

# Natural Capital Indicators: Annex 3

## Short and long list indicators for key ecosystem services

This Evidence Information Note summarises the Natural Capital Indicators, identified by Natural England's Natural Capital Indicator Project (NERR076). Short and long list indicators have been organised by broad habitat. A separate freshwaters table shows the indicators for the ecosystem services provided by all the habitats within a catchment. Potential data sources to measure the indicators, as well as data gaps, are detailed in the Natural Capital Indicators Excel Spreadsheet (Annex 4).

### Key

<b>X</b>	Shortlist priority attribute for measuring change in natural capital
x	Long list priority attribute for measuring change in natural capital (provisioning and regulating services only)
<b>Y</b>	Ecosystem service for whole catchment - covered by Freshwaters tables
Shaded columns	Ecosystem service where indicators identified for this broad habitat, either individually or for catchment under Freshwaters tables

# Natural Capital Indicators: Annex 3 Short and Long List Indicators

Abbreviated ecosystem service name	Full ecosystem service description following CICES
Materials from plants, animals & algae	Provisioning materials from plants animals and algae for agricultural/direct use or processing (terrestrial)
Wild animals, plants, algae, & outputs	Wild animals, plants and algae and their outputs (marine)
Aquaculture	Animals, plants and algae from in-situ aquaculture
Cultivated crops	Cultivated crops
Water supply	Water for drinking & non-drinking purposes
Reared animals & outputs	Reared animals & their outputs
Water quality	Maintenance of water quality - Mediation of wastes, toxins & other nuisances (by biota & ecosystems)/chemical condition of freshwaters/chemical condition of freshwaters
Air quality	Maintenance of air quality - Mediation of wastes, toxins & other nuisances (by biota & ecosystems)
Noise regulation	Noise regulation - Mediation of wastes, toxins & other nuisances (by biota & ecosystems)
Mass stabilisation	Mass stabilisation and control of erosion rates
Flood protection	Flood protection
Pollination & seed dispersal	Pollination and seed dispersal
Maintenance of nursery pops & habs	Maintenance of nursery populations and habitats (and other stages of life cycles)
Pest & disease control	Pest and disease control
Climate regulation	Global, regional & local climate regulation
Cultural services	Practices related to: experiential (e.g. wildlife watching) & physical use (e.g. walking); Scientific / educational (subject matter of research, education, in-situ and ex-situ); Aesthetic (e.g. art, poetry, writing); spiritual and/or emblematic (e.g. emblematic plants and animals, sacred).

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**Coastal margins (Quality and Quantity)**
**Ecosystem Services**

<b>Asset attribute</b>	<b>Indicator category</b>	<b>Indicator</b>	<b>Mass stabilisation</b>	<b>Flood protection</b>	<b>Maintenance of nursery pops &amp; hubs</b>	<b>Climate regulation</b>	<b>Cultural services</b>
Quantity	Extent	Coastal lagoons			X		X
Quantity	Extent	Intertidal sediment (beach and mud)	X	X	X	X	X
Quantity	Extent	Salt marsh	X	X	X	X	X
Quantity	Extent	Sand dunes	X	X	X	X	X
Quantity	Extent	Sea cliff			X		X
Quantity	Extent	Shingle	X	X	X		X
Quality	Nutrient (& chemical) status	Nutrient & chemical status of coastal lagoons			X		
Quality	Nutrient (& chemical) status	Sediment/soil nutrient status			X		
Quality	Soil/sediment processes	Sediment stabilisation		X			
Quality	Soil/sediment processes	Sediment supply/availability (including type, grain size)	X	X	X		
Quality	Soil/sediment processes	Soil/sediment biota			X	X	
Quality	Soil/sediment processes	Soil carbon/organic matter content				x	
Quality	Species composition	Invasive non-native species			X		
Quality	Species composition	Naturalness of biological assemblage: number of trophic levels & community composition in each level			X		
Quality	Vegetation	Cover of vegetation/bare soil (esp. dunes, shingle, dynamic between saltmarsh/mudflat)	X	X			
Quality	Vegetation	Natural strandline – triggers formation of new dunes & saltmarsh		x	X		
Quality	Cultural: Nature	Visibility of wildlife (birds, plants)					X
Quality	Cultural: Nature	Presence of flagship species					X
Quality	Cultural: Nature	Presence of rare (red list) species					X
Quality	Cultural: Nature	Species diversity					X

