Consultation draft
Appendix 2.1a

Methodology for Potential Measures Mapping

Introduction

The Strategy identifies priorities for nature recovery and potential measures that will help deliver against these. Where data and evidence was available, these measures where mapped to where it was considered they would be best delivered to achieve the greatest gains for nature and derive the greatest benefits from a healthy, functioning environment.

Mapping was a desk-based exercise, with evidence and data used to inform where measures would best be targeted; the process followed requirements set out by Defra. The work was undertaken by the Kent Wildlife Trust, with support from Kent and Medway Biological Records Centre, under the expert input and advice of a data, evidence and mapping technical advisory group. The initial mapping was also reviewed and revised with partners and stakeholders before finalising as a draft for public consultation. More detail on the mapping process is provided in Part 2 Chapter 1; the experts advising on the mapping are detailed in Appendix 1.3.

Measures with a reference code are the measures the Strategy has mapped. The majority of these mappable measures deliver against better, bigger, more, joined up and nature-based solutions.

Ambition theme	**Potential measure prefix**
Connectivity	CON
Nature based solutions	(not mapped)
Land management and land use	LM
Grassland habitats	GL
Successional habitats	SH
Woodland, trees and hedgerows	WTH
Freshwater habitats	FW
Urban environments	URB
Coastal habitats	CL

The potential measures maps are available online at **https://webapps.kwtg.uk/lnrs_measures_webmap/**

A users guide to the online mapping tool is available from https://www.makingspacefornaturekent.org.uk/wp-content/uploads/2025/01/Kent-and-Medway-LNRS-User-guide-to-the-online-mapping-tool.pdf

This document outlines the mapping methodology and data used. It also noted whether the resulting potential measures map was considered refined enough to be used as an informative layer for the mapping of Areas that Could become of particular Importance for Biodiversity (ACIB).

Potential measures mapping methodology

Measure	Method and further explanation	Data used	Incl.in ACIB
CON1.1 Improve functional connectivity corridors between the designated and protected sites of the Areas of Particular Importance for Biodiversity1 and safeguard these areas.	**Bottlenecks and areas of low existing flow for designated sites, with urban land cover removed.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Urban areas were removed as they offer fewer opportunities and lower probabilities for ecological restoration.	- Sites of Special Scientific Interest, Ramsar, Special Protected Areas, Special Areas of Conservation (Natural England, 2024) - Local Wildlife Sites (Kent Wildlife Trust, 2023) - Kent Wildlife Trust Reserves (Kent Wildlife Trust, 2023) - RSPB Reserves (Royal Society for the Protection of Birds, 2024) - Woodland Trust Reserves (The Woodland Trust, 2020) - Country Parks (Natural England, 2024) - Local Nature Reserves (Natural England, 2024) - Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Major Urban areas (Office for National Statistics, Local Authorities (added extra areas, 2021)	No
CON1.2 Identify and safeguard areas that are strategically important in reducing fragmentation and addressing bottlenecks for species movement.	**Combined all connectivity model outputs.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation).	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) Modelling outputs include: - Designated sites: Sites of Special Scientific Interest, Ramsar, Special Protected Areas, Special Areas of Conservation (Natural England, 2024) - Local Wildlife Sites (Kent Wildlife Trust, 2023)	No

	All output (designated sites, chalk, acid heathland, meadows, wetlands & woodlands) were included.	- Kent Wildlife Trust Reserves (Kent Wildlife Trust, 2023) - RSPB Reserves (Royal Society for the Protection of Birds, 2024) - Woodland Trust Reserves (The Woodland Trust, 2020) - Country Parks (Natural England, 2024) - Local Nature Reserves (Natural England, 2024) **Chalk** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Calcareous Grassland, 2024) **Acid heathland** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Acid grassland, lowland dry heath, lowland wet heath (Natural England, 2024) **Meadows** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Lowland meadows (Natural England, 2024) **Wetlands** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Fen, marsh, swamp, wet woodland (Natural England, 2024) **Woodland** - Natural England Priority Habitat Inventory: Lowland Mixed Deciduous Woodland (Natural England, 2024)	
CON2.1 Installation of green bridges, wildlife crossings, tunnels and other appropriate structures, alongside retrofitting existing structures, to address	**Making Space for Nature proposed green bridge locations for National Highways.**	- Making Space for Nature proposed green bridge locations for National Highways (2024).	No

historic fragmentation caused by major infrastructure.			
CON3.1 Conserve essential areas for connectivity.	**Combined all connectivity model outputs.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). All output (designated sites, chalk, acid heathland, meadows, wetlands & woodlands) were included.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Modelling outputs same as CON1.2	No
CON3.2 Enhance habitats alongside the county's highway, railway, cycleway, pathway and PROW networks and National Trails to become functional networks for wildlife movements and provide opportunities for people to connect with nature.	**A combination of highways, PROW, cycle routes and roadside nature reserves.** Identifying all highways, PROW, cycle routes and roadside nature reserves sites.	- Highway Boundary (National Highways Spatial, 2024) - Public Rights of Way (PRoW) (Rivers Trust, 2023) - National Cycle Network (Sustrans, 2024) - RnR and bee road sites (Kent Wildlife Trust & Kent County Council, 2023)	No
CON3.3 Maximise opportunities to restore wildflower habitat on road verges and other green spaces, to contribute to a county network of wildlife-friendly habitat corridors.	**Connectivity analysis (using Condatis) run on meadow, heath acid, chalk bottlenecks habitats combined with beelines. Furthermore, identifying intersections of certain habitat connectivity corridors with roads and further refining these areas by removing urban and suburban habitats.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Bee lines (Buglife, 2021) - Major Road Network (Department for Transport, 2021) **Chalk** - (Kent Habitat Survey, 2012)	No

	increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Urban and suburban areas were removed as they offer fewer opportunities and lower probabilities for ecological restoration.	- Natural England Priority Habitat Inventory: Calcareous Grassland, 2024) **Acid heathland** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Acid grassland, lowland dry heath, lowland wet heath (Natural England, 2024) **Meadows** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Lowland meadows (Natural England, 2024)	
CON4.2 Implement broad buffer zones and connecting strips between significant habitat areas.	**Bottlenecks and areas of low existing flow for designated sites, with urban land cover removed.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Urban areas were removed as they offer fewer opportunities and lower probabilities for ecological restoration.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Designated sites: Sites of Special Scientific Interest, Ramsar, Special Protected Areas, Special Areas of Conservation (Natural England, 2024) - Local Wildlife Sites (Kent Wildlife Trust, 2023) - Kent Wildlife Trust Reserves (Kent Wildlife Trust, 2023) - RSPB Reserves (Royal Society for the Protection of Birds, 2024) - Woodland Trust Reserves (The Woodland Trust, 2020) - Country Parks (Natural England, 2024) - Local Nature Reserves (Natural England, 2024)	No
LM1.1 Identify opportunities for new or extended farmers clusters in areas of strategic significance not already covered.	**Identified farmer cluster opportunities.** Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Farmer cluster opportunities (KCC and KWT, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

