Maintenance Dredging on the Thames: a decision support framework

Presentation by
Jan Brooke, Environmental Advisor
on behalf of
Katherine Harris, PLA Environment Manager

PORT OF LONDON AUTHORITY

The Port of London

- 70 plus operational berths, wharves, jetties, etc., privately owned and administered
- 26,000 vessel movements per year
- 50 million tonnes of cargo handled
- In top three UK ports
- Many ongoing operations and activities, future developments

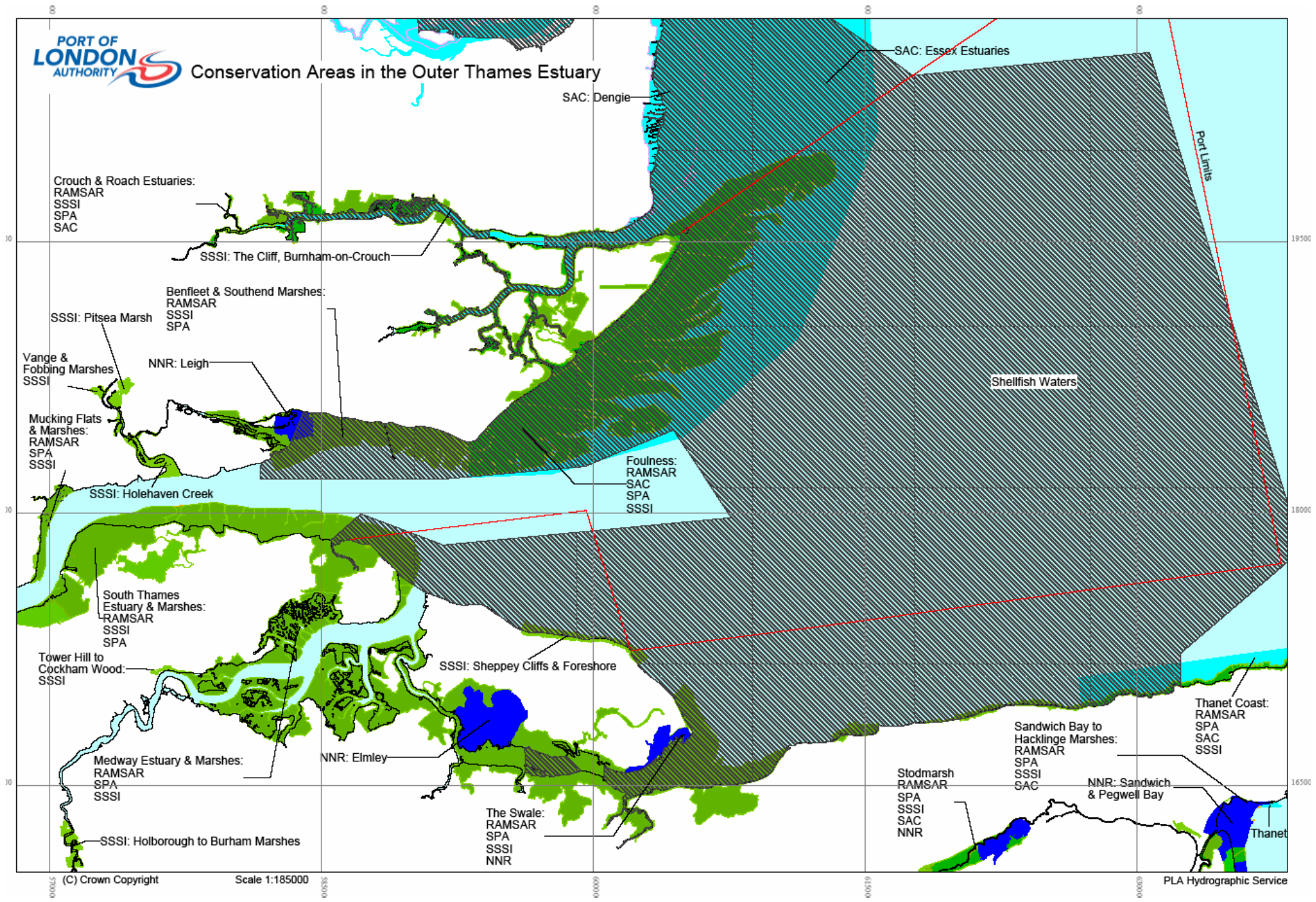
Introduction to the PLA

The Port of London Authority (PLA) is a self-financing statutory authority. It aims to:

- facilitate safety of navigation on tidal Thames;
- deliver value for money services; promote the potential of the Port of London;
- respect the environment of the tidal Thames and pursue principles of sustainable development;
- provide an efficient, professional service to commercial/leisure users and riparian owners;
- safeguard navigational access to and the viability of the Port and its infrastructure.

