



bmsc BAMFIELD MARINE
SCIENCES CENTRE

General Safety Manual

Bamfield Marine Sciences Centre
Bamfield, BC, VOR 1B0

V6, December 2019

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Revised by Siobhan Gray May 2009



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BMSC Contact List

	Home	Local
First Aid Attendant -on duty-	0830-1630 Mon-Fri	250 720 1433
	Siobhan Gray	222
	Tao Eastham	229
Director	Dr. Sean Rogers	403 473 3498
Acting Operations Manager/ Deputy Director	Lee Weber	212
	Afterhours	250 735 0866
Field Trip Program	Phil Lavoie	226
Associate Director, Research		255
Associate Director, Education	Chris Neufeld	234
University Program Coordinators	Luke Andersson	216
	Heather Alexander	216
Head of Maintenance	Scott Martin	272
		250 728-3219
		Cell: 250-720-6801
Head Electrician	Frank L'Heureux	248
		Text 250 947 9119
Head of Kitchen	Patrick Edmonson	239
Diving Safety Officer (DSO)	Siobhan Gray	222
Head of Foreshore/ 1 st Skipper	Dave Porter	224
2 nd Skipper	Stacey Hrushowy	266
Main Office	Shirley Pakula	221

Action plan in the field

In the event of a wide spread emergency such as an earthquake or a tsunami, you should follow the field protocol depending on where you are at the time and adjust accordingly.

Field Protocol:

1. Get to safety as soon as you believe there to be a large-scale threat.
 - a. Move to higher ground in the event of an earthquake or tsunami warning signal.
 - b. Get a head count to ensure all members of department are present.
2. Establish communication with a central command or set up a radio relay to get information.
3. Tend to first aid if required.
4. Establish order and shelter while waiting for further instruction.

Rally Points:

1. East side: fire hall
2. West side: fire hall
3. Anacla/Pachena Beach: House of Huu-ay-aht (may not be accessible i.e. flooding)
4. BMSC: Point A-traffic circle or if threatened: Point B-tennis court

Emergencies

Medical Emergency

In the event of a medical emergency during working hours, the BMSC First Aid Attendant must be contacted. If they are not reached or it is after hours (1630-0830 weekends and holidays) then call the Bamfield Volunteer Emergency First Responders team via 911 dispatch. Canadian Coast Guard Radio and/or Joint Rescue Co-ordination Centre can be contacted at 1800 576 5111.

When dialing from BMSC, dial 9 for an outside line

Volunteer Emergency First Responders 911
Ambulance: 911
1 800 461 9911 Remote Loc

Bamfield Health Centre nurse: 250 728 3312
VHF Ch 82

Joint Rescue Co-ordination Centre: 1 800 567 5111
Coast Guard Radio: VHF Ch 16
Canadian Coast Guard Bamfield Unit: 250 728 3322

Additional After-hours options:

You can speak with a BC health service navigator by calling 811, who can also connect you with a:

Registered nurse any time, every day of the year
Registered dietitian from 9am to 5pm Pacific Time, Monday to Friday
Qualified exercise professional from 9am to 5pm Pacific Time, Mon to Fri
Pharmacist from 5pm to 9am Pacific Time every day of the year

Mental Health Services/crisis

In case of a mental health crisis:

Call the **Vancouver Island Crisis Centre of BC** toll free at **1-888-494-3888** (free, confidential, and available 24 hours a day).

The Crisis Centre of BC (www.crisiscentre.bc.ca/get-help) offers:

- Online chat from noon to 1:00 am at www.crisiscentrechat.ca for adults or www.youthinbc.com for youth
- A text and chat line available from 6pm-10pm at **1-250-800-3806**

There are no Mental Health Services physically located within Bamfield.

Medical conditions, allergies and food intolerances

Individuals with food allergies or intolerances are to identify themselves to the cafeteria and first aid staff immediately upon arrival, most notify prior to arrival. Any severe allergy students/users are to identify themselves to the safety officer and kitchen prior to arrival and are checked with if they have an epi-pen. Field Trips Program students and visitors: If a student or visitor staying on site does carry an epi-pen, a second one is to be lent to the chaperone that will be accompanying them during their stay.

Epi-pen locations:

- i. First aid kit outside main office 24 hr access**
- ii. First aid room in ground level of the Rix Centre 24 hr access**
- iii. Jump bag in Lower Rix Special Programs Office**
- iv. Foreshore dive shed 24 hr access**
- v. Whale lab interior office**
- vi. Kitchen first aid kit**
- vii. L3 First aid response bag in DSO's office (foreshore)**
- viii. Barkley Star**
- ix. M.V. Alta**

Building Evacuation

(Fire, gas leak, tsunami, or following an earthquake)

In the event of a major emergency, it is important to evacuate buildings and converge at the emergency assembly area A (the traffic circle), for a head count. If this assembly area is not safe or at risk of danger then Assembly area B is located next to visitors parking at the tennis courts.

