

Swift Water Safety Tips

Let's face it, water is mesmerizing and fun and we are attracted to it. The purpose of the document is to highlight how we can partake in our local water activities emphasizing situational awareness. This document is dedicated to the memory of Daniel and Jacob Foreman, two children who lost their lives in the Little Thompson River on May 8, 2016, and to the first responders who work to keep us safe.

Every day, approximately ten people die from unintentional drowning in the US. Of these ten, two are children aged 14 or younger. Drowning ranks fifth among the leading causes of unintentional injury death in the United States⁴. Waters with fast currents, high volume, and high velocity are particularly dangerous, so here are some helpful tips to maximize self and situational awareness.

Self awareness

- ~ **Accountability.** Before recreating around water, let someone know what you intend to do and when to expect you back⁷. Tell someone or write a note and attach it to your parked car⁶. Go with a buddy, as you or your friend can get help if needed^{1, 6}.
- ~ **Limitations.** Know your personal limitations and of those you are with, especially children. Assess the situation for how fast the water is moving, the aquatic life that can cause persons to slip in or near the water, the depth, and the ability for quick rescue^{1, 6}. Water does not have to be deep to present a hazard. Faster moving water as shallow as one's shins or knees can be dangerous, in addition to the rocks, broken glass, branches and other entanglement hazards that may exist. Adults and children alike may not perceive the element of danger if each member doesn't take the time to exercise critical thinking by assessing their surroundings, recognizing their own physical limitations, and determine when to walk away from the potentially hazardous situation^{2, 6}.
- ~ **What may directly affect your ability to rescue?** The Rocky Mountain topography can offer challenges that can be arduous to navigate and can be exponentially more dangerous in an emergency: given the rapid reaction and intensity of the situation. When attempting to assess situational awareness, drinking or using alcohol, and/or recreational or prescription medication will compromise your ability to navigate the potential hazards, perform self rescue, or be able to rescue other^{2, 11}. Evan Petronic, a swift water instructor in Lyons Colorado, states "Entering the water without proper training and equipment [provided by 911 resources] to save a victim often results in the "rescuer" themselves becoming another victim. It is important to remain calm and make cautious decisions in such a scenario"⁷. Initiating 911 resources will activate a skilled response with appropriate equipment for rescue. Refer to Rescue and Self Rescue tips for further suggestions of how you can help before 911 resources are able to arrive.

Situational Awareness

GENERAL

- **Assess Conditions.** Take a moment to assess the conditions for potential hazards. This includes slick surfaces, especially water or slippery algae on rocks, unstable river banks, and undermining (water erosion of soil under plant life causes instability of top soil edge)¹¹. Be aware of the weather conditions in your area and how they may impact water levels, temperature, and velocity⁶. Sudden storms or seasonal changes in weather, locally or upstream, can create hazards. A situation one day may present a fun environment to explore while the next day a shift in water levels and velocity can present a dangerous situation. Excited children may not remember or be aware of the potential for unstable situations, and it is critical for you to remain aware of the conditions.
- **911.** Consider what it will take to access 911 in a mountain community. Limited cell service availability, distance to nearest land line, and difficulty navigating challenging topography are all common concerns. Call 911 if you know or suspect that someone has fallen into the water and is in trouble. Send someone to

Swift Water Safety Tips

Situational Awareness Continued

make the call or call out for assistance if necessary, but ensure that the call has been made; do not just assume someone else will make the call. Without jeopardizing your safety, refer to 'Rescue Tips' to assist first responders' efforts as able.

- **Cold water.** In any season, water can be cold. As stated by white water rafting guide Frank Lancaster of Estes Park, "I've seen really big strong swimmers reduced to barely being able to keep their head up, let alone swim, when the cold water zaps out all their strength." Exit water as soon as shivering becomes apparent. Shivering and cramping of muscles indicate a decrease in body temperature and can lead to hypothermia if left untreated⁹. As needed and when appropriate, remove wet clothing. Drying off sheds the water that directly causes loss of body heat.

