



First Nations Health Authority
Health through wellness

ENVIRONMENTAL PUBLIC HEALTH SERVICES





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Health through wellness

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ENVIRONMENTAL PUBLIC HEALTH SERVICES

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THIS BOOKLET

This booklet provides information about First Nations Health Authority (FNHA) Environmental Public Health Services in First Nations communities in British Columbia.

ENVIRONMENTAL PUBLIC HEALTH OVERVIEW

Environmental Health addresses all the physical, chemical, and biological factors external to a person, and all related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments (WHO, 2016). Conditions in the environment, both natural and human-built, can affect a person's ability to achieve and maintain good health. A healthy environment includes safe water and food supplies, properly designed, constructed and maintained housing and community facilities, as well as suitable treatment and disposal of wastewater and solid waste. To maintain a healthy environment, it is also necessary to plan for and respond to emergencies and work to prevent and control communicable diseases.

ENVIRONMENTAL PUBLIC HEALTH IN FIRST NATIONS COMMUNITIES

FNHA Environmental Public Health Services works to identify and prevent environmental public health risks in First Nations communities that could impact the health of community members. Where public health risks are identified, recommendations are provided to reduce these risks. Through community training, education and awareness, community capacity is increased to achieve a healthy and safe environment. Environmental Public Health Services aims to reach an equivalent or better standard of environmental health as non-First Nations communities.



FIRST NATIONS HEALTH AUTHORITY
ENVIRONMENTAL PUBLIC HEALTH
COMMITMENT TO
FIRST NATIONS COMMUNITIES

■
Collaboration with First Nations communities to formulate
Environmental Public Health Services activities

■
Timely response to the environmental
public health needs of First Nations communities

■
Advocacy and expertise in environmental public health

■
Support for the development of First Nations
community capacity in environmental public health

■
Use of culturally appropriate education and promotion techniques

■
Recognition that environmental public health
is part of a holistic approach to wellness

■
Respect of First Nations cultures and acknowledging
their sacred relationship with the environment



ROLE OF ENVIRONMENTAL HEALTH OFFICERS

First Nations Health Authority (FNHA) Environmental Public Health Services are carried out by Environmental Health Officers (EHOs) who work with communities to provide advice, guidance, education, public health assessments, and recommendations to First Nations and their leadership to help them prevent and manage public health risks associated with the environment.

EHOs visit First Nations communities at-home (on-reserve) to inspect and assess environmental public health hazards and provide education and training sessions. They gather and analyze data to make recommendations on what steps can be taken to promote public health in First Nations communities. The recommendations are provided to Chief and Council, who have the responsibility of addressing and implementing the recommendations.

