

NATURAL AREA: **81 Upper Trent Valley**WETLAND SIGNIFICANCE: **MEDIUM**

DESCRIPTION:

This Natural Area includes the higher reaches of the River Trent catchment and its main tributaries, the Sow and Penk. The wetland interest is connected with the wet grassland and associated habitats of the river valleys.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	12/16 (75.0%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	9 (56.3%)
<i>SSSI WETLAND DOMINANTS</i>	open water - gravel pits (1), mire (1), fen (3), open water - reservoir (2), meander cut-off (1), wet woodland (1), swamp (1), wet grassland (1)
<i>SSSI NUTRIENT STATUS</i>	1 dystrophic, 1 oligotrophic, 9 mesotrophic, 4 eutrophic, 1 brackish

KEY WETLAND TYPES: fen (M22, M24, M25, M27, S24, S27); mire (M2, M21); swamp (S5, S7, S19); wet woodland (W5, W7); reservoir - aquatic (A13); wet grassland (MG4, MG8, MG9, MG10, MG11, M23)

LENGTH OF RIVERS: 685 km

KEY WETLAND SITES: Chartley Moss
RAM 1, NCR 1, SAC 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Thelypteris palustris</i>	S
<i>Fritillaria meleagris</i>	S
<i>Limosella aquatica</i>	S
<i>Potamogeton compressus</i>	S

ASSOCIATED INTERESTS: 1) breeding waders associated with wet grassland
2) invertebrate assemblages associated with subsidence mires
3) migrating waders and wintering wildfowl associated with reservoirs

KEY ISSUES: fragmentation, coniferisation, recreation, agricultural improvement, wet grassland management, water level control, management mechanism implementation, national forest, regulatory authorities, management of adjacent land, eutrophication, water quality, water quantity, scrub encroachment, washland management, habitat restoration, development

WETLAND SSSI ISSUES: Pollution 3 (25%) Water levels 11 (92%) Recreation 9 (75%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **82 Derwent Valley**WETLAND SIGNIFICANCE: **MEDIUM****DESCRIPTION:**

This Natural Area generally comprises the lower catchments of the rivers Derwent and Amber. In the west the boundary largely coincides with the edge of the White Peak and in the east with the coal measures. There is significant urbanisation in the south, the rest being largely agricultural. Wetlands include areas of open water, swamp and fen/ mire.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	8/18 (44.4%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	4 (22.2%)
<i>SSSI WETLAND DOMINANTS</i>	open water - reservoir (1), mire (1), fen (1), wet woodland (1), canal (1)
<i>SSSI NUTRIENT STATUS</i>	2 oligotrophic, 6 mesotrophic, 2 eutrophic

KEY WETLAND TYPES: wet woodland (W1, W5, W7); fen (M4, M6, M13, M22, M27, S28);
swamp (S5, S7, S12, S14, S15, S16); aquatic (A4, A5, A9); river (river type 1);
wet grassland (MG4, M23)

LENGTH OF RIVERS: 389 km

KEY WETLAND SITES: -

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

Potamogeton compressus S

ASSOCIATED INTERESTS:

- 1) invertebrate assemblage and breeding waders of wet grassland
- 2) breeding and wintering wildfowl and lower plants associated with swamp and open water communities

KEY ISSUES: alien species, air pollution, coniferisation, wet grassland management, agricultural improvement, isolation, habitat restoration, management mechanism implementation, drainage, flood control, sand extraction, eutrophication, grazing, water quantity, abstraction, recreation, angling, succession, sewage

WETLAND SSSI ISSUES: Pollution 3 (38%) Water levels 4 (50%) Recreation 6 (75%)

KEY OBJECTIVES:

- 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
- 2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
- 3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
- 4) Seek opportunities for habitat creation of wetland habitats.
- 5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
- 6) Liase with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **83 White Peak**WETLAND SIGNIFICANCE: **LOW**

DESCRIPTION:

The White Peak is a very important Carboniferous limestone plateau, dissected by numerous river valleys. There are remnants of upland wetland habitats such as dew ponds and basic flushes, and some wetland interest associated with the calcareous river and stream systems.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	7/38 (18.4%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	0
<i>SSSI WETLAND DOMINANTS</i>	-
<i>SSSI NUTRIENT STATUS</i>	1 oligotrophic, 3 mesotrophic, 3 eutrophic

KEY WETLAND TYPES: wet woodland (W7); mire (M10); ponds (no data); river (river types 6, 8)

LENGTH OF RIVERS: 142 km

KEY WETLAND SITES: -

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

Oenanthe silaifolia S

ASSOCIATED INTERESTS: 1) water beetles and amphibians associated with ponds
2) invertebrate assemblages, fish, lower plants, otter and breeding birds associated with river systems

KEY ISSUES: grazing, water quality, water quantity, eutrophication, tipping, pond management, agricultural improvement, abstraction, mink, influence of mining on hydrology

WETLAND SSSI ISSUES: Pollution 6 (86%) Water levels 1 (14%) Recreation 4 (57%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: 84 South West Peak	WETLAND SIGNIFICANCE: HIGH
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DESCRIPTION:

The South West Peak is underlain by Carboniferous millstone grit and coal measures. The area is dominated by heather moorland and blanket mire with in-bye grassland on the clough sides.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	8/10 (80.0%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	4 (40.0%)
<i>SSSI WETLAND DOMINANTS</i>	open water - reservoir (2), mire (2)
<i>SSSI NUTRIENT STATUS</i>	7 oligotrophic, 4 mesotrophic

KEY WETLAND TYPES: mire (M2b, M3, M4, M19a, b, M20a, b, M21b); rivers and streams (no data); wet grassland (M23a, b); fen (M6a, b, c, d, M9, M10a, M25b, M26b, S27); wet woodland (W4c, W7b, c); wet heath (M15a, b, d)

LENGTH OF RIVERS: 298 km

KEY WETLAND SITES: Goyt Valley
SPA 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Trichomanes speciosum</i>	RDB(E)
<i>Limosella aquatica</i>	S

ASSOCIATED INTERESTS: 1) breeding waders, other upland birds and lower plants associated with wet heath and blanket mire

KEY ISSUES: grazing, rhododendron, burning, drainage, agricultural improvement, rush cutting, abstraction, recreation

WETLAND SSSI ISSUES: Pollution 2 (25%) Water levels 6 (75%) Recreation 5 (63%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the upland fen/mire habitats.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly relating to drainage.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly species associated with upland fen/mire habitats.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **85 Dark Peak**WETLAND SIGNIFICANCE: **HIGH**

DESCRIPTION:

The Dark Peak is an area largely dominated by Carboniferous millstone grits and shales. It forms a high, peat-covered plateau, dissected by deep cloughs. The wetland habitats are largely associated with upland blanket mire and springs, flushes and streams in the cloughs.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	7/14 (50.0%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	2 (14.3%)
<i>SSSI WETLAND DOMINANTS</i>	mire (2)
<i>SSSI NUTRIENT STATUS</i>	1 dystrophic, 6 oligotrophic, 1 mesotrophic

KEY WETLAND TYPES: wet woodland (W7); wet grassland (MG10, M23b); rivers and streams (no data); mire (M1b, M3, M4, M18, M19a, b, M20a, b, M21b); open water (no data); fen (M6a, b, c, M10, M25, M26); spring fen/ flush (M32, M35, M37)

