**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**

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## Event Information

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| **General Information** |

Name of Host: Richmond Plunge Masters

Name of Event: 2018 Keller Cove Swim for Kids’ Sake

Event Location: Miller/Knox Regional Shoreline

City: Richmond
 State: CA LMSC: LSMC: PAC

Event Dates: 9/22/2018 through 9/22/2018

Length of Swim(s): ½-mile, 1-mile, 2-miles

Dual Sanctioned with USA-Swimming: Yes

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| **Key Event Personnel** |

Event Director: Norman Hantzsche name. Phone: 510-610-6114 E-mail: nhantzsche@questaec.com

Referee: Geoffrey Thomas name. Phone: (502) 640-9721 E-mail: coachg025@yahoo.com

Certified Safety Director: John Schonder name. Phone: (510) 504-0330 E-mail: richmondswims@gmail.com

| **Pre-Race Safety Meeting (required):** **all officials & safety personnel must attend** |
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Tentative date: 9/22/2018 Time: 1) 8:30 am, 1 hour prior to start of race for Lifeguard/Safety Personnel; (2) Day before event for Race Officials; .

Tentative agenda: (1) Lifeguard/Safety Meeting: All lifeguards will attend a pre-race safety briefing approximately 1 hour before the event. Ambulance personnel and event officials (Referee and Safety Director) also attend. Along with the medical evacuation procedures, recognition, prevention, rescue and search procedures are reviewed. (2) Race Officials Meeting: Event Directors, Referee, Safety Director, and key registration personnel will attend a pre-race meeting at the event location on the day prior to the race to review roles, responsibilities, logistics and safety plan.

| **Pre-Race Swimmer Meeting (required):** **all officials & swimmers must attend to participate in race** |
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Tentative date: 9/22/2017 Time: 9:30 am (30 minutes prior to race)

Tentative agenda: (1) Welcome, introductions and appreciation; (2) general information about the swim, water temperature, water quality and tides; (3) swimmer safety and procedures during the swim; (4) the swim course(s), starting procedures and finish; (5) post-swim activities; (6) questions and answers.

**Course & Event Conditions**

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| **The Course** |

Body of water: Bay Water type: Salt Water Water depth from: 0 to: 10 feet

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: Click here to enter agency. How to contact during event: Phone # or radio channel

Expected water conditions for the swimmers: (marine life, tides, currents, underwater hazards): The swim area (Keller Beach/Keller Cove) is not subject to strong bay currents, as it lies off the main tidal channels in a relatively protected cove. The swim event will coincide with a mild flood tide, barely perceptible to swimmers. Start and finish of the event is on a very gently sloping sandy beach with no serious wave action affecting either entry or exit. Any accumulated debris or drift wood on the beach is cleared in the finish area the morning of the race. The only marine life in the swim area are an occasional harbor seal or sea lion that happen by. There are no underwater hazards.

How is the course marked?

* Turn buoy(s): Height(s) 4 feet Color(s) Orange Shape(s) Tetatrahedron
* Guide buoy(s): Height(s) 4 feet Color(s) Yellow Shape(s) Cylindrical
* Approximate Distance between Guide buoys: 200

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

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| **Water & Air Temperatures** |

Expected air temp range: 60-70 Expected water temp range: 62-66 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**

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| **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. |

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| **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. |

East Bay Regional Park District takes weekly bacteriological samples in two separate locations at Keller Beach, the site of this swim event. The sampling is normally on Tuesday, with results available and posted on their website prior to the subsequent weekend at the following link: <https://www.ebparks.org/about/stewardship/water/keller_beach_water_quality.htm>. This link is provided in the race announcement. Additionally, a copy of the latest water quality test results will be posted at the registration area and noted during the pre-race swimmer orientation, including explanation and response to any questions or concerns by the Meet Director (a professional water/environmental engineer).

Bacteriological sampling on the day of the event (Saturday) is impractical due to the lack of any water quality laboratory available to accept and process the samples within the required 6-hr holding time. Results of routine samples taken by the Park District in the week following the event will be reviewed, and notification to the participants will be made should the data show bacteriological levels of concern.

The swim event may be cancelled, suspended or terminated in the event of dangerous water conditions, such as: (1) a sewage or oil spill affecting the swimming area; (2) severe, unseasonable storm conditions that interfere with visibility or pose potential runoff-water quality hazards to swimmers or support personnel; or (3) other factors making the swim area unsafe for swimmers and/or lifeguards. The Meet Director, Safety Director and EB Parks Aquatics Supervisor will confer in the event that any of the above situations arise. Any decision to cancel, suspend or terminate the event will be made by the Meet Director in consultation with the East Bay Parks Aquatics/Lifeguard Supervisor.

