APPENDIX 2 – EUROPEAN SITE INFORMATION

Wye Valley & Forest of Dean Bat Sites

Designation: Special Area of Conservation (SAC)
Location: Forest of Dean / Fynwy (Monmouthshire)
Grid Reference: SO605044
Area: 142.7ha

1. The characteristics of the European Site:

General Site Character: Broad-leaved deciduous woodland (26.2%) Other land (including towns, villages, roads, waste places, mines, industrial sites) (73.8%).

Vulnerability: The site is composed of parts of a number of buildings in everyday use (mainly roof-spaces) used by the bats for breeding and a series of mines used by bats for hibernation. Within the roost the bats are vulnerable to disturbance at critical times, structural alteration and changes in the characteristic ventilation patterns. The designated sites only cover the major maternity and over-wintering roosts. The bats also depend on features outside the designated sites including intermediate roosts, foraging grounds and hedgerows/tree belts that the bats use as commuting routes. Impact on these features can also affect the integrity of the site. Any proposed changes which are likely to have an impact on the bat populations within the breeding roosts will be discussed with the relevant owners and occupiers. Where appropriate to any populations potentially damaging works will be addressed through appropriate planning regulation, management agreements and monitoring of individual roosts. Regular liaison takes place with site-owners.

The human use of the mine systems (continued mineral working and recreational caving/research) is regulated by Forest Enterprise in consultation with Natural England where appropriate. Site Management Statements have been agreed with the owners of working mines to secure conservation of the populations alongside continued working. In addition, the preparation of Cave Conservation Plans will be promoted to maintain and enhance the underground environment for bats.

Source: Natura 2000 Standard Data Form –.

2. Qualifying Features:

Annex II species that are a primary reason for selection of this site:

Lesser horseshoe bat *Rhinolophus hipposideros*

- for which this is considered to be one of the best areas in the United Kingdom.

This complex of sites on the border between England and Wales contains by far the greatest concentration of lesser horseshoe bat *Rhinolophus hipposideros* in the UK, totalling about 26% of the national population. It has been selected on the grounds of the exceptional breeding population, and the majority of sites within the complex are

maternity roosts. The bats are believed to hibernate in the many disused mines in the area.

Greater horseshoe bat *Rhinolophus ferrumequinum*

- for which this is considered to be one of the best areas in the United Kingdom.

This complex of sites on the border between England and Wales represents greater horseshoe bat *Rhinolophus ferrumequinum* in the northern part of its range, with about 6% of the UK population. The site contains the main maternity roost for bats in this area, which are believed to hibernate in the many disused mines in the Forest. Source: JNCC.

3. Conservation Objectives

With regard to the natural habitats and/or species for which the site has been designated:

Avoid the deterioration of the qualifying natural habitats and the habitats of qualifying species, and the significant disturbance of those qualifying species, ensuring the integrity of the site is maintained and the site makes a full contribution to achieving Favourable Conservation Status of each of the qualifying features. Subject to natural change, to maintain or restore:

- The extent and distribution of qualifying natural habitats and habitats of qualifying species;
- The structure and function (including typical species) of qualifying natural habitats and habitats of qualifying species;
- The supporting processes on which qualifying natural habitats and habitats of qualifying species rely;
- The populations of qualifying species;
- The distribution of qualifying species within the site.
- Favourable condition to be assessed in terms of: cave and roof roost space extent; woodland extent at roost entrances (Devils Chapel and Old Bow only) ; presence; population size (no drop in excess of 25% below notification population); disturbance; site security; roost condition (external/internal); roost access.

River Wye

Designation: Special Area of Conservation (SAC)
Location: Forest of Dean / Fynwy - Monmouthshire / Herefordshire / Powys

1. The characteristics of the European Site:

General Site Character: Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins) (9.5%) Salt marshes. Salt pastures. Salt steppes (1.5%) Inland water bodies (standing water, running water) (52.5%) Bogs. Marshes. Water

fringed vegetation. Fens (3.1%) Heath. Scrub. Maquis and garrigue. Phygrana (1%) Dry grassland. Steppes (5.3%) Humid grassland. Mesophile grassland (2.4%) Improved grassland (10.4%) Broad-leaved deciduous woodland (12.3%) Inland rocks. Screes. Sands. Permanent snow and ice (0.2%) Other land (including towns, villages, roads, waste places, mines, industrial sites) (1.8%).

