# Estimating the financial resources needed for SSSIs and 30 by 30 in England

## Final Report

### A report for Wildlife and Countryside Link

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# 1 Introduction

Wildlife and Countryside Link believes that protected sites should be the backbone of efforts to recover nature in England. Sites of Special Scientific Interest are recognised as the most valuable places for nature nationally, comprising 8% of total land area. However, in 2025, only 41% of SSSI features were in favourable condition, and, despite efforts to improve this situation, little progress has been made in recent years[1].

Furthermore, it is widely recognised that SSSIs cover too small a land area and are insufficiently connected to be fully effective in conserving the habitats and species they are designed to protect[2].

The 2025 Environmental Improvement Plan[3] reiterated an ambition to bring 75% of SSSIs into favourable condition by 2042. It also committed that, by December 2030, 50% of SSSI features will have actions on track to achieve favourable condition. Furthermore, the government also committed to conserve and manage 30% of the national land area for nature by 2030. This 30 by 30 target is in line with international commitments under the Convention for Biological Diversity.

However, progress to improve the condition of protected sites and to extend their area has been slow. A 2025 report on protected sites in England by the Office for Environmental Protection identified insufficient financial resources as a major constraint on progress[4].

To provide evidence to support its campaign to improve the condition of protected sites and deliver 30 by 30, Wildlife and Countryside Link commissioned Rayment Consulting Services to complete a short study to assess the scale of financial resources required.

The study compiled best estimates of the financial costs of improving SSSIs and delivering 30 by 30, based on existing evidence. It should be noted that, while various recent assessments have examined the costs of meeting biodiversity priorities in England, including for protected sites, gaps and uncertainties in the evidence base limit the ability to provide a robust and comprehensive assessment. These include:

- Gaps in knowledge about the actions required to improve SSSI condition and their costs, in large part a result of underinvestment in monitoring, condition assessment and action planning;
- Major uncertainty about how England can meet its commitment to deliver 30 by 30, especially on land, the sites and habitats that could constitute a 30 by 30 network, and how this will be achieved in practice;
- Incomplete data on the costs of habitat creation, restoration, improvement and management, including the cost implications of delivery at the large scale required;
- Limited evidence of the costs of actions needed for marine protected areas.

The estimates in this paper should therefore be regarded as indicative and designed to outline the broad scale of investment needed. Various caveats are made in relevant sections of the report. In most cases, the estimates are highly conservative and likely to underestimate the financial resources needed to deliver for protected sites and 30 by 30 in England.

[1] https://www.gov.uk/government/statistics/england-biodiversity-indicators/1-extent-and-condition-of-protected-areas--2

[2] Office for Environmental Protection (2025) Review of implementation of laws for terrestrial and freshwater protected sites in England https://www.theoep.org.uk/report/review-implementation-laws-terrestrial-and-freshwater-protected-sites-england

[3] https://www.gov.uk/government/publications/environmental-improvement-plan-2025/environmental-improvement-plan-eip-2025

[4] OEP (2025) page 14

Further, more detailed assessments would be valuable, particularly as further evidence on actions needed for SSSIs and to deliver 30 by 30 becomes available.

# 2 Improving the condition of SSSIs

## 2.1 SSSI monitoring and condition assessment

The OEP (2025) report on protected sites identifies insufficient resources for monitoring and condition assessment as a major constraint to achieving outcomes for SSSIs in England. It states that a scaling back of SSSI condition monitoring means that many features have not been assessed for over a decade. This leaves Natural England lacking the evidence needed to inform the most effective use of incentives, advice, regulatory tools and enforcement[5].

The Environmental Improvement Plan set an interim target for all SSSIs to have an up-to date condition assessment by 31 January 2028. However, the Government has since postponed this ambition to 2032, with a lack of resources for monitoring believed to be the principal factor making the target unachievable[6].

The latest available estimate is that Natural England spends £1.4 million per annum on SSSI monitoring[7]. It conducted 524 new SSSI condition assessments in 2024/25, suggesting that 4% of the national total of 13,407 SSSI features are assessed annually[8]. The condition of SSSIs normally needs to be assessed every 6 years[9], implying that 17% of sites and features need to be monitored annually to keep condition assessments up to date over time.

These data suggest that **financial resources for SSSI monitoring need to quadruple to £6 million per annum** to achieve up-to-date condition assessments for all sites over a six-year cycle.

## 2.2 Costs of Action to Improve SSSI condition

### 2.2.1 Approach

The costs of actions needed to improve SSSI condition can be estimated by combining assessments of required actions with data on the unit costs of those actions. Unfortunately, neither data on the actions required to improve SSSI condition or the costs of these actions are complete or up to date. Data on the actions needed for SSSIs are informed by the ongoing process of assessing SSSI condition and identifying remedial actions. Because many sites have not been assessed for several years, data are incomplete and not fully up to date.

The only available cost data for protected sites date back to 2015 and refer to the costs of actions required for European sites only, assessed as part of the IPENS (Improvement Programme for England's Natura 2000 Sites) project. These form the basis of the costings in the Prioritised Action Framework for Natura 2000 sites in England[10].

There are therefore several challenges in costing SSSI actions:

- The IPENS data are now 10 years old, and the costs are therefore dated.