LM1.2 Identify key pieces of farmland that are strategically important for linking natural habitats.	**Any current Arable or improved grassland that falls within an area of low connectivity or bottleneck for all habitats.** Connectivity modelling for chalkland, heathland, meadow, wetland and woodland. Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- CEH landcover: Arable and Horticulture and Improved grassland (CEH, 2024) - Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Modelling outputs the same as CON1.2 - Adopted allocations (Kent Wildlife Trust, - Kent Local Authorities data, 2024)	No
LM2.1 Use of nature-based solutions to improve climate resilience of farmland.	**All arable or improved grassland, all of Kent is at risk of climate change.**	- CEH landcover: Arable and Horticulture and Improved grassland (CEH, 2024)	No
LM3.1 Increased water capture, rainwater harvesting, reservoirs, ponds, holding areas, leaky wood dams.	**Any arable or improved grassland that falls within the flood zone.** Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- CEH landcover: Arable and Horticulture and Improved grassland (CEH, 2024) - Flood Map for Planning (Environment Agency, 2018) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
LM4.1 Protection of habitats and species sensitive to disturbance by employing site management, and other measures, which support connection to, and experience of, wildlife but ensures our most	**Arable or improved grassland that overlays with monads with a high richness (over 42) of LNRS longlist species occurrence.** Indicator of invasive species of abundance. Invasive species abundance was calculated over Kent. 42 have been identified, highlighting	- CEH landcover: Arable and Horticulture and Improved grassland (CEH, 2024) - Invasive species (INNS count of spp per monad) (KMRC, 2000) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes

sensitive sites remain undisturbed.	feasible areas that should be prioritised for protection. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.		
GL1.1 Maintain and enhance core, high quality and good condition chalk grassland sites through the application of conservation management sensitive to the existing and potential flora and fauna of the site.	**Existing Chalk grassland from Kent ARCH Habitats.** Includes extra information provided by Dan Tuson at Natural England.	- Kent ARCH (KMBRC, 2012) - Natural England Priority Habitat Inventory: Calcareous Grassland (Natural England, 2024) - Adopted allocations (Kent Wildlife Trust, - Kent Local Authorities data, 2024)	No
GL1.2 Increase the extent of high quality, connected chalk grassland by bringing appropriate sites, adjacent to core/good condition sites, into conservation management.	**All areas within 500m of existing chalk grassland, that sit on chalk bedrock, with existing chalk grassland sites removed.** Kent Wildlife Trust increased the extent to 500m as an approximate value. Under these parameters for a permeable landscape, species are expected to be able to colonise new sites and populations will be connected across the landscape.	- Bedrock including chalk (British Geological Survey, 2020) - Adopted allocations (Kent Wildlife Trust Kent Local Authorities data, 2024)	Yes
GL1.3 Increase functional links between chalk grassland and other habitats to maximise nature based solutions offered by improved connectivity.	**Bottlenecks and areas of low existing flow for chalk grassland, with urban land cover and adopted allocations removed.** Connectivity modelling for chalkland. Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation).	**Chalk connectivity modelling**: - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Calcareous Grassland, 2024) - CEH landcover: Urban (CEH, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

	Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved. Urban areas were removed as they offer fewer opportunities and lower probabilities for ecological restoration.		
GL2.1 Increase opportunities to store winter water on land adjacent to grazing marsh to increase opportunities for "wetting" during spring/summer.	**Parcels adjacent to existing floodplain grazing marsh. Includes extra information provided by Dan Tuson at Natural England.**	- Natural England Priority Habitat Inventory: Coastal and floodplain grazing marsh (Natural England, 2024) - Priority Habitat Inventory (v.3) (Natural England, 2024) - ALC Grade (Natural England, 2023)	Yes
GL2.2 Deliver grazing marsh habitat restoration, extension and creation where it will offer the greatest gains to support the county's important grazing marsh flora and fauna, and is designed to minimise recreational disturbance and reduce risk from predation.	**Mapped waders' population data, coastal and floodplain grazing marsh, coastal and floodplain grazing marsh, coastal saltmarsh, lowland meadows, purple moor grass and rush pastures; 30m away from current woodland. Additional RSPB-suggested areas have been included.** Aligning with Countryside Stewardship GS9: Management of wet grassland for breeding waders, where the land must be mapped on the Priority Habitat Inventory as coastal floodplain grazing marsh or purple moor grass and rush pasture or lowland meadow (ScotGovRural) Research has shown that waders avoid nesting and feeding in areas close to tall trees and hedges. Therefore, the managed area is at least 30 metres from any line or group of trees.	- Priority Habitat Inventory (v.3) (Natural England, 2024) - Kent Wildlife's Master Habitat (Kent Wildlife Trust, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024) - Wader Zonal Map (Forestry Commission, 2024)	Yes
GL2.3 Reconnect rivers with their former natural floodplain and improve the water storage ability of floodplain, in order to	**All land under 5m in elevation within 100m of a river.** The existing data on floodplains does not take into account historical floodplains. We used low	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes

protect against climate change impacts and drought.	elevation combined with proximity to a river as a proxy to areas that could be restored to a natural floodplain.		
GL3.1 Maintain and enhance core, high quality and good condition lowland meadow sites through the application of grazing/cutting regimes sensitive to the existing and potential flora and fauna of the site.	**Existing lowland meadow from Kent ARCH Habitats. Includes extra information provided by Dan Tuson at Natural England.**	- Natural England Priority Habitat Inventory: Lowland meadows (Natural England, 2024) - Kent ARCH: Lowland meadows (KMBRC, 2012) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
GL3.2 Increase the extent of high quality, connected lowland meadow by creating new lowland meadow sites, in close proximity to core/good condition sites.	**200m buffer of lowland meadow.** Lowland meadow patches must be in close proximity to other patches, for highly specialised species within a habitat, adjacent sites need to be <200m apart (National Habitat Network Maps, Defra).	- Kent ARCH: Lowland meadows (KMBRC, 2012) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
GL3.3 Increase connectivity of, and provision for wildlife in, lowland meadows by leaving field margins uncut, varied sward heights, hedgerows well-connected and integrate some bare patches or banks within the grassland site.	**Bottlenecks and areas of low existing flow for lowland meadows, with urban land cover removed.** Connectivity modelling for meadows. Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved. Urban areas were removed as they offer fewer opportunities and lower probabilities for ecological restoration.	**Meadows modelling:** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Lowland meadows (Natural England, 2024) - CEH landcover: Urban (CEH, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

GL3.4 Establish neutral grasslands on floodplains, to create resilience to flooding and drought and protect water quality.	**Areas of neutral soil within a floodplain.** Soilscape data from Cranfield were used to select neutral soil and potential flood plain areas: Fen peat soils, Loamy soils with naturally high groundwater, Loamy and clayey soils of coastal flats with naturally high groundwater, Loamy and clayey floodplain soils with naturally high groundwater.	- Cranfield Soil data (Cranfield, 2024) - Flood Map for Planning (Environment Agency, 2018) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
GL4.1 Implement appropriately designed management that prevents succession into secondary woodland and scrub encroachment and ensures that acid grassland is maintained and retained but not at the expense of the mosaic's heathland resource. Grazing regime provides maximum diversity and a combination of larger open areas and smaller mosaic "glades" to provide habitat for breeding birds, reptiles and invertebrates. Climate resilience is built into management.	**Acid grassland, dry heath and wet heath from the Kent ARCH Habitats.** Management of grassland, wet heathland and heathland.	- Kent ARCH: grassland, wet heathland and heathland (KMBRC, 2012) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
GL4.2 Create new acid grassland sites from improved grassland and former arable sites.	**Improved grassland and current arable sites on acidic-alightly acidic soils, within areas of low acid grassland connectivity or bottlenecks.**	**Acid heathland modelling:** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Acid grassland, lowland dry heath, lowland wet heath (Natural England, 2024) - Kent ARCH: Arable improved grassland (KMBRC, 2012) - Cranfield Soil data (Cranfield, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes

