

Scotland's Environment Web

Data Journey 2011-2015

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SEPA

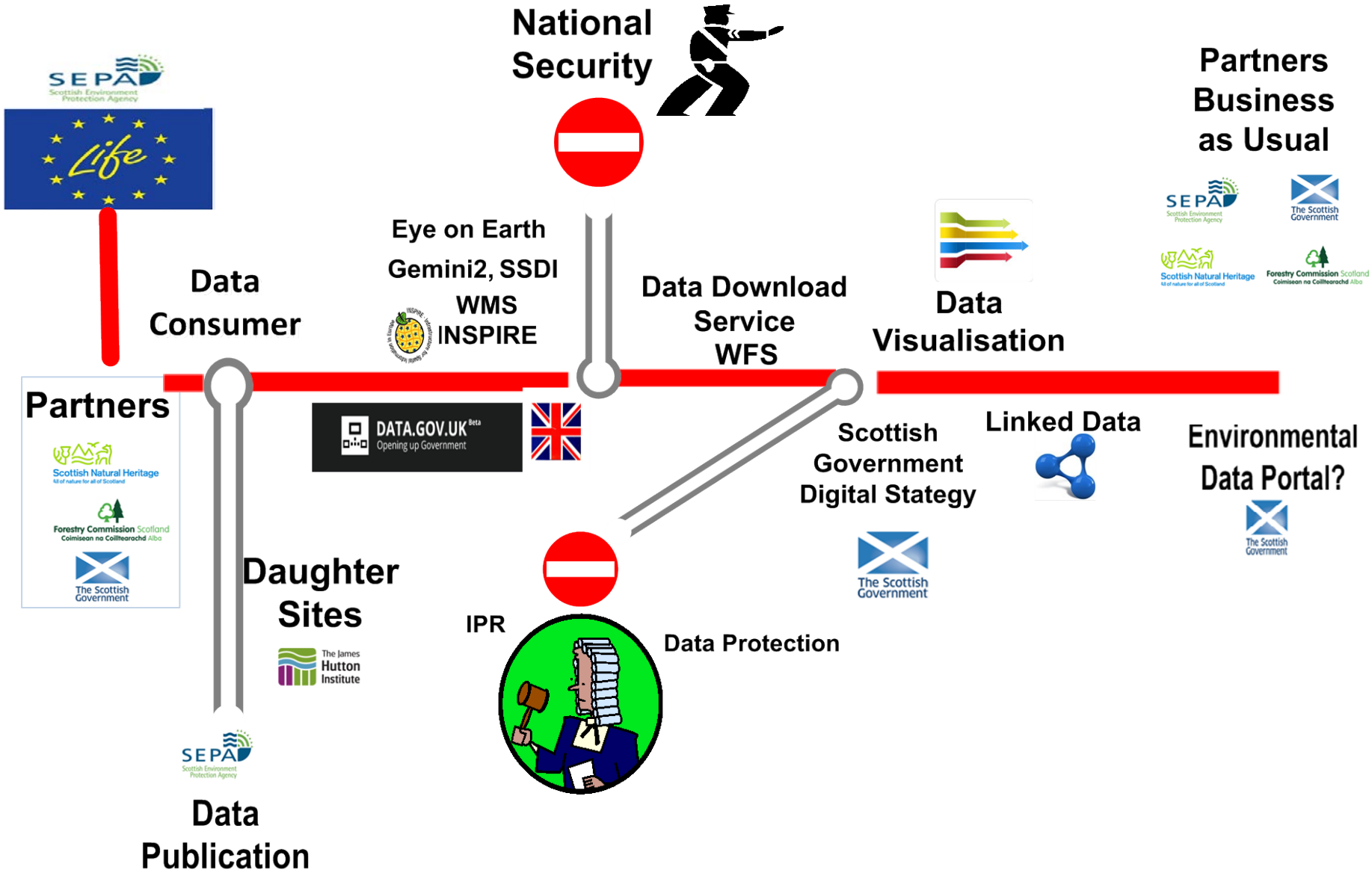
Session Outline

- SEWeb data journey
 - *What has been encountered on that journey*
- SEWeb as a data consumer
 - *What do we do with the data?*
- Five Star/Linked Data
- SEWeb Data – what next?

