



ENVIRONMENTAL EMERGENCY PROGRAM

2022/2023

Report to Legislature



Ministry of
Environment and
Climate Change Strategy

The Environmental Emergency Program team members acknowledge with respect and gratitude the Indigenous communities and Nations on whose territories we conduct our work.

Acronyms used in this report

ARE	<i>Atmospheric River Event</i>
BCER	<i>British Columbia Energy Regulator</i>
CCG	<i>Canadian Coast Guard</i>
CCME	<i>Canadian Council of Ministers of the Environment</i>
CR23	<i>Exercise Coastal Response 2023</i>
DFO	<i>Fisheries and Oceans Canada</i>
DGIR	<i>Dangerous Goods Incident Report</i>
DOC	<i>Department Operations Centre</i>
ECC	<i>Emergency Coordination Centre</i>
EEP	<i>Environmental Emergency Program</i>
EERO	<i>Environmental Emergency Response Officer</i>
EMA	<i>Environmental Management Act</i>
EMCR	<i>B.C. Ministry of Emergency Management and Climate Readiness</i>
ENV	<i>B.C. Ministry of Environment and Climate Change Strategy</i>
FDMS	<i>Flood Debris Management Secretariat</i>
GVIRP	<i>Greater Vancouver Integrated Response Plan</i>
JCP	<i>Canada - US Joint Contingency Plan</i>
NSB	<i>Northern Shelf Bioregion</i>
O&G	<i>Oil and Gas</i>
RFA	<i>Reconciliation Framework Agreement</i>

Executive Summary

B.C.'s Environmental Emergency Program (EEP) leads the Province's response to hazardous material spills and other environmental emergencies. This report describes the program's activities from April 1, 2022, to March 31, 2023.

EEP received 4,889 reports of spills and other environmental emergencies in the reporting period. Of these, two were high-risk spills that either caused, or had the potential to cause, significant damage to human health or the environment.

- + 1,725 spills, the most of any region, were reported in the Lower Mainland
- + Almost 37 percent of spills involved flammable liquids, which were mainly hydrocarbons such as diesel, gasoline, and other fuels.
- + Over 43 percent of spills resulted from equipment failure.

Monitoring a responsible person's compliance with regulatory requirements is a key responsibility of EEP. A key tenet of the regulatory regime in B.C. is the polluter-pay principle. As defined in the *Environmental Management Act* (EMA) section 91.1, the person deemed responsible for a spill is the responsible person, and as such, must ensure all actions to address a threat or hazard caused by the spill are taken.



Message from the Assistant Deputy Minister

Laurel Nash has been the Assistant Deputy Minister of the Environmental Protection Division, Ministry of Environment and Climate Change Strategy for the past 5 years. She has been in the provincial government for 33 years, previously holding leadership positions in Indigenous Relations and Reconciliation, Energy and Mines and B.C. Parks.

There have been tremendous accomplishments in the Environmental Emergency Program this past year. The preparedness, response, and recovery teams never fail to impress with their ability to integrate sensitivity, proficiency, and time management into the work they do. Their continued professionalism and responsiveness do not go unnoticed.

The environment and people are very connected – it is not just about the initial response, but also the continued healing of the people and lands. When affected communities are approached, it is done with compassion, and with a genuine desire to help; something that is incredibly special about our team.

Recovery is a critical piece of the work we do. The recovery team is growing, and consequently their capacity to assist in restoration of spill sites will be enhanced.

During the reporting period, the program received the second most spill reports on record; however, with the assistance from the preparedness and recovery teams, I am hopeful that the number of spills will continue to decrease. In the future, I am optimistic that there will be further implementation of mitigation actions to assist with the reduction of spill events.

This program is committed to working towards connection, reconciliation, and equity. The team and its partners have launched a pilot application to notify First Nations of spill incidents within their territories and will continue to onboard interested First Nations.

The 2021 Atmospheric River Event resulted in severe impacts to human health and safety from human-made and woody debris, as well as sediment in river systems. Until summer 2022, the program led the response to flood debris which included damage assessments, removing debris and sediment from watercourses, leading extensive engagement, and managing water quality monitoring and waste management projects. During this time, program staff displayed a commitment to consulting and engaging with affected communities, as well as maintaining transparency throughout the response and recovery phases. The response and recovery framework established by the program was adopted by the Flood Debris Management Secretariat in December 2022.

I am proud of the critical work led by this program and pleased to share the Environmental Emergency Program's fifth Report to Legislature, which describes the program's work for the period April 1, 2022, to March 31, 2023.

LAUREL NASH, Assistant Deputy Minister

Environmental Protection Division
B.C. Ministry of Environment & Climate Change Strategy



Message from the A/Executive Director

Rod Allen's career spans three decades with the B.C. provincial government, including Manager of Response and then Director of the Environmental Emergency Program. Prior

to his roles with the program, Rod worked at Emergency Management and Climate Readiness and the B.C. Wildfire Service.

The Environmental Emergency Program is focused on enhancing its readiness for spills, response capabilities, and recovery strategies to fulfill its mission, and I can highlight the following noteworthy achievements during the reporting period:

- ▶ Created in the summer of 2022, the Flood Debris Management Secretariat (the Secretariat), has played a pivotal role in the aftermath of the Atmospheric River Event that took place in November 2021. The Secretariat is responsible for the management of various types of debris and sediment sites, among other responsibilities. The Secretariat has collaborated with affected Indigenous communities and local governments, as well as federal and provincial agencies to address the impacts of the Atmospheric River Event in B.C.'s watercourses. The primary goal of this work is to protect human health and safety, as well as critical infrastructure in watercourses and the target date for completion of this work is 2025.
- ▶ The program's Indigenous Reconciliation Strategy is another crucial project for our staff. Of note is the work with federal partners and Indigenous Nations in the Northern Shelf Bioregion. This work provides a great opportunity to be involved in the development of collaborative response and recovery plans and to have our team work directly with Indigenous Nations at the sub-regional level.

- ▶ To improve the timeliness and accuracy of information sharing, the program is developing an automated system for the province to notify First Nations of spill incidents. The new system, which is a web-based application, delivers accurate and timely notification of spill incidents within a First Nation's area of interest. The program and 12 Coastal First Nations are co-developing and testing the functionality of this application. While the application is currently in its pilot phase, an additional 20 First Nations have expressed interest in using this application. In addition to meeting the functional needs of First Nations, it delivers on commitments made in the program's Indigenous Reconciliation Strategy.

I would like to thank our team members across the province for their commitment and readiness to protect the environment from environmental emergencies. I would also like to acknowledge our provincial government colleagues, Indigenous, federal, and municipal partners, members of the public, and other partners who have provided invaluable knowledge on various initiatives and spills across the province.

Although it would be ideal if no environmental emergencies or disasters were to occur in the upcoming reporting period, our team remains prepared to plan for, coordinate, and manage incidents to protect the welfare of the public and our environment.