GL5.1 Management of field margins to provide graduated field edges, with wider and cultivated margins.	**All existing arable and improved grassland field margins (the first 5m within a polygon).** A 5m internal buffer was applied to each arable and pasture field parcel within the county. This identifies each potential field margin where the measure could be applied. The buffer was internal only as external boundaries likely fall out of the landowner's control. 5m was chosen as it forms a rough mid-point to the natural England definition of "outer 2-12m margin".	- Rural Field Margins - Kent ARCH (KMBRC, 2012).	No
GL5.2 Management of fields, with mixed times of cultivation to encourage a diversity of arable wild plants.	**All existing arable and improved grassland field cores. Specifically includes fields sent by Plantlife at Ranscombe and by Geoffrey Kitchener in the same area. Adopted allocations were removed.**	- Ranscombe Arable Plant Project (Plant Life, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
GL5.3 Design and deliver location and soil appropriate projects, targeted in the richest arable plant areas and on a variety of soil types, to create new, large areas dedicated to the promotion of arable wild plant diversity and abundance.	**Important Plant Areas data & Important Arable Plant Heatmap on agriculture land (from Kent Arch dataset).** IPAs are key sites for exceptional botanical richness; rare, threatened and socio-economically valuable plant species; and rare and threatened habitats. This data was used to highlight areas to promote arable wild plant diversity and abundance.	- Kent ARCH: Arable improved grassland (KMBRC, 2012) - CEH landcover: Arable (CEH, 2024) - Important Arable Plant (Plantlife, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
SH1.1 Appropriate management plans in place for key sites, with measures that support the succession of habitats to occur naturally, increase edge habitat, create a graded profile of mixed habitat and provide features that support the species of interest most strongly tied to	**Open Mosaic habitat found within 2km of a nightingale hotspot, as identified by the RSPB. Contains additional parcels provided by Bumblebee Conservation.** Nightingales were chosen as a means to identify key sites for successional habitat. The RSPB provided us with a layer of nightingale hotspots, and we selected any areas of Open Mosaic	- Open Mosaic Habitat (Natural England, 2022) - Bumblebee Open Mosaic (Bumblebee Conservation Trust, 2024) - Nightingale Hotspots (RSPB, 2024)	Yes

open mosaic habitats and, in particular, any species that the particular site in question is notable for.	habitat within 2km of those. Bumblebee Conservation Trust provided some additional sites to supplement the measure.		
SH1.2 Selective grazing by cattle of areas within the scrub to create open areas and allow for regeneration.	**All parcels of Open Mosaic habitat. Contains additional parcels provided by Bumblebee Conservation.** All parcels of Open Mosaic habitat in Kent, including supplementary parcels provided by Bumblebee Conservation Trust.	- Open Mosaic Habitat (Natural England, 2022) - Bumblebee Open Mosaic (Bumblebee Conservations Trust, 2024)	No
SH2.2 Maintain and integrate areas of scrub within arable land, woodlands, grasslands, wetlands and urban habitats to encourage successional habitats and provide wildlife corridors.	**Arable, woodland, grassland, wetland and urban habitats within areas of low connectivity or bottlenecks.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). All output (designated sites, chalk, acid heathland, meadows, wetlands & woodlands) were included.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Connectivity models the same as CON1.2 - CEH landcover: Arable and Horticulture and Improved grassland (CEH, 2024)	No
SH2.3 Open glades and rides between scrub, to break it up and allow wildlife to move between habitats.	**All parcels of Open Mosaic habitat. Contains additional parcels provided by Bumblebee Conservation.**	- Open Mosaic Habitat (Natural England, 2022) - Bumblebee Open Mosaic (Bumblebee Conservations Trust, 2024)	No

WTH1.1Holistic management of woodlands and transitional open spaces to sensitively consider the understory, ground flora and soil; allow a variety of successional states and variety of species, developing to mature, providing different canopy layers; management of internal edge, including creation of glades and rides; preserve natural decay stages of woodland including old growth, dead and dead standing wood; where appropriate reinstate and increase coppicing as a management measure; deliver targeted management in order to provide habitats for vulnerable woodland species.	**All woodland data from Kent Wildlife Trust's Habitat Master dataset.** Management of all current woodlands requires all baseline woodlands to be mapped. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Woodland (Kent Wildlife Trust's Master Habitat, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH1.2 Restoration and extension of lowland and upland wood pasture and parkland.	**Buffered wood pasture and parkland by 75m and then removed areas of urban/suburban.** Areas that use natural colonisation will need to meet the general eligibility criteria for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species. Urban and suburban areas offer fewer opportunities and lower probabilities for ecological restoration. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Woodland Parks and Parkland (Natural England, 2024) - Built up areas (Ordnance Survey, 2022) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes

WTH1.3 Safeguard and enhance small pockets of woodland to provide key stepping stones for species movement and connect with hedgerows and scrub.	**Identifies small (<20km) and isolated woodlands (500m radius) that are not part of larger connected woodland networks.** A small and isolated woodland holding is defined as being <20 ha in size and >500 m from adjacent woodlands or hedgerows (Peoples Trust for Endangered Species).	- Woodland (Kent Wildlife Trust's Master Habitat, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
WTH2.1 Extension of existing woodland through natural colonisation and planting.	**Expanding woodland within 75m of existing broadleaved woodland (CEH habitat data), that falls within low-sensitivity zones suitable for woodland creation.** Areas that use natural colonisation will need to meet the general eligibility criteria for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species. The low-sensitivity zones suitable for woodland creation indicates areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas.	- Woodland (Kent Wildlife Trust's Master Habitat, 2023) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
WTH2.2 Conversion of unproductive land for arable into woodland.	**Grade 4 and 5 agricultural land that falls within the woodland creation low sensitivity map.** Grade 4 and 5 are poor graded agricultural land suffering severe limitations that significantly restrict the range and/or yield of crops to be grown. The low-sensitivity zones suitable for woodland creation indicate areas with potential for establishing new woodland or sensitivities that	- England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - ALC Grade (Natural England, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes

	may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas.		
WTH2.3 Plant more trees in hedgerows.	**Identifies and processes regions where low-sensitivity woodland creation areas overlap with hedgerows.** The low-sensitivity zones suitable for woodland creation indicate areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas.	- England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Hedgerow (CEH, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH2.4 Use tree and hedgerow establishment and scrub to increase connectivity, provide wildlife corridors and address fragmented areas of woodland.	**Identified regions buffered by 75m woodland areas overlapping with areas suitable for low-sensitivity woodland creation.** Areas that use natural colonisation will need to meet the general eligibility criteria for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species. The low-sensitivity zones suitable for woodland creation indicate areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas.	- Woodland (Kent Wildlife Trust's Master Habitat, 2023) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH2.5 Plant more urban trees and create urban forests and orchards, ideally siting tree planting to where they will provide flood management, air quality and temperature regulation benefits.	**Identifies areas that overlap among riparian zones, floodplain woodlands, and emission-related areas within major urban environments. It refines these regions by intersecting with a woodland creation sensitivity map.**	- WWNP Riparian Woodland Potential (Environment Agency, 2015) - WWNP Floodplain Reconnection Potential (Environment Agency, 2015) - EWCO - NfC Ammonia Emissions Capture for SSSI Protection (Forestry Commission, 2022)	Yes