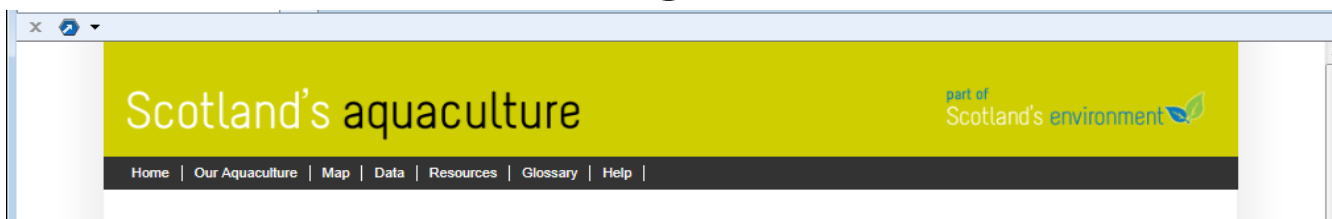
Scotland's Environment Web - Data Journey



LIFE10 ENV-UK-000182



Scotland's Environment Web Extended Brand Daughter Web Sites



Welcome to Scotland's Aquaculture website

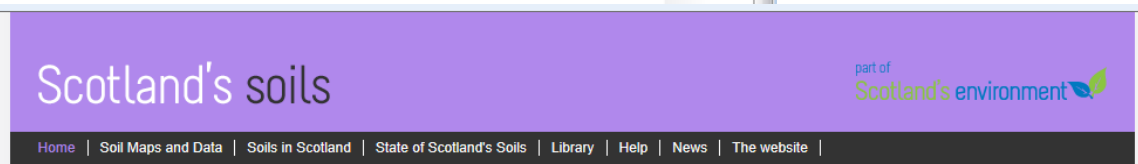
Aquaculture is an industry of growing importance in Scotland providing valuable jobs and income for the economy. The Scottish aquaculture industry is regulated with a view to promoting food safety, compliance with legislation and sustainability.

This website has been developed in partnership by the following organisations to provide access to a range of information about aquaculture in Scotland:



Information can be found by [looking at the map](#) or by [searching the data](#). We hope that you find this a useful source of information. If you have a question or feedback about this website you can [contact us](#)

 Explore the Map	 Search the Data
 Find Resources	 Look up the Glossary



Home

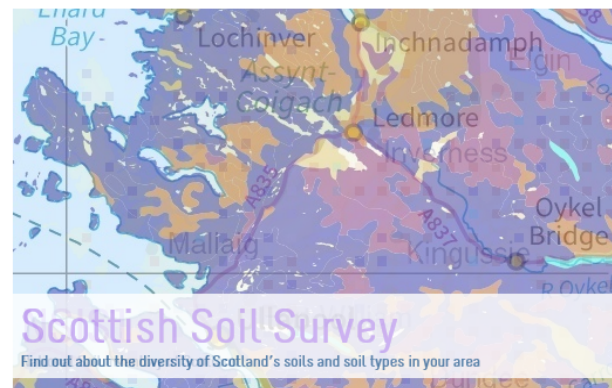
Welcome to the Scotland's Soils website

Scotland's soils are a great natural resource and provide many essential services to society, so it is important that they are sustainably managed and protected for future generations. This website aims to make authoritative, scientifically robust soils information and data more accessible, both to help decision-makers and to increase public understanding of soils. It is the result of a two-year project funded by the Scottish Government in partnership with SEPA, SNH and Forestry Commission Scotland.

