Nottinghamshire & Nottingham Local Nature Recovery Strategy

LNRS Priorities and Potential Measures

Step 4 in the preparation of the LNRS is 'agree LNRS priorities and identify potential measures', which then form part of the Statement of Biodiversity Priorities. The recommended process for doing this is set out in "Identifying and agreeing priorities and potential measures within Local Nature Recovery Strategies – Advice for Responsible Authorities" Version1: November 2023.

Defintions:

Priorities are "the end result that the strategy is seeking to achieve"; in most cases these are relevant to habitats, or species. Priorities should generally not include site-level locations, and should determine what should be the focus of nature recovery activities in Nottinghamshire.

Potential measures are "specific practical actions to achieve the priorities"; they are suggested activities that benefit a particular habitat or species or provide wider environmental benefits, and help to deliver the agreed priorities.

Habitat groupings:

Priorities are grouped by broad habitat types, recognising that some habitats don't fall neatly into one particular grouping, and that some potential measures apply to multiple priorities and therefore may appear under a different habitat. An 'Overarching' grouping seeks to capture pirorities which apply across all habitat

Species and species assemblages priorities:

The species assemblages priorities have been dropped into the relevant habitat grouping, but individual species priorities appear as a separate grouping

Links to potential measures/proposed priorities, and to other potential measures/proposed priorities:

The coding system used captures links backwards and forwards between each priority and potential measures in the habitat grouping

The coding system also captures links backwards and forwards between priorities and potential measures appearing in other habitat groupings, where relevant.

The codings system is designed as follows:

1. An arbitrary letter is assigned to each habitat grouping, so B is for woodland
2. P is used to indicate a Priority, and these are numbered - therefore A/P1 is the first woodland priority
3. The Potential Measures are coded similarly, with M used instead – so A/M1 is the first woodland Potential Measure
4. For the species priorities, the code SP/P1 and SP/M1 is used (SP = species)

Link to NEO's:

The link to the National Environmental Objectives is identified in this column, whith those NEO's directly benefit from a priority being **emboldened**.

Co-benefits:

The LNRS should aim to enhance biodiversity whilst also propviding a range of co-benefits. These are identified against each priority, where relevant (and where there is a clear and direct link), based on the following themes:

1. **Cleaner Water**: Improved water quality for drinking and bathing through the creation of wetlands and better land management practices
2. **Cleaner Air**: Enhanced air quality by reducing pollutants and by planting trees and hedgerows, which help to filter pollutants
3. **Healthier Soils**: Improved soil health for growing food and other products, such as timber and biofuels
4. **Climate Regulation**: Increased carbon sequestration through the restoration of peatlands and the creation of new habitats, as well as shading from trees
5. **Flood Mitigation**: Reduced flood risks by restoring natural floodplains and creating wetlands
6. **Recreational Opportunities**: More green spaces for recreation and well-being, benefiting local communities
7. **Economic Benefits**: Boosted local economies through eco-tourism, delivery of land management practices and products e.g. from woodland
8. **Educational Opportunities**: Increased opportunities for environmental education and community engagement

Nature-based solution:

Nature-based solutions are interventions that use nature and the natural functions of healthy ecosystems to tackle societal challenges (social, economic and environmental). These are identified against each potential measure, where relevant, based on the following themes:

1. **Wetland Creation**: Establishing new wetlands to enhance biodiversity, improve water quality, and provide flood protection
2. **Peatland Restoration**: Restoring degraded peatlands to sequester carbon, improve water quality, and support unique wildlife
3. **Tree and Hedgerow Planting**: Increasing tree cover and hedgerows to enhance habitat connectivity, sequester carbon, and improve air quality
4. **Sustainable Woodland Management**: Managing existing woodlands sustainably to enhance biodiversity, provide timber, and support recreation
5. **Grassland Restoration**: Restoring and managing grasslands to support pollinators, improve soil health, and increase biodiversity
6. **River Restoration**: Re-naturalizing rivers to improve water quality, reduce flood risk, and enhance habitats for aquatic species
7. **Urban Greening**: Creating green roofs, walls, and urban parks to improve air quality, reduce urban heat islands, and provide recreational spaces
8. **Agroforestry**: Integrating trees and shrubs into agricultural landscapes to enhance biodiversity, improve soil health, and increase farm productivity
9. **Pollinator Habitats**: Creating and maintaining habitats specifically for pollinators to support agriculture and biodiversity
10. **Keystone species and ecosystem engineers:** The use of species, including reintroduced species, to manage habitats and ecosystems

Supporting actions:

In some cases, 'supporting actions' have been identified which are condidered to be out of scope for the LNRS, but are nevertheless important for driving nature recovery in Nottinghamshire. See separate spreadsheet.

National Environmetal Objectives (NEO's)

National targets set under the Environment Act 2021

Reference	Objective	How LNRSs can contribute	LNRS contribution
NEO-01	Biodiversity on land - Restore or create in excess of 500,000 hectares of a range of wildlife-rich habitat outside protected sites by 2042, compared to 2022 levels	The purpose of LNRSs is to identify opportunities to create or improve habitat in locations where it would have the greatest benefit to biodiversity and the wider environment.	Yes
NEO-02	Biodiversity on land – Halt the decline of species abundance by 2030. Ensure that species abundance in 2042 is greater than in 2022, and at least 10% greater than 2030	All actions proposed in every LNRS should be designed to make a positive contribution to biodiversity, including species abundance, considering their habitat and connectivity requirements.	Yes
NEO-03	Biodiversity on land - reduce the risk of species' extinction by 2042, when compared to the risk of species' extinction in 2022	All LNRSs should include targeted habitat creation or improvement to support the recovery of the most threatened and near threatened species which are present.	Yes
NEO-04	Woodland cover - Increase total tree and woodland cover from 14.5% of land area now to 16.5% by 2050	All LNRSs should seek to identify opportunities for new areas of woodland, expand existing areas of woodland and trees outside of woodland where this will benefit biodiversity and other environmental outcomes.	Yes
NEO-05	Improve water quality and availability - Reduce nitrogen (N), phosphorus (P) and sediment pollution from agriculture into the water environment by at least 40% by 2038, compared to a 2018 baseline	All LNRSs should seek to make a positive contribution to the water environment, including by limiting or mitigating nutrient and sediment pollution from agriculture, through the creation or improvement of habitat. For example, through creation of habitat along water courses to reduce the inflow of surface water carrying agricultural pollutants whilst also acting as wildlife corridors.	Yes, although limited?