	WWNP Riparian Woodland Potential is our best estimate of locations where tree planting may be possible on smaller floodplains close to flow pathways, and effective to attenuate flooding. The low-sensitivity zones suitable for woodland creation indicate areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Major Urban areas (Office for National Statistics,2021 & Local Authorities, 2024) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	
WTH4.1 Management that facilitates and enables the natural regeneration of woodlands, by reducing grazing pressures.	**Identifies buffered woodland (buffer was 75m) areas that overlap with a sensitivity map for woodland creation.** Areas that use natural colonisation will need to meet the general eligibility criteria for Grant Manual for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species.	- Woodland (Kent Wildlife Trust's Master Habitat, 2023) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH4.2 Where appropriate, promote the restoration of Plantations on Ancient Woodland Sites (PAWS) sites to a more species rich woodland.	**Identifies ancient woodland sites with the status 'PAWS'.**	- Ancient Woodland Inventory (Natural England, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
WTH4.3 Increase connectivity of woodland habitats by creating semi-natural habitat buffers strips, that reduce the gaps between patches and extend woodland edge habitats,	**Identifies woodland connectivity areas and connectivity bottlenecks, refines them based on sensitivity for woodland creation, and excludes urban areas.** The woodland connectivity model identifies woodland linkages and overlaying the lowland	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Natural England Priority Habitat Inventory: Lowland Mixed Deciduous Woodland (Natural England, 2024)	No

and providing links through trees outside the woodland.	sensitivity map to select areas more compatible with woodland expansion. Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	
WTH4.4 Establish green bridges to connect woodlands fragmented by road and rail.	**Making Space for Nature proposed green bridge locations for National Highways.**	- Making Space for Nature proposed green bridge locations for National Highways (2024).	No
WTH5.1 Appropriate and targeted management of ancient woodland, in order to retain and enhance specific features of ancient woodland and enhance biodiversity.	**Mapped the Ancient Woodland Inventory only, where status is Ancient Semi-Natural Woodland (ASNW).**	- Ancient Woodland Inventory (Natural England, 2024)	No
WTH5.2 Establishment of wide buffer zones around ancient woodland that are linked to hedgerows, to extend habitat connectivity.	**Identifies buffer zones around ancient woodlands (75m buffer) that intersect with areas of potential woodland connectivity and bottlenecks. It refines these results to exclude urban habitats.** Areas that use natural colonisation will need to meet the general eligibility criteria for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species.	- Ancient Woodland Inventory (Natural England, 2024) - Natural England Priority Habitat Inventory: Lowland Mixed Deciduous Woodland (Natural England, 2024) - Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

	Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation).		
WTH5.3 Solitary ancient and veteran trees buffered with open space, with further protections offered with establishment of neighbouring wood pasture and agroforestry of mixed habitats.	**Mapping woodland creation areas (England woodland creation low sensitivity map v4.0) with Ancient Tree Inventory Buffered >15m - <75m only (creating a doughnut, 15m from any ancient woodland and to a 75m buffer).** Natural England and Forestry Commission buffer zone recommendations: For ancient woodlands, the proposal should have a buffer zone of at least 15 metres from the boundary of the woodland to avoid root damage (known as the root protection area). Areas that use natural colonisation will need to meet the general eligibility criteria for the England Woodland Creation Offer (EWCO) Agreements and be within 75 metres of a viable seed source of at least 2 tree species. The low-sensitivity zones suitable for woodland creation indicates areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas.	- Ancient Tree Inventory (Woodland Trust, 2023) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
WTH5.4 Connectivity of ancient woodland improved by links to hedgerows, establishment of standard trees	**Identifies potential woodland connectivity areas and bottlenecks, refines them based on where woodland creation low sensitivity map overlaps, and excludes urban habitats.**	- Natural England Priority Habitat Inventory: Lowland Mixed Deciduous Woodland (Natural England, 2024)	No

and increased standing deadwood.	The low-sensitivity zones suitable for woodland creation indicates areas with potential for establishing new woodland or sensitivities that may prevent tree planting, highlighting locations where it should be easier to agree on woodland creation compared to other areas. Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	
WTH5.5 Use of ancient woodland inventory to identify isolated blocks of ancient woodland.	**Identifies isolated woodland areas (>500m from another woodland) by buffering and filtering ancient woodlands, then checks for connectivity with other woodland patches using the woodland connectivity and bottleneck models.** A small and isolated woodland holding is defined as being <20 ha in size and >500 m from adjacent woodlands or hedgerows (Peoples Trust for Endangered Species). Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It also pinpoints bottlenecks in the habitat network	- Natural England Priority Habitat Inventory: Lowland Mixed Deciduous Woodland (Natural England, 2024) - Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Ancient Tree Inventory (Woodland Trust, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

	(where there are restricted opportunities for colonisation). Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.		
WTH6.1 Establish and implement long-term management plans for wet woodland and surrounding land, which ensures connectivity between waterways and woodland and incorporates nature-based water management solutions, such as leaky dams, felling, blocking drainage channels to allow for seasonal flooding.	**Identifies areas of potential floodplain connectivity and wet woodland zones, creating a 200m buffer around them.** Creates a 200m buffer zone around areas of existing wet woodland, and combines that buffer with areas identified for floodplain reconnection by the EA's working with natural processes project. We then removed all areas within this outlined as potential development sites by local plans.	- WWNP potential floodplain connectivity (Environment Agency, 2015) - Wet woodland (Kent Wildlife Trust's Master Habitat, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	Yes
WTH6.2 Creation of ponds within woodlands, and naturally regenerated riparian zones.	**Combines Great Crested Newt areas with wetlands and refines it by combining data on riparian woodlands and CEH woodlands. Ancient woodlands are removed.** Identifies areas where the addition of new ponds would benefit Great Crested Newt and be suitable depending on environmental variables.	- Great Crested Newt - Strategic Opportunity Areas (Natural England, 2024)	No
WTH7.1 Create buffer zones around the gill woodland to ensure they remain largely undisturbed.	**Gills woodlands buffered by 8m.** A reasonable buffer was assigned by Kent Wildlife Trust that buffered Gill woodlands. 8m was chosen as the buffer by the Forestry Commission based on best practice management guidelines.	- Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024) - Gill woodland boundary (Kent Wildlife Trust, 2024) drawn from research paper Ghyll Woodlands of the Weald	No

WTH8.2 Actively manage the county's hedgerows, fill gaps and remove invasive species; rejuvenate and restore hedgerows that have declined in structural condition. Increase the extent of hedgelaying, coppicing and gapping up within this management.	**CEH hedgerow data.** UKCEH's Land Cover Plus: Hedgerows describes the extent and height of woody linear features, including hedgerows, tree lines and semi-natural thickets of shrubs and trees, on field boundaries in England.	- Hedgerow (CEH, 2024) - Adopted allocations (Kent Wildlife Trust adopted Kent Local Authorities data, 2024)	No
WTH8.3 Buffer hedgerows with grass margins, scrub and headlands.	**Hedgerow data buffered by 4m.** Defra farming recommended for the hedgerow standard, grass strips must be at least 4m wide from the centre of the hedge.	- Hedgerow (CEH, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH8.4 Strategic siting of new and extended hedgerows to aid habitat connectivity and support species forage, shelter and movement; restore links to copse and woodland.	**Identifies areas where woodland connectivity is present.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. Adopted land allocation areas were removed as management would not be necessary within a development plan which has been approved.	- Natural England Priority Habitat Inventory: Lowland Mixed Deciduous (Natural England, 2024) - Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
WTH9.1 restore and bring established traditional orchards back into positive management, including long sward length, wildflower meadow strips between trees, limited or no spraying, sensitive pruning and dead wood/ dying trees retained.	**Mapped traditional orchards.**	- Traditional Orchards (Orchards Network, 2023) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No