Vulnerability: Water quality impacts arising from changing agricultural land-use within the catchment are having direct and indirect effects on the SAC interests through effects of diffuse pollution such as nutrient run-off and increased siltation. Natural England and the Countryside Council for Wales are seeking to address such issues through improved targeting of existing and new agri-environment schemes and through improvements in compliance with agricultural Codes of Practice. Water quality is also affected by synthetic pyrethroid sheep-dips and by point-source discharges within the catchment. The impact of sewage treatment works on the SAC is being addressed through the Asset Management Plan process and review under the Habitats Regulations. Loss of riparian habitat is occurring as a result of changes in agricultural land-use practices and other factors, including riverside development and the loss of alder tree-cover through disease. These impacts and concerns over water quality will be identified and actions recommended within the joint Natural England/Environment Agency/Countryside Council for Wales conservation strategy for the river.

Fishing activities are implicated in the decline of the salmon but it is apparently Irish trawlers rather than local fishermen which have had the greatest impact. The trawler problems have now been resolved. There is increasing demand for abstraction from the river for agriculture and potable water. This is being addressed through the Environment Agency's Catchment Abstraction Management Strategy as well as the Review of Consents process. Demand for increased recreational activities is a source of potential concern for the future. Regularisation of the functions of the competent authorities, currently being sought, should reduce the risk of damage to the SAC as a result of developments for such activities. Source: Natura 2000 Standard Data Form – JNCC & consultation response from Natural England – Feb 2007.

2. Qualifying Features:

Annex I habitats that are a primary reason for selection of this site:

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site:

Transition mires and quaking bogs

Annex II species that are a primary reason for selection of this site:

White-clawed (or Atlantic stream) crayfish Austropotamobius pallipes
Sea lamprey Petromyzon marinus
Brook lamprey Lampetra planeri
River lamprey Lampetra fluviatilis

Twaite shad Alosa fallax
Atlantic salmon Salmo salar
Bullhead Cottus gobio
Otter Lutra lutra

Annex II species present as a qualifying feature, but not a primary reason for site selection:

Allis shad Alosa alosa

3. Conservation Objectives

Subject to natural change, to maintain the transition mire and quaking bog (Wales only) and river in favourable condition (or restored to favourable condition if features are judged to be unfavourable), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated including. In particular to:

- To maintain the designated features in favourable condition, which is defined in part in relation to a balance of habitat extents. Favourable condition to be assessed in terms of: river length; SSSI area and; extent (in ha) of river types.
- To maintain the freshwater and species on the River Wye SSSI /SAC in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: presence/absence of white clawed crayfish; fish biomass; otter presence, maintenance of population and fish biomass; presence of suitable habitat; no increase in pollutants.
- To maintain the freshwater and species on the River Wye SSSI /SAC in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: Biological and Chemical General Quality Assessment Class (dissolved oxygen, BOD or ammonia); un-ionised ammonia; suspended solids; soluble reactive phosphorus; flow regime; siltation; channel form; bank and riparian zone vegetation naturalness; in channel vegetation species composition; macrophyte extent; invertebrate habitat quality and extent; invertebrate assemblages; habitat loss/damage; enrichment; alien/ introduced/invasive species; in stream barriers; fish introductions.

Wye Valley Woodlands

Designation: Special Area of Conservation (SAC)
Location: Forest of Dean / Monmouthshire / Herefordshire

1. The characteristics of the European Site:

General Site Character: Heath, Scrub, Maquis and Garrigue. Phygrana (10%) Dry grassland. Steppes(0.2%) Broad-leaved deciduous woodland (87%) Coniferous woodland (0.7%) Inland rocks. Screes. Sands. Permanent snow and ice (0.6%)

Other land (including towns, villages, roads, waste places, mines, industrial sites) (1.5%)

Vulnerability: A significant proportion of the SAC is already managed sympathetically by Forest Enterprise (now the Forestry Commission), Natural England (as one of the owners*) the Woodland Trust and county Wildlife Trusts. Principal pressures are from lack of management (particularly traditional management, e.g. coppice), increasing deer numbers and inappropriate management proposals which would alter the recognised woodland stand types. Felling license approval and Forestry Commission consultation with Natural