WATER AND CHILDREN

- **Entrusting Safety.** Entrust the safety of children to adults and persons who will be able to maintain safety and can perform rescue tasks in the event of a crisis.
- **Lookout.** Position yourself as a lookout to maintain constant supervision of each child². With groups of children or young adults, establish a lookout who is able to scan the activity while children and young adults may be distracted playing¹. As stated by Jeff Foreman, "No parent anywhere should need to be reminded to keep a close eye on their children and assess any threat to them before they venture out to explore, especially in an environment that is dynamic as a river. Unfortunately, even the most conscientious parent can be influenced by their children's belief that they are indestructible. Also, the "white noise" of a river will mask any cry for help. What can be heard easily from 20' away on dry land could be lost in the noise of water running over rocks."
- **Inspire Awareness.** Before engaging in a water activity, taking a moment to ask children and young adults the age appropriate question, "What do you see that could be a potential hazard or danger here?" can inspire a short discussion that introduces critical thinking to enable the individual to identify and look for the potential. In addition asking a second question, "What would you do if someone needed help in the water?" may also empower the potential rescuer (child or adult) to think about available options before a rescue is needed.

PET RESCUE

- Paraphrased from Josh Thompson of Lyons Colorado, "the urge to rescue pets can lead the rescuer to enter a situation beyond their ability to control." Entering the water to save a pet could jeopardize the person as the pet is scared, struggling, and is looking for a stable surface to rest on. If you are in the water, that pet's weight and uncontrolled efforts to stay above water may cause you to struggle, endangering your life. Look for other safer options that allow you to maintain your safety while providing support to your pet, including calling 911. Maintaining a pet on a leash will prevent wondering opportunities to fall through winter ice or into water. If pet is able to be reached from the shore, use a long pole or rope to keep the head above water and direct pet to the shore. Command clearly and calmly as the pet may become more excited when the tone of the rescuer is excited or confused as multiple commands are requested in quick succession. Note that if a person attempts to rescue a pet, the priority for 911 response will be the person first and the pet secondary, potentially delaying the rescue of the pet.

Swift Water Safety Tips

1. PREVENTION TIPS - KEEP FROM FALLING IN

- **Always go with a buddy**⁶. You or your buddy might be a mutual life line or means of rescue.
- **Assess the water flow**. The current may seem slow enough to control, but once in the water the current may have enough energy to overpower or limit a person's ability to control their immediate environment⁸. It is impossible to "outwork" the water; it is relentless and has much more power than you may think. Depth and speed are critical components of safety⁷.
- **Be aware of slick and unstable surfaces**. Smooth, wet, and moss covered rocks and branches can be treacherous, not unlike trying to walk on wet marble. Be aware of a shoreline that has been undermined (undercut) by water and is unstable. Water shoes with gripping soles may help to keep ones feet safe from glass and sharp rocks but may also slip on wet or steep surfaces. Be aware of \water drainage areas flowing into a stream or river as plant life and soil saturated by water will also create slick surfaces.
- **Read and follow posted signs**. They are likely there because of known dangers, and a previous event may have initiated the posting of a sign.
- **Eddies**. Fast moving water with boulders or rapids may create eddies of circulating water. A swimmer may not be able to keep their head above water with dangerous currents. Your life depends on your ability to read water and assess current conditions.

2. SELF RESCUE TIPS - IF YOU FALL IN

- **Be able to swim**. Learn to swim and to stay afloat until help arrives⁹.
- **Wear a Personal Flotation Device (PFD)** such as a life jacket^{3, 11}. This will provide buoyancy, reserve heat loss, and allow the floating/swimming member to navigate the water better.
- **Use the defensive position**. Float on your back, laying flat with our head up to see and your feet pointing downstream to block or deflect away from objects observed on the surface and those potentially under the surface⁹. Your feet are the first to protect your body from potential hazards. You must keep your feet at or near the surface so they do not become entrapped below the surface⁷.
- **Watch for and navigate away from hazards**. Tree branches, narrow gaps between rocks, and abandoned man-made obstructions such as barbed wire are obstacles to avoid⁸.
 - Swift water instructor, Evan Patronik, instructs swimmers attempting to self-rescue to "instead of swimming against the current, use it to your advantage. Whichever side of the river you need to reach, while staying in the defensive position and using elementary backstroke to maneuver, angle your body so your head is facing toward the shore and your feet away. This is called a "ferry angle" and will allow you to conserve energy, remain in a defensive position and reach the shore safely. You can also use this skill to steer away from hazards"⁷. The force of the water against your angled body will push you toward the shore⁹.
 - If banks are obstructed with debris or undercut rocks, it is safer to ride the rapid out until a more open escape route can be found¹⁰.
- **Swim or navigate out of the current**.
 - If physically able, consider flipping over and swimming upstream at a 45 degree angle toward the shore (an "offensive" approach to the ferry angle above)^{7, 5}.
 - Swift water may be moving fast enough to exhaust the swimmer. Consider using less energy by floating with the current until the current lessens enough for swimming to be effective⁹.
- **Limit exposure**. Avoid swallowing the water which can reduce your ability to function and potentially cause illness¹¹.

