West of England Nature Partnership
Joining up the dots for nature

West of England State of the Environment Scoping Study - Final recommendations

On behalf of the West of England Local Nature Partnership

Lucy Rogers, Avon Wildlife Trust, August 2013

The vision

Our environment plays a critical role in our lives, providing food, water, and air that are essential for life, and the raw materials for our economy. It also provides us with the processes that purify water, air and waste products, and gives us the space for our recreation, wellbeing and culture. The beauty of our natural environment plays a significant part in the number of people wanting to live and work in our region, and why businesses want to invest here.

The true value of these ecosystem services[1] are often hidden, overlooked or taken for granted, which can lead to environmental damage, and consequent costs to the economy. As our environment is under ever growing pressure both from a rising population and increasing consumption it has become urgent to understand and take account of the true value of the environment in decision making.

In the West of England, the overall strategic aim of the WENP is to develop and coordinate a plan for the restoration of the natural environment in the region and integrate that into our strategies for spatial planning, economic development and public health. To do that we need a comprehensive assessment of the state of the environment in a format that is accessible to all. This is something that we are unable to do at present, but other sectors such as health and the economy have been able to do for decades.

Having access to the right information on the state of our environment in the form of a State of Environment Assessment (SoEA) is an essential step forward that will enable us to: understand the contribution that natural resources make; take full account of the environment in assessing risks and opportunities of investment decisions and protect and enhance the environment for everyone's benefit in the West of England.

This has now been incorporated into the WENP prospectus as a key aim with two clear outcomes:

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[1] *The concept of ecosystem services has been developed to aid our understanding of the human use and management of natural resources. Our health and wellbeing depends upon the services provided by ecosystems and their components: water, soil, nutrients and organisms. Therefore, ecosystem services are the processes by which the environment produces resources utlilised by humans such as clean air, water, food and materials.* Defra funded research project NR107

Aim 1: Collate, increase and expand our environmental evidence base to enable informed decisions to be made relating to the natural environment, supporting an ecosystems approach:

- **Outcome 1:** Completing a State of Environment Report for the region to provide a baseline for future monitoring.

- **Outcome 2:** Creating a common digital data platform for the collection of information from public, private and voluntary sectors so we can better understand the effectiveness of our restoration efforts and the impacts of the natural environment.

Scoping study

The West of England State of the Environment scoping study was undertaken on behalf on the WENP by Avon Wildlife Trust between February and May 2013. The scope of the study is outlined in West of England State of the Environment Scoping Study - Project Brief (February 2013). The results of this scoping study were discussed with the WENP Task and Finish group and presented to the WENP Steering Group in July 2013. Final recommendations have also been informed by discussions with Dr Katie Medcalf of Environment Systems.

Tasks and Outputs

The Scoping Study involved the following tasks:

1. Review and analysis of existing State of the Environment Reports and how these may be adapted to best fit the needs of the WoE area.
2. Collate a list of potential environmental parameters which could be considered by the Assessment and identify where data relating to these may be held. As the built environment covers a wide range of features, the scoping study identified relevant parameters for inclusion in the SoEA.
3. A desk-based assessment of relevant data and information collating the location, format and any costs/licence requirements.
4. Widespread consultation with relevant organisations to establish where additional data may be available and geographic extent, format and cost/licensing requirements. The consultation also involved engaging with potential partners and gathering information about how a SoEA and/or toolkits could be used to support or inform their work.
5. Identification of gaps in the data and whether any current work may address these. An audit on existing data to establish its currency, quality and potential uses would be part of the gap analysis .
6. Production of a comprehensive table of information regarding findings and accompanying Assessment to signpost relevant data for production of the SoEA. Findings regarding potential applications of the Assessment and associated tools were included.
7. A desk study and consultation exercise to identify data and toolkits (either existing or in development) to support assessment of the extent and value of ecosystem services. Identify any existing use of the ecosystem approach or examples relevant to the WoE area during the consultation process, and likely/potential future use by partners or stakeholders.
8. Review the results of Task 7 in context of the requirements of the WoE Partnership Area. Assess inclusion/exclusion of datasets so that it is fit for purposes. Explore how toolkits could

be managed and stored including consideration of the dynamic nature of some of the underlying datasets.

9. Identify gaps in data relating to qualitative and quantitative analysis of ecosystem services and identify whether current work may address these.

10. Produce a comprehensive Report with suggestions and recommendations for the structure and content of the SoEA and associated toolkits as appropriate, including an assessment of how the data could be stored and managed, and an itemised budget for SoEA.

Detailed discussion of objectives 1-9 can be found in the progress report

Suggestions and Recommendations for a WoE SoEA

1. Target audience

The SoEA will need to appeal to a wide audience and will involve stakeholders in a shared vision, particularly when setting goals and aspirations. The following organisations/partnerships will be part of the stakeholder group:

1. **Unitary Authorities** particularly for departments responsible for environment and environmental protection, development control, forward planning, policy and strategy, waste management, water and flood risk, transport and climate and energy;

2. The **Local Enterprise Partnership**;

3. A wide range of **Non-Governmental Organisations**;

4. The **NHS and health organisations** with regards to health and wellbeing;

5. **Utility companies** including water and energy providers;

6. **Statutory bodies** such as Natural England and the Environment Agency; and

7. Sectors of the **business community**, for example developers, who provide environmental services or have a duty to consider the natural and relevant aspects of the built environment within their work.