[5] OEP (2025) page 15

[6] https://www.endsreport.com/article/1941602/eip-new-air-targets-protected-site-ambition-dropped-starmer-takes-aim-environmental-regulation

[7] https://naturalengland.blog.gov.uk/2023/08/24/investing-in-sites-of-special-scientific-interest-sssis/

[8] https://publications.naturalengland.org.uk/publication/5681050328760320

[9] https://www.gov.uk/guidance/sites-of-special-scientific-interest-condition-and-assessments

[10] JNCC (2016) Prioritised Action Framework for Natura 2000 sites: England https://data.jncc.gov.uk/data/1b21d5b4-e87a-42db-a3af-894f10d40e4e/paf-england.pdf

- The IPENS data relate to European Protected Sites only, not the wider SSSI series, which contains a much larger number of sites, especially small sites.
- There are wide variations between sites, the pressures and actions needed to address them, and the costs of these actions – these variations introduce challenges in upscaling from cost data for a sample of sites.
- Several types of actions required for SSSIs have no available cost data from IPENS.
- Knowledge of SSSI actions is incomplete and is being updated periodically as sites and required actions are assessed.
- Because many sites have not been recently assessed, the required actions are often not known with certainty and various assumptions are required.

In view of these challenges, the costs of action for protected sites cannot be estimated with a high degree of certainty. Assessing the costs of action to improve the condition of SSSIs requires several assumptions and calls for a flexible approach that can be updated as better data are collected over time.

### 2.2.2 Previous cost estimates

The IPENS report[11] noted that 50% of the Site Improvement Plan actions for European Protected Sites in England included an initial cost estimate. The cumulative costs of these actions was estimated at £800 million, with river management, water pollution and hydrological functioning being the most costly actions to tackle. It was suggested that, if the costed actions were representative of all actions required for Natura 2000 sites, the total cost across England for European protected sites alone could amount to £1.6 billion.

Based on the IPENS data, the Prioritised Action Framework (JNCC, 2016) estimated the financial needs for Natura 2000 sites at £1.3-1.4 billion for period 2015-2020/21. This estimate was based on a combination of existing management commitments and additional costs highlighted in Site Improvement Plans (SIPs) developed under IPENS. The largest cost estimates were for direct management/ capital works (£670 million over 6 years). The cost estimates also included management advice/ plans (£150m), monitoring/research/investigation (£40m), and other costs (£165m). Annual habitat management costs were put at £55-65m per year (£330-390m over 6 years).

A report for Defra by ICF and eftec (2021)[12] estimated the costs of achieving protected site condition by taking the estimates in the PAF, updating them for inflation and scaling them up to the whole SSSI series on an area basis. The costs of remedial actions for SSSIs were estimated at £1,134 million (present value, equivalent to £1,374 million at 2025 prices) while the costs of annual habitat maintenance were put at £2,002 million (present value to 2037, based on an annual cost of £76 million, or £92 million at 2025 prices).

### 2.2.3 Method

The costs of achieving favourable condition for SSSIs were estimated by:

1. Compiling best available data on the number of actions/mechanisms required to improve the condition of SSSIs across England (e.g. investigations, management plans, agri-environment agreements, various capital improvement works etc).
2. Identifying a unit cost for each mechanism, based on IPENS data.
3. Updating unit cost estimates from 2015 to 2025 prices[13].
4. Filling gaps for uncosted mechanisms, by applying estimates of the mean unit costs of for similar groups of mechanisms for which cost data are available.

[11] Natural England (2015) Improvement Programme for England's Natura 2000 Sites (IPENS) Planning for the future Summary Report. https://assets.publishing.service.gov.uk/media/5a7ffaa140f0b62302690c7f/ipens-summary-report.pdf

[12] ICF and eftec (2021) Costs and Benefits of England's Biodiversity Ambition. https://randd.defra.gov.uk/ProjectDetails?ProjectId=21641

[13] Using HM Treasury GDP deflator, upscaling values by a factor of 1.37

5. Multiplying the number of each type of mechanism required by the average unit cost of that mechanism to estimate the overall total costs of actions to improve the conditions for SSSIs in England.

The analysis investigated the effects of using mean and median costs per mechanism from IPENS. Because the wide ranges in unit costs estimated in IPENS, the mean cost was found to be roughly twice as large as the median. However, the mean was found to give a better representation of the financial needs of SSSIs overall, by accounting for the effects of applying high-cost actions at a minority of sites.

The analysis also examined the effect of site size on costs, by stratifying sites by size and estimating the total costs of action for small, medium and large-sized sites. While mechanisms applied to larger sites were found to have higher mean unit costs than those for smaller sites, this was not found to affect the overall cost estimate. This was because the unit cost data from IPENS were broadly representative across site sizes.

### 2.2.4 Estimated Costs of Improving SSSI Condition

Applying these methods gives a **best estimate of the costs of actions required to achieve favourable condition of SSSIs in England of £1.39 billion.**

This is the same as the estimate by ICF and eftec (2021), which equates to £1.37 billion in 2025 prices.

This is an estimate of the one-off cost of implementing identified actions to improve the condition of SSSIs. However, in practice, it is likely that further resources will be required in future if identified actions are insufficient, or new actions are identified. It could therefore be reasonably assumed that, if the identified actions are completed in the coming 5 years, a similar magnitude of costs will be incurred from further actions required in the following 10 years.