LENGTH OF RIVERS: 635 km

KEY WETLAND SITES: Dark Peak, Hallam Moors
SPA 2

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Thelypteris palustris</i>	S
<i>Pyrola rotundifolia</i>	S
<i>Myosotis stolonifera</i>	S

ASSOCIATED INTERESTS: 1) invertebrate assemblage associated with wet grassland
2) invertebrate assemblage, breeding waders and lower plants associated with blanket mire and acidic and basic flush communities

KEY ISSUES: air pollution, drainage, agricultural improvement, grazing, burning, fragmentation, recreation, erosion, landscape and archaeological interest, management mechanism implementation, water quality, water level control, acidification

WETLAND SSSI ISSUES: Pollution 2 (29%) Water levels 1 (14%) Recreation 3 (43%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly mire/ fen communities.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly species associated with the mire/ fen communities.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **86 Urban Mersey Basin**WETLAND SIGNIFICANCE: **MEDIUM**

DESCRIPTION:

This Natural Area is a low-lying basin of Permo-Triassic origin with some coal measures to the north and east. The wetland interest is found in the River Mersey and its tributaries, a series of canals, mosses and coastal features of the Sefton coast. This Natural Area was historically important for its mosslands.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	26/42 (61.9%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	5 (11.9%)
<i>SSSI WETLAND DOMINANTS</i>	open water - natural (1), canal (2), wet grassland (1), swamp (1)
<i>SSSI NUTRIENT STATUS</i>	7 oligotrophic, 21 mesotrophic, 2 eutrophic, 1 marl

KEY WETLAND TYPES: dune slack (SD14, SD15, SD16, SD17, SD18); wet woodland (W6, W7); wet heath (M16); swamp (S4, S10, S12, S13, S17, S19, S20, S21, S26); mire (M2, M3, M20); fen (M25, S28); wet grassland (MG10, MG13, M23)

LENGTH OF RIVERS: 1,425 km

KEY WETLAND SITES: Dee Estuary
RAM 1, SPA 1, NCR 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Equisetum variegatum</i>	S	<i>Centaurium littorale</i>	S
<i>Juncus balticus</i>	S	<i>Elatine hexandra</i>	S
<i>Gentiana pneumonanthe</i>	S	<i>Luronium natans</i>	S
<i>Potamogeton compressus</i>	S	<i>Stratiotes aloides</i>	S
<i>Potamogeton trichoides</i>	S		

ASSOCIATED INTERESTS: 1) natterjacks associated with dune slack pools
2) breeding, wintering and migratory birds associated with coastal wetlands
3) invertebrate assemblage and lower plants associated with mosses

KEY ISSUES: grazing, scrub encroachment, development, sand extraction, coastal protection, water quality, habitat fragility, education, recreation, pollution, sewage, dredging, lack of management, fragmentation, drainage, water level control, eutrophication, acidification, peat extraction, burning, neglect, canal maintenance, wildfowling, roads, alien species, river engineering, refuse disposal

WETLAND SSSI ISSUES: Pollution 10 (38%) Water levels 17 (65%) Recreation 20 (77%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly related to the restoration of raised mire sites.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **87 Lancashire Plain and Valleys**WETLAND SIGNIFICANCE: **HIGH**

DESCRIPTION:

This is a largely low-lying area of mosses (now largely reclaimed) and drift deposits. There are numerous small ponds, coastal wetlands and several large river systems.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	17/27 (63.0%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	8 (29.6%)
<i>SSSI WETLAND DOMINANTS</i>	open water - natural (3), mire (2), fen (1), wet grassland (1), base rich flush (1)
<i>SSSI NUTRIENT STATUS</i>	4 oligotrophic, 12 mesotrophic, 3 eutrophic, 1 unknown

KEY WETLAND TYPES: dune slack (SD14, SD15, SD16, SD17); swamp (S4, S21); fen (M25, S28); mire (M18); wet woodland (W4, W6, W7); wet grassland (MG4, MG8, MG11); river (river types 5, 6, 7, 8, 10)

LENGTH OF RIVERS: 1,344 km

KEY WETLAND SITES: Martin Mere, Wyre Estuary
RAM 2, SPA 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Epipactis leptochila var. dunensis</i>	<i>S</i>	<i>Potamogeton trichoides</i>	<i>S</i>
<i>Centaurium littorale</i>	<i>S</i>	<i>Juncus balticus</i>	<i>S</i>
<i>Equisetum variegatum</i>	<i>S</i>	<i>Myriophyllum verticillatum</i>	<i>S</i>
<i>Pyrola rotundifolia</i>	<i>S</i>	<i>Persicaria laxiflora</i>	<i>S</i>
<i>Calamagrostis stricta</i>	<i>RDB(R)</i>		

ASSOCIATED INTERESTS:

- 1) breeding and wintering birds and invertebrate assemblages associated with coastal wetlands
- 2) invertebrate assemblages associated with mosses
- 3) breeding waders associated with mosses and wet grassland
- 4) otter and breeding birds associated with river systems

KEY ISSUES: grazing, scrub encroachment, development, coastal protection, habitat fragility, recreation, pollution, landfill, aggregate extraction, drainage, reclamation, peat extraction, afforestation, agricultural improvement, lack of management, wildfowling, river engineering, angling, control of fish-eating birds, canal restoration, dredging, discharge, abstraction, alien species

WETLAND SSSI ISSUES: Pollution 9 (53%) Water levels 11 (65%) Recreation 8 (47%)

KEY OBJECTIVES:

- 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
- 2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
- 3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly agricultural pollution.
- 4) Seek opportunities for habitat creation of wetland habitats.
- 5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
- 6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **88 Forest of Bowland**WETLAND SIGNIFICANCE: **MEDIUM**

DESCRIPTION:

This Natural Area comprises an upland dome, supporting moorland dissected by deep river valleys. Wetland interest is found in the moorland, river and stream valleys.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	9/19 (47.4%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	5 (26.3%)
<i>SSSI WETLAND DOMINANTS</i>	mire (3), wet heath (2), wet grassland (1)
<i>SSSI NUTRIENT STATUS</i>	1 dystrophic, 5 oligotrophic, 1 mesotrophic, 3 unknown

KEY WETLAND TYPES: mire (M2, M4, M18, M19, M20); fen (M6, M10, M22, M25a, b); wet heath (M15); wet woodland (W7); rivers and streams (river types 6, 7, 8, 10); wet grassland (M23)

LENGTH OF RIVERS: 698 km

KEY WETLAND SITES: -

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Myosotis stolonifera</i>	S
<i>Primula farinosa</i>	S
<i>Euphrasia rostkoviana</i>	S
<i>Juncus filiformis</i>	S
<i>Eleocharis austriaca</i>	RDB(R)

ASSOCIATED INTERESTS: 1) breeding waders associated with wet grassland
2) lower plants and breeding birds associated with river and stream systems

KEY ISSUES: recreation, grazing, burning, agricultural improvement, fragmentation, drainage, pollution, river engineering, abstraction, river bank management

WETLAND SSSI ISSUES: Pollution 1 (11%) Water levels 0 Recreation 1 (11%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the upland fen, mire and wet heath habitats.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly associated with fen, mire and wet heath.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **89 Cumbrian Fells and Dales**WETLAND SIGNIFICANCE: **OUTSTANDING**

DESCRIPTION:

This Natural Area is a deeply eroded anticline with a characteristic radial drainage pattern. This has led to a varied geology of volcanic rocks, slates, shales and limestones, which has been strongly influenced by glacial activity. There is a large diversity of habitats and species associated with the range of conditions. There are important areas of blanket and valley mire. The number and diversity of lakes, tarns and rivers and their associated habitats is unique within England.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	73/141 (51.8%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	35 (24.8%)
<i>SSSI WETLAND DOMINANTS</i>	open water - natural (17), mire (16), swamp (1), wet woodland (2), wet heath (2), river (1)
<i>SSSI NUTRIENT STATUS</i>	1 dystrophic, 45 oligotrophic, 33 mesotrophic, 10 eutrophic, 2 marl

KEY WETLAND TYPES: wet grassland (MG4, MG6, MG8, MG10, M23); river (river types 5, 6, 8, 10); mire (M1, M2, M3, M4, M17, M18, M19, M20, M21); wet heath (M15, M16); spring fen/ flush (M29, M30, M31, M32, M35, M37); fen (M5, M6, M8, M9, M10, M11, M13, M25, M26, M27, S27, S28); wet woodland (W3, W4, W5, W7); swamp (S1, S2, S4, S8, S9, S10, S12, S14, S19); aquatic (A2, A7, A8, A9, A11, A13, A14, A15, A22, A23)

LENGTH OF RIVERS: 2,497 km

KEY WETLAND SITES: Lake District lakes, tarns, mosses, rivers and fells
RAM 2, NCR 14, SAC 5

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

		<i>Primula farinosa</i>	S
<i>Calamagrostis purpurea phragmitoides</i>	RDB(V)	<i>Juncus filiformis</i>	S
		<i>Lycopodiella inundata</i>	S
<i>Impatiens noli-tangere</i>	S	<i>Pilularia globulifera</i>	S
		<i>Euphrasia rostkoviana</i>	S
<i>Carex elongata</i>	S	<i>Potentilla fruticosa</i>	RDB(R)
		<i>Thelypteris palustris</i>	S
<i>Carex flava</i>	RDB(R)	<i>Euphrasia rivularis</i>	RDB(R)
		<i>Isoetes echinospora</i>	S
<i>Sedum villosum</i>	S	<i>Carex magellanica</i>	S
		<i>Potamogeton coloratus</i>	S
<i>Myosotis stolonifera</i>	S	<i>Equisetum variegatum</i>	S
		<i>Carex maritima</i>	S
<i>Najas flexilis</i>	RDB(R)	<i>Carex capillaris</i>	S
		<i>Centaureum littorale</i>	S
<i>Limosella aquatica</i>	S	<i>Gentiana pneumonanthe</i>	S
		<i>Pyrola rotundifolia</i>	S
<i>Elatine hexandra</i>	S	<i>Hammarbya paludosa</i>	S
		<i>Luronium natans</i>	S

ASSOCIATED INTERESTS: 1) invertebrate assemblages associated with mire and wet grassland habitats
2) breeding birds and lower plants associated with moorland
3) otter, crayfish, pearl mussel, fish assemblage, breeding and wintering birds associated with lakes, tarns and rivers

KEY ISSUES: grazing and mowing regimes, scrub encroachment, agricultural improvement, drainage, lack of management, recreation, aerial deposition, climate change, afforestation, burning, wind farms, peat cutting, eutrophication, acidification, angling, fisheries, fish farming, control of fish-eating birds

WETLAND SSSI ISSUES: Pollution 19 (26%) Water levels 13 (18%) Recreation 32 (44%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the outstanding diversity and extent of wetland habitats.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **90 Eden Valley**WETLAND SIGNIFICANCE: **HIGH**

DESCRIPTION:

The Eden Valley is underlain by Permian and Triassic sandstones, mudstones and shales, although glacial deposits cover much of the area. The wetland interest is found in the river systems and a number of small basin mires.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	19/24 (79.2%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	10 (41.7%)
<i>SSSI WETLAND DOMINANTS</i>	gravel pit (1), mire (5), river (1), wet woodland (1), wet grassland (1), spring fen/flush (1)
<i>SSSI NUTRIENT STATUS</i>	2 oligotrophic, 13 mesotrophic, 6 eutrophic

KEY WETLAND TYPES: wet woodland (W3, W4, W5, W7); river (river types 5, 6, 8, 9); swamp (S9); wet grassland (M23); mire (M17, M19, M21); wet heath (M15); fen (M6, M25, M26, M27, S27)

LENGTH OF RIVERS: 634 km

KEY WETLAND SITES: Eden Valley Mosses, R. Eden
NCR 4, SAC 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Thelypteris palustris</i>	S	<i>Myosotis stolonifera</i>	S
<i>Carex magellanica</i>	S	<i>Equisetum variegatum</i>	S
<i>Lycopodiella inundata</i>	S	<i>Hammarbya paludosa</i>	S
<i>Primula farinosa</i>	S		

ASSOCIATED INTERESTS: 1) lower plants, invertebrate assemblages, fish assemblage, otter and crayfish associated with the river system
2) lower plants and invertebrate assemblages associated with basin mires
3) breeding waders and invertebrate assemblages associated with wet grassland

KEY ISSUES: pollution, river corridor management, agricultural improvement, abstraction, fisheries, control of fish-eating birds, bank maintenance, recreation, eutrophication, succession, development, reclamation, burning, grazing, mineral extraction, fragmentation

WETLAND SSSI ISSUES: Pollution 9 (47%) Water levels 10 (53%) Recreation 2 (11%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly associated with the river valleys and the fen/ mire habitats.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly agricultural pollution and drainage.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly associated with the river systems and fen/ mire habitats.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **91 West Cumbria Coastal Plain**WETLAND SIGNIFICANCE: **HIGH**

DESCRIPTION:

The western part of the plain has a wide range of coastal habitats. Inland, the north is underlain by coal measures and the south is largely Triassic. The wetland interest is found in some of the coastal habitats and in small mosses in the Duddon Valley.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	12/16 (75.0%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	7 (43.8%)
<i>SSSI WETLAND DOMINANTS</i>	pool (1), mire (5), fen (1), wet grassland (1), wet woodland (3), wet heath (1), flood meadow (1)
<i>SSSI NUTRIENT STATUS</i>	1 dystrophic, 3 oligotrophic, 6 mesotrophic, 2 eutrophic, 1 brackish

KEY WETLAND TYPES: dune slack (SD13, SD14, SD15, SD16, SD17); aquatic (A7, A10, A15, A16); wet grassland (MG4, MG5, MG6, MG10, MG13, MG11, M23); wet woodland (W2, W3, W4, W7); fen (M25, M27, S28); river (types 2, 4); swamp (S4, S7, S10, S12, S19, S21); mire (M18, M19, M21); wet heath (M15)

LENGTH OF RIVERS: 451 km

KEY WETLAND SITES: Duddon Mosses, Hallsenna Moor
RAM 1, NCR 1, SAC 1

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Corallorhiza trifida</i>	S	<i>Gentiana pneumonanthe</i>	S	<i>Equisetum variegatum</i>	S
<i>Centaureium littorale</i>	S	<i>Pilularia globulifera</i>	S	<i>Pyrola rotundifolia</i>	S
<i>Epipactis leptochila var dunensis</i>	S				

ASSOCIATED INTERESTS:

- 1) breeding and wintering waders and wildfowl associated with wet grassland
- 2) amphibians associated with pools/ dune slacks, especially natterjacks
- 3) fish, pearl mussel, breeding and wintering birds associated with river systems and open water sites
- 4) invertebrate assemblages and lower plants associated with mosses