Key additional relevant commitments from the Environmental Improvement Plan (2023)

Reference	Objective	How LNRSs can contribute	LNRS contribution
NEO-06	Work to ensure that everyone in England lives within 15 minutes' walk of a green or blue space	All LNRSs should look for opportunities to contribute to improving public access when proposing actions to enhance biodiversity. This includes actively seeking to target actions and areas for nature recovery in Green Belts and other suitable areas near to people's homes (See paras 56 & 83 of the statutory guidance).	Co-benefit
NEO-07	Restore approximately 280,000 hectares of peatland in England by 2050	All LNRSs in suitable upland and lowland parts of England should seek to identify locations for peat restoration and appropriate management.	Yes - but peat resource is limited
NEO-08	Restore 75% of our water bodies to good ecological status	All LNRSs should seek to make a positive contribution to the water environment through the creation or improvement of habitat for biodiversity.	Yes
NEO-09	Protect 30% of land and of sea in the UK for nature's recovery by 2030	All LNRSs will identify opportunities to create and improve wildlife-rich habitat which could, where protection or agreements for ongoing management are in place, contribute to meeting the 30by30 goal. Responsible authorities should focus on National Parks and AONBs to help increase biodiversity in these existing protected areas.	Yes
NEO-10	Support farmers to create or restore 30,000 miles of hedgerows by 2037 and 45,000 miles of hedgerows by 2050	All LNRSs should seek to identify opportunities where the creation, restoration or connection of hedgerows would make a particular contribution to biodiversity or wider environmental outcomes.	Yes
NEO-11	Manage our woodlands for biodiversity, climate and sustainable forestry	All LNRSs should seek to identify opportunities to improve the management of existing areas of woodland for biodiversity and wider benefits.	Yes
NEO-12	Restore 75% of Sites of Special Scientific Interest to favourable condition by 2042. By 31 January 2028 50% of SSSIs will have actions on track to achieve favourable condition.	All LNRSs should seek to help improve the condition of SSSIs in their area by identifying opportunities for the creation or improvement of habitat in connected areas outside the SSSI boundary. For example, through action upstream of a wetland site to improve water quality. LNRSs may also propose actions on SSSIs themselves but should not duplicate or conflict with statutory requirements.	LNRS role unclear

NEO-13	Ensure delivery & management of actions & policies that contribute towards our 25YEP goals are suitable & adaptive to a changing climate	All LNRSs should consider the anticipated impacts of climate change throughout their preparation to help biodiversity and the environment in their area adapt to future changes.	Yes
NEO-14	Make sure LNRSs include proposals for Nature-based Solutions which improve flood risk management where appropriate	All LNRSs should seek to identify opportunities and suitable locations for undertaking natural flood management through the creation or improvement of habitat for biodiversity	Yes
NEO-15	Achieve Good Environmental Status for our seas	Coastal LNRSs should seek opportunities to create or improve habitat at the coast or in the inter-tidal zone that would benefit the marine or coastal environment. For example, through the creation of saltmarsh in suitable areas. Wider actions to improve water quality in rivers will also benefit estuarine and marine habitats downstream.	No
NEO-16	Reduce emissions of nitrogen oxides by 73% and ammonia by 16% by 2030 relative to 2005 levels	LNRSs should consider opportunities for targeted creation or improvement of nitrogen-tolerant habitats for biodiversity that can buffer or shield more nitrogen-sensitive habitats from significant nitrogen sources. For example, planting of tree shelter belts.	Possibly
NEO-17	Reducing the rates of introduction and establishment of invasive non-native species by at least 50%, by 2030	Restoration of habitats may sometimes involve the removal of invasive non-native species. Delivery of actions proposed should be mindful of the risks of introducing or enabling the spread of non-native species. For example, by appropriate sourcing of tree saplings.	Yes

Overarching priorities - applicable to all habitats

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
A/P1	Habitats, sites and landscapes managed in a way which allows space for natural processes (such as herbivore grazing, establishment of woody vegetation and meandering of rivers) to take place, where appropriate.	A/M1	B/M12, C/M9, D/M4, E/M2	NEO-02, NEO-03, NEO-04, NEO-13	educational opportunities
A/P2	Enhanced ecological connectivity between sites and habitats and across landscapes (including urban green and blue infrastructure in urban areas) to reduce fragmentation and allow movement of species in the face of climate change.	A/M2	C/M10, D/M3, H/M6	**NEO-13**	recreational opportunities
A/P3	Management and (where possible) eradication of invasive non-native animal and plants species (INNS) in terrestrial and aquatic environments.	A/M3	B/M1, B/M3, C/M7, D/M1, H/M2, SP/M5	**NEO-17**	economic benefits
A/P4	Reduced ecological fragmentation caused by new and existing transport infrastructure	A/M4		**NEO-13**	
A/P5	Maximised biodiversity benefits arising from large-scale and strategic development including renewable and low carbon energy generation infrastructure and other Nationally Significant Infrastructure Projects (NSIPs).	A/M5		**NEO-01**	recreational opportunities
A/P6	Increased populations of pollinators and other invertebrates	A/M6	B/M8, C/M4, E/M3, E/M4, F/M1, F/M2, F/M3, F/M5, F/M6, G/M1, G/M4, G/M7, H/M1, H/M4, H/M2, H/M7	NEO-02, NEO-03, **NEO-14**	economic benefits