Quality	Cultural: Nature	Favourable condition of SSSIs						<b>X</b>
Quality	Cultural: Landscape, seascape & urban green space	Size of environmental space (ha)						<b>X</b>
Quality	Cultural: Culture & history	Designated Historic Environment Assets (World Heritage Sites, Scheduled monuments (% at risk), Historic Parks & Gardens, Listed Buildings, Conservation Area)						<b>X</b>
Quality	Cultural: Quietness	Tranquillity						<b>X</b>
Quality	Cultural: Accessibility	Mean number of perimeter access points per km						<b>X</b>
Quality	Cultural: Accessibility	Public Rights of Way / permissive paths; footpaths, bridleways, byway – length, density (km/ha)						<b>X</b>
Quality	Cultural: Accessibility	Presence of paths accessible to all – e.g. wheelchairs, pushchairs - length, density (km/ha)						<b>X</b>

**Coastal margins (Spatial Configuration and Ecosystem Service Flow)**
**Ecosystem Services**

<b>Asset attribute</b>	<b>Indicator category</b>	<b>Indicator</b>	Mass stabilisation	Flood protection	Maintenance of nursery pops & habits	Climate regulation	Cultural services
Spatial config.		Transition and connectivity from subtidal to terrestrial habitats			X		
Spatial config.		Width/area/location for dynamic movement and development of coastal habitats e.g. saltmarsh and sand dunes	X		X		
Spatial config.		Width/area/location of habitats providing flood protection – for housing and infrastructure		X			
Spatial config.		% population who can access 2ha of green space within 2 miles of home					X
ES flow		Carbon sequestered & green house gases fixed				X	
ES flow		Maintenance of sustainable ecosystems/life cycle stages			X		
ES flow		Reduced inundation of terrestrial areas from marine flooding		X			
ES flow		Sediment stabilisation	X				
ES flow	Cultural: Experiential & physical use	Number of visits					X
ES flow	Cultural: Experiential & physical use	Duration of visits					X
ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)					X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects					X
ES flow	Cultural: Scientific/educational	Number of school visits					X

## Enclosed Farmland (Quantity and Quality)

## Ecosystem Services

Asset attribute	Indicator category	Indicator	Cultivated crops	Water supply	Reared animals & outputs	Water quality	Mass stabilisation	Flood protection	Pollination & seed dispersal	Maintenance of nursery pops & habs	Pest & disease control	Climate regulation	Cultural services
Quantity	Extent	Arable & rotational leys	X										X
Quantity	Extent	Bio-energy crops										x	
Quantity	Extent	Horticulture	X										
Quantity	Extent	Improved grassland			X		x					x	X
Quantity	Extent	Orchards & top fruit	X				x					x	X
Quantity	Extent	Permanent pasture					X					x	X
Quality	Hydrology & geomorphology	Ponds – number/density								X			
Quality	Nutrient (& chemical) status	Soil chemical status							X				
Quality	Nutrient (& chemical) status	Soil nutrient status	X		X					x		x	
Quality	Soil/sediment processes	Degree of compaction	x		x		x		x				
Quality	Soil/sediment processes	Soil biota	x		x					X	x	X	
Quality	Soil/sediment processes	Soil carbon/organic matter content	x				X			x		X	
Quality	Soil/sediment processes	Soil moisture	X		x							x	
Quality	Soil/sediment processes	Soil Type	X		x								
Quality	Soil/sediment processes	Soil pH	x										
Quality	Soil/sediment processes	Soil saline status	x										
Quality	Species composition	Naturalness of biological assemblage: number of trophic levels & community composition in each level								X			







ES flow		Intact fungal network to reduce infection of plants										X		
ES flow		Maintenance of sustainable ecosystems/life cycle stages										x		
ES flow		Number and type of reared animals			X									
ES flow		Production of crops	X											
ES flow		Reared animal health and productivity			x									
ES flow		Stabilisation of soils					X							
ES flow	Cultural: Experiential & physical use	Number of visits												X
ES flow	Cultural: Experiential & physical use	Duration of visits												X
ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)												X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects												X
ES flow	Cultural: Scientific/educational	Number of school visits												X
<b>See Freshwaters tables for catchment services:</b>				Y		Y		Y						