Environmental Legislation

- Section 48a Harbours Act 1964
- EIA Directive/Marine Works (EIA) Regulations 2007
- Conservation (Natural Habitats &C.) Regulations 1994
- National Heritage Act 2002
- Countryside & Rights of Way Act 2000
- EU Shellfish Waters Directive
- EU Water Framework Directive
- EU Environmental Liability Directive


PORT OF LONDON AUTHORITY
Conservation Areas in the Outer Thames Estuary
SAC: Essex Estuaries
SAC: Dengie
Port Limits
Crouch & Roach Estuaries:
RAMSAR
SSSI
SPA
SAC
SSSI: The Cliff, Burnham-on-Crouch
Benfleet & Southend Marshes:
RAMSAR
SSSI
SPA
SSSI: Pitsea Marsh
Vange &
Fobbing Marshes
SSSI
NNR: Leigh
Shellfish Waters
Mucking Flats
& Marshes:
RAMSAR
SPA
SSSI
Foulness:
RAMSAR
SAC
SPA
SSSI
SSSI: Holehaven Creek
South Thames
Estuary & Marshes:
RAMSAR
SSSI
SPA
Tower Hill to
Cockham Wood:
SSSI
SSSI: Sheppey Cliffs & Foreshore
Thanet Coast:
RAMSAR
SPA
SAC
SSSI
Sandwich Bay to
Hacklinge Marshes:
RAMSAR
SPA
SSSI
SAC
Stodmarsh
RAMSAR
SPA
SSSI
SAC
NNR
NNR: Sandwich
& Pegwell Bay
Thanet
Medway Estuary & Marshes:
RAMSAR
SPA
SSSI
NNR: Elmley
The Swale:
RAMSAR
SPA
SSSI
NNR
SSSI: Holborough to Burham Marshes
(C) Crown Copyright
Scale 1:185000
PLA Hydrographic Service

Dredging in the PLA area

Channels
- maintained by PLA
- removal of shoals
    - capital projects

Individual operators
- responsible for dredging their berths
- licensed under Section 73 of Port of London Act

River Works Licensing Department manages the licensing process: environmental assessment; stakeholder consultation; monitoring compliance with licence conditions

PLA River Regime and Environment Department provides advice on:

- Dredging, River Works licences
- Planning applications
- Pre-application discussions
- Internally across departments

Background to maintenance dredging decision support framework

- to enable the PLA to meet its many environmental responsibilities in a fair, responsible, and innovative manner
- to enable the PLA to be able to achieve its core business aim of operating the Port of London in a safe, efficient and cost-effective way

Elements of dredging decision support framework

- Dredging liaison group
- Information exchange system – now Dredging Spatial Information System
- Environmental impact assessment procedures
- Guidance to berth owners and operators
- Beneficial uses promoted
- Monitoring and review
- Strategic, estuary-level research with Thames Estuary Partnership (TEP) and others

Dredging Liaison Group

- Established by Thames Estuary Partnership in January 2001
- Provides neutral, open forum to discuss ongoing and proposed maintenance dredging operations on the tidal Thames
- Meets 2-4 times/year
- Raises awareness
- Encourages:
  - discussion
  - collaboration
  - co-operation
  - data sharing