ROD ALLEN, A/Executive Director

Environmental Emergency Program
B.C. Ministry of Environment & Climate Change Strategy



Mandate & Overview

Quick, effective action helps to prevent harm and protect the environment when an emergency occurs. The *Ministry of Environment Act* delegates authority to the B.C. Ministry of Environment and Climate Change Strategy (ENV) to act as the provincial lead in planning for, coordinating, implementing, and managing a program to protect the welfare of the public and environment in the event of an environmental emergency or disaster.

To deliver on ENV's mandate, EEP carries out a wide range of activities:

- + Prepare for and respond to oil spills, chemical spills, and spills of any substance that could affect or harm the natural environment.
- + Provide environmental emergency response officers (EEROs) to assess conditions and oversee the response when an incident occurs.
- + Provide scientific advice and site support during an incident.
- + Oversee and regulate environmental recovery following a spill.
- + Work with partner agencies to effectively coordinate the roles and responsibilities of all responders during an incident.
- + Develop regulations, policies, procedures, plans, operational guidelines, cooperative agreements, and technical documents to ensure effective, coordinated action during an environmental emergency.

► *EEP is the lead provincial regulator for spills; however, it is up to the responsible person to take reasonable steps to contain the spill and to address any damage done to the environment.*



EEP STAFF

The Legislation

The *Ministry of Environment Act* says:

4. (2) ... the purposes and functions of the ministry include the following:

- (i) to plan for, coordinate, implement and manage a **program to protect the welfare of the public in the event of an environmental emergency or disaster.**

Emergency Program Act

2. (2) The Provincial Emergency Program is responsible for carrying out the powers and duties vested in it under this Act or by the minister.

The Act defines a “**disaster**” as a calamity that:

- (a) is caused by accident, fire, explosion or technical failure or by the forces of nature, and
- (b) has resulted in serious harm to the health, safety or welfare of people, or in widespread damage to property.

It defines an “**emergency**” as a present or imminent event or circumstance that:

- (a) is caused by accident, fire, explosion, technical failure or the forces of nature, and
- (b) requires prompt coordination of action or special regulation of persons or property to protect the health, safety or welfare of a person or to limit damage to property.

ENV is delegated under the **Emergency Program Management Regulation** as the lead provincial agency for hazardous material spills and harmful substances.

The *Environmental Management Act* (EMA) says “**environment**” means air, land, water and all other external conditions or influences under which humans, animals and plants live or are developed.

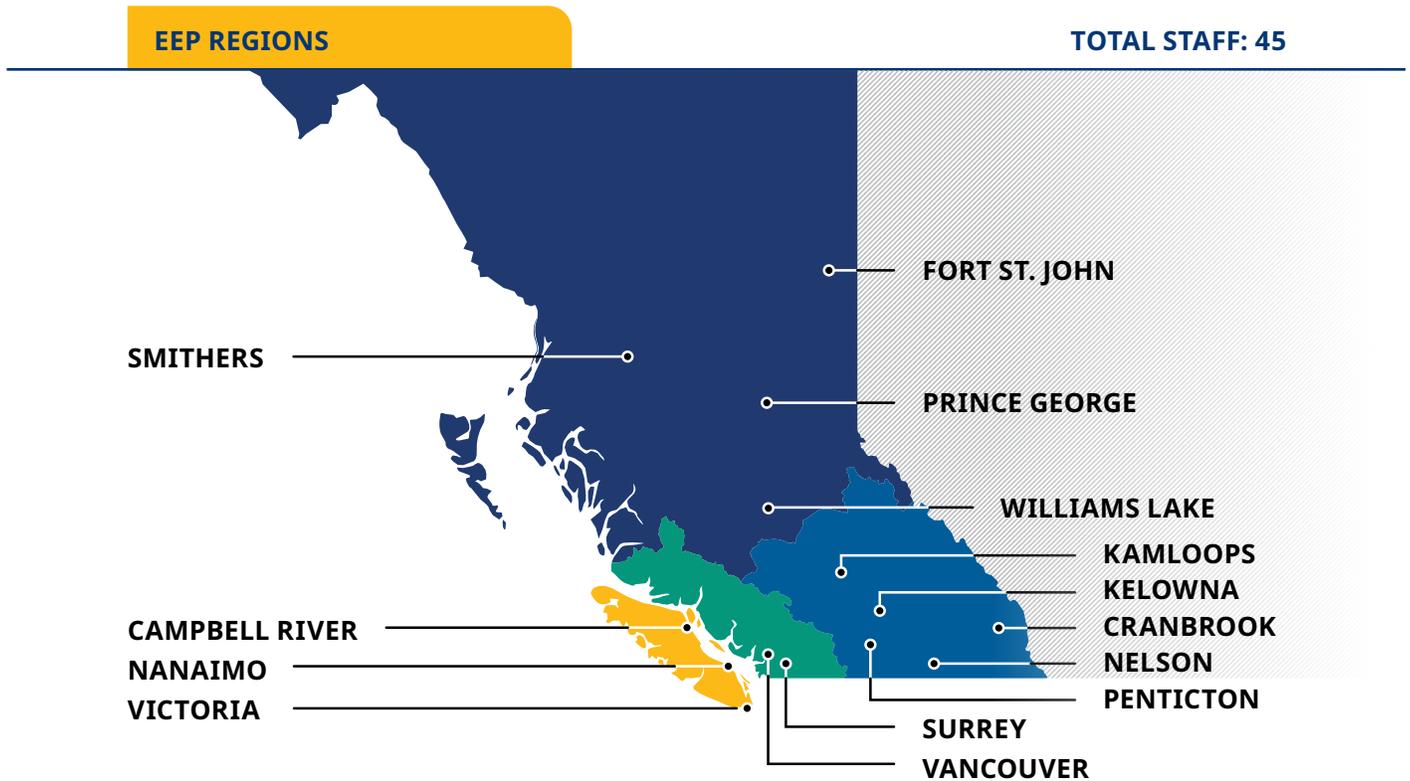
EMA sets out requirements for spill preparedness, response and recovery in the:

- ▶ Spill Preparedness, Response and Recovery Regulation
- ▶ Spill Contingency Planning Regulation
- ▶ Spill Reporting Regulation

EMA also ensures the proper disposal of hazardous wastes and pollutants and supports the **polluter-pay principle** – those who create pollution should bear the costs for the damage done to the natural environment. In this respect, the province can recover expenses for spill response actions taken by the province during a spill response.

EEP Team

EEP currently consists of 45 staff who carry out activities to protect the environment. Team members are strategically located in 14 communities throughout B.C.



EEP Activities

Program activities get grouped into three categories that focus on distinct phases of emergency management:

Preparedness

Before an incident

Response

During an incident

Recovery

During and following an incident

Preparedness

Preparedness is the process of developing the capacity and capability to respond effectively when an emergency occurs. The key to preparedness is building on best practices and lessons learned from previous incidents, both in B.C. and other parts of the world.

