

National Environmental Emergency Operations Centre

Environment and Climate Change Canada's National Environmental
Emergencies Centre's New Emergency Operations Centre

2020-21



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Canada

A MESSAGE FROM OUR DIRECTOR

“Environment and Climate Change Canada’s (ECCC) National Environmental Emergencies Centre (NEEC) is pleased to announce the official opening of the National Environmental Emergency Operations Centre (NEEOC)! The NEEOC is a solid foundation for ECCC to improve its response to environmental emergencies across Canada.”

-Tanya Bryant, Director, Environmental Emergencies Program



An aerial photograph of a rugged coastline. Dark, craggy rocks are partially submerged in clear, turquoise water. Large, dark brown seaweed or kelp formations are visible in the shallow water, creating a textured contrast with the rocks and the clear water. The overall scene is natural and serene, emphasizing the environment the center aims to protect.

NATIONAL ENVIRONMENTAL EMERGENCIES CENTRE

OUR VISION

Canada's trusted source for science and services to protect Canadians and the environment from environmental emergencies.

OUR MISSION

To protect the environment by ensuring all reasonable measures are taken to mitigate impacts from environmental emergencies. This is accomplished through the coordination and delivery of Government of Canada science, expert advice and situational awareness. 24/7 on all activities relating to the planning, preparation, response and recovery from emergencies.

OPERATIONAL MANDATE

ECCC-NEEC is responsible for ensuring that the environment is protected when a pollution emergency occurs.

(Emergency Management Act, Fisheries Act, Canadian Environmental Protection Act 1999, Species at Risk Act and Migratory Birds Convention Act).



FULFILLING OUR OPERATIONAL MANDATE

RESPONSE



NEEC's Emergency Operations Centre



Provided by Environmental Emergency Officers and Geomatics Specialists

- Coordinate the federal government's provision of technical advice and scientific expertise
- Ensure the environment is protected from pollution events from ***all economic sectors*** and impacting ***various receiving environments***
- Provide scientific support and expert services to the lead agency

NOTIFICATION



NEEC Notification Desk



Delivered by Environmental Emergency Notifications Officers

- Receive incident notifications
- Distribute incident notifications
- Triage notifications for escalation by a NEEC response

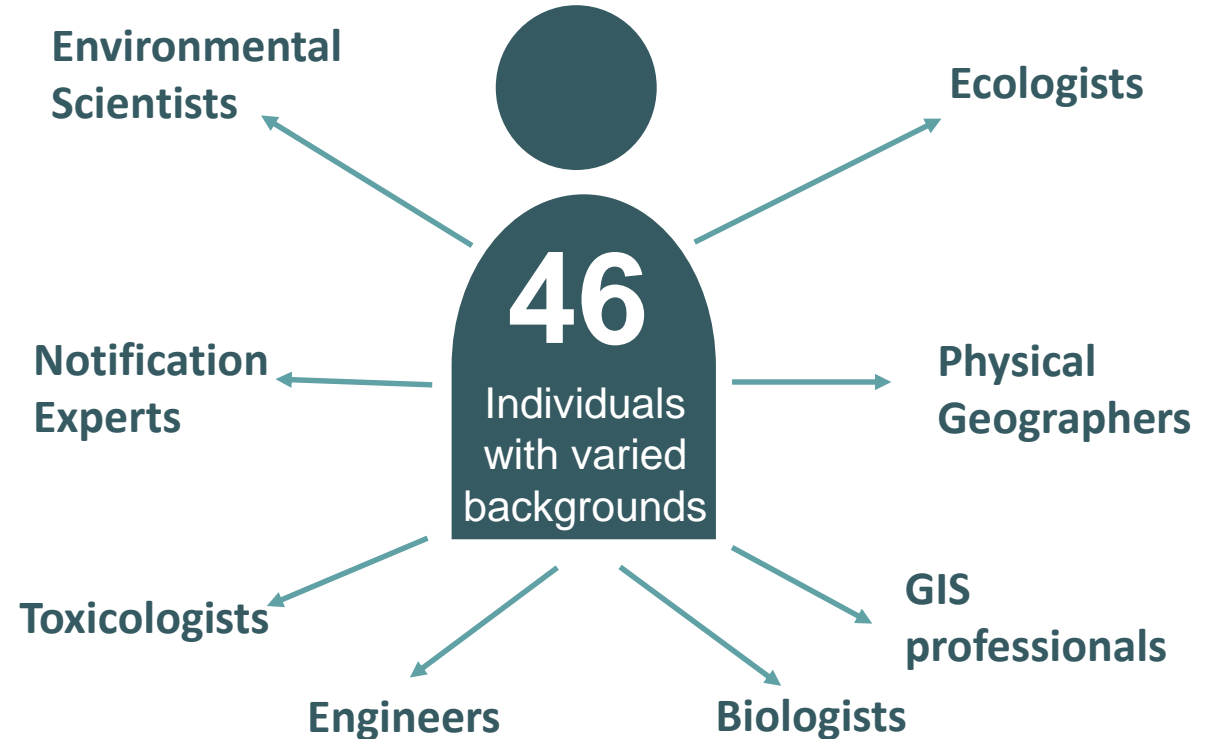
WHO ARE WE AT NEEC?

