm clothes in their personal kayak to try to stay warm. If it does not thunder for 15 minutes, the motor boats will patrol and tell swimmers to allow the race to start again.**

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: **Emphasize & stress on entry information of possible cold water swim conditions.**

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: **If the water is below 60 on race day, we would cancel the swim or allow it to be wetsuit legal.**

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

Specify what extra listed items you will provide: **Encourage warm beverages during the swim, as well as increase the warm beverages after the swim.**

Comment on how you will be prepared to care for multiple medical issues: **We are especially prepared because of our requirement that each swimmer has his/her own personal kayaker. Each swimmer will have**

immediate assistance within 30 seconds. A kayaker can provide immediate and basic aid until the watercraft can be notified and arrive on scene.

If the water temperature is below 72° F, will you be prepared to deal with cold water medical issues: **Yes, medical staff will be on site. We will be prepared to tell swimmers that wetsuits are required, or that we may need to cancel the 10k portion of the swim.**

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: [Click here to enter text.](#)

| 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: [Click here to enter text.](#)

| 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

Specify what extra listed items you will need to provide: We will have ice buckets at both the 5k and 10k points of the swim. We have a working hose at the finish for swimmers to cool off with. Cold drinks will also be provided at the finish.

Comment on how you will be prepared to care for multiple medical issues: **As mentioned for the cold swim, we are especially prepared because of our requirement that each swimmer has his/her own personal kayaker. Each swimmer will have immediate assistance within 30 seconds. A kayaker can provide immediate and basic aid until the watercraft can be notified and arrive on scene.**

If the water temperature is above 85° F, will you be prepared to deal with heat-related medical issues: **Yes, medical staff will be on site. We will be prepared to cancel the 10k portion of the swim.**