### Freshwaters, open waters, wetlands & floodplains (Quantity and Quality)

### Ecosystem services

Asset attribute	Indicator category	Indicator	Ecosystem services					
			Water supply	Water quality	Flood protection	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Quantity	Extent	Active flood plain			X			
Quantity	Extent	Blanket bog	X	X	X			X
Quantity	Extent	Coastal & floodplain grazing marsh			X	X	x	X
Quantity	Extent	Enclosed farmland			x			X
Quantity	Extent	Lakes & standing waters	X			X		X
Quantity	Extent	Lowland Fens				X	X	X
Quantity	Extent	Lowland raised bog				X	X	X
Quantity	Extent	Modified waters eg reservoirs and canals	X			x		X
Quantity	Extent	Other semi-natural habitats	X	X	X			
Quantity	Extent	Ponds				X		X
Quantity	Extent	Reedbeds				X	X	X
Quantity	Extent	Rivers	X			X		X
Quantity	Extent	Woodland	X	X	X			X
Quality	Hydrology & geomorphology	Extent of artificial drainage	X	X	X	X	X	
Quality	Hydrology & geomorphology	Lack of physical modifications of water bodies			x	X	x	
Quality	Hydrology & geomorphology	Natural aquifer function: recharge & discharge	X		x			
Quality	Hydrology & geomorphology	Naturalness of flooding regime			X	X	X	
Quality	Hydrology & geomorphology	Naturalness of flow regime	X		X	X		
Quality	Hydrology & geomorphology	Naturalness of lake hydrological regime		x	X	X		
Quality	Hydrology & geomorphology	Naturalness of water level regime	X	X	x	X	X	
Quality	Hydrology & geomorphology	River continuity - lack of obstructions				X		

Quality	Hydrology & geomorphology	Sedimentological regime: erosion & deposition		x	x	x		
Quality	Nutrient (& chemical) status	Acidification				x		
Quality	Nutrient (& chemical) status	Chemical status of water bodies, not nutrients		<b>X</b>		<b>X</b>		
Quality	Nutrient (& chemical) status	Nutrient status of water bodies		<b>X</b>		<b>X</b>		
Quality	Nutrient (& chemical) status	Soil nutrient status		<b>X</b>		x	<b>X</b>	
Quality	Soil/sediment processes	Degree of compaction			x			
Quality	Soil/sediment processes	Peat depth		<b>X</b>			<b>X</b>	
Quality	Soil/sediment processes	Soil carbon/organic matter content		<b>X</b>		<b>X</b>	<b>X</b>	
Quality	Soil/sediment processes	Soil moisture			x		x	
Quality	Species composition	Invasive non-native species				<b>X</b>		
Quality	Species composition	Naturalness of biological assemblage: number of trophic levels & community composition in each level		<b>X</b>		<b>X</b>		
Quality	Vegetation	Evapotranspiration rate	x					
Quality	Vegetation	Proportion of peat mass actively forming peat	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	
Quality	Vegetation	Above & below ground biomass		x	x		x	
Quality	Vegetation	Surface/vegetation roughness		<b>X</b>	<b>X</b>			
Quality	Vegetation	Vegetation cover/bare soil		<b>X</b>	<b>X</b>		<b>X</b>	
Quality	Vegetation	Vegetation litter, including debris dams			x	x		
Quality	Vegetation	Vegetation next to water bodies		<b>X</b>	<b>X</b>	<b>X</b>		
Quality	Cultural: Nature	Visibility of wildlife (fish, birds, mammals)						<b>X</b>
Quality	Cultural: Nature	Presence of flagship species						<b>X</b>
Quality	Cultural: Nature	Presence of rare (red list) species						<b>X</b>
Quality	Cultural: Nature	Species diversity						<b>X</b>
Quality	Cultural: Nature	Naturalness of watercourses						<b>X</b>
Quality	Cultural: Nature	Favourable condition of SSSIs						<b>X</b>
Quality	Cultural: Landscape, seascape & urban green space	Size of environmental space (ha)						<b>X</b>

