

# A call to action

How better and more accessible data and intelligence will help combat the nature and climate emergency

**Move forward now to an Environmental Observatory**





# Towards an Environmental Observatory

We are in unprecedented times, a nature and climate emergency. Better understanding, tracking and tackling these dual and interconnected crises requires new thinking and approaches.

The Government has introduced a raft of new policy approaches and legislation which will impact upon land use policy and land management. These policy approaches include, amongst others, biodiversity net gain (BNG), the introduction of Local Nature Recovery Strategies (LNRS), and new approaches to the subsidy mechanisms supporting agricultural practices. Further proposals have now come forwards for reform of the land use planning system through the Levelling Up and Regeneration Bill. If implemented properly, these can play a positive and significant role in addressing the existential threats facing us. However, they and their success are all dependent upon a common input – data and intelligence.

Within this briefing, the RSPB sets out the case for a more effective and efficient platform for hosting environmental and ecological data, and to make it available to stakeholders across all sectors. We would propose that this builds upon existing arrangements, adding value and bringing them together into an efficient yet powerful platform that the Government could hold up as best practice and a major step forward in the battle ahead.

**We call this proposal an Environmental Observatory.**

## What is an Environmental Observatory?

An Environmental Observatory would bring together information, data and intelligence on a wide range of environmental and ecological topics. It would provide a central repository that any interested party could turn to easily, quickly and efficiently to access information. This could support better policy making through improved linking and interconnection of digital data streams across multiple areas including: environmental assessment and land use planning; climate change; nature recovery tools (such as Local Nature Recovery Strategies (LNRS)); and agricultural land management schemes (ELMS/SFI). It would also support the planning and delivery of new development. Indeed, an Environmental Observatory would serve as a hub at the centre of multiple strands of Government policy and ambition, making connections between them, supporting them, and maximising their potential and impact.

An Environmental Observatory would not necessarily require large-scale investment in new data or governance

infrastructure, (although there are many areas where the quality, breadth and granularity of data is currently lacking and in need of enhancement) but would instead bring together of data sources and streams under a single 'roof'. This would speed-up and ease the process of tracking-down and locating data on a given topic resulting in time and financial savings for users of every type, from policy makers to the development sector to community groups. There may also be enhanced opportunities and efficiencies to be gained through the alignment, inter-connection and cross-functionality of digital systems.

An Environmental Observatory would bridge Government Departments and other bodies, providing a single point source within which key sources of environmental data would be hosted and made available.

An Environmental Observatory would be a highly visible achievement – a clear and tangible sign of the Government's ambition and action to tackle the climate and nature emergency.



Allotments growing fruit and vegetables  
David Broadbent (rspb-images.com)



Tawny owl  
Paul Sawyer (rspb-images.com)

## Why we need an environmental observatory

- Existing environmental datasets are spread across a range of different agencies and departments, making them difficult to find in the first place which limits efficiency.
- This also acts as a barrier to holistic decision making, and the assessment of potential co-benefits and trade-offs associated with the implementation of land use policies, as decision making doesn't fully take into account all of the important variables that should be assessed at the outset.
- The creation of an environmental observatory could act as an important tool in coordinating the efforts of different agencies in delivering their core functions e.g. inspections and enforcement from the Environment Agency and advice from Natural England.
- Importantly it would provide stakeholders and the public with greater access to environmental information in one central source, thereby improving public participation in environmental decision making.
- The realities of the problem of data system disconnect for users was summed up within the Farm Inspection and Regulation Review<sup>1</sup> which stated:

*"There is no one base dataset for farms that all regulators can access. Each organisation's information needs are different and therefore the requests for information to farmers differ leading to farmers being asked for the same information in different formats by different organisations. From the organisations' perspective there are challenges trying to find the person responsible on the farm with whom to engage. Despite improvements over the past few years in coordinating farm inspections, the degree to which efficiencies have been possible have been frustrated largely by immovable system constraints"*

- As the UK Government seeks to deliver its world-leading ambition for the environment, it needs a repository and platform for data and intelligence fit for the twenty-first century and the many challenges we face.

<sup>1</sup> <https://www.gov.uk/government/publications/farm-inspection-and-regulation-review>

## Making a Difference

Our proposition for an Environmental Observatory would support policy making and delivery on the ground in multiple ways. Here we identify a few:

### Land-Use Planning and Environmental Assessment

The RSPB has separately suggested ways in which land use planning<sup>2</sup> and our system of environmental assessment<sup>3</sup> (Strategic Environmental Assessment and Environmental Impact Assessment) could be improved. Whilst improvements can be made to current assessment arrangements, we identify how it is also possible to move towards a system through which contemporary information is provided in a digital mapped format, grounded upon Natural England's existing MAGIC platform, through a central data hub, the Environmental Observatory. This information would be bolstered from the content, priorities and evidence bases underpinning LNRs, as well as a range of other sources such as environment NGOs and local community groups, and made openly

available and at fine scale. Being finer scale, it would expand upon and add value to the Natural Capital and Ecosystems Services mapping work that Defra is currently undertaking.