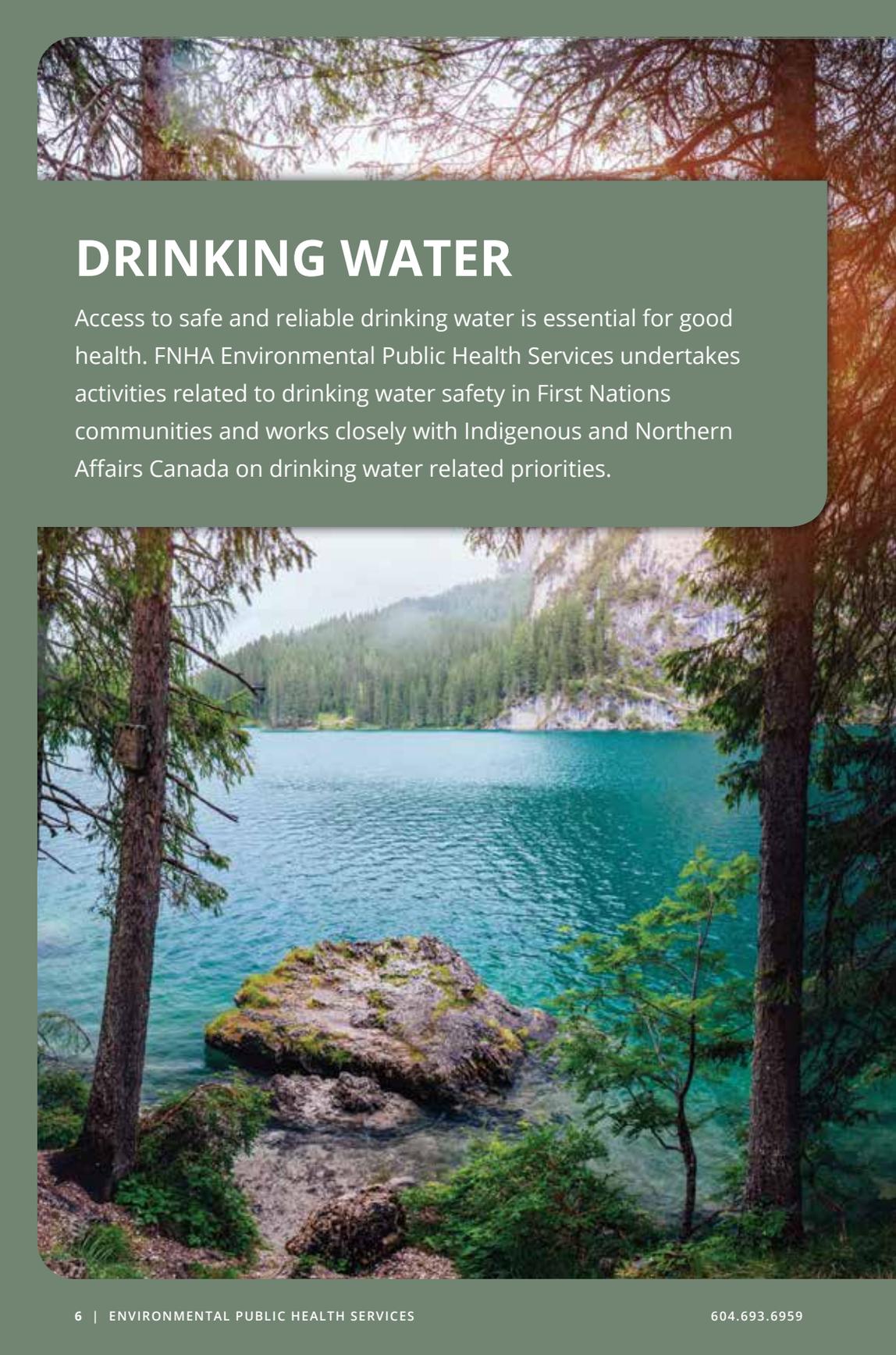
All FNHA EHOs working in First Nations communities have a Certificate in Public Health Inspection (Canada).

ENVIRONMENTAL PUBLIC HEALTH SERVICES

The following pages describe activities that may be undertaken through FNHA Environmental Public Health Services. Program activities are delivered according to the needs of communities. As such, some of the activities described in this booklet may not be delivered in every community and additional activities not mentioned here may be undertaken through FNHA Environmental Public Health Services. Activities such as inspections, training sessions and public education are provided routinely according to community health plans developed with Chief and Council, or as required, at the request of Chief and Council or their administration.

If you have any questions or comments about Environmental Public Health Services programming delivered in your community, please contact your Environmental Health Officer or the FNHA Regional Office nearest you. Visit www.fnha.ca/environmentalhealth for the latest regional contacts.





DRINKING WATER

Access to safe and reliable drinking water is essential for good health. FNHA Environmental Public Health Services undertakes activities related to drinking water safety in First Nations communities and works closely with Indigenous and Northern Affairs Canada on drinking water related priorities.

DRINKING WATER ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Monitor to verify the safety and quality of drinking water, including sampling and testing of community distribution systems, cisterns and public access wells and private drinking water supplies. This is primarily carried out by the Community Based Water Monitors, which may include Water Quality Technicians, Community Health Representatives, Water Treatment Plant Operators or other individuals selected by the Band.
- Review and interpret bacteriological, chemical, physical and radiological drinking water quality results according to the *Guidelines for Canadian Drinking Water Quality*.
- Provide advice, guidance and recommendations to First Nations communities pertaining to drinking water safety issues such as boil water advisories (BWA), do not consume advisories (DNC) or do not use (DNU) advisories.
- Investigate water systems from source to tap and investigate suspected problems with community drinking water supplies as required. FNHA works with Indigenous and Northern Affairs (INAC) to help address technical issues and drinking water advisories.
- Review plans for new or upgraded community water systems from a public health perspective.