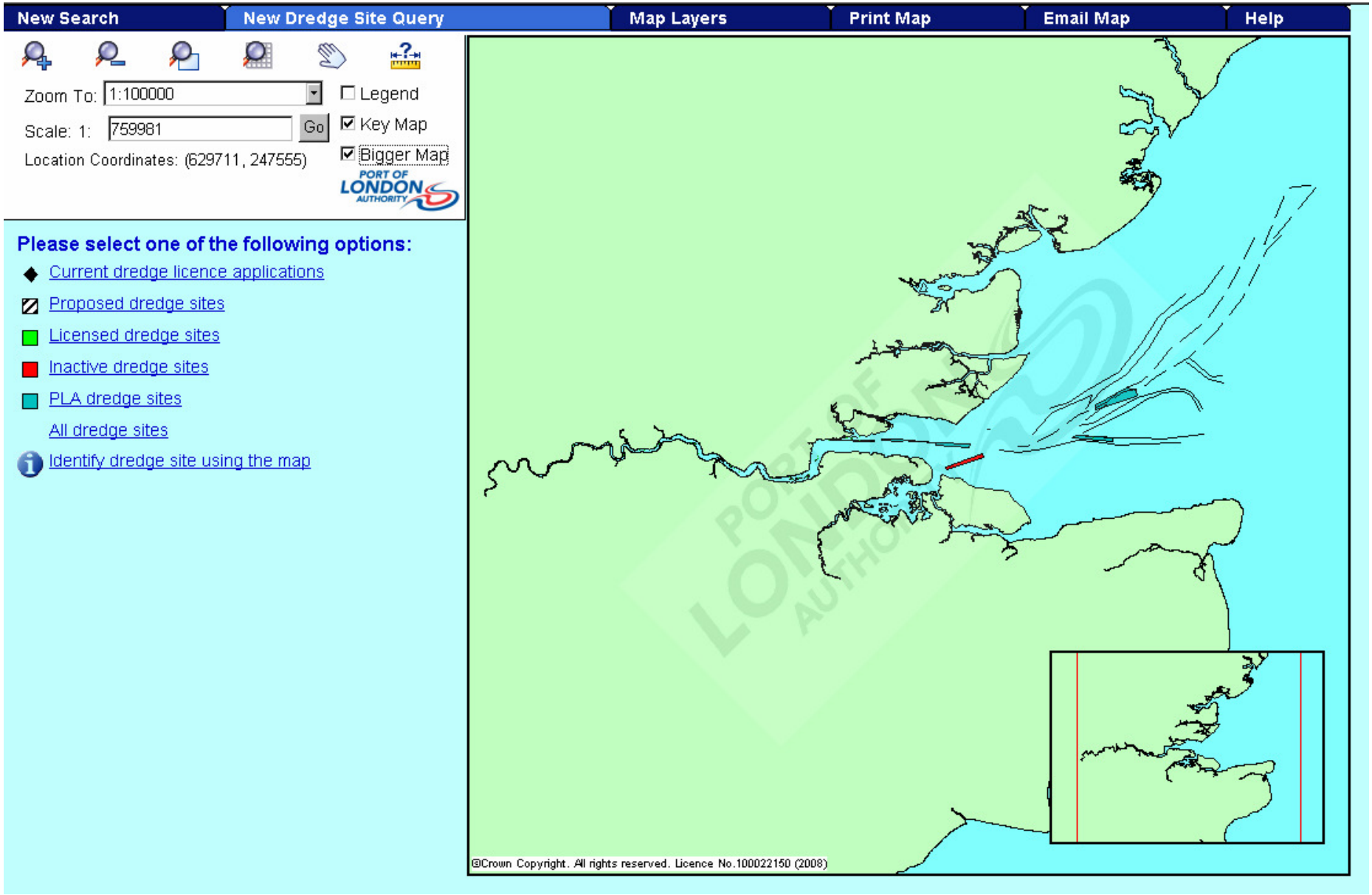
Dredging Liaison Group Membership

- Port of London Authority, Port of Tilbury
- Thames Estuary Partnership (facilitator and secretariat)
- Environment Agency
- Natural England
- Kent and Essex Sea Fisheries Committee
- RSPB
- Greater Thames Archaeological Committee
- Government representatives
- Dredging companies