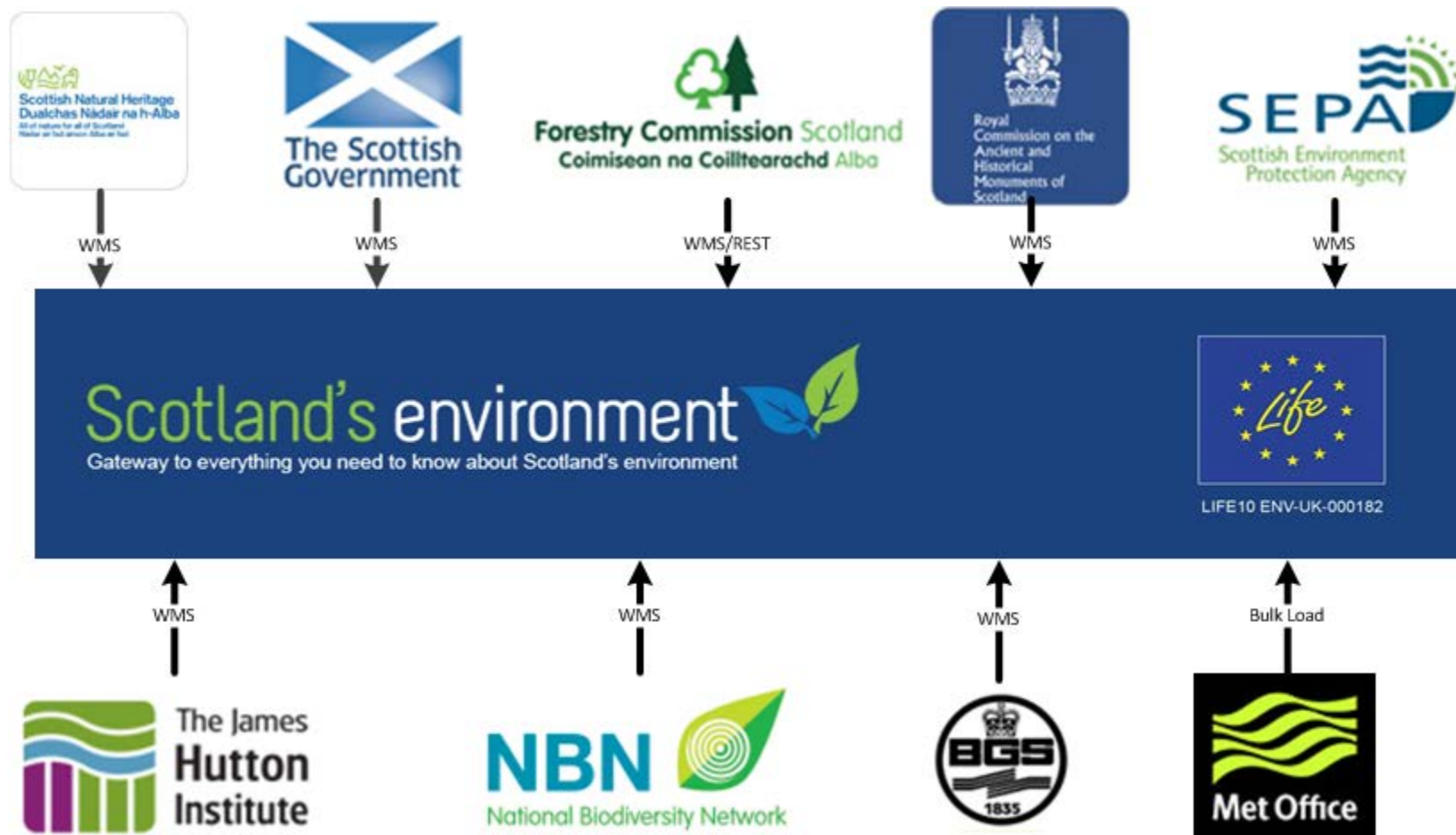
As well as presenting key facts on Scotland's soils, their functions and the pressures they face, the website includes interactive maps and datasets which you can download for use in your own spread sheets or analysis software – these are free of charge for non-commercial users.

Latest News

- [International Year of Soils](#) (Added 5th Dec 2014)
- [Celebrate World Soils Day and the start of the International Year of Soils](#) (Added 5th Dec 2014)
- [Additional reports added to the Library](#) (Added 15th Oct 2014)



