

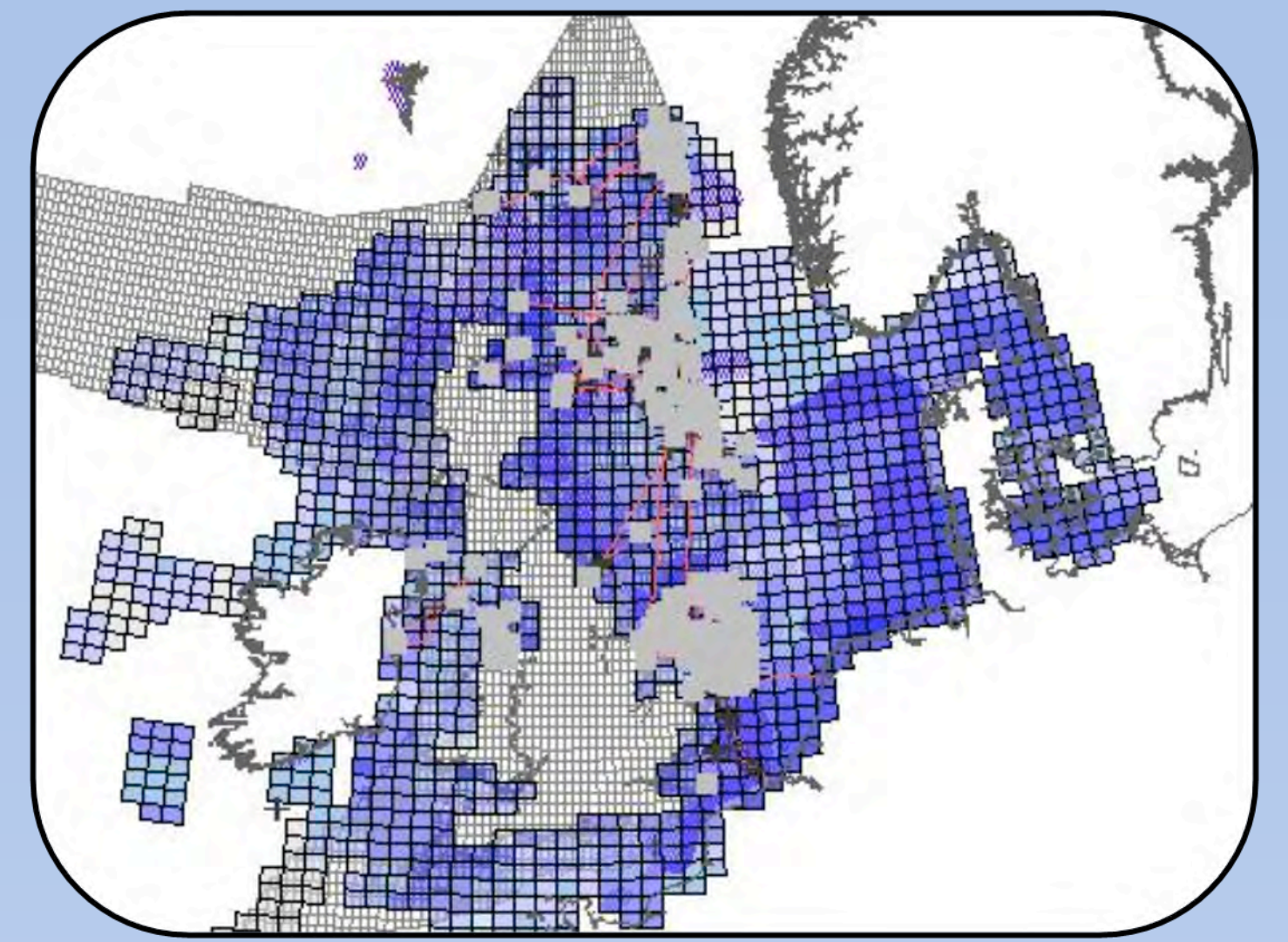
Coastal and Marine Resource Atlas

A Tool for Maritime Contingency Planning and Response

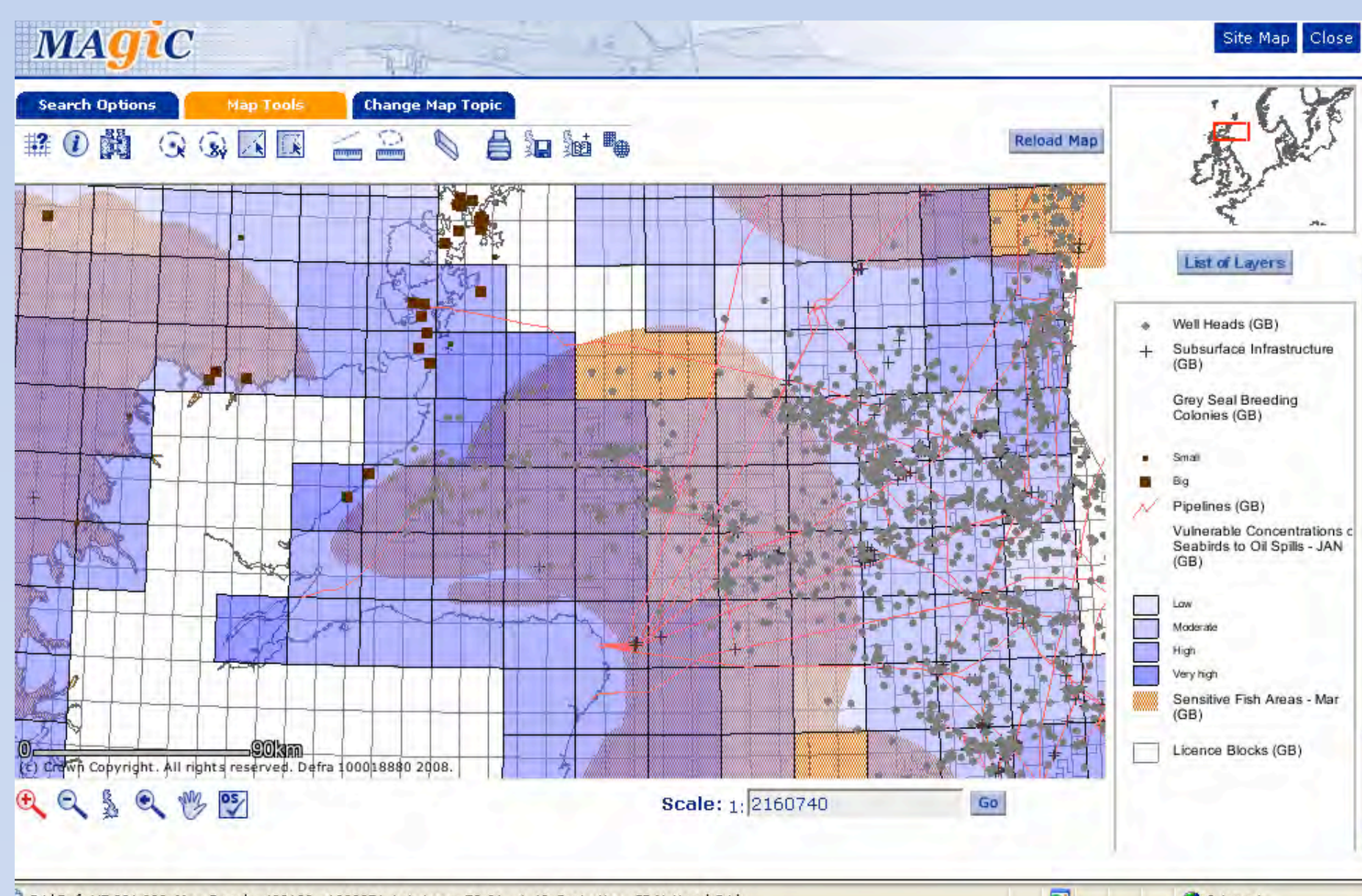
Author: Lucy Greenhill, Offshore Industries Advisor

Joint Nature Conservation Committee

Lucy.Greenhill@jncc.gov.uk



The Coastal and Marine Resource Atlas (CMRA) is a web-based interactive mapping system, containing UK-wide datasets of the coastal and marine environment. Its purpose is to provide access for professionals involved in oil spill contingency planning and response, to appropriate and accurate environmental information.



Example output from CMRA showing seabird vulnerability, sensitive fish areas and oil industry infrastructure.

1. AIMS and OBJECTIVES

The Atlas provides a reference tool for personnel involved in creating and reviewing oil spill contingency plans. It provides a spatial reference for key environmental issues and enhance understanding of the interaction of multiple stressors. It can also be used as a basis for discussion by the Environment Groups set up as required by the National Contingency Plan, to provide advice on environmental and public health issues to response units. CMRA also provides a secondary reference for on-going operational responses to marine pollution incidents.

2. PROJECT DEVELOPMENT

The project was initially undertaken through collaboration between government departments, agencies and industry bodies, managed by the Maritime and Coastguard Agency (MCA). The CMRA is a sub-topic within the existing GIS platform of MAGIC (Multi-Agency Geographic Information for the Countryside) (www.magic.gov.uk), managed by Natural England.

