

Scotland's Environment Web

Developing a national environmental information system

Joanna Muse Scottish Environment Protection Agency



Project planning, set up and delivery to optimise policy uptake

BEFORE YOU START

- Identify the policy drivers
- Define the challenge
- Set out your aim

DURING

- Set up partnerships agencies, policy makers, stakeholders
- Regular communication and iterative approach to planning and delivery
- Respond to change

END

- Deliver results that benefit all
- Embed your product into core business

POLICY DRIVERS - publish environmental data

Public sector are required to open up access to data; increase data sharing and re-use; make data available for policy, decision making and innovation; facilitate citizen access to encourage transparency and confidence.

- EU INSPIRE Directive
- EU Directive on the re-use of Public Sector Information
- Public access to environmental information
- Open data strategy

POLICY DRIVERS

- State of environment report
- Environmental reporting obligations (EEA/EIONET) Shared Environmental Information System (SEIS)
- Evidence based policy making
- Digital transformation move away from static, point in time reporting to more dynamic, interactive and online presentation of information and data

THE CHALLENGE

- Fragmented information across different sources hard to find.
- Unable to compare data.
- Difficult to identify common environmental issues.
- No holistic view of the environment.
- Technology shift increasing use the web and mobile devices access information services.
- Increasingly cluttered landscape of data and information is it trusted and authoritative?



AIM of the project, to deliver:

An inclusive partnership, bring together data users and data providers

A National Environmental Information System, where data is:

managed at source; published once and shared for other uses; available for reporting obligations; easily accessible to all users; comparable at different geographical scales; available to the general public and at national level; and supported through common and open standards.

Improved policy through better understanding of the environment from access to data

Provide **high quality online interactive resources** for the public.

PARTNERSHIPS

- Key agency governance group oversight and strategic direction.
- Multi-disciplinary working groups to share knowledge and skills
- Shared solutions to common challenges.
- Collaborate and co-develop solutions that are needed, fit for purpose, and owned.
- Achieve more together, than as individuals.



































PARTNERSHIPS





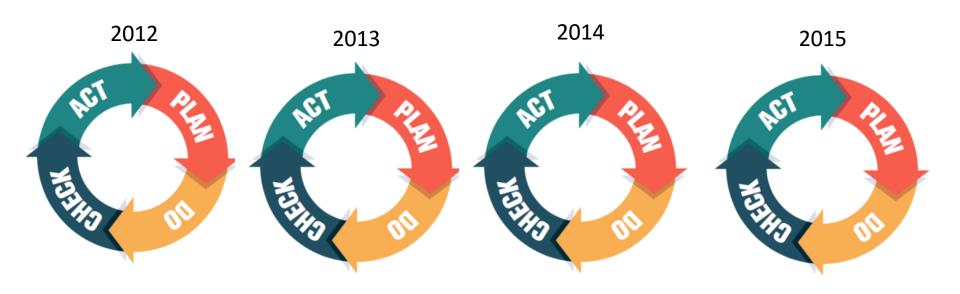






COMMUNICATION & ITERATION

- Weekly meetings with working groups.
- Monthly meetings with partnership governance group.
- Monthly reporting progress, risks, issues, dependencies.
- Annual review (achievements and lessons learned) and forward plan.
- Respond to changes.



What was delivered - Scotland's environment web - 2011 to 2015. Winner of Best of Best LIFE environment project.

<u>www.environment.gov.scot</u> is a **shared** data portal.

The **trusted gateway** to everything you want to know about Scotland's environment bringing together environmental information and data in one place so that it is easy to **search**, **discover**, **view**, **analyse and interpret**.

- A factual online account of Scotland's environment drawing on data from multiple sources.
- Access to open data via maps, analysis tools to support decision making and policy development.
- Signposting to more detailed information and guidance on specialist topics and themes, published on partner and other websites.
- Engage citizens in the value of data and action to protect the environment.