Harvesting Data from Source



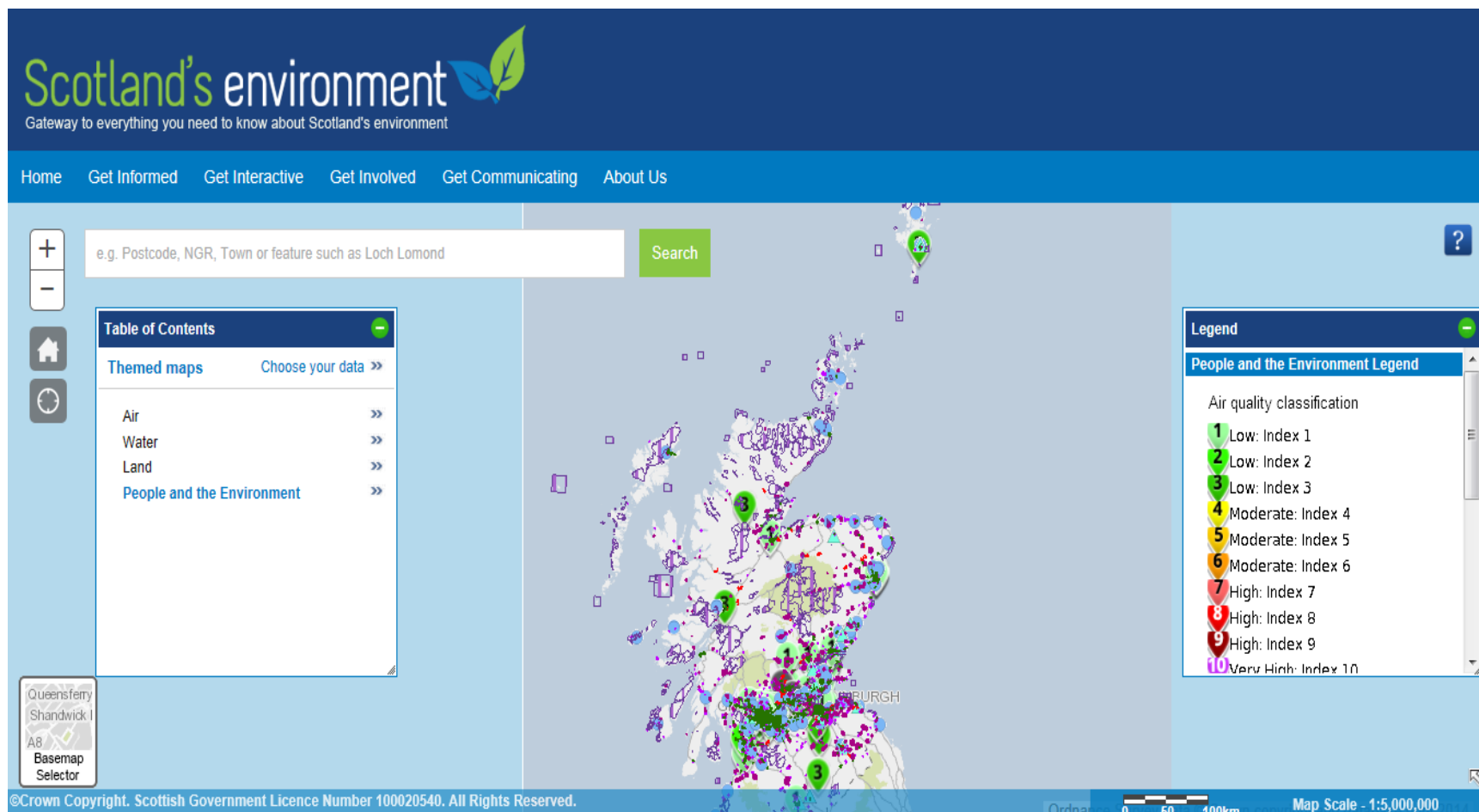
Dataset Progress

- 'Data at Source'
 - 55 Web Map Services (WMS) consumed by Map View -> 239 Data Layers
 - 9 Rest Services consumed by Land Information Search (LIS) -> 39 Data Layers
 - 10+ non spatial data consumed by Discover Data visualisation tools
- Five Star /Linked Data
 - 68 Scottish Environmental Statistics Online (SESO) Data, 12 Water (SEPA WFD), 1 Site Conditioning (SNH)
- Data Holdings
 - Soils/Aquaculture Daughter Sites
 - Project Finder

What do we do with the data?

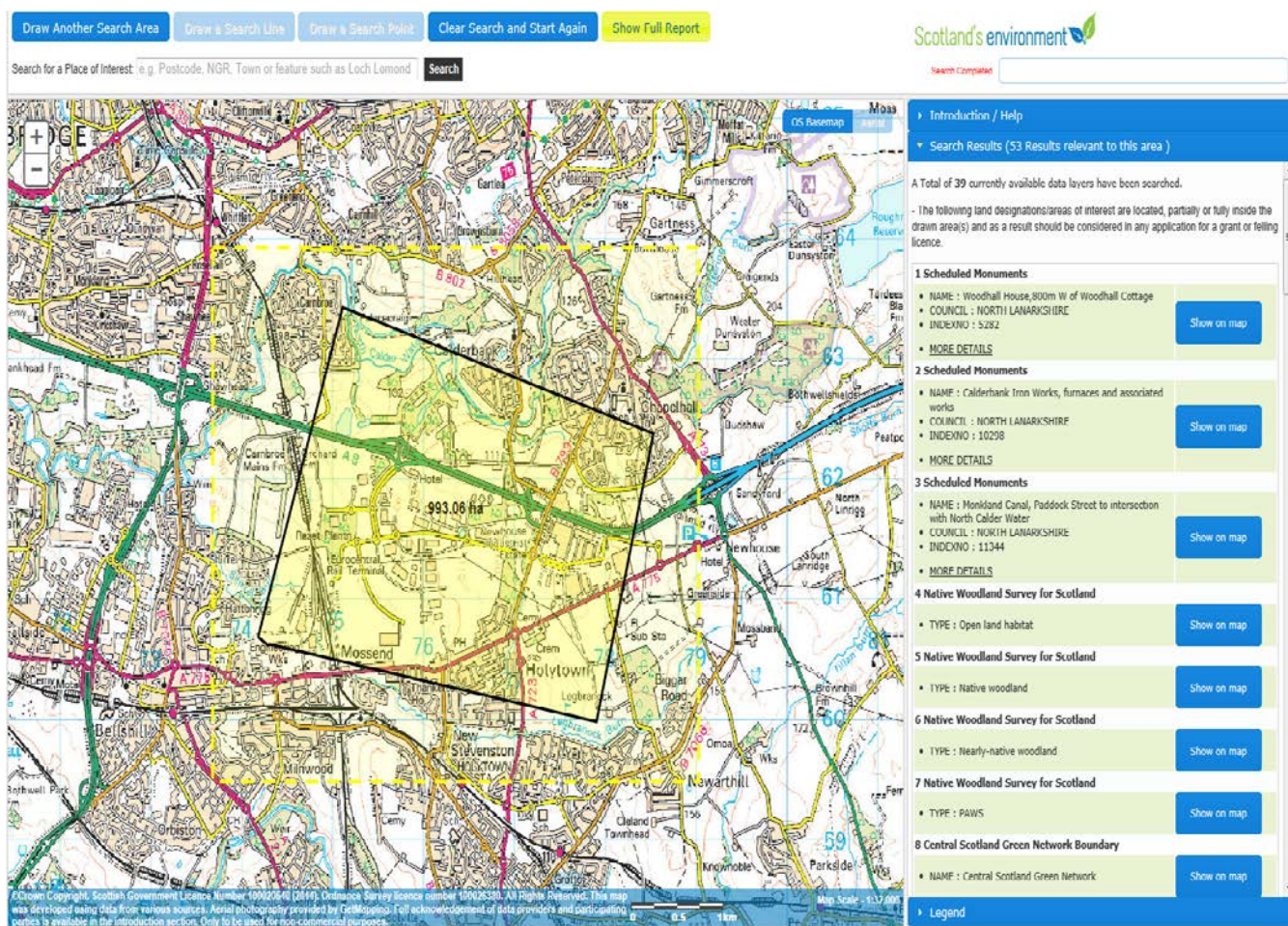
- Themed spatial maps
- Advanced Maps
- Visualisation Applications
- Task Specific Applications
- Linked Data Repository

