Appendix 1: Evidence and data used in the preparation of the Areas that could be of particular importance for biodiversity mapping

The following table illustrates the process used to map the actions included in the Greater Lincolnshire LNRS **Areas that could be of particular importance for biodiversity** mapping.

Please note that Network Enhancement Zones from the GLNP Habitat Network model were developed using methods adapted from Natural England's National Habitat Network Maps: User Guidance Version 2.

1	Buffer and link existing semi-natural woodland with a mix of appropriate native, climate resilient species. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Mixed Deciduous Woodland. - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed areas that intersect with action 89 - Removed areas within 3km of coast that aren't within urban setting - Removed remaining areas less than 1 ha - Extended with Boothby Wildlands Broadleaved woodland planting and natural regen areas - Removed areas within Sweeting Thorns idenitified by NLC

	- Removed areas within Blackwalk Nook identified by NLC - Removed areas within LC14 identified by NLC
3	Leave space to allow buffering of semi-natural woodland through natural regeneration, particularly around Ancient Semi-Natural Woodland and Priority Habitat woodland. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Mixed Deciduous Woodland. - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed areas that intersect with action 89 - Removed areas within 3km of coast that aren't within urban setting - Removed remaining areas less than 1 ha - Extended with Boothby Wildlands Broadleaved woodland planting and natural regen areas - Extended with Boothby Wildlands Woodland creation through natural regen areas - Removed areas within Sweeting Thorns identified by NLC - Removed areas within Blackwalk Nook identified by NLC - Removed areas within LC14 identified by NLC
6	Restore and protect semi-natural woodland on Plantation on Ancient Woodland Sites through a gradual process of thinning, removing non-natives, restocking and buffering. via natural regeneration and the planting of appropriate species.

	Based on Natural England's Ancient Woodland (England) dataset with the themname attribute filtered to 'Ancient Replanted Woodland' buffered to 250m. - Removed statutory sites from the buffer - Removed irreplaceable habitat from the buffer - Removed Priority habitat from the buffer - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') from the buffer - Removed remaining areas less than 1 ha
9	Buffer and link existing wet woodland with native, climate resilient species. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Wet Woodland. - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Removed areas within Sweeting Thorns identified by NLC - Removed areas within LC14 identified by NLC
10	Leave space for natural regeneration of wet woodland.

	Based on the Network Enhancement Zone from the GLNP Habitat Network model for Wet Woodland. - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Removed areas within Sweeting Thorns identified by NLC - Removed areas within LC14 identified by NLC
11	Create new wet woodlands by planting native, climate-resilient species. Based on the WWNP Floodplain and Riparian Woodland Potential dataset within the Network Expansion Zone of the GLNP Habitat Network for Wet Woodland. - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Refined areas around M180 identified by NLC - Removed areas within LC14 identified by NLC

14	Buffer existing wood pastures and parklands by planting and managing specimen trees within grazed grassland. Based on the GLNP Wood-pasture and parkland Priority habitat data buffered to 250m. - Added Hirst Priory identified by NLC - Removed areas less than 100 ha - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha
15	Implement appropriate grazing levels and draw up management plans to enhance structural and species diversity on wood pasture and parkland. Based on GLNP Wood-pasture and parkland Priority habitat data. - Added Hirst Priory (identified by NLC as wood-pasture and parkland)
28	Create acid grassland linking and/or buffering existing acid grassland. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Dry Acid Grassland. - Removed zones less than 50 ha - Removed statutory sites

	- Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Removed area around The Grues identified by NLC - Removed area around Butterwick Hale identified by NLC
29	Create neutral grassland linking and/or buffering existing neutral grassland sites. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Meadow. - Removed zones less than 50 ha - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Extended with Boothby Wildlands Neutral grassland creation areas
30	Create calcareous grassland by linking and/or buffering existing calcareous grassland sites. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Calcareous grassland. - Removed zones less than 50 ha

	- Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha - Removed area surrounding Staniwells Road Verge LWS idenitified by NLC - Removed Chowder Ness identified by NLC
39	Create acid grassland to connect or buffer existing fragmented heathland sites. Based on the Network Enhancement Zone from the GLNP Habitat Network model for Lowland Heathland. - Removed zones areas less than 100 ha - Removed statutory sites - Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 1 ha
44	Revisit Coversands project sites, monitor progress and improve future management. Based on the Coversands boundaries provided by NLC.