Each building has a "Building Emergency/Evacuation Plan" displayed on each floor. Department Heads are responsible for the areas where most of their department may be found and act as the Fire Wardens. Department Heads should also appoint a Fire Warden Deputy to act in case(s) of their absence. Responsibilities include making sure that all of their staff and associates are briefed with emergency procedures, maintaining fire routes and escape plans, and overseeing the evacuation of their areas in the event of a fire or other life threatening emergency. Below is the list of buildings and areas each Department Head is responsible for, (when the department head is away. they need to appoint a staff member to fill in for their safety duties):

Director or Designate

- First level of the Main Building (including the Library)

Diving and Safety Officer

- Boat Shed
- Dive Shed

Housekeeping/UP

- Seaside dorms
- Buchanan Lodge
- All cabins (8)

Head of Maintenance

- Workshop
- All known active worksites
- Qualified Maintenance staff to conduct Rapid Building Surveys

Kitchen Head

- Cafeteria, cafeteria building lecture hall and fire-side lounge
- Rix Centre kitchen

Field Trip Program Coordinator

- Whale Lab
- COTC building (if in use by Field Trip Program)
- Rix Centre classrooms (if in use Field Trip Program)

Associate Director, Research

- Aquaria level of the Main Building (if in use by research)
- Cable Tank (if in use)
- Eco-Phys Building
- COTC (if in use for research)
- Rix Centre research level
- Fluid Dynamics Lab

University Program Coordinator

- Teaching levels of the Main building
- Aquarium level of the main building
- COTC (if being used by University Programs)
- Rix Centre classrooms (if in use by University Programs)
- Cabins (if being used by UP)

Familiarize yourself with the Building Emergency Plan, check the Evacuation Floor Plans for your building and note your closest fire exit. Consider alternate evacuation routes in case your exit is not accessible.

Fire Emergencies

If you discover a fire:

- Activate the nearest fire alarm pull station. (Consult Emergency Evacuation Floor Plans)
- **Call 911.** (BMSC alarms are not monitored by fire or security systems) State your name and location of fire.
- If the fire is very small, use a fire extinguisher. Do not endanger yourself.
- Evacuate the building. If you activated the alarm alert the fire warden responsible for the area (in most areas this will be the department head).

If you hear a fire alarm:

- If possible secure equipment, close windows and doors. Do not lock doors.
- Follow the evacuation route established in the building you are located in.
- Assist individuals with mobility disabilities to the designated refuge area, the traffic circle (A) or tennis courts (B)
- Provide information about the fire and disabled individuals to the Fire Department.
- Meet at your Department's designated Emergency Assembly Area. The emergency assembly area is the traffic circle outside the main building or the dining hall. If these areas are compromised then the tennis court should be used.
- Do not re-enter the building until permission is given by the Fire Department. If you cannot evacuate:
- Close the doors between you and the fire.
- If possible call **911** and advise the Fire Department of your situation.
- Hang clothing or a cloth from a window to alert emergency response personnel.

Keep exit routes and fire safety equipment unobstructed and report any fire hazards to the Department Head whom is responsible for your area of study or work.

When dialing from BMSC, dial 9 for an outside line

Emergency: 911 Dispatch / Bamfield Volunteer Fire Dept

Portable Fire Extinguisher Operation:

A fire extinguisher is designed to put out a small fire. If you have any doubts as to whether or not you should try to extinguish a fire, leave the area, ensure the fire alarm system is activated and call the Fire Department.

The class designation indicates the type of fire the extinguisher is intended to extinguish. Ordinary combustibles such as paper, wood, cloth and plastic are classed as Class A fires, flammable liquids such as gasoline, paints and solvents are classed as Class B fires and electrical fires which involve energized electrical wiring, circuit breakers and appliances are classed as Class C. A Class ABC extinguisher is intended to extinguish fires of Class A, B and/or C.

Extinguishers must be recharged after any use. When an extinguisher is used contact the Head of Maintenance (Scott Martin) and/or DSO (Siobhan Gray) so that it can be recharged and put back into service.

Directions for use:

1. Pull safety pin from handle.
2. Aim (nozzle, cone, horn) at the base of the fire.
3. Squeeze the trigger handle.
4. Sweep from side to side (watch for re-flash).