KEY ISSUES: afforestation, recreation, scrub encroachment, loss of natterjack habitat, tipping, grazing, development, reclamation, mineral extraction, coastal defence, flood protection, abstraction, radionucleides, wildfowling, pollution, turf cutting, water quality, sewage, fish-eating birds, pearl mussel collection, riparian management, river engineering, fish farms, fisheries, angling, drainage, peat cutting, agricultural improvement, alien species

WETLAND SSSI ISSUES: Pollution 6 (50%) Water levels 5 (42%) Recreation 2 (17%)

KEY OBJECTIVES:

- 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the fen/ mire and coastal wetlands.
- 2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
- 3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
- 4) Seek opportunities for habitat creation of wetland habitats.
- 5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly species associated with fen/ mire and coastal wetlands.
- 6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **92 Solway Basin**WETLAND SIGNIFICANCE: **OUTSTANDING****DESCRIPTION:**

This Natural Area is the low-lying land to the south of the Solway Firth. It contains the best series of raised mire sites in Britain. Coastal wetlands such as dune slacks and wet grassland are also present.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	22/22 (100%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	16 (72.7%)
<i>SSSI WETLAND DOMINANTS</i>	mire (12), fen (3), wet heath (2), flood meadow (1), wet grassland (1), grazing marsh (1)
<i>SSSI NUTRIENT STATUS</i>	6 dystrophic, 6 oligotrophic, 11 mesotrophic, 4 eutrophic, 1 brackish

KEY WETLAND TYPES: swamp (S4, S9, S10, S12); mire (M1, M2, M3, M4, M18, M20); wet grassland (M23, MG4, MG5, MG8, MG9, MG10); aquatic (A12, A15); wet heath (M15); dune slack (SD17); wet woodland (W3, W4, W5, W7); fen (M9, M25, M27, S27, S28, M24)

LENGTH OF RIVERS: 644 km

KEY WETLAND SITES: Solway Mosses
RAM 4, NCR 6, SAC 4

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Centaurium littorale</i>	S
<i>Elatine hexandra</i>	S
<i>Euphrasia rostkoviana</i>	S
<i>Limosella aquatica</i>	S

ASSOCIATED INTERESTS:

- 1) wintering and breeding birds and amphibians associated with coastal wetlands
- 2) invertebrate assemblages and lower plants associated with mosses
- 3) invertebrate assemblages, breeding birds, otter and fish associated with open water habitats

KEY ISSUES: coastal defence, flood protection, recreation, tipping, grazing, scrub encroachment, development, wind farms, dredging, wildfowling, fisheries, pollution, turf cutting, military use, drain management, loss of natterjack habitat, reclamation, mineral extraction, drainage, peat extraction, agricultural improvement, afforestation, burning, lack of management, cutting regime, river management, canalisation, angling, control of fish-eating birds

WETLAND SSSI ISSUES: Pollution 13 (59%) Water levels 15 (68%) Recreation 8 (36%)

KEY OBJECTIVES:

- 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the important raised mire sites.
- 2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
- 3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly relating to the hydrological integrity of the raised mire sites.
- 4) Seek opportunities for habitat creation of wetland habitats.
- 5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly species associated with the raised mire sites.
- 6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: **M9 Greater Thames Estuary**WETLAND SIGNIFICANCE: **OUTSTANDING****DESCRIPTION:**

This Natural Area comprises the coastal zone between the Stour Estuary on the Essex/Suffolk border and the Swale in Kent and the contiguous marine environment. It is a very important area for its estuaries and associated coastal habitats, which include extensive grazing marshes and associated ditches, lagoons and reedbeds.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	26/42 (61.9%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	11 (26.2%)
<i>SSSI WETLAND DOMINANTS</i>	open water - reservoir (1), open water - lagoon (1), grazing marsh (8), swamp (1)
<i>SSSI NUTRIENT STATUS</i>	6 mesotrophic, 15 eutrophic, 14 brackish, 2 unknown

KEY WETLAND TYPES: wet grassland (MG6, MG7, MG9, MG10); reservoirs and gravel pits (no data); ditches (no data); coastal lagoons (no data); swamp (S4)

LENGTH OF RIVERS: 890 km

KEY WETLAND SITES: Abberton Reservoir, Benfleet and Southend Marshes, Old Hall Marshes, Foulness, Tollesbury Wick, Medway Estuary, South Thames Estuary, The Swale
RAM 8, SPA 8, NCR 8

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

<i>Carex divisa</i>	S	<i>Pyrola rotundifolia</i>	S
<i>Elocharis acicularis</i>	S	<i>Ruppia cirrhosa</i>	S
<i>Sonchus palustris</i>	S	<i>Puccinellia rupestris</i>	S
<i>Oenanthe silaifolia</i>	S	<i>Alopecurus bulbosus</i>	S
<i>Callitriche truncata</i>	S		

ASSOCIATED INTERESTS:

- 1) breeding and wintering waders and wildfowl associated with wet grassland
- 2) breeding birds associated with reedbeds
- 3) invertebrates associated with aquatic habitats

KEY ISSUES: grazing damage by Brent Geese, management mechanism implementation, drainage, agricultural improvement, development, sea level rise, wildfowling, water level management, water abstraction, inadequate water supply, reservoir/gravel pit usage, enrichment, reservoir/gravel pit management, eutrophication, sewage, saline intrusion, dredging regime, water quality

WETLAND SSSI ISSUES: Pollution 13 (50%) Water levels 15 (58%) Recreation 5 (19%)

KEY OBJECTIVES:

- 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management, particularly the important coastal grazing marsh.
- 2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
- 3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition, particularly agricultural pollution and lack of freshwater input.
- 4) Seek opportunities for habitat creation of wetland habitats.
- 5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status, particularly associated with the coastal grazing marsh.
- 6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

NATURAL AREA: M17 Isles of Scilly	WETLAND SIGNIFICANCE: LOW
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DESCRIPTION:

The Isles of Scilly complex includes over 200 granite islands and rocks located south-west of Cornwall and is an internationally important maritime area. There are a number of coastal wetland habitats, including brackish lagoons, pools, freshwater marsh and wet grassland.

WETLAND SSSI COVERAGE:

<i>SSSIs CONTAINING WETLAND HABITATS</i>	5/23 (21.7%)
<i>SSSIs DOMINATED BY A WETLAND HABITAT</i>	5 (21.7%)
<i>SSSI WETLAND DOMINANTS</i>	open water - pools (3), open water - natural (1), swamp (2), wet grassland (2)
<i>SSSI NUTRIENT STATUS</i>	3 mesotrophic, 2 brackish

KEY WETLAND TYPES: wet grassland (MG13); swamp (S4, S21a, c)

LENGTH OF RIVERS: -

KEY WETLAND SITES: -

NATIONALLY RARE AND SCARCE WETLAND PLANT SPECIES:

Chamaemelum nobile S

ASSOCIATED INTERESTS: 1) breeding, wintering and migratory birds associated with wet grassland, freshwater marsh and swamp

KEY ISSUES: succession of open water, water level management, coastal protection, agricultural improvement, undergrazing, water quality

WETLAND SSSI ISSUES: Pollution 1 (20%) Water levels 2 (40%) Recreation 1 (20%)

KEY OBJECTIVES: 1) Maintain and enhance the current extent, diversity and condition of the wetland habitats through appropriate monitoring and subsequent management.
2) Meet all the requirements of international treaties relating to wetland conservation, namely the Ramsar convention, Birds Directive and Habitats and Species Directive.
3) Restore and enhance the hydrology, water quality and management of wetland sites that are currently in sub-optimum condition.
4) Seek opportunities for habitat creation of wetland habitats.
5) Maintain and enhance important populations of wetland plants and animals and carry out appropriate monitoring to determine their status.
6) Liaise with the Environment Agency and other government bodies over policy issues and planning.