This estimate should be regarded as indicative only, and is likely to underestimate the true scale of resources needed to achieve SSSI condition, for various reasons:

- Many SSSI condition assessments are not up to date, and new assessments would likely identify further pressures and required mechanisms.
- The list of mechanisms identified as required is likely to be incomplete, and depend on further investigations, even for sites whose condition is known.
- The unit cost estimates are based on 10-year-old data, and costs may have increased by more than general inflation.
- The cost estimates are smaller than the upper estimates resulting from IPENS, even though the latter are now ten years old and referred only to European protected sites[14].

To improve these estimates of financial needs, there is a need for a more up-to-date and detailed assessment of the actions required at site level and their costs, as well as improved and more complete data on SSSI condition and required actions/ mechanisms.

## 2.3 Costs of Annual Management of SSSI Habitats

### 2.3.1 Approach and method

It is assumed that all SSSI habitats require ongoing annual management to maintain their condition. This is typically achieved through agri-environment agreements which pay land managers a specified rate per hectare for actions to manage each habitat.

Costs of annual management of habitats on SSSIs were estimated by multiplying estimates of the extent of each habitat across the SSSI series by the annual cost per hectare of management of that habitat through the agri-environment programme, using latest rates

[14] If the IPENS estimate is doubled to allow for uncosted actions. Note however that the estimates here are similar in magnitude to those in the PAF and those of ICF & eftec (2021).

from Countryside Stewardship. Many of the payment rates have increased significantly since the last estimate by ICF and eftec (2021), increasing the size of the overall cost estimate.

### 2.3.2 Costs of annual habitat management

The unit costs of management of each habitat type, based on current Countryside Stewardship payment rates, are given in Table 2.1. Multiplying the annual cost of habitat management per hectare by the area of each habitat, and summing across habitats, gives a **total estimated annual cost of £172 million**. These costs are recurrent and annual.

### Table 2.1: Estimated cost of management of SSSI habitats

| Terrestrial habitats | Area (ha) | Cost £/ha p.a. | Total Cost £ p.a. | CS options applied |
|---|---|---|---|---|
| ACID GRASSLAND - Lowland | 8,855 | 646 | £5,720,330 | Manage priority habitat species rich grassland |
| ACID GRASSLAND - Upland | 26,049 | 121 | £3,151,939 | Management of rough grazing for birds |
| ARABLE AND HORTICULTURE | 14,030 | 62 | £875,061 | Average of CS arable options, applied to 10% of area |
| BOGS - Lowland | 9,414 | 215 | £2,023,993 | Manage lowland raised bog |
| BOGS - Upland | 181,666 | 121 | £21,981,547 | Moorland management + limited livestock grazing |
| BOUNDARY AND LINEAR FEATURES | 226 | 650 | £146,907 | Manage hedgerows (£13 per 100m per side, assume 2 sides, 4m wide, so £26 for 0.04 ha) |
| BRACKEN | 120 | 232 | £27,729 | Bracken control supplement |
| BROADLEAVED, MIXED AND YEW WOODLAND - Lowland | 79,544 | 127 | £10,102,112 | Woodland improvement |
| BROADLEAVED, MIXED AND YEW WOODLAND - Upland | 15,281 | 127 | £1,940,658 | Woodland improvement |
| BROADLEAVED, MIXED AND YEW WOODLAND - Upland, FEN, MARSH AND SWAMP - Lowland | 14 | 127 | £1,770 | Woodland improvement |
| BUILT UP AREAS AND GARDENS | 59 | 0 | £0 | n/a |
| CALCAREOUS GRASSLAND - Lowland | 43,170 | 646 | £27,887,820 | Manage priority habitat species rich grassland |
| CALCAREOUS GRASSLAND - Upland | 8,207 | 646 | £5,301,580 | Manage priority habitat species rich grassland |
| CONIFEROUS WOODLAND | 24,327 | 127 | £3,089,551 | Woodland improvement |
| DWARF SHRUB HEATH - Lowland | 53,850 | 412 | £22,185,998 | Manage lowland heathland |
| DWARF SHRUB HEATH - Upland | 181,768 | 108 | £19,630,912 | General moorland management + Low livestock grazing |
| EARTH HERITAGE | 26,816 | 0 | £0 | n/a |
| FEN, MARSH AND SWAMP - Lowland | 27,759 | 920 | £25,538,142 | Manage and restore fen/reedbed/wetland |
| FEN, MARSH AND SWAMP - Upland | 2,611 | 121 | £315,886 | Moorland management + limited livestock grazing |
| IMPROVED GRASSLAND | 1,289 | 151 | £194,612 | Manage grassland with very low inputs |
| INLAND ROCK | 7,882 | 0 | £0 | n/a |
| MONTANE HABITATS | 1,366 | 108 | £147,568 | General moorland management + Low livestock grazing |
| NEUTRAL GRASSLAND - Lowland | 48,394 | 151 | £7,307,499 | Manage grassland with very low inputs |
| NEUTRAL GRASSLAND - Upland | 2,732 | 121 | £330,605 | Management of rough grazing for birds |
| ***Subtotal*** | ***765,439*** | | ***£157,902,217*** | |
| Aquatic Habitats | | | | |
| RIVERS AND STREAMS | 8,983 | 1186 | £10,653,482 | Manage riparian and water edge habitats |
| STANDING OPEN WATER AND CANALS | 25,991 | 135 | £3,508,761 | Manage lakes and bodies of water |
| ***Subtotal*** | ***34,974*** | | ***£14,162,243*** | |
| **Grand Total** | | | **£172,064,460** | |

### 2.4 Designation of new SSSI

OEP (2025) found that too few new SSSIs are being designated currently. While Natural England has identified 100,000 hectares of land that meet the criteria for SSSI designation, the pace and scale of new designations are insufficient to close this gap.