This preparation encompasses a range of high-level and on-the-ground activities:

- + Planning for catastrophic events to ensure that essential services continue.
- + Developing legislation and regulations to ensure those transporting hazardous materials are better prepared to respond to a spill and to hold responsible persons more accountable when spills occur.
- + Advising other agencies about existing and anticipated legislation, regulations, and EEP's mandate.
- + Collaborating on external, inter-governmental, and Indigenous initiatives.
- + Developing systems to manage information effectively and share it with other emergency responders in critical situations.
- + Developing internal policy to direct our actions.
- + Preparing guidance materials for spillers and regulated persons.
- + Conducting team member training and participating in exercises, internally and externally, with partners.

Regulations in Development

In 2018, the Province announced that it would develop additional regulations to support Division 2.1 of EMA to strengthen spill preparedness, response, and recovery in B.C. The program is currently developing regulations to ensure a timely response from regulated persons following a spill and to require transporters of hazardous materials to develop plans that consider the unique characteristics of specific sensitive areas.

EEP is currently awaiting the decision of a jurisdictional appeal process that will inform whether and how our proposed regulations may require amendment(s) to align with court decisions regarding provincial and federal jurisdictions. If amendments are required, we will ensure that any jurisdictional gaps are filled. The hearings will occur in the summer of 2023.

Compliance and Enforcement

EEP continues to execute its compliance and enforcement strategy, which came into effect in 2020. During the reporting period, our team:

- + Conducted six office-review inspections, resulting in four advisories and two warnings.
- + Finalized our Compliance & Enforcement Procedures for Response.
- + Finalized our Compliance Verification Policy and Procedures for Spill Reporting and Response.

OIL SPILL TASK FORCE

The Pacific States/ British Columbia Oil Spill Task Force Annual Meeting

On November 2, 2022, ENV Assistant Deputy Minister Laurel Nash and key EEP staff attended the 33rd Annual Meeting of the Pacific States/British Columbia Oil Spill Task Force. The meeting was held virtually with 268 participants, providing an opportunity for Task Force members to share updates on current issues and topics of interest around spill prevention, preparedness, response, and recovery.

This year, presentations included Task Force Executive Members jurisdictional updates, Critical Incident Stress Management and Community-based prevention, preparedness and response. Four case studies were also discussed: the sinking of the Aleutian Isle (vessel); the Orange County crude oil spill; the Medford (Oregon) gas depot fire; and the National Oceanic and Atmospheric Administration's international responses.

- ▶ More information on the Task Force, including video recordings of the Annual Meeting, can be viewed at oilspilltaskforce.org.

Department Operations Centre

EEP's Department Operations Centre's (DOC) primary roles are to support site-level response actions and provide situational awareness and information to support ministry executive decision-making. EEP has the opportunity to activate face-to-face in Victoria or virtually.

DOC activities:

- + Assisting with notifications and leading coordination calls.
- + Providing logistical support to EEP team members at the incident site.
- + Activating and deploying natural resource sector subject matter experts.
- + Providing technical advice, research, and policy guidance during a spill.
- + Liaising and coordinating information with other programs, agencies, and the media.
- + Coordinating staff deployments, including travel and accommodation.
- + Providing incident updates to program management and ministry executive.
- + Recovering costs and managing documents.

During this reporting period, the DOC was activated for the catastrophic Atmospheric River Event from April to September 2022, when the Flood Debris Management Secretariat was operational, and a pollution event impacting the Capilano River in March 2023.

EEP reviews past incidents, after-action reports, policies, and training plans to ensure the DOC is prepared to support on-site operations effectively. Training for DOC roles and site deployment is ongoing and will continue to be enhanced over the coming years.

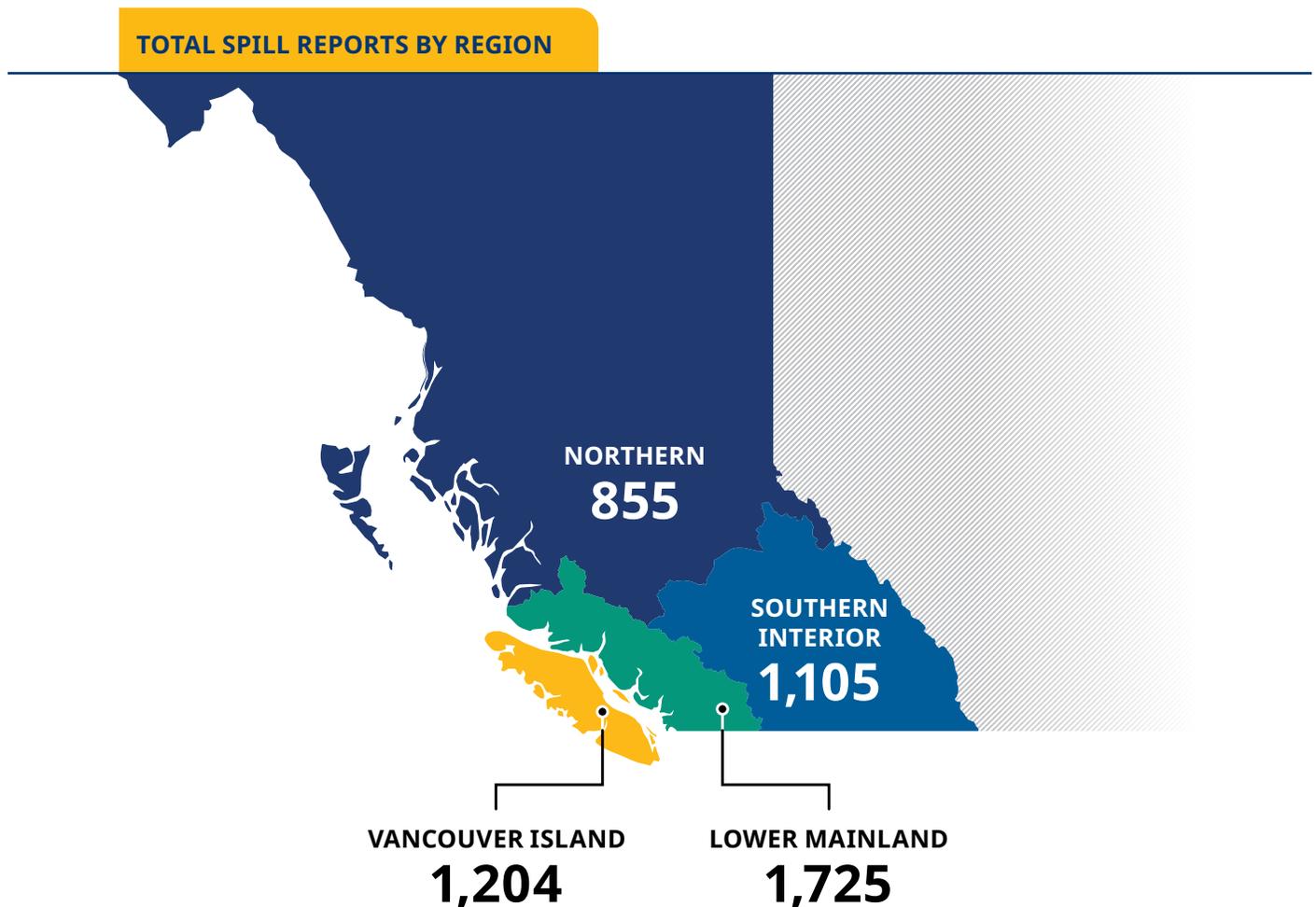
Spill Reports Across B.C.

