

FACT SHEET #4: SOLID AND LIQUID WASTE MANAGEMENT

BACKGROUND

This fact sheet can help event organizers manage solid and liquid waste reduce the risk of injuries and illness. It is part of *Public Health Guidelines: Major Planned Events* (See “Resources,” below, for details.)

Large quantities of waste will be generated by concessionaires and attendees at most major planned events. Waste should be managed carefully to minimize the risks associated with its accumulation, collection and disposal.

Examples of waste include:

- Paper and cardboard packaging.
- Food and drink containers.
- Food debris.
- Waste food from food concessions.
- Glass, plastic and metal cans.
- Clothing.
- Human waste.
- Medical waste such as needles and bandages.
- Remains of camp fires, fireworks and pyrotechnics.
- Waste from toilets, showers and hand-washing basins.
- Wastewater from concessions.

Hazards posed by waste include:

- Worker injury during collection and/or removal of waste from the site.
- Waste accumulation, blocking emergency access routes, hampering movement around the site and creating tripping hazards.
- Fire hazards when waste is accidentally or purposely ignited.
- Misuse of waste by the audience (e.g., throwing bottles).
- Vehicle movements associated with collecting waste.
- Wildlife, insects and vermin.
- Transmission of disease-causing organisms through contact with waste (e.g., feces).
- Improper waste disposal of waste.
- Pollution (e.g., fish waterways).
- Environmental issues.

REDUCE THE RISK

Event organizers can reduce the risk of injuries and illness by taking the following actions:

- Consider the audience size, area size, site boundaries, food concessions and other relevant factors when planning working methods and determining the number of workers, sanitary facilities, and garbage receptacles required for waste management.
- Consider the type, size and location of garbage receptacles. Wheeled containers are the most versatile: they come in a variety of sizes (with lids), and can be easily manoeuvred and positioned.
- Consider providing tamper-proof sharps bins so attendees can safely dispose of used needles.

- See Fact Sheet #5: *Harm Reduction* for resources on the distribution and disposal of needles.
- Provide adequate bins in locations to ensure there is no build-up of combustible materials.
- Make sure garbage does not pose a fire safety risk by blocking or being stored in such a manner as to provide an ignition source.
- Secure positioning bins and empty them regularly – at least daily – for the duration of the event.
- Provide recycling facilities.
- Encourage separating waste into individual disposal units for dry, wet and hazardous waste.
- Discuss waste removal methods with the waste contractor and ultimate disposal location.
- Make sure the sites chosen for bulk collection have a suitable access route. There may be event areas that are subject to a ban on vehicle movements to protect the audience.
- Check with local governments for any bylaws on solid waste handling. Local governments may specify practices for recycling and composting.
- Manage workers and equipment to ensure there are adequate resources for the appropriate areas at the appropriate times. Each area of the venue may have to be managed differently.
- Arrange venue cleaning – before, during and after the event.
- Provide a large-enough team of people to clean up after the event.
- Food Waste:
 - Use solid waste containers with lids that are secure, leak-proof, and prevent wildlife and pests.
 - Organize separate waste collection for food premises.
 - Continually monitor waste collection to ensure it is done often enough.
 - Ensure food waste is put in covered containers placed strategically around the venue. Covers are essential, especially in outdoor settings or if high temperatures are expected.
- Empty containers:
 - Arrange for the storage or disposal of empty containers, such as cardboard boxes.
- Hazardous waste:
 - Arrange for the collection and disposal of various forms of hazardous waste, including waste from food preparation areas, medical sharps and other hazardous materials.
- Medical waste:
 - Ensure there is provision for the storage, collection and disposal of medical waste from onsite medical and first aid facilities.
- Sewage and greywater:
 - Provide and maintain adequate facilities for storing and disposing of sewage and greywater (waste from sinks, showers or baths). Information on small wastewater tanks servicing portable or temporary food units can be found in the *Provincial Food Safety Guideline for Mobile Food Vending Carts*, available through your local health authority.
- Apply for a permit from the health authority’s public health inspector when holding tanks are used. A permit is a requirement under the *Sewerage System Regulation*.
 - Sewage disposal is regulated by the Sewerage System Regulation for flows less than 22,700 litres/day. The Municipal Wastewater Regulation governs discharges of 22,700 litres/day and more.¹
 - Give a copy of the pump-out contract to the health authority’s public health inspector if portable toilets are used. Permanent, in-ground sewage disposal installations may be created for large, annual events.
 - An “Authorized Person,” pursuant to the Sewerage System Regulation must file a Record of Sewerage Disposal System with the local health authority.

