Guide to Dorset's Nature Recovery Maps

Consultation draft

Contents

NATURE RECOVERY DORSET

Introduction

Dorset's nature recovery maps are tools that can be used to identify opportunities and guide nature recovery activities in the county based on shared priorities agreed by local people and organisations.

A collection of layers make up Dorset's nature recovery maps. Three of these layers are statutory and required by Defra as part of preparation of the local nature recovery strategy. They are referred to together as the Local Habitat Map. These layers are:

- nature areas of national importance
- high opportunity nature areas
- potential activities

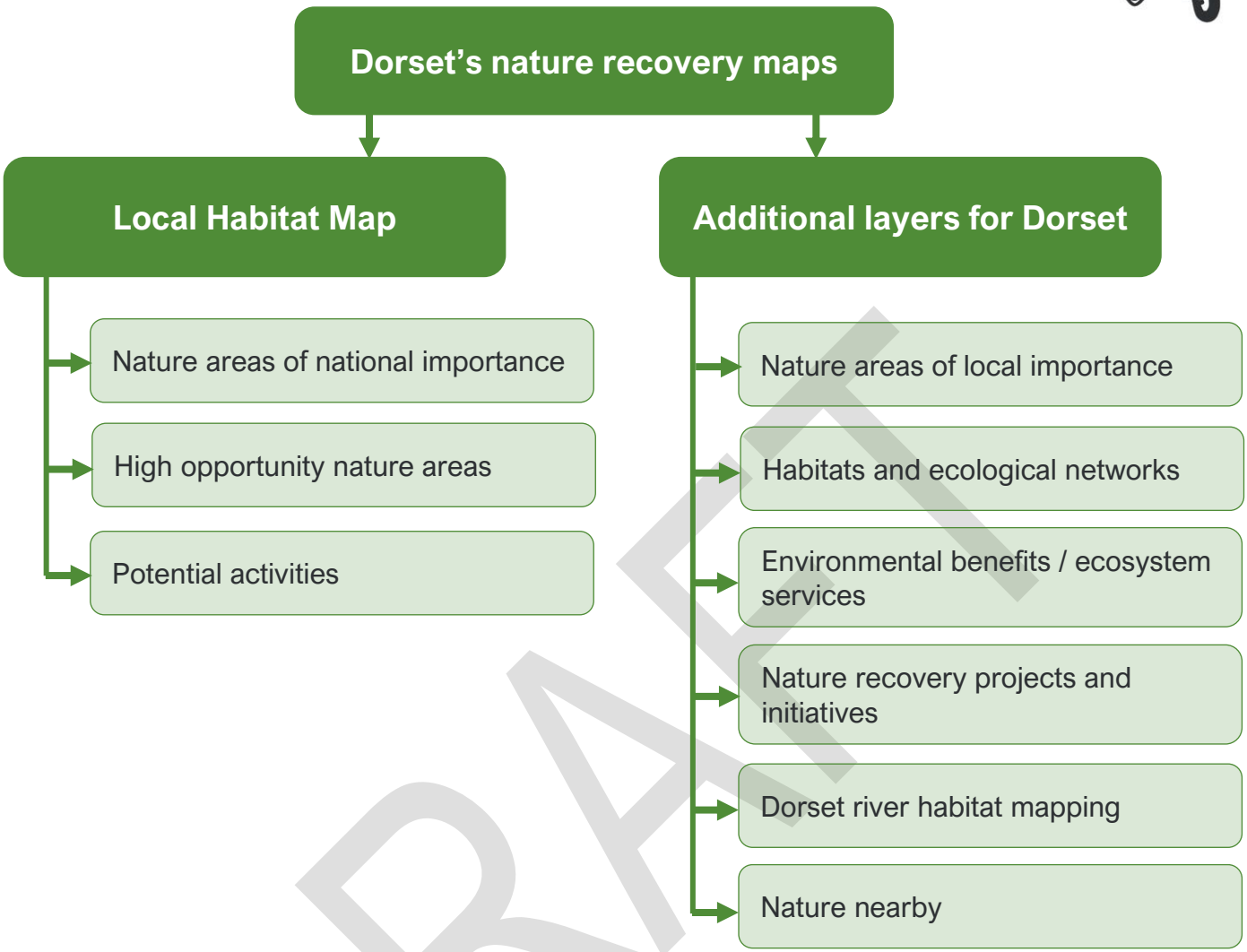
Additional layers have also been created for Dorset. Some of these help us understand what nature areas we already have and where people are already taking action for nature recovery. Others are based on modelling of habitat connectivity (ecological networks) and natural capital (ecosystem services). These layers are:

- nature areas of local importance
- habitats and ecological networks
- environmental benefits / ecosystem services
- nature recovery projects and initiatives
- Dorset river habitat mapping
- nature nearby

A layer is a set of information that is 'layered' over a map to allow us to view the information geographically, for example, county boundaries. Multiple layers can be stacked on top of each other and coloured differently to view different sets of information at once and see how they interact.

Dorset's nature recovery maps are high-level maps covering the whole county and are not intended to replace site-based feasibility assessments or management plans. They are a guide to potential activities and not a prescription for action. The maps have been prepared using the best available data and methods, but local knowledge and ground-truthing are still essential to delivering nature recovery. Some nature recovery activities will require consideration of factors like ecology, planning and flood risk, and additional expert advice may be needed.

This document explains the purpose and how to use each layer that make up Dorset's nature recovery maps. It also details the methodology of how the layers were created and the data used. Find definitions of useful terms that may help as you follow this guide.



Accessing the maps

Dorset's nature recovery maps are available online via a free online mapping application operated by Dorset Council called Dorset Explorer. The maps are available on a dedicated Nature Recovery Dorset version of Dorset Explorer.

Within the Layers panel there is a folder containing the Local Habitat Map layers, and a series of other folders containing the additional layers for Dorset.

Guidance and helpful information about using Dorset Explorer is available. This can also be found by clicking/tapping 'Help' when in Dorset Explorer.

Watch this video Guide to Dorset's nature recovery maps for an overview of what the maps show and tips for exploring them.

Guide to the Local Habitat Map

Nature areas of national importance

Purpose

To provide a nationally consistent baseline of sites that are currently recognised and protected within the land-use planning system for their biodiversity value in England.

Defra calls this layer Areas of Particular Importance for Biodiversity (APIB).

How to use this layer

This layer shows the places across Dorset that are recognised and protected for nature in the planning system. It can be used alongside the nature areas of local importance layer to build an understanding of current spaces for nature across the county.

How this layer was created

This layer shows a combination of the following sites:

- **National conservation sites**
  - Site of Special Scientific Interest (SSSI)
  - Ramsar sites (wetlands of international importance)
  - National Nature Reserve (NNR)
  - Special Area of Conservation (SAC)
  - Special Protection Area (SPA)
- **Irreplaceable habitats** (as per the Defra definition on GOV.UK)
  - ancient woodland
  - ancient and veteran trees
  - lowland fen
  - coastal sand dunes
- **Local Nature Reserves (LNR)**

Some tree data shows as single points on the map, so these have been buffered by 15 metres to make them big enough to be visible. 15 metres is the current maximum 'root protection area' in development and construction guidance.

The layer does not include Sites of Nature Conservation Interest (SNCI), also known as Local Wildlife Sites (LWS). This is due to data sensitivity issues that the Association of Local Environmental Records Centres (LERCs) and Defra are seeking a solution to in future.

Along the coast, the Local Habitat Map extends to the mean low water line, except where the council boundary extends beyond this, such as Poole Harbour. Dorset's nature areas of national importance includes some marine sites beyond this boundary because potential activities on the land can have a positive effect on them. However, it is beyond the scope of this strategy to map high opportunity nature areas and potential activities in marine areas.

High opportunity nature areas

Purpose

To show **where** effort should be targeted to achieve the most for nature recovery and the wider environment.

Defra calls this layer Areas that could become of importance (ACB).

How to use this layer

The high opportunity nature areas can be used to guide where efforts and funding are targeted in the next 10 years. Focusing on these areas could help deliver the most benefit for nature and the wider environment.