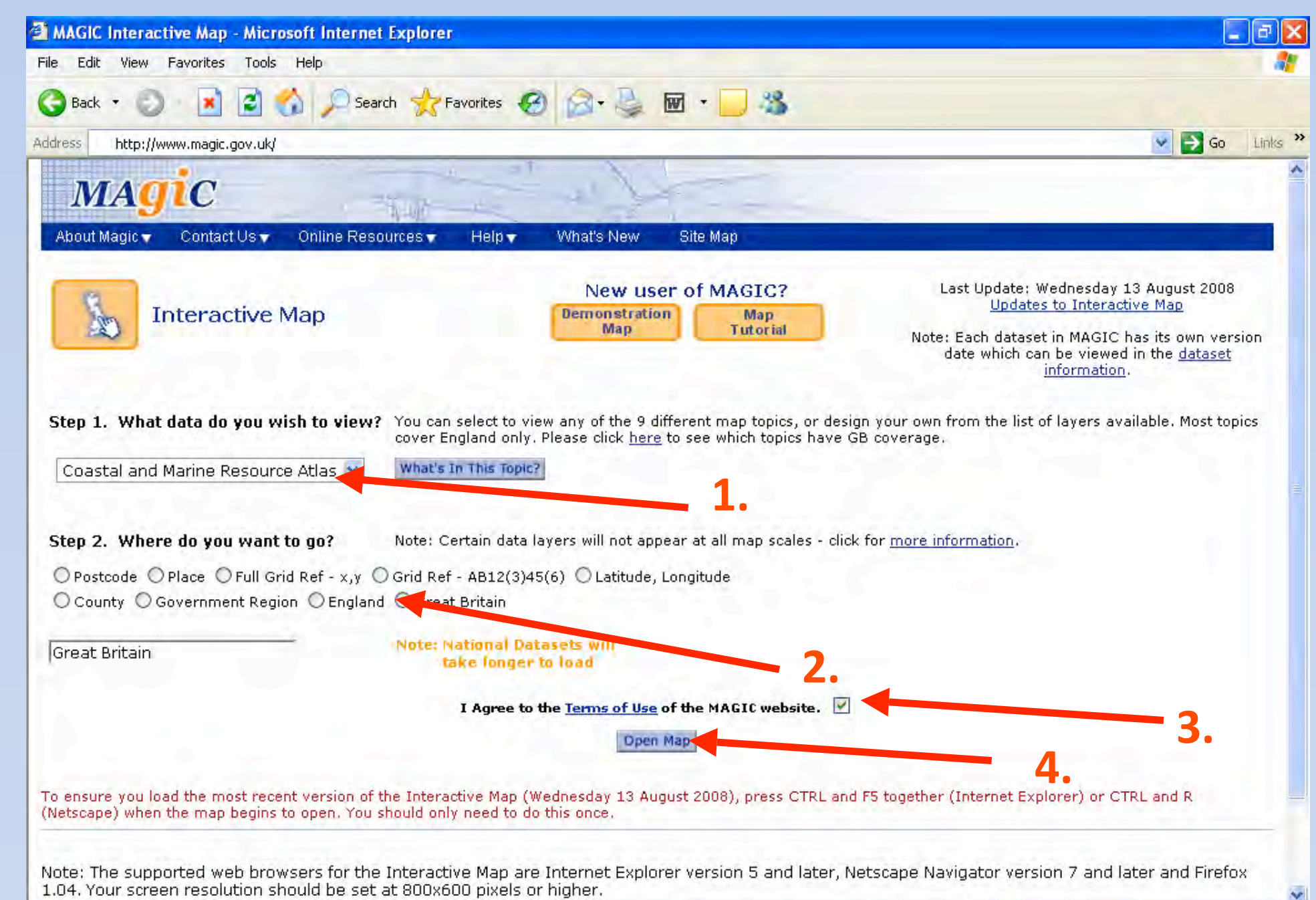
3. THE ATLAS

Example data layers include:

- Oil industry infrastructure (subsurface and surface)
- Offshore windfarms
- Intertidal habitats (saltmarsh, mudflats, etc.)
- Environmental sensitivities (e.g. marine mammal distribution and concentrations of seabirds vulnerable to oil spills)
- Protected areas (Special Areas of Conservation, Special Protected Areas, Ramsar Sites, etc)
- Socioeconomic features (e.g. bathing waters and aquaculture)