5

teams

- National Programs and Operations
- Geomatics and Technology
- Central, Prairie and North
- Atlantic Satellite Office
- Pacific Satellite Office

NEEC is made up of three positions: Environmental Notification Operations Officers (ENOO), Environmental Emergencies Officers (EEO), and Geomatics Specialists (GS)



WE ARE PASSIONATE ABOUT PROTECTING OUR ENVIRONMENT

BRINGING TOGETHER THE BEST EXPERTS IN CANADA...

During an environmental emergency, NEEC works closely with experts from Environment and Climate Change Canada and other federal departments across the country, including

- wildlife biologists with the Canadian Wildlife Service,
- meteorologists with our weather service,
- oil-spill chemists and modelers with the Emergencies Science and Technology Section
- experts at the Shellfish Water Classification Program
- enforcement officers
- Fisheries and Oceans Canada

... TO SUPPORT OUR PARTNERS

We support more than 50 external partners, including

- Canadian Coast Guard
- Transport Canada
- provincial and territorial departments
- Indigenous Peoples
- United States Environmental Protection Agency
- National Oceanic and Atmospheric Administration
- and more!

PROUD TO BE YOUR PARTNER KEEPING CANADIANS AND THE ENVIRONMENT SAFE

NEEC BY THE NUMBERS*

* Annual averages over the past two fiscal years

7250

verbal notifications
received from either
One-window
organizations or ATL
+ QC reporting
parties

Our Notification Desk receives both written and verbal notifications. We have a pre-established set of criteria which determines if provincial and territorial one-window organizations should call us in addition to sending us a written notification. In Quebec and the Atlantic provinces, where there are no provincial one-window organizations, we receive calls directly from individuals or organizations reporting emergencies.

As part of our mandate to notify other federal organizations about environmental emergencies across Canada, our Notification Desk operates 24/7 to manage all incoming notifications and distribute the information accordingly. For provinces where we operate as the One-Window for reporting of environmental emergencies, we also send the notifications to the provincial and territorial governments.

7550

Incidents which
we notify
partners about

2235

NEEC duty officer
activations

There are criteria in place which the Notification Desk agents apply as a triaging to all incoming notifications. If a criteria is met, then the incident report is sent to the NEEC Duty Officer, who works within the NEEOC, to monitor and action as needed.