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
A/M1	Where appropriate, allow complex and dynamic mosaics of habitats to develop in particular in the transition zones between different habitats ('ecotones'), using a variety of techniques to achieve this including allowing natural establishment of woodland and scrub and the use of grazing animals and other ecosystem engineers, and allowing more space for natural processes.	A/P1	B/P1, B/P2, D/P1, E/P1, F/P1, H/P1, H/P2, SP/P1, SP/P7		Maybe
A/M2	Target habitat enhancement and creation in areas where this will reduce fragmentation and increase ecological connectivity, through the creation of buffers, linkages, corridors and stepping stones.	A/P2	B/P1, B/P2, C/P2, C/P3, D/P2, E/P2, F/P2, G/P2, G/P3, H/P1, H/P2, SP/P8		Maybe
A/M3	Works to control Invasive Non-native Species (INNS), including by ensuring early intervention and a landscape approach, using biological control where available.	A/P3	B/P1, C/P1, D/P1, E/P1, H/P1, H/P2, SP/P5	Yes	Maybe/yes
A/M4	Installation and retrofitting of features to reduce fragmentation caused by roads and railways, including underpasses and green bridges at key locations.	A/P4	C/P2, C/P3		Yes
A/M5	Strategic habitat creation as part of large-scale development, creating more habitat and better ecological connectivity at a landscape-scale.	A/P5	B/P2, D/P2, E/P2, F/P2, H/P2		Maybe/yes
A/M6	Creation of features to benefit pollinators and other invertebrates as part of habitat enhancement and creation projects, including habitat mosaics, sources of pollen and nectar (flowers), deadwood, wet/damp areas, bare ground and both very short and uncut grass.	A/P6	B/P1, B/P2, E/P, E/P2, F/P1, F/P2, G/P2, G/P3, H/P1, H/P2	Yes	Maybe/no

Woodland and woody habitats

Priority Habitats covered: lowland mixed deciduous woodland (including oak-birch woodland and ash-dominated woodland), wet woodland, wood-pasture and parkland

Other habitats covered: planted coniferous woodland, other broadleaved woodlands, scrub, ancient and veteran trees

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
B/P1	Improved ecological condition of existing lowland mixed deciduous woodlands and other woody habitats, including Ancient Woodlands, to enhance biodiversity and increase resilience to climate change.	B/M1, B/M2, B/M3, B/M7, B/M10, B/M12	A/M1, A/M2, A/M3, A/M6, C/M6, H/M2	**NEO-01**, NEO-02, NEO-03, **NEO-11**, NEO-12, **NEO-13**, **NEO-14**	climate regulation; flood mitigation; economic benefits;
B/P2	Increased size and extent woodlands and woody habitats, particularly in areas where this will provide co-benefits and nature-based solutions.	B/M4, B/M5, B/M6, B/M7, B/M8, B/M13	A/M1, A/M2, A/M5, A/M6, C/M2, C/M6, G/M4, H/M7, H/M12	**NEO-01**, NEO-02, NEO-03, **NEO-04**, NEO-06, **NEO-13**, **NEO-14**	cleaner water; cleaner air; healthier soils; climate regulation; flood mitigation; recreational opportunities; economic benefits; educational opportunities
B/P3	Increased resilience of woodlands and trees to pests and diseases	B/M7, B/M10, B/M11, B/M13	A/M3	NEO-02, NEO-03, **NEO-11**, **NEO-13**, NEO-17	economic benefits
B/P4	Better protection of ancient and veteran trees, and future AVTs, including those in the wider countryside outside woodlands	B/M9	G/M6, G/M8	NEO-02, NEO-03, NEO-09, NEO-11, NEO-13	educational opportunities
B/P5	Improved conservation status of **Woodland species assemblage**	All	C/M6, G/M4, H/M2, H/M11, H/M12	**NEO-02**, **NEO-03**	educational opportunities
B/P6	Improved conservation status of **Woodland (Sherwood) species assemblage**	All		**NEO-02**, **NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
B/M1	Bring more woodlands and other woody habitats into positive management across the strategy area, following the UK Forestry Standard.	B/P1, B/P5, B/P6	A/P3, H/P2, G/P2, SP/P8	Yes	Maybe/yes
B/M2	Increase structural diversity in woodlands and other woody habitats including by (re-) establishing rides, glades and ecotones, coppicing coupes, promoting a greater age range of trees and diversity of canopy structures, and retention/creation of standing and fallen deadwood.	B/P1, B/P5, B/P6	SP/P8, SP/P9		Maybe/yes
B/M3	Accelerate the restoration of Plantation on Ancient Woodland Sites (PAWS) to native broad-leaved woodland via a phased programme of felling and replanting, or natural regeneration.	B/P1, B/P5, B/P6	A/P3, SP/P8		Maybe/yes
B/M4	Plant and allow natural establishment of woodlands and other woody habitats at appropriate locations using the UK Forestry Standard to guide design, focussing on the woodland landscapes of the Greenwood Community Forest area, Sherwood Forest and the Mercia Mudwoods, ensuring the right tree in the right place, for the right reason, and maximising co-benefits including in relation to water management.	B/P2, B/P5, B/P6	C/P2, H/P2, H/P3, G/P3	Yes	Yes
B/M5	Establish new wet woodlands at appropriate locations, particularly along watercourses and elsewhere that hydrological conditions allow.	B/P2, B/P5, B/P6	C/M6, H/P2, SP/P8		Yes
B/M6	Establish new areas of wood pasture and parkland at appropriate locations, including through the restoration of former areas of this habitat.	B/P2, B/P5, B/P6	G/P3, H/P2, SP/P8		Yes
B/M7	Plant new woodlands and diversify existing woodlands with a wider range of locally-appropriate tree and shrub species (potentially including the use of genetic stock of a more southerly origin), especially to mitigate the effects of Chalara Ash Dieback.	B/P1, B/P2, B/P3, B/P5, B/P6			No
B/M8	Establish woodland ground flora in newly planted woodlands through seeding where appropriate, including at later stages of woodland establishment when soil nutrient levels have reduced.	B/P2, B/P5, B/P6	A/P6, H/P2		No
B/M9	Bring Ancient and Veteran Trees into favourable management including through use of specialist management techniques, and where appropriate apply veteranisation techniques to develop successor trees to ensure a continuity of habitat.	B/P4, B/P5, B/P6	G/P2, H/P2		Maybe
B/M10	Undertake co-ordinated landscape-scale deer and squirrel management (potentially including through natural predation) to reduce grazing pressure and tree damage, thereby promoting structural diversity and natural regeneration.	B/P1, B/P3, B/P5, B/P6			Maybe/no
B/M11	Sensitively manage Ash within and out with woodlands to identify and retain trees showing resistance to Chalara dieback, and where there are safety risks or high impacts of dieback develop a programme of planned replacements to ensure continuity of tree cover.	B/P3, B/P5, B/P6			No
B/M12	Use large herbivores such as Bison (or proxies) to implement natural processes, along with other species such as Beavers, Pigs and potentially Elk, where appropriate and properly controlled (including in conjunction with deer management).	B/P1, B/P5, B/P6	A/P1	Yes	Maybe
B/M13	Support a network of local native tree nurseries, promoting the use of seed from existing ancient woodland sources and verified biosecurity measures.	B/P2, B/P3, B/P5, B/P6			No