EEP received over 4,800 reports of spills and other environmental emergencies in the April 1, 2022, to March 31, 2023, reporting period. After receiving a report, an EERO conducts initial risk assessments to determine whether a field response is required. Deployment is confirmed by using professional judgment, conversations with the EEP Duty Manager, and other information obtained in the early hours of a spill. The program responded to nearly half of these reports, either with site visits or follow-up communications. Some reports involved multiple substances. In the statistics below, each substance is counted as a separate spill.

Risk Ranking

Each reported spill is assessed for public threats, environmental sensitivities, incident status, estimated response times, and response capability of the spiller. Based on these factors, a reported spill is given one of the following risk rankings:

- + **Low Risk** – no field response is required
- + **Intermediate Risk** – field response is considered
- + **High Risk** – field response is generally required

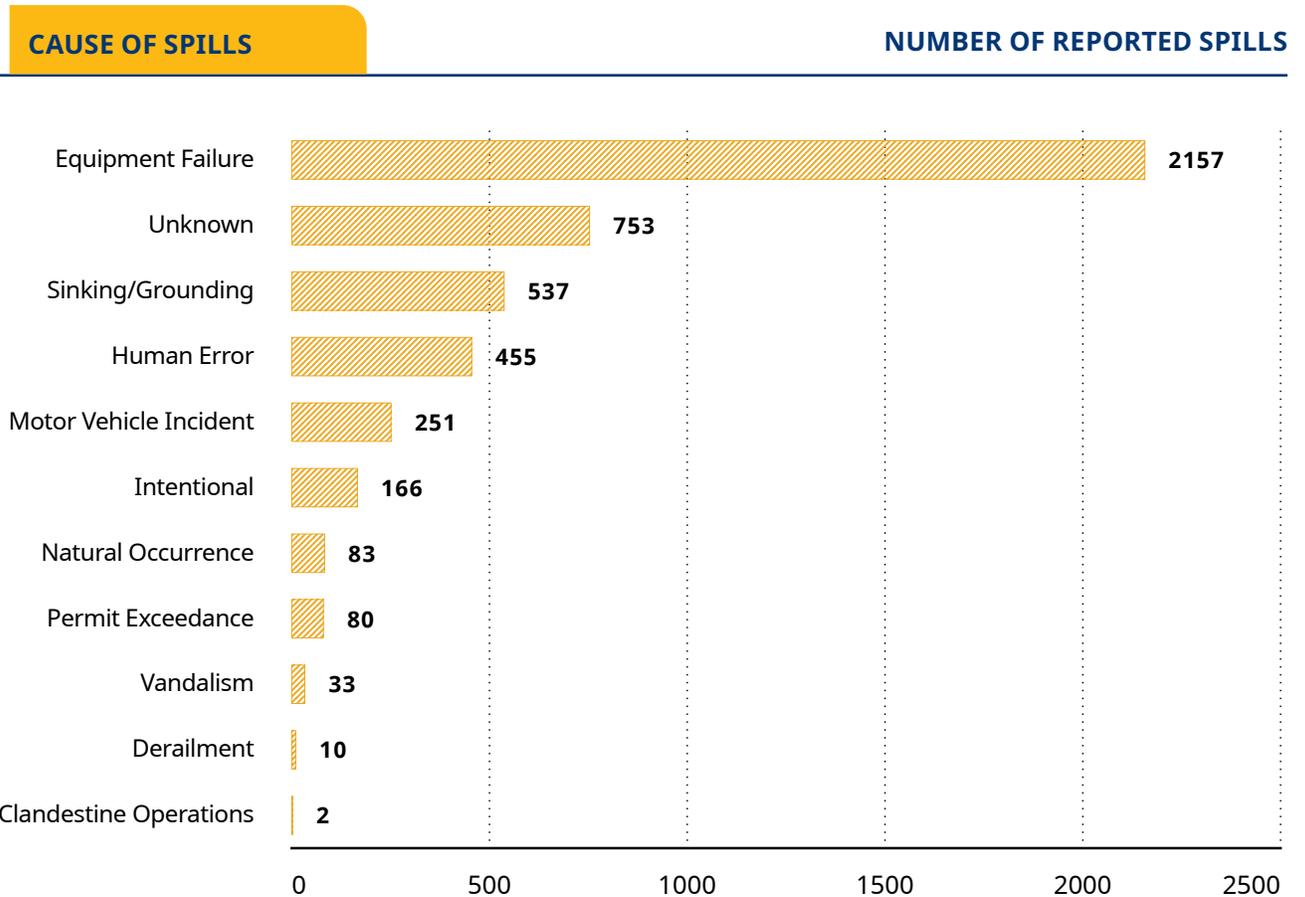




Analysis of Spill Reports

Spills are reported to Emergency Management and Climate Readiness' (EMCR's) Emergency Coordination Centre (ECC) via a 24-hour spill reporting number. The ECC generates a Dangerous Goods Incident Report (DGIR) and passes the DGIR on to an EERO.

The following tables summarize key data from Apr 1, 2022 to Mar 31, 2023.