POLICY UPTAKE – national environmental information system to support reporting obligations and EU directive implementation

Examples:

- State of Environment reporting
- INSPIRE / Public Access to information / open data
- Water Framework Directive
- Bathing Waters Directive
- Habitats Directive
- Biodiversity Strategy
- Natura 2000 sites
- European Pollutant Release and Transfer Register (E-PRT)
- Waste statistics and circular economy
- Land use assessments
- Environmental Noise Directive



State of Environment Report State and trend assessment

5 chapters

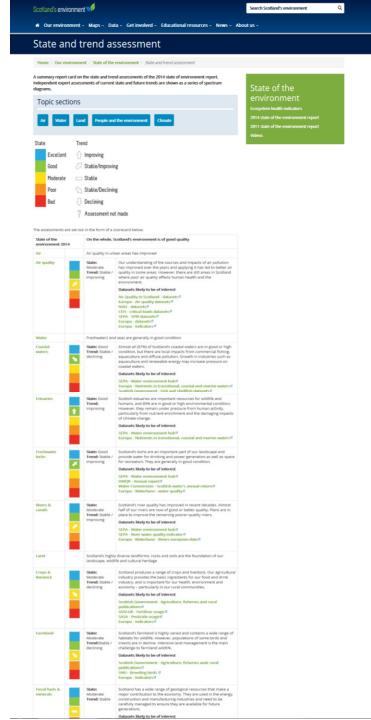
- Air
- Water
- Land
- Climate
- People and the environment

27 topics

Current state and future trend

Underpinned by key environmental statistics

Multi agency view — Scottish Natural Heritage, SEPA, Met Office, Forestry Commission Scotland, British Geological Survey, Scottish Government, SRUC, Zero Waste Scotland, Historic Environment Scotland, Marine Scotland, Sustainable Scotland Network, The James Hutton Institute.





Our Environment

Public friendly view of key environmental topics.

Summarise key environmental issues and data, action, policy & legislation, useful links and contacts

Air – air quality, air quality and citizen science, air quality and health

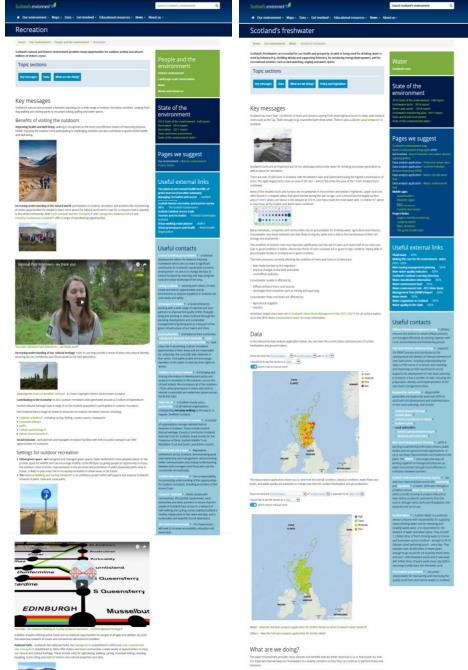
Climate – changing climate

Habitats and species – habitat map of Scotland, woodlands and forests

Land – rocks and landforms, soils, wetlands

People and the environment – historic environment, landscape scale conservation, noise, recreation, waste and resources

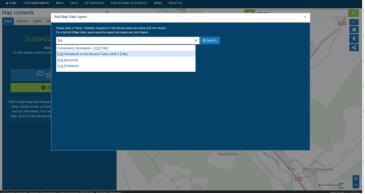
Water – Scotland's freshwater, Scotland's seas