Watercourses

Priority Habitats covered: rivers

Other habitats covered: streams and canals

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
C/P1	Improved ecological status and condition of all waterbodies to meet River Basin Management Plan (RBMP) objectives, working at a catchment scale, to enhance biodiversity and increase resilience to climate change.	C/M1, C/M2, C/M3, C/M4, C/M6, C/M7, C/M8, C/M9, C/M10, C/M11,	A/M3, D/M2, G/M1, H/M2, H/M8, H/M13, SP/M5, SP/M6	**NEO-01**, NEO-02, NEO-03, **NEO-05**, **NEO-08**, NEO-12, **NEO-13**, **NEO-14**	cleaner water
C/P2	Enhanced physical and ecological connectivity along watercourses	C/M4, C/M5, C/M6, C/M10	A/M2, A/M4, F/M2, H/M2	**NEO-05**, **NEO-08**, **NEO-13**, **NEO-14**	cleaner water; flood mitigation; educational opportunities
C/P3	Watercourses restored to a more natural state were appropriate and as opportunities arise, including through floodplain reconnection, especially where this provides flood risk management.	C/M2, C/M5, C/M9, C/M10	A/M2, D/M3, H/M9	**NEO-05**, **NEO-08**, **NEO-13**, **NEO-14**	cleaner water; recreational opportunities; economic benefits; educational opportunities
C/P4	Improved conservation status of **River species assemblage**	All	H/M2, G/M1	**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
C/M1	Use nature-based solutions (such as reedbeds and SuDS) to reduce impacts of sewage discharges on river water quality whilst also creating habitat.	C/P1, C/P4	B/P2, D/P2, H/P2, SP/P5	Yes	Maybe/yes
C/M2	Work to implement natural flood management measures which work with natural processes to reduce flood risk whilst also improving biodiversity through habitat creation and water quality improvements.	C/P1, C/P3, C/P4	D/P2, H/P2, SP/P7	Yes	Maybe/yes
C/M3	Work to reduce point sources of pollution to watercourses, including legacy issues associated with coal mines and restored colliery pit tips.	C/P1, C/P4			Maybe/yes
C/M4	Undertake sensitive land management adjacent to watercourses and within their wider catchments that reduces nutrient inputs, surface run-off and soil erosion, including through the creation of 20m+ buffer strips along watercourses.	C/P1, C/P2, C/P4	A/P6, F/P2, G/P1, H/P2, SP/P5	Yes	Maybe/yes
C/M5	Remove or modify artificial barriers to fish passage, such as weirs, or bypass these using features such as fish passes.	C/P2, C/P3, C/P4	B/P2, H/P2		Yes
C/M6	Establish a mix of shading conditions along watercourses to reduce water temperatures, through management of existing trees and establishment of new trees and woodland.	C/P1, C/P2, C/P4	B/P1, B/P2, B/P5, H/P2, SP/P5, SP/P7, SP/P14	Yes	Maybe/yes
C/M7	Undertake favourable management of the riparian zone, including by minimising the impacts of mechanical clearance for flood management and establishing marginal vegetation where absent, where appropriate.	C/P1, C/P4	A/P3, H/P2, SP/P5, SP/P6, SP/P7		Maybe/yes
C/M8	Maintain flows in watercourses prone to low flow including by creating wetland habitats to assist the slow release of water.	C/P1, C/P4	D/P2, SP/P5, SP/P7	Yes	Maybe/yes
C/M9	Renaturalise watercourses where appropriate, including by de-channelising, removing redundant hard engineering, reinstating meanders and braiding, creating backwaters, and allowing existing natural processes to continue.	C/P1, C/P3, C/P4	A/P1, SP/P5, SP/P7, SP/P14	Yes	Yes
C/M10	Where appropriate and as opportunities arise, reconnect watercourses with their floodplain by e.g. lowering or removing berms and banks, especially where this has flood management benefits.	C/P1, C/P2, C/P3, C/P4	D/P2, H/P2, SP/P14		
C/M11	Manage canals to ensure they retain water where in danger of drying out.	C/P1, C/P4	H/P2		Yes

