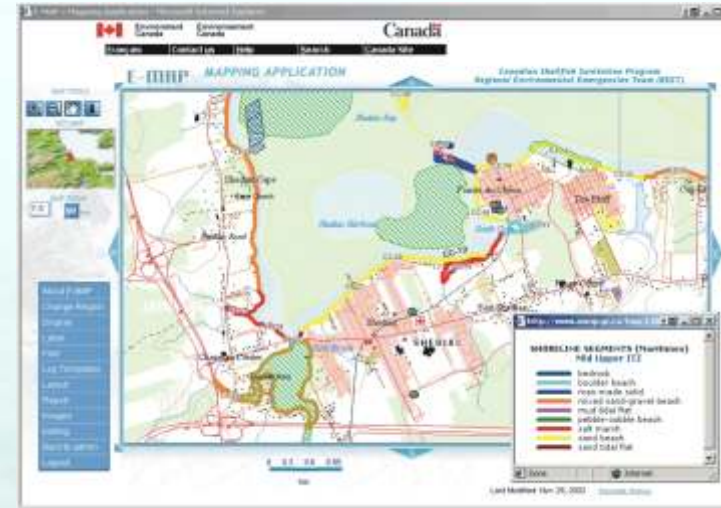


## Mapping for Environmental Emergencies



installation on a personal computer; and a web mapping interface called E-MAP accessible on the Internet (<http://www.asmp.gc.ca>).

Both applications use the GIS technology. Digital maps illustrate the important features of specific geographical areas, such as: the biological species present, shoreline type, distinctive physical features of the area which could hamper cleanup efforts, human activities typical of the coastal area, and the cleanup infrastructures required to deal with a spill situation.



### The mapping applications can be used to...

**Help responders plan a response:** The digital maps quickly identify the most important and vulnerable coastal areas at risk in the affected area. ASMAP and E-MAP are effective tools to help establish shoreline protection and select cleanup techniques. Responders can set priorities based on an analysis of the resources at risk, the shoreline type, the quantity and type of product spilled and the current and predicted weather conditions.

**Prepare briefings and status reports:** The applications can also help responders develop status reports and briefing materials related to ongoing cleanup effort, describe the progress of the cleanup, document resource damages and other environmental impacts, comment on logistical problems and evaluate and recommend further actions.

**Facilitate emergency response training:** The applications can also be used to simulate credible and practical spill scenarios.



### ASMAP and E-MAP state of the art mapping

Our mapping applications are...

**User friendly:** On-screen prompts allow users with basic knowledge of geography and minimal computer skills to use the applications easily and effectively.

**Easily accessible:** ASMAP can be installed and used on either a personal computer or on a laptop computer. E-MAP is accessible from anywhere via the Internet.

**Flexible:** Links to real-time data, such as current weather conditions and forecast, is readily integrated.

**Easy to update and maintain:** The applications have been designed with an *open architecture* concept allowing easy data updates and system modifications.

**A wealth of data at your finger tips:** You can do statistical analyses of the data, generate summary reports, get a predicted trajectory model for a spill from our meteorological service and produce data tables.

**State of the art:** E-MAP uses the new *Adobe® SVG* technology, which allows users to create and edit their own maps online, without any mapping software on their computer.

**Compatible:** The applications both use the *MapInfo®* files format which allows users to upload their own maps either in their personal account on the E-MAP server or into ASMAP. This also allows the creation of maps online using the E-MAP *map editor* feature with the capacity to download them for further use with *MapInfo®*.

### A large and comprehensive database including...

- A complete shoreline pre-spill database for the Atlantic provinces (shore zone character, shoreline protection, shoreline treatment, summary of response requirements)
- Data related to resources at risk (land and marine animal species, vegetation, human infrastructures)
- An inventory of the logistical infrastructures that can be used in case of on-site intervention
- Aerial video coverage of the Atlantic Canada's shoreline
- A large coverage of digital basemaps from the *National Topographic Data Base* and marine charts of the *Canadian Hydrographic Service*
- Photos of land and marine animal species, vegetation, small craft harbours, industries and recreation infrastructures



### For more information, contact:

Environmental Emergencies Mapping Program  
 Environment Canada  
 Queen Square Building, 45 Alderney Drive  
 Dartmouth (Nova Scotia) B2Y 2N6  
 E-mail : [eemap@ec.gc.ca](mailto:eemap@ec.gc.ca)  
 URL : [http://www.atl.ec.gc.ca/emergencies/eemap\\_e.html](http://www.atl.ec.gc.ca/emergencies/eemap_e.html)



## Mapping for Environmental Emergencies

Picture it: piles of oil soaked seabirds, most dead, the remainder facing almost inevitable death... Thousands of dollars in fishing gear fouled because of the oil float in nearby waters.

Every year, there are thousands of spills involving oil or other hazardous substances that threaten the valuable and delicate coastal zone resources of Atlantic Canada. It is essential to have information on hand to make quick, informed decisions to enable an effective response to protect these resources and the natural environment.

### The Environmental Emergencies Mapping Program

In order to minimize the environmental impacts of such incidents, the Environmental Emergencies Section of Environment Canada in the Atlantic region, through the *Environmental Emergencies Mapping Program*, has developed a geographic information system (GIS) incorporating the most comprehensive and up-to-date environmental data currently available.

The system now has two types of applications: a *stand-alone* software known as ASMAP (Atlantic Sensitivity Mapping Application) for