This layer can be used with the potential activities layer, which provides guidance on **what** nature recovery activities would be suited in an area. More detailed site-based feasibility assessments and management plans would then be needed to confirm what would work best.

The high opportunity nature areas do not mean nature recovery activities should not be delivered in other places. Some of the nature recovery priorities will need activities to be done across Dorset, such as wildlife-friendly gardening or sustainable farming, but it's not possible to make the whole county a high opportunity nature area.

How this layer was created

The methodology to select the high opportunity nature areas was developed with expert input from members of the mapping and data advisory group, and representatives from Dorset Council, BCP Council and Defra group.

The high opportunity nature areas were created by identifying the highest opportunities from some of the additional layers for Dorset and land manager and project proposals to help nature recovery. Below describes the steps taken to select them.

1. Opportunities from land manager and project proposals

- Areas were put forward by Dorset farmers, landowners, land managers and project coordinators, where they are planning to do something to help nature recovery.
- After screening to check the proposals related to nature recovery, all areas were included.

2. Opportunities from habitats and ecological network modelling

- Habitat and ecological network modelling was carried out to identify habitat creation and enhancement opportunities across the whole county, from this the highest opportunities were identified.
- From the core areas of semi-natural heathland, wetland, grassland and woodland, areas over 100ha were identified. These were called ‘super-core’ areas.
- Buffers representing species movement up to a maximum of 5km for each habitat type were combined.
- This joined up the super-core areas and focuses on improving connectivity between the largest existing areas of semi-natural habitat to strengthen the nature network. This supports the purpose of the high opportunity nature areas is to identify where activities can achieve the most for nature recovery and the wider environment.
- This focus does not detract from the importance of supporting more fragmented habitat areas. Opportunities to do this can be identified using the full set of ecological network layers.
- Coastal habitats with an inland buffer up to a maximum of 100m or up to 1km where this extended into flood zone 2, were then joined with the connected super-core areas.
- As a later step, a few small areas of wood pasture and parkland were added. This was after having to exclude them from nature areas of national importance because they were not ancient or infilled ancient.
- All chalk streams not already captured by the other data were then added due to Dorset being home to a large proportion of these globally rare habitats.

- Some additional opportunity areas for heathland and wetland were added based on Natural England local officer knowledge and advice.

3. Opportunities from wider environmental benefits / ecosystem services modelling

- the NATURE tool ecosystem services modelling created opportunity maps were created for 6 ecosystem services that show where creating or enhancing a habitat in that area would have an environmental benefit. Opportunities were scored 1-10, with 1 being the lowest opportunity and 10 the highest.
- From the opportunity maps, the areas with opportunity scores of 7 and above (the top 30%) were selected. After reviewing this selection, the scores were adjusted to better suit each of the ecosystem services as outlined below.

Ecosystem service	Opportunity Score	Reason for adjustment
Water availability	6	To include more inland opportunities, not just coastal
Water quality regulation	6	To include some river catchments, not just the water body
Flood risk regulation	6	To include some river catchments and opportunities along the River Frome
Cooling and shading	5	To include opportunities in more urban areas
Air quality regulation	5	To include opportunities in more urban areas
Carbon	7	This ecosystem service has more high scoring opportunities than others therefore the score was kept as 7

- All areas selected using the scores above were brought together into one layer, the modelled opportunities for environmental benefits.
- Where this layer overlapped with land manager or project proposals (step 1), or the opportunities from habitats and ecological modelling (step 2), these were included in the high opportunity nature areas. Here there is an opportunity to deliver for biodiversity and ecosystem services.
- Where this layer helped join areas in steps 1 and 2 that were not yet connected, these were included. Here there is an opportunity to deliver ecosystem services through habitat creation or enhancement in places that would strengthen the ecological network.
- Areas in this layer that did not overlap or connect areas in 1 and 2 were not included in the high opportunity nature areas.

4. **Excluding the highest-grade agricultural land**

- The best and most versatile agricultural land is grades 1, 2 and 3a. Although sustainable farming practices will be important to help nature recovery on this land, the primary focus may be on food production.
- The exception for this is land that falls within flood zone 2, where natural flood management could be equally important.
- Grade 1 and grade 2 land was therefore taken out of the high opportunity nature areas, except for where the land is within flood zone 2, or was put forward in a land manager or project proposal.

5. **Excluding buildings and manmade surfaces**

- In some cases, the high opportunity nature areas overlapped with areas of housing and other built environment
- The OS MasterMap topography layer was used to identify buildings and man-made surfaces. A buffer of 25m was applied to buildings and glasshouses. These were then excluded from the high opportunity nature areas.
- This is not a perfect fix so there are still a few places where the high opportunity nature areas overlap with man-made surfaces and buildings. This does **not** imply that the man-made surfaces should be removed in order to make space for nature, simply that the area surrounding it is an opportunity for nature recovery.

6. **Excluding nature areas of national importance**

- The nature areas of national importance cannot overlap with the high opportunity nature areas. Any nature areas of national importance that were covered by the data in steps 1-3 were excluded from the high opportunity nature areas.
- Action for nature recovery within the nature areas of national importance is still crucial to supporting efforts within the high opportunity nature areas. Lots of the nature areas of national importance already have statutory management plans that include nature recovery activities

7. **Excluding very small areas**

- Areas below 0.5 hectares in size were excluded from the high opportunity nature areas to avoid having very small and isolated sites in the high opportunity nature areas.
- While sites under 0.5 hectares still provide valuable nature areas, this was selected as a minimum size site to provide a stronger foundation for ecological function and long-term resilience.

Potential activities

Purpose

To guide **what** activities to take where to help achieve the nature recovery priorities.

Defra calls this layer Potential measures (PM).

How to use this layer

The potential activities layer provides guidance but is not a prescription. Site-specific assessments and management plans would confirm what would work best in an area. Additional consideration and advice on ecology, planning requirements, historic environment, flooding and funding options may be needed to deliver the activity suggested.

Primary activities
Primary activities suggest what type of habitat creation or enhancement could be most beneficial in an area. This is based on the data that created the high opportunity nature areas and takes into account that some habitat types are particularly scarce in Dorset.

When you turn the potential activities layer on, the map is colour coded according to the primary activity. You can open the legend to see what the colours mean. The colours align with Phase 1 habitat mapping as much as possible. The numbers in brackets at the end of each item in the legend are the number of polygons/shapes, you can ignore these.

If you are looking at the map with a specific site in mind, it may be covered by more than one primary activity, in which case the map is suggesting a mix of one or more of those habitat types could be beneficial in that area.

Secondary activities
Secondary activities are also provided to reflect that it may often be beneficial to consider a mix of habitat types or nature recovery activities as part of a land management plan. And to give some flexibility to land managers to find the right mix of activities for their land and business. Secondary activities can be considered in combination with the primary activity.

You can click/tap on an area on the map to open a pop-up box summarising the primary and secondary activities. The area you have selected will have a blue line around it.

It can be helpful to zoom into the area you are interested in before clicking/tapping on the map. When the map is zoomed out it may appear as though one large area has the same primary activity colour, but it is actually made up of lots of separate areas which each have a different mix of secondary activities. If you click/tap on the map when it is zoomed out, your pop-up box may show lots of different potential activities to choose from.

The table below explains the different information that might appear in the potential activities pop-up box when you click/tap on the map.

	What it shows
Primary activity	This suggests the activity that could be most beneficial in an area. See 'how this layer was created' to find out how the primary activity was selected.
Land manager or project proposal	If the primary activity is 'Habitat mix as per the land manager proposal activity', this tells you what habitat types the land manager or project has proposed. You can turn on the additional 'Land manager or project proposals' layer to find more detail.
Habitat	This suggests habitat types it may be possible to deliver in combination with the primary activity. For example, if the primary activity is wetland but the area could also be suited to woodland, then you might explore a wet woodland project. This is based on the habitat and ecological network modelling.
Rivers	This suggests additional activities to protect and restore rivers and streams, which should be considered alongside the primary activity. This is based on the Dorset River Habitat Mapping.
Ecosystem services opportunities	This suggests what ecosystem service there could be an opportunity to deliver. Some of the ecosystem service opportunity modelling is based on a specific habitat type, shown in brackets, for example, Air Quality (modelled on scrub). But it may be possible to deliver the same ecosystem service with another habitat type. If the primary activity is 'Habitat mix as per the ecosystem services opportunities', this provides the detail.
Irreplaceable habitat	This provides detail on the type of irreplaceable habitat in that area, which the primary activity is indicating should be enhanced.
Most relevant priority	This tells you the number of the priority in the written strategy where you can find potential activities relating to the primary activity for that area. If the primary activity is a mix of habitat type(s) the map will not show the relevant priority number, but you should still find relevant detail in the written strategy.