WTH9.2 Establish new community orchards, in appropriate areas and with a focus on urban locations.	**Refines traditional orchard areas within 1km buffer of major urban areas, removing overlaps with built-up areas.** We want to establish community orchards within urban areas so an accessible 1km buffer was added to urban areas.	- Traditional Orchards (Orchards Network, 2023) - Historic Traditional Orchards (Orchards Network, historic data) - Major Urban areas (Office for National Statistics,2021 & Local Authorities, 2024) - Adopted allocations (Kent Wildlife Trust, Kent Local Authorities data, 2024)	No
FW1.1 Monitor, manage, control expansion and remove invasive species, including Himalayan balsam, mink, from ponds, lakes, wetlands, rivers and streams and lowland drains.	**Invasive species (INNS count of spp per monad) buffered by 10m.**	- Invasive species (INNS count of spp per monad) (KMBRC, 2000)	No
FW1.2 Undo historical physical modifications which have disconnected rivers and floodplains and restore natural processes through a range of approaches including supply of woody material and allowing this to remain in the channel where not causing flood risk, restoring channel stage zero, restoration of historic meanders, bed raising, regrading banks to create shallow edges and establishing mosaics of water meadows, wet grasslands and wet woodlands, to allow inundation of floodplains above Q10 flows.	**Combines freshwater mitigation measures and river obstacles: dams.**	- Mitigation measures (EA, 2024). - River obstacles (Rivers Trust, 2024). - Mitigation measures (SERT, 2024). - River Obstacles (Environment Agency, Zoological Society of London, The Rivers Trust, Thames Estuary Partnership, The River Restoration Centre and Natural Apptitude, 2021)	Yes
FW1.3 Restore more natural shape of channels by narrowing overwide channels, especially where siltation, uniform and low	**Combines freshwater mitigation measures and river obstacles: culverts.**	- Mitigation measures (EA, 2024). - River obstacles (Rivers Trust, 2024). - Mitigation measures (SERT, 2024).	No

flows and lack of habitat diversity are a pressure.		- River Obstacles (Environment Agency, Zoological Society of London, The Rivers Trust, Thames Estuary Partnership, The River Restoration Centre and Natural Apptitude, 2021)	
FW1.4 Open up and daylight culverted rivers, streams and ditches including ephemeral/ seasonal streams where modification is redundant.	**Combines freshwater mitigation measures and river obstacles: dams, lock, sluice and weir.**	- Mitigation measures (EA, 2024). - River obstacles (Rivers Trust, 2024). - Mitigation measures (SERT, 2024). - River Obstacles (Environment Agency, Zoological Society of London, The Rivers Trust, Thames Estuary Partnership, The River Restoration Centre and Natural Apptitude, 2021)	Yes
FW2.1 Discharge agricultural land drains into interception features in buffers, rather than the stream network.	**200m buffer around the river network where it intersects with arable and horticultural land.**	- Arable and horticulture (CEH, 2024) - EA Detailed River Network (DRN) (Environment Agency, 2017)	No
FW2.2 Reduce input of diffuse phosphate and nitrate pollution to surface and groundwater bodies.	**10m buffered points of treated sewage discharge into land/ infiltration system.**	- Treated Sewage Discharge (Rivers Trust AGOL, 2023)	No
FW2.3 – Establish and manage functional buffer strips and other interception features for all flow pathways to hold runoff and remove pollutants including chemicals, nutrients and sediments.	**50m buffer around river network where land cover will allow for interception features.**	- Inland rock, Urban, Freshwater, Suburban, Saltwater (CEH, 2024) - EA Detailed River Network (DRN) (Environment Agency, 2017)	No
FW2.4 Prevent road runoff entering rivers through the installation of SuDS, downstream defenders, or similar interception features on highways, local roads, and existing and new.	**10m buffer of intersection points between roads and rivers.**	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Major Road Network (Department for Transport, 2021)	Yes

FW2.5- Reduce the risk of combined sewer overflows by reducing surface water entering the drainage system for example through the use of SuDS, natural flood management measures or similar.	**Land cover where NFM or SuDS may be utilised in Watersheds where combined storm overflows are present.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Rivers Trust (Storm overflow, 2024) - Urban, Suburban (CEH, 2024)	No
FW3.1 Protect rivers from disproportionate impacts of abstraction by managing abstraction and water use in catchments which suffer from drought or water scarcity, and improving habitats to provide resilience.	**Intersection to locate areas within watersheds where groundwater vulnerability to pollution is high and water resources are at risk.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Water resource availability and extraction reliability (Environment Agency, Defra, 2024)	No
FW3.2 - Use nature-based solutions to improve recharge to chalk aquifers , for example through creation of catchment and interception woodlands on clay caps, cross-slope hedges, chalk grassland, and similar.	**Chalk stream watersheds that intersect with land cover that is appropriate for implementation of NFM measures.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Chalk streams (Natural England, 2023) - Coniferous woodland, Deciduous woodland, Heather, Improved grassland, Heather grassland, Neutral grassland, Calcareous grassland (CEH, 2024)	Yes
FW3.3 Slow the flow and store water in the catchment in areas of low agricultural productivity or where there is space in urban areas, working with natural processes, to implement natural flood management e.g. through installation of large woody material, creation of wet woodlands, lowland meadows, reedbeds, flood attenuation ponds and similar, especially	**Identifies areas of low agricultural productivity (ALC Grades 4 and 5) with areas outlined for riparian or floodplain woodland from the Working with natural processes.** Potential woodland areas have been identified as suitable for implementing natural flood management measures.	- WWNP Floodplain Woodland Potential (Environment Agency, 2015) - ALC Grade (Natural England, 2023)	Yes

where they can reduce flood risk and provide clean recharge to the groundwater body.			
FW3.4 Use nature-based solutions to improve recharge to chalk aquifers, for example through creation of catchment and interception woodlands on clay caps, cross-slope hedges, chalk grassland, and similar.	**Intersection between chalk watersheds, woodland, and grasslands.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Chalk streams (Natural England, 2023) - Coniferous woodland, Deciduous woodland, Improved grassland, Neutral grassland, Calcareous grassland (CEH, 2024)	No
FW4.2 Establish and maintain wide areas of semi-natural, complex habitats along banks of rivers and streams (including seasonal and headwater reaches), allowing light grazing of wet grassland areas with a focus on native livestock breeds, and encouraging woodland particularly where there is need for more shading of rivers to provide cooler temperatures, increasing riparian tree cover to 30%. Allow natural regeneration of habitats and recolonisation	**WWNP Riparian Woodland Potential combined with Accessible Natural Greenspace Standard (ANGSt), within Keeping Rivers Cool Riparian Buffers data.**	- WWNP Riparian Woodland Potential (Environment Agency, 2015) - EWCO - Keeping Rivers Cool Riparian Buffers (Forestry Commission, 2023) - Accessible Natural Greenspace Standard (Natural England, 2024)	Yes
FW4.3 Use re-development of old infrastructure as an opportunity to re-naturalise river corridors (e.g. old industrial sites).	**Identifies open mosaic habitats within a 150-meter buffer zone around rivers (OS rivers layer).** Open mosaic habitats can be extremely diverse, including such wide-ranging sites as railway sidings, quarries, former industrial works, slag heap, brings and brick pits. This habitat diversity can support rich assemblages of invertebrates, which has led to 'open mosaic habitats on previously developed land'.	- Open Mosaic Habitat (Natural England, 2022) - OS Open Rivers (Open Street Maps, 2023)	Yes

