

SATURDAY STREAM SNAPSHOT: SAFETY PROCEDURES FOR WATER MONITORS

1. **Use the “Buddy System.”** Always monitor with at least one partner. Always let someone else know where you are, when you intend to return, and what to do if you do not return on time.
2. **Dress appropriately.** Wear tennis shoes, boots, or other full-coverage shoes that are in good condition and have traction. Avoid sandals and other open foot ware. Wear a hat or scarf to protect your head from the sun. Wear sunglasses or eyewear that protects your eyes from the sun. White, tan, khaki, blue, and green colored clothing is less attractive to insects. Avoid red, yellow, and purple clothing and perfumes/colognes if you are allergic to bees/wasps. Dress in layers especially in the spring and fall when weather conditions are unpredictable,
3. **Prepare for the elements.** Avoid hypothermia by always having a jacket, raincoat, and/or blanket in your car in case you need one. Make sure you have a change of clothes in case you get wet. Avoid heat related emergencies by keeping hydrated and resting in the shade if you get too hot. Always keep one or more bottles of water with you to stay hydrated. For every 30 minutes of activity, you need to drink 8 ounces of water. Avoid sunburns by using a water resistant sunscreen and apply it 30 minutes before you plan to be in direct sunlight. Avoid mosquito bites and other stinging insects by wearing an insect repellent.
4. **Stay alert and be safe!** Never consume mind-altering substances such as alcohol or drugs before sampling. If you are taking a prescription medicine, follow the precautions concerning dizziness and exposure to the sun. Do not sample if you have physical or mental limitations that may affect your ability to safely collect the sample. Do not take samples at locations where you might be in physical danger. Do not put yourself at risk to collect a sample!
5. **Park in a safe location.** Be sure your car doesn't pose a hazard to other drivers and that you don't block traffic.
6. **Protect Your Valuables.** Put your wallet and keys in a safe place, such as a watertight bag you keep in a pouch strapped to your waist. Without proper precautions, wallet and keys might end up downstream. Leave your valuables at home. Never leave anything visible in your car that might cause someone to break into your car!
7. **Do NOT Trespass.** Never enter a landowner's property without permission. All “flowing surface water” in Ohio is publicly owned but the streambed and banks are not. Without landowner permission, you may only enter or access the streambeds and banks up to the ‘ordinary high water mark’ of navigable waterways. Navigable waterways are streams or rivers where canoes and other watercraft can pass through without impediment and do not include most wadable streams. The streambeds and banks of privately owned non-navigable waterways require permission to enter or access. For this reason, it is best to choose sites that are publicly owned such as public parks, schools, or bridge/road crossings unless you secure landowner permission in advance. If you need assistance securing landowner permission, contact the SSS Coordinator.
8. **Listen to weather reports.** Never monitor if severe weather or flood warnings/watches are predicted or if storms are occurring. Do not enter creeks if the water is high or extremely muddy. Immediately leave the water if you hear thunder or see lightning strikes.
9. **Never wade in swift or deepwater.** Do not wade in streams that are greater than knee-deep, use a bucket on a rope or long armed dipper to collect the sample instead. If you are sampling from a bridge, be wary of passing traffic. Never lean over bridge rails unless you are firmly anchored to the ground or the bridge with good hand/foot holds. Never wade into water where you cannot see the bottom. Keep an eye on water levels. Even if it is not raining where you are if it is raining upstream, the water can rise fast and without warning. Get out of the water immediately if you notice the water level is rising! No sample is worth compromising YOUR safety!