Use the map and strategy together

The potential activities layer **must** be used alongside the potential activities written in the local nature recovery strategy.

The potential activities layer gives a broad suggestion of primary and secondary activities, but this could involve doing many different that are not all mapped. So, this layer must be used alongside the potential activities listed under the 12 local nature recovery strategy priorities in the written part of the strategy. For example, if you are looking at the potential activities layer and the primary activity is “create or enhance woodland habitat”, you should read the potential activities listed under priority 2.

There are also many potential activities that need to be delivered right across the county, or cannot be shown spatially, and so are not mapped. For example:

- Wildlife-friendly gardening and urban greening must be increased in all towns and villages to provide important stepping stones and wildlife corridors that link up to the larger areas of habitat across the countryside, as well as delivering ecosystem services that benefit the people living there.
- Sustainable farming practices should be widely adopted across Dorset to produce food in harmony with nature. Farmland covers approximately 70% of Dorset so it is important that more nature-friendly practices are used allowing wildlife to travel more easily across the farmed landscape and deliver ecosystem services.
- Suitable locations for species recovery are known for FLowmany priority species in the local nature recovery strategy, but there is variation in the data available about current populations or feasibility for translocations. To avoid a misleading and inconsistent approach activities have not been mapped for priority species. However, mapping may be done in future to help with delivering the activities for these priority species. In the meantime, there are many sources of expert advice if you are considering a project focused on specific species.

How this layer was created

The potential activities mapped in each area were identified by looking at why that area was selected as a high opportunity nature area, e.g. land manager or project proposal, habitat and ecological network modelling, or modelled ecosystem service benefit. In many areas there were multiple reasons why an area was selected.

The majority of areas have been given a primary and secondary activities. The flowchart below summarises the process followed to identify the primary activity, and more detail on the steps to select both the primary and secondary activities can be found on the following pages.

Does the area have a land manager or project proposal?

yes

Primary activity: Habitat mix as per the land manager or project proposal

no

Is the area in the habitat and ecological network modelling?

yes

Which habitat type(s) does the modelling show could be an opportunity in the area?

Primary activity assigned in the following order:

- irreplaceable habitat
- chalk stream
- heathland and/or wetland
- coastal or intertidal
- rivers and wetland
- grassland or wood pasture
- grassland
- woodland

Where there is opportunity for multiple habitat types, the first habitat in this list becomes primary and the rest are listed as secondary.

no

Which ecosystem service(s) does the modelling show could be an opportunity in the area?

Primary activity assigned according to which habitat the ecosystem service is modelled on:

- water availability – grassland
- air quality – scrub
- water quality – woodland
- flood regulation – woodland
- carbon sequestration – woodland
- cooling and shading – woodland
- mixture – habitat mix as per the ecosystem service opportunities

Note a few manual edits were also made based on local knowledge

1. Activities from land manager and project proposals

- Land managers and project coordinators submitted their own summary of what is, or might be, happening on their land for nature recovery in the next 10 years.
- Potential activities were identified by summarising their submissions and selecting the activities to be shown on the map. For example, where someone listed that they would be expanding species-rich grassland, using mob grazing, managing nutrient inputs to improve soil health and planting in-field trees, the potential activity to be mapped was 'create or enhance a mixture of habitats including grassland and woodland'.
- Any other information provided in the land manager or project proposals was used to inform the written potential activities in the strategy, where this was too detailed to show on the map.
- In all cases, the land manager or project proposal is shown as the primary activity.
- Further detail on the land manager or project proposal can be found in the 'land manager or project proposal' layer which supports the 'potential activities' layer.

2. Activities from habitat and ecological network modelling

- Where a primary activity was not identified from the land manager proposal, a habitat type from the habitat and ecological network modelling was made the primary activity.
- To make the high opportunity nature areas, the different core habitat types in the habitat and ecological network modelling were combined as one ecological network, along with some other key local habitat data.
- The potential activities for an area were identified by which semi-natural habitat type(s) make up that part of the ecological network:
    - » The maximum buffer 5km was used for identifying grassland, wetland and woodland activities
    - » The maximum buffer 20km was used for identifying heathland activities to maximise the opportunities for this internationally important habitat
    - » Only existing habitat was used for coastal and intertidal activities, showing opportunities for enhancing existing habitat rather than for habitat creation.
    - » Flood zone 2 and chalk streams data was used for river and wetland activities
- Where the data suggested opportunity for multiple habitat types, the following hierarchy was used to reflect that some habitat types are currently scarce in Dorset, or more costly / harder to create, or only possible in certain locations.

A. **Chalk rivers and streams**: due to Dorset being home to a large proportion of these globally rare habitats.
   Note the activity displays as 'create or enhance river and wetland habitat' consistent with other rivers (D), but the 'rivers' sub-heading indicates where this is a chalk stream.

B. **Wetland and heathland**: both are ecologically important and constrained to certain locations by factors such as geology, slope and hydrology. They have equal position in the hierarchy, so where the modelling suggests both could occur in the same location the primary activity is 'heathland or wetland'.
C. **Coastal and intertidal**: reflecting that this is constrained to the coastline.
D. **Rivers and wetland**: this activity reflects the importance of Dorset's rivers and the surrounding flood zone areas.
   Note, the wetland activity above (B) is based on specific wetland habitat types such as bog, fen, swamp, flush, and inundation, whereas this river and wetland activity is slightly broader, reflecting the need to enhance in-river habitat and restore a variety of wet habitats along the flood zone. This could involve a mix of habitat types e.g. wet woodland or wet grassland.
E. **Grassland or wood pasture**: where the data suggests opportunity for both grassland and woodland, wood pasture is suggested as a primary activity due to its important diversity and declines of this habitat in Dorset.
F. **Grassland** (unimproved or semi-improved): reflecting the large loss of this habitat in Dorset and precision needed to ensure grassland enhancement or creation delivers ecological benefit
G. **Woodland** (broadleaved, mixed or wet): reflecting that this has the largest existing habitat coverage and can be created in more locations, including to join up other habitat types.

- Where an area has a land manager or project proposal (1) as primary, the habitat type(s) from the habitat and ecological network modelling are shown as a secondary activity after the heading 'habitat'
- Some notes on the hierarchy
  - » where habitat creation and enhancement can be done at a large scale then it might be appropriate to manage the land using natural process-led conservation and see what habitats emerge, rather than strictly trying to create the habitat type suggested by the primary potential activity. But in smaller areas, the hierarchy can be a helpful tool.
  - » the hierarchy was used to produce the maps, it is not intended as something those using the maps are required to apply.

3. Activities from modelling wider environmental benefits / ecosystem services

- Where a primary activity was not identified from the land manager or project proposal (1) or habitat and ecological network modelling (2), the habitat type suggested by the NATURE tool ecosystem service modelling was used as the primary activity.
  A. Each opportunity map in the NATURE tool ecosystem services modelling is based on one habitat type that is most likely to deliver that ecosystem service:
     - » water quality, flood regulation, carbon sequestration, cooling and shading: woodland
     - » water availability: grassland
     - » air quality regulation: scrub

» if multiple: habitat mix as per the ecosystem service opportunities

Note: it may be possible to see if another semi-natural habitat type could deliver the same ecosystem service. Ecosystem service modelling does not consider the balance of different habitat types across the landscape to avoid one habitat type dominating and not having diversity.