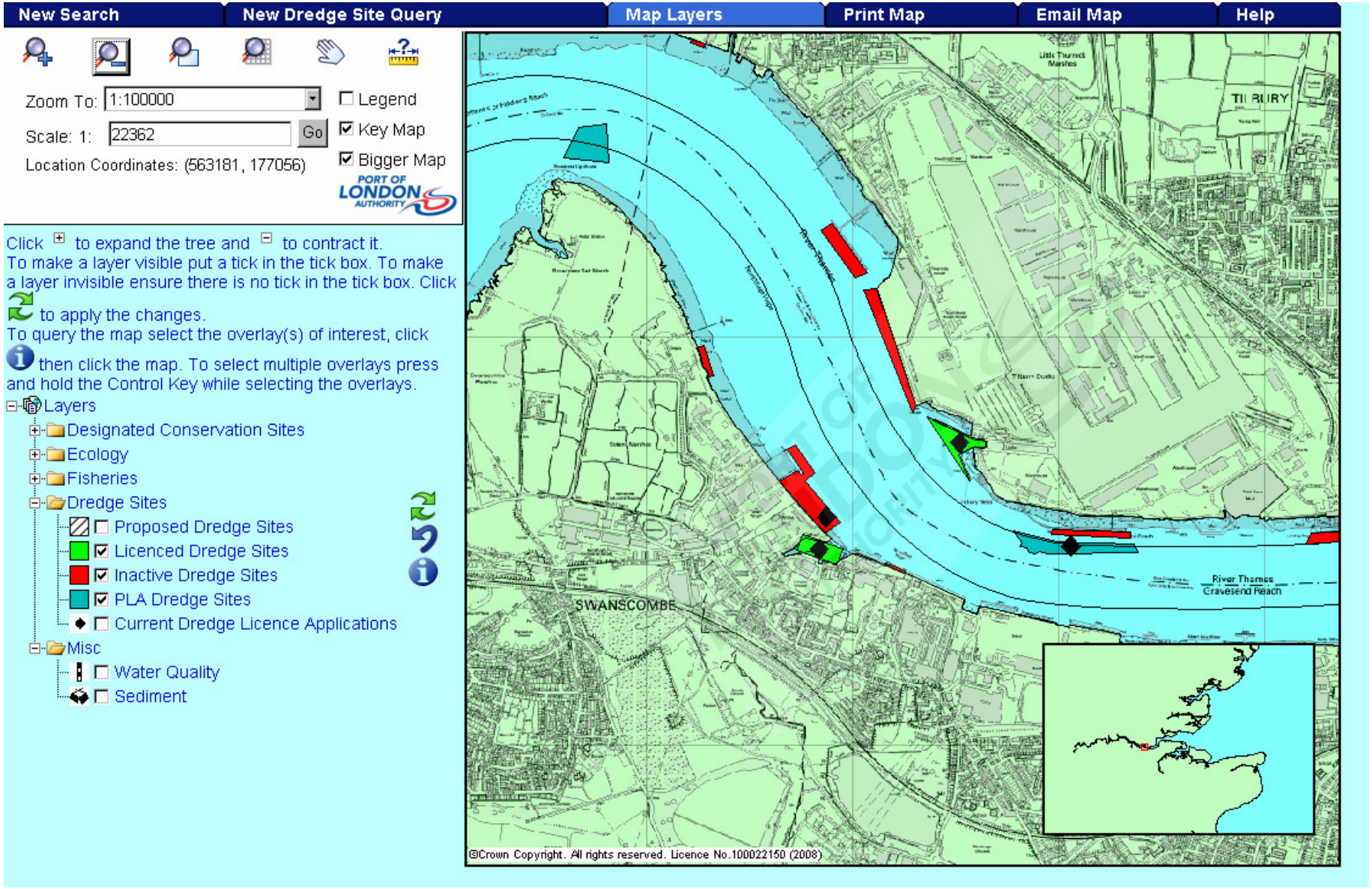
Dredging Spatial Information System (DSIS)

- Drivers:
  - involve stakeholders as partners in decision-making;
  - share information; and
  - produce an excellent baseline of environmental data
- GIS application to inform licensing decisions
- Consultation tool for dredging applications
- Input from Environment Agency, Natural England, RSPB, Kent and Essex Sea Fisheries Committee, dredging companies and others