PUBLIC EDUCATION

- Provide public education to Chiefs, Councils, and First Nations community members about safe drinking water and risk prevention.

TRAINING

- Provide training, orientation and regular refreshers to Community Based Water Quality Monitors.





FOOD SAFETY

Food safety includes the proper supply, storage, preparation and distribution of food. FNHA Environmental Public Health Services works with Chiefs, Councils, food service operators, community meal programs and community members to prevent foodborne illness in First Nations communities. Environmental Public Health Services addresses potential public health issues related to both traditional and non-traditional foods.



FOOD SAFETY ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Provide public health inspections of public food service facilities and community gatherings such as feasts, pow-wows, wellness fairs, ceremonies, music festivals, and tournaments.
- Review plans for new or upgraded food service facilities from a public health perspective.
- Provide advice, guidance and recommendations to Chiefs, Councils, owners, operators, and First Nations community members about public health issues related to food safety.
- Review food safety and sanitation plans.
- Notify community of food recalls and alerts.

PUBLIC EDUCATION

- Provide public education to community members about food safety including sources, storage, preparation and distribution of both traditional and conventional foods in food service establishments and at home.

TRAINING

- Deliver food handler training to food service personnel and volunteers at community gatherings.





HEALTH AND HOUSING

A healthy home means those community members living in that home have the physical and social conditions necessary for health, safety, hygiene and comfort. FNHA Environmental Public Health Services works with First Nations communities, its members, and other agencies to help address public health issues related to housing and health.



HEALTH AND HOUSING ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Provide public health inspections of at-home (on-reserve) housing upon request. Inspections may include evaluation of health and safety hazards including indoor air quality, contaminants, pest control, water supply, solid and liquid waste disposal, general safety, structural concerns and overcrowding.
- Review plans from a public health perspective for new housing developments and renovations.
- Provide advice, guidance and recommendations to Chief and Council, community workers and occupants related to all stages of housing: site and design, construction, occupancy and demolition.