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Appendix 1 Assessment of Wetland Significance, by Natural Areas**Legend**

1	No. of wetland SSSIs as a proportion of the total no of SSSIs (1 - <25%, 2 - 25-50%, 3 - 50-75%, 4 - >75%)
2	No. of SSSIs where wetland habitats form a dominant component of the site (1 - 1-6, 2 - 7-12, 3 - 13-24, 4 - >24)
3	Area of SSSIs where wetland habitats form a dominant component of the site (0 - <1,000ha, 2 - >1,000ha)
Quantity	Assessment of quantity of the wetland resource, based on the above three criteria (Low - 1-2, Medium - 3-4, High - 5-6, Outstanding - 7+)
4	No. of Ramsar and NCR sites (2 points for each site; sites only included once; * indicates sites covered by both designations)
5	No. of scarce wetland plants (1 point for each species)
6	No. of RDB wetland plants (2 points for each species)
Quality	Assessment of quality of the wetland resource, based on the above three criteria (Low - 1-10, Medium - 11-20, High - 21-30, Outstanding - 30+)
Total	Total assessment of wetland significance, combining quantity and quality (L = 1, M = 2, H = 3, O = 4) (Low - 1-2, Medium - 3-4, High - 5-6, Outstanding - 7-8)

NA No.	1	2	3	Quantity	4	5	6	Quality	Total
1	2	1		M	-, 1	10	1	M	Medium
2	3	4	2	O	4, 11*	11	1	O	Outstanding
3	3	3	2	O	1, 10*	11	4	O	Outstanding
4	4	3		O		3		L	Medium
5	2	1		M		3		L	Medium
6	3	1		M	-, 1	2		L	Medium
7	1	3	2	H	-, 2	13	3	H	High
8	3	3	2	O	4, *	16		H	Outstanding
9	2	2		M		4		L	Medium
10	1	1		L				L	Low
11	2	2		M	1, 1	10	1	M	Medium
12	3	1	2	H		2		L	High
13	2	2		M		6		L	Medium
14	2	2		M		6		L	Medium
15	4	3	2	O	2, *	10	2	M	High
16	2	1		M		4	1	L	Medium
17	3	1		M		1		L	Medium
18	2	3		H	-, 1	10	1	M	High
19	2	1		M		4		L	Medium
20	2	1		M		7	1	L	Medium
21	2	1		M		3		L	Medium
22	1	1		L		2		L	Low
23	2	1		M	2, *	6	2	M	Medium
24	2	3	2	O	1, 1*	9		M	High
26	2	1		M		1		L	Medium
27	3	3	2	O	4, 1*	20	8	O	Outstanding

NA No.	1	2	3	Quantity	4	5	6	Quality	Total
28	2	2		M			2	L	Medium
29	2	2		M		10	2	M	High
30	2	3	2	O	3,3*	17	1	O	Outstanding
31	4	4	2	O	23,*	22	4	O	Outstanding
32	2	1	2	H	2,*	15		M	High
33	2	3	2	O	2,*	22	2	H	Outstanding
34	1	1		L		7	1	L	Low
35	2	3		H	-,3	12	7	O	Outstanding
36	2	1		M	-,1	3		L	Medium
37	2	1		M		2	1	L	Medium
38	3	4	2	O	8,1*	27	8	O	Outstanding
40	2	1		M	1,*	10	1	M	Medium
41	1	1		L		9		M	Medium
42	3	1	2	H	1,*	9	1	M	High
43	2	2		M		14	2	M	Medium
44	3	1	2	H	-,1	14	3	H	High
45	2	1	2	H	-,1	2		L	Medium
46	2	2		M		14	2	M	Medium
47	2	2		M	3,-	3		L	Medium
48	2	1		M		18	2	H	High
49	1	1		L	1,-	8		L	Low
50	3	2	2	O	3,*	24	6	O	Outstanding
51	1	1		L	-,2	7	2	M	Medium
52	4	2	2	O	4,1*	28	6	O	Outstanding
53	1			L		1		L	Low
54	1	1		L		6		L	Low
55	3	2		H		2		L	Medium
56	2	1		M		5		L	Medium
57	1	1		L	-,1	6	4	M	Medium
58	3	1	2	H		4		L	Medium
59	2	3	2	O	-,1	17	4	H	Outstanding
60	2	2	2	H	-,4	9	4	H	High
61	2	1	2	H	-,2	8		M	High
62	3	3	2	H		8		L	High
63	3	1	2	H		7	2	M	High
64	3	1		M	-,1	3		L	Medium
65				-		1		L	Low
66	1	1		L	-,1			L	Low
67	3	3	2	O	12,*	15	1	O	Outstanding
68	1	1		L	-,3	9	1	M	Medium
69	1	1		L		6	2	L	Low
70	2	3		H	1,1	10	3	M	High
71	2	1		M		1		L	Medium
72	1	1		L		2		L	Low
73	3	1		M		2		L	Medium

NA No.	1	2	3	Quantity	4	5	6	Quality	Total
74	3	1		M		3		L	Medium
75	2	3		H		9		L	Medium
76	1	1		L		4		L	Low
77	3	1		M				-	Low
78	3	1		M		1		L	Medium
79	3	4	2	O	30,*	14	1	O	Outstanding
80	3	1		M		1		L	Medium
81	3	2		H	1,*	4		L	Medium
82	2	1		M		1		L	Medium
83	1			L		1		L	Low
84	4	1	2	O		1	1	L	High
85	2	1	2	H		3		L	High
86	3	1		M	1,*	9		M	Medium
87	3	2		H	2,-	8	1	M	High
88	2	1		M		4	1	L	Medium
89	3	4	2	O	2,12*	23	5	O	Outstanding
90	4	2		H	-,4	7		M	High
91	3	2		H	1,1	7		M	High
92	4	3	2	O	4,2*	4		M	Outstanding
M9	3	2	2	O	8,*	9		H	Outstanding
M17	1	1		L		1		L	Low