Wetlands

Priority Habitats covered: floodplain grazing marsh (wet grassland), eutrophic standing water, mesotrophic lakes, ponds, reedbed, lowland fen
Other habitats covered: marsh and swamp

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
D/P1	Improved ecological condition of existing wetlands to enhance biodiversity and increase resilience to climate change.	D/M1, D/M2, D/M3, D/M4, D/M7	A/M1, A/M3, H/M2, SP/M3	**NEO-01**, NEO-02, NEO-03, **NEO-05**, **NEO-07**, **NEO-08**, NEO-12, **NEO-13**, **NEO-14**	cleaner water; climate regulation; flood mitigation; recreational opportunities; economic benefits
D/P2	Increased size and extent of wetlands especially in areas where this will provide co-benefits and nature-based solutions (particularly in relation to water quality, flooding and climate change adaptation)	D/M5, D/M6	A/M2, A/M5, C/M1, C/M2, C/M8, C/M10, G/M2, G/M4, H/M8, SP/M2	NEO-01, NEO-02, NEO-03, **NEO-05**, NEO-06, **NEO-07**, **NEO-13**, **NEO-14**	cleaner water; climate regulation; flood mitigation; recreational opportunities; economic benefits, educational opportunities
D/P3	Improved conservation status of **Floodplain grazing marsh species assemblage**	D/M8	G/M4	**NEO-02, NEO-03**	educational opportunities
D/P4	Improved conservation status of **Idle Valley fenland species assemblage**	D/M1-D/M5		**NEO-02, NEO-03**	educational opportunities
D/P5	Improved conservation status of **Pond species assemblage**	D/M6	G/M4	**NEO-02, NEO-03**	educational opportunities
D/P6	Improved conservation status of **Wetland species assemblage**	All	G/M4	**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
D/M1	Undertake improved management of wetlands, including through the management of water levels and vegetation.	A/P3, D/P1, D/P4, D/P6	G/P2, H/P2, SP/P2	Yes	Yes
D/M2	Deliver nature-based solutions and changes in land management to help reduce the reliance of water abstraction from rivers and groundwater to protect wetland condition	C/P1, D/P4, D/P6	C/P1, G/P1	Yes	Maybe
D/M3	Where possible and appropriate, reconnect riverine wetlands with their floodplains.	D/P1,D/P4, D/P6	A/P2, C/P2, C/P3	Yes	Yes
D/M4	Reintroduce species as ecological engineers to maintain some wetlands through natural processes, where appropriate.	D/P1,D/P4, D/P6	A/P1	Yes	Yes
D/M5	Create new wetlands where hydrological conditions allow, especially through quarry restoration in the Trent and Idle Valleys (focussing on marsh and swamp, reedbed and small, shallow lakes), as well as in the Erewash Valley, and where they provide nature-based solutions to flooding and water quality.	D/P2, D/P4, D/P6	G/P3, H/P2, SP/P2	Yes	Yes
D/M6	Restore and create ponds and ephemeral wetlands in the wider countryside.	D/P2, D/P5, D/P6	G/P3, H/P2, G/P2	Yes	Maybe/yes
D/M7	Deliver sensitive management and enhancement of lakes (including those created as part of quarry restorations) to increase their biodiversity value, and where possible.	D/P1, D/P6	H/P2, SP/P3		Maybe/yes
D/M8	Create new and extensive areas of floodplain grazing marsh (with suitable wetland features) to benefit breeding waders, breeding and wintering wildfowl, invertebrates and plants.	D/P3, D/P6	G/P3	Yes	Yes

Heathland and acid grassland

Priority Habitats covered: lowland heathland, lowland dry acid grassland

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
E/P1	Improved ecological condition of existing heathlands and acid grasslands to enhance biodiversity and increase resilience to climate change.	E/M1, E/M2	A/M1, A/M3, A/M6, H/M2	**NEO-01**, NEO-02, NEO-03, NEO-12, **NEO-13**	educational opportunities
E/P2	Increased size and extent of heathlands and acid grasslands, particularly in areas this will provide co-benefits and nature-based solutions.	E/M3, E/M4, E/M5	A/M2, A/M5, A/M6, G/M4	NEO-01, NEO-02, NEO-03, NEO-06, NEO-13, **NEO-14**, **NEO-17**	climate regulation; recreational opportunities; economic benefits, educational opportunities
E/P3	Improved conservation status of **Heathland species assemblage**	All		**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
E/M1	Undertake rotational management of heathlands and acid grasslands to control bracken and provide a mosaic of habitat including open areas, bare ground, scrub and trees.	E/P1, E/P3	H/P2, SP/P1, SP/P4, SP/P10, SP/P13		Maybe/yes
E/M2	Use an appropriate mix of grazing animals for long term management, including large herbivores, pigs and sheep, especially using native/traditional breeds.	E/P1, E/P3	A/P1, SP/P1, SP/P4, SP/P13		Maybe/yes
E/M3	Undertake restoration of heathland and acid grassland from conifer plantations where this habitat previously existed and is recoverable, where appropriate, following the government's Open Habitats Policy.	E/P2, E/P3	A/P6, SP/P1		Maybe/yes
E/M4	Undertake creation of new heathland and acid grassland in Sherwood and on the windblown sands in north-east Nottinghamshire, including as part of quarry restoration and on low value arable land (where appropriate).	E/P2, E/P3	A/P6, H/P2, SP/P1, SP/P4, SP/P10, SP/P13	Yes	Yes
E/M5	Use local donor sites as sources of heather brash for seeding to retain local distinctiveness, and seek the expansion of other characteristic heathland plant species.	E/P2, E/P3			No