FW4.4 Combine buffers with the use of nature based solutions to hold water on floodplains and in areas upstream of communities at risk of flooding, and clean water. This could include for example large woody debris, sediment traps, floodplain wetlands.	**Areas that are identified for natural flood management via the Working with natural processes project, that fall within either connectivity bottlenecks or areas that fail the standards for accessible natural greenspace and outside of high productivity agricultural land.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. It pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). 150m was a realistic starting point for creating a buffer zone around rivers, as determined by Kent Wildlife Trust.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) - Accessible Natural Greenspace Standard (Natural England, 2024) - WWNP Riparian Woodland Potential (Environment Agency, 2015) - ALC Grade (Natural England, 2023)	Yes
FW5.1 Safeguard headwater streams from agricultural pollution, erosion, and road runoff through the use of semi-natural buffer strips and interception features.	**Identifies areas where headwaters overlap with vulnerable soil types that are prone to pollution runoff, rapid water through-flow, and erosion. Cranfield soil data was used.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Cranfield Soil data (Cranfield, 2024)	No
FW5.2 Restore and establish wetlands in headwater areas and around natural springs, by reversing and preventing further drainage of springs and seepage areas.	**Buffers chalk streams in headwater areas, overlayed in wetlands habitats.**	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Chalk streams (Natural England, 2023) - Kent ARCH: Wetlands (KMBRC, 2012)	Yes

FW5.3 Renaturalise urban and modified sections of headwaters including ephemeral streams such as winterbournes (e.g. where they have been straightened and deepened to drain woodlands and agricultural land) including through approaches such as stage 0 restoration.	**Intersection where headwater streams coincide with urban and suburban land cover.**	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Urban, Suburban (CEH, 2024)	No
FW6.1 Safeguard winterbourne streams and key recharge zones for aquifers feeding chalk streams.	**All watersheds that feed into chalk streams.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Chalk streams (Natural England, 2023) - Aquifers (Natural England, South East Rivers Trust, 2023)	No
FW6.2 Establish good farming practices for chalk streams, including cover crops, minimum till, infield buffer strips and green swales, restoration of hedges across slopes, woodland and pond restoration in fields.	**Buffer of 100m around chalk streams where they intersect with arable and horticultural land.** A protected areas of 50-100m 'no development zone' buffer as recommended by Natural England.	- Chalk streams (Natural England, 2023) - Arable and horticulture (CEH, 2024)	No
FW6.3 Restore natural processes and form, rewetting river corridors to safeguard recharge and mitigate against low flows and create habitat, including through encouraging braided channels and a saturated floodplain.	**Identifies areas near chalk streams, buffered by 100m, while excluding unsuitable land cover types such as urban, freshwater, and saltwater.** A protected areas of 50-100m 'no development zone' buffer as recommended by Natural England.	- Chalk streams (Natural England, 2023) - Inland rock, Urban, Freshwater, Suburban, Saltwater (CEH, 2024)	No
FW6.4 – Nature based solutions in the wider catchment to reduce nutrient input to groundwater body and protect aquifer recharge.	**Intersection between chalk streams and detailed watersheds where groundwater vulnerability top pollution is high.**	- Priority River Habitat - Headwater Areas (Natural England, 2024) - Chalk streams (Natural England, 2023) - Groundwater vulnerability (BGS, 2020)	Yes

FW7.1 Restore banks and channel through regrading and creation of more shallow banks and associated wetland areas, to undo historic physical modification.	**Buffer of 50m around river network where it intersect with wetland habitat.** A protected areas of 50-100m 'no development zone' buffer as recommended by Natural England.	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Kent ARCH: Wetlands (KMBRC, 2012)	Yes
FW7.2 Remove physical obstructions and restore a natural channel shape.	**10m buffer around river obstacles and barriers.** 10m buffer around river obstacles and barriers identified by the Rivers Trust, the EA and SERT. 10m buffer was chosen as all measures have to be polygons, and 10m allowed the measure to show up suitably on a county scale map	- Mitigation measures (EA, 2024). - River obstacles (Rivers Trust, 2024). - Mitigation measures (SERT, 2024).	Yes
FW7.3 Encourage riparian tree planting and natural regeneration along sections of the river lacking canopy cover.	**Areas highlighted as riparian woodland potential.**	- WWNP Riparian Woodland Potential (Environment Agency, 2015)	Yes
FW7.5 Increase the extent of wetland habitats associated with headwater streams and floodplains, to retain water for longer, create resilience to drought and improve water quality.	**The intersection of river network and wetland habitats, using data from priority habitats layer.**	- EA Detailed River Network (DRN) (Environment Agency, 2017) - Priority Habitat Inventory (v.3) (Natural England, 2024)	Yes
FW8.1 Restore ghost ponds, including restoration of dew ponds and dip slope ponds, hammer and furnace ponds.	**Combines Great Crested Newt areas within wetlands.** This dataset identifies areas where the addition of new ponds would benefit Great Crested Newt populations defined as strategic opportunity areas (SOAs), as well as looking for permanently wet areas.	- Permanently wet areas ('Watersystems maps' from the University of Antwerp from a project called PROWATER, 2024) - Great Crested Newt - Strategic Opportunity Areas (England) (Natural England, 2024)	No

FW8.4 Enhance online lakes to include a mosaic of habitats and watercourses.	**Lakes that intersect with a 100m buffer around the river network.** A protected areas of 100m buffer was used as recommended by Natural England.	- Urban, Suburban, Inland rock (CEH, 2024) - Spatial inventory of UK waterbodies (CEH, 2024) - Waterbodies (Ordnance Survey, 2023) - EA Detailed River Network (DRN) (Environment Agency, 2017)	No
FW9.1 Manage existing fen and bog sites to reduce encroachment, including through scrub management and appropriate grazing.	**Mapped Kent Arch fen data and peat soils.**	- Kent ARCH (KMBRC, 2012)	Yes
FW9.2 Create and maintain wide buffers around existing fen and bog sites to safeguard them from diffuse pollution.	**Buffered Kent Arch fen data by 200m.** All Fen and bog sites buffered by 200m, a value chosen by the Data, Evidence and Mapping Technical Advisory Group as describing a “wide buffer”.	- Kent ARCH (KMBRC, 2012)	Yes
FW9.4 Restore lowland peat habitats by reversing drainage and supporting re-wetting of areas.	**Natural England Peaty soils in Kent.**	- Peaty Soils Location (England) (Natural England, 2024).	Yes
FW10.1 Manage reedbeds to prevent encroachment of woodland, and by managing associated ditches and dykes, conservation grazing, minimal chemical interventions, consider management of saline flooding.	**Natural England reedbeds data where habitat is classified and Primary or Associated habitat.**	- Natural England reedbeds habitat network (Natural England, 2024).	No
FW11.1 Enhance reservoirs and similar waterbodies to provide better wildlife habitat. Ensure any such water bodies include features that enable wildlife to get out of water.	**Mapped CEH waterbodies (contains reserves and other waterbodies).**	- CEH Waterbodies (CEH, 2021)	Yes

