

Water Monitoring Safety Procedure

Water Monitoring Safety Awareness:

Water monitoring sites are visited by Skagit Conservation District and Padilla Bay National Estuarine Research Reserve employees and volunteers for the purpose of collecting water samples to be tested for water quality. A minimum of two individuals should be assigned to a team to both efficiently record and measure effectiveness and ensure safety aspects. Standing on banks is required to perform this job and is done in all weather conditions.

Safety Instructions:

A. Precautions

1. Check the weather before leaving for the field.
2. Always monitor with one or more partners.
3. Let someone else know where you are going to be, when you plan to return and how to contact you if you don't come back at the appointed time.
4. Park in a safe location without obstructing traffic.
5. Put your wallet and keys in a safe place so that they do not end up in the water and downstream.
6. Never cross private property without the permission of the landowner.
7. If at any time you feel uncomfortable about the conditions at the site, stop monitoring and leave at once. Your safety is more important than the data.

B. What to do in case of injury:

1. If there is a designated safety staff person on site, report to him or her.
2. Treat minor injuries using a first aid kit.
3. If emergency medical care is needed, call 911 for transportation and treatment. Accompany the injured person and stay with him or her until relieved. Notify a family member or other designated adult.
4. If non-emergency medical care is needed, arrange transport of the injured person and accompany him or her depending upon the assessment of the situation. Notify a family member or other designated adult if warranted.
5. Volunteers should report accidents to Skagit Conservation District staff.

C. Potential hazards during the monitoring of in-stream work:

1. Sprains and falls. There may be uneven terrain or precarious footing, so be aware of any tripping hazards that may cause a turned ankle or a fall. Do not walk on unstable stream banks that might be in danger of eroding or collapse.
2. Bone fractures and contusions from falling heavy objects. Be aware of the movement and position of elevated objects at all times. Also be aware of heavy objects that could possibly shift position while on the ground.
3. Animals. Be alert for aggressive animals that may cause injury and try to avoid contact.
4. Drowning. Slipping or falling in or into water are possible hazards, especially when the rocks in the water are slippery and/or the ground is wet. Be careful, taking measured steps. WAC 296-800-16070 states that employees must wear personal flotation devices (PFD) when they work in areas where there is a danger of entering the water and drowning, such as on, over and alongside the water that is chest-high or deeper, or fast flowing. The exceptions are when employees are not exposed to the danger of drowning, such as when working behind standard height and strength guardrails, inside operating cabs or stations and when wearing an approved safety belt with a lifeline attached.

Generally, stream team volunteers work along shallow water, which does not present a danger of drowning and in depths in which a life vest would not work; therefore, PFDs are not needed unless there is a possibility of entering water chest-high or deeper, or fast flowing.

5. Hypothermia. Exposure to cold temperatures, wetness, fatigue, dehydration, improper clothing and equipment and poor food intake can lead to hypothermia. Reduce heat loss by adding layers of clothing, changing into dry clothing, increasing physical activity and/or finding shelter; add fuel and fluids by eating carbohydrates, proteins and sugars and drinking hot liquids; avoid alcohol, caffeine and tobacco; and add external heat.
6. Sunstroke and heat exhaustion. These are mostly summer hazards, but you should always be alert for hazardous conditions and symptoms through out the year. Be sure to wear a hat when the temperature is high. Equally important is to drink copious amounts of fluids, preferably water. If you feel light-headed or dizzy or you stop sweating, get medical assistance immediately. Unattended sunstroke and heat exhaustion can be life threatening.
7. Dehydration. This is another serious condition that is caused by lack of adequate fluids in the body, especially while doing strenuous work. Since dehydration can be encountered during winter months as well as summer, always have plenty of water with you in the field.
8. Bee/wasp stings. Most in-stream projects are performed in the warm months when bees and wasps are active. If you know you are allergic to stings, carry an allergic kit and be sure to let others know where it is.
9. Poisonous or problem vegetation. Be careful not to come in contact with poisonous or stinging plants, such as poison ivy or nettles, or plants with thorns, like blackberries.
10. Pollution. Do not drink water in a stream or lake. Assume it is unsafe. Wear latex or rubber gloves and glasses or goggles when you take the water sample and conduct the tests. Wash your hands with antibacterial soap when you're finished and dispose of all of your trash properly when you are done.

Required Safety Equipment:

- A. First-aid kit (provided)
- B. Personal flotation device (if monitoring streams 3' deep or more)
- C. Eye protection if warranted.
- D. Ear protection if warranted.
- E. Sturdy shoes or boots appropriate for walking on slopes or uneven terrain
- F. Hardhat and highly visible vest (provided)
- G. Appropriate clothing
- H. Cell phone recommended

Recommended: Sun block, bug spray, hat, water, and wading staff

Safety Briefing and Documentation:

Each individual must be briefed on the hazards and required safety procedures prior to undertaking any job activities. Any volunteers assisting in this type of work are only allowed to perform duties that they are qualified to do. A safety briefing must be given to all volunteers prior to beginning work.