Neutral and calcareous grassland

Priority Habitats covered: lowland meadows, lowland calcareous grassland

Other habitats covered: other semi-improved grassland

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
F/P1	Improve the condition of existing neutral and calcareous grasslands to enhance biodiversity and increase resilience to climate change.	F/M1, F/M2, F/M3, F/M4	A/M1, A/M6, H/M2	**NEO-01**, NEO-02, NEO-03, NEO-12, **NEO-13**	educational opportunities
F/P2	Increase the size and extent of neutral and calcareous grasslands, particularly in areas where this will provide co-benefits and nature-based solutions.	F/M5, F/M6, F/M7	A/M2, A/M5, A/M6, C/M4, G/M4	NEO-01, NEO-02, NEO-03, NEO-06, NEO-13, **NEO-14**, **NEO-17**	cleaner water, climate regulation; recreational opportunities; economic benefits, educational opportunities
F/P3	Improved conservation status of **Grassland species assemblage**	All		**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
F/M1	Undertake favourable management of grasslands of higher botanical diversity to maintain and enhance species diversity.	F/P1, F/P3	A/P6, G/P2, H/P2		Maybe/yes
F/M2	Bring unmanaged and neglected grasslands back into favourable management to increase species diversity, including field margins, buffer strips along watercourses, road verges, railways and amenity grasslands.	F/P1, F/P3	A/P6, C/P2, G/P2, H/P2		Maybe/yes
F/M3	Increase the value of grasslands in public open space, and in other areas such as golf courses and cemeteries, including by relaxing mowing regimes and increasing species richness.	F/P1, F/P3	A/P6, H/P2		Maybe/yes
F/M4	Use an appropriate mix of grazing animals for long term management, paying particular attention to stocking densities and the current habitat condition to ensure optimal management.	F/P1, F/P3	G/P2		Maybe/yes
F/M5	Undertake creation of new and locally distinctive species-rich neutral grassland in locations with suitable geology, including on low value arable land (where appropriate).	F/P2, F/P3	A/P6, G/P3, H/P2	Yes	Yes
F/M6	Undertake creation of new calcareous grassland on the magnesian limestone and gypsum substrate, especially as part of quarry restoration.	F/P2, F/P3	A/P6, H/P2	Yes	Yes
F/M7	Use local donor sites for seed sources to reflect local distinctiveness and avoiding creation of 'generic' neutral grassland using commercial seed mixes.	F/P2, F/P3			No
F/M8	Retain areas of rough grassland, scrub and habitat mosaics, recognising the value of these for a range of species.	F/P1, F/P3	H/P2		No

Farmland habitats

Priority Habitats covered: arable field margins, hedgerows, traditional orchards

Other habitats covered: arable farmland, improved grassland

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
G/P1	Sustainable and profitable farming which delivers high quality food, improves soil health and water quality, and provides environmental goods and services.	G/M1, G/M2, G/M3	C/M4, D/M2	NEO-02, NEO-03, **NEO-05**, **NEO-07**, NEO-08, **NEO-10**, NEO-13, NEO-14, **NEO-16**	cleaner water; cleaner air; healthier soils; climate regulation; flood mitigation; economic benefits; educational opportunities
G/P2	Improved condition of existing on-farm habitats and field boundaries to enhance biodiversity and increase resilience to climate change.	G/M6, G/M8	A/M2, A/M3, A/M6, B/M1, B/M9, D/M1, D/M6, F/M1, F/M2, F/M4	**NEO-01**, NEO-02, NEO-03, NEO-05, **NEO-11**, NEO-13, NEO-14	cleaner water; cleaner air; healthier soils; economic benefits;
G/P3	Create more on-farm habitat, generally locating this on unproductive or marginal land and protecting Best and Most Versatile land for food production, particularly in areas where it will provide co-benefits and nature-based solutions.	G/M4, G/M5, G/M7	A/M2, A/M6, B/M4, B/M6, D/M5, D/M6, D/M8, F/M5, H/M12	**NEO-01**, NEO-02, NEO-03, **NEO-04**, NEO-05, NEO-07, **NEO-10**, NEO-13, NEO-14	cleaner water; healthier soils; climate regulation; flood mitigation; economic benefits
G/P4	Improved conservation status of **Farmland species assemblage**	G/M1 - G/M7		**NEO-02, NEO-03**	educational opportunities
G/P5	Improved conservation status of **Orchard species assemblage**	G/M8		**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
G/M1	Adopt good practice approaches (including Regenerative Farming and Integrated Pest Management practices where appropriate) to improve soil health, reduce pesticide/fertiliser use, reduce soil erosion and improve water and air quality.	G/P1, G/P4	A/P6, C/P1, C/P4	Yes	No
G/M2	Rewet and restore peatland soils through paludiculture and/or habitat creation where appropriate.	G/P1, G/P4	D/P2	Yes	Yes
G/M3	Expand agroforestry as a means to provide resilient, sustainable and more productive food production whilst also providing habitat for wildlife.	G/P1, G/P4		Yes	Maybe
G/M4	Create new wetlands, heathlands, grasslands and woodlands and other woody habitats within the farmed landscape, where circumstances permit, including as part of farm diversification schemes (such as energy development).	G/P3, G/P4	A/P6, B/P2, B/P5, D/P2, D/P3, D/P5, D/P6, E/P2, F/P2, SP/P8	Yes	Yes
G/M5	Plant new diverse, native hedgerows with hedgerow trees on farmland.	G/P3, G/P4	SP/P8	Yes	No
G/M6	Improve the management of the existing hedgerow and hedgerow tree resource, through gapping up, coppicing/laying, rotational cutting and late cutting, and retention of grassed buffer strips.	G/P2, G/P4	B/P4, SP/P8		No
G/M7	Increase in-field options to benefit wildlife, such as field margins, pollinator strips, Lapwing/Skylark plots, beetle banks	G/P3, G/P4	A/P6		No
G/M8	Bring traditional orchards back into management and create new traditional orchards.	G/P2, G/P5	B/P4, H/P2		Maybe/yes