Swift Water Safety Tips

3. RESCUE TIPS

- **DO'S**

- **Reach or Throw, Don't Go.** If someone is caught in fast moving water, without endangering your safety, try to reach with an object for them to grab on to or throw a rope to the person in the water⁶. Remember to Reach or Throw, Don't Go⁶. Jeopardizing your safety adds to the complexity of the situation and may inadvertently cause 911 resources to become overwhelmed by trying to rescue several victims at once.
- **Access Local Resources (Closest Red Rescue Cabinet).** Once a Red Rescue Cabinet is located: unfasten the door latches (2 to the right of the door) and break the pull-tab seal. The cabinet contains 4 items: 1) a airhorn to alert local residence that help is needed, 2) a life jacket (PFD) to provide the rescuer with personal safety, 3) a life ring and 4) a throw rope to throw to the victim to keep their head above water and pull them to shore. The objective is to provide the victim the best option of reaching a floatation device while allowing the member on land to assist in directing the swimmer to the shore, once the victim has reached a floatation device.
- **Initiate local response.** Sounding the airhorn is a means to alert a local resident of a problem, however, initiating a 911 conversation with dispatch, guarantees help is on the way.
- **Initiate 911 responses.** Self initiate or ask another to initiate 911. 911 responders will provide additional and skilled support to manage the situation. Provide dispatch with a local resident address or the name of a major water source. For example, the upper or lower area of the Tubs, Crescent Lake, or the Reservoir near the Fire Station / Cherry Company. The dispatcher may not be familiar with the location but your local Fire Department members are and will ask for further information if needed.
- **Provide information** to 911 operator and first responders:
 - ~ Last Seen Point - Know the point where the person was last seen in the water and remain visually focused on that spot³. Looking away may cause your eyes to lose track of the reference point and it is critical that you focus on this location as you will be directing responders to that exact spot.
 - ~ Number of persons in the water³.
 - ~ Description of persons: what they were wearing, age, and skin color (in case clothing becomes removed)³.
 - ~ Approximately when the person(s) entered the water³? Begin a time table.
 - ~ Providing for safety, follow the shore line to search quickly for missing persons³.
- **Wear a Personal Flotation Device** (life jacket) from land or boat, even when attempting to rescue another. Your life may depend on your own PFD¹¹.
- **Unresponsive victim.** Early CPR may assist in the resuscitation of drowning victims⁶. Consider enrolling in a CPR class for further instruction.

- **DON'TS**

- **Know your limits.** Don't enter swift water as your ability to rescue another is limited and additional resources may need to rescue you. Know your limits: your ability to rescue may be more affective if directed from land⁶. Proper rescue requires proper equipment and training (Patronik, Lyons)⁷.
- **NEVER** tie a rope around yourself or around someone you are trying to rescue⁶. Once under tension, the person in the water tied to the rope will be forced underwater or may become entangled in any debris. In addition to resisting the waters force, the ability to untie the rope presents an extra challenge. It's better to allow the person in the water to hang on by the hand (with the potential of maintaining an airway) then be forced underwater⁵.

Swift Water Safety Tips

**While having a greater awareness of water safety, don't forget to have fun, enjoy the moment, and make wonderful memories!*

Special thanks to Bob Benson, John Bologna, Christy Crosser, Jeff Foreman, Andrew Lucas, and Evan Patronik, for taking the time to edit and include important information.

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