Scotland's environment map

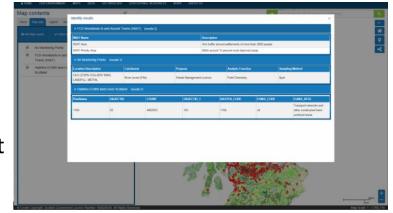
Policy Uptake – INSPIRE Directive

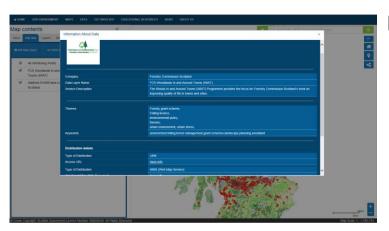


Search data by title, publisher, keyword, theme, task

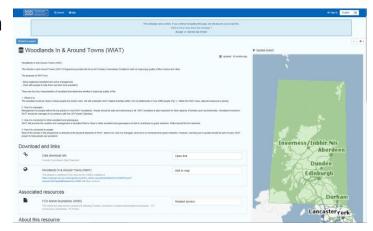


View data on map and more info about polygon or point





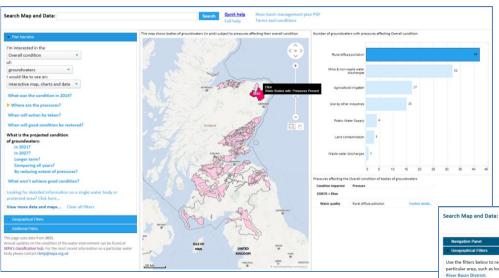
More information
about the data –
summary metadata,
partner logo, and
link to Scottish
Spatial Data
Infrastructure



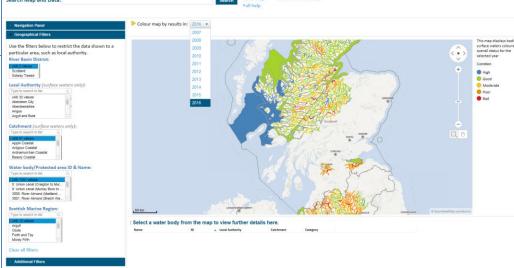


Policy Uptake - Water framework Directive

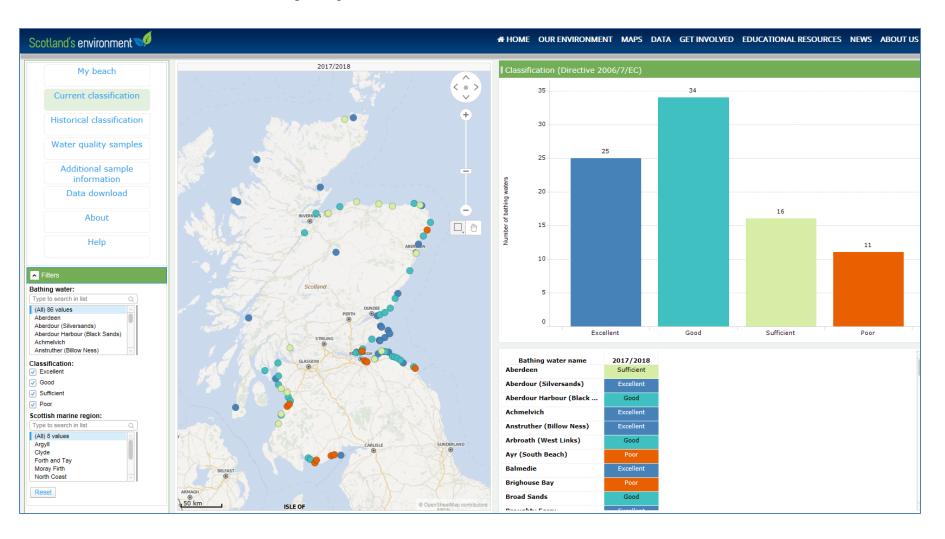
2015 – 2027 RBMP Groundwater pressures



Annual water classification reporting
All surface waters, compare areas, different
geographical scales

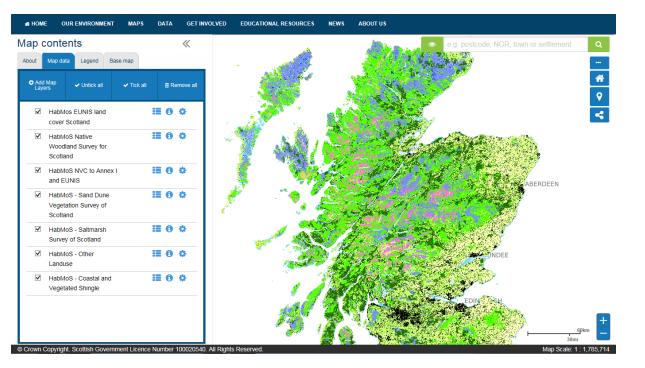


Policy Uptake - Bathing Waters Directive





Policy Uptake – Habitats Directive Habitat Map of Scotland



Scotland's environment Q

Pages we suggest

Habitat Map of Scotland

Home / Our environment / Habitats and species / Habitat Map of Scot

The 2020 Challenge for Scotland's biodiversity made a commitment to produce a "comprehensive ma Scotland's main habitats".