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## Event Safety

| **Medical Personnel** |
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Lead medical personnel (emergency trained) on site: Nick Schriver, EMT

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? 3

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| **First Responders/Lifeguards & Monitors** |

Indicate the qualifications of the first responders: USLA

Number on course: 17 Number on land: 1

Indicate their location on the Race Plan Map.

| **Onsite Medical Care & Facilities** |
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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. A BLS ambulance with two (2) EMTs will be positioned onsite at the edge of the beach, 100 feet from the Start/Finish area for the duration of the race and a short time afterwards. The EMT personnel will be required to attend the pre-race Safety Briefing by the Aquatics Supervisor. Additionally, a warming area with blankets, cot, and hot water bottles will be set-up near the finish line. A temporary hot shower is installed on the beach about 50 feet from the finish line.

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| **Ambulance/Emergency Transportation & Nearby Medical Facilities** |

Ambulance(s) onsite: On-site, 100 feet from Start/Finish location On Call: (510) 223-1171

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

Closest medical facility: Kaiser Permanente Hospital, Richmond Phone: 510-307-1500

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

Distance to closest medical facility: 0-2 miles Approximate transport time: 5

| **Watercraft** |
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Motorized Watercraft:

* Owned/operated by government agencies (Coast Guard, police, fire & rescue, etc.): 2
* Owned/operated by volunteers or hired individuals: 0

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: 0

Allocation of Watercraft:

* Safety Watercraft:
* 1st Responders: Motorized: 2 Non-motorized: 13

# 2nd Responders: Motorized: 0 Non-motorized: 0

* Watercraft for race officials: Motorized: 0 Non-motorized: 0
* Watercraft for race supervision: Motorized: 0 Non-motorized: 3
* Watercraft for feeding stations: Motorized: N/A Non-motorized: N/A
* Watercraft for escorted events: Motorized: N/A Non-motorized: N/A
* Other event watercraft: 0

 Emergency Signal Flag Color for all watercraft: Red/Yellow

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| **Communications** |

Primary method between event officials: Radio Secondary method: Megaphone/Bullhorn

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

Secondary method: Megaphone/Bullhorn

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| **Swimmer Counting & Accountability** |

Describe method of swimmer body numbering: Body marking on arm and hand to match computer timing chip identification number.Describe method of electronic identification of swimmer (Recommended): Electronic timing chips with unique identification number.

Describe different bright cap colors for various divisions (Recommended): Different color for each of three swim distances (1/2, 1 and 2 miles)

Describe method of accounting for all swimmers before, during and after swim(s): All swimmers will be issued computer timing chips with the same unique identification number, which will be used to register all swimmers before the race, and track and account for all swimmers during and following the race.

Describe method of accounting for swimmers who do not finish: Any swimmer not finishing will be directed or escorted to the finish area to turn-in timing chip, which will be logged-in and results recorded as DNF.

| **Warm-up/Warm-down Safety Plan** |
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Describe safety plan for warm-up/warm-down, include number and location of lifeguards and designated

watercraft. Pre-race warm-up area is waist to chest-high nearshore water directly in front of the start/finish area. One volunteer monitor (Masters or Age Group swimmer) will be assigned to monitor swimmers from an overlook position on the beach. Several lifeguards on rescue boards and jet-skis will be immediately off-shore on the swim course during most of the warm-up period and in radio contact for assistance as needed. Only a small number of swimmers re-enter the water for warm-down after the race. This is limited to the north side of the beach, away from the finishing area. One onshore monitor and one lifeguard (on rescue board) will monitor the warm-down area from a position near the finish.

| **Swimmer Management** |
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Maximum number of swimmers on course at a time: 300

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 limited to 300 swimmers.

How will you deploy the safety staff and crafts distributed to supervise this event to ensure swift recognition, rescue, and treatment of any swimmer? In general, lifeguards are deployed during the event so that they are in optimal positions to recognize and respond to those in need of care. Lifeguards are stationed on rescue boards, kayaks and motor boats (jet skis) that they use to remain in these positions as swimmers progress throughout the course.