Provincial Emergency Program- Emergencies and Disasters

To be prepared for a wide spread emergency or disaster, all BMSC employees should review the building specific procedures in which they will be working in. General emergencies and disasters may take many forms. Below you will find some specific and general guidelines to follow in the event of an emergency. The general emergency plan in most situations closely follows the above guidelines for fire emergencies. Earthquakes and tsunamis are covered as well but other such incidents such as floods, storms, landslides, avalanche, disease outbreak, wildlife incidents and missing persons should all follow the same standard emergency response.

Many BMSC employees are entrusted with a “duty of care” or a responsibility of others. This includes department heads for their staff, Field Trip Educators for visiting groups, course instructors and TAs for students, and PIs for research groups. Each of the above-mentioned overseers should familiarize themselves with the safety procedures laid out in this manual, as well as the Provincial Emergency Program Bamfield Community Emergency and Disaster Plan.

The Bamfield Community Emergency and Disaster Plan can be reviewed by contacting the Bamfield Community Plan Coordinator Linda Myers 250 728 1233. The Provincial Emergency Plan maintains a toll-free message line with emergency preparedness information, at 1-888-811-6233.

The community’s Provincial Emergency Plan has three command centres set up in town that will become active in the event of a community wide emergency. The command centres for Bamfield are the BVFD Fire Hall on the East side, the Fire Hall on the West side, and the House of Huu-ay-aht in Anacla/Pachena. These areas will be communication posts and rallying points for the town. If a widespread emergency occurs, these are the areas that all people off campus should move to.

When dialing from BMSC, dial 9 for an outside line

Provincial Emergency Program (24hrs) 1 800 663 3456

Earthquake Evacuation Procedures

Before:

- Assess your work area for non-structural objects that may cause injury (ie. microscopes, bookshelves, monitors, etc.).
- Move large heavy items to lower shelves and ensure that shelving is secure. Consider using lips on laboratory shelving.
- Consider securing valuable equipment and computers to allow for a rapid recovery. Information on securing devices can be obtained from the Associate Director, Research or Stores Clerk in the Main Building.
- Encourage members of your Department/Unit to consider earthquake preparedness issues for their family and home.

During:

- Move away from windows and heavy objects.
- Duck, cover and hold. Crouch low to the ground; protect head with your arms; seek cover under and hold onto heavy furniture. Watch for moving objects.
- If you are in an interior hallway, stay there and crouch against the wall. Watch for swinging doors.

After:

- After the shaking stops, count to one hundred, if there is evidence of damage (broken glass/dislodged ceiling tiles/cracks in the wall) look for a safe egress, evacuate the building.
- Try to assist disabled or injured individuals.
- Head for Assembly point A -traffic circle. If the Traffic Circle is in jeopardy Assembly point B is the tennis courts. Keep away from power lines and buildings to avoid falling debris.
- Report missing persons in writing to: Incident Commander at assembly point, Emergency Personnel, BMSC First Aid Attendant and Director.
- Determine the status of your Department's personnel, assist students and visitors, and report injuries to the main office and the First Aid Attendant. Typically, the muster area is the traffic circle outside the main building or the dining hall. If these areas are compromised then the tennis courts should be used.

Report damage to buildings and utilities to Head of Maintenance.

Do not re-enter any building until Rapid Building Surveys have been conducted and the building has been given the "All Clear"

Do not use phone lines. Sudden heavy use can cause phone lines to crash.

BMSC joins the Bamfield Community Emergency Program (BCEP) at its reception centre (the Bamfield Community school) to establish safe holding, continued care and to inform provincial programs of our status.

When dialing from BMSC, dial 9 for an outside line

Provincial Emergency Program (24hrs): 1 800 663 3456

Tsunami Procedures

Tsunamis are caused by earthquakes or landslides that create large waves in the water that can travel thousands of kilometers. The west coast of Vancouver Island is susceptible to such events, thus BMSC staff need to have a good understanding of what to do in this emergency.

Before:

- Be aware of the tsunami emergency procedures.
- Locate the meeting area closest to your area of work. Higher ground is defined as 20 meters above sea level.

During:

- Tsunami Siren-When you hear the Bamfield emergency siren sounding continuously (it will sound for approximately one hour) leave the building or area you are in, warn people at lower elevations, and head for the traffic circle. If the Traffic circle is in jeopardy assembly point B is at the tennis courts.

Note: if you here an intermittent emergency siren sounding for less than 5 minutes –this is indicating a fire to the BVFD and is not a tsunami siren)

- If time permits, Department Heads should ensure evacuation of low lying areas they are responsible for as per the building evacuation.
- If you are on the water front and see a quick drop in the water resist the urge to go and take a look but instead gather all those with you and head for higher ground (20 meters above sea level), such as the traffic circle or the hill at Brady's Beach. If possible, let others in the area know that they should also be heading towards the central meeting area, the traffic circle.
- If you are responsible for others in the lab or groups make sure that all the students or clients all go up to higher ground.
- Assist any persons that may need assistance in moving to higher grounds quickly.