Themed/Advanced Maps – [Map View](#)



The screenshot displays the 'Map View' interface for Scotland's environment. At the top, the website logo and navigation menu are visible. The main area features a map of Scotland with various colored markers representing air quality data points. A search bar is located at the top left, and a 'Search' button is to its right. Below the search bar is a 'Table of Contents' panel with a 'Themed maps' section containing links for 'Air', 'Water', 'Land', and 'People and the Environment'. A 'Legend' panel on the right side provides a key for 'Air quality classification' with 10 categories, each represented by a colored circle and a number. The legend categories are: 1 (Low: Index 1), 2 (Low: Index 2), 3 (Low: Index 3), 4 (Moderate: Index 4), 5 (Moderate: Index 5), 6 (Moderate: Index 6), 7 (High: Index 7), 8 (High: Index 8), 9 (High: Index 9), and 10 (Very High: Index 10). At the bottom, there is a scale bar and the text 'Map Scale - 1:5,000,000'.

Task Specific Maps – Land Information Search



Draw Another Search Area | Draw a Search Line | Draw a Search Point | Clear Search and Start Again | Show Full Report

Search for a Place of Interest: e.g. Postcode, NGR, Town or feature such as Loch Lomond Search

Scotland's environment

Search Completed

Introduction / Help

Search Results (53 Results relevant to this area)

A Total of 39 currently available data layers have been searched.

The following land designations/areas of interest are located, partially or fully inside the drawn area(s) and as a result should be considered in any application for a grant or felling licence.

1 Scheduled Monuments

- NAME : Woodhall House, 800m W of Woodhall Cottage
- COUNCIL : NORTH LANARKSHIRE
- INDEXNO : 5282
- MORE DETAILS

2 Scheduled Monuments

- NAME : Calderbank Iron Works, furnaces and associated works
- COUNCIL : NORTH LANARKSHIRE
- INDEXNO : 10298
- MORE DETAILS

3 Scheduled Monuments

- NAME : Monkland Canal, Paddock Street to intersection with North Calder Water
- COUNCIL : NORTH LANARKSHIRE
- INDEXNO : 11344
- MORE DETAILS

