



SAFETY INFORMATION

Suggested Table of Contents

A safety plan could include, at a minimum, the following content. These are suggestions only and are not intended to relieve the grantee from its responsibility for developing an appropriate safety plan that meets the grantee's specific requirements and all legal obligations related to the safe and proper performance and implementation of the project. A qualified person must develop the safety plan. A qualified person is one who understands the hazards and the appropriate preventative and control measures.

Work Description

- Scope of work
- Purpose and location of trips to field
- Schedule of visits

Pre-field Hazard Assessment

- Brief description of field activities and risk assessment
- Identify high-risk activities and methods to reduce risks

Worker Check-in Procedures

- Field schedule and schedule updates

Safety Policy Checklist

- Minimum crew size
- Emergency communication
- First aid
- Wildlife hazard precautions
- Motor vehicle use
- Swift-water emergency procedures
- Overnight survival precautions
- Snorkel survey procedures

Emergency Plan

- Procedure to deal with an overdue crew (when and who to phone)
- Procedure in case of onsite injury or illness

Emergency contact numbers

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Safety Protocols

Purpose

To ensure the safety of Successful Applicants (grantees) including their employees, permitted subcontractors, agents, representatives and volunteers, while working in the field on projects receiving funds from the BCRP.

Protocol

The following safety protocol must be followed by the Successful Applicant when the applicant's project includes field work.

- The applicant must include in their application package, a safety plan that meets their specific safety requirements. Refer to Safety Precautions for working around a dam, generating station and reservoir and Suggested Content of a Safety Plan.
- The Safety Protocol and the Successful Applicant's Safety Plan will be included with the application package as schedules to the Contribution Agreement and becomes binding.
- The grantee will contact the Plant Manager (or delegate) one month in advance of arrival at the project work site to advise the Plant Manager (or delegate) of their work plan and schedule. At this time, the grantee will also send their safety plan to the Plant Manager (or delegate) and copy the Natural Resource Specialist (NRS). Please refer to Contacts for Safety Plans below.
- The Plant Manager (or delegate) will determine if there are any safety or operational concerns with the proposed work plan, schedule, and safety plan, and inform the grantee as soon as possible if changes are required. The grantee must address these concerns prior to arriving on site to meet with the Plant Manager (or delegate). The plant Manager (or delegate) may at their discretion and at any time conduct a check to confirm that the grantee is registered and in good standing with WCB.
- The grantee will make contact with the Plant Manager (or delegate) two days in advance of arrival at the project work site.
- Upon arrival of the grantee at the BC Hydro facility, the Plant Manager (or delegate) will inform the grantee of known hazards and necessary safety precautions before project work begins. The grantee is responsible for: adhering to the agreed work plan, schedule, and safety plan; the safe performance and implementation of the project; and, the safety of all persons engaged in the performance and implementation of the project.

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Safety Precautions

Working Around a Dam, Generating Station, and Reservoir

BC Hydro's dams, generating stations, and reservoirs are used for the generation of electricity. We take pride in operating our facilities safely and in a manner that respects the environment and the rights of other users of the waterways. Your safety is important to us. Please respect the hazards near our dams and generating stations and around reservoirs, and heed warning signs, booms, buoys and barriers. They are there for your protection. Remember to:

- Obey all danger and warning safety signs
- Stay outside safety booms and buoys, and away from all dam structures
- Be alert for audible (e.g. sirens) and/or visual (e.g. strobe lights) warnings
- Be alert for changes in water levels

Around Dams and Generating Stations

Throughout the day and night, as demand for electricity rises and falls, operators open and close dams, and start and stop generating units. This results in frequent and rapid changes in water levels and flows around dams and generating stations, changes that can affect the safety of those who venture too close. A spot that looks calm and safe one moment can become dangerous within a few seconds as water levels and flows change, often without warning. Calm waters or a dry riverbed could change quickly into one with rapidly moving, dangerous waters.

Waters in the area immediately above hydroelectric dams and stations and the waters immediately below them are particularly dangerous. At a generating station, water from the headpond rushes into the station, turning large turbines that produce electricity. The water rushes out of the station, to join the main stream of the river. At dams, excess water can be released through gates into formerly calm or dry riverbeds below. At generating stations and dams, the fast-moving water creates turbulence and strong surface and underwater currents. These currents are strong enough to pull you under the water and trap you against the intake structures of dams.