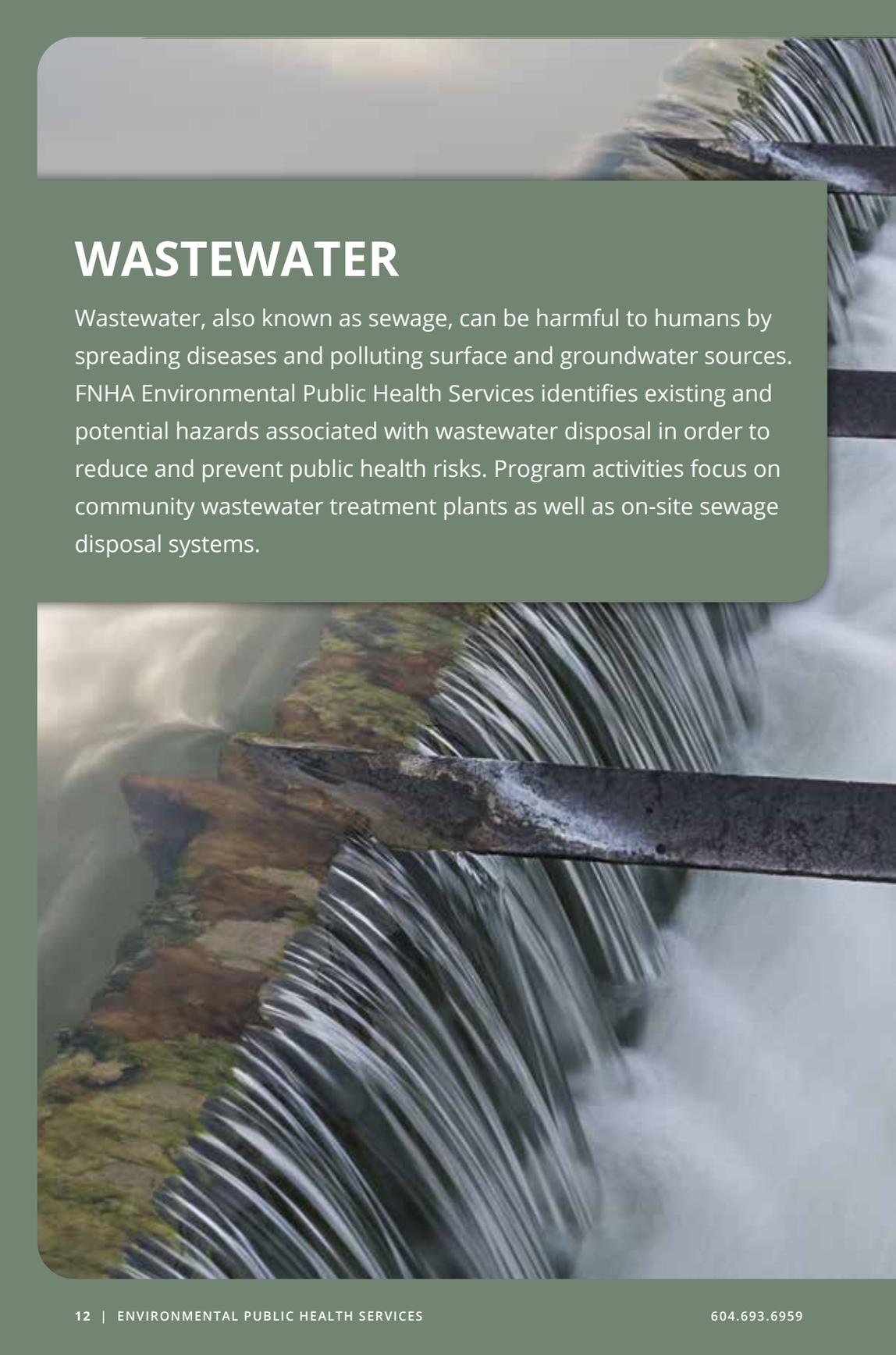
PUBLIC EDUCATION

- Provide public education to Chiefs, Councils, community workers and occupants about how to maintain a safe and healthy home.

TRAINING

- Provide training sessions upon request on public health issues related to housing.



A background image of a water treatment facility. It shows a series of concrete weirs or spillways where water is being filtered. The water is in motion, creating white foam and splashing. A dark metal pipe or structure runs horizontally across the middle of the frame. The overall scene is industrial and focused on water purification.

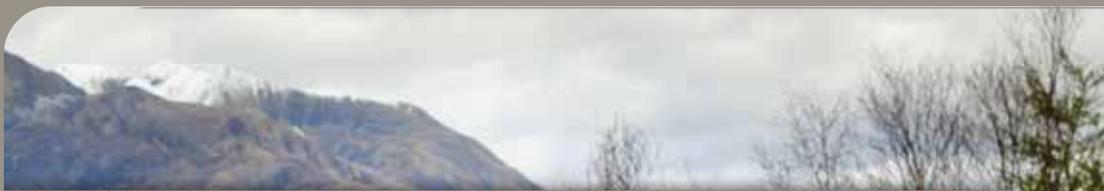
WASTEWATER

Wastewater, also known as sewage, can be harmful to humans by spreading diseases and polluting surface and groundwater sources. FNHA Environmental Public Health Services identifies existing and potential hazards associated with wastewater disposal in order to reduce and prevent public health risks. Program activities focus on community wastewater treatment plants as well as on-site sewage disposal systems.

WASTEWATER ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Review plans for new on-site sewage disposal systems and repairs from a public health perspective, where necessary.
- Provide advice, guidance and recommendations related to on-site sewage disposal systems, including information on appropriate decommissioning of sites, where necessary.
- Conduct on-site inspections for new installations and repairs of sewage disposal systems, where necessary.
- Work with, and approve the installation of septic systems installed by registered on-site Sewage Practitioners, where applicable.
- Respond to complaints by providing public health inspections of existing on-site sewage disposal systems when appropriate.
- Inspect wastewater treatment plants if there is a public health concern.
- Provide advice, guidance and recommendations related to wastewater treatment plants.
- Review plans for new and upgraded wastewater treatment plants from a public health perspective.
- Provide public education to home occupants and owners about how to properly maintain an on-site sewage disposal system and reduce risks related to sewage discharge.





SOLID WASTE DISPOSAL

Solid waste, or garbage, can be a public health hazard if it is not managed properly. Waste disposal sites can attract nuisance animals and disease-spreading pests and can leach pollutants that contaminate the air, soil and water, including drinking water supplies.