4 Native Woodland Survey for Scotland

- TYPE : Open land habitat

5 Native Woodland Survey for Scotland

- TYPE : Native woodland

6 Native Woodland Survey for Scotland

- TYPE : Nearly-native woodland

7 Native Woodland Survey for Scotland

- TYPE : PAWS

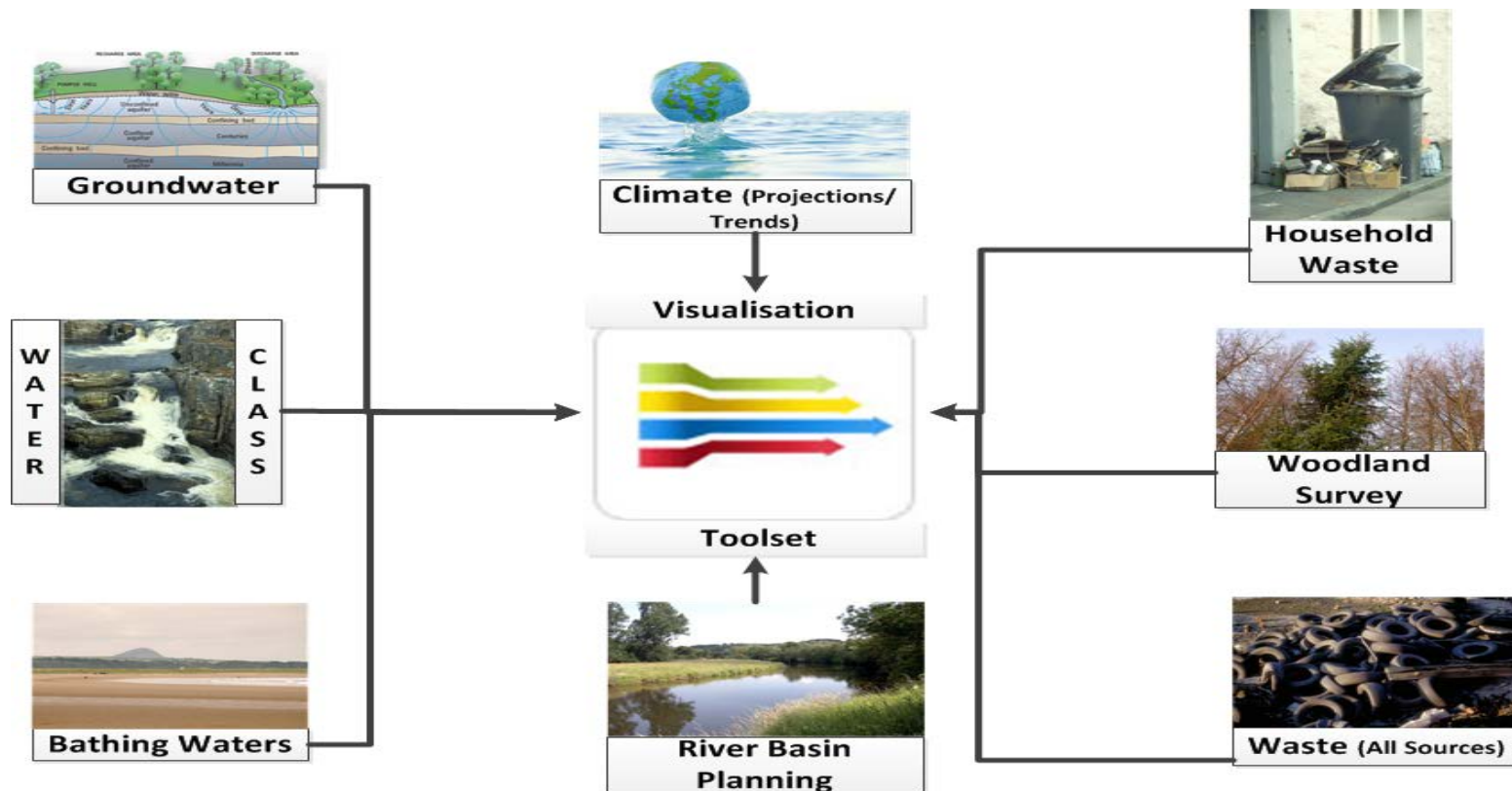
8 Central Scotland Green Network Boundary

- NAME : Central Scotland Green Network

Map Scale: 1:17,000


© Crown Copyright, Scottish Government Licence Number: 100020616 (2016). Ordnance Survey licence number: 100020616. All Rights Reserved. This map was developed using data from various sources. Aerial photography provided by GeoEye/GeoEye. Full acknowledgement of data providers and participating entities is available in the introduction section. Only to be used for non-commercial purposes.

Visualisation/Discover Data



<http://data.sepa.org.uk/>

Elda Demonstration




SEPA Linked Data API

[csv](#) | [html](#) | [json](#) | [rdf](#) | [text](#) | [ttl](#) | [xml](#)

Search Results
Show Search Form

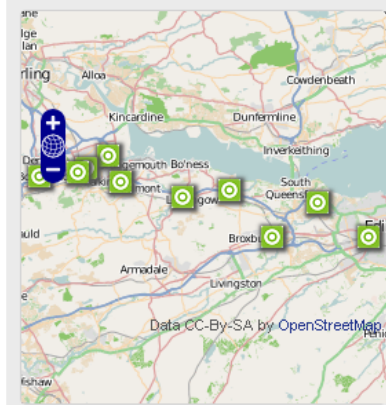
Forth and Clyde Canal (from Grahamston to confluence with R. Carron)

long	-3.77133
lat	56.01287



category	River	🔍
current classification year	2011	🔍
current overall classification	Overall status - Good ecological potential	🔍
length km	3.318	🔍
postcode district	FK2 FK3	🔍 🔍
unitary authority	Falkirk	🔍
water body id	1	🔍
wise code	UKSC000001	🔍

Map
🔍 ?



Data CC-BY-SA by OpenStreetMap

On This Page
?

