



## **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](mailto:wfroach@att.net) or 317-989-3164.

# Open Water Safety Plan Application

## Event Information

### General Information

Name of Host: Davis Aquatic Masters  
Name of Event: 38th Lake Berryessa Swim  
Event Location: Steele Canyon Campground, Lake Berryessa  
City: Napa State: CA LMSC: PC  
Event Dates: 6/6/2020 through 6/6/2020  
Length of Swim(s): 1mile, 2 mile  
Dual Sanctioned with USA-Swimming: Yes

### Key Event Personnel

Event Director: Stu Kahn Phone: 530-400-3005 E-mail: berryessa@damfast.org  
Referee: Mary Kahn Phone: 530-400-1860 E-mail: mjoyswim@gmail.com  
Certified Safety Director: Jeff Heiser. Phone: 510-816-5298 E-mail: jeff.heiser@gmail.com

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

Tentative date: 6/6/2020 Time: 8:15am.  
Tentative agenda: 1) Review Course, 2) Water Safety Crew Assignments 3) Communication Plan

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

Tentative date: 6/6/2020 Time: 8:45am and 11:00am  
Tentative agenda: 1) Review Course, 2) Safety Procedures, 3) Questions

## Course & Event Conditions

### The Course

Body of water: Lake Water type: Fresh Water Water depth from: 0 to: 100FT

Course: Closed-only event watercraft allowed

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

Agency name: Napa County Sheriff How to contact during event: 707-253-4509

Expected water conditions for the swimmers: (marine life, tides, currents, underwater hazards): No threatening marine life or currents; the lake bottom is muddy in places, and rocky in places.

How is the course marked?

- Turn buoy(s): Height(s) 6 Ft Color(s) Orange Shape(s) Pyramid
- Guide buoy(s): Height(s) 3Ft Color(s) Pink Shape(s) Sphere
- Approximate Distance between Guide buoys: 200 Yards

Number of Feeding Stations: 0

Type of structure(s) used as feeding station(s): N/A

Number of people the structure(s) can safely hold: N/A

### Water & Air Temperatures

Expected air temp range: 70-85 F Expected water temp range: 65-75 F Wetsuits: Optional

#### **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.

Daily water quality samples taken by U.S. Department of Interior at five sites located at or near race venue location.

## Event Safety

### Medical Personnel

Lead medical personnel (emergency trained) on site: American Medical Response, EMT-P

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

Will medical personnel be located on the course? No

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? 5

## First Responders/Lifeguards & Monitors

Indicate the qualifications of the first responders: American Red Cross Lifeguards

Number on course: 2-3 safety watercraft first responders, motorized. 4-6 safety watercraft first responders, non-motorized. Number on land: 2-3 first responders

Indicate their location on the Race Plan Map.

## 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. Enclosed first aid tent near finish arch containing two camp cots, blankets, towels, and first aid supplies. Heaters and hot beverages will be provided if the air temperature is less than 70 °F. EMTs and ARC trained personnel will be stationed in the medical tent to provide assistance to swimmers who need it.

## Ambulance/Emergency Transportation & Nearby Medical Facilities

Ambulance(s) onsite: **Phone # or radio channel** On Call: 916-563-0600

Have you spoken with local emergency response agency regarding potential emergencies? **Yes**

Closest medical facility: Queen of the Valley Medical Center, Napa, CA Phone: 707-252-4411

Type of medical facility (urgent care, hospital, etc.): Full service emergency/trauma center

Distance to closest medical facility: 10-20 miles Approximate transport time: 41 minutes

## Watercraft

Motorized Watercraft:

- Owned/operated by government agencies (Coast Guard, police, fire & rescue, etc.): 3
- Owned/operated by volunteers or hired individuals: 1

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): 2
- Anchored from start to finish: 1

Allocation of Watercraft:

- Safety Watercraft:
  - 1st Responders: Motorized: 3 Non-motorized: 4-5
  - 2nd Responders: Motorized: 0 Non-motorized: 15-20
- Watercraft for race officials: Motorized: 1 (with propeller guard) Non-motorized: 0
- Watercraft for race supervision: Motorized: 0 Non-motorized: 0
- Watercraft for feeding stations: Motorized: 0 Non-motorized: 0
- Watercraft for escorted events: Motorized: 0 Non-motorized: 0
- Other event watercraft: [Click here to enter text.](#)