Fires at solid waste sites can cause air pollution and be harmful to those individuals with chronic diseases such as asthma. FNHA Environmental Public Health Services works with the community, site operators, and agencies such as INAC to help prevent and control public and environmental health risks posed by solid waste collection, storage, and disposal.



SOLID WASTE DISPOSAL ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Provide public health inspections of disposal sites and transfer stations.
- Evaluate the method of solid waste collection, site operation, and containment of waste; types of waste being disposed; pest control; soil conditions; groundwater conditions; and leachate analysis.
- Review plans for new or upgraded solid waste disposal sites or practices (e.g., transfer stations) from a public health perspective.
- Provide advice, guidance and recommendations to Chiefs, Councils, builders, owners, site operators, other agencies and First Nations community members about public health issues related to solid waste collection, storage, and disposal.
- Review plans and provide recommendations to Chiefs, Councils and site operators for safe decommissioning of disposal sites

PUBLIC EDUCATION

- Provide advice, guidance and recommendations on best management practices to Chiefs, Councils, builders, owners, site operators and First Nation community members about public issues related to solid waste collection, storage and disposal.
- Provide information and/or referrals related to reducing, reusing, and recycling solid waste; disposing of hazardous waste (e.g., batteries, paint, biomedical); and safe collection and storage of waste.





FACILITIES INSPECTION

FNHA Environmental Public Health Services staff work with First Nations communities, owners, operators, employees and users of facilities to help prevent the spread of communicable disease, minimize public health risks and reduce safety hazards. Facilities include health, community care, recreational and general facilities accessible to the public.



FACILITIES INSPECTION ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

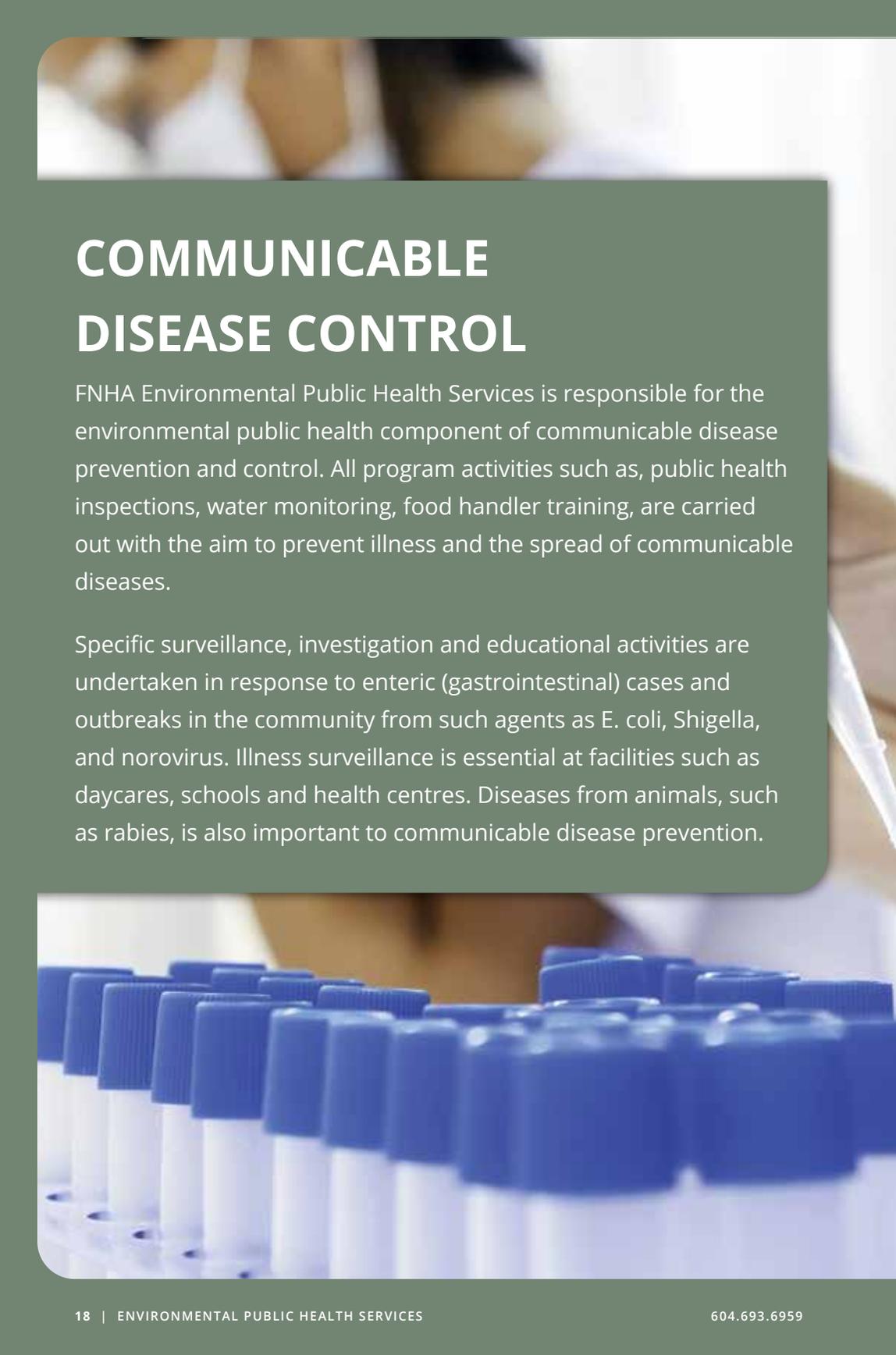
- Provide routine inspections of facilities and additional inspections. The scope of inspections includes general sanitation, general structure, safety conditions, food safety practices, water quality, sewage and solid waste disposal, pest control, crowding and air quality.