- Where an area has a land manager or project proposal (1) or habitat and ecological network modelling (2) as the primary activity, ecosystem service(s) are listed as a secondary activity after the heading 'ecosystem services opportunities'
- The ecosystem services in the list come from the NATURE tool modelling (3A) and a range of other ecosystem services data sets:
  B. The ecosystem service opportunity 'natural flood management' is shown where the high opportunity nature areas overlap with catchments scoring 'high' in the Environment Agency's spatial prioritisation of catchments suitable for using Natural Flood Management. Except for areas already identified for flood regulation through the NATURE tool ecosystem service modelling (3A).
  C. The ecosystem service opportunity 'increase tree equity score' is shown where the high opportunity nature areas overlap with the 10 wards identified in BCP Council's Urban Forest Strategy as having the lowest tree equity score
  D. The ecosystem service opportunity 'reducing inequality in nature nearby' is shown where the high opportunity nature areas overlap with the priority areas for increasing nature nearby, where it is estimated 30% or less of the population have a nature-rich greenspace or right of way within walking distance of home.
  E. The ecosystem service opportunity 'nutrient neutrality catchment' is shown where the high opportunity nature areas overlap with any Nutrient Neutrality catchments. Nutrient Neutrality is an approach to ensure new building developments do not worsen nutrient pollution in protected habitats. The opportunity 'nutrient mitigation' is shown for the Stour and Avon Catchment, although this is not a nutrient neutrality catchment it is also impacted by nutrient pollution and eutrophication.

4. Activities from Dorset River Habitat Mapping

- In addition to the primary activity for 'rivers and wetland' outlined in 2, more detail on potential secondary activities for river habitats were identified from the Dorset River Habitat Mapping.
- Where these river habitat mapping layers overlapped with the high opportunity nature areas, the activities were selected as outlined in the table below:

River habitat layer	Potential activity
Riparian planting opportunities	Increase or enhance riparian planting
Barriers to migration – River Obstacles	Explore options to remove river obstacles or improve connectivity around obstacles
Priority habitat – headwaters	Enhance priority river habitat - headwaters
Priority habitat – rivers and streams	Enhance priority river habitat
Water quality and ecological condition	Potential to improve river water quality and ecological condition
Potential nutrient run-off risks (combined without livestock density) – scores of 51 and above	Potential to reduce nutrient run-off through habitat creation or enhancement

- Those delivering nature recovery projects should always consider how they can enhance rivers and streams, and avoid any negative impacts on the water environment.

5. Activities in nature areas of national importance

- The strategy does not actively seek to map potential activities in nature areas of national importance which have their own management plans and legal frameworks.
- Instead, the focus is on mapping activities where there is opportunity to deliver additional nature recovery, so most activities are shown in the high opportunity nature areas
- Except for the following potential activities which are mapped in the nature areas of national importance:
- Where there is irreplaceable habitat, the primary activity is to enhance this. The activity is mapped in the colour corresponding to the habitat type as outlined below:

Irreplaceable habitat	Potential activity
Ancient woodland site	Enhance woodland habitat
Ancient and veteran trees	Enhance woodland habitat
Lowland fen	Enhance wetland habitat
Coastal sand dunes	Enhance coastal habitat
Mixture of the above	Enhance irreplaceable habitat

- You can find the detail on which specific type of irreplaceable habitat when you click/tap on the map in the pop-up box

- The following two land manager or project proposals are shown over nature areas of national importance because of the specific type of habitat restoration they propose being important and limited in potential locations
    - » BCP Council - saltmarsh restoration potential
    - » Dorset Peat Partnership - potential peatland restoration

6. Manually added or edited activities based on local knowledge

- Heathland and wetland: some extra areas not identified by the habitat and ecological network modelling (2) were manually drawn based on local knowledge of opportunities for these habitat types. The primary activity in these areas was set as heathland, wetland or heathland and wetland
- Former landfill sites: two former landfill sites near Christchurch harbour were initially showing a primary activity of wetland, this was identified by a local practitioner as unsuitable for these sites so the secondary activity of 'grassland or wood pasture' was made primary. Note the same edits have not been made for all former waste/contaminated sites, anyone planning nature recovery activities on these sites should consider how the sites former use may impact what habitat creation or enhancement is possible and seek the relevant expert advice and planning permissions. These sites can provide excellent nature recovery opportunities, as long as the habitat types are planned carefully to deliver the best overall environmental outcomes.
- Small wetland features: by reviewing greensand geology data, areas were identified as likely to contain seepage springs, where the water table rises and saturates surface soils. As seepage springs are valuable wetland features, a secondary activity for small wetland features was added where these areas overlap with the high opportunity nature areas.

Land manager or project proposals

Purpose

To provide more detail on the land manager or project proposals included in the Local Habitat Map

How to use this layer

Although not formally part of the Local Habitat Map, this layer is designed to be used alongside the 'potential activities' layer.

If the primary activity is 'Habitat mix as per the land manager or project proposal', this layer can be used to find more detail on the proposal. Click/tap on the map to see key information about the proposal in a pop-up box.

How this layer was created

- Areas were put forward by Dorset farmers, landowners, land managers and project coordinators, where they are planning to do something to help nature recovery.
- Key information about the individual/organisation/business and what they are proposing was summarised to display on the map.
- The boundaries of some land areas have been slightly buffered by land managers request, to make individual land parcels less identifiable. This may mean that small areas of some adjacent land are included where we have not been in contact with the landowner.
- Some proposals were submitted by project coordinators or facilitators that have not had chance to discuss being included in the map with all landowners, these show the following note: this nature proposal has been submitted as part of a developing project, and not yet been reviewed with all landowners

Achieving nature recovery

Together the three Local Habitat Map layers give us an indication of the scale of habitat creation, restoration and nature-friendly land management needed to achieve our shared vision for nature recovery in Dorset.

1. the nature areas of national importance layer covers 11.5% of Dorset
2. the high opportunity nature areas layer covers 49.1% of Dorset
3. the potential activities layer covers 52.6% of Dorset

Of the potential activities, each primary activity covers the following percentage of Dorset

- Habitat mix as per the land manager or project proposal 24.2385%
- Create or enhance heathland or wetland habitat 0.1640%
- Create or enhance heathland habitat 1.3340%
- Create or enhance wetland habitat 0.4467%
- Enhance coastal habitat 0.0410%
- Enhance intertidal habitat 0.0003%
- Create or enhance wetland and river habitat 2.3595%
- Create or enhance grassland or wood pasture 2.0988%
- Create or enhance grassland habitat 2.2807%
- Create or enhance woodland habitat 19.5638%
- Enhance irreplaceable habitat (mix of more than 1 type) 0.0026%
- Create or enhance scrub habitat 0.0081%
- Habitat mix as per the ecosystem service opportunities 0.0181%

Together, the nature areas of national importance and high opportunity nature areas cover 60.6% of Dorset, indicating how the nature recovery network could grow and help achieve the 30by30 target.

Wider considerations when planning nature recovery activities

The maps are a useful starting point to guide plans to deliver nature recovery activities. Some activities are simple to deliver or add into management practices, but some projects and plans may require additional advice on factors like ecology, planning, flooding and funding. There are lots of organisations and partnerships in Dorset that can help with this.

In most cases nature recovery can be complimentary to other requirements or land uses, below are some pointers on the sorts of things you might need to consider.

Local planning policy and biodiversity net gain

- Normal planning considerations and requirements must be followed when delivering nature recovery activities
- This may include considering biodiversity net gain, local plan policies, environment mitigation, restrictions on contaminated sites, nearby infrastructure and some of the other considerations listed below.
- Find out How the Dorset local nature recovery strategy will work with planning policy

Statutory protection and regulatory processes

- It's important to check if any regulatory processes you need to follow, such as:
  - » Environmental Impact Assessments (EIA) for uncultivated, semi-natural and rural land or woodland
  - » Policy on increasing open habitats
  - » A decision framework on establishing trees and restoring peat

Historic environment

- Managing land for nature recovery can also help protect the historic environment.
- It's important to check what historic features or heritage assets are in the project area and consider potential impacts on remains we don't yet know about.
- Use the Historic England and Historic Environment map layers on Dorset Explorer as a starting point. You will need to refer to the Historic Environment Record, seek expert advice and follow relevant planning policy before progressing with any ground works.
- This Nature Recovery & the Historic Environment guidance explains how to integrate the historic environment when developing a nature recovery project, including a summary of all relevant legal and policy frameworks and links to further advice.

