

Scottish Natural Heritage

# Open Data Publication Plan

Unlocking innovation and growth  
in the information economy

December 2015



## Document Control

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## Document Amendments

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## Purpose

Improving the management and accessibility of natural heritage and internal business information is an outcome measure for delivering a high-quality public service in our [Corporate Plan 2015-18](#). Aligning this aspect of our work with the Scottish Government Digital Strategy is in keeping with becoming smaller, smarter and more influential.

The scope of this Open Data Publication Plan relates to data under SNH copyright, i.e. *numbers, words or images that have yet to be organised or analysed*. Nevertheless, where relevant this may touch on some categories of processed information.

The Scottish Government [Open Data Strategy](#) defines Open Data as:

- non-personal and non-commercial data
- accessible to anyone, via the internet, free of charge and restriction on re-use
- in a machine readable form across a wide spectrum of technologies

Accordingly, and [informed by good practice](#), we shall:

- publish our Open Data Plan on our website by December 2015<sup>1</sup>
- aim for all data to be published in a format of ★★ ★ or above by 2017

### [The 'five star' schema](#)

- ★ available on the web (e.g. pdf) with an open licence
- ★★ machine-readable structured data (e.g. excel)
- ★★★ non-proprietary format (e.g. csv – comma separated values rather than excel)
- ★★★★ open standards from WC3 (e.g. RDF [Resource Description Framework] and SPARQL [SPARQL Protocol and RDF Query Language] to identify things
- ★★★★★ link your data to other people's data

Sir Tim Berners-Lee

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<sup>1</sup> The Open Data Publication Plan will be delivered through a more detailed action plan.

## Priorities

The publication of open data by SNH will be in accordance with relevant statutes, including but not limited to those listed in [Annex I](#).

In our view, progressing to ★★★ ('three star') and beyond needn't mean abandoning lower-level formats where they remain useful, such as providing excel outputs (for the general user) alongside csv (for the more technical user).

We will publish documents in file formats appropriate to the nature of the information they contain and anticipated use. They will be compatible with screen reading software across all platforms and devices. This is outlined in [Annex 2](#).

The scheduling of open data publication will be informed by:

- *importance* – statutory ahead of discretionary
- *urgency* – demand driven release based on data of most interest to users
- *opportunity* – capability and capacity

In reviewing and framing our data policies we shall aim to:

1. Publish our data free of charge under Open Government Licence
2. Utilise and develop our dataset asset register
3. Specify Open Data when creating, commissioning or buying new data
4. Provide clear licensing information – e.g. attribution / share-alike
5. Promote transparency around charging for value-added services
6. Resolve data restrictions within partnership agreements
7. Negotiate exemption from embedded licencing restrictions in derived data
8. Overcome blocks to applying open data standards retrospectively
9. Identify gaps and improvements in our processes
10. Implement an action plan to deliver the 2017 Open Data target

## Assessment

We apply the Digital Scotland [Measurements and Benefits Framework](#) to assessing progress: *More Open Data sets are available for use by our citizens, businesses and research organisations (Benefit 7)*. This is outlined in [Annex 3](#).

## **Annex 1 – Statutory framework**

The publication of open data by SNH will be in accordance with relevant statutes, including but not limited to the following:

### **Freedom of Information (Scotland) Act 2002 (FOISA)**

- The right to ask for information held by a Scottish public authority
- Enforced by the Scottish Information Commissioner

### **Environmental Information (Scotland) Regulations 2004 (EIR)**

- Requests for environmental information may be verbal
- Enforced by the Scottish Information Commissioner

### **Data Protection Act 1998**

- Eight data protection principles for the protection of personal data.

### **INSPIRE (Scotland) Regulations 2009**

- Standards for publishing spatial datasets within 34 data themes
- Discovery – view – download

### **Re-use of Public Sector Information Regulations 2015**

- Information made available for re-use under open licence at marginal or no cost

## Annex 2 – Data Standards

We will published our data in a format of ★★★ or above by 2017.

All species data are published through the NBN Gateway and thereby to the Atlas of Living Scotland.