TYPES OF FACILITIES

- **HEALTH FACILITIES:** Health centres and clinics, nursing stations, hospitals and long-term care facilities.
- **COMMUNITY CARE FACILITIES:** Day-cares, Elder's centres, group homes, Headstart Centres, nursing homes, schools, youth drop-in centres, retirement homes, treatment centres and wellness centres.
- **RECREATIONAL FACILITIES:** Arenas, beaches, billiard halls, bingo halls, bowling alleys, fitness centres, campgrounds, casinos, community centres, curling rinks, golf courses, parks, and playgrounds. In addition, seasonal monitoring of recreational water facilities may be provided.
- **GENERAL FACILITIES:** Administration offices; personal service establishments (e.g. hair salons, tattoo parlours, etc.); gas station convenient stores; hotels, motels and lodges, rooming houses and bed and breakfasts; industrial sites; marinas.
- **TEMPORARY SPECIAL EVENT FACILITY:** Community Gatherings such as pow-wows, Treaty Days, traditional events, music festivals and sports competitions.
- Review plans for new or renovated facilities from a public health perspective, on request.
- Provide information on decommission/renovation hazards that could adversely impact the health of community members or workers.
- Provide advice, guidance and recommendations to Chiefs, Councils, owners, operators, employees and users of facilities pertaining to public health.

PUBLIC EDUCATION

Deliver public education and awareness sessions for Chiefs, Councils, facility operators and community members related to public health and safety issues.



COMMUNICABLE DISEASE CONTROL

FNHA Environmental Public Health Services is responsible for the environmental public health component of communicable disease prevention and control. All program activities such as, public health inspections, water monitoring, food handler training, are carried out with the aim to prevent illness and the spread of communicable diseases.

Specific surveillance, investigation and educational activities are undertaken in response to enteric (gastrointestinal) cases and outbreaks in the community from such agents as E. coli, Shigella, and norovirus. Illness surveillance is essential at facilities such as daycares, schools and health centres. Diseases from animals, such as rabies, is also important to communicable disease prevention.

COMMUNICABLE DISEASE CONTROL ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Undertake surveillance activities as required to prevent and address cases of communicable diseases.
- Work with Chiefs, Councils, and other public health staff such as Community Health Nurses, the Regional Medical Health Officer, and provincial health required to address suspected or confirmed cases of environmental health communicable diseases and prevent secondary transmission of such diseases. EHOs may aid in investigation, source identification, sampling and monitoring.
- Provide advice, guidance and recommendations to Chiefs, Councils, facility operators, staff and First Nations community members about environmental public health issues related to communicable disease prevention and control.