Appendix 2 NVC Wetland Communities and River Types

Aquatic		Mire	
A1	<i>Lemna gibba</i> community	M1	<i>Sphagnum auriculatum</i> bog pools
A2	<i>Lemna minor</i> community	M2	<i>Sphagnum cuspidatum</i> - <i>Sphagnum recurvum</i> bog pools
A3	<i>Spirodela polyrhiza</i> - <i>Hydrocharis morsus-ranae</i> community	M3	<i>Eriophorum angustifolium</i> bog pools
A4	<i>Hydrocharis morsus-ranae</i> - <i>Stratiotes aloides</i> community	M4	<i>Carex rostrata</i> - <i>Sphagnum recurvum</i> mire
A5	<i>Ceratophyllum demersum</i> community	M5	<i>Carex rostrata</i> - <i>Sphagnum squarrosum</i> mire
A6	<i>Ceratophyllum submersum</i> community	M6	<i>Carex echinata</i> - <i>Sphagnum recurvum/auriculatum</i> mire
A7	<i>Nymphaea alba</i> community	M7	<i>Carex curta</i> - <i>Sphagnum russowii</i> mire
A8	<i>Nuphar lutea</i> community	M8	<i>Carex rostrata</i> - <i>Sphagnum warnstorffii</i> mire
A9	<i>Potamogeton natans</i> community	M9	<i>Carex rostrata</i> - <i>Calliergon cuspidatum</i> mire
A10	<i>Polygonum amphibium</i> community	M10	<i>Carex dioica</i> - <i>Pinguicula vulgaris</i> mire
A11	<i>Potamogeton pectinatus</i> - <i>Myriophyllum spicatum</i> community	M11	<i>Carex demissa</i> - <i>Saxifraga aizoides</i> mire
A12	<i>Potamogeton pectinatus</i> community	M12	<i>Carex saxatilis</i> mire
A13	<i>Potamogeton perfoliatus</i> - <i>Myriophyllum alterniflorum</i>	M13	<i>Schoenus nigricans</i> - <i>Juncus subnodulosus</i> mire
A14	<i>Myriophyllum alterniflorum</i> community	M14	<i>Schoenus nigricans</i> - <i>Narthecium ossifragum</i> mire
A15	<i>Elodea canadensis</i> community	M15	<i>Scirpus cespitosus</i> - <i>Erica tetralix</i> wet heath
A16	<i>Callitriche stagnalis</i> community	M16	<i>Erica tetralix</i> - <i>Sphagnum compactum</i> wet heath
A17	<i>Ranunculus penicillatus pseudofluitans</i> community	M17	<i>Scirpus cespitosus</i> - <i>Eriophorum vaginatum</i> blanket mire
A18	<i>Ranunculus fluitans</i> community	M18	<i>Erica tetralix</i> - <i>Sphagnum papillosum</i> raised and blanket mire
A19	<i>Ranunculus aquatilis</i> community	M19	<i>Calluna vulgaris</i> - <i>Eriophorum vaginatum</i> blanket mire
A20	<i>Ranunculus peltatus</i> community	M20	<i>Eriophorum vaginatum</i> blanket and raised mire
A21	<i>Ranunculus baudonii</i> community	M21	<i>Nartheicum ossifragum</i> - <i>Sphagnum papillosum</i> valley mire
A22	<i>Littorella uniflora</i> - <i>Lobelia dortmanna</i> community	M22	<i>Juncus subnodulosus</i> - <i>Cirsium palustre</i> fen-meadow
A23	<i>Isoetes lacustris/setacea</i> community	M23	<i>Juncus effusus/acetiflorus</i> - <i>Galium palustre</i> rush-pasture
A24	<i>Juncus bulbosus</i> community	M24	<i>Molinia caerulea</i> - <i>Cirsium dissectum</i> fen-meadow
Wet Mesotrophic Grassland		M25	<i>Molinia caerulea</i> - <i>Potentilla erecta</i> mire
MG4	<i>Alopecurus pratensis</i> - <i>Sanguisorba officinalis</i> flood meadow	M26	<i>Molinia caerulea</i> - <i>Crepis paludosa</i> fen
MG6	<i>Lolium perenne</i> - <i>Cynosurus cristatus</i> pasture	M27	<i>Filipendula ulmaria</i> - <i>Angelica sylvestris</i> tall-herb fen
MG7c	<i>L. perenne</i> - <i>Alopecurus pratensis</i> - <i>Festuca pratensis</i> flood-pasture	M28	<i>Iris pseudacorus</i> - <i>Filipendula ulmaria</i> mire
MG8	<i>Cynosurus cristatus</i> - <i>Caltha palustris</i> flood-pasture	M29	<i>Hypericum elodes</i> - <i>Potamogeton polygonifolius</i> soakway
MG9	<i>Holcus lanatus</i> - <i>Deschampsia cespitosa</i> grassland	M30	Related vegetation of seasonally inundated habitats
MG10	<i>Holcus lanatus</i> - <i>Juncus effusus</i> rush-pasture	M31	<i>Anthelia julacea</i> - <i>Sphagnum auriculatum</i> spring
MG11	<i>Festuca rubra</i> - <i>Agrostis stolonifera</i> - <i>Potentilla anserina</i>	M32	<i>Philonotis fontana</i> - <i>Saxifraga stellaris</i> spring
MG12	<i>Festuca arundinacea</i> coarse grassland	M33	<i>Pohlia wahlenbergii</i> var. <i>glacialis</i> spring
MG13	<i>Agrostis stolonifera</i> - <i>Alopecurus geniculatus</i> grassland	M34	<i>Carex demissa</i> - <i>Koenigia islandica</i> flush
Wet Woodland		M35	<i>Ranunculus omiophyllus</i> - <i>Montia fontana</i> rill
W1	<i>Salix cinerea</i> - <i>Galium palustre</i> woodland	M36	Lowland springs and streambanks of shaded situations
W2	<i>Salix cinerea</i> - <i>Betula pubescens</i> - <i>Phragmites australis</i> woodland	M37	<i>Cratoneuron commutatum</i> - <i>Festuca rubra</i> spring
W3	<i>Salix pentandra</i> - <i>Carex rostrata</i> woodland	M38	<i>Cratoneuron commutatum</i> - <i>Carex nigra</i> spring
W4	<i>Betula pubescens</i> - <i>Molinia caerulea</i> woodland	Dune Slacks	
W5	<i>Alnus glutinosa</i> - <i>Carex paniculata</i> woodland	SD13	<i>Salix repens</i> - <i>Bryum pseudotriquetrum</i> dune-slack
W6	<i>Alnus glutinosa</i> - <i>Urtica dioica</i> woodland	SD14	<i>Salix repens</i> - <i>Campylopus stellatum</i> dune-slack
W7	<i>A. glutinosa</i> - <i>Fraxinus excelsior</i> - <i>Lysimachia nemorum</i> woodland	SD15	<i>Salix repens</i> - <i>Calliergon cuspidatum</i> dune-slack
		SD16	<i>Salix repens</i> - <i>Holcus lanatus</i> dune-slack
		SD17	<i>Potentilla anserina</i> - <i>Carex nigra</i> dune-slack

Swamp			
		S15	<i>Acorus calamus</i> swamp
S1	<i>Carex elata</i> swamp	S16	<i>Sagittaria sagittifolia</i> swamp
S2	<i>Cladium mariscus</i> swamp	S17	<i>Carex pseudocyperus</i> swamp
S3	<i>Carex paniculata</i> swamp	S18	<i>Carex otrubae</i> swamp
S4	<i>Phragmites australis</i> reedbed	S19	<i>Eleocharis palustris</i> swamp
S5	<i>Glyceria maxima</i> swamp	S20	<i>Scirpus lacustris</i> ssp. <i>tabernaemontani</i> swamp
S6	<i>Carex riparia</i> swamp	S21	<i>Scirpus maritimus</i> swamp
S7	<i>Carex acutiformis</i> swamp	S22	<i>Glyceria fluitans</i> swamp
S8	<i>Scirpus lacustris</i> swamp	S23	Other water-margin vegetation
S9	<i>Carex rostrata</i> swamp	S24	<i>Peucedanum palustris</i> - <i>Phragmites australis</i> fen
S10	<i>Equisetum fluviatile</i> swamp	S25	<i>Phragmites australis</i> - <i>Eupatorium cannabinum</i> fen
S11	<i>Carex vesicaria</i> swamp	S26	<i>Phragmites australis</i> - <i>Urtica dioica</i> fen
S12	<i>Typha latifolia</i> reedbed	S27	<i>Potentilla palustris</i> - <i>Carex rostrata</i> fen
S13	<i>Typha angustifolia</i> reedbed	S28	<i>Phalaris arundinacea</i> fen
S14	<i>Sparganium erectum</i> swamp		