The value of this approach would be that, with appropriate data protection, filters and access rights in place, developers or any other stakeholder with interest in a particular parcel of land could quickly and easily focus in on it using the map, which in turn would describe the nature and character of the site, any nature conservation or other designations applying to it, and known species or factors of ecological interest. This in turn could help to inform the nature of any ecological surveys likely to be needed; whether any specialist ecological assessment is likely to be necessary; and whether any required surveys would have specific timing requirements. All of this information, readily available at the very start of the development process, would be invaluable to investors and developers and easily and efficiently located through it being hosted as part of the Environmental Observatory.

<sup>2</sup> [planning-for-natures-recovery-rspb-advocacy-briefing-february-2022.pdf](#)

<sup>3</sup> [rspb-towards-improved-environmental-assessment-report-nov-2021.pdf](#)





European starling  
Ben Andrew (rspb-images.com)

## Local Nature Recovery Strategies and the Nature Recovery Network

LNRS are a new tool for the strategic spatial coordination of nature recovery action at the local level, created through the Environment Act 2021. In essence, they will contain a map and statement of biodiversity priorities, which will include a description of existing and potential sites of importance for biodiversity in a given area and a set of priorities for delivering nature recovery. This prioritisation should account for a range of considerations, including the status of particular sites, national significance of local species and habitats, potential sources of funding, and the potential to deliver wider environmental benefits.

LNRS are intended to serve as a platform for coordinating decision-making and funding across a range of tools, including Environmental Land Management; Biodiversity Net Gain; local land use planning; and delivering the Climate for Nature Fund amongst others. As such, accurate, relevant and up-to-date mapping and information is critical to their success. The Environment Act provisions require the Secretary of State to prepare and publish a national habitat

map for England to support the development of LNRS. They will also draw on data and mapping held at the national level (e.g. by Natural England) and local sources. Responsible Authorities will use this data and mapping to inform their own identification of opportunities and priorities, which will themselves need to be accessible and usable by a range of actors.

Given the significance of LNRS in helping to coordinate the delivery of numerous aspects of the UK Government's 25 Year Environment Plan and the provisions of the Environment Act, it is crucial that they are supported by consistent and effective data systems. This becomes even more critical if they are envisaged as the basis on which important legal, planning and funding decisions are to be made.

In principle, the overall system of LNRS – spreading across England with no gaps and no overlaps – should enable the delivery of a national Nature Recovery Network.

This is a key element of the 25YEP and should be a national, ecologically coherent network (based on the Lawton Principles), enabling the delivery of a range of other environmental benefits, as well as increased access and engagement with nature for people and communities. While the NRN itself is not established in legislation, it is clear that LNRS are intended as the mechanism through which such a network is planned and delivered. Ensuring they are able to fulfil such a role will rest in part on the consistency and alignment of the data informing decisions and delivery and the mapping that will inform users of its extent and status. For both these purposes, a single shared platform and facility – such as an Environmental Observatory – would be invaluable.

### **Biodiversity Net Gain**

The Environment Act 2021 will introduce a mandatory requirement for new developments to deliver Biodiversity Net Gain (BNG) starting from November 2023. Whilst not mandatory at present,

such gains are already encouraged by national policy. Net gains will need to be recorded on a register, and if a major loophole in the BNG system is to be avoided then the register must record both off-site and on-site gains. This register could sit as part of the Environmental Observatory, being easy to find and progressively amassing a helpful body of information that could efficiently support work to monitor and enforce the delivery of individual gains; whilst also evaluating, assessing and understanding the value and impact of the BNG system as a whole.

Furthermore, given the potential for BNG to deliver LNRS policy priorities for nature recovery, then hosting LNRS and BNG Register data within the Observatory would enable a better understanding to be gained and maintained as to how effectively these two policy initiatives were being aligned in practice, sharing good practice, and informing future improvements to policy and implementation approaches.