Modeling

Spill trajectory, drift, and atmospheric dispersion modeling



Sensitivity Mapping

Identification of environmental, archaeo-cultural and socio-economic resources at risk



Site Specific Weather Forecast

SUPPORTING ENVIRONMENTAL EMERGENCY RESPONSE ACROSS CANADA



**Fate and behavior of
hydrocarbons and chemicals in
the environment**



**Coordination of expertise and
consensus building**



**Expertise and Leadership in NEBA*,
SCAT** and post-emergency recovery**

**Net Environmental Benefit Analysis*

*** Shoreline Cleanup Assessment Technique*

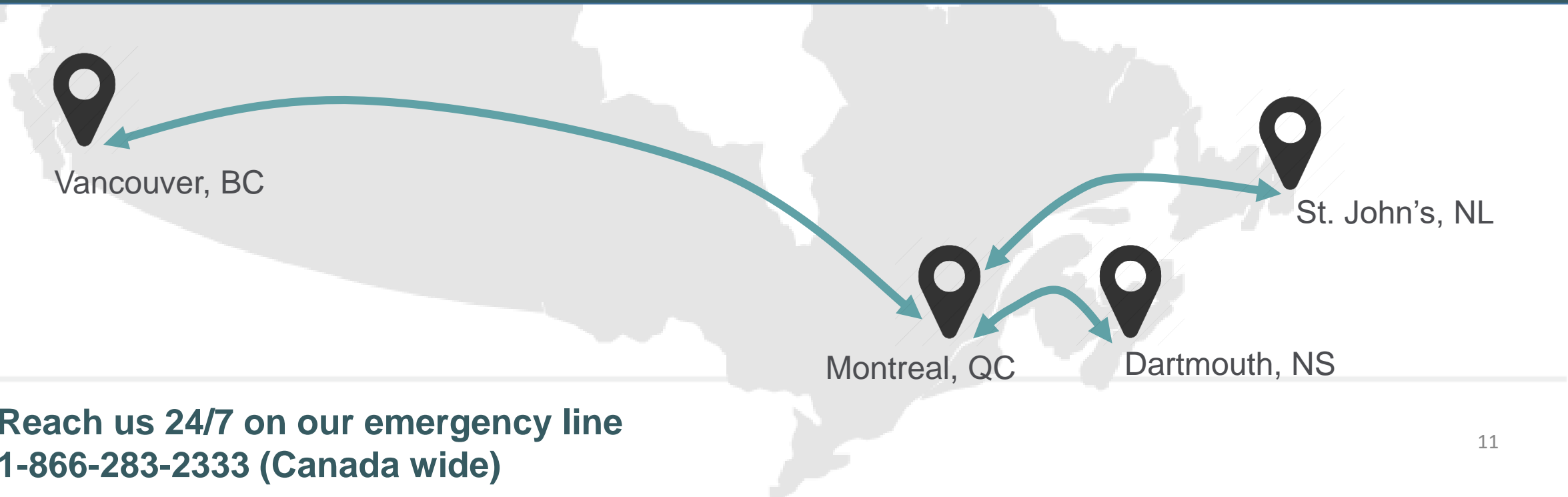
TRANSITIONING TO AN *EMERGENCY OPERATIONS CENTRE* RESPONSE MODEL

The National Environmental Emergencies Centre (NEEC) was restructured in 2012 after program consolidations centralized Environment and Climate Change Canada's environmental emergency response operations. Following the restructure, our response model was operated with a single Duty Officer system - one person dedicated to response at any time. A newly implemented response model dedicates a team to response, supported by an emergency operations centre. The National Environmental Emergency Operations Centre (NEEOC) has resulted in improved and more consistent response to small incidents and a more coordinated and thorough support system for larger incidents.



COAST – TO – COAST – TO – COAST

The NEEOC response model involves all NEEC officers across Canada. Close collaboration, information sharing and coordination with Environmental Emergencies Officers in our four offices is paramount and a key pillar of the NEEC's response model.



**Reach us 24/7 on our emergency line
1-866-283-2333 (Canada wide)**



GUIDING PRINCIPLES FOR TRANSITION

The National Environmental Emergency Operations Centre (NEEOC) is a framework modelled on the Incident Command System (ICS) to coordinate Environment and Climate Change Canada's response to environmental emergencies.

The NEEOC:

- Provides consistent leadership of ECCC's response operations, provision of advice and services, reporting and management of information.
- Shifts the responsibility for managing environmental emergency responses from one single duty officer to a trained and skilled team.
- Establishes a structure that lowers stress, reduces errors and increases the level of service to ensure the environment is protected for all Canadians.