How will you deploy the safety staff to maximize rapid response to a troubled swimmer? Typically, in the event a swimmer on the course needs rescue or medical care, a lifeguard on a rescue board would approach the person and make initial contact. The lifeguard on the board then notifies one of the available boats (jet skis) of the need for assistance while paddling the patient outside of the pack of swimmers. The lifeguard on the board transfers patient care to the lifeguards on the boat. The boat lifeguards continue care and notify the shore liaison of the patient’s condition. The shore liaison will act as the incident commander and request additional resources as necessary. This will include the BLS ambulance on site but may also include an ALS ambulance or air ambulance depending on the patient’s current or anticipated condition. Uninvolved lifeguards will continue their visual surveillance of the remaining swimmers and the involved lifeguards will be released as soon as possible so that they can continue lifeguarding the event. In the event of any emergency, the shore liaison will act as incident commander and follow guidelines of the incident command system.

How will you alter the event if insufficient safety personnel/craft are available on the day of the swim(s)? Water safety and support will be provided under the direction of the East Bay Regional Park District (EBRPD) Aquatics Supervisor and lifeguards, including an estimated 18 lifeguards and two motorized boats. Staffing is arranged and budgeted 60 days in advance of the event. All EBRPD guidelines and criteria for open water swim events will be adhered to. The number of safety personnel/craft is determined by the EBRPD based on eight years of experience with this swim event, as well as with many other similar open water swim events of equal and larger capacity in the local area.

Describe your missing swimmer plan: A team of 3 or 4 volunteers assist the timing company in distribution, collection and filing of all timing chips to track all swimmers. Any missing chip is considered a potential missing swimmer until resolved. The race announcer (through loudspeaker) is used put out calls and queries as needed to determine whereabouts of missing swimmers or other related matters.

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| **Severe Weather Plan** |

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

Describe your plan for severe weather or natural disaster: The swim event may be cancelled, suspended or terminated in the event of a natural disaster (e.g.,earthquake) or severe, unseasonable storm conditions that interfere with visibility or pose potential hazards to swimmers or support personnel. The Meet Director, Safety Director and EB Parks Aquatics Supervisor will confer if such situations arise. Any decision to cancel, suspend or terminate the event will be made by the Meet Director in consultation with the East Bay Parks Aquatics/Lifeguard Supervisor.

Describe your course and site evacuation plan, including accounting for all swimmers and other participants: The south side of Keller Beach, adjacent to the finishing point is the designated take-out/access point for emergency removal of swimmer(s), should it be necessary (see map). This location will remain accessible for emergency vehicle(s) for the duration of the swim event. The swim route also follows the shoreline over significant portions of the course, providing additional opportunities for swimmer take-out within a distance of 75 to 100 yards, should it be necessary.

## Thermal Plan for Cold Water Swims

| **General Information** |
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| 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**. |

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| **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: (1)Water temperature is highlighted in race announcement; link to NOAA real-time water temperature data for near-by station provided in swim announcement; (2) links also provided to swim event location (free access pubic park) and local open water swim group for pre-race familiarization with the swimming conditions.

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| **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: Stated in Safety Plan which is required for event permit with East Bay Regional Park District; different course lengths offered; race announcement encourages use of wetsuits if swimmer not accustomed to conditions; on-line links provided to assist swimmers wanting to check out and familiarize themselves with swim conditions prior to the race.

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| **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: (1) Additional emergency personnel available from City of Richmond Fire Station located ½ mile from venue; (2) large number of volunteers available at the event; (3) not feasible; adequate resources provided by East Bay Regional Park District lifeguards and aquatics staff; (4) hot beverages provided at registration area; (5) East Bay Park District Police Department operates two helicopters which would be available for rescue and transport if needed; (6) hot beverages provided near finish line; (7) warming station, including blankets and hot water bottles set up near finish line; (8) two temporary hot showers set up on beach 50 feet from finish line; (9) warming station and ambulance within 100 feet of finish line; (10) site and activities map to familiarize swimmers with thermal/safety provisions posted on website, sent to pre-registered swimmers before race day, and posted and pointed out at event on race day.

Comment on how you will be prepared to care for multiple medical issues: In the event of multiple medical ermergencies other available and near-by support would be called-in as needed, including: Richmond Fire Department (1/2 mile from venue); (b) Kaiser Hospital (2 mile from venue); back-up ambulance (15 minutes from venue); Park District air ambulance; assistance from trained medical personnel participating in the swim event (normally 10 to 20 in attendance).

**If the water temperature is below 72° F, will you be prepared to deal with cold water medical issues:** Per Cold Water Thermal Plan above.

## Thermal Plan for Warm Water Swims

| **General Information** |
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| 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**.  |

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| **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.

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| **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.

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| **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.