- > Forth and Clyde Canal (from
- > Forth and Clyde Canal (Rough Castle
- > Forth and Clyde Canal (Wyndford to
- > Union canal (Falkirk Wheel to
- > Union canal (Greenbank to Kirk
- > Union canal (Kirk Bridge to Park Farm)
- > Union canal (Park Farm to Craigton)
- > Union canal (Craigton to Murray Burn)

Why Linked Data? - 5 Star Model of Open Data

- # Available on the web (whatever format) *but with an open licence, to be Open Data*
- # # Available as machine-readable structured data (e.g. excel instead of image scan of a table)
- # # # as (2) plus non-proprietary format (e.g. CSV instead of excel)
- # # # # All the above plus, Use open standards from W3C (RDF and SPARQL) to identify things, so that people can point at your stuff
- # # # # # All the above, plus: Link your data to other people's data to provide context

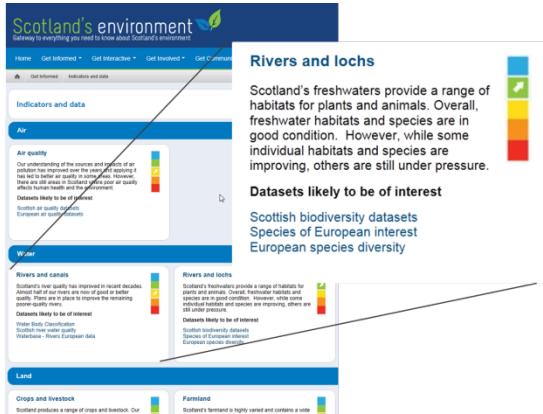
<http://www.w3.org/DesignIssues/LinkedData.html>

Linked Data Four Principles

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names.
3. When someone looks up a URI, provide useful information, using the standards (RDF*, SPARQL)
4. Include links to other URIs so that they can discover more things.

<http://www.w3.org/DesignIssues/LinkedData.html>

State of Environment (SOE) – Linked Data Model



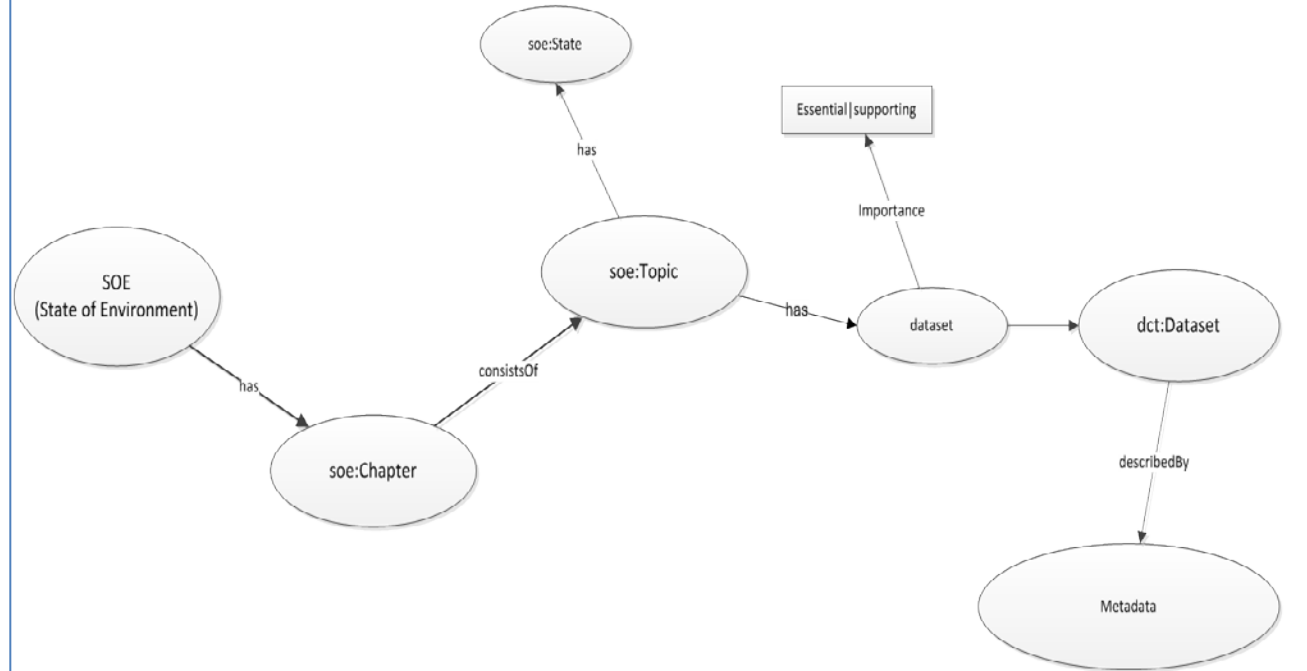
Rivers and lochs

Scotland's freshwaters provide a range of habitats for plants and animals. Overall, freshwater habitats and species are in good condition. However, while some individual habitats and species are improving, others are still under pressure.