Coastal

- The shoreline management plan explorer provides more detail about the management intent in a particular area, which may impact potential habitat creation or enhancement

Flooding

- Any potential nature recovery projects should be informed by up-to-date flood risk mapping based on all sources of flooding, including present day and future flood risk (in view of climate change and sea level rises).
- Future flood risk has implications for all land uses including nature recovery. Whist nature recovery may in some instances be part of a solution/mitigation, some such areas would still be at risk of flooding.
- The following links may provide useful sources of information
  - » Risk of Flooding from Rivers and Sea
  - » Flood map for planning
  - » Check the long term flood risk for an area in England
  - » Strategic Flood Risk Assessments for Bournemouth, Christchurch, Poole, Dorset Council area

Ecological and land management advice

- A range of local organisations and individuals can provide advice on species, habitats and land management plans
- E.g. farm advisors, consultant ecologist, wildlife conservation organisations

During preparation of Dorset's nature recovery maps, advice was sought from relevant organisations and professionals to identify where the high opportunity nature area and potential activities layers complement other spatial prioritisation tools and/or resolve any major clashes. However, the maps remain a guide and you will still need to consider wider factors.

Guide to the additional layers for Dorset

Nature areas of local importance

Purpose

To provide a fuller picture of Dorset's nature sites by including sites that are considered important for nature by local stakeholders but do not meet Defra's criteria for including as nature areas of national importance.

How to use this layer

Use this layer alongside the nature areas of national importance layer to get a fuller picture of Dorset's current nature sites. Although the primary purpose of some of these sites is not biodiversity, and they don't have the same level of recognition for biodiversity in the land use planning system, they do still provide space for nature and could be good places to deliver more nature recovery activities.

How this layer was created

This combined layer includes the following sites:

- Priority and BAP habitats outside other designations
- Nature reserves - sites owned by eNGOs or run by 'friends of' community groups
- Country parks, nature parks, countryside sites and suitable alternative green spaces (SANGs)
- MOD land
- National Trust sites
- Registered parks and gardens
- Railways and roads with verges

Habitats and ecological networks

Purpose

To understand what habitats we have, and how they are functionally connected, as a guide to how species can, or could, travel between habitats for feeding, over-wintering, breeding, or offspring moving away from parents. This helps identify where we can make better, bigger, more and joined up space for nature.

How to use these layers

This layer provides an idea of current functional connectivity of semi-natural habitat in Dorset and possible opportunities to expand habitats and increase connectivity.

How these layers were created

Background

The ecological network mapping was originally undertaken by Dorset National Landscape in 2012 and updated in 2018. It covers the county of Dorset and is recent enough to be used for the local nature recovery strategy. All modelling is based on the best available data and not intended to be a perfect representation of reality on the ground, so it wouldn't have been worthwhile to spend more time and money updating this baseline data.

The Dorset National Landscape's ecological network mapping was based on least-cost modelling work developed by Forest Research (commonly known as 'BEETLE'), described in Watts *et al*., 2005 and Eyecott *et al*., 2007. The contract was delivered by Environment Systems, overseen by a steering group made up of Wessex Water, Dorset Catchment Partnership, Bournemouth Borough Council, Dorset County Council, Dorset Wildlife trust, Cranborne Chase National Landscape, Dorset National Landscape, Borough of Poole, and Dorset Local Nature Partnership.

Land cover

A land cover map of Dorset was produced using local data and expertise. Gaps were filled with data derived from remote sensing, principally through Sentinel 1 and 2 satellite imagery. A combination of two seasonal images were used to allow better differentiation between habitat types due to their different phenology. Topographic data, in the form of a 5m digital terrain mode, was used to aid interpretation. This analysis allowed land cover to be categorised into arable, coastal, improved grassland, heathland, scrub, urban, semi-improved grassland, water, wetland, woodland (broadleaved), and woodland (coniferous).

The complete land cover map was then refined with analysis of Ordnance Survey MasterMap, previous land cover mapping data from 2011, and underlying geology data. The map was validated and the process re-run, through expert analysis within Dorset Environmental Records Centre (DERC) and quality control carried out by the consultants. At this point a minimum mapping unit was applied to remove very small polygons.

This identified 163 habitat classes (using the Integrated Habitat System) which were simplified into 30 legend classes, for which total habitat areas were calculated. Note the total area of all habitat classes in this data adds up to 14 hectares more than the total area of Dorset, due to the inclusion of a few habitat areas that start within Dorset but go just over the county boundary.

Using the land cover data as a basis, ecological networks for five semi-natural habitat types were created: semi-natural grassland, broadleaved woodland, lowland heathland, wetland, and coastal. Appendix B details the habitat classes used to define these networks.

Core habitats

A minimum size threshold of 1ha was used to define ‘core habitats’. Smaller areas were classed as ‘stepping stones’. Stepping stone habitats are the same habitat type as core habitats but are considered too small to support viable populations in their own right.

In the case of the woodland and heathland networks, it was considered that a simple selection of polygons greater than 1ha may not capture all the effective core habitat, as these habitat patches tend to be fragmented by tracks and roads, forming a patchwork appearance.

In these cases, excluding areas under 1ha may miss areas that are still functionally connected and acting as core habitat. For this reason, a 5m buffer was applied to areas of woodland and heathland and the combined area of overlapping areas used to ascertain whether they should be classed as either core or stepping stone habitat.

Functional connectivity

After identifying the core habitats, landscape permeability was analysed to assess how areas surrounding the core habitats facilitate the movement of species, or present barriers.

This analysis acknowledges the dependency of species populations on the wider landscape for a variety of purposes such as feeding, over-wintering, and dispersal of offspring for example, and maintaining the flow of genetic material between populations to build ecological resilience.

Each habitat class was assigned a landscape permeability score against each of the four network types. For example, wet heath: this is lowland heathland core habitat, so was assigned a score of 1 (no resistance to movement for a typical heathland species). For wetland it was given a score of 2 (almost no resistance to movement for heathland species). However, semi-natural grassland and broadleaved woodland were given higher scores of 30 and 25 respectively, reflecting the increased resistance to movement these habitats give to heathland species. This process was applied to all 163 habitat classes and was based on best available data at the time of production. The scoring sheet is available on request.

A movement cost model was then applied using core habitat patches as the start / source locations, producing seamless landscape-scale permeability raster datasets for each of the core habitat type ecological networks. The data can be adjusted to model the effective networks for both generic and specific species, if the foraging / dispersal distance of a species is known, to create buffers that surround and connect the core networks which represent the hostility of the landscape matrix to species dispersal.

A maximum dispersal distance of 2km was used to map the current functional connectivity of habitats in Dorset. The width of the buffer is constrained by the surrounding land's its ability to allow species movement, so in some places is only 40m.

A maximum buffer of 5km was used to show opportunities to make existing core habitats bigger and more joined up.

An additional maximum buffer of 20km was added for grassland, heathland and woodland, although not based on strong ecological principles it represents an opportunity to improve habitat connectivity everywhere.

For heathland, the 2km and 5km buffers were refined using information about suitable geology/soils for heathland habitat creation.

For coastal habitats, a buffer strip was created from the core coastal and intertidal habitats to represent species movement up to a maximum of 100m or up to 1km where this extended into flood zone 2. The focus of this buffer is well-connected to the other semi-natural habitat in-land, rather than suggesting all locations within that buffer are places to actually create coastal or intertidal habitats. Although this may happen in some places as the coastline changes overtime.

Super-core areas of over 100ha were identified from the core areas of semi-natural heathland, wetland, grassland and woodland. The 5km buffers for these habitat areas were combined to identify ways to expand and improve connectivity between the largest existing areas of semi-natural habitat. These inputted into selection of the high opportunity nature areas of the local habitat map.

