



Environment and  
Climate Change Canada

Environnement et  
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Canada



## Environment and Climate Change Canada's National Environmental Emergencies Centre

### What is Environment and Climate Change Canada's role in environmental emergencies?

Environment and Climate Change Canada's National Environmental Emergencies Centre is the Government of Canada's hub for pollution-related emergencies. The Centre provides science-based advice to protect Canadians and the environment from emergencies like hazardous spills from a ship at sea or a train on land.

### Coordinating environmental emergencies response services

The National Environmental Emergencies Centre coordinates emergency preparedness and response activities, provides oversight, and is available 24/7 to offer scientific advice to help protect the environment during an emergency. To reduce negative impacts to the environment, the Centre coordinates a range of services for the agency leading an emergency, such as

- producing weather forecasts for the emergency site;
- predicting where oil spills may travel (trajectory modelling);
- informing on how hazardous substances behave;
- establishing priority areas for clean-up;
- recommending effective shoreline clean-up assessment techniques;
- offering advice on how to best protect sensitive ecosystems and wildlife like migratory birds; and
- providing sensitivity maps to show resources at risk, like wildlife and ecosystems.

### Increasing response capacity through the Oceans Protection Plan

The National Environmental Emergencies Centre's marine response capacity has been enhanced by the Oceans Protection Plan. In addition to the headquarters in Montréal, Quebec, staff are located in key marine areas: Halifax, Nova Scotia; St. John's, Newfoundland and Labrador; and Vancouver, British Columbia. Environmental emergencies officers are able to get to the site of an emergency quickly to provide hands-on support. Through the Oceans Protection Plan investments, additional data collection has given the Centre the ability to produce better sensitivity maps. These incident-specific maps allow emergency responders to create a plan that considers various factors.



## What is included in a sensitivity map?

The National Environmental Emergencies Centre's sensitivity maps give an overview of the environmental, socio-economic, and cultural resources in a given region that could be at risk during an environmental emergency. Environmental emergency responders can then use this information to help guide their decisions when responding to an emergency.

### 1. Physical environment

- Physical characteristics and conditions that affect response operations
- Characteristics of the shoreline and coastal environment
- Characteristics of the seafloor

### 2. Operational (response) resources

- Resources required to effectively respond
- Agreements, plans, preferred strategies, and tactics
- Supporting infrastructure (e.g. boat launch, port infrastructure, airfields, helipads)
- Hazards (e.g. hazardous materials, hydrological obstacles)

### 3. Biological resources

- Legally protected conservation areas
- Fauna or flora species with a legal status, such as "species at risk," "endangered," "threatened," or "species of special concern"
- Fish, marine mammal, or bird habitat associated with vulnerable life stages and activities (e.g. spawning or breeding, foraging, congregating)
- Ecologically important habitats (e.g. eelgrass beds and wetlands)

### 4. Socio-economic resources

- Regulated economic activities (e.g. extraction, transportation, storage, disposal)
- Vulnerable economic activities (e.g. aquaculture, fisheries)
- Shellfish areas (e.g. growing, harvesting, closures, aquaculture)
- Cultural activities (e.g. areas of cultural importance or sustaining livelihoods)
- Recreational activities (e.g. coastal campsites, recreational fisheries)

### 5. Local traditional knowledge

- Indigenous Peoples' lands and contact information
- Areas of importance (e.g. cultural, historical, spiritual, educational)
- Economic activities (e.g. sustaining livelihood, resource management)



**For more information on the National Environmental Emergencies Centre,** visit [www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/national-centre.html](http://www.canada.ca/en/environment-climate-change/services/environmental-emergencies-program/national-centre.html).

**For more information on sensitivity mapping,** email the Geomatics and Technology team with the National Environmental Emergencies Centre at [ec.cnueSIG-GISneec.ec@canada.ca](mailto:ec.cnueSIG-GISneec.ec@canada.ca).

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