After:

- Account for all those in your area to see if there are any missing persons.
- Assist the First Aid Attendant to help those who may be wounded.
- The First Aid Attendant should alert the authorities via 911.
- If there are missing people Joint Rescue Coordination Centre should be contacted prior to a search to locate any people.

- Do not enter buildings until a rapid building survey has been conducted and the building deemed safe. Instead call out from the exterior and listen for responses from any persons still in buildings or trapped.
- Watch for debris, and falling objects including flooring and walls.
- Report damage to buildings and utilities to Head of Maintenance.

Do not use phone lines. Sudden heavy use can cause phone lines to crash.

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Hazardous Materials Incident Response

Many hazardous materials are located on site and used in a variety of labs. If you have any questions regarding these or other materials please contact the Associate Director, Research. MSDS sheets can also be found online.

If the spill can be safely managed by you and your department:

- Get assistance and notify your supervisor. Never rush or work alone.
- Clearly assess the situation before starting clean up and use proper protective equipment.
- Use departmental spill clean-up equipment if available. Departments may obtain a spill kit from the Associate Director, Research or Stores Clerk.
- Collect the wastes in a suitable container and request disposal from Occupational Health and Safety.

For major incidents involving hazardous materials that cannot be controlled by department personnel:

- Evacuate the area and close the door.
- If the release cannot be contained in the room, evacuate the building, and direct people away from the spill area.
- From a safe location call **911** and the Head of Maintenance and the Associate Director, Research and explain what has happened.
- Stay up-wind of the building.
- Identify yourself to emergency response personnel.

When dialing from BMSC, dial 9 for an outside line

Emergency:	911 Dispatch/ Bamfield Volunteer Fire Dept
First Aid attendant	250 720 1433 / VHF 09
OFA Level 3	Siobhan Gray x 222
	Tao Eastham x 229

Associate Director, Research	ext 255
Head of Maintenance	ext 272
Operations Manager/Deputy Director	ext 215 and 240 (home)

UVIC Hazardous Waste contact Amanda Muench
at amuench@uvic.ca or 250-853-3915

Police Emergency

There are no police or RCMP located within the town of Bamfield. Any incidents that require the assistance of the police should be reported immediately to the Director or the main office switch board. If the main office is closed the Port Alberni Police can be contacted directly by **911**.

BMSC Main Office Switchboard ext 221

When dialing from BMSC, dial 9 for an outside line

RCMP Port Alberni: 911 or 250 723 2424

Poison Control

In the event of a person potentially being exposed to a poisonous substance the following procedures should be followed as quickly as possible. See above to the Medical Emergencies Protocol for all situations where poisons may be involved.

When a poisonous substance has been exposed to people at risk the containers should be kept and read for any treatment procedures. All chemical substances on station will also have a current MSDS sheet available that may also help in the treatment of any first aid matters. All MSDS sheets are available from the Associate Director, Research and online from any computer connected to the station network at <http://ccinfoweb.ccohs.ca/msds/search.html>. Poison Control should also be contacted regardless of the situation as they may also have first aid advice to help in the treatment of the victim.

When dialing from BMSC, dial 9 for an outside line

Emergency:	911
Provincial Poison Control Centre:	1 800 567 8911
First Aid Attendant	250 720 1433
Associate Director, Research	ext 255
Bamfield Health Centre	250 728 3312
	VHF Ch 82

General Health and Safety - First Aid and Reporting

In case of emergency refer to “Medical Emergency” section earlier covered.

Primary response to first aid situations at the BMSC is undertaken by the Occupational Level 3 First Aid Attendants. In non-emergency situations the First Aid Attendant (FAA) should be contacted/consulted. In the absence of the primary FAA, the back-up FAA can be reached, and general first aid can be referred to the Bamfield Health Centre nurse.

BMSC First Aid incident and accident reporting protocol

ALL First aid incident, accidents and injuries are to be kept confidential. Information shall only be shared with first aid attendants and management stated in this document.

BMSC Users – this includes researchers, students, employees and clients

Call Level 3 First aid attendant cell phone to attend to all incidents minor or emergency that occur during work hours 0830-1630 Mon-Friday 250 720 1433 or call “BMSC First Aid” via VHF 09 and request to switch to channel 10 for confidentiality

Emergency -

If Level 3 unavailable or incident occurs after hours:

call VIHA Bamfield clinic: 0830-1630: 250 728 3312 (Nurse practitioner 24hr)

If an emergency -and clinic not reachable, call 911

This will dispatch: Bamfield’s Volunteer Emergency First Responder Team, and any additional ERT as appropriate to the situation.