Emergency Signal Flag Color for all watercraft: Orange

### **Communications**

Primary method between event officials: Radio                      Secondary method: Cell Phone

Primary method between medical personnel, first responders & safety craft: Radio (separate channel from Meet Officials)

Secondary method: Cell Phone

### **Swimmer Counting & Accountability**

Describe method of swimmer body numbering: Upper back and arms

Describe method of electronic identification of swimmer (Recommended): Passive RDID chips provided by Big Sky Endurance Sports

Describe different bright cap colors for various divisions (Recommended): 7 Divisions with 7 colors; White, Yellow, Orange, Blue, Green, Red and Purple

Describe method of accounting for all swimmers before, during and after swim(s): All athletes will pass through a gate into the start area to activate the timing system. Swimmers will be videotaped crossing the entry mats. Kayakers will be stationed at 100-150 yard intervals along the course to observe swimmers as they progress. A dedicated sweeper will follow the last swimmer in each wave. All athletes will pass over a second mat to log their exit at the finish line. The timing system will be constantly monitored to ensure that all athletes that cross the start also cross the finish or are located as soon as possible. A video camera will record the finish and two individuals will record numbers as athletes exit. The numbers will be periodically audited to ensure that athletes are not missing.

Describe method of accounting for swimmers who do not finish: Swimmers exiting race early are required to check-in with the medical tent and turn in chip at finish line. That information will be radioed to the meet director and the meet referee.

### **Warm-up/Warm-down Safety Plan**

Describe safety plan for warm-up/warm-down, include number and location of lifeguards and designated watercraft. Warm-up/warm-down area will be adjacent to the start area, separated by floating ropes and monitored by a ARC certified lifeguard

### **Swimmer Management**

Maximum number of swimmers on course at a time: 200-250

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? We will add additional safety personnel.

How will you deploy the safety staff and crafts distributed to supervise this event to ensure swift recognition, rescue, and treatment of any swimmer? Kayakers will be stationed at 100-150 yard intervals along the course to observe swimmers as they progress. A dedicated sweeper will follow the last swimmer in each wave.

How will you deploy the safety staff to maximize rapid response to a troubled swimmer? Walkie-talkies, signal flags and whistles will be used to alert more maneuverable watercraft (canoes or jet skis) to assist swimmers quickly. Motorized watercraft may be used to evacuate swimmers who are unconscious or who cannot hold a tow buoy.

How will you alter the event if insufficient safety personnel/craft are available on the day of the swim(s)? The race will be cancelled.

Describe your MISSING ATHLETE PLAN: Attempt to contact emergency contact provided during registration. Review video tapes to insure athlete started and finished their race. If contact is unsuccessful, and video supports the swimmer absence. A sweep of the course is initiated by the Referee and the Sheriff will initiate search & rescue procedures. Emergency Medical Services will be contacted.

### Severe Weather Plan

Is a lightning detector or weather radio available on site? Yes

Describe your plan for severe weather or natural disaster: Shelter in place for up to 1 hour, cancellation if severe weather does not pass.

Describe your course and site evacuation plan, including accounting for all swimmers and other participants: Safety Director and Race Director will make the determination and notify the Sheriff. The Sheriff will signal with three blasts of the patrol boat horn that the race should be abandoned, and all swimmers should exit to the closest evacuation on shore. The paddle craft will alert swimmers to the abandonment and escort them to the nearest point on shore. Motorized craft will transport swimmers to the finish area. All swimmers will return pass through the finish line to activate the computer system and record their presence on shore. The "Missing Athlete Plan" will be invoked to locate swimmers who do not report as instructed.

## 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. Refuse entry if swimmer is not acclimated to cold water swimming.

### 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: Shorten swim(s) or institute/shorten time limits. Encourage wetsuits for all swimmers.

**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: Bring in more volunteers to assist medical personnel. Increase warm beverages before the swim and at feeding stations. Increase warm beverages after the swim. Increase thermal treatment gear (blankets, hot water bottles, etc.) Make warming facilities (buildings, tents, vehicles, etc.) available on-site.

Comment on how you will be prepared to care for multiple medical issues: Multiple medical responders will be onsite.

**If the water temperature is below 72° F, will you be prepared to deal with cold water medical issues: Yes**

## 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: N/A

**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: N/A

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

**Comment on how you will be prepared to care for multiple medical issues:** [Click here to enter text.](#) **If the water temperature is above 82° F, will you be prepared to deal with heat-related medical issues:** [Click here to enter text.](#)