Based on information provided by Natural England, ICF and eftec (2021) estimated the staff and evidence costs of new SSSI designation at £194 per hectare. This equates to £299 per hectare if updated to account for recent increases in staff costs and prices[15].

On this basis, **the cost of designating a further 100,000 hectares of SSSI in England would be £29.9 million, or £6m per year over a 5-year period.**

## 3 Delivering 30 by 30 on Land

### 3.1 Delivery of 30 by 30 on land in England

Protecting and effectively managing 30% of England's land area will be a huge undertaking and require a substantial commitment of financial resources.

The Government's Delivery Plan for 30 by 30[16] estimates that 7% of England's land is already meeting the 30 by 30 criteria, while analysis identifies land covering around 32% of England has the potential to contribute to the target. A Methodology Note breaks this into four categories:

- Category A: Land currently counting towards 30by30 (7% of England). This comprises SSSIs in favourable/unfavourable recovering condition, public woodland (predominantly broadleaved) recognised as sustainably managed, and (non SSSI) National Nature Reserves.
- Category B. Land predicted to meet the 30by30 criteria over the coming years (3.5% of England). This comprises land in Landscape Recovery schemes, Stewardship agreements of 20+ years, RSPB and Plantlife reserves, and sustainably managed broadleaved woodland outside the public estate.
- Category C. Existing natural or semi-natural habitat which could count towards 30by30, but may need restoration, improved management and/or long-term protection (9% of England). This includes peatland, woodland and other priority habitats.
- Category D. Other land areas which do not meet the 30by30 criteria but have potential for future habitat creation or restoration (12.5% of England). This is identified using Habitat Network Maps.

These figures indicate that achieving 30 by 30 will be a major undertaking. If all land in Categories A and B is assumed to be on course to meet the government's criteria, it will require effort to identify, protect and manage a further 19.5% of England's land area in accordance with 30 by 30 criteria. Land currently comprising suitable semi natural habitat (Category C, 9% of land area) will need to be protected, where necessary restored, and brought under favourable management. That would be a major task, as most is under private ownership and much would require new protection and enhanced management. Even if that could be achieved on the entire area classed as Category C, a further 10.5% of England would need to be included in the 30 by 30 area. This would amount to around 1.39 million hectares nationally.

[15] Updated for current NE staff costs and overheads (from NE annual report and accounts) and prices (HMT GDP deflator)

[16] https://www.gov.uk/government/publications/30by30-on-land-in-england-delivery-plan/30by30-on-land-delivery-plan

Most of this Category D land would require creation or restoration of new priority habitat to make it suitable for inclusion in 30 by 30.

Government guidance on 30 by 30 suggests that, depending on how sites or areas are included in 30 by 30, not every hectare will necessarily deliver biodiversity outcomes. It does not set a threshold, but notes that, as a benchmark, some international operational guidance and assessment tools require at least three quarters of the site to be delivering biodiversity outcomes. However, even if we assume that only 75% of the Category D land included in the 30by30 area (comprising at least 10.5% of England) will require creation or restoration of new habitat, **this will require habitat creation and restoration over at least 1 million hectares**.

Delivering 30 by 30 will therefore require substantially more creation and restoration than the current Environment Act target (creation or restoration of 500,000 hectares of wildlife rich habitat by 2042).

Delivering 30 by 30 will therefore require a major commitment of financial resources to:

1. Identify land to be included in 30 by 30 and form arrangements to protect, manage and improve it for nature;
2. Improve and maintain the condition of existing priority habitats currently outside protected sites (Category C);
3. Create and restore new priority habitats at scale (Category D).

## 3.2 Costs of facilitation, advice and monitoring

Significant administrative resources will be needed in Defra and Natural England to identify sites suitable for inclusion in 30 by 30 and to oversee the process for badging, protecting, improving and maintaining them.

Local facilitation and advice are also likely to play a vital role. There will be a need to liaise with and recruit local landowners and land managers, agree arrangements for inclusion of land within 30 by 30, determine plans for habitat creation, restoration and management, negotiate management agreements, provide advice on land management, and oversee arrangements for monitoring.

This could be achieved through a farm cluster model, employing a national network of facilitators/advisors charged with recruiting landowners and managers to 30 by 30, agreeing and negotiating plans for habitat creation, restoration and management, and providing ongoing advice to support land management agreements.

To estimate the possible costs of this, the following (illustrative) assumptions are made (using a similar costings model to that in the "Scale of Need" model, Rayment, 2019[17]):

- Facilitators/advisors are required for all Category C and Category D land to be included within 30 by 30, a total of 2.57 million hectares.
- Each full-time equivalent advisor recruits and supports 3 clusters of 20 land managers.
- Each land manager creates/restores/maintains an average of 43.5 hectares of habitat (50% of average farm size of 87 hectares).
- This enables each facilitator/advisor to oversee 2610 hectares of habitat.
- This requires a national team of 985 advisors.
- The cost per advisor is £60,000 per annum, including overheads.