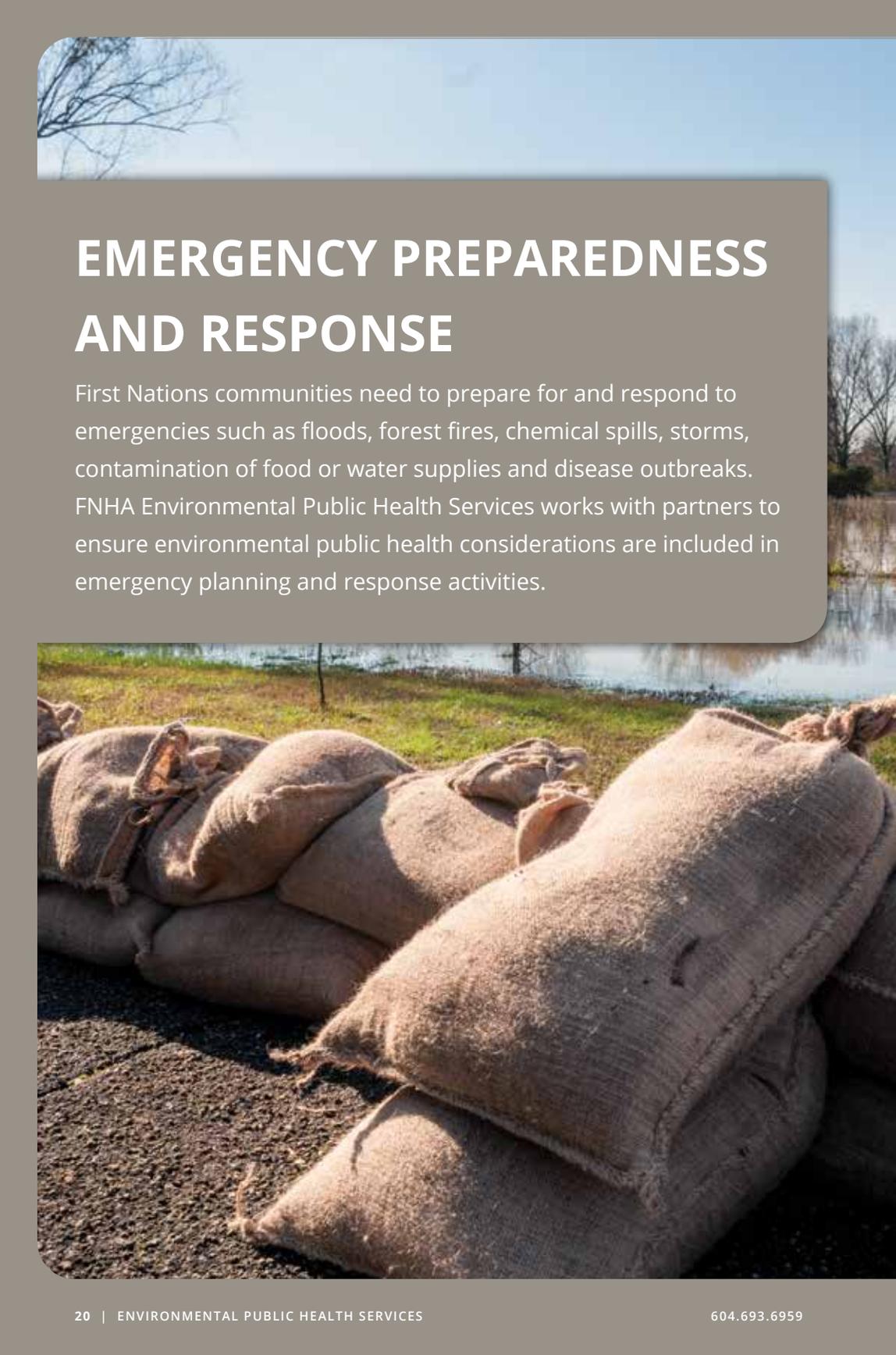
PUBLIC EDUCATION

- Provide information to Chiefs, Councils and community members to raise awareness about environmental health communicable diseases and standard practices to prevent and control such diseases.
- Provide updates to Chiefs, Councils and the wider community on the status of any outbreaks occurring in the community along with steps being taken to control the outbreak.

