

JOB HAZARD ANALYSIS

California Department of Fish & Game

North Coast Watershed Improvement Center

Fortuna Office

This is a job hazard analysis for spawner surveys conducted during the winter months in north coast streams. It will cover the basic job steps involved, the potential hazards associated with each step, and the safe job procedures that should be employed to minimize the possibility of the potential hazards materializing.

Each surveyor will participate in a spawner survey training provided by DFG Fortuna staff, swiftwater and wader safety, machete use demonstration, instruction, and practice. Each surveyor will also be trained in first aid and CPR.

Each surveyor will be required to wear full chest waders, wading boots, a rescue throwbag and rope attached to a wading belt, and appropriate clothing. Each crew will also be required to carry a first aid kit.

Job Step #1 Preparing and loading gear for spawner surveys

Hazards

- Cuts during handling/sharpening of machetes and knives
- Cuts or punctures from gaff hooks
- Inhaling exhaust fumes

Safe Job Procedures

Transport machetes in their sheaths and knives with blades closed. Sharpen blades with sharp edge away from the body. Wear gloves when handling sharp objects. Carry gaffs with hooks pointed away from the body. Use caution when placing gear in the vehicle/truck bed. Shut vehicle engines off when loading gear.

Job Step #2 Drive vehicle to survey site

Hazards

- Collision with other vehicle(s)
- Slipping off the road
- Flat tire

Safe Job Procedures

Designate a lead person as the office based contact for the crews. Notify the lead person where crews are going and when they will be back. The lead person will set up an emergency response if the crews have not made contact by the scheduled time. Inspect vehicles according to the CCC 65 checklist prior to departing making sure vehicles are equipped with a fire extinguisher, flares, flashlight, first aid kit, spare tire, jack, and lug

wrench. Obey the speed limit and the basic speed law, "Don't drive faster than the conditions allow." Drive with headlights on. Use four wheel drive on unimproved roads. Use a CB radio if available, and tune to local channel when on logging roads. Keep in mind that log trucks always have the right of way on haul roads. Know the procedure for changing a flat tire and location of all necessary tools. Carry a cell phone with a list of emergency phone numbers.

Job Step #3 Stage vehicles and gear up for survey

Hazards

- Getting vehicle stuck
- Fire from dry grass touching a hot catalytic converter

Safe Job Procedures

Crews will meet in a central location to gear up and discuss plans for meeting up at the end of the surveys. Be sure everyone knows the plan and what to do in case of emergency. Park vehicles well off of the road in a stable, hard packed spot with the parking brake set and doors locked. Do not park over tall grass if conditions are dry. Do not park in soft mud. Put keys in a safe place known and accessible to those who may need them.

Job Step #4 Walk to start of survey and walk the survey reach counting live fish, carcasses, skeletons, and redds.

Hazards

- Falling down on land (sprains, strains, and breaks)
- Falling in water (hypothermia, drowning)
- Cuts or punctures from gaff hooks
- Cuts or scratches from tree limbs or bushes
- Getting lost
- Dehydration
- Low energy/fatigue
- Bears, mountain lions, pigs
- Poison oak or stinging nettle
- Ticks
- Falling tree limbs
- Angry landowners

Safe Job Procedures

Assess weather and stream flows before surveying. Do not go out in high winds or high flows. At least one member of the survey crew must be familiar with the survey reach. Bring a compass and map of the reach and surrounding area. Each surveyor will wear chest waders, non-slip wading boots, appropriate clothing, and a rescue throwbag and rope attached to their wading belt. Use a walking stick or wading staff for balance and to check water depth. Use caution when walking with gaff hook. Be sure hook is pointed away from self and others or detach gaff hook from staff when walking. Don't wade

deeper than your waist. Bring a change of clothes and a towel and leave them in the vehicle at your take out point. Carry plenty of drinking water and quick energy foods. Be familiar with the life histories, habitats and identification of dangerous plants, animals and insects in the area. At least one member of the crew needs to carry a time piece. The crews should be aware of time of sunset and light conditions in the area. Put the keys to the vehicle in a safe place known and accessible to both crew members. Make sure access permission has been granted from the landowner.

Job Step #5 Retrieve carcasses from stream and banks. Collect measurement data, scale samples, and cut carcasses/skeletons in half.

Hazards

- Falling in water (hypothermia/drowning)
- Cutting or hitting yourself or your partner with knife or machete
- Cuts or punctures from gaff hooks

Safe Job Procedures

When retrieving carcasses be sure of your footing, do not over extend your reach, do not wade deeper than your waist. Use the gaff to slide the carcass into shallow water and onto a gravel bar or stream bank to take measurements and samples. When chopping carcasses or skeletons know where your partner is, chop to the side of your body and use the lanyard. Be sure machetes and knives are sharp before leaving for the survey. When taking scale samples lock the knife blade open and scrape away from your body. Close the blade before setting the knife down or putting it away.

Job Step #6 Meet up at end of surveys. Change clothes, load up gear and drive back to office.

Hazards

- One or more crews don't meet at predetermined time and location
- Getting locked behind a gate

Safe Job Procedures

Have a plan for what to do if a crew doesn't show up at the location and time agreed upon. If you must pass through a locking gate to survey be sure the group has a key that it is left in a place that any of the crews are able to access it should they have an emergency. If the lock is a combination be sure that everyone knows the combination. Each crew should have a cell phone with a list of phone numbers to call in case of emergency.

Job Step #7 Unload and put away gear. Park vehicles. Transcribe and file data.

Hazards

- Cuts or punctures from machetes, knives, or gaff hooks
- Inhaling exhaust fumes
- Collision with other vehicle(s)

- Getting hit by vehicle
- Hitting a pedestrian with vehicle

Safe Job Procedures

Park vehicles near the bays to unload gear. Leave enough room for other vehicles to pass in the parking lot. Shut off the engine when unloading gear. Move gear safely with machetes in sheaths, knives closed, and gaff hooks pointed away from self and others. Be aware of people and other vehicles in parking lot. Park vehicle, set parking brake and lock doors. Notify the contact person that all members of the survey crews have made it back safely.