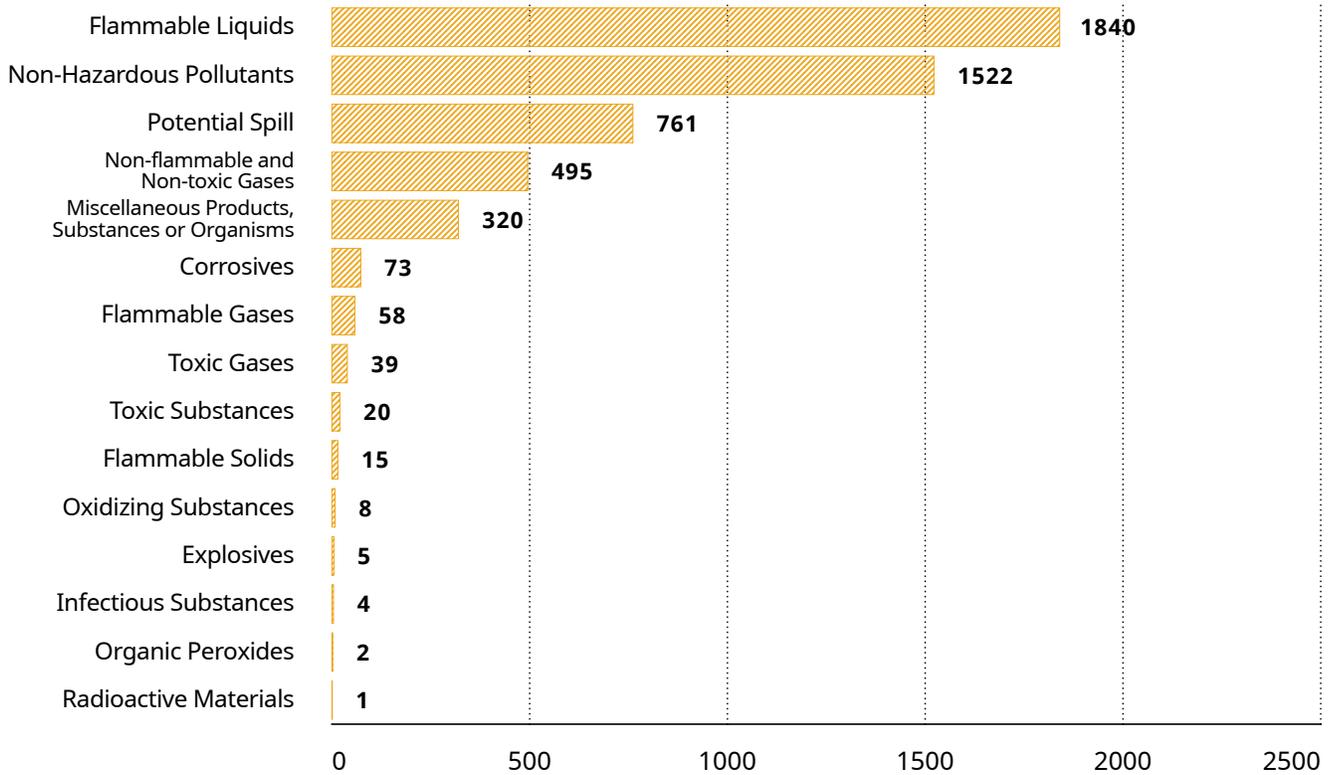
Equipment failure caused the most spills — 43 percent of the total. An example of equipment failure is the rupturing of lines or radiators on the property of the responsible person.

Spills are listed as unknown when it is not possible to identify the source of the spill or the responsible person. Examples of unknown spills may include petrochemical and organic sheens, illegal dumping sites or releases of substances that cannot be identified. Unknown sources represent 15 percent of reported spills.

Spills are commonly categorized as a natural occurrence when organisms in the environment produce substances that have a similar appearance to chemical spills (e.g., algae blooms) or high streamflow events that mobilize hazardous materials from riverbanks. Spills reported as natural occurrences account for two percent of the total.

MATERIALS SPILLED

NUMBER OF REPORTED SPILLS



Flammable liquids such as gasoline, diesel, and heating fuel are the most common substances spilled, as they are widely used for transportation, heating, and machinery.

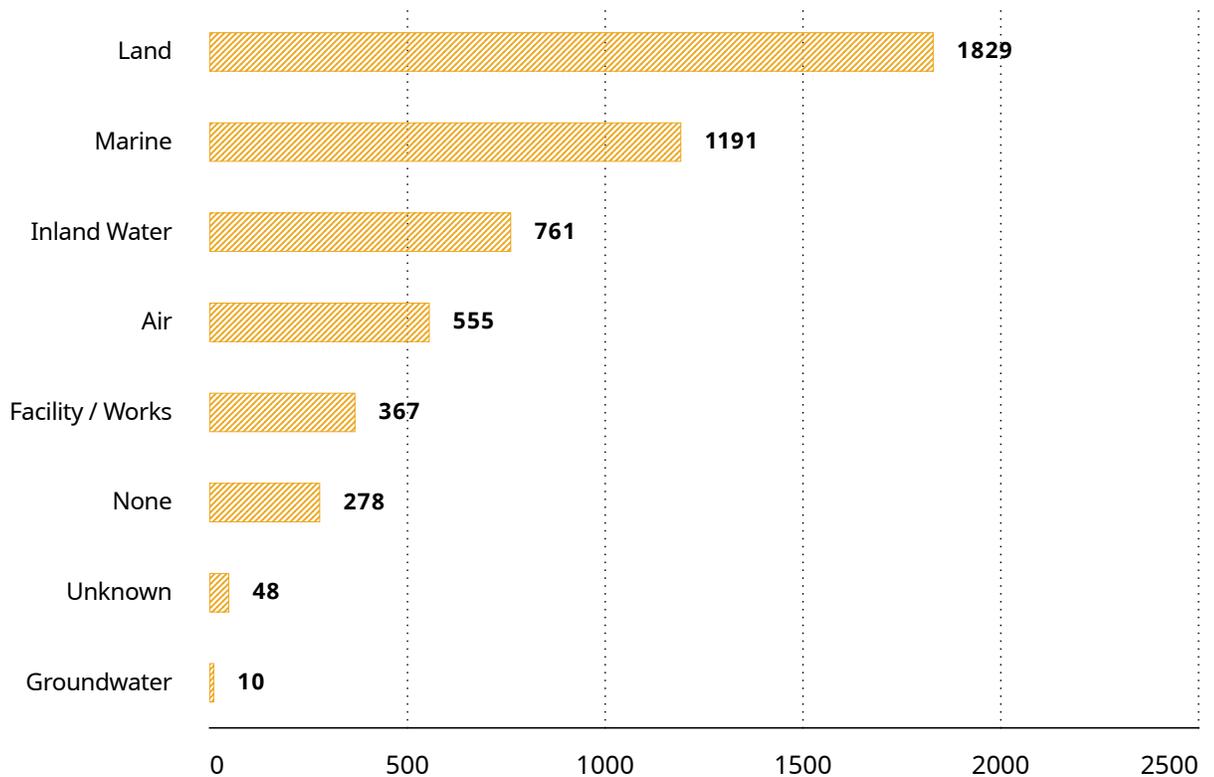
Non-hazardous pollutants are materials that are not immediately dangerous to health or life but can still have an adverse impact on the public or environment. For example, a large release of chlorinated drinking water into a stream can cause harm to sensitive aquatic invertebrates and fish species.

Materials are listed as miscellaneous when they cannot be easily categorized into one hazard or another, often because they are a combination of products.

Potential spills represent situations where there is a known pollution threat, such as a vehicle rollover, and it was reported via a DGIR; however, once the site was assessed, it was determined no substances were spilled.