Quality	Cultural: Culture & history	Designated Historic Environment Assets (World Heritage Sites, Scheduled monuments (% at risk), Historic Parks & Gardens, Listed Buildings, Conservation Area)								X
Quality	Cultural: Quietness	Tranquillity								X
Quality	Cultural: Accessibility	Mean number of perimeter access points per km								X
Quality	Cultural: Accessibility	Public Rights of Way / permissive paths; footpaths, bridleways, byway – length, density (km/ha)								X
Quality	Cultural: Accessibility	Presence of paths accessible to all – e.g. wheelchairs, pushchairs - length, density (km/ha)								X

**Freshwaters, open waters, wetlands & floodplains (Spatial Configuration and Ecosystem Service Flow)**

**Ecosystem services**

Asset attribute	Indicator category	Indicator	Water supply	Water quality	Flood protection	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Spatial config.		Distribution of flood mitigating land in relation to infrastructure & settlements			X			
Spatial config.		Distribution of habitats, in relation to water quality source-pathway-receptor		X				
Spatial config.		Naturalness of Spatial config. of habitats				X		
Spatial config.		Transition and connectivity of aquatic, terrestrial and marine habitats				X		
Spatial config.		% population who can access 2ha of green space within 2 miles of home						X
ES flow		Availability of water for abstraction	X					
ES flow		Carbon sequestered & green house gases fixed, by soil/vegetation					X	
ES flow		Maintenance of sustainable ecosystems/life cycle stages				X		
ES flow		Regulation of flow regime for peak events			X			
ES flow		Water quality (chemical & biological, including pH, viral & bacterial)		X				
ES flow	Cultural: Experiential & physical use	Number of visits						X
ES flow	Cultural: Experiential & physical use	Duration of visits						X

ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)							X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects							X
ES flow	Cultural: Scientific/educational	Number of school visits							X
<b>Services for whole catchments, not just freshwaters:</b>			Y	Y	Y				







**Semi-natural grasslands (Spatial Configuration and Ecosystem Service Flow)**

**Ecosystem services**

Asset attribute	Indicator category	Indicator	Materials from plants, animals & algae	Water supply	Reared animals & outputs	Water quality	Flood protection	Pollination & seed dispersal	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Spatial config.		Proximity of insect pollinator crops from semi- natural grassland.						X			
Spatial config.		Proximity to other semi-natural grasslands & habitats						X	X		
Spatial config.		% population who can access 2ha of green space within 2 miles of home									X
ES flow		Abundance, species diversity & distribution of pollinators and seed dispersers						X			
ES flow		Carbon sequestered & greenhouse gases fixed, by soil/vegetation								X	
ES flow		Maintenance of sustainable ecosystems/life cycle stages							X		
ES flow		Number and type of reared animals			X						
ES flow		Production of hay and other materials/products	X								
ES flow	Cultural: Experiential & physical use	Number of visits									X
ES flow	Cultural: Experiential & physical use	Duration of visits									X
ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)									X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects									X
ES flow	Cultural: Scientific/educational	Number of school visits									X
<b>See Freshwaters tables for catchment services:</b>				Y		Y	Y				

**Marine (Quantity and Quality)**
**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Wild animals, plants, algae & outputs	Aquaculture	Water quality	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Quantity	Extent	Blue mussel beds		x				
Quantity	Extent	Intertidal rock	X			X		
Quantity	Extent	Maerl beds	X			X		
Quantity	Extent	Reefs	X		X	X	X	X
Quantity	Extent	Sea grass beds	X	x	X	X	X	X
Quantity	Extent	Shallow subtidal sediment	X			X	X	
Quantity	Extent	Shelf subtidal sediment	X			X	X	
Quantity	Extent	Subtidal rock	X			X		
Quality	Hydrology:	Salinity - changes	x			x		
Quality	Hydrology:	Temperature - changes	x			x	x	
Quality	Nutrient (& chemical) status	Bacteriological & viral water quality	X	X	X	X		
Quality	Nutrient (& chemical) status	Carbon content of sediment					X	
Quality	Nutrient (& chemical) status	Chemical status of sediment & sea water: toxic contaminants	X	X	X	X		
Quality	Nutrient (& chemical) status	Dissolved oxygen	X	X		X		
Quality	Nutrient (& chemical) status	Nutrient status of sediment & sea water (N, P, Si & water turbidity)	x	x	X	x		
Quality	Nutrient (& chemical) status	pH of sea water	X	x		X	x	
Quality	Soil/sediment processes	Erosion-deposition cycles			x			
Quality	Soil/sediment processes	Sediment biota	X			X		
Quality	Soil/sediment processes	Sediment properties including stability			x			