RIVER TYPES	
1	lowland rivers with minimal gradients, in England
2	clay rivers
3	chalk and oolitic rivers
4	rivers with impoverished ditch floras, in lowland England
5	rivers on rich geological strata in Scotland and northern England
6	rivers on sandstone, mudstone and hard limestone in England and Wales
7	mesotrophic rivers downstream from oligotrophic catchments
8	oligo-mesotrophic rivers, predominantly upland
9	oligotrophic rivers of mountains and moorlands
10	ultra-oligotrophic rivers in mountains

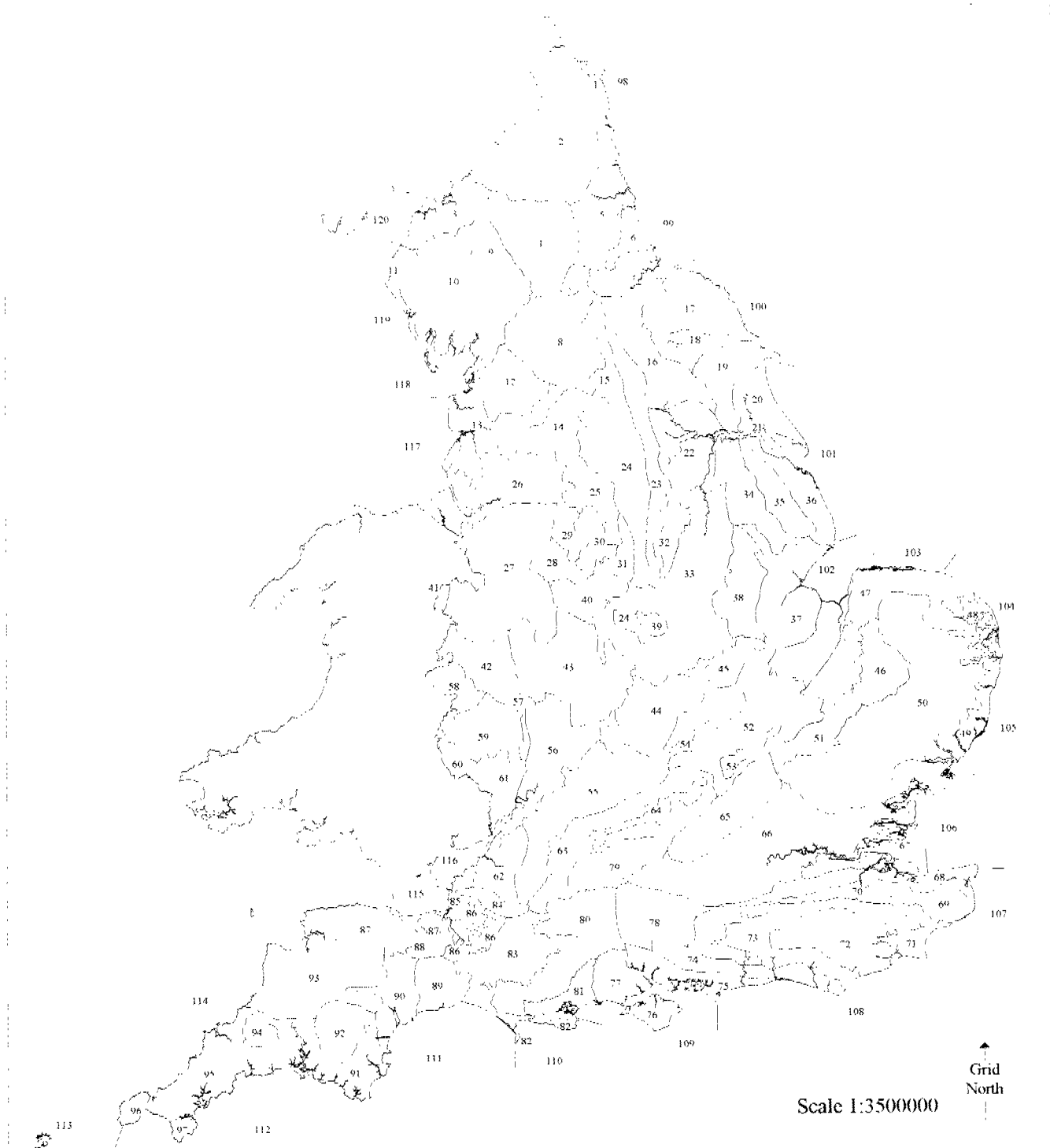
Addendum

The following list is included to show where the significant changes in wetland interest have occurred between the original Natural Areas (English Nature, 1994) and the revised Natural Areas (English Nature, 1996). All name and number changes and completely new Natural Areas are included, with (NC) indicating no change in the Natural Area name. There is then an assessment of whether changes in area are significant in terms of the wetland interest included within this report (denoted by ✓), together with an indication of whether this increases (+) or decreases (-) the wetland significance of the original Natural Area.

	Original Natural Area Name	New Natural Area Name/ Names	Significant?
1	Northumberland Coastal Plain	1 North Northumberland Coastal Plain	
2	Border Uplands	2 NC	
3	North Pennines	4 NC	
4	Northumbrian Coal Measures	5 Northumbria Coal Measures	
5	Durham Magnesian Limestone	6 Durham Magnesian Limestone Plateau	
6	Lower Tees	7 Tees Lowlands	
7	Yorkshire Dales	8 NC	
8	The Vales of Yorkshire	16 Vale of York and Mowbray 18 Vale of Pickering	✓(-)
9	North York Moors	17 North York Moors and Hills	
10	Yorkshire Wolds	19 NC	
11	Plain of Holderness	20 Holderness 21 Humber Estuary	✓(-)
12	Southern Pennines	14 NC	
13	Coal Measures	24 NC	
14	Southern Magnesian Limestone	23 NC	
15	Humberhead Levels	22 NC	✓(+)
16	Coversands	34 North Lincolnshire Coversands and Clay Vales	✓(+)
17	Sherwood Forest	32 Sherwood	
18	Trent Valley and Levels	33 Trent Valley and Rises	✓(+)
19	Charnwood Forest	39 Charnwood	
20	Lincolnshire Limestone	38 Lincolnshire and Rutland Limestone	✓(-)
21	Lincolnshire Clay Vales	34 North Lincolnshire Coversands and Clay Vales	✓(+)
22	Lincolnshire Wolds	35 NC	
23	Lincolnshire Marsh and Coast	36 Lincolnshire Coast and Marshes 21 Humber Estuary	
24	Middle England	52 West Anglian Plain 44 Midland Clay Pastures 45 Rockingham Forest 54 Yardley-Whittlewood Ridge	✓(-)
25	Northamptonshire Uplands	44 Midland Clay Pastures	✓(+)