¹ See HealthLinkBC’s file, *Maintenance and Operation of Sewerage Disposal Systems*: <http://www.healthlinkbc.ca/healthfiles/hfile21.stm>

- For discharges falling under the Municipal Wastewater Regulation, you must notify the Ministry of Environment.
- Adhere to Ministry of Environment standards if composting waste. The disposal and use of composted material must be done in a manner that will not result in a health hazard.
- Recycling
 - Consider providing containers for recyclable materials.
 - Encourage vendors to use recyclable food packaging.
 - Place a sufficient number of dedicated containers near the vendor area to encourage recycling.

PROVIDE INFORMATION

- Provide clear signage indicating where waste receptacles are and what types of waste are collected there.
- Use signage, announcements and other methods of communication to encourage people to dispose of waste and/or recycle appropriately.

MONITOR HEALTH RISKS

- Monitor for the presence of animals, birds, rodents and other pest activity related to waste materials.
- Keep open communication with first aid/onsite medical staff with regard to gastrointestinal illnesses.

CHECKLIST

Each event is unique, with different requirements. Checklist items may or may not be applicable to your event.

TO DO:

- Consider the audience size, area size, site boundaries, number of campers and food concessions in planning the number of workers and waste receptacles required for the event.
- Contact local governments regarding any bylaws governing handling, storage and disposal of solid waste.
- Provide bins in:
 - approaches to the event
 - entrances and exits
 - arenas and stages
 - first aid areas
 - catering areas
 - camping areas
- Secure bins to prevent tipping.
- Arrange for bins to be emptied frequently.
- Arrange for the collection and disposal of hazardous waste.
- Ensure bins are easily accessible to service vehicles.
- Provide facilities for the storage and disposal of sewage.
- Ensure service contracts for refuse collection and sewage collection are in place.

BRITISH COLUMBIA'S HEALTH AUTHORITIES

First Nations Health Authority
<http://www.fnha.ca/>
1-866-913-0033

Fraser Health
<http://www.fraserhealth.ca/>
1-877-935-5669

Interior Health
<http://www.interiorhealth.ca/>
250-862-4200

Island Health
<http://www.viha.ca/>
1-877-370-8699

Northern Health
<https://northernhealth.ca/>
250-565-2649

Vancouver Coastal Health
<http://www.vch.ca/>
1-866-884-0888

Provincial Health Services Authority
www.phsa.ca/
604-675-7400

LEGISLATION

Food Premises Regulation
http://www.bclaws.ca/Recon/document/ID/freeside/11_210_99

Municipal Wastewater Regulation
http://www.bclaws.ca/civix/document/id/complete/statreg/87_2012

Organic Matter Recycling Regulation
http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/15_18_2002a

Sewerage System Regulation
http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/22_326_2004

RESOURCES

Province of British Columbia. *Public Health Guidelines: Major Planned Events*.
<http://www2.gov.bc.ca/gov/content/health/keeping-bc-healthy-safe/pses-mpes/major-planned-events>

This site also includes the following fact sheets:

- *Fact Sheet #1: Drinking Water*
- *Fact Sheet #2: Safe Food*
- *Fact Sheet #3: Sanitation:*
- *Fact Sheet #4: Solid and Liquid Waste Management*
- *Fact Sheet #5: Harm Reduction*

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