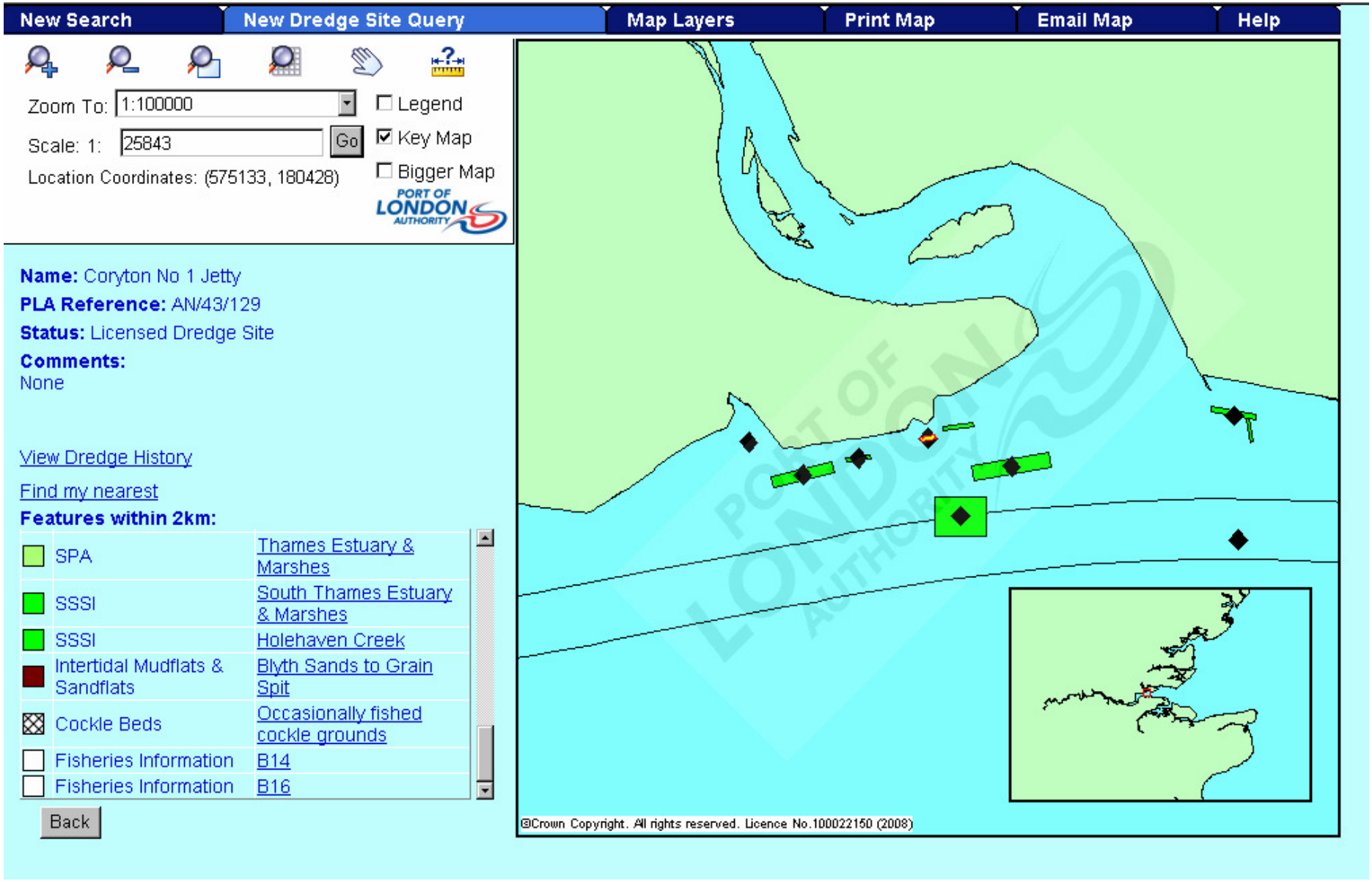
DSIS functionality



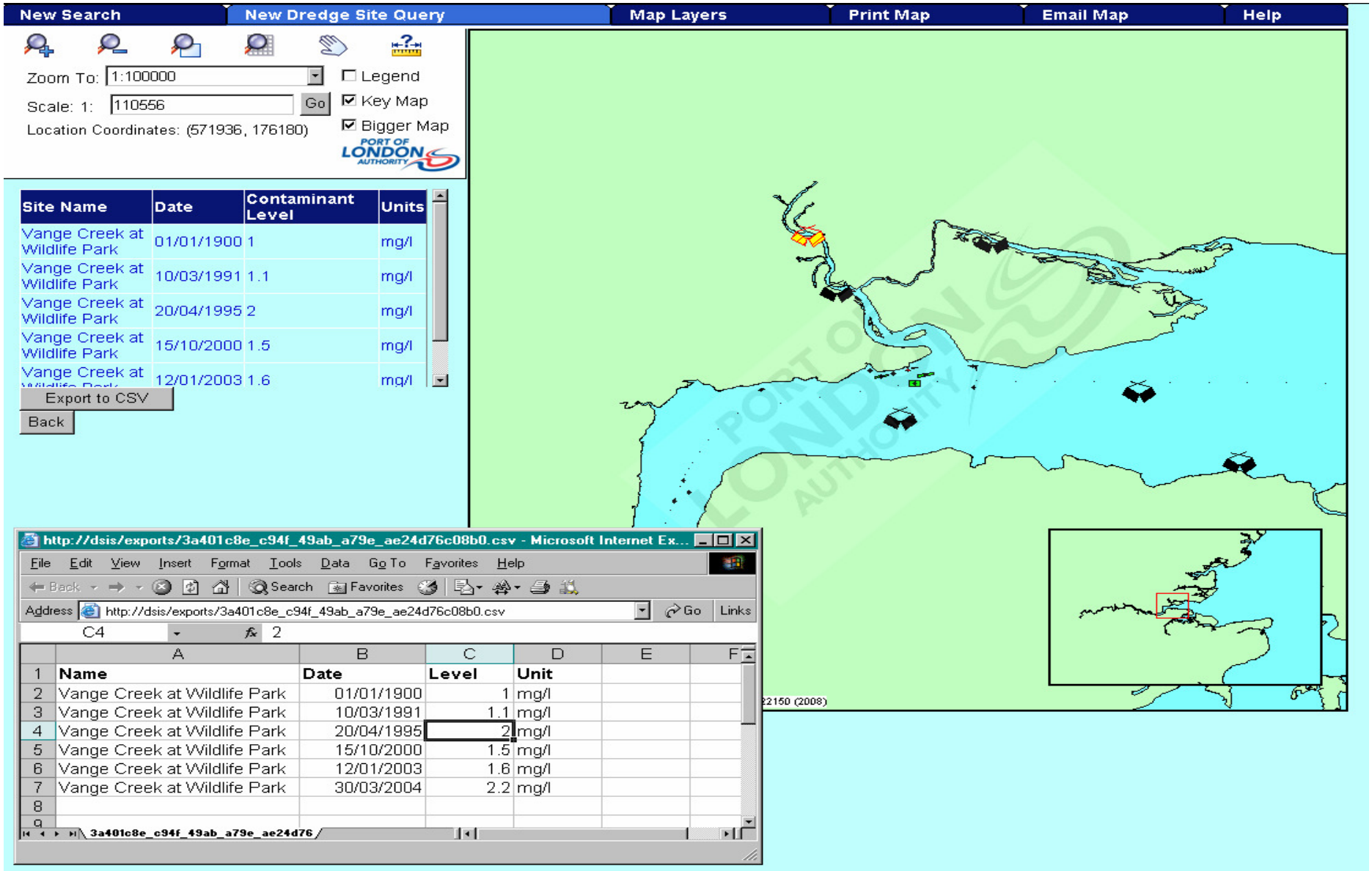
Map Layers


New Search
New Dredge Site Query
Map Layers
Print Map
Email Map
Help
Zoom To: 1:100000
Scale: 1: 22362
Go
Location Coordinates: (563181, 177056)
Legend
Key Map
Bigger Map
PORT OF LONDON AUTHORITY
Click to expand the tree and to contract it.
To make a layer visible put a tick in the tick box. To make a layer invisible ensure there is no tick in the tick box. Click to apply the changes.
To query the map select the overlay(s) of interest, click then click the map. To select multiple overlays press and hold the Control Key while selecting the overlays.
Layers
Designated Conservation Sites
Ecology
Fisheries
Dredge Sites
Proposed Dredge Sites
Licenced Dredge Sites
Inactive Dredge Sites
PLA Dredge Sites
Current Dredge Licence Applications
Misc
Water Quality
Sediment
SWANSCOMBE
River Thames
Gravesend Reach
©Crown Copyright. All rights reserved. Licence No.100022150 (2008)