ENVIRONMENTS IMPACTED BY SPILLS

NUMBER OF REPORTED SPILLS



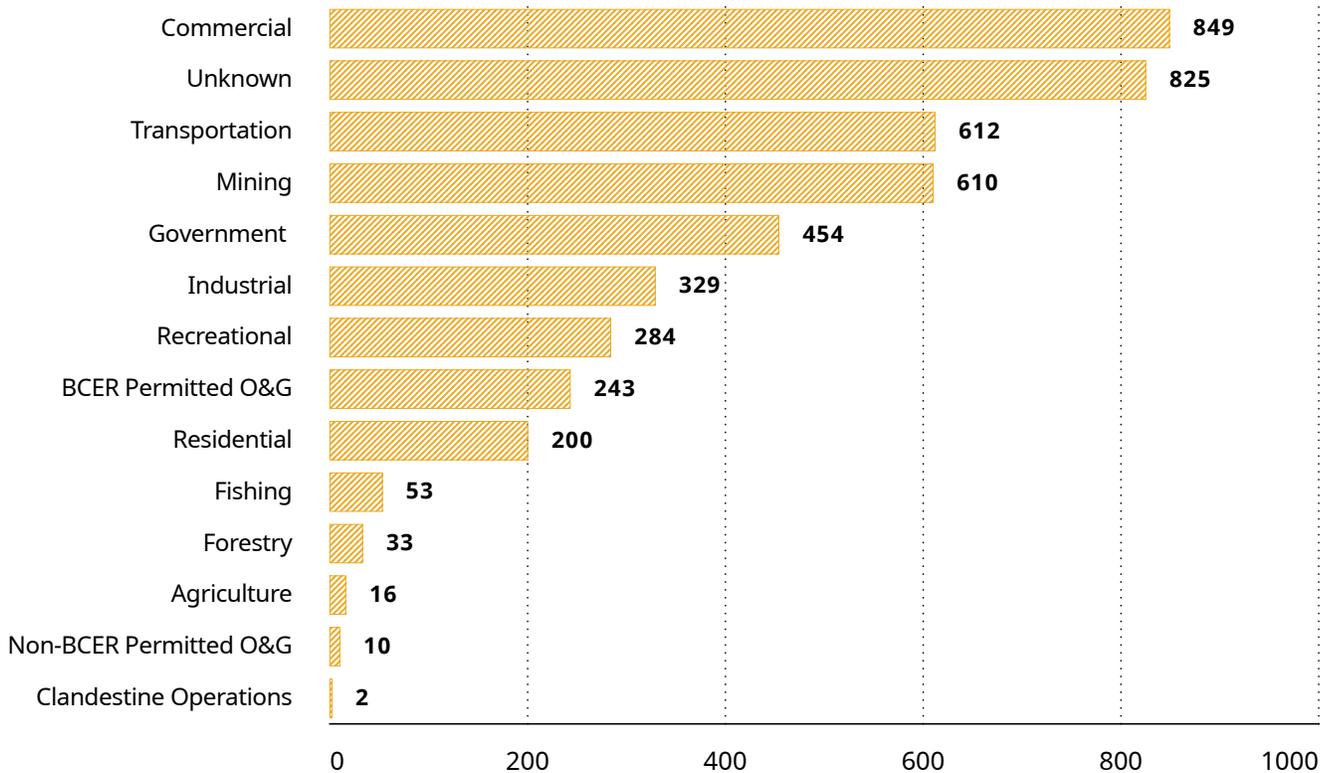
Reported spills occurred in many different environments, reflecting B.C.'s diverse geography and extensive transportation corridors.

Most releases to the air result from equipment failure in refrigerant systems. Refrigerant gases tend to be non-toxic, non-flammable and dissipate quickly; however, many refrigerant gases are ozone-depleting substances.

Though spills impacting groundwater are uncommon, groundwater is one of B.C.'s most valuable and vulnerable resources. Impacts on groundwater can have far-reaching and prolonged impacts on drinking water supplies and agricultural users.

SPILLS BY SECTOR

NUMBER OF REPORTED SPILLS



Reported spills are categorized into one of 14 sectors. The commercial, transportation and mining sectors are significant, generally because they are the largest users of petroleum products. The oil and gas (O&G) sector only includes companies that extract raw petroleum products or transport petroleum to refineries.

The government sector involves drinking water and wastewater treatment facilities, fire-fighting water runoff, and other government-controlled processes.

If the cause of a spill is not known, it cannot be attributed to a specific sector. Unknown spills represent 16 percent of the total.

Response

EEP's Response Section is made up of EEROs, senior EEROs, section heads, a training officer, and a logistics officer. The section's main focus is to protect the environment and the public by effectively managing hazardous material spills and environmental emergency responses. This is achieved through the administration and enforcement of EMA and supporting regulations, including the Spill Preparedness, Response and Recovery Regulation, the Spill Contingency Planning Regulation, and the Spill Reporting Regulation.

Additional section activities and actions:

- + Ensuring response readiness, conducting day-to-day response operations and spill response.
- + Developing provincial response policy and procedures.
- + Conducting community outreach and public information related to spills.
- + Providing leadership in spill response training and participating in spill exercises.
- + Managing EEP logistics and training.
- + Providing support to the DOC and EMCR's Provincial Regional Emergency Operations Centers.

▶ *The provincial government is prepared to take over an incident should the responsible person (the spiller) be unknown or unable to fulfill the response obligations set out in section 91.2 of EMA.*

Responding to Diverse Environmental Emergencies

Every year, EEP receives thousands of calls about environmental emergencies in B.C., and every incident is unique. The type of product spilled, the receiving environment, and the communities impacted all influence the way EEP responds to an incident. The selected incidents on the next pages illustrate the diversity and complexity of environmental emergencies across B.C.



Bridge washout caused by the 2021 Atmospheric River Event - Southern Interior

EMERGENCY INCIDENT #1



**REGION**

Northern

DATE

August 2022

Tanker Truck Incident on Alaska Highway

On August 25, 2022, a transport truck carrying 40,000L of highly flammable condensate was involved in a single motor vehicle incident on the Alaska Highway (Highway 97) in the Sikanni Chief area.

The incident resulted in a spill and fire that caused structural damage to the Sikanni Chief Bridge and impacted the Sikanni River. The fire also damaged communication infrastructure which resulted in the loss of internet and landlines as far north as the Yukon. The highway, an essential travel corridor connecting Fort Nelson and other northern communities to the rest of the province, was shut down for numerous days.

Due to the chemical hazard and environmental sensitivity of the area, EEP deployed an EERO to assess the site, ensure clean-up efforts were ongoing, and provide a coordination role in incident management. Part of the complexity of the incident was due to the spill occurring on a section of the Alaska Highway managed by the Federal government. Thus, sampling and remediation requirements differed on and off the highway right-of-way. EEP acted as the primary provincial government representative for the incident and liaised with other agencies to ensure the responsible person established appropriate response and recovery objectives.