Datasets likely to be of interest

Scottish biodiversity datasets
Species of European interest
European species diversity

State Of Environment
(Linked Data)
Graph Model



SOE – Implementation

Vocabulary/concept scheme

<http://data.sepa.org.uk/def/soe>

Trial data

<http://data.sepa.org.uk/id/soe/chapters>

SOE Data Linkages



Scotland's
Environment Web

SOE Data Linkages

European Indicator (SOE)

EEA

Chapter

Topic
=
*national
indicator*

Dataset

relates to

Scotland's
Environment
Web

SOE Data Linkages

European Indicator (SOE)

EEA

Chapter

Topic

Dataset

Scotland's
Environment
Web

relates to

feeds

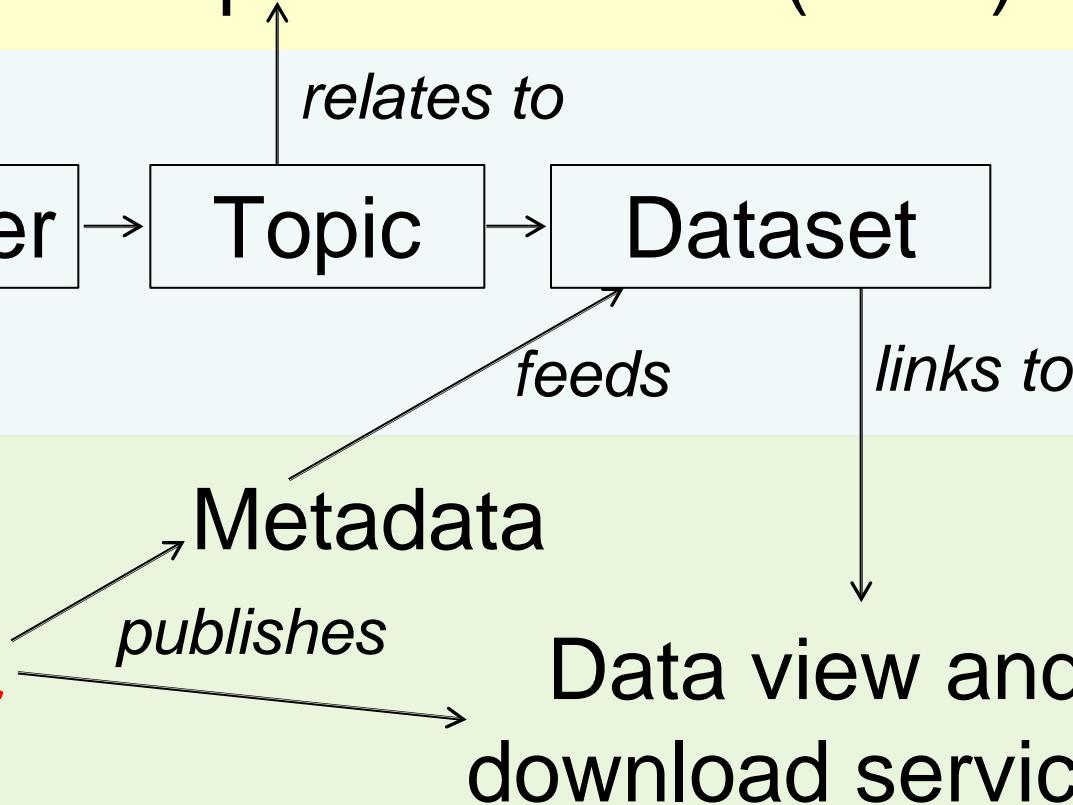
links to

Metadata

publishes

Data view and
download services

Data
Provider



SEWeb Data - What Next?

- Continued Addition of Datasets
- What's in my Area? – Local Datasets/My Environment, My Place
- Scottish Government Digital Strategy – Data Portals
- Scottish Government Open Data Strategy – best practice case study
- Graphical Data Models to support 'State of Environment'
- Links to European Data Initiatives

Useful Links

- Scotland's Environment Web
www.environment.scotland.gov.uk
- Scotland's Soils <http://www.soils-scotland.gov.uk/>
- Scotland's Aquaculture <http://aquaculture.scotland.gov.uk/>
- Linked Data Lab <http://data.sepa.org.uk>
- Scottish Spatial Data Infrastructure (SSDI)
<http://scotgovsdi.edina.ac.uk/srv/en/main.home>
- INSPIRE <http://inspire.ec.europa.eu/>
- Water Classification Visualisation
http://www.environment.scotland.gov.uk/get_interactive/data_visualisation/water_body_classification.aspx