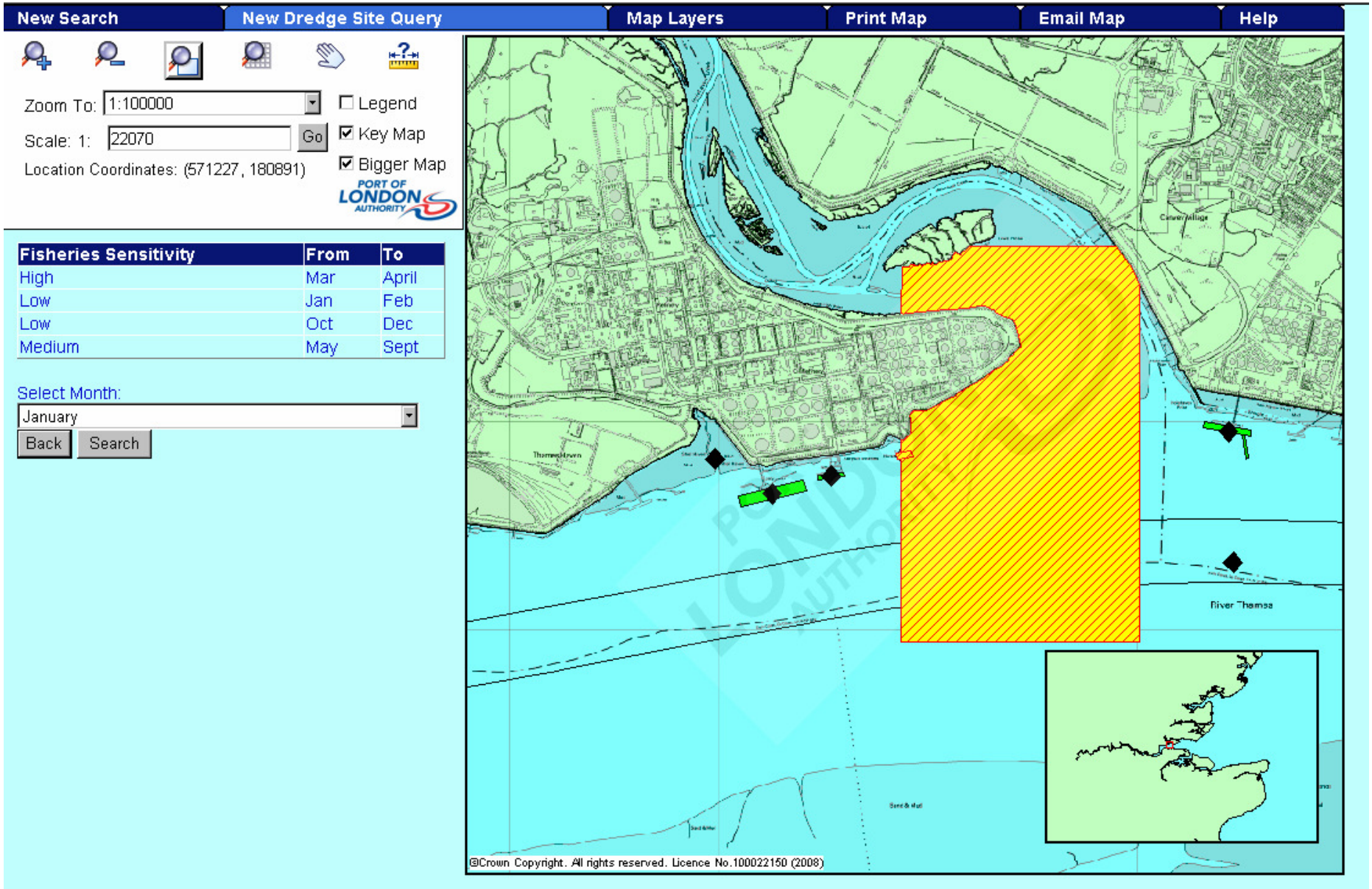
Interrogating a Dredge Site



Sediment Quality



Fisheries Information



Future use of DSIS

- Access to site is currently limited to Dredging Liaison Group members
- DSIS may be developed into a public consultation tool, accessible to all via PLA website
- Some sensitive information will remain password protected
- DSIS may be further developed for use with any port development project, not just dredging

Conservation Management Framework (CMF)

- Safety of navigation, port development and conservation can result in conflicting objectives
- CMF provides guidance/procedures for PLA functions that may affect conservation including:
  - port operations
  - recreational activities
  - regulatory decision-making
  - research and monitoring
- Partnership agreement with RSPB
- CMF will be web-based document on PLA website

Thanks for listening!

For more on the PLA, see
www.pla.co.uk