2017

The NEEOC development project kicks off. Entails developing new internal procedures, roles and responsibilities and a new case management software.

2018

NEEOC begins operating in Beta. Development and optimizations of our procedures and tools continue full speed.

2019

Renovations of the operations room begin and a NEEOC response model that leverages and integrates satellite offices is developed.

2021

Full Opening of the NEEOC.

NEEOC DEVELOPMENT TIMELINE



NEEOC STRUCTURE

- The organizational structure of the NEEOC strongly mimics the Incident Command System for EOC (Emergency Operation Centre) Framework and follows the principles outlined in ICS
- Staff rotate in and out of the NEEOC on weekly rotations (Friday to Friday)
- The NEEOC is stood up Monday to Friday, during business hours (Eastern Standard Time). Nights and weekends, the NEEOC functions are fulfilled by the NEEOC Planning Section Chief (PSC) /NEEOC Operations Section Chief (OSC) and NEEOC Manager. The NEEOC can be stood back up during any off hour period should there be a need
- As one of the fundamental principles in ICS, the NEEOC structure was developed to be expanded at a moment's notice

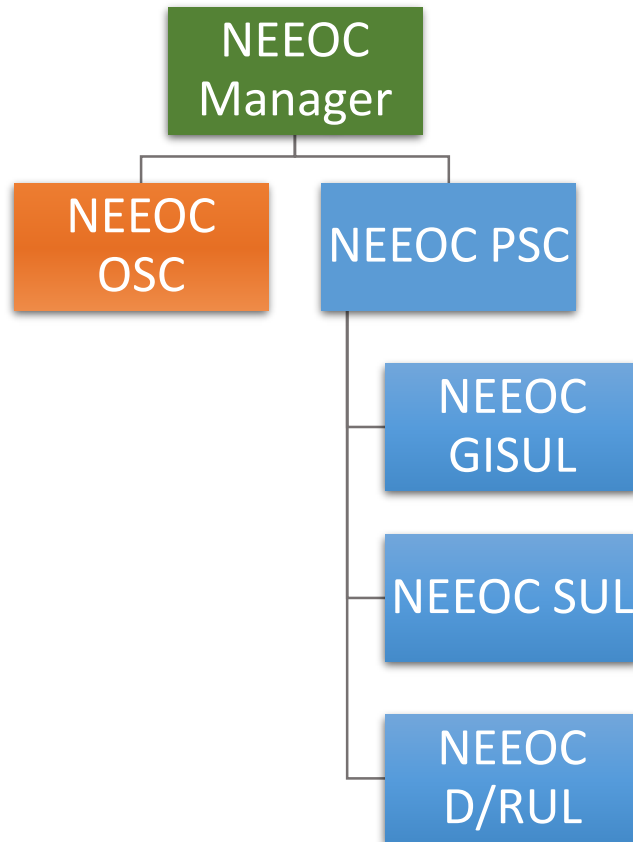
NEEOC RESPONSE ROSTER

The NEEOC PSC / OSC is the Duty Officer (DO) who gets activated by our Notification Desk agents to respond to environmental emergencies nationwide 24/7. Weekdays (business hours) and weekends there are two additional DOs on the roster in standby mode ready to support the PSC/OSC as needed.

Together, these three DOs represent our three regions (West, East, Central), which support response from coast to coast to coast. This encourages and facilitates the leveraging of regional specific knowledge and experience.