Although rivers are included in the ecological network as they flow right across Dorset, local experts suggested key areas for river habitat enhancement or restoration in Dorset could be highlighted in flood zone 2 in the potential activities layer of the local habitat map. This is because flood zone 2 captures the widest extent of floodplain, bringing opportunities to create floodplain habitats and improve floodplain connectivity. In Dorset, chalk streams are also a key focus for habitat enhancement.

Extra wetland or peatland opportunities

In addition to the wetland ecological network above, some extra opportunities for wetland habitat were identified through the following local knowledge and projects:

- areas for wetland or peatland drawn based on Natural England local officer knowledge and advice
- peat restoration potential sites identified by Dorset Peat Partnership
- areas identified by Natural England and Environment Agency local knowledge as being likely to contain seepage springs, which are valuable wetland features

Environmental benefits / ecosystem services

Purpose

To help identify where the recovery or enhancement of biodiversity could make a particular contribution to other environmental benefits.

How to use these layers

These layers show where there may be opportunities to create or enhance habitat in places that could also increase provision of the following ecosystem services that benefit people:

- Water availability
- Water quality regulation
- Flood risk regulation
- Cooling and shading
- Air quality regulation
- Carbon storage
- Noice regulation (BCP Council area only)
- Natural Flood Management

If an area is highlighted as having an ecosystem opportunity, such as water quality, this doesn't necessarily mean that the area currently has bad water quality, rather it means that habitat creation in this area might help with delivering the ecosystem service of water quality overall.

Each of the layers has been produced in a slightly different way, with a different scoring system. Please refer to the explanation of how the layer was created below.

How these layers were created

1. NATURE tool ecosystem service modelling

Seven ecosystem services were selected based on inputs from the local nature recovery strategy advisory group members and stakeholders attending events and workshops.

Starting with the same land cover map as used in the habitat and ecological network mapping, ecosystem service supply and demand across Dorset was assessed using the Nature Assessment Tool for Urban and Rural Environments (NATURE Tool). Scores from 0-10 were assigned based on habitat data and other environmental and socioeconomic data. A darker shade of purple shows a higher score and indicates a higher ecosystem service enhancement opportunity.

This work was completed by WSP. A technical note is available upon request.
On Dorset Explorer, the layers do not display all scores from 0-10 as the data is too large to display. The scores that were used to identify the high opportunity natures are displayed on Dorset Explorer:

- Water availability: 6 and above
- Water quality regulation: 6 and above
- Flood risk regulation: 6 and above
- Cooling and shading: 5 and above
- Air quality regulation: 5 and above
- Carbon: 7 and above

Note: An opportunity map for food production as an ecosystem service was also produced as part of this work, recognising food production as an important ecosystem service. But this only identified small patches of potential agricultural land near roads, field edges or housing which may not be practical to farm, so the layer was not used. It is also clear that nature recovery can be delivered on agricultural land alongside food production by using sustainable farming practices.

2. Other ecosystem service layers

The following ecosystem service layers have also been made available on Dorset Explorer from other projects:

- Noise regulation opportunity areas (for BCP Council area only). Find out more about this data from the BCP Council Green Infrastructure Strategy, see p216 of the Technical Document Appendices.
- Spatial prioritisation of catchments for Natural Flood Management. Find out more about this Environment Agency data set.

Nature recovery projects and initiatives

Purpose

To celebrate and identify local action and identify potential opportunities for nature recovery.

How to use these layers

Take a look to get inspired, learn from others, and celebrate local success stories.

How these layers were created

- **The Nature Recovery Dorset Network**

This map shows all the people and organisations who have signed up to join the Nature Recovery Dorset network and have their actions shown on the map. Find out how to Join the Nature Recovery Dorset network.

The key shows what each member has registered as, e.g. community groups, farmers, schools, and you can choose to view each of these groups separately as sub-layers.

- **Farming in Protected Landscapes projects**

This map shows projects funded by the Dorset National Landscape Farming in Protected Landscapes (FiPL) project.

Dorset river habitat mapping

Purpose

A series of map layers focusing on in-river and riparian habitats as a resource to help identify and prioritise potential opportunities for river improvement works.

How to use these layers

Explore the maps to aid discussions around river improvements, highlight a variety of considerations in a user-friendly manner, and support decision-making around river habitat management.

The maps should be viewed alongside the Dorset River Habitat Mapping user guide, which provides supporting information, data sources, methods, limitations or caveats.

Be aware that these datasets show a snapshot in time and have varying degrees of accuracy and spatial precision. Any opportunities identified are not prescriptive.

The user guide also explains how the maps could be used to help plan river habitat improvements, including:

- barrier easement/removal
- coppicing
- tree planting
- measures to reduce polluted surface water runoff entering watercourses (either via reducing pollution at source or disconnecting flow pathways)

How these layers were created

This mapping project was funded by Dorset Catchment Partnerships, Dorset National Landscape and Dorset Council, and the work completed by Westcountry Rivers Trust. The work involved obtaining and collating a series of spatial datasets available on other platforms, as well as analysis to create new layers showing the combined effect of land characteristics on risks and opportunities.

The maps have generally been designed to cover the following:

- **Understanding current situation**
  Datasets show the current characteristics of rivers across Dorset; differences and patterns across the county can be noted. It includes:
  - river water quality
  - barriers to fish migration
  - riparian shade
  - priority river habitat
- **Understanding risks**
  Datasets have been scored and combined to illustrate their combined potential risk of contributing excessive nutrients to rivers. Relatively high and low risk areas can be observed across the county.
- **Understanding opportunities**
  Datasets highlight where potential opportunities for river improvement works may have the greatest benefits to rivers.

Nature nearby

Purpose

To highlight differences in the ability of permanent residents to access natural or semi-natural environments close to home and identify where habitat creation and enhancement can deliver co-benefits for addressing inequalities in access to nature close to home.

The following layers from this Public Health Dorset and University of Exeter project are available on Dorset Explorer:

- Access to any greenspace over 0.5 hectares close to home
- Access to natural spaces close to home
- Access to public rights of way likely to provide access to nature
- Nature nearby: access to nature close to home
- Nature nearby and deprivation
- Priority areas for creating nature nearby

Each layer has it's own description when you click/tap on the 'i' icon which explains how it was created and how it can be used. Further information and guidance may published in future by Public Health Dorset.

Here we focus on the layer **Priority areas for creating nature nearby** only, because this is the one that fed into the potential activities layer of the local habitat map.

How to use this layer

Nature nearby is a layer that shows areas of Dorset where people are less likely to live within a 300m walk of nature. The areas shown are highlighted as priority areas for creating nature nearby, where it is estimated 30% or less of the population in them live with 'nature nearby'. This figure is based on publicly accessible spaces that probably provide some contact with nature (e.g. a public greenspace or public right of way in a non-urban area) not private gardens or public greenspaces that are less likely to be natural e.g. sports pitches.

Where these areas correspond with proposals for nature recovery, these could consider where habitat creation and enhancement can deliver co-benefits for addressing inequalities in access to nature close to home. Health and access are not permitted as priorities in the local nature recovery strategy but can be considered as co-benefits in the potential activities and mapping.

It is important to remember that this is one way to estimate how much access to nature people do or don't have. It doesn't account for nature in private gardens for example or for spaces that are further away than 300 metres.

However, it gives an indication of where the potential activities could also help provide more access to nature for people who currently have less than other areas of Dorset, and the health and wellbeing benefits this can bring.

The model doesn't suggest creating nature rich spaces in every part of the area highlighted, activities could involve increasing plants and trees along urban streets, or creating wild patches along the edge of sports pitches. In some places it will not be appropriate to increase people's access to existing nature-rich habitats where wildlife are sensitive to disruption from humans.

How this layer was created

This project is being led by Public Health Dorset and University of Exeter, but they have worked closely with the local nature recovery strategy team to ensure we can use this key layer from their project to inform the local habitat map.