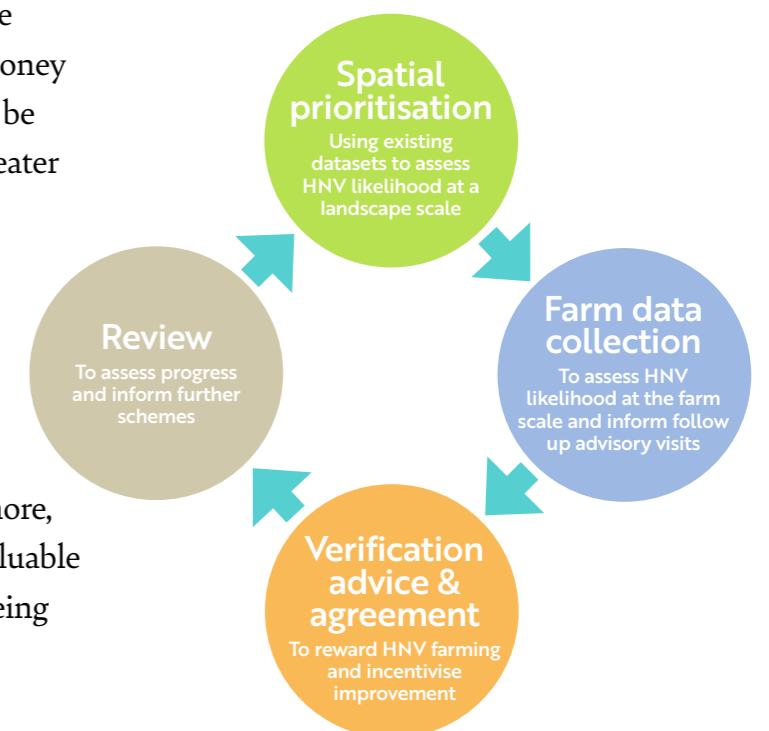
## Environmentally Sustainable and High Nature Value Farming

As Defra continues to roll out the full suite of Environmental Land Management Schemes as part of the agriculture transition, there will be a crucial role for targeting the right interventions to the right areas to deliver the right outcomes. This will be key in ensuring that different types of farming systems can maximise the public goods that they are well placed to provide.

The creation of an Environmental Observatory can play an important role in achieving this aim, providing a one-stop-shop of environmental data, which will help indicate where schemes are likely to deliver greatest value for money and where ambitious action should be prioritised. It would also provide greater join-up between the Local Nature Recovery scheme and Local Nature Recovery Strategies, ensuring that Environmental Land Management within an area actively contributes to the delivery of local and national environmental objectives. Furthermore, the observatory could also play a valuable role in facilitating data collection being

carried out at the farm level, for example, through the proposed moorland and rough grazing standard within the SFI, which requires farmers to map the extent and condition of habitats found on their holding. The observatory would act as a useful conduit for this data, helping to assess improvements in quality over time as well acting as a mechanism to evaluate the success of schemes in achieving their objectives.

**Figure 1. example of a four-step process to support High Nature Value farming systems within ELMs**



## Water policy

There is a wide range of datasets which are important for understanding the condition of the freshwater environment which could be included in a broader database, such as results of Water Framework Directive monitoring for individual waterbodies, condition of freshwater protected sites, mapping pollution incidents, bathing water quality, water levels, abstraction permits, and freshwater biodiversity mapping. There are existing cross-sector calls to create a national database of catchment data, which can be built-on and accessed by citizen scientists, authorities and the

business sector, led by the Catchment Monitoring Initiative:

<https://monitoring.catchmentbasedapproach.org/> and the CaBA Data Package is making significant leaps to delivering this: <https://data.catchmentbasedapproach.org/pages/explore-data>

There would be considerable value in these datasets being hosted within the Environmental Observatory to feed into and support other areas of policy and delivery, with as much inter-connectivity and inter-operability between digital systems as possible.





## Conclusions

The Government has rightly recognised the strong and urgent need for better quality data and intelligence to support and drive policy making and delivery in a number of areas. This has been reflected, for example, in its thinking around land-use planning policy reform.

In addition to better quality data, it is important that it can be easily and readily accessed by all who need it. The easier the access, the greater the efficiency gains across all sectors. It is equally important that data platforms are able to talk to one another, with as high a degree of connectivity as possible.

Achieving these goals does not require investment in elaborate, complex and expensive new bureaucratic structures. However there is much to be gained by bringing them under a single 'umbrella' irrespective of which Department or Agency is the parent or owner of any given dataset, and this proposal for an Environmental Observatory does just that.

The nature, climate and wider issues that society now faces are becoming ever more complex, and we are increasingly

understanding the various inter-relationships between them. All sectors of society have a role to play in rising to the challenge of navigating better solutions and outcomes. Digitally based data and intelligence systems should provide powerful tools to help us all do this. However the fragmented nature of the systems and platforms currently in place are very much sub-optimal and rooted in the past.

There has never been a greater imperative to develop a single, coherent and easily accessible place where (increasingly connected) environmental and ecological data sources can be hosted, providing support and insight to better policy making and delivery on the ground.

**That place is surely an  
Environmental Observatory.**

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Protecting habitats, saving species  
and helping to end the nature and  
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**Nature is in crisis.  
Together we can save it.**

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in Scotland SC037654. 030-0030-22-23