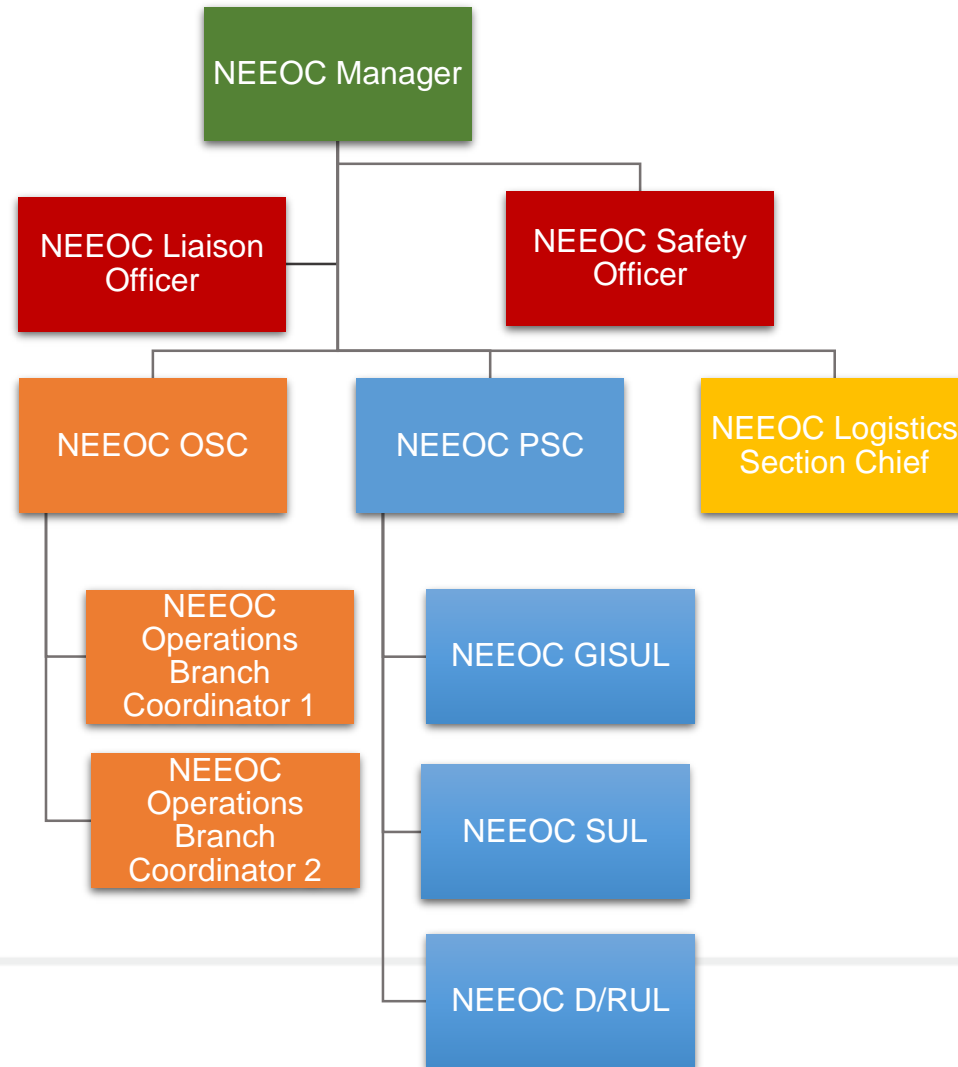
NEEOC STANDARD STRUCTURE



When the NEEOC is stood up in its standard structure, 6 positions are filled. One NEEC staff member may fill two positions simultaneously.

- NEEOC Planning Section Chief (PSC)
- NEEOC Operations Section Chief (OSC)
- NEEOC Geographic Information System Unit Leader (GISUL)
- NEEOC Situation Unit Leader (SUL)
- NEEOC Documentation/Resources Unit Leader (D/RUL)