Our environment - Maps - Data - Get involved - Educational resources - News - About us -

Topic sections







Ben Vorlich and Loch Earn near Lochearnhead in the Loch Lomond and The Trossachs National Park - © Lorne Gill,

What is the Habitat Map of Scotland?

The Habitat Map of Scotland (HabMoS) will become the national repository for habitat and land use data. The mi adopts internationally recognised data and habitat classification standards.

HaldASS in a composite map, it contains data, from many different sources, which have all been re-classified EUNIS, the European Nature information System. If you want to know more about how data eners re-dissified correspondence between NoV. and EUNIS and Annex in explained in Scottish Natural Heritage's commission recent? 3/6. Manual of interventual PLISMS hallands in containable.

Why do we need a Habitat Map of Scotland?

We need this map because although we have a lot of existing data it is spread over many locations, in many different classifications, in order to allow policy and management decisions to be made with the greatest ease we need to have a resource that split everything into one plaze.

The unique feature of the map is that it brings together in one place and in one classification system all available habitat and land use data. It is this ability to see a range of data from different sources which makes it a powerful tool for analysis, planning and policy development in antional and local levels.

HabblisS sets a new standard for collaboration within Scotland. Organisations spanning the government: voluntary and private sectors have supplied data in an informal, willing and collaborative partnership.

The map uses European Nature Information Systems' (EUNS) and Stabilists Directived Annex II's habitat classifications. At the present time almost 800 site surveys and all existing national habitat surveys have been brought into use. For example, the woodland component is convented from surveys undertaken by Forestry Commission Sociator. The Identity of original surveys is retained, so it is always clear where data has come from



Gallanach, Nie of Coll - D Lorne Gill Scottish Natural Heritag

Explore the data

The Habitat Map of Scotland (HabMoS) data is available to view on this website. There are 7 layers available in



HabMoS EUNIS Land Cover Scotland

The HabMoS EUNS Land cover Scotland (HabMoS ELCS) is a broad scale EUNS map that provides a searniess coverage. As HabMoS develops it will replace the less detailed information in ELCS. This data is also referenced in the Ecosystem Health Indicators - Condition Indicator for Landauver.

HabMoS Coastal and Vegetated Shingle

rises used was conceived as part of a project to variousle, in the mean, or movement or constant engineers contract Sociolard (2011). The mobile inventory over together ensisting information sources and updated that strongs aerial photography interpretation (PAP) and limited field survey. This project undertook field validation of the inventory and mapped 2 Hisbitatio Directive Annex i Types. A report and the data were published in 2014. Sociolis Natural Heritages commissioned report 278. Beventory of constant legislated chingle in Scotland - field validations if

HabMoS Saltmarsh Survey

The Scottish Saltmarsh Survey collected information on all known saltmarshes larger than 3he from 2010 - 2012. The popul and the data were published in 2016 Scottish National Heritage's commissioned report 78%. Scottlish suffuser this series yealthing in great. All saltmarsh and to adolon seaming were snapped using the NVC distortional control of the NVC distortional series.

HabMoS Sand Dune Vegetation Survey

- This data is part of which completed NVC survey of all dunes in Scotland between 1994 and 1998. There is a series of 8 regional reports that cover the whole coast of Scotland. Each report is split into 3 volumes:
- Volume 1 main report.
- Volume 2 site reports:
 Volume 3 SMC report man

Original survey maps at 1:3000 were also provided. These were later digitized for use in GS. This data was reclassified in order to map the Annex i habitats and other areas were given a EUNS code. Casstal environment are very dynamic, so some features may not match background mapping of a later date. It is the best available data.

labMoS NWSS

The Native Woodland Survey of Scutland® (NWSS) was carried out by Forestry Commission Scotland from 2006-2013. It magnet all native woodlands of more 8.5 ha and recorded type and condition. Woodland was defined as an area of these and shrubs which has a canego your. A robust and documented method was used to re-classify the qualifying woodlands as Annex i habitats and to give all woodland a EURIS code.