Quality	Species composition	Amount & number of decomposers/decomposition rate					X	
Quality	Species composition	Naturalness of biological assemblage: number of trophic levels & community composition in each level	X				X	
Quality	Species composition	Net productivity by species (kcal/ha/yr)	X			x	X	
Quality	Species composition	Non-native species	x			x		
Quality	Species composition	Population age/size structure (recruitment, age classes, male:female ratios, age at maturity, growth rates)	x			x		
Quality	Cultural: Nature	Visibility of wildlife (birds, mammals, fish)						X
Quality	Cultural: Nature	Presence of flagship species						X
Quality	Cultural: Nature	Presence of rare (red list) species						X
Quality	Cultural: Nature	Species diversity						X
Quality	Cultural: Nature	Favourable condition of SSSIs/MPAs						X
Quality	Cultural: Nature	Quality of bathing waters						X
Quality	Cultural: Culture & history	Designated Historic Environment Assets (World Heritage Sites, Scheduled monuments (% at risk))						X
Quality	Cultural: Facilities	Number of organised events						X
Quality	Cultural: Facilities	Presence of clubs, schools, training centres						X

**Marine (Spatial Configuration and Ecosystem Service Flow)**

**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Wild animals, plants, algae & outputs	Aquaculture	Water quality	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Spatial config.		Transition and connectivity from subtidal to coastal and terrestrial habitats	X			X		
ES flow		Carbon sequestered & greenhouse gases fixed					X	
ES flow		Fish, shellfish, seaweed and other products	X	X				
ES flow		Maintenance of sustainable ecosystems/life cycle stages	X			X		
ES flow		Water quality (chemical & biological, including viral & bacterial)			X			
ES flow	Cultural: Experiential & physical use	Number of visits						X
ES flow	Cultural: Experiential & physical use	Duration of visits						X
ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)						X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects						X

**Mountains, moorlands & heaths (Quantity and Quality)**
**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Water supply	Reared animals & outputs	Water quality	Mass stabilisation	Flood protection	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Quantity	Extent	Blanket bog	X		X	X	X	X	X	X
Quantity	Extent	Bracken				x	x	x	X	
Quantity	Extent	Dwarf shrub heath		X		X	X	X	X	X
Quantity	Extent	Inland rock, scree and pavement (above the moorland line)						X		X
Quantity	Extent	Lakes	X					X		X
Quantity	Extent	Mountain heath and willow scrub					x	X	X	X
Quantity	Extent	Reservoirs	X							X
Quantity	Extent	Rivers	X					X		X
Quantity	Extent	Semi-natural grassland (above moorland line)		X		X	x	X	X	X
Quantity	Extent	Upland flushes fens and swamps	x				x	X	X	X
Quantity	Extent	Woodland (above moorland line)			X	X	X	X	X	X
Quantity	Extent	Wood pasture (above moorland line)								X
Quality	Hydrology & geomorphology	Extent of artificial drainage	X		X	X	X	X	X	
Quality	Hydrology & geomorphology	Lack of physical modifications of water bodies					x	x		
Quality	Hydrology & geomorphology	Natural aquifer function: recharge & discharge	X							
Quality	Hydrology & geomorphology	Naturalness of flooding regime					X			
Quality	Hydrology & geomorphology	Naturalness of flow regime	X				X	X		
Quality	Hydrology & geomorphology	Naturalness of lake hydrological regime					x	x		







**Mountains, moorlands & heaths (Spatial Configuration and Ecosystem Service Flow)**

**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Water supply	Reared animals & outputs	Water quality	Mass stabilisation	Flood protection	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Spatial config.		Distribution of flood mitigating land in relation to infrastructure & settlements					X			
Spatial config.		Distribution of habitats, in relation to water quality source-pathway-receptor			X					
Spatial config.		Distribution of habitats, other vegetation and boundary features mitigating soil erosion and landslip risk.				X			x	
Spatial config.		Mosaics/spatial distribution of different habitats						x		
Spatial config.		Patch size (lowland heath)						X		
Spatial config.		% population who can access 2ha of green space within 2 miles of home								X
ES flow		Availability of water for abstraction	X							
ES flow		Carbon sequestered & greenhouse gases fixed, by soil/vegetation							X	
ES flow		Maintenance of sustainable ecosystems/life cycle stages						X		
ES flow		Number and type of reared animals		X						
ES flow		Regulation of flow regime for peak events					X			
ES flow		Stabilisation of soils				X				