The highway was not fully reopened to traffic for almost two months due to bridge weight restrictions, and the incident attracted considerable media attention.



Tanker truck fire that damaged the Sikanni Chief Bridge and surrounding environment.

EMERGENCY INCIDENT #2



**REGION**

Vancouver Island

DATE

November 2022

Tractor Trailer Incident on Parksville Highway

On November 24, 2022, a tractor-trailer unit transporting 60,000 lbs of hydrogen peroxide was involved in a vehicular accident on Highway 19A, south of Parksville. The tanker ignited as the hydrogen peroxide reacted aggressively with roadside grass.

Given the potential threat to public safety, stabilization requirements at the scene, potential impacts to local groundwater and the need to transfer the remaining material into a separate tanker truck, EEP dispatched an EERO to supervise and monitor site operations. This operation involved close coordination with several partner organizations, including fire departments, RCMP, Commercial Vehicle Safety Enforcement, BC Ambulance Service, and local authorities. EEP had an EERO stationed on-site for two days until the damaged tanker was successfully emptied.

EEP Recovery Section was engaged after the emergency phase of the incident to review soil sampling results and evaluate environmental impacts with the responsible person.

The incident led to a two-day closure of the highway and attracted significant media attention.



Fire fighters stabilizing and accessing the tractor trailer.

EMERGENCY INCIDENT #3

**REGIONS**

Lower Mainland,
Southern Interior

DATE

November 2021

Atmospheric River Event

In November 2021, an Atmospheric River Event (ARE) caused extreme rainfall, flooding, and landslides that impacted 62 First Nations and local authorities in southern and south-central British Columbia. Waterways picked up woody and human-made debris (construction machinery, bridges, vehicles, houses, culverts, sea cans, steel tanks etc.). Substantial sediment movement and deposition also caused extensive damage and changes to river systems.

As the lead provincial agency for flood debris management, ENV identified, prioritized, and addressed debris and sediment sites to reduce or eliminate risks to public safety and infrastructure.

Initially, ENV coordinated its response through its DOC. However, the scale and complexity of the ARE debris management work required a team of full-time dedicated staff to be engaged with operations, project management, communications, and financial management expertise. In the summer of 2022, a new governance structure, a Flood Debris Management Secretariat (FDMS), was created on a temporary basis to ensure accountability, efficiency, and engagement of all appropriate ministries, local authorities, and communities in the management of:

- + Woody and human-made debris
- + Sediment sites
- + Safeguarding critical structures threatened by watercourses
- + Flood impact monitoring
- + Community and rights and title holders' outreach

The FDMS has adopted a strong consultative approach with all operations to ensure public and community endorsement of activities. Indigenous communities are directly engaged and, in some instances, trained and employed to conduct debris works in their territories. Consultations with federal and provincial agencies were conducted to optimize cost recovery from the Disaster Financial Assistance Arrangement program and to ensure all regulatory requirements were met.

From the start of ENV's involvement through to March 31, 2023, the following progress has been achieved:

- + Of the 454 woody and human-made debris sites, 445 have been addressed, with the remaining nine sites to be addressed in the summer of 2023.
- + Of the 131 sediment sites, 114 have been assessed. 17 site assessments are ongoing.
 - ▶ Following site assessments, 33 sites were approved for funding to complete emergency works and 73 sites were deemed out of scope for emergency works. An additional eight sites are being reviewed.
 - ▶ Recovery works focused on building back to current codes and standards have been approved for 20 sites.

The FDMS anticipates completing its work by March 31, 2025.



Woody debris accumulation following the ARE.

Informing the Public

EEP provides the public with information on provincially significant spill incidents through a spill incidents webpage: <https://www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies/spill-incidents>.

► EEP also maintains a Twitter account for public awareness around spill incidents [@SpillsInfoBC](https://twitter.com/SpillsInfoBC).

Providing real-time information on evolving incidents on our website and social media account helps build public trust while reducing the spread of misinformation. This is vital, particularly when incidents result in casualties and attract media attention. The spill incidents webpage and Twitter account also inform the public on how to report a spill which leads to timely environmental response and recovery efforts.



Technical Training and Equipment

All EEP staff receive comprehensive training for their personal safety, to protect the public, and to mitigate environmental impacts. Training includes classroom, tactical, mentoring/shadowing and participation in spill simulation exercises.

Due to the potential exposure to hazardous materials associated with motor vehicle or vessel incidents, pipeline leaks, train derailments, and industrial operations, EEROs undertake extensive training – approximately 120 hours of technical training with an additional 160 hours of safety training before taking field calls. This level of training prepares EEROs to respond safely 24 hours a day in all weather conditions and geographical locations, including marine, river, lake, and mountain environments.

Collaborative Exercises

As a key partner in hazardous spill response and recovery, EEP staff are regularly invited to attend a variety of spill exercises across the province and in other jurisdictions. Exercises are hosted by industry, Indigenous communities, response organizations, local government, and other provincial and federal agencies. Participation provides an opportunity to train with entities that commonly interact during an incident and allows for the testing of crucial response components like notification processes and the validation of response plans.

Exercises are also integral for clarifying agency roles and responsibilities, identifying gaps in resources and training, identifying areas for improvement, testing business continuity plans, and improving individual and organizational performance through practice.

During the reporting period, EEP participated in thirteen external exercises hosted by:

- + Trans Mountain
- + Shell
- + Suncor Energy
- + Parkland Refining Ltd.
- + Canadian National Railway
- + Canadian Pacific Railway
- + BNSF Railway
- + Canadian Coast Guard (CCG)
- + CCG and T'Sou-ke First Nation
- + Western Canada Marine Response Corporation
- + Kruger (Pulp Mill)
- + Capital Regional District
- + EMCR

Exercise Coastal Response 2023

In February 2023, EEP participated in Exercise Coastal Response 2023 (CR23) – an exercise that focused on practicing the ability of responsible agencies in Canada to provide a coordinated response to a major earthquake off the southern coast of B.C. EEP played an active role, with 20 staff participating in the exercise. EEP tested our designated Catastrophic Response Actions and was responsible for establishing and leading the Environmental Branch at EMCR's Provincial Emergency Coordination Centre. Staff were also deployed to EMCR's Southwest Provincial Regional Emergency Operations Centre, and EEP activated the ENV DOC at Level 4, which is the highest level of activation.

After CR23, EEP conducted an after-action review that analyzed the successes and challenges of EEP's operations throughout the exercise. EEP hosted working group sessions to address challenges highlighted during the exercise with the objective of developing detailed response structures that can be immediately implemented during a large-scale response.