Non Emergency –

Where Level 1 attends the patient and fills out BMSC First Aid Record form, the Level 3 must still be contacted to see patient for follow up. Yes, even for minor wounds.

If after hours and is a minor wound therefore within Level 1 training; Level 1 attendant fills out BMSC First Aid Record form and submits to safety officer via confidential file located in DSO mail box, and notifies on duty level three attendant of incident ASAP.

Safety officer/on duty Level 3 is to see patient ASAP for follow up.

Information shared with attending first aid attendant by patient is strictly confidential and may only be shared with other first aid attendants if:

-The patient gives permission to do so.

-The other first aid attendant will be conducting follow up care.

Follow up care will be recorded via First Aid Record Form with a sequential letter added to original sequence number.

BMSC Employees

Incident response as above.

All injuries to workers must be recorded through the following paperwork:

The following forms need to be filled out by or submitted directly to the on duty Level 3 first aid attendant:

BMSC First aid record -

- May be filled out by Level 1, but Level 3 must see patient ASAP for follow up.
- BMSC First Aid Record Follow up - performed by Level 3 only

Work Safe BC Forms –

- For any incident involving a BMSC Employee a **Work Safe BC form 6a – ‘Workers report of injury to employer’** is to be filled out by worker and submitted to safety officer/on duty level 3 First Aid attendant/front office ASAP. Yes, even if no work was missed. The secretary/safety officer/level 3 First Aid attendant will submit this to the employer (Business Manager).
- This will be kept in workers confidential file for future reference should the condition worsen or return.

To download form 6a from worksafebc.com: <http://www.worksafebc.com> and look for forms and resources link at top of page. Then click Form 6a- ‘workers report of injury or occupational disease’ to employer. And download PDF

- Additionally where work hours are missed due to injury ie: trip to medical aid or hrs/days/shifts missed. **Work Safe BC Form 6a and Form 7- 'Employers Report of Injury'** must be filed within 72hrs:
- Form 7 is filled by business manager (employer) (using the information provided in Form 6a) and signed off by employer (Business manager/Director).
- Employer submits/files both forms 6a and 7 to Work Safe BC within 72 hrs of receiving form 6a.

Diving Safety Officer and OFA L 3 First Aid attendant 250 728 3301 ext 222
 Special Programs Coordinator and Alternate OFA L3 first aid attendant ext 229

In order to prevent a similar injury in your department, an Accident/Incident Investigation will be conducted (see below). This investigation will typically be arranged by the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head).

Accident/ Incident investigation

In order to prevent workplace accidents and injuries, the BMSC conducts an Incident/Accident Investigation. The purpose of the Incident Investigation is to identify any corrective measures that can be implemented to prevent the recurrence of the incidents.

Incident Investigations are arranged by the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head). The Incident Investigation involves the injured worker, an Employer Representative, an Employee Representative, and the Safety Officer/Chair of the Safety Committee (or if absent by the Department Head).

A UVic Incident Investigation Form is to be completed during the investigation, signed by both the Employer and Employee Representatives, and kept on file. A copy of this report will be forwarded to WorkSafe BC by the BMSC Employer.

All incidents and accidents will be reviewed respecting confidentiality at the next Safety Committee meeting and any global issues can be discussed.

For some injuries, WorkSafe BC may also wish to conduct an On-Site visit. These visits are coordinated by the Director and/or the Chair of the Safety Committee and may be arranged in conjunction with the Incident Investigation. Where applicable internal Accident/Incident investigations should also be carried out for non-employees (BMSC users).

- UVic incident investigation form.- Filled out by Safety officer.

- Will be signed by employee representative and employer representative.
- Will be kept on file by safety officer
- Results and recommendations will be shared with patients Department head for action items in the prevention of future incidents.
- Recommendations will be shared with the BMSC Joint Health and Safety committee and BMSC Director. The names of individuals however, will not be shared and will be kept confidential by the safety officer and attending level 3 and level 1 attendant.

The BMSC Work Site

All BMSC employees and users are advised to wear sturdy footwear around the site (where appropriate employees must wear protective footwear, such as steel toe boots). When moving around the site at night it is the responsibility of BMSC users and employees to carry and use a flash light. If working near a body of water a PFD is to be worn.

General Field Work

The BMSC has an active field work program. Prior to any field work, a field project proposal must be submitted and approved by Diving, Boats, Research and University Programs as applicable. Each member of the BMSC Community contemplating undertaking field work need to take the following factors into consideration while creating a Field Safety Plan including respective sail and terrestrial trips plans.