Around Reservoirs

Hydroelectric reservoirs are different from natural lakes. Water level fluctuations can make boating dangerous or even impossible. Anchored and floating debris is a hazard at all times and at all water levels. Before you launch your boat, make sure you are familiar with local conditions and all specific hazards of the reservoir. This will ensure your boating experience is safe and enjoyable.

Note that in some reservoirs, the water temperature can be low enough to represent a hazard for swimmers or capsized boaters.

Even if you can't see a generating station or dam, waterways upstream and downstream can still be affected by their operations. It's important to be aware of the potential dangers caused by changing water flows, and to stay clear of the waters near stations and dams.

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Winter Poses Additional Dangers

Hydroelectric dams and generating stations operate all year round, 24 hours a day. Their operation affects water flows and ice conditions. Ice that forms near a hydroelectric dam or station can be thinner and more inconsistent than in other locations because of the changing water flows beneath it.

- Avoid snowmobiling, cross-country skiing, skating or ice fishing on rivers or lakes near dams and generating stations.
- Don't risk walking onto a river or lake where the ice may be thin due to the current or where changing water levels have pushed water on top of the ice.

Near a Hydroelectric Reservoir, Dam, or Generating Station, Make Sure That You:

- Obey all warning signs, fences, buoys, booms and barriers. They are put there to protect you. The areas inside are dangerous--stay clear of them.
- Stay a safe distance outside of warning signs, buoys, booms and barriers when fishing, boating or swimming.
- Stay well back from the edge of waters above and below hydroelectric dams and stations.
- Never stand below a dam, or anchor or tie your boat there. Rapidly changing water levels and flows can take you by surprise and could swamp your boat or put you in the grip of an undertow.
- Stay off hydroelectric dams or station structures, unless BC Hydro has clearly indicated public walkways or observation points.
- Stay well back of dry riverbeds below dams. They can quickly change into rapidly flowing waterways.
- Downstream of a dam, a siren may be sounded to indicate that the river level is rising. If you hear a siren, evacuate the river channel area immediately.
- Stay well back from the edge of a waterway where footing may be slippery.
- Don't wade into moving water.
- When swimming, fishing, boating or paddling in a river, be aware of the water level and check upstream frequently for any sign of increasing currents or rising water levels. If the water level is rising or the flow is speeding up, get out of the water or move your boat downstream. Even when the hydroelectric dam or station is out of sight, changing water levels and flows can take you by surprise, pulling you into an undertow, leaving you stranded away from shore or swamping your boat.
- Set an example for children, who may not be aware of the dangers, even if they can read. State explicitly where they can and cannot go and make sure you are close to them and can see them at all times.

Safety Around Water - General

- An approved Personal Flotation Device (PFD) is required by law for each person on board any boat or canoe. This includes inflatables. Remember that it won't work if you don't wear it. A sound-signaling device, such as a whistle, is also required by law.
- Don't overload your boat or canoe with people or gear.

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- Small boats with a rounded bottom tip easily. Keep your centre of gravity as low as possible by sitting or kneeling even when reeling in a fish.
- Watch the weather. Check the forecast before starting out. Be alert for the wave, wind, and cloud changes that signal bad weather is approaching.
- Cold water reduces body heat 25 times faster than air does at the same temperature. Many of the reservoirs are cold enough to cause serious harm. Wearing your PFD increases your survival time.
- Alcohol affects your ability to function in three critical ways. Your balance, judgement and reaction time are affected with the first drink. Alcohol and water don't mix!
- Non-swimmers should wear a PFD.
- Two-thirds of people who drown never intend to go in the water. If you are not prepared to get wet, you are not prepared to go out on the water.

Safety When Hiking

- Unwary hikers can be overtaken by darkness on their return so plan your trip carefully.
- Be prepared! Be physically fit to enjoy your activities.
- Leave a message with a friend. If you do not return as planned, accurate information can be given to the police. If possible carry a cellular phone for emergency purposes.
- Never hike alone.
- Always carry the 10 essentials and be ready to stay out overnight:
 1. flashlight
 2. large orange plastic bag. It's actually one of the most valuable items on the list. Crawling into the bag helps keep you warm and dry. The orange colour is also highly visible and helps attract attention, particularly from the air.
 3. whistle
 4. water and food
 5. waterproof matches or lighter
 6. extra clothes
 7. fire-starter or candle
 8. first aid kit
 9. pocket knife
 10. compass and map
- If you become lost: do not panic; stay where you are; do not go downhill; use signalling devices (use a whistle, light a fire, stay visible); build/seek shelter.
- Observe fire restrictions imposed by the Ministry of Forests. To report a forest fire telephone 1-800-663-5555.

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