	Original Natural Area Name	New Natural Area Name/ Names	Significant?
26	Bedfordshire Greensand	53 Bedfordshire Greensand Ridge	
27	Fenland	37 The Fens	
28	East Anglian Southern Chalk	51 East Anglian Chalk	
29	Breckland	46 NC	
30	North Norfolk	47 NC	
31	Broadland	48 The Broads	
32	Suffolk Coast and Heaths	49 NC	
33	East Anglian Plain	50 NC	
34	Chilterns	65 NC	
35	Oxford Clay Vales	63 Thames and Avon Vales	
36	Oxford Heights	64 Midvale Ridge	
37	Wessex Downs	79 Berkshire and Marlborough Downs	
38	London Basin	66 NC	
39	Thames Marshes	67 Greater Thames Estuary	
40	North Kent Plain	68 NC	
41	North Downs	69 NC	
42	Romney Marsh	71 Romney Marshes	
43	Low Weald	73 Low Weald and Pevensey	
44	High Weald	72 NC	
45	South Downs	74 NC	
46	Greensand	70 Wealden Greensand	
47	Hampshire Chalk	78 Hampshire Downs	
48	South Coast Plain	75 South Coast Plain and Hampshire Lowlands	
49	Isle of Wight	76 NC	
50	New Forest	77 NC	
51	South Wessex Downs	80 NC	
52	Dorset Heaths	81 NC	
53	Isles of Portland and Purbeck	82 NC	
54	Wessex Vales	83 NC	
55	Blackdowns	89 NC	
56	Devon Redland	90 Devon Redlands	
57	South Devon	91 NC	
58	Bodmin Moor	94 NC	
59	Cornish Killas and Granite	95 Cornish Killas and Granites 96 West Penwith	✓(-)
60	The Lizard	97 NC	

	Original Natural Area Name	New Natural Area Name/ Names	Significant?
61	Dartmoor	92 NC	
62	Culm Measures	93 The Culm	
63	Exmoor and the Quantocks	87 NC	
64	Vale of Taunton	88 Vale of Taunton and Quantock Fringes	
65	Mid Somerset Hills	86 NC	
66	Mendips	84 Mendip Hills	
67	Somerset Levels and Moors	85 NC	
68	Avon Ridges and Valleys	62 Bristol, Avon Valleys and Ridges	
69	Greater Cotswolds	55 Cotswolds 44 Midland Clay Pastures	✓(-)
70	Severn Valley	56 Severn and Avon Vales	
71	Malvern Hills and Teme Valley	57 NC	
72	Dean Plateau and Wye Valley	61 NC	
73	Black Mountains and Golden Valley	60 NC	
74	Hereford Plain	59 Central Herefordshire	
75	Midlands Plateau	43 NC	✓(+)
76	Shropshire Hills	42 NC	
77	Central Marches	58 Clun and North West Herefordshire Hills	
78	Oswestry Uplands	41 NC	
79	Mosses and Meres	27 NC	✓(+)
80	Staffordshire Uplands	28 Potteries and Churnet Valley	✓(-)
81	Upper Trent Valley	40 Needwood and South Derbyshire Claylands	✓(-)
82	The Derwent Valley	31 Derbyshire Peak Fringe and Lower Derwent	✓(-)
83	White Peak	30 NC	
84	South West Peak	29 NC	
85	Dark Peak	25 NC	
86	Urban Mersey Basin	26 NC	
87	Lancashire Plain and Valleys	13 NC	
88	Forest of Bowland	12 NC	
89	Cumbrian Fells and Dales	10 Cumbria Fells and Dales	
90	Eden Valley	9 NC	
91	West Cumbria Coastal Plain	11 NC	
92	Solway Basin	3 NC	



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|--------------------------------------|---|---|---|----------------------------------|--|
| 1 North Northumberland Coastal Plain | 11 West Cumbria Coastal Plain | 21 Humber Estuary | 31 Derbyshire Peak Fringe and Lower Derwent | 41 Oswestry Uplands | 51 East Anglian Chalk |
| 2 Border Uplands | 12 Forest of Bowland | 22 Humberhead Levels | 32 Sherwood | 42 Shropshire Hills | 52 West Anglian Plain |
| 3 Solway Basin | 13 Lancashire Plain and Valleys | 23 Southern Magnesian Limestone | 33 Trent Valley and Rises | 43 Midlands Plateau | 53 Bedfordshire Greensand Ridge |
| 4 North Pennines | 14 Southern Pennines | 24 Coal Measures | 34 North Lincolnshire Coversands and Clay Vales | 44 Midland Clay Pastures | 54 Yardley-Whitewood Ridge |
| 5 Northumbria Coal Measures | 15 Pennine Dales Fringe | 25 Dark Peak | 35 Lincolnshire Wolds | 45 Rockingham Forest | 55 Cotswolds |
| 6 Durham Magnesian Limestone Plateau | 16 Vale of York and Mowbray | 26 Urban Mersey Basin | 36 Lancashire Coast and Marshes | 46 Breckland | 56 Severn and Avon Valleys |
| 7 Tees Lowlands | 17 North York Moors and Hills | 27 Mosses and Meres | 37 The Fens | 47 North Norfolk | 57 Malvern Hills and Tems Valley |
| 8 Yorkshire Dales | 18 Vale of Pickering | 28 Potteries and Charnet Valley | 38 Lincolnshire and Rutland Limestone | 48 The Broads | 58 Clun and North West Herefordshire Hills |
| 9 Eden Valley | 19 Yorkshire Wolds | 29 South West Peak | 39 Charnwood | 49 Suffolk Coast and Heaths | 59 Central Herefordshire |
| 10 Cumbria Fells and Dales | 20 Holderness | 30 White Peak | 40 Needwood and South Derbyshire Claylands | 50 East Anglian Plain | 60 Black Mountains and Golden Valley |
| 61 Dean Plateau and Wye Valley | 71 Romney Marshes | 81 Dorset Heaths | 91 South Devon | 101 Bridlington to Skegness | 111 Lyme Bay |
| 62 Bristol, Avon Valleys and Ridges | 72 High Weald | 82 Isles of Portland and Purbeck | 92 Dartmoor | 102 The Wash | 112 Start Point to Land's End |
| 63 Thames and Avon Valleys | 73 Low Weald and Pevensey | 83 Wessex Valleys | 93 The Culm | 103 Old Hunstanton to Sheringham | 113 Isles of Scilly |
| 64 Midvale Ridge | 74 South Downs | 84 Mendip Hills | 94 Bodmin Moor | 104 Sheringham to Lowestoft | 114 Land's End to Minehead |
| 65 Cotswolds | 75 South Coast Plain and Hampshire Lowlands | 85 Somerset Levels and Moors | 95 Cornish Killas and Granite | 105 Suffolk Coast | 115 Bridgewater Bay |
| 66 London Basin | 76 Isle of Wight | 86 Mid Somerset Hills | 96 West Penwith | 106 North Kent Coast | 116 Severn Estuary |
| 67 Greater Thames Estuary | 77 New Forest | 87 Esmoor and the Quantocks | 97 The Lizard | 107 East Kent Coast | 117 Liverpool Bay |
| 68 North Kent Plain | 78 Hampshire Downs | 88 Vale of Taunton and Quantock Fringes | 98 Northumberland Coast | 108 Folkestone to Selsey Bill | 118 Morecambe Bay |
| 69 North Downs | 79 Berkshire and Marlborough Downs | 89 Blackdowns | 99 Tyne to Tees Coast | 109 Solent and Poole Bay | 119 Cumbrian Coast |
| 70 Wealden Greensand | 80 South Wessex Downs | 90 Devon Redlands | 100 Saltburn to Bridlington | 110 South Dorset Coast | 120 Solway Firth |