HabMoS NVC to Annex I and EUNIS

National Vigotation Classification (NIC) size surveys exist for sizes, usually protected areas. They were done for a variety of size management purposes using the National Vigotation Consideration and an even year graft in terms of methodology and stope. This information has been re-classified to map the Annex I habitatis. NIVC costs that are not Annex I habitatis have been re-classified to INIACT. This protects is supported by Continual Natural Heritages, commissioned report 746. Manual will interestinal COLINET habitatis in Scratilished 2 and a conversion table for each survey, Work in one gring to remove the exception in this disk.

HabMoS other land use

Into ages shows the sub-section matural and uses anothing a you to sub-as a feed core insurrance in the fact the data is also available to download from the Scottish Natural Heritage data download page. Hallural spaces.

Some of the data in HabMoS is already available on Scotland's environment website. For example the Forestry

other geographical data to map Annex I habitats.

The data is managed as separate layers depending on the source of the data. We will work to combine these layers

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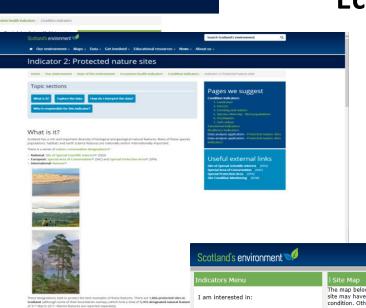
Topic sections

What are condition ind

Why do we need them?

How should I use them
You can use the indicators in many ways:

Policy Update – Biodiversity Strategy **Ecosystem Health Indicators**

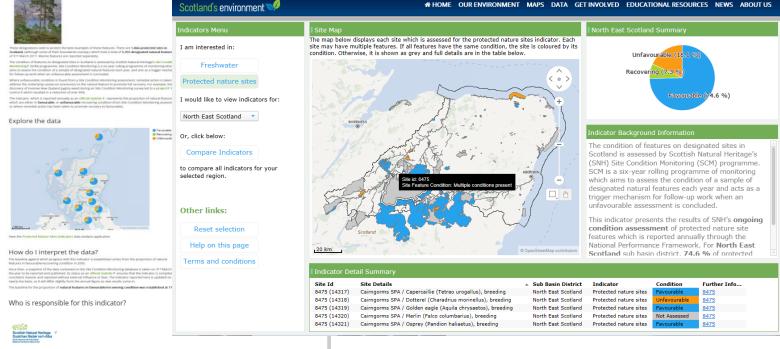


13 Indicators

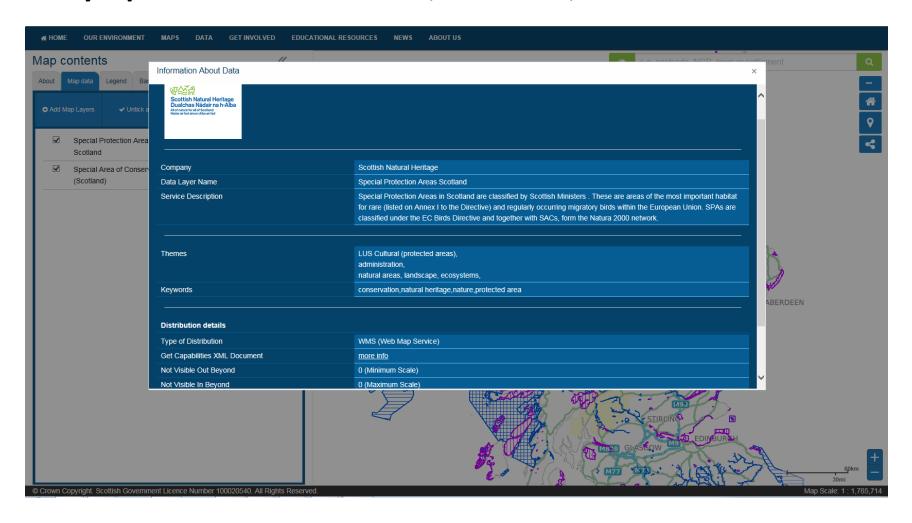
Condition

Function

Resilience



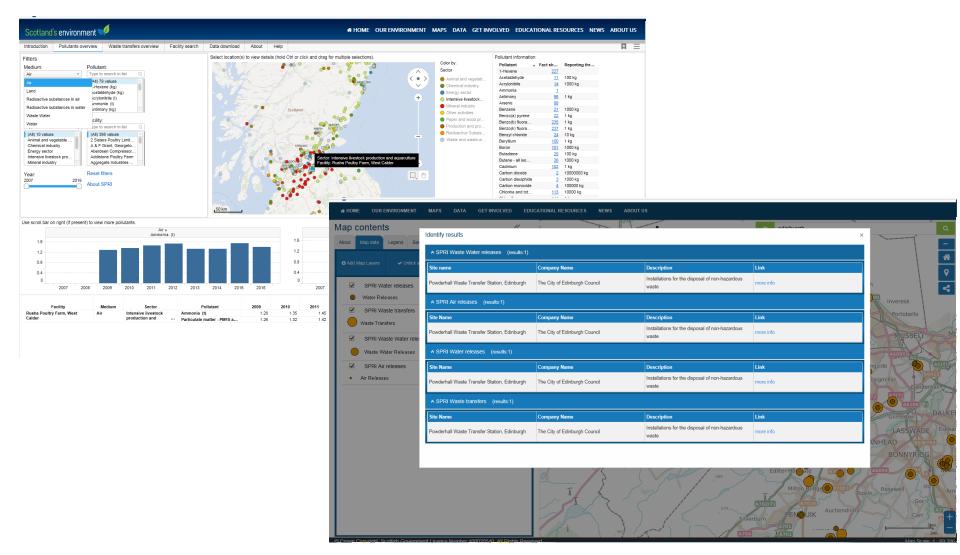
Policy Uptake - Natura 2000 sites (SAC and SPA)



Scotland's environment

Gateway to everything you need to know about Scotland's environment

Policy Uptake - European Pollution Release and Transfer Register PRT





Policy Uptake – Waste Statistics & Circular Economy

New Waste Data Strategy

Data

- Household waste
- Waste from all sources
- Waste sites and capacity
- Recyclate quality (and case study)





News

Updates on waste data developments, changes that are happening, success stories and events

Transforming waste data in Scotland: a new strategy is launched

Blog from Gillian Flint, Scientist in SEPA's Data Unit, on the launch of *A strategy for improving waste data in Scotland* and what it means for Scotland.

Case studies

Case studies of how waste data has been used to inform the management of waste and materials and increase our understanding of the economic, environmental and social impacts of waste.

- · Materials Recovery Code Recyclate Quality
- If you would like to submit a case study to this list please contact wastedatastrategy@sepa.org.uk

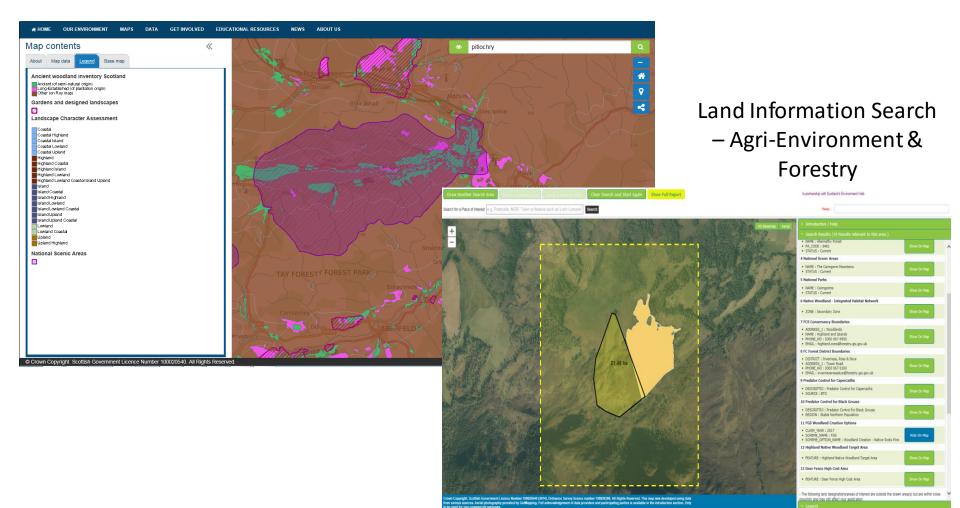
From this... ...to this



Gillian Flint Scientist (Data Unit)

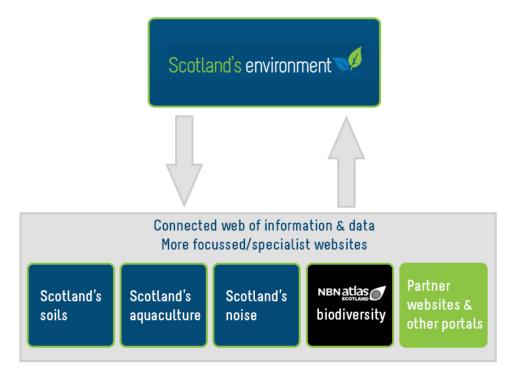
SEPA

Policy Uptake – Land use strategy and assessment of proposed land uses (forestry/woodland creation).