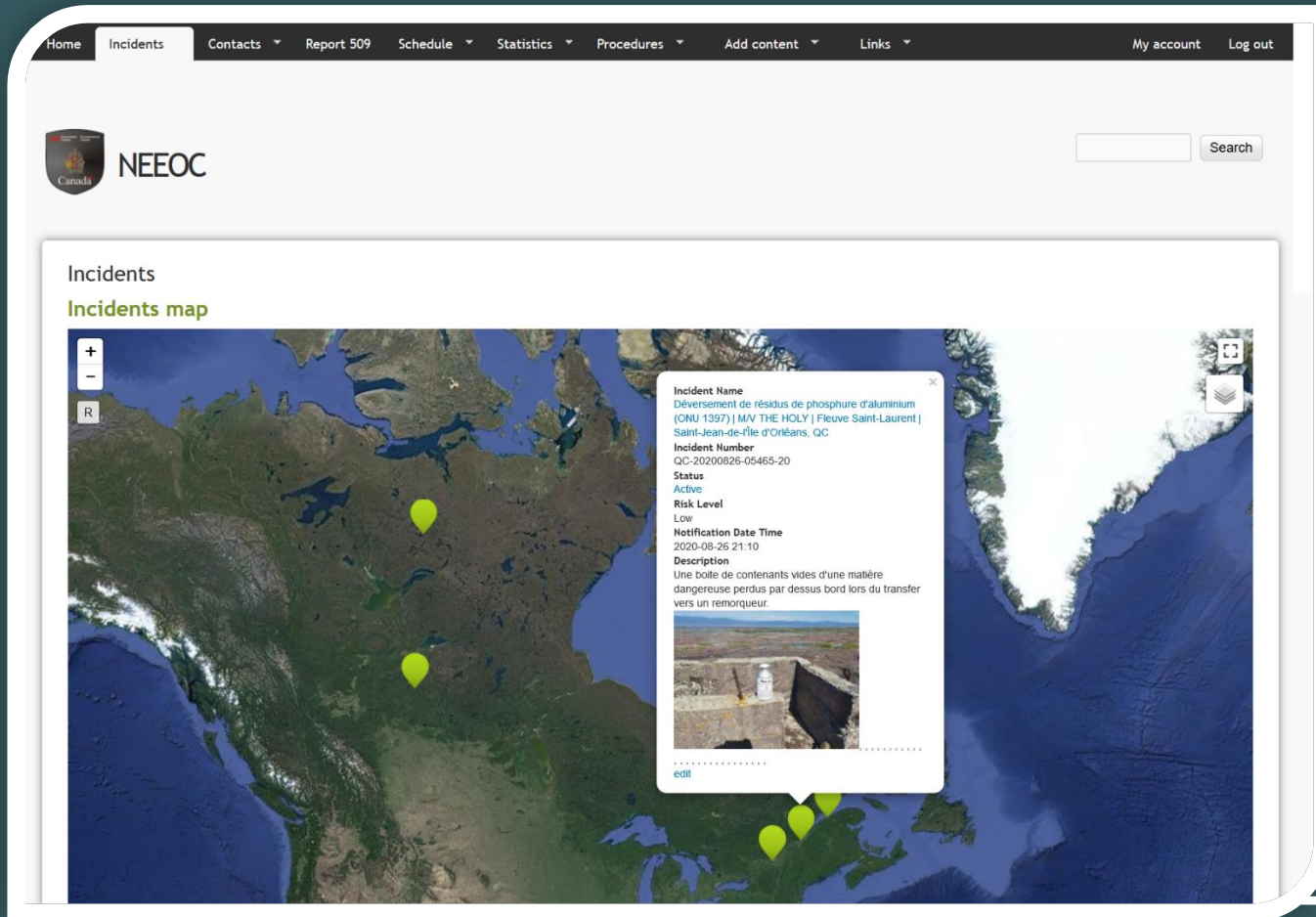
NEEOC POSSIBLE EXPANDED STRUCTURE



The NEEOC is expandable in many ways responding to various needs. Illustrated at left is the structure for a scenario where 2 larger incidents are running at the same time and NEEC is preparing to deploy staff on site.

NEEOC SUPPORTING TECHNOLOGIES

Operations Portal



Environmental Emergencies Case Management Solution

Comprehensive portal used for situational awareness, coordination, and action logging