★ Seabird Nesting Counts (British Isles)	Mud
★ Offshore Windfarms (GB)	Mud and Gravel
Standing Approvals (England and Wales)	Not Present
Protected Wreck Sites (England)	Rock Platform
Coastal Vegetated Shingle (England)	Rock Platform with Banks of Gravel
Coastal Sand Dune (England)	Rock Platform with Boulders/Loose Rock
Maritime Cliff and Slope (England)	Sand
Intertidal Substrate Foreshoreshore (England and Scotland)	Sand and Gravel
Boulders/Loose Rock	Sand and Mud
Gravel	Unspecified
Made Ground (Man Made)	Biosphere Reserves (GB)
	Special Areas of Conservation (GB)
	Special Protection Areas (GB)
	Sites of Special Scientific Interest (GB)
	Classified Bivalve Mollusc Harvesting Areas (England and Wales)

www.magic.gov.uk



1. Click 'Interactive Map'
2. Select 'Coastal and Marine Resource Atlas' under 'Step 1. What data do you wish to view?'
3. Select 'Great Britain' under 'Step 2. Where do you want to go?'
4. Click 'Open Map'. Switch layers on and off as desired.

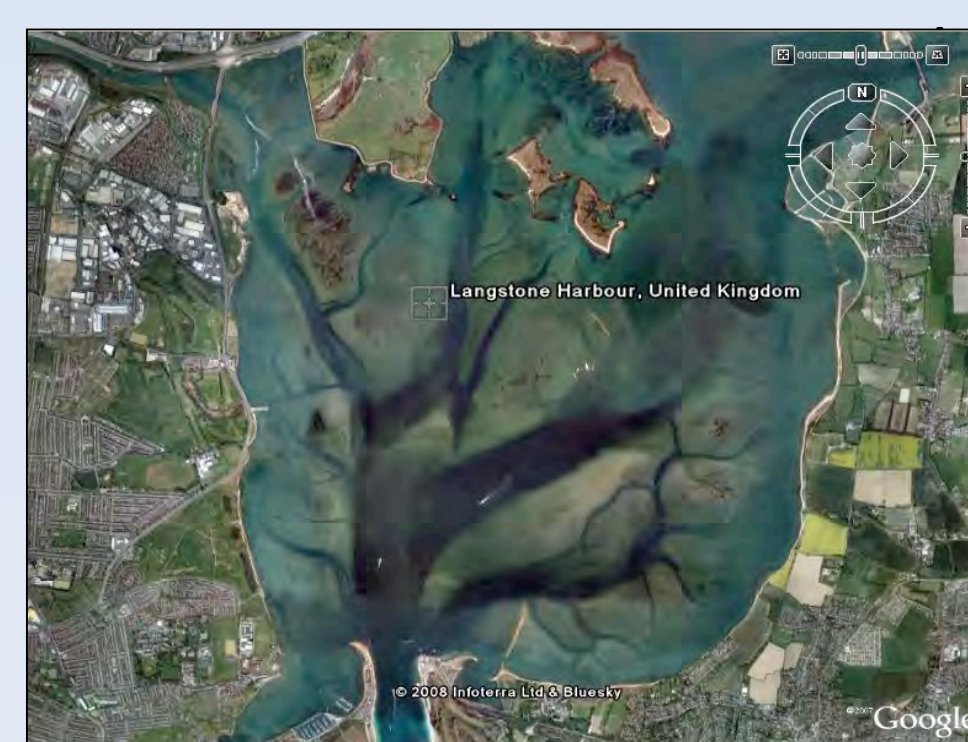
4. DATA MANAGEMENT

Datasets are selectively viewed on a map through a standard web browser, and GIS-based tools used to disseminate the atlas are designed to help identify the environmental risk posed by a pollution incident. The geographical information is quality assessed, and updated monthly through agreements with each data provider. If license conditions allow, links are also provided to the datasets themselves, sourced directly from the data providers.

5. ONGOING DEVELOPMENT

The CMRA is continually developing, co-ordinated by a steering group, and includes:

- Functionality – improving operating speed with new server
- Addition of data layers – e.g. protected wreck data.
- Improvement of UK-wide saltmarsh data.
- 'SPIRE' will enable direct extraction of datasets.



Source: Google Earth

In the future, improvements such as the inclusion of aerial photography could enable the atlas to meet the urgent needs of operational staff immediately on notification of a spill incident.

7. CONCLUSION

The CMRA is up and running and can be a useful tool. It is under continuous development to strengthen the resource and increase its applicability to a range of uses. Industry feedback can help make it fit-for-purpose; any thoughts on the development of CMRA are welcomed. Please contact: Neil.chapman@mcga.gov.uk who is now co-ordinating the steering group.