[17] Rayment M (2019) Paying for public goods from land management: How much will it cost and how might we pay? https://www.wildlifetrusts.org/sites/default/files/2019-09/Paying%20for%20public%20goods%20final%20report.pdf

Based on these assumptions, **the annual cost of a national team of 30 by 30 facilitators/advisors would be in the order of £59 million per annum**. This is likely a conservative estimate, as the assumed land area per advisor could be considered ambitious. This level of funding would continue to be required through implementation of 30 by 30, with ongoing requirements for advice and oversight of monitoring.

Habitats in 30 by 30 will also require ongoing monitoring. This is likely to be less intensive than that required for SSSIs. Assuming that per hectare monitoring costs for the wider 30 by 30 network will be 50% of those of the SSSI series suggests a future **annual monitoring cost in the region of £7.8 million per annum.**

## 3.3 Costs of habitat creation/ restoration

From Section 3.1, it is assumed that achieving the 30 by 30 target will require creation/restoration of minimum of a further 1 million hectares of wildlife-rich habitat by 2042.

Latest government data record that 77,638 hectares of wildlife rich habitat were restored or created by 2026, compared to the Environment Act interim target of 250,000 hectares by December 2030. This suggests a need to create or restore an average of 43,090 hectares per year for 4 years to meet the 2030 target. Thereafter it will be necessary to increase the rates of habitat creation and restoration to 68,970 annually between 2031 and 2042 to deliver a total of 1 million hectares of new habitat compared to current levels.

Habitat creation/ restoration will incur capital costs of one-off works, and ongoing annual management costs. These vary by habitat.

The costs of habitat creation have been estimated by:

- Estimating an indicative breakdown of the area of new habitat created/restored by habitat type;
- Estimating the time profile of habitat creation, restoration and management over the period 2027 to 2042;
- Applying per hectare costs of habitat creation, restoration and management taken from the "Scale of Need" model (Rayment, 2024)[18] to calculate total annual costs at England level.

A summary of cost estimates is given in Table 3.1.

The total cost of creation/restoration of 1 million hectares of wildlife rich habitat is estimated at £18.9 billion over the 16 years to 2042, an annual average of £1.2 billion per year over this period.

By far the largest costs are for broadleaved, mixed and yew woodland, on account of the large scale of habitat creation envisaged as well as the substantial per hectare costs of woodland creation. The estimated costs for this habitat account for 69% of the total.

It should be noted that these cost estimates are indicative only, and are sensitive to assumptions regarding the mix of habitat to be created and restored, as well as the unit cost estimates.

[18] https://www.wildlifetrusts.org/sites/default/files/2024-07/Scale%20of%20Need%20Report%20July%202024%20FINAL.pdf

### Table 3.1: Estimated cost of habitat creation and restoration

| Habitat group | Habitat type | Total area to be created/ restored | 2027 to 2031 | | 2032 to 2042 | | 2027 to 2042 | |
|---|---|---|---|---|---|---|---|---|
| | | | Total (£m) | Annual average (£ mpa) | Total (£m) | Annual average (£mpa) | Total (£m) | Annual average (£mpa) |
| Acid heaths and grassland | Lowland dry acid grassland | 30,000 | 25.5 | 5.1 | 176.1 | 16.0 | 201.6 | 12.6 |
| | Lowland heathland | 40,000 | 31.2 | 6.2 | 220.4 | 20.0 | 251.6 | 15.7 |
| | Upland heathland | 50,000 | 6.6 | 1.3 | 52.5 | 4.8 | 59.1 | 3.7 |
| Bogs | Blanket bog | 80,000 | 75.0 | 15.0 | 320.0 | 29.1 | 395.0 | 24.7 |
| | Lowland raised bog | 2,000 | 3.5 | 0.7 | 38.5 | 3.5 | 42.0 | 2.6 |
| Calcareous grassland | Lowland calcareous grassland | 40,000 | 49.1 | 9.8 | 262.6 | 23.9 | 311.7 | 19.5 |
| | Upland calcareous grassland | 3,000 | 2.0 | 0.4 | 54.1 | 4.9 | 56.1 | 3.5 |
| Coastal | Coastal & floodplain grazing marsh | 60,000 | 57.5 | 11.5 | 354.6 | 32.2 | 412.1 | 25.8 |
| | Coastal Saltmarsh | 15,000 | 277.5 | 55.5 | 912.9 | 83.0 | 1,190.3 | 74.4 |
| | Coastal Sand Dunes | 600 | 7.5 | 1.5 | 25.5 | 2.3 | 33.0 | 2.1 |
| | Coastal Vegetated Shingle | 300 | 0.9 | 0.2 | 4.1 | 0.4 | 5.1 | 0.3 |
| | Maritime cliff and slope | 1,100 | 0.4 | 0.1 | 47.4 | 4.3 | 47.8 | 3.0 |
| Fens | Lowland fens | 50,000 | 133.8 | 26.8 | 769.5 | 70.0 | 903.2 | 56.5 |
| | Purple moor-grass & rush pastures | 30,000 | 32.4 | 6.5 | 190.6 | 17.3 | 223.0 | 13.9 |
| | Reedbeds | 10,000 | 25.4 | 5.1 | 151.3 | 13.8 | 176.7 | 11.0 |
| | Upland flushes fens and swamps | 6,000 | 14.7 | 2.9 | 111.2 | 10.1 | 125.8 | 7.9 |
| Neutral grassland | Lowland meadows | 40,000 | 34.8 | 7.0 | 216.8 | 19.7 | 251.6 | 15.7 |
| | Upland hay meadow | 2,000 | 2.2 | 0.4 | 28.5 | 2.6 | 30.7 | 1.9 |
| Scrub | Scrub | 60,000 | 60.5 | 12.1 | 366.9 | 33.4 | 427.4 | 26.7 |
| Woodland | Native broadleaved, mixed & yew woodland | 400,000 | 2,993.9 | 598.8 | 10,082.0 | 916.5 | 13,075.9 | 817.2 |
| | Wood-pasture and parkland | 60,000 | 53.4 | 10.7 | 307.2 | 27.9 | 360.5 | 22.5 |
| | Traditional orchard | 20,000 | 57.4 | 11.5 | 219.1 | 19.9 | 276.5 | 17.3 |
| **Total** | | **1,000,000** | **3,945.1** | **789.0** | **14,911.6** | **1,355.6** | **18,856.8** | **1,178.5** |