2. Outputs and structure

To produce a SoEA that does enable us to understand the contribution that natural resources make; take full account of the environment in assessing risks and opportunities of investment decisions and protect and enhance the environment for everyone's benefit in the West of England it will need to include a number of outputs in combination and appeal to the range of user groups outlined above.

1. **Technical Report** - This is the main output provided in other State of the Environment Studies and aims to interpret the raw data to show relationships and changes or trends. The technical report usually attempts to fulfil numerous objectives including providing data whilst highlighting the importance of the natural environment. Usually the language avoids jargon, and data is presented visually so it accessible to a wide range of stakeholders and/or the general public. Benefits of this approach include a comprehensive document covering a wide range of topic areas and information which can be used by a range of audiences.

2. **Advocacy document** - There may be a need to produce a short glossy brochure or flyer which makes the case for nature for the WoE Area. However the WENP website and prospectus are now available which reduces this need.

3. **Non-technical summary** - This differs from an advocacy document in that it is intended for a wide rather than a targeted audience. Therefore, this would act primarily to inform as many people as possible rather than a targeted marketing tool. Again it would need to be succinct and focus on areas likely to be of most interest to a wide audience. It would act as an Executive Summary for the Assessment, signposting sources of further information e.g. the Assessment, website, toolkits, etc.

4. **Website with web-based tool-kit** - It is envisaged that there will be a website with parallel data base, kept up to date which can be viewed or analysed. Joint Strategic Assessments have parallel requirements with regards to disseminating complex data sets to the general public. Therefore, discussion with staff involved in JSAs is likely to be helpful as many are currently developing web tools so complex data sets can be interrogated. The website would contain easily accessible electronic maps showing the main ecosystem services and highlighting important areas.

3. Format, scale and scope

The Assessment should present data at the **WoE scale**, and cover a wide range of topic areas associated with or influencing the natural environment as a whole. Baseline information will need to be interrogated by a range of people including technical and non-technical professionals, decision makers e.g. councillors and council leaders, and the general public. Therefore, careful consideration will need to be given to how data is presented.

The Assessment will be presented by **topic area** (e.g. Water) with information regarding different indicators (e.g. water quality, pollution, flooding events, etc) included in the relevant section or in an **ecosystem services format** showing the value of the environment. It is likely to be structured around the LNP investment strategy - health, air, water, energy, food, iconic wildlife and landscape.

It is recommended that at least 7 topic areas are analysed and presented together in the first Assessment to capture interactions between data sets and topic areas (pers comm Katie Medcalf, Environment Systems). Case studies can also be included.

4. Frequency of reporting

The Assessment will be framed within a time period and it is intended that data will be stored and accessed in a format that can be periodically updated to:

1. keep data up to date
2. report change in condition and/or value of the environment over time against a baseline

5. Licensing and data storage

Given the recent experience of The Bristol Avon Catchment partnership in obtaining data sets for Environment Systems for mapping sediment flow, it is likely that access to data sets, data ownership, and licensing could be a major delay to progressing the Assessment. It would be desirable for all

data to be licensed and held by the LNP under consortium licences. Where necessary derived data licences will need to be purchased to allow the display and use of the maps and data.

6. Ecosystem service mapping

It is recommended that Ecosystem service mapping, carried out by experienced modellers, makes up a large part of the data presentation and analysis. This allows analysis of relationships and interactions between large and complex data sets covering social, economic and environmental factors to:

1. give extra information on the state of the environment and its value and provide a baseline to record and monitor change
2. show the best place to enhance exiting resources to give multiple functions and benefits or show where existing resources may be compromised as a result of a change.
3. show data in a visual form
4. analyse multiple data sets at the same time

7. Data gaps

Given the power of the analytical models available it will not be necessary to address gaps in the data before proceeding, as the models can fill in existing data gaps. However the process will be useful to highlights topic areas where data coverage is sparse and makes gaps (and therefore need for funding) apparent, such as biodiversity.

8. Consultants

It is recommended that professional consultants carry out this piece of work, and that preferably the whole piece of work is carried out by the same consultant, for ease of handling all the data. However, it is recommended that work to locate and access data sets is carried out before consultants begin to save time and money, as experience has shown this has potential to cause severe delay.

9. Consultation

It may be useful, if budget and timescale allows, to hold a consultation with potential users. Workshops which utilise participatory tools, such as participatory mapping, enable everyone to get involved. These are particularly useful, providing feedback and adding data to maps and allowing all to own the process. Updating the maps and modelling following the workshops provides feedback to all key stakeholder groups.

10. Costs

Funding will be needed to cover the following areas:
1. an initial outlay to get the analysis carried out and Assessment written;
2. consultation workshop with stakeholders;
3. ongoing maintenance of the website and updating the data;
4. periodic update of the Assessment.

11. Timescale

The greatest delay is likely to be accessing all the datasets. Once data is accessed it is likely to be only a few weeks work for professional environmental analysts such as Environment Systems.

12. Acknowledgements