46	Manage water levels on wet grassland to ensure water retention and periodic wetting. Based on Countryside Stewardship Scheme 2016 Management Areas with options GS9 and GS10. - Added Halton Marshes wet grassland identified by NLC
47	Install fencing to exclude ground predators at wet grassland sites with significant ground-nesting bird populations. Based on Countryside Stewardship Scheme 2016 Management Areas with options GS9 and GS10.
55	Create buffer habitat around blow wells to protect against contamination from surface run. Based on blow well locations from the Habitat Survey Lincolnshire Blow Wells 2005 buffered by 250m.
61	Graze saltmarsh at suitable levels for breeding birds, particularly redshank Based on GLNP Saltmarsh Priority habitat data. - Removed statutory sites - Removed remaining areas less than 10 ha
62	Dynamic management of sand dune ponds to maintain natterjack toad populations. Based on GLNP Sand dune Priority habitat data that coincides with natterjack toad presence. - Removed statutory sites

	- Removed remaining areas less than 5 ha
63	Manage sand dunes by controlling scrub, extending bare ground and appropriate grazing to maintain structural diversity. Based on GLNP Sand dune Priority habitat data. - Removed statutory sites - Removed remaining areas less than 1 ha
64	Manage saline lagoons for breeding, migrating and wintering birds, and invertebrates such as Lagoon sand shrimp by reducing nutrient inputs and ensuring regular seawater exchange. Based on GLNP Saline lagoon Priority habitat data. - Removed statutory sites
68	Maintain extent of grazing and mowing on sea banks to support invertebrates and plants. Based on the Environment Agency dataset AIMS Spatial Flood Defences (inc. standardised attributes) filtered to "protection" in('Coastal' , 'Tidal') and "asset_sub_" IN ('Embankment' , 'Natural High Ground', 'Engineered High Ground') and buffered by 25m. - Removed statutory sites - Removed remaining areas less than 1 ha
69	Enhance nest site opportunities for Sea aster mining bee.

	Based on the Environment Agency dataset AIMS Spatial Flood Defences (inc. standardised attributes) filtered to "protection" in('Coastal' , 'Tidal') and "asset_sub_" IN ('Embankment' , 'Natural High Ground', 'Engineered High Ground') and buffered by 25m. - Removed statutory sites - Removed remaining areas less than 1 ha
76	Reduce nutrient and sediment run-off by creating habitat buffers along rivers, streams and connected water courses to improve water quality. Based on OS Open Rivers dataset buffered by 150m. - Extended with Boothby Wildlands habitat creation areas
85	Improve water level management on lowland fen by blocking drains and damming ditches to raise the water table and re-wet the surface. Based on GLNP Lowland fen Priority habitat data. - Removed statutory sites - Removed remaining areas less than 0.1 ha
86	Buffer lowland fen sites by encouraging peat development through rewetting and creating supporting habitats. Based on GLNP Lowland fen Priority habitat data buffered by 250m. - Removed statutory sites

	- Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 0.1 ha
87	Manage scrub and maintain appropriate grazing levels on lowland fen. Based on GLNP Lowland fen Priority habitat data. - Removed statutory sites - Removed remaining areas less than 0.1 ha
88	Improve water level management on lowland raised bog by blocking drains and damming ditches to raise the water table and re-wet the surface while ensuring there are higher, drier areas with hare's tail cottongrass to act as refugia for Large Heath larvae. Based on GLNP Lowland raised bog Priority habitat data. - Removed statutory sites - Removed remaining areas less than 0.1 ha
89	Buffer lowland raised bog sites by encouraging peat development through rewetting and creating supporting habitats. Based on GLNP Lowland raised bog Priority habitat data buffered by 250m. - Removed statutory sites

	- Removed irreplaceable habitat - Removed Priority habitat - Removed National Forest Inventory ('Broadleaved','Mixed mainly broadleaved','Coppice') - Removed remaining areas less than 0.1 ha
90	Plant cotton grass and or sphagnum on rewetted bog surfaces, to stabilise the peat and keep it wet. Based on GLNP Lowland raised bog Priority habitat data. - Removed statutory sites - Removed remaining areas less than 0.1 ha
91	Manage scrub to increase suitable habitat for large heath butterfly and other members of the lowland bog species assemblage. Based on GLNP Lowland raised bog Priority habitat data. - Removed statutory sites - Removed remaining areas less than 0.1 ha
132	Reduce nutrient and sediment run-off into lakes by creating appropriate buffer habitat. Based on OS Vector Map water bodies > 2ha (excl rivers) buffered to 250m. - Removed statutory sites - Removed irreplaceable habitat

	- Removed Priority habitat - Removed National Forest Inventory ('Woodland') - Removed remaining areas less than 1 ha - Removed Chowder Ness identified by NLC
146	Create buffers around existing LWSs and link to appropriate habitats to build resilience. Based on GLNP LWS data buffered by 250m. - Extended with Boothby Wildlands habitat creation areas