## 3.4 Costs of habitat improvement and management

The costs of improving and maintaining priority habitats have been estimated based on latest data on the area of habitats outside SSSIs and estimates of the costs of habitat improvement and maintenance from the Scale of Need model.

The England Biodiversity Indicators[19] provide a breakdown by habitat type of 1.13 million hectares of priority habitat outside SSSI in 2025. Of these, 50% (565,000 ha) are identified as being in favourable management, and the other 50% (565,000 hectares) not in favourable management. This is based on the areas included within appropriate environmental land management schemes.

To estimate the costs of habitat improvement and management, it is assumed that the 50% of habitats not in favourable management require improvement, while the 50% in favourable management require ongoing maintenance only. Habitat improvement is assumed to be phased over a 10-year period, 2027 to 2036. After estimating the time profile of habitat improvement and maintenance actions, average per hectare capital costs of improvement and annual costs of maintenance of each habitat were applied from the Scale of Need model.

The resulting cost estimates are given in Table 3.2.

The total costs of improving and maintaining these 1.13 million hectares of priority habitat are estimated at £6.4 billion over 16 years, an average of £400 million per annum. Some habitats (ponds, lakes and mudflats) are not amenable to costing on a per hectare basis, so are not included. The largest cost estimates are for deciduous woodland (£2.9 billion), followed by coastal and floodplain grazing marsh (£1.9 billion).

[19] https://www.gov.uk/government/statistical-data-sets/env09-england-biodiversity-indicators

### Table 3.1: Estimated cost of improvement and maintenance of existing habitats

| Habitat type | Total area to be improved/ maintained | 2027 to 2031 | | 2032 to 2042 | | 2027 to 2042 | |
|---|---|---|---|---|---|---|---|
| | | Total (£m) | Annual average (£ mpa) | Total (£m) | Annual average (£ mpa) | Total (£m) | Annual average (£ mpa) |
| Blanket bog | 71,564 | 51.6 | 10.3 | 109.7 | 10.0 | 161.2 | 10.1 |
| Calaminarian grassland | 133 | 0.3 | 0.1 | 0.9 | 0.1 | 1.2 | 0.1 |
| Coastal & floodplain grazing marsh | 191,097 | 489.0 | 97.8 | 1,459.2 | 132.7 | 1,948.2 | 121.8 |
| Coastal saltmarsh | 2,218 | 4.1 | 0.8 | 12.8 | 1.2 | 16.9 | 1.1 |
| Coastal sand dunes | 1,737 | 5.0 | 1.0 | 13.8 | 1.3 | 18.9 | 1.2 |
| Coastal vegetated shingle | 349 | 1.0 | 0.2 | 2.8 | 0.3 | 3.8 | 0.2 |
| Deciduous woodland | 662,672 | 1,143.5 | 228.7 | 1,757.1 | 159.7 | 2,900.6 | 181.3 |
| Lakes | 26 | - | - | - | - | - | - |
| Limestone pavement | 273 | 0.3 | 0.1 | 0.5 | 0.0 | 0.8 | 0.1 |
| Lowland calcareous grassland | 26,551 | 80.3 | 16.1 | 197.5 | 18.0 | 277.8 | 17.4 |
| Lowland dry acid grassland | 11,105 | 27.8 | 5.6 | 78.7 | 7.2 | 106.5 | 6.7 |
| Lowland fen | 8,435 | 30.2 | 6.0 | 87.9 | 8.0 | 118.1 | 7.4 |
| Lowland heathland | 11,811 | 19.3 | 3.9 | 54.7 | 5.0 | 74.0 | 4.6 |
| Lowland meadow | 18,001 | 48.0 | 9.6 | 129.6 | 11.8 | 177.5 | 11.1 |
| Lowland raised bog | 2,231 | 5.4 | 1.1 | 9.1 | 0.8 | 14.5 | 0.9 |
| Maritime cliff and slope | 4,054 | 3.8 | 0.8 | 10.1 | 0.9 | 13.8 | 0.9 |
| Mountain heath & willow scrub | 414 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mudflats | 4,384 | - | - | - | - | - | - |
| Ponds | 303 | - | - | - | - | - | - |
| Purple moor grass & rush pasture | 11,804 | 32.0 | 6.4 | 84.1 | 7.6 | 116.1 | 7.3 |
| Reedbed | 906 | 3.7 | 0.7 | 9.8 | 0.9 | 13.5 | 0.8 |
| Saline lagoon | 194 | - | - | - | - | - | - |
| Traditional orchard | 18,515 | 52.3 | 10.5 | 91.2 | 8.3 | 143.5 | 9.0 |
| Upland calcareous grassland | 2,484 | 6.7 | 1.3 | 17.5 | 1.6 | 24.2 | 1.5 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Upland flushes fens & swamps | 8,665 | 34.6 | 6.9 | 87.5 | 8.0 | 122.1 | 7.6 |
| Upland hay meadow | 1,933 | 5.6 | 1.1 | 13.9 | 1.3 | 19.5 | 1.2 |
| Upland heathland | 68,221 | 31.9 | 6.4 | 81.2 | 7.4 | 113.2 | 7.1 |
| **Total** | **1,130,077** | **2,076.2** | **415.2** | **4,309.8** | **391.8** | **6,386.0** | **399.1** |