FW11.2 Manage, restore and expand river valley wetlands, for example floodplain meadows, floodplain grazing marshes, reedbeds and mudflats.	**WWTS Wetlands Water Quality Potential combined with Flood Zone 2, freshwater areas only.**	- Kent ARCH: Wetlands (KMBRC, 2012) - WWT 'Wetlands for Water Quality' potential (WWT, 2024) - Flood Map for Planning (Environment Agency, 2018)	No
FW11.3 Provide opportunities for spring flooding (e.g. for waders) by creating water storage areas for winter rainfall.	**Combines surface water & flood zone 3 outside urban areas.**	- CEH Land Cover Map (CEH, 2024) - Flood Map for Planning (Environment Agency, 2018) - Surface Water (South East Rivers Trust, 2024)	No
FW11.4 Connect existing wetlands through a mosaic of habitats.	**Identifies wetland connectivity areas and bottlenecks outside urban areas.** Areas of low connectivity, or identified as connectivity bottlenecks, from the wetland connectivity analysis.	- Wetland connectivity model. - CEH Land Cover Map (CEH, 2024)	No
FW12.1 Manage more sensitively by following natural cycles, including consideration of retaining inchannel vegetation, woody material, and partial desilting to create shallow margins where possible	**River network that intersects with arch wetlands data or priority habitats data associated with lowland and wetland habitats.** All rivers that flow through existing wetlands or associated priority habitats.	- Kent ARCH (KMBRC, 2012) - Detailed River Network (EA, 2017)	No
URB1.1 Employ conservation cuts, and minimise mowing, on verges and grass areas in areas known to be of importance for pollinators' connectivity.	**All non urban land parcels within Roadside Nature Reserves, bee road or bee line, that intersect with a road.**	- Urban areas (CEH, 2024) - RnR and bee road sites (KWT & KCC, 2023) - Bee lines (Buglife, 2021) - Major Road Network (Department for Transport, 2021)	No
URB1.2 Enhance and safeguard existing greenspace and trees that provide key stepping stones between larger natural	**Every non-developed land parcel within 2km of a major urban area falls within an area outlined for connectivity.**	- Urban areas (CEH, 2024) - Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - All connectivity models	No

spaces that are either within or at the edge of urban areas.	Modelling areas of connectivity within major urban areas so that these areas can be a priority.		
URB1.3 Enhance, increase and create green spaces, ponds, canopy cover, green roofs and walls and wild verges/swathes to establish wildlife corridors and provide habitat stepping stones across urban and developed landscapes.	**Every developed land parcel within 2km of a major urban area falls within an area outlined for connectivity.** Modelling areas of connectivity within major urban areas so that these areas can be a priority.	- Urban areas (CEH, 2024) - Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - All connectivity models as stated in CON1.2	No
URB1.4 Replace hard river banks with native buffer verges and tree planting and divert some river networks to form long, linear habitats for the benefit of wildlife.	**Environment Agency, SERT and Rivers Trust have identified man-made modifications that could be removed.**	- Freshwater Mitigation Measures (Rivers Trust, Environment Agency & SERT, 2024)	Yes
URB2.1 Areas of urban greenspace managed specifically for nature recovery, increasing ecological value, where benefits are most needed.	**Greenspaces[1] including: allotment, community growing, public park, garden, religious , grounds, cemeteries, country parks. Includes manual additions from LPAs.**	- OS Open Greenspace (Ordnance Survey, 2023) - Millennium Greens (England) Polygons (Natural England, 2024) - Country Parks (England) - (Natural England, 2024)	Yes
URB2.2 Employ conservation cuts, and minimise mowing, on verges and grass areas in areas known to be of importance for pollinators.	**Roadside nature reserves, all potential grassland habitats within bee lines, bee road sites and conservation verges.**	- CEH landcover (CEH, 2024) - KCC Conservation Verges (KCC, 2024) - RnR and bee road sites (KWT & KCC, 2023)	Yes
URB2.3 Restore and enhance urban rivers, with river corridors naturalised.	**All river naturalisation measures idenitified by the Rivers Trust, SERT and the EA within urban areas.**	- Freshwater Mitigation Measures (Rivers Trust, Environment Agency & SERT, 2024) - Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - River Obstacles (River Obstacles, 2024)	Yes

[1] This map is to be updated after consultation to ensure mapped greenspaces are in line with the typologies used by the county's Local Planning Authorities.

URB2.4 Target tree establishment to areas of low canopy cover.	**Areas outlined for woodland creation by the England Woodland Creation offer that fall within either an area of low canopy cover or an area of high deprivation.**	- England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - Urban Canopy Cover (Forestry Commission, 2023) - IMD (Consumer Data Research Centre, 2024)	Yes
URB3.1 Trees and hedgerows specifically planted to deliver air quality, temperature regulation/cooling and surface water management benefits and targeted to areas where it is most needed and will deliver the greatest impact.	**Areas outlined for woodland creation by the England Woodland Creation offer that fall within either: high air pollution areas (PM2.5, PM10 or NO2), areas that could offset NH3 emissions, areas outlined to cool waterways or areas on floodplains outlined for woodland flood management.**	- England woodland creation low sensitivity map v4.0 (Forestry Commission, 2023) - WWNP Riparian Woodland Potential (Environment Agency, 2015) - EWCO - Keeping Rivers Cool Riparian Buffers (Forestry Commission, 2023) - NO2 data and other pollution data (Defra, 2023) - EWCO - NfC Ammonia Emissions Capture for SSSI Protection (Forestry Commission, 2023)	No
URB3.2 Prioritise the use of natural flood management/nature based solutions over engineered, hard solutions, to manage areas at high risk from surface water flooding.	**Major urban areas that fall within flood zones.**	- Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - Flood Map for Planning (Environment Agency, 2018)	No
URB3.3 New and retrofitted green walls and roofs to enhance biodiversity, whilst also providing temperature regulation in settings most at risk from urban heat island effects.	**All built-up areas within an urban environment.** The only heat island datasets available are for London, unless LPAs have available.	- Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - Built up areas (Ordnance Survey, 2022)	No
URB3.4 Naturalise urban river corridors, with areas of the banks preserved as wildlife refuge, and reconnect to floodplains to assist with flood management, temperature cooling and nutrient neutrality.	**All river naturalisation measures identified by the Rivers Trust, SERT and the EA within urban areas.**	- Freshwater Mitigation Measures (Rivers Trust, Environment Agency & SERT, 2024) - Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - River Obstacles (River Obstacles, 2024)	Yes

URB3.5 Increased green and blue infrastructure, and more natural space, is targeted to communities where it is most needed to deliver health and wellbeing benefits and greater connection with nature.	**All areas that are either within the most deprived 40% of the country or fail the ANGST standards[2].** All areas that are either within the most deprived 40% of the country or fail the ANGST standards, as this is where access to nature should be prioritised.	- Major Urban Areas (Office for National Statistics & Local Authorities, 2021) - IMD (Consumer Data Research Centre, 2024)	No
CL1.1 Where hard defences must remain, apply the "greening the grey" approach, softening edges to encourage wildlife.	All EA Hard Flood Defences mapped within 1km of the high water line.	- AIMS Spatial Flood Defences (Environment Agency, 2020)	No
CL1.2 Refuges for wildlife created with either 'no go' or restricted areas.	Beach nesting sites, frontages, and roost site data for Thanet. We were provided additional bird nesting sites from Marine specialists in the county and these areas were covered by beach nesting sites.	- Roost Sites (Thanet) (Thanet Council, 2024) - Beach nesting sites (RSPB, 2024) - MEAS managed realignments – Frontages (Environment Agency, 2024)	No
CL1.3 Hard defences removed where appropriate, to allow space for tidal ingress and enable the managed realignment of the coastline, to mitigate coastal squeeze and allows intertidal habitats to be more resilient to climate change.	**Shoreline Management Realignment Plans.** Shoreline Management Plans (SMPs) help to deliver the ambitions of the National Flood and Coastal Erosion Risk Management Strategy. They set out a planned approach to managing flood and coastal erosion risk around the coast of England to 2105.	- Shoreline managed realignment (Environment Agency, 2023)	No
CL1.4 Create areas for saltmarsh restoration, seagrass regeneration and high tide roosts as well as breeding areas for seabirds and waders.	**Seagrass Restoration (MMO1135), Seagrass Potential (MMO1135), beach nesting bird sites, saltmarsh extent, seagrass layer, frontages & roost sites in Thanet.**	- Roost Sites (Thanet Council, 2024) - Beach nesting sites (RSPB, 2024) - MEAS managed realignments – Frontages (Environment Agency, 2024) - MMO1135 Potential Seagrass Creation Restoration (Marine Management Organisation, 2019)	Yes

[2] This map is to be updated after consultation so that it only identifies deprived areas failing ANGST standards.