Urban and post industrial habitats

Priority Habitats covered: all relevant from other broad habitat groupings, open mosaic habitats on previously developed land (post-industrial habitat)
Other habitats covered: urban green and blue spaces (including gardens), buildings

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
H/P1	Improved condition of post industrial/brownfield land qualifying as Open Mosaic Habitat on Previously Developed Land to enhance biodiversity and increase resilience to climate change.	H/M1	A/M1, A/M2, A/M3, A/M6, SP/M11	**NEO-01**, NEO-02, NEO-03, NEO-13	educational opportunities
H/P2	Increased biodiversity in urban environments (including in new developments), by expanding and enhancing urban green and blue spaces, particularly in areas where this will provide co-benefits and nature-based solutions and will help to meet Green Infrastructure Standards.	H/M2, H/M3, H/M4, H/M5, H/M6, H/M7, H/M8, H/M9, H/M10, H/M11, H/M12, H/M13	A/M1, A/M2, A/M3, A/M4, A/M5, A/M6, B/M1, B/M4, B/M6, B/M8, B/M9, C/M1, C/M2, C/M4, C/M5, C/M7, C/M9, C/M10, C/M11, D/M1, D/M5, D/M6, D/M7, E/M1, E/M4, F/M1, F/M2, F/M3, F/M5, F/M6, F/M8, G/M8	**NEO-01**, NEO-02, NEO-03, NEO-04, NEO-06, NEO-11, NEO-13, NEO-14	cleaner water, cleaner air; climate regulation; flood mitigation; recreational opportunities; economic benefits, educational opportunities
H/P3	Increased urban tree and canopy cover provide to address tree inequity and help adapt to climate change.	H/M2, H/M7, H/M11, H/M12	B/M4	NEO-01, **NEO-04**, NEO-13	cleaner air; climate regulation; flood mitigation; economic benefits; educational opportunities
H/P4	Improved conservation status of **Open Mosaic Habitat on Previously Developed Land species assemblage**	H/M1, H/M4		**NEO-02, NEO-03**	educational opportunities
H/P5	Improved conservation status of **Urban species assemblage**	H/M5		**NEO-02, NEO-03**	educational opportunities
H/P6	Improved conservation status of **Urban greenspace species assemblage**	H/M2		**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solutions	Mappable?
H/M1	Undertake habitat management to maintain the features for which a site is identified as OMH, including by undertaking periodic disturbance of patches of substrate to 'reset' succession, and to maintain a good balance of skeletal soils, established grassland, scrub and small wetland areas.	H/P1, H/P4	A/P6		Yes
H/M2	Carry out wildlife-friendly management of public green spaces (including parks, allotments, churchyards and cemeteries, road verges, walkways, watercourses, wetlands and woodlands), including by relaxing mowing regimes, establishing wildflower grasslands, planting native trees and shrubs, and creating ponds.	H/P2, H/P3, H/P6	A/P3, A/P6, B/P1, B/P5, C/P1, C/P2, C/P4, D/P1, E/P1, F/P1, SP/P12	Yes	Maybe
H/M3	Reduce/eliminate where possible use of herbicides for weed control in the public realm, using alternative approaches where needed.	H/P2			No
H/M4	Install and retrofit green/brown roofs and living walls in new developments wherever possible, especially on commercial and industrial development and street furniture such as bus stops.	H/P2, H/P4	A/P6	Yes	No
H/M5	Install and retrofit integrated bat and bird (Swift, House Sparrow, Starling) boxes in all new development (especially residential/public), wherever possible.	H/P2, H/P5			No
H/M6	Install and retrofit 'Hedgehog Highways' in the garden fencing of new residential development hedgehog-friendly fencing, wherever possible.	H/P2	A/P2		No
H/M7	Plant native and wildlife-friendly trees and shrubs (providing nectar, pollen, berries) in the gardens and landscaping areas in new developments, to provide nectar, pollen and berries for a range of pollinators and birds.	H/P2, H/P3	A/P6, B/P2	Yes	No
H/M8	Install SuDS systems which wherever possible are multifunctional and subject to appropriate maintenance regimes, providing habitat as well as surface water management, including retention basins, bioswales and rain gardens.	H/P2	C/P1, D/P2	Yes	No
H/M9	Deculvert watercourses where opportunities allow, including as part of redevelopment, and give the daylighted watercourses more space.	H/P2	C/P3	Yes	Maybe
H/M10	Install artificial lighting, where required, which is wildlife friendly and designed to best practice.	H/P2			No
H/M11	Plant new trees and retrofit 'missing' trees (i.e. empty tree pits) into existing streetscapes and green spaces following well-designed schemes using suitable species, including fruit trees where appropriate, to address tree inequity (as measured against Woodland Trust's Tree Equity Score the to help meet Green Infrastructure Standards), ensuring proper establishment to minimise failures.	H/P2, H/P3	B/P5	Yes	No
H/M12	Plant new small-scale woodlands in appropriate locations.	H/P2, H/P3	B/P2, B/P5, G/P3	Yes	Maybe
H/M13	Replace paved surfaces (e.g. concrete, tarmac, artificial grass) where possible with vegetation to provide more habitat and allow water infiltration.	H/P2	C/P1	Yes	No

Species

Individual species considered to need bespoke conservation activity.