Recovery

Spillers are required to carry out response actions as specified in EMA. EMA requires the responsible person to evaluate immediate risks and impacts on the environment, human health, and infrastructure. In addition to immediate spill response actions, the spiller is also required to undertake recovery actions to remove contaminants, protect the environment from further harm, and restore the environment. The recovery phase often begins at the same time as the response phase but can extend from a few days to several years past the conclusion of the response phase. Recovery actions depend on the situation but commonly include recovery of residual spilled product, treatment of contaminants as well as monitoring the receiving environment. The goal of the recovery phase is to restore the environment.

The Recovery Section of EEP:

- + Oversees and regulates spill recovery
- + Provides scientific advice and support to incident response
- + Orders spillers to develop and submit Recovery Plans, if warranted
- + Engages with Indigenous communities involved in or impacted by spill recovery activities
- + Develops policies and procedures for spill recovery
- + Conducts cost recovery
- + Represent EEP on scientific research and multi-agency collaboration regarding spill response, mitigation, and recovery techniques

A key function of the Recovery Section is to ensure the scientific integrity of sampling and monitoring of spill-impacted water, sediment, soil, habitat, and wildlife. The recovery team engages with other specialists within and outside of the government when specific expertise and local knowledge are needed. Recovery team members deploy into the field to lead or participate in the Environmental Unit at Incident Command Posts.

Recovery actions ensure that spillers address their legislative and regulatory responsibilities. If a spiller's actions are insufficient to comply with the regulation, EEP can order those responsible to take further steps. In addition, the spiller may be required to submit a Recovery Plan in accordance with the Spill Preparedness, Response and Recovery Regulation.

The Recovery Section has grown from three to six full-time team members in 2023. The team members are scientists trained in environmental impact assessments, wildlife biology, toxicology, and environmental restoration.

Expanded Role

The Recovery Section has recently expanded its role to support the recovery of areas affected by wildfires and floods.

Recent wildfire seasons have highlighted the need for a provincial coordinated approach to support impacted communities. The Recovery Manager led the Environment Sector under the Interim Disaster Recovery Framework for Community Recovery, participating in the Standing Committee for Community Recovery chaired by EMCR. The committee provided coordination and executive and cabinet updates at a senior level.

At the operational level, the Recovery Section continued to support community recovery for the Village of Cache Creek following the 2021 ARE. The Recovery Section participated in a multi-agency provincial task force focusing on concerns about water quality and potential risks from contaminants in flood-impacted areas.

Future Priorities

The Recovery Section will continue developing procedures to guide future activities:

- + Updating policies and procedures to further implement cost recovery
- + Securing hydrogeological expert advice through a shared service contract with the ENV's Regional Operations Branch, Mining Team
- + Developing internal guidance for target environmental endpoints
- + Developing internal guidance for provincial oiled wildlife

External Initiatives

EEP works with numerous external agencies in areas related to spill coordination, response, and emergency planning. Through discussions with other agencies, EEP ensures that roles and responsibilities are clearly defined.



Key Initiatives

- ▶ **[The Northern Shelf Bioregion Marine Incident Framework \(NSB Framework\):](#)**
This framework is being jointly developed by Pacific North Coast First Nations, Canada, and B.C. through a Government-to-Government initiative under the Reconciliation Framework Agreement (RFA). This framework will be endorsed by RFA signatories as the foundation for collaborative marine incident preparedness, response, and recovery in the NSB, which is one of four ecological regions off the coast of B.C., extending from Quadra Island to Alaska.
- ▶ **[Pacific States - British Columbia Oil Spill Task Force \(OSTF\):](#)** Under the OSTF, representatives from state and provincial environmental agencies in the Pacific coastal area collect and share data on oil spills, coordinate oil spill prevention projects, and promote regulatory safeguards.
- ▶ **[Canada – US Joint Contingency Plan \(JCP\):](#)** The JCP is a cooperative international agreement between Canada and the United States providing for a coordinated mechanism to plan, prepare for, and respond to spills in contiguous waters. EEP acts as the provincial representative for the Juan de Fuca region, the Dixon Entrance, and the inland boundaries between B.C. and the states of Montana, Washington, and Idaho.
- ▶ **[Canadian Council of Ministers of the Environment \(CCME\):](#)** EEP is a member of the CCME Environmental Emergencies Network, established to enhance the response to environmental emergencies, ensure that environmental factors receive consideration in response actions, build a collective understanding of roles, and share lessons learned from incidents.
- ▶ **[Greater Vancouver Integrated Response Plan \(GVIRP\):](#)** The GVIRP is an operational plan initiated by the CCG to guide multi-agency, on-water response to serious oil pollution incidents within the waters of Burrard Inlet, including English Bay and Indian Arm. The plan has recently been extended to cover Howe Sound and the lower portion of the Fraser River as well. EEP has two team members on the Environmental Response Sub-Committee, who provide expert advice relating to changes to the plan.
- ▶ **[Juan de Fuca Integrated Response Plan:](#)** As with the GVIRP, CCG has developed area plans for spills in the Strait of Juan de Fuca.
- ▶ **[Oceans Protection Plan, Multi-Party Advisory Committee:](#)** This committee fosters scientific collaboration and leverages work by national and international external parties. Members provide information and advice pertaining to their research needs and priorities, review progress on initiatives, and raise awareness of research outcomes.
- ▶ **[Fisheries and Oceans Canada \(DFO\) Environmental Response Science Initiative \(ERSI\):](#)**
This initiative is focused on identifying knowledge gaps in DFO's oil spill research priorities.

Expenditures

EEP receives funding from the Consolidated Revenue Fund of the Province of British Columbia. The program also recovers certain costs that are charged to those responsible for spills.

The table below summarizes the expenditures and cost recovery for the past three fiscal years.

EXPENDITURES	FISCAL YEAR 2022-2023	FISCAL YEAR 2021-2022	FISCAL YEAR 2020-2021
Salaries and benefits	\$4,291,341	\$4,281,112	\$4,519,070
Staff training, exercises, & travel	\$88,693	\$143,738	\$61,770
Professional services/contracts	\$1,593,215	\$188,384	\$1,115,832
All other expenditures	\$528,508	\$847,097	\$314,432
Total	\$6,501,757	\$5,460,331	\$6,011,104

Cost Recovery

EEP, in accordance with the polluter-pay principle, seeks cost recovery for government expenditures related to spill response actions as outlined in section 91.4 of EMA.

In cases where a polluter is unwilling or unable to undertake spill response actions, EEP may step in to take those actions and seek to recover costs from the responsible person for responder time, deployment expenditures, and contracts related to the response.

EEP cost recovered \$9,926 from responsible persons during the fiscal year.





Report all hazardous materials incidents in B.C.
1-800-663-3456 (B.C. Spill Reporting Line)



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For further information, please visit our website
www2.gov.bc.ca/gov/content/environment/air-land-water/spills-environmental-emergencies

Report to Legislature Task Team

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