# 4 Delivering 30 by 30 at Sea

## 4.1 Delivery of 30 by 30 at sea

Unlike on land, the extent of protected areas at sea already exceeds the 30% target. However, marine protected areas (MPAs) are insufficiently protected or managed to deliver for the needs of marine wildlife.

At 31 March 2025, MPAs covered 2.45 million hectares of England's seas, representing 49% of the total marine area (to low water mark)[20].

Priorities to increase the effectiveness of the MPA network include:

- Strategic review of the sufficiency of MPAs to meet marine nature conservation needs, followed by designation of new MPAs where required;
- Designation of new, highly protected marine areas (HPMAs), with increased levels of protection for the seabed and marine ecosystems, to enable marine nature recovery;
- Enhanced monitoring and enforcement of MPAs.

## 4.2 Costs of action for MPAs

Available evidence does not permit a full assessment of the funding needed to increase the effectiveness of England's MPAs.

However, some costings are provided in an unpublished report by Rayment (2025)[21] on the funding needed to achieve recovery of seabird populations in the UK. These focus on the costs of improving the effectiveness of marine Special Protection Areas (SPAs) for seabirds. SPAs account for approximately 50% of the area of England's MPAs.

These costs include:

- Undertaking a strategic review of the sufficiency of SPAs
- Designating additional SPAs to fill gaps in the current network
- Developing and implementing management plans for SPAs
- Increasing resources for SPA monitoring and enforcement.

These actions would be taken across the UK, with actions in English waters co-ordinated with those in other UK countries.

The estimated costs of these measures (England and UK-level costs) are given in Table 4.1. These costs for SPAs are estimated at £42 million between 2027 and 2042, an average of £2.6 million per year.

[20] https://www.gov.uk/government/statistics/england-biodiversity-indicators/1-extent-and-condition-of-protected-areas--2

[21] Rayment M (2025) Costs and Funding for Seabird Recovery in the UK. Report for the RSPB. Unpublished.

### Table 4.1: Estimated costs of Action for Marine SPAs

| Action | 2027-31 | | 2031-42 | | 2027-42 | |
|---|---|---|---|---|---|---|
| | Total £m | Average annual (£mpa) | Total £m | Average annual (£mpa) | Total £m | Average annual (£mpa) |
| SPA sufficiency review | 1.4 | 0.3 | 0.7 | 0.1 | 2.1 | 0.1 |
| Designation of additional SPAs | 1.0 | 0.2 | 0.5 | 0.0 | 1.5 | 0.1 |
| SPA management planning | 0.5 | 0.1 | 0.3 | 0.0 | 0.8 | 0.0 |
| SPA monitoring and enforcement | 11.8 | 2.4 | 25.9 | 2.4 | 37.6 | 2.4 |
| ***Subtotal*** | ***14.7*** | ***2.9*** | ***27.3*** | ***2.5*** | ***42.0*** | ***2.6*** |

# 5 Summary of Estimated Financial Needs

## 5.1 Estimated financial needs for protected sites and 30 by 30

Table 5.1 summarises the estimates of the total financial resources needed to improve the condition of SSSIs, and to deliver 30 by 30 on land and sea.

The total financial resources needed are estimated at £32 billion between now and 2042, an average of £2.0 billion per year. 18% of this cost is attributed to actions required to improve the condition of SSSIs, and 82% to the delivery of the wider 30 by 30 network.

These estimates highlight the scale of the challenge involved in delivering 30 by 30, particularly when effort to improve the condition of existing protected sites is constrained by a shortage of financial resources.

Furthermore, these estimates are likely to be highly conservative, for various reasons:

- The actions needed to improve SSSI condition are only partly known, especially since assessments of the condition of many sites are out of date.
- The unit cost estimates for SSSI actions are based on old data, and are likely to be underestimates.
- The estimates of the facilitation and advice needed to implement 30 by 30 are based on conservative assumptions.
- The costings assume that all existing priority habitat can be brought into 30 by 30, which relies on the co-operation of all relevant landowners. In practice, this is unlikely to be wholly achieved, increasing the requirements for new habitat creation.
- The habitat costings apply unit costs of creation, restoration and maintenance of habitats based on recent experience. However, greatly increasing the extent of action is likely to increase unit costs.
- The MPA costings are only partial, and exclude costs of action for sites other than SPAs, and for the extension of Highly Protected Marine Areas (HPMAs).