ES flow		Water quality (chemical & biological, including pH, viral & bacterial)			X					
ES flow	Cultural: Experiential & physical use	Number of visits								X
ES flow	Cultural: Experiential & physical use	Duration of visits								X
ES flow	Cultural: Experiential & physical use	Range of activities undertaken (number of people carrying out each activity, frequency, time spent)								X
ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects								X
ES flow	Cultural: Scientific/educational	Number of school visits								X
<b>See Freshwaters tables for catchment services:</b>			Y		Y		Y			





**Urban (Spatial Configuration and Ecosystem Service Flow)**

**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Water supply	Water quality	Air quality	Noise regulation	Flood protection	Maintenance of nursery pops & habs	Climate regulation	Cultural services
Spatial config.		Distribution of habitats & trees in relation to buildings & transport routes			X	X				
Spatial config.		Green grids – linking urban & rural green space						x		
Spatial config.		Patch size, shape and edge						X		
Spatial config.		Position of habitats and trees to provide cooling to housing and buildings							X	
Spatial config.		Proximity to other habitats						X		
Spatial config.		% population who can access 2ha of green space within 2 miles of home								X
ES flow		Carbon sequestered & green house gases fixed, by soil/vegetation							X	
ES flow		Local urban cooling							X	
ES flow		Maintenance of sustainable ecosystems/life cycle stages						X		
ES flow		Noise abatement: loudness and frequency				X				
ES flow		Air pollutants removed by vegetation			X					
ES flow	Cultural: Experiential & physical use	Number of visits								X
ES flow	Cultural: Experiential & physical use	Duration of visits								X



## Woodlands (Quantity and Quality)

## Ecosystem services

Asset attribute	Indicator category	Indicator	Materials from plants, animals & algae	Plant-based energy	Water supply	Water quality	Air quality	Flood protection	Maintenance of nursery pops & hubs	Climate regulation	Cultural services
Quantity	Extent	Broadleaved, mixed & yew woodland	X	X			X		X	X	X
Quantity	Extent	Coniferous woodland	X	X			X			X	X
Quantity	Extent	Individual trees/ veteran trees							X	x	X
Quantity	Extent	Woodland Priority Habitats							X		X
Quality	Hydrology & geomorphology	Naturalness of flooding regime							x		
Quality	Nutrient (& chemical) status	Atmospheric deposition: exceedance of critical loads							x		
Quality	Nutrient (& chemical) status	Soil nutrient status								x	
Quality	Nutrient (& chemical) status	Degree of compaction	x	x							
Quality	Soil/sediment processes	Soil biota							X		
Quality	Soil/sediment processes	Soil moisture	x	x							
Quality	Soil/sediment processes	Soil carbon/organic matter content								X	
Quality	Soil/sediment processes	Soil Type	x	x							
Quality	Soil/sediment processes	Soil mycorrhizal associations							X		
Quality	Species composition	Invasive non-native species							x		
Quality	Species composition	Pest species	x	x							
Quality	Species composition	Naturalness of biological assemblage: number of trophic levels & community composition in each level							X		
Quality	Vegetation	Age structure (including veteran trees) and regeneration	x						X		







ES flow	Cultural: Scientific/educational	Number of research projects; PhD / Masters projects										X
ES flow	Cultural: Scientific/educational	Number of school visits										X
<b>See Freshwaters tables for catchment services:</b>					Y	Y		Y				

**Geodiversity (All)**

**Ecosystem Services**

Asset attribute	Indicator category	Indicator	Geodiversity services
Quality	Cultural: Accessibility	Accessibility of geological features, formations and land forms	x
Quality	Cultural: Landscape, seascape & urban green space	Geological designated sites	x
Quality	Cultural: Facilities	Presence of geological and geoheritage interpretation	x
Quality	Cultural: Nature	Favourable condition of designated geosites	<b>X</b>
Quality	Formative geological processes	Active geomorphological processes; terrestrial, coastal & marine	<b>X</b>
Spatial Configuration		Geological designations creating green space	x