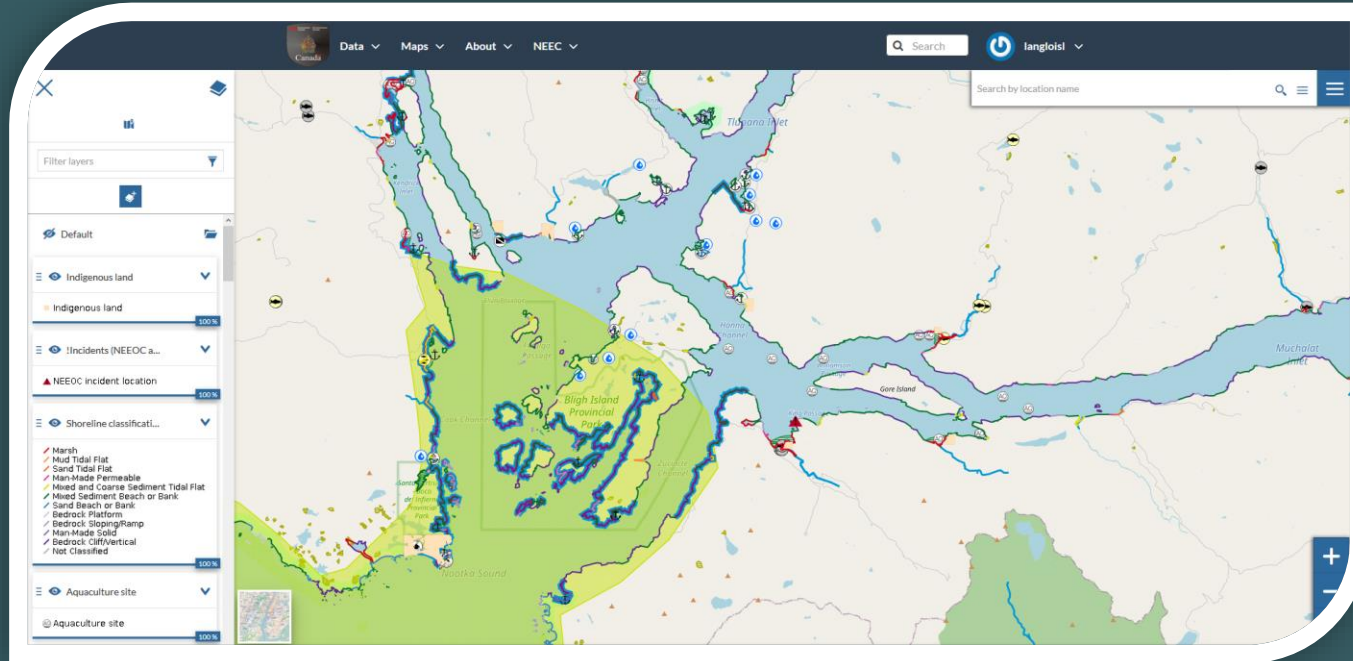
Supports the functioning of the NEEOC with integrated scheduling, contacts, and procedure tools

Facilitates reporting, including daily summaries and incident specific reports

Advanced real-time capabilities for dashboards, statistics and metrics

NEEOC SUPPORTING TECHNOLOGIES

GeoPortal



ECCC specific common operating picture (COP) that advances situational awareness

Increased service efficiencies and satisfaction through interoperability with other response agencies

Production of traditional resources at risk map products as well as new web map services and deployable COP

Responsive and agile Information Management / Information Technology (IM/IT) development and management to meet rapidly evolving needs

STRENGTHS OF OUR EOC MODEL

Increase the level of service and support provided to partners

Lower stress of staff by dedicating a team to response

Facilitates and accelerates Environmental Emergencies Officer learnings

Increased capacity to respond to incidents

Better documentation and information sharing with partners and upper management

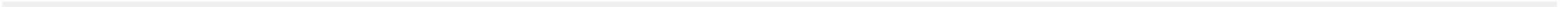
More resources dedicated to response

More thorough incident management, action tracking and documentation

Respond proactively instead of reactively

STRIVING FOR EXCELLENCE...TOGETHER

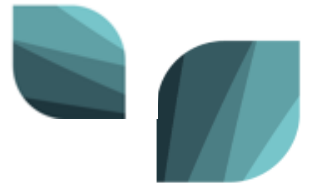
In the spirit of striving for excellence to protect the environment from emergencies, NEEC is dedicated to collaborating with partners, leveraging our partners' scientific expertise, and improving our coordination and information sharing.





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We look forward to working together to protect the environment from environmental emergencies

NEEOC: Doing better with new capacities and teamwork!