All documentation will be published in a format appropriate to the nature of the information contained and anticipated use. Full details of the recommended formats are available online - [Government Service Design Manual – Choosing Appropriate Formats](#)

Three main categories of data are considered:

- written reports and documents
- structured data
- spatial data

### Written Reports

Written reports will be available in tagged PDF (PDF/A , an ISO-standardised version of the Open PDF Portable Document Format) or HTML. To create tagged PDFs, an accessible source document should be prepared in Word using the required format and structure which can include table of contents, numbered lists, data tables and image descriptions. File conversion to PDF creates a PDF tag tree which reflects the structure of the document and enables screen readers to navigate the document.

Instructions for this are available online - [Government Service Design Manual - Creating Accessible PDF's](#)

Online guidance is also freely available on how to create accessible PDFs:

- [create accessible PDFs](#)
- [accessibility checker](#)
- [creating accessible Word documents](#)
- [creating accessible Excel workbooks](#)
- [creating accessible PowerPoint presentations](#)

### Structured (non-spatial) Data

Structured data will be made available in CSV or XML format. This ensures accessibility to the data by screen readers, and the capability to sort and filter the data. Excel format will be provided as an additional option.

### Spatial Data

Spatial data will be compliant with the [INSPIRE Directive](#), including data discovery, download and web services.

Our current GIS Data format availability ratings are as follows:

Data Format	Data Type	OGC Standard	★ Rating	Comments
Geography Markup Language (GML)	Spatial Data	Yes	3	
KML (originally Keyhole Markup Language)	Spatial Data	Yes	3	
Web Map Service (WMS)	Web Service	Yes	3	
Web Feature Service (WFS)	Web Service	Yes	3	
GEMINI – AGI/UK Location	Metadata	N/A	N/A	GEMINI is a universally recognised metadata standard.
GeoJSON	Spatial Data	No (but open data)	3	
GeoRSS	Web Feed	OGC Open	3	
Comma Separated Values (CSV)	Tabular data	No (but open data)	3	
Atom (Will be replaced with WFS)	Data download service	Open	3	
Shapefiles (ESRI)	Spatial Data	No (Not Open)	1 or 2	Not included in OGC standard listing but still widely preferred format for many users

### Annex 3 – Assessment

In summary, at close of 2015<sup>2</sup>:

1	Spatial datasets	<p>We publish spatial data in three main forms</p> <ol style="list-style-type: none"> <li>1. As a <b>Discovery Service</b> – by publishing metadata to the Scottish Government Spatial Data Infrastructure portal</li> <li>2. As a <b>Web Map Service</b>, compliant with the Open Geospatial Consortium – e.g. for making content available through SEWeb interactive maps</li> <li>3. And as a <b>File Download Service</b> in open standard formats, with an Atom update feed, through Natural Spaces on our web site. We envisage progressing from this to Web Feature Service publishing.</li> </ol> <p>Around 50 spatial datasets published under Open Government Licence through <a href="#">Natural Spaces</a>, or on behalf of others through a Third Party Licence.</p>
2	Species data	<p>All of our species data are published through the <a href="#">National Biodiversity Network</a> and thereby to <a href="#">Atlas of Living Scotland</a>. The public viewing resolution for species vulnerable to persecution is published in our 'sensitive species' list.</p> <p>More than 60 species datasets are published through the NBN, approaching 300,000 species records.</p>
3	Protected areas	<p>All of our protected areas data is published.</p> <p>Over 5,000 notified features across nearly 2,000 protected areas can be accessed through <a href="#">SiteLink</a> and <a href="#">visualised</a> through Scotland's Environment Web.</p>
4	Commissioned research	<p>All of the research we commission, and other reports, are <a href="#">published</a>.</p> <p>876 <a href="#">Commissioned Research</a> reports published; the underlying data are also now published.</p>
5	Trend & indicators	<p>Currently <a href="#">published</a> as pdf ★</p>

<sup>2</sup> Categories 4 and 5 include processed information.  
Note also that each year we publish an [Annual Report & Accounts](#). Our accounts are prepared in accordance with the Accounts Direction issued by Scottish Ministers under section 10(3) of the Natural Heritage (Scotland) Act 1991, audited by Audit Scotland. Procurement payments over £25k are published on our website. We also report annually on our carbon and environmental management performance.

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**Scottish Natural Heritage**  
**Dualchas Nàdair na h-Alba**

All of nature for all of Scotland  
Nàdar air fad airson Alba air fad