## 5.2 Current expenditure and funding gap

### 5.2.1 Current spending on SSSIs in England

Natural England's Action Plan 2026/27[22] states that the organisation has an annual budget of £29.7m for protected sites. No data are available for expenditure on SSSIs by other parts of government, but it is known that other organisations such as the Environment Agency and Ministry of Defence also spend significant sums. Some expenditures are also the responsibility of the private sector (including water companies).

The largest levels of government spending on SSSIs are understood to be under the agri-environment programme, and most SSSI annual management costs are met through agri-environment schemes.

While quantitative evidence is limited, a best estimate is that current annual spending is no more than £200 million, suggesting a need for public expenditure on SSSI to more than double in the coming five years to complete the actions required to achieve favourable condition. As a first priority, Section 2.1 above estimates that annual expenditure on SSSI monitoring needs to quadruple to £6 million annually to bring SSSI condition assessments up to date over a six-year cycle.

[22] https://www.gov.uk/government/publications/natural-england-action-plan-2026-to-2027/natural-england-action-plan-2026-to-2027

### 5.2.2 Habitat Creation, Restoration and Management for 30 by 30

The Government does not record expenditure specifically on habitat creation, restoration and management in England.

However, the latest EIP progress report[23] records that creation/restoration of new wildlife rich habitat amounted to 38,761 hectares in 2025/26. This compares with the estimate above that 62,500 hectares of new habitat are needed each year to create 1 million extra hectares by 2042 (in line with my projections for 30 by 30). This suggests an annual uplift of 61% compared to recent rates of habitat creation and restoration.

Data summarised above also record that 50% of existing priority habitats in England are under favourable management.

These figures suggest that current spending outside SSSI corresponding with the 30 by 30 habitat creation and management needs we identify could amount to approximately £920 million per annum, compared to the estimated annual average requirement of £1.64 billion to 2042. This suggests an annual funding gap for habitat creation and management in the order of £700 million.

### 5.2.3 Overall funding gap

These broad estimates suggest that current annual spending contributing to the identified priority actions for SSSIs and 30 by 30 is in the region of £1.1bn in England. This compares to estimated annual needs of £2.0 bn between now and 2042. These estimates suggest that annual government expenditure needs almost to double to meet these identified priorities. As all the estimated resource needs set out in this report are conservative, the true funding gap could well be significantly more than £1 billion.

[23] https://www.gov.uk/government/publications/environmental-improvement-plan-annual-progress-report-2025-to-2026

### Table 5.1: Estimated total financial resource needs for SSSIs and 30 by 30 in England

| | 2027-2031 | | 2032-2042 | | 2027-42 | |
|---|---|---|---|---|---|---|
| | **Total (5 years)** | **Mean per annum** | **Total (11 years)** | **Mean per annum** | **Total (16 years)** | **Mean per annum** |
| **Existing SSSIs** | | | | | | |
| SSSI monitoring and condition assessment | 30.0 | 6.0 | 66.0 | 6.0 | 96.0 | 6.0 |
| SSSI improvement actions | 1,389.8 | 278.0 | 1,389.8 | 126.35 | 2779.6 | 173.7 |
| SSSI - habitat management | 860.3 | 172.1 | 1,892.7 | 172.1 | 2753.0 | 172.1 |
| ***Subtotal*** | ***2,280.1*** | ***456.0*** | ***3,348.5*** | ***304.4*** | ***5628.6*** | ***351.8*** |
| **Designation of new SSSI** | ***29.9*** | ***6.0*** | ***29.9*** | ***2.72*** | ***59.8*** | ***8.7*** |
| **30 by 30** | | | | | | |
| 30 by 30 facilitation and advice | 295.9 | 59.2 | 650.9 | 59.2 | 946.8 | 59.2 |
| 30 by 30 habitat creation | 3,945.1 | 789.0 | 14,911.6 | 1,355.6 | 18856.8 | 1178.5 |
| 30 by 30 improvement/ maintenance of existing habitat | 2,076.2 | 415.2 | 4,309.8 | 391.8 | 6386.0 | 399.1 |
| 30 by 30 monitoring | - | - | 85.4 | 7.8 | 85.4 | 5.3 |
| ***Subtotal*** | ***6,317.2*** | ***1,263.4*** | ***19,957.7*** | ***1,814.3*** | ***26,274.9*** | ***1,642.2*** |
| **MPAs (SPA only)** | | | | | | |
| SPA sufficiency review | 1.4 | 0.3 | 0.7 | 0.1 | 2.1 | 0.1 |
| Designation of additional SPAs | 1.0 | 0.2 | 0.5 | 0.0 | 1.5 | 0.1 |
| SPA management planning | 0.5 | 0.1 | 0.3 | 0.0 | 0.8 | 0.0 |
| SPA monitoring and enforcement | 11.8 | 2.4 | 25.9 | 2.4 | 37.6 | 2.4 |
| ***Subtotal*** | ***14.7*** | ***2.9*** | ***27.3*** | ***2.5*** | ***42.0*** | ***2.6*** |
| **Grand Total** | **8,641.9** | **1,728.4** | **23,363.4** | **2,123.9** | **32,005.3** | **2,005.3** |