Dorset is divided into Census Output Areas (OAs) each of which contains approximately 125 households / a population of 300 people. For each OA in Dorset, an estimated percentage was calculated of the population who live within 300 metres walk of:

- A publicly accessible green space that is 2ha or larger **and** is likely to provide contact with nature based on Natural England's methodology for determining naturalness. This benchmark has been chosen as an indicator for spaces that provide access to nature close to home based on Natural England's Green Infrastructure Standards for England.
- Or a public right of way through a natural landscape not urban areas, which is therefore more likely to provide contact with nature.

OAs are combined where estimates showed that 30% or less of the population live within 300 metres of one or both of the above.

In many rural parts of Dorset, public rights of way may be the only means for people to access nature because of a lack of publicly accessible green / blue spaces like parks or public gardens. Importantly, just like parks or gardens, the conditions of public rights of way will vary they are not necessarily suitable to the needs of everyone e.g. wheelchair users.

A layer was created showing a 'walkable' network combining sections of road that are generally safe to walk on with public rights of way and other paths. This allowed accurate measurement of the distance from postcodes to places where people can enter a natural greenspace 2ha or larger or access a section of public right of way that goes through natural landscapes.

Using Dorset's nature recovery maps with other maps and tools

There are lots of different mapping layers and tools available that may:

- provide additional information on nature recovery opportunities
- need to be referred to as part of developing nature recovery plans

We have made several other layers available in the layers menu of the Nature Recovery Dorset version of Dorset Explorer. Please note Dorset Council strive to keep the information on Dorset Explorer current and reliable, but we cannot guarantee its accuracy or completeness. For data from other organisations, you may find the latest data on their own websites.

During the preparation of Dorset local nature recovery strategy local people have also told us about several other mapping platforms, tools or data where you can view or download additional data. Some of these are listed below:

- WWT Wetland Data Explorer
- The Marine Management Organisation (MMO) saltmarsh potential data
- The Environment Agency seagrass potential data
- The Environment Agency native oyster bed potential data
- Mapping Opportunities: Nature-based Solutions Knowledge Hub
- National Trails' Nature Corridors
- SHINE - Historic Environment Farm Environment Record (HEFER) Portal
- Dorset Management Catchment | Catchment Data Explorer
- Catchment Based Approach Data Hub
- Shoreline management plan explorer
- Natural England's Green Infrastructure Map
- Environment data - data.gov.uk
- The National Trees Outside Woodland Public Map

Appendices

Appendix A. Data attribution

Dorset's nature recovery maps bring together data from a wide range of sources, some layers reproduce data from other organisations, other layers involve processing and modelling using other data. Please find the data attribution for each layer below.

Nature areas of national importance

- Sites of Special Scientific Interest (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Ramsar Sites - data.gov.uk Open Government Licence
- Special Areas of Conservation (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Special Protection Areas (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- National Nature Reserves (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Ancient Woodland (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Ancient Tree Inventory - Woodland Trust Data reproduced with the permission of The Woodland Trust for use for LNRS purposes only. The data is subject to the conditions of their non-commercial licence. For any other uses contact ancienttreeinventory@woodlandtrust.org.uk
- Irreplaceable habitat data - Dorset Environmental Records Centre (DERC)
- Local Nature Reserves - Dorset Environmental Records Centre (DERC)

High opportunity nature areas

This layer has been produced using a mixture of data sets, including:

- Land manager and project proposals - Dorset Council © Crown copyright and database rights 2025 OS AC0000830671
- Supercore habitats with maximum 5km buffer – see habitats and ecological networks data attributions
- Coastal habitats with buffer 100m to 1km - see habitats and ecological networks data attributions
- Wood pasture and parkland (not ancient or infilled ancient) – Dorset Environmental Records Centre (DERC)
- Chalk Rivers (England) | Natural England Open Data Geoportal Open Government Licence
- Additional heathland and wetland habitat areas drawn using Ordnance Survey basemap © Crown copyright and database rights 2025 OS AC0000830671
- Opportunities for 6 ecosystem services – see NATURE tool ecosystem service data attributions

- Agricultural Land Classification (ALC) Grades - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Provisional Agricultural Land Classification (ALC) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Ordnance Survey - MasterMap Topopgraphy layer and Boundary-line © Crown copyright and database rights 2025 OS AC0000830671
- Nature areas of national importance – see data attributions above

Potential activities

This layer has been produced using a mixture of data sets, including:

- High opportunity nature areas – see above
- Land manager and project proposals - Dorset Council © Crown copyright and database rights 2025 OS AC0000830671
- Supercore habitats with maximum 5km buffer – see habitats and ecological networks data attributions
- Heathland habitat with maximum 20km buffer – see habitats and ecological networks data attributions
- Coastal and intertidal core habitats – see habitats and ecological networks data attributions
- Wood pasture and parkland (not ancient or infilled ancient) – Dorset Environmental Records Centre (DERC)
- Chalk Rivers (England) | Natural England Open Data Geoportal Open Government Licence
- Flood Zone 2 - Flood Map for Planning - Flood Zones © Environment Agency copyright and/or database right 2025. All rights reserved.
- Additional heathland and wetland habitat areas drawn using Ordnance Survey basemap © Crown copyright and database rights 2025 OS AC0000830671
- Opportunities for 6 ecosystem services – see NATURE tool ecosystem service data attributions
- Spatial prioritisation of catchments suitable for using Natural Flood Management - data.gov.uk © Environment Agency copyright and/or database right 2021. All rights reserved.
- UK Wards – Ordnance Survey Boundary-Line © Crown copyright and database rights, contains OS data 2025
- Priority areas for increasing nature nearby © Dorset Council (Derived from Ordnance Survey Data. © Crown Copyright 2025 AC0000830671)
- Nutrient Neutrality Catchments (England) - data.gov.uk © Natural England copyright and/or database right 2023. All rights reserved.
- Stour and Avon Catchment © Environment Agency copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Riparian planting opportunities, Barriers to migration – river obstacles, Priority habitat, Water quality and ecological condition, Potential nutrient run-off risk (combined without livestock) - Contains data from multiple sources, please see page 30 of Dorset River Habitat Mapping User Guide
- Nature areas of national importance – see data attributions above

- Ancient Woodland (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Ancient Tree Inventory - Woodland Trust - Data reproduced with the permission of The Woodland Trust for use for LNRS purposes only. The data is subject to the conditions of their non-commercial licence. For any other uses contact ancienttreeinventory@woodlandtrust.org.uk
- Irreplaceable habitat data - Dorset Environmental Records Centre (DERC)
- Additional areas drawn using Ordnance Survey basemap © Crown copyright and database rights 2025 OS AC0000830671
- Small wetland features © Environment Agency copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.

Land manager or project proposals

- Dorset Council © Crown copyright and database rights 2025 OS AC0000830671

Nature areas of local importance

- Priority habitat - Dorset Environmental Records Centre (DERC)
- Dorset Wildlife Trust (DWT) Reserves – Data reproduced with the permission of Dorset Wildlife Trust for use for LNRS purposes only.
- Royal Society for the Protection of Birds (RSPB) Reserves – Data reproduced with the permission of RSPB. © Crown Copyright. Ordnance Survey licence number 100021787 2025
- Butterfly Conservation Reserves – Data reproduced with the permission of Butterfly Conservation for use for LNRS purposes only.
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- MOD Land - Data reproduced with the permission of UK Ministry of Defence © Crown copyright 2024
- Local community nature reserves - Dorset Environmental Records Centre (DERC)
- Registered Parks and Gardens | Historic England open data © Crown Copyright 2025. Contains Ordnance Survey data © Crown copyright and database right 2025. Released under OGL.
- Country Parks (England) - data.gov.uk © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2025.
- Lorton Valley Nature Park © Dorset Council (Derived from Ordnance Survey Data. © Crown Copyright 2025 AC0000830671)
- Countryside sites © Dorset Council (Derived from Ordnance Survey Data. © Crown Copyright 2025 AC0000830671)
- Public open space © BCP Council. Contains Ordnance Survey data © Crown copyright and database right 2024
- Railways and roads with verges - Dorset Environmental Records Centre (DERC)

Habitats and ecological networks

- The data attribution for all these layers is: Dorset Council. Contains data from multiple sources including Ordnance Survey data © Crown copyright and database rights 2025