TRAINING

- Provide training to health staff and community members about the environmental public health component of communicable disease control. This also includes providing training and resources in outbreak management.





EMERGENCY PREPAREDNESS AND RESPONSE

First Nations communities need to prepare for and respond to emergencies such as floods, forest fires, chemical spills, storms, contamination of food or water supplies and disease outbreaks. FNHA Environmental Public Health Services works with partners to ensure environmental public health considerations are included in emergency planning and response activities.

EMERGENCY PREPAREDNESS AND RESPONSE ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Provide advice, guidance and recommendations to Chiefs, Councils and First Nations community members about environmental public health issues related to emergency preparedness and response.
- Participate in the development of First Nations' Emergency Preparedness and Response Plans.
- In the event of an emergency:
 - Assess emergency locations and advise the Emergency Response Team of how to reduce associated environmental public health risks.
 - Provide public health inspections of temporary accommodations, residential and public buildings, drinking water, food services, solid waste and wastewater disposal systems.
 - Provide food handler training, drinking water sampling, and other emergency environmental public health services.

PUBLIC EDUCATION

- Provide communities with information on environmental public health as it relates to emergency preparedness and response.



ENVIRONMENTAL CONTAMINANTS STUDIES AND RISK ASSESSMENT

First Nations communities may be exposed to many sources of naturally occurring and man-made environmental contaminants. At certain levels, exposure to contaminants in air, water, food and soil can cause or contribute to a variety of adverse health effects, such as cancer, gastrointestinal illnesses, respiratory diseases and birth defects. FNHA Environmental Public Health Services undertakes activities related to environmental contaminants and supports studies to identify, measure and prevent associated risks.



ENVIRONMENTAL CONTAMINANTS STUDIES AND RISK ASSESSMENT

- Assist Chiefs and Councils or community groups to formulate study questions in response to concerns expressed by the community.
- Assist communities to develop linkages with academic and institutions that can be partners in developing research project proposals.
- Provide advice concerning projects.

ENVIRONMENTAL PUBLIC HEALTH ASSESSMENT

- Work with Chiefs, Councils, other public health staff and community members to address suspected or confirmed public health risks associated with environmental contaminants.
- Assist communities in interpreting research results.

PUBLIC EDUCATION

- Provide public education about environmental contaminants to Chiefs, Councils and community members.



PROTECTION OF PERSONAL INFORMATION

FNHA Environmental Public Health Services may be required to collect, use, and disclose personal information for the administration, delivery and management of the program. The provincial *Personal Information Protection Act* protects the privacy of personal information, that is, any information about an identifiable individual recorded in any form, and provides an individual with a right to access their own personal information.

EHOs are responsible for the public health inspection activities of the Environmental Public Health Services, gathering the data required for both immediate action and for analysis in order to understand what steps can be taken to promote public health in First Nations communities. The information collected by FNHA Environmental Public Health Services is used only to support the provision of environmental public health programming and is protected as required by law.

This means that only those persons authorized by FNHA to review personal information for the purpose of programming needs will be able to access records. Examples of the kind of information that EHOs may require include the name, address and contact details of a First Nations community member, information about the public health conditions in a First Nations residence or the name, address and contact details of people attending Environmental Public Health Services events such as food handler training. Informed consent will be sought from individuals involved should there be a need to disclose this information outside of the FNHA.

For more information about privacy and consent, please contact your Environmental Health Officer or the FNHA Privacy Office at 1.844.364.7748 or privacy@fnha.ca.



PARTNERS

HEALTH CANADA FIRST NATIONS AND INUIT HEALTH BRANCH

www.hc-sc.gc.ca/fniah-spnia/promotion/public-publique/home-maison/index-eng.php



INDIGENOUS AND NORTHERN AFFAIRS CANADA

www.aadnc-aandc.gc.ca



CANADIAN INSTITUTE OF PUBLIC HEALTH INSPECTORS

www.ciphi.ca/home



CANADIAN MORTGAGE AND HOUSING CORPORATION

www.cmhc-schl.gc.ca/en/ab/index.cfm



BC MINISTRY OF HEALTH REGIONAL HEALTH AUTHORITIES

www.health.gov.bc.ca/socsec



BC CENTRE FOR DISEASE CONTROL

www.bccdc.ca/default.htm



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