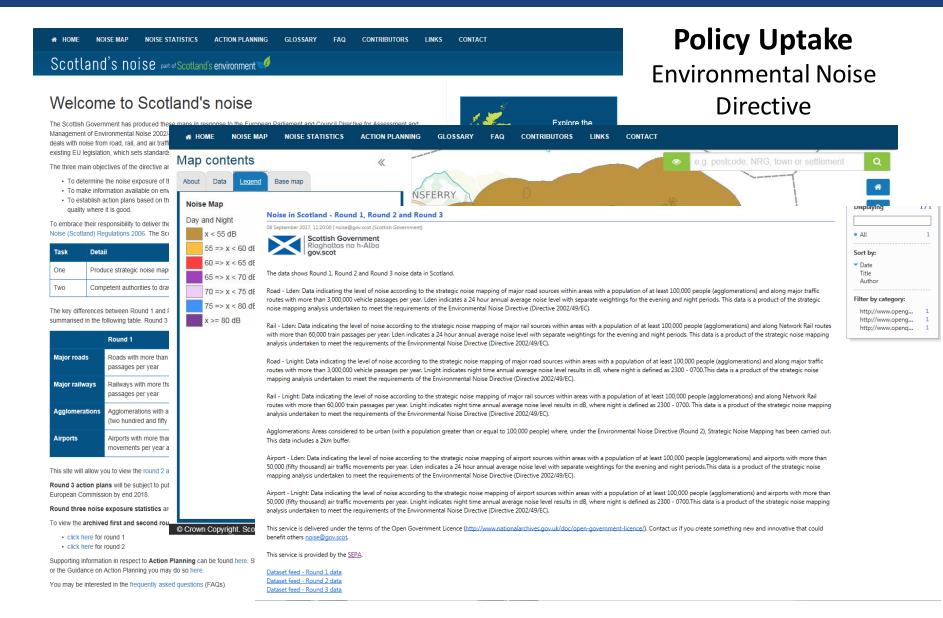


Through partnerships and collaborations, Scotland's environment web is an extended "network" of interconnected, trusted and authoritative sources of data and information. Users can choose the level of detail they prefer for data interaction.



Scotland's environment

Gateway to everything you need to know about Scotland's environment



PROJECT RESULTS

Trusted

 Because of the partners involved (Scotland's leading environmental organisations), users are confident that this is a portal to trusted and authoritative information (trusted evidence base).

Gateway to search and discover

- One place to search for data from different sources don't need to know who publishes data.
- Save time and effort that would otherwise be spent searching many different websites.
- The portal harvests data directly from source confident that data is up to date, and avoid risk of multiple versions of data.

PROJECT RESULTS

Data into information

- Transform open data into format that is easy to access, view and interpret.
- Data is more accessible and used by a wider audience.
- Extend the reach and influence of data published by partners
- Greater use of data for different purposes reporting, policy making, assessments and decision making, research, and citizen engagement.

Ongoing support and interest in results

- Scotland's environment web is now in 3rd year after LIFE funding.
- Team of 5 permanent staff developers and manager.
- Ongoing partnership meetings extended membership.
- Alignment to Scottish digital transformation delivery environmental hub.
- Embedded into core business partners publish data, access and viewed on Scotland's environment web.
- Ongoing co-development of shared products:
 - Land Information Search for e.planning (pre-planning application).
 - Data for strategic environmental assessments.
 - Data discovery catalogue (data search by task).
 - European Commission streamlining environmental reporting project – dissemination of best practice of a national environmental system (action 5).





Scotland's environment web www.environment.gov.scot

joanna.muse@sepa.org.uk