- The habitat and ecological network layers were originally published by Dorset National Landscape in 2018 using a mixture of data sets, including:
  - » Dorset National Landscape
  - » Dorset Environmental Records Centre habitat data
  - » Coastal Monitoring Programme – South East and South West
  - » Urban Heaths Partnership operational area Phase 1 habitat survey
  - » Wild Purbeck Nature Improvement Area habitat layer
  - » Remote sensing data: Sentinel-1 (C-band radar) and Sentinel-2 (multi-spectral optical) satellite images
- Some refinements were made during Local Nature Recovery Strategy preparation 2024-25 using the following data sets:
  - » Flood Map for Planning (Rivers and Sea) - Flood Zone 2 - data.gov.uk © Environment Agency copyright and/or database right 2025. All rights reserved.
  - » Poole Basin biodiversity character area - Dorset Environmental Records Centre (DERC)
- Extra wetland or peatland opportunities Contains data from multiple sources including Dorset Wildlife Trust, Environment Agency and Ordnance Survey © Crown copyright and database rights 2025 OS AC0000830671

Environmental benefits (ecosystem services)

1 NATURE tool ecosystem service modelling

- Water availability
  - » Land cover data - see habitats and ecological networks data attributions
- Air quality regulation
  - » Land cover data - see habitats and ecological networks data attributions
  - » Air Quality Management Area (AQMAs) © Crown copyright and database rights 2024 licenced under Defra's Public Sector Mapping Agreement with Ordnance Survey (licence No. 100022861).
  - » Population Density at Lower Super Output Area (LSOA) level
- Flood risk regulation
  - » Land cover data - see habitats and ecological networks data attributions
  - » Spatial prioritisation of catchments suitable for using Natural Flood Management - data.gov.uk © Environment Agency copyright and/or database right 2021. All rights reserved.
  - » Risk of Flooding from Surface Water Extent: 3.3 percent annual chance - data.gov.uk, 1 percent annual chance and 0.1 percent annual chance © Environment Agency copyright and/or database right 2015. All rights reserved.
  - » Flood Map for Planning (Rivers and Sea) - Flood Zone 2 - data.gov.uk and Flood Zone 3 - data.gov.uk © Environment Agency copyright and/or database right 2025. All rights reserved.
  - » OS Open Rivers | Data Products | OS © Crown copyright and database rights. Ordnance Survey 2025
- Carbon storage
  - » Land cover data - see habitats and ecological networks data attributions
  - » England Peat Status GHG and C storage - data.gov.uk Contains IPR from Cranfield University (NSRI) soils data and BGS geological data. Derived from 1:50 000 scale BGS Digital Data under Licence 2006/072 British Geological Survey. © NERC National Soils map © Cranfield University (NSRI) © Crown Copyright and database rights 2024 © Natural England copyright 2024, reproduced with the permission of Natural England, https://www.gov.uk/help/terms-conditions © Crown Copyright and database right 2024. Ordnance Survey licence number 100022021./.

- Water quality regulation
  - » Land cover data - see habitats and ecological networks data attributions
  - » Countryside Stewardship Water Quality Priority Areas
  - » Proximity to Watercourses
  - » Slope Steepness
  - » Population Density at Lower Super Output Area (LSOA) level
- Cooling and shading
  - » Land cover data - see habitats and ecological networks data attributions
  - » Level of accessibility to greenspace - EcoServ
  - » Population Density at Lower Super Output Area (LSOA) level
- Please see also a data checklist with links to data sources utilised within the NATURE Tool.

2 Other ecosystem service layers

- BCP noise regulation opportunity areas © Natural Capital Solutions Ltd 2021. Contains Ordnance Survey data © Crown copyright and database right 2021. See further information in BCP Natural Capital Assessment within BCP Council Green Infrastructure Strategy Technical Document Appendices.
- Spatial prioritisation of catchments suitable for using Natural Flood Management - data.gov.uk © Environment Agency copyright and/or database right 2021. All rights reserved.

Nature Recovery Dorset network

- Dorset Council © Crown copyright and database rights 2025 OS AC0000830671

Dorset River Habitat Mapping

- Contains data from multiple sources, please see page 30 of Dorset River Habitat Mapping User Guide

Nature nearby

- © Dorset Council (Derived from Ordnance Survey Data. © Crown Copyright 2025 AC0000830671)

Appendix B. Habitat classes

These are the habitat classes used in the habitat and ecological network modelling.

Semi-natural grassland

Source	Code	Description
Phase 1	B	Semi-improved grassland
Phase 1	B11	Unimproved grassland (acid)
Phase 1	B12	Semi-improved grassland (acid)
Phase 1	B21	Unimproved grassland (neutral)
Phase 1	B22	Semi-improved grassland (neutral)
Phase 1	B5	Marshy grassland
IHS	EM4	Marshy grassland
IHS	GA0	Semi-improved grassland (acid)
IHS	GA1	Semi-improved grassland (acid)
IHS	GC0	Semi-improved grassland (calcareous)
IHS	GC1	Semi-improved grassland (calcareous)
IHS	GCZ	Semi-improved grassland (calcareous)
IHS	GN0	Semi-improved grassland (neutral)
IHS	GN1	Semi-improved grassland (neutral)
IHS	GN3	Semi-improved grassland (neutral)
IHS	GN4	Semi-improved grassland (neutral)
IHS	GN5	Semi-improved grassland (neutral)
IHS	GN6	Semi-improved grassland (neutral)
IHS	GNZ	Semi-improved grassland (neutral)
EO	Semi-improved grassland (possible calcareous geology)	Semi-improved grassland (possible calcareous geology)
EO	Unimproved calcareous grassland	Unimproved calcareous grassland
EO	Semi-improved grassland (acid)	Semi-improved grassland (acid)
EO	Semi-improved grassland (neutral)	Semi-improved grassland (neutral)
EO	Semi-improved grassland (calcareous)	Semi-improved grassland (calcareous)
EO	Semi-improved grassland	Semi-improved grassland

Broadleaved woodland

Source	Code	Description
Phase 1	A	Woodland and scrub
Phase 1	A1	Woodland and scrub
Phase 1	A11	Broadleaved woodland
Phase 1	A11	Broadleaved woodland
Phase 1	A13	Mixed woodland
Phase 1	A13	Mixed woodland
IHS	OV3	Woodland and scrub
IHS	WB1	Mixed woodland
IHS	WB3	Broadleaved woodland
IHS	WB34	Broadleaved woodland (wet)
IHS	WB4	Broadleaved woodland
IHS	WB5	Broadleaved woodland

Lowland heathland

Source	Code	Description
Phase 1	D1	Heath
Phase 1	D11	Dry heath
Phase 1	D2	Wet heath
IHS	HE0	Dry heath
IHS	HE1	Dry heath
IHS	HL1	Dry heath

Wetland

Source	Code	Description
Phase 1	E16	Bog
Phase 1	E17	Bog
Phase 1	E18	Bog
Phase 1	E21	Fen / swamp / flush / inundation
Phase 1	E3	Fen / swamp / flush / inundation
Phase 1	E31	Fen / swamp / flush / inundation
IHS	EM0	Fen / swamp / flush / inundation
Phase 1	F1	Fen / swamp / flush / inundation
Phase 1	F2	Fen / swamp / flush / inundation
IHS	EM3	Fen / swamp / flush / inundation
EO	Wetland	Wetland

Coastal

Source	Code	Description
IHS	SR0	Cliffs and rocky shore
IHS	SR1	Cliffs and rocky shore
IHS	SR2	Cliffs and rocky shore
	GAP	Intertidal habitat
IHS	LR1	Intertidal habitat
IHS	LR3	Intertidal habitat
IHS	LR4	Intertidal habitat
IHS	LR7	Intertidal habitat
IHS	LRZ	Intertidal habitat
IHS	LS4	Intertidal habitat
IHS	LS6	Intertidal habitat
IHS	LSZ	Intertidal habitat
Phase 1	H2.6	Saltmarsh
Phase 1	H6	Sand dune
IHS	SS1	Sand dune
IHS	SS3	Shingle above high tide mark
IHS	SSZ	Shingle above high tide mark