		- Seagrass Potential (Environment Agency, 2024) - Saltmarsh Extent & Zonation (Environment Agency, 2019)	
CL1.5 Hard defences removed where appropriate to enable reconnection of fragmented habitats through managed realignment.	**AIMS Spatial Flood Defences, including: bridge abutments, flood gates, quays, spillway, and walls.**	- AIMS Spatial Flood Defences (Environment Agency, 2020)	No
CL2.1 Maintain high roosts and nesting sites, with key sites fenced off, to limit disturbance and safeguard inland feeding, breeding and overwintering areas.	**Beach nesting sites identified by the RSPB.**	- Beach nesting sites (RSPB, 2024)	No
CL2.5 Link areas with other wetland habitats to form a landscape mosaic of wetlands to reduce the tendency for waders and seabirds to be concentrated at key hotspots and reserves.	**Areas of low connectivity, and bottlenecks, for wetlands within 1km of the high water line.** Condatis is a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes. Condatis pinpoints bottlenecks in the habitat network (where there are restricted opportunities for colonisation). Areas of low connectivity, and bottlenecks, for wetlands within 1km of the high water line represent priority areas for the creation of new wetland habitats.	- Condatis; software to assist with the planning of habitat restoration, V1.2, www.condatis.org.uk (Kent & Medway Biological Records Centre, 2024) **Wetlands modelling:** - (Kent Habitat Survey, 2012) - Natural England Priority Habitat Inventory: Fen, marsh, swamp, wet woodland (Natural England, 2024)	No
CL3.1 Reduce pollution which is causing smothering of seagrass by intercepting with reedbed filtration.	**Consented discharge outlets (Consented Discharges to Controlled Waters), 3 km away from National Seagrass layer.**	- Consented Discharges to Controlled Waters (Environment Agency, 2024) - National Seagrass Layer (England) (Natural England, 2022)	No

	3km covers a good proportion of seagrass areas sites within Kent.		
CL3.2 Remove invasive spartina to reduce smothering of seagrass.	**Spatina species data from Kent Botanical Recording Group.**	- Spartina (Kent Botanical Recording Group, 2024)	No
CL3.3 Increase areas of existing seagrass beds.	**Mud Stretches (MMO1135), Seagrass restoration (MMO1135) & National seagrass layer.** Increase in muddy sand sediments and seagrass restoration sites to increase the number of seagrass beds.	- National Seagrass Layer (England) (Natural England, 2022) - MMO1135 Potential Seagrass Creation Restoration (Marine Management Organisation, 2019) - MMO1135 Potential Beneficial use Mud Stretches which may Benefit (Marine Management Organisation, 2019)	Yes
CL4.1 Management of problematic non-native species.	**All monads with at least 1 record of an invasive non native species that intersect with the high water line.**	- Invasive species (INNS count of spp per monad) (KMBRC, 2000)	No
CL4.2 Control leisure boat and other recreational activity in chalk reef areas	**All Annex I habitat 'Reef' in Kentish waters.**	- Annex I Reefs in UK offshore waters (Public) (Joint Nature Conservation Committee, 2019)	No
CL5.1 Safeguard established areas with no take zones.	**Mapped Marine Protected Areas.**	- Marine Protected Areas (JNCC, 2023)	No
CL5.2 Remove invasive, non-native species from the native beds.	**Invasive non-native species (INNS) plotted as count of species per monad since 2000, on the coast.**	- Invasive species (INNS count of spp per monad) (KMBRC, 2000)	No
CL5.3 Create suitable substrate for native oysters to colonise, focussing on existing/historic areas.	**Mapped Native Oyster Bed Potential.**	- Native Oyster Bed Potential (Environment Agency, 2024)	Yes
CL6.1 Safeguard existing saline lagoons from loss and damaging activities that harm and/or pollute the lagoons.	**Saline lagoons from Priority Habitats Inventory (V 3.0).**	- Natural England Priority Habitat Inventory: Saline lagoons (Natural England, 2024)	Yes

CL6.2 Establish buffer zones and/or adjust site features and topography, to ensure ecological function of saline lagoon is not undermined by disturbance; enhance marginal habitat.	**Saline lagoons from Priority Habitats Inventory (V 3.0) with a 50m buffer.**	- Natural England Priority Habitat Inventory: Saline lagoons (Natural England, 2024)	Yes
CL6.3 Create new saline lagoons to connect wetland sites in transitional areas that are likely to flood, taking into account proximity to sources of recreational disturbance.	**RSPB identified potential areas for saline lagoons.**	- RSPB Saline Lagoon Potential (RSPB, 2024)	Yes
CL7.1. Manage encroachment through scrub and invasive flora removal and where appropriate, apply non-intervention management so that natural processes such as wind and waves can maintain the various successional stages from bare mobile shingle to more stable vegetated shingle and allow habitat features to develop and evolve. Safeguard existing habitat through restricted access and management/interventions (e.g. allocated routes and boardwalks) that minimise the impact of footfall on this delicate habitat.	**Existing Vegetated Shingle from Priority Habitats Inventory and Kent ARCH Habitats.**	- Natural England Priority Habitat Inventory: Coastal vegetated shingle (Natural England, 2024) - Kent ARCH (KMBRC, 2012)	Yes

CL7.2 Safeguard and extend supporting habitats, such as species-rich grasslands, next to coastal shingle that can act as seepage areas and support a mosaic of habitats for important coastal shingle species	**Species rich grassland habitats within 50m of existing coastal vegetated shingle.** Species rich grassland patches must be in close proximity to vegetated shingle, need to be 50m of existing coastal vegetated shingle.	- Natural England Priority Habitat Inventory: Coastal vegetated shingle (Natural England, 2024) - CRoW Act 2000 - Access Layer (Natural England, 2024) - Public Rights of Way (PRoW) (The Rivers Trust, 2023)	Yes
CL8.1 Develop zoned recreational areas that limit, restrict or prevent leisure activities which can disturb wildlife and damage sensitive habitats; safeguard offshore islands.	**Combining Sandwich & Pegwell Bay and Castle Coote. Both are within SSSI/SPA sites and are existing areas with no access.** **The Sandwich and Pegwell Bay one includes a large area and is a mix of intertidal mud, saltmarsh and sand dunes, so its designed to protect a range of species and their activities.** **Castle Coote is a smaller and is more targeted to protecting shorebird nesting sites and an important high tide roost.**	- Castle Coot data (Natural England, 2024)	No
CL8.2 Building up of existing and creation of new seal haul out sites, which are adequately managed to provide safe areas for them.	**This only shows existing seal haulout sites from 2021, as mapped by ZSL.**	- Seal sites (ZSL, 2021)	No