Code	Proposed priorities	Link to potential measures	Link to other potential measures	Link to NEO's	Co-benefits
SP/P1	Reintroduce **Adder** in Sherwood Forest area	SP/M1	A/M1, A/M2, E/M1, E/M2, E/M3, E/M4	**NEO-02, NEO-03**	educational opportunities
SP/P2	Establish a permanent breeding population of **Bittern**	SP/M2	D/M1, D/M5	**NEO-02, NEO-03**	educational opportunities
SP/P3	Safeguard primary breeding site of **Black-necked Grebe**	SP/M3	D/M7	**NEO-02, NEO-03**	educational opportunities
SP/P4	Reintroduce **Silver-studded Blue** at Clumber Park	SP/M4	E/M1, E/M2, E/M4	**NEO-02, NEO-03**	educational opportunities
SP/P5	Safeguard secure populations of **White-clawed Crayfish**	SP/M5	A/M3, C/M1, C/M4, C/M6, C/M7, C/M8, C/M9	**NEO-02, NEO-03**	educational opportunities
SP/P6	Expand distribution of **Spined Loach**	SP/M6	C/M7	**NEO-02, NEO-03**	educational opportunities
SP/P7	Reintroduce **Beaver** in suitable catchments	SP/M7	A/M1, C/M2, C/M6, C/M7, C/M8, C/M9	**NEO-02, NEO-03, NEO-05, NEO-08, NEO-13, NEO-14**	cleaner water; climate regulation; flood mitigation; economic benefits; educational opportunities
SP/P8	Expand distribution of **Hazel Dormouse** in north Nottinghamshire	SP/M8	A/M2, B/M1, B/M2, B/M3, B/M4, B/M5, B/M6, G/M4, G/M5, G/M6	**NEO-02, NEO-03**	educational opportunities
SP/P9	Expand distribution of **Large Red-belted Clearwing** in Sherwood	SP/M9	B/M2	**NEO-02, NEO-03**	educational opportunities
SP/P10	Safeguard only known UK site of **Diamond-backed Spider** at Clumber Park	SP/M10	E/M1, E/M4	**NEO-02, NEO-03**	educational opportunities
SP/P11	Expand distribution of **Deptford Pink**	SP/M11	H/M1	**NEO-02, NEO-03**	educational opportunities
SP/P12	Expand distribution of **Autumn Crocus**	SP/M12	H/M2	**NEO-02, NEO-03**	educational opportunities
SP/P13	Expand distribution of **Creeping Willow**	SP/M13	E/M1, E/M2, E/M4	**NEO-02, NEO-03**	educational opportunities
SP/P14	Expand distribution of **Black Poplar**	SP/M14	C/M6, C/M9, C/M10	**NEO-02, NEO-03**	educational opportunities
SP/P15	Safeguard populations of **Water Vole** and expand their distribution	SP/M15	C/M4, C/M7, C/M8, C/M9, C/M10, C/M11, D/M1, D/M3, D/M5, D/M7, H/M9	**NEO-02, NEO-03**	educational opportunities

Code	Potential measures	Link to proposed priorities	Link to other proposed priorities	Nature-based solution?	Mappable?
SP/M1	Undertake reintroduction of **Adders** in line with IUCN guidelines having identified suitable location(s) based on the extensive research undertaken to date and the well-evidenced need for captive breeding.	SP/P1			No - public sensitivities
SP/M2	Undertake creation of reedbed in habitat patches of a sufficient scale to support the establishment of a permanent breeding population of **Bitterns** in the Trent and Idle Valleys	SP/P2	D/P2		Yes
SP/M3	Undertake targeted conservation of **Black-necked Grebe** at primary breeding site to safeguard population, including through removal of introduced fish stocks.	SP/P3	D/P1		Yes
SP/M4	Undertake reintroduction of **Silver-studded Blue** in line with IUCN guidelines at Clumber Park, having optimised habitat.	SP/P4			Yes
SP/M5	Safeguard long-term future of W**hite-clawed Crayfish** in Nottinghamshire by establishing Ark sites, and continuing to work to limit the spread of Signal Crayfish in key catchments.	SP/P5	A/P3, C/P1		Yes
SP/M6	Implement favourable management of watercourses used by **Spined Loach**, maintaining dense patches of macrophytes interspersed with open sediment, prioritising the Trent, Idle, Devon and Erewash.	SP/P6	C/P1		Yes
SP/M7	Establish non-enclosure populations of **Beavers** at suitable riverine locations in line with IUCN guidelines, working closely with landowners/managers and local communities, using the best available evidence and following all licencing protocols and guidance on consultation.	SP/P7	C/P3	Yes	No - landowner sensitivities
SP/M8	Continue work to establish a self-sustaining population of **Dormouse** in north Nottinghamshire, including by targetted enhancement of woodlands and improving ecological connectivity between woodlands.	SP/P8			Yes
SP/M9	Manage suitable birch trees to benefit **Large Red-belted Clearwing** coppicing/pollarding and singling of multi-stemmed trees on a 2-year cycle in and around the three known population centres.	SP/P9			Yes
SP/M10	Targeted intervention to secure existing population of **Diamond-backed Spider** at Clumber Park (only known UK site), and where feasible, seek to establish larger meta-population at the site.	SP/P10			Yes
SP/M11	Establish new population(s) of **Deptford Pink** at additional sites in line with IUCN guidelines, using seed from the sole extant Nottinghamshire population.	SP/P11			Yes
SP/M12	Propagate and plant **Autumn Crocus** at suitable locations, particularly in Greater Nottingham and ensure sensitive management of new and existing sites.	SP/P12	H/P2		Yes
SP/M13	Propagate and plant **Creeping Willow** at suitable locations, particularly in Sherwood Forest.	SP/P13			Yes
SP/M14	Establish sources of native **Black Poplar** at local tree nurseries for planting out across the county at appropriate locations, using stock of known genetics and provenance.	SP/P14			No - widespread application
SP/M15	Implement favourable management of watercourses and wetlands supporting or with the potential to support **Water Voles**, in combination with the control of non-native predators and targeted reintroduction.	SP/P15			No - widespread application