- 10. Beware of polluted water.** As a rule, treat every stream as if it were polluted. If possible, wear waders and rubber gloves. Do not monitor if the stream is posted as unsafe for body contact. If the water appears to be severely polluted, contact your SSS Coordinator. If you have open cuts/sores use gloves and/or waders! Never drink stream water and do not eat/drink while collecting water samples. Avoid contact with your eyes, mouth, and nose when handling samples. Always wash your hands thoroughly with antibacterial soap after coming in contact with stream water. If you have it, use an instant hand sanitizer after you wash your hands and rub it into your cuticles and under your fingernails.
- 11. Be very careful when walking in or around streams.** Stream banks can be steep, unstable, and slippery. Choose the most level open spot to enter the stream and use a walking stick if necessary to steady yourself. Streambeds are often covered with silt and algae and can be very slippery so wear shoes with good traction. Walk slowly making sure one foot is stable before moving the other. Keep your knees bent slightly while you walk in the stream and you will be steadier. Remember streams are not level, they are filled with holes and ledges so take small steps to avoid falling. If you must cross the swift moving stream, use a walking stick to steady yourself and walk in a diagonal with the current. Avoid areas where the soil is soft because you might sink in and be unable to get out. If it is not safe do not take the sample! Avoid walking in areas where streams have undercut the bank or there is severe erosion because these banks may collapse. Steer clear of barbed wire fences and sharp rusty objects that might tear clothing or skin. If you get cut, contact your doctor to make sure your tetanus shot is current. Avoid contact with old cars/appliance/furniture; they often harbor insects and snakes.
- 12. Be cautious of hazardous plants and animals.** There are a variety of hazards to avoid while working in the field including poisonous plants (poison ivy, poison oak, and poison sumac), skin irritating plants (stinging nettle), poisonous insects (black widow spider, brown recluse spider), stinging insects (bees, wasps, hornets, mosquitoes, black flies, and horse flies), poisonous snakes (copperhead and timber rattler), injured, hurt, or irate wild or farm animals (dogs, wild turkeys, coyotes, raccoons, possum, skunk, bulls, goats, horses, chickens, etc.) and nesting waterfowl. Contact your SSS Coordinator for pictures of poisonous plants and animals if you do not know which ones they are. Be alert to your surroundings at all times and avoid any contact with these hazards. Do not approach any animals. Never stick your hand anywhere that you cannot see. Do not grab branches overhanging water, as they are good sites for wasp nests. Know what to do if you get bitten or stung. Avoid open dumps and discarded appliances/cars, as they are also good places for wasp nests and snakes to hide.
- 13. Keep a first aid kit stocked and ready.** Make sure you keep a basic first aid kit in your backpack or car where you can access it if necessary and know how to use it. Check with your local Red Cross office for a list of items to include or purchase a commercially available kit. If possible, get first aid/CPR training so you can handle any emergencies that arise.
- 14. Have a safety plan.** If possible, take a cell phone with you or have written directions/ map to the closest public phone. Prepare written directions to your sample site that you can recite to 911 or other emergency personnel so they can locate you quickly. Make sure you include the nearest road intersection, obvious landmarks or street addresses, and GPS if you have it (GPS coordinates alone are NOT enough!) For each participant, keep a written document with emergency contact information, health insurance information and pertinent health information such as allergies, diabetes, heart conditions, epilepsy, etc. Finally make a list of important phone numbers in case you encounter an emergency situation such as the local police department, the public health department, the fire department, and animal shelter. Keep your written information in a zip lock bag in your first aid kit for easy access.
- 15. If you encounter a stream that is polluted call the Ohio EPA Hotline.** If you witness someone polluting a stream, do NOT approach him or her. Take pictures if you can from a safe distance and write down everything you notice such as a description of the person, description of the vehicle and license plate, description of what they are doing, any markings or label information on containers, etc.

Do not take a sample or come in contact with the substance they discharged. If you get an answering machine on the tip line, call 911. They will connect you to the proper authority.

16. Report any other potentially hazardous situations immediately to the proper authorities. If you witness a crime, a hurt person or animal, or any suspicious person, call 911.

If at any time you feel uncomfortable about the condition of the stream or your surroundings, stop monitoring and leave the site at once. Your safety is more important than the data!