- i) the state of health and fitness of all participants
- ii) the risks associated with the work performed
- iii) the procedures for responding to accidents, injuries, property and environmental damage
- iv) the availability of first aid care, supplies, and access to emergency medical treatment
- v) the environmental impact of the work performed
- vi) the provision of training for all participants in field work regarding the risks associated with such work and the applicable safety measures
- vii) The minimum and maximum numbers required in order to be safe at the field site
- viii) Communications with BMSC and emergency services during the time in the field
- ix) Following all BMSC Boat Policy regulations, including always making sure that a check-in person is used and informed of any changes in the sail plan.

Rogue Waves

One area of specific concern when in the field is rogue waves. These occur when waves in the open ocean overtake others and add together to create a larger than normal wave. These are seen on shore as larger surges that can catch people working in the intertidal area off guard.

Whenever working in wave exposed areas or on rocky shorelines the following precautions are to be taken:

- Never work alone
- Always wear a PFD
- Keep your eyes on the surge or have a lookout to spot large waves for you
- Have an accessible throw-buoy or throw-line on hand

If someone does get swept away by a rogue wave:

- Have someone keep their eyes on the person and point to them to maintain their location.
- Call the Coast Guard on channel 16 using a VHF radio to inform them that someone has fallen into the water.
- Using a buoyant heaving line throw one end to them to assist them back to shore.
- Do NOT jump in after them as it is very difficult to make a water rescue in cold, surging waters.
- If you are with others make sure that everyone stays back and are not in danger of falling.
- Once back on land the person may require treatment for hypothermia and other possible injuries. Be sure to have back up on the way from the Coast Guard and call BMSC on channel 09 to inform them of the incident.

Workplace Hazardous Materials Information System (WHMIS)

WHMIS is an information system which requires that all employees must understand WHMIS and can apply WHMIS information. Workers exposed to hazardous materials may be at risk for many serious health problems. Some hazardous materials can also cause fires, explosions and environmental damage. The WHMIS provides Health and Safety information about workplace hazardous materials. Employers (Department Heads and those with a duty of care) must use this information as well as information specific to their workplace to educate and train workers to work safely with and near hazardous materials.

WHMIS has developed a classification system of six hazard classes to group chemicals with similar properties or hazards. Each class has a specific symbol to help people identify the hazard quickly. The classes are:

Class A - Compressed Gas
Class B - Flammable and Combustible Material

Division 1: Flammable Gas
Division 2: Flammable Liquid
Division 3: Combustible Liquid
Division 4: Flammable Solid
Division 5: Flammable Aerosol
Division 6: Reactive Flammable Material

Class C - Oxidizing Material

Class D - Poisonous and Infectious Material

Division 1: Materials causing immediate and serious toxic effects

Subdivision A: Very toxic material

Subdivision B: Toxic material

Division 2: Materials causing other toxic effects

Subdivision A: Very toxic material

Subdivision B: Toxic material

Division 3: Biohazardous Infection Material

Class E - Corrosive material

Class F - Dangerously reactive material

After a controlled product has been classified, the following three WHMIS elements are used to communicate Health and Safety information:

- 1) WHMIS labels: WHMIS labels on controlled products alert workers to the identity of the product, hazards and precautionary measures.
- 2) Materials Safety Data Sheets (MSDS): Technical bulletins provide detailed hazard and precautionary information.
- 3) WHMIS education and training programs: The employer provides education and training for workers so they can work safely with and near controlled products. Workers need to know how WHMIS works, the hazards of controlled products in their workplace, and the safe procedures they must follow.

At the BMSC, all employees handling or working near hazardous materials must undertake WHMIS training and certification. This can be undertaken through UVic OHS, by contacting the Chair of the Safety Committee. It is the responsibility of Department Heads (and those with a duty of care) to ensure that employees receive job-specific training appropriate to their work with hazardous materials. WHMIS Training should be retaken/updated every 5 yrs.

Many Principle Investigators will have done WHMIS at their home university and are expected to follow the same guidelines while on site.

Boats (Copes, Raider and Skiffs)

Boat Policy: BMSC operates a Boat Policy (which acts a statutory boating safety document). All BMSC employees and users are required to adhere to the BMSC Boat Policy. All users are to wear a fully zipped up PFD at all times on BMSC docks and boats.

Boat check-out: BMSC requires that all boat operators receive a Boat Check-out and orientation to boating safety at BMSC. This includes practical boating competency, sail plan procedures, VHF radio use, and emergency/safety equipment and procedures.

Pleasure Craft Operators Card (PCOC) and Small Vessel Operators Proficiency (SVOP) certification: All boat operators must possess a current certification appropriate to the vessel driven; SVOP, PCOC or equivalent acceptable certification (*acceptable to TC/CCG*) and a current Marine First aid Certificate. It is the operator's responsibility to obtain certification.

Alta and Barkley Star

For safety information on the Alta and Barkley Star, BMSC employees and users should consult with the BMSC Boat Policy, relevant safety manuals and the 1st skipper (Dave Porter).

Fueling Station

All fueling done on site is to be done only by those who are trained and approved to use the equipment. This is usually the two skippers and foreshore staff.

If you discover a spill:

- Cover the fuel with a hazmat (absorbent mats found in spill response kit at the fueling station and in marked cabinet inside boat shed)
- Do not place in a dumpster, contact Foreshore Staff, the Safety Officer or the Associate Director, Research to get directions on proper disposal
- Contact a maintenance worker and the Safety Officer to let them know what happened and to assist in the clean-up.

Diving and Snorkeling

For diving and snorkeling information BMSC employees and users must consult with the Scientific Diving Safety Officer. Any snorkeling and diving done with BMSC equipment or from the BMSC needs to be discussed and approved by the Diving Safety Officer. See BMSC Diving Safety Manual.

Building Safety

BMSC has numerous buildings that staff and visitors use on a regular basis. Each building will have unique facilities and emergency plans but there are some general safety items that all users should be aware of. Below is a list of safety items that all members of BMSC should be familiar with and actively look for evacuation floor plans located in the main hall on each floor of all the buildings in which they work. If there are problems with any item listed here or otherwise the Safety Officer and the Head of Maintenance should be contacted.

- Evacuation paths should be free of obstacles and clutter
- Fire escape doors should not be locked
- Broken glass should be kept in a Sharps container and properly disposed of
- If any ceiling panels are not fitted in, the room should not be worked in until they are replaced
- Any electrical wiring that is loose and unconnected should be reported immediately
- Stairways are to be kept clear at all times

Electrical Safety (including all digging)

The BMSC has a “Lock out Policy” and BMSC Lock-out Procedures relating to electrical safety. These are available from the Head Electrician. Before digging or drilling anywhere on the BMSC property you are required to contact the BMSC Electrician to determine the location of underground wires and to initial protocols.

Head Electrician ext 248

Site Safety Orientation

WorkSafe BC stipulates that employers must provide the new or transferred employees with an induction. At the BMSC, this orientation is the responsibility of the Department Head or Supervisor and includes:

- Familiarization with safety and health procedures;
- Location of first aid facilities and first aid reporting;
- Emergency procedures;
- Procedures on reporting of incidents/accidents;
- Review of existing job specific hazards and any known problems;
- Hazard reporting procedures; and
- Supervisors' expectations.

The following tour is given to University Programs students, TA's and Instructors (instructors and TAs must attend) at the beginning of each of the three summer blocks and Fall Program. A University Programs specific Safety Manual is provided and available by the Diving Safety Officer and the University Program Coordinators. The same tour is given to PIs and graduate students conducting research on site by the Associate Director, Research. This tour includes:

- Main Building
- Foreshore
- COTC Building
- Eco-physiology Building
- Boats Shop
- Dive Shed
- Maintenance Shop
- Location of safety equipment (Fire extinguishers, eye wash stations, first aid kits, lab coats)
- Chemical spill response procedures
- Animal Care procedures
- Safety on campus, in laboratories, and appropriate behaviour
- Emergency contacts and procedures

Safety Officer:

- Tour of Foreshore, & foreshore etiquette
How to find foreshore staff: Diving, Diving Assistant, Skipper 1, Skipper 2

Emergency plan:

- Sirens: Tsunami siren, community fire and fire practice siren
Rally points A (traffic circle) and B (tennis courts)
- Head counts: Profs/ TAs assign numbers to students.
Handy in emergency scenarios.
- Fire: Pull alarm – call 911 – alarms not linked to dispatch– throw ladders on upper floors – help disabled - close doors as you leave – meet at rally point – then head count.
- Lab safety: Food, drink, close-toed shoes, pants, hair tied back.
- Fueling station: No fueling
What to do with empty gas cans (put on pallet)
If you find a spill – Haz Matts in yellow spill kit bin
- Weekend fuel: Notify need during standard working hours
- Checkout Station:
Red Sign + foreshore staff on/off duty
Chart
Tides

- Sail Plans: Times you can go out, check-in person.
Fill out meticulously; include detail. Only thing to refer to should you need to be assisted/rescued on water.
- Docks: no fishing, no swimming
- No trespassing on Alta or Barkley - strict penalties.
- No alcohol on foreshore/docks: not tolerated, boat privileges revoked immediately & permanently
- Rowboats: Sail plan sign-out on clipboard not chalk board
Where to dock, what coloured dock rails mean (yellow, white, red, etc)
- Do not wear back pack in boats
- Appropriate foot wear
- Have a day pack stocked with “just in cases” recommended
- Pre-Trip Checklist:
Check weather via Marine Environment Canada –West Coast Vancouver
Island South-Website and VHF-WX08
BMSC working channel VHF 09
Sail Plan
Lifejackets
Phone and VHF numbers
Look through safety bucket
Chart
Boat boundaries
After hours permission – outside boundary permission
- What to do if...(Bad weather, emergency)
- How to use a VHF radio for emergency – battery – radio check at site-
when to call for help:
CCG VHF 16: PAN PAN, MAYDAY,
- Basic rules of the road covered in boat check outs
- Reminder to have PCOC/SVOP Cards at all times when operating boats.
- How to tie up (clove hitch & two half hitches)
- Where to tie up (ex: rowboats, use white marks painted onto dock)
- If you run into issues please let us know – can write boat problems on chalkboard or report directly to one of the Skippers as soon as something comes up.
- First Aid:
- OFA L3 Attendant Siobhan Gray (cell 250 720 1433, VHF 09, x222)
and Tao Eastham (cell 250 720 1433, VHF 09 x229)
- Record/report injuries
- Bamfield Volunteer First Responder team via 911
- Location of first aid kits, & location of first aid room
- Epi pens – protocol, second dose only

- Do not diagnose, call 911/ Bamfield Health Clinic immediately
- 24 hr Epi pen locations
- Notify the Safety Officer (Siobhan Gray) immediately, with any medical concerns or Epi pen needs, if you haven't done so already
- Wildlife safety in regards to bears and cougars

We are in cougar and bear country, and while the probability is small, BMSC users should know how to deal with the situation. Individuals should travel in groups making a moderate amount of noise as they travel after hours between dorms and cabins etc.

1. Cougars – Stay calm and keep the cougar in view.

- Pick up children immediately.
- Back away slowly, ensuring that the animal has a clear avenue of escape.
- Make yourself look as large as possible. Never run or turn your back on a cougar.

If the cat shows intense interest or follows you,

- Respond aggressively.
- Maintain eye contact with the cat, show your teeth and make loud noises.
- Arm yourself with rocks or sticks as weapons.
- Crouch down as little as possible when picking things up off the ground.
- If the cougar attacks, fight back.
- Keep the animal in front of you at all times.
- Convince the cougar you are a threat, not prey.
- Use anything you can as a weapon.
- Focus your attack on the cougar's face and eyes.

2. Black bears – Stay calm and keep the animal in view but avoid direct eye contact.

- The bear may interpret it as a sign of aggression.
- Back away slowly if you can.
- Never run from a bear unless you know you can reach safety.
- Always fight back.
- Jump up and down, wave your arms and yell in low tones.
- Try to look as large as possible.
- Never play dead – it makes you easier prey.
- Remember that black bears can climb trees, so stay on the ground.

Please read the available WildSafe BC brochures regarding bear and cougar safety.

Please notify other staff members and the Diving Safety Officer, immediately of any encounter.

For all Field Trip Program users, the following tour is given:

- Laboratory locations
- Floor plans and lodging information
- Teacher and chaperone duties
- Epi Pen protocol and site map
- Dining hall information
- After hours emergency contacts
- 24 hr First Aid Kit locations
- Boat and dock safety
- Off limit areas of research
- Accident reporting
- Wildlife safety in regards to bears and cougars

Cougars and Bears:

The best advice you can give is to travel in groups of two or more and make noise; keep talking as you travel. Bears recognize the human voice and will avoid you in most instances. Both animals are characteristically shy of adult-sized humans and would rather turn tail than attack. The most important thing to do in any encounter is to stay calm talk in a low voice and back away slowly. Report any animal sightings to the BMSC DSO (diving@bamfieldmsc.com), who will call the conservation officer reporting services. Alternatively, you can call the reporting line yourself and let the DSO know you have done so.

BC Conservation Officer Services: 1 877 952 7277

BMSC Employee Commitment

Once the employee has read and understood the BMSC General Safety Manual, and their area-specific safety manual (i.e Research, UP, FTP, Kitchen, etc.), they are to sign and give this document to their BMSC department head for further signatures. The department head will then pass it on to either the Director or Operations Manager/Deputy Director (OMDD) for signature. This Document will be kept in your employee file.

The undersigned BMSC employee has completed the following safety tasks, and signed below as true statements:

- I have read and understand the BMSC General Safety Manual.
- I have read and understand my area-specific safety manual (i.e Research, UP, FTP, Kitchen etc.)
- I have had a safety orientation with my department head and or BMSC Safety Officer.

New Staff Member: _____

Department Head: _____

Signature: _____

Signature: _____

Date: _____

Date: _____

Once signed, please give to your department head.

Once signed, please give to the Director or OMDD

Director: _____

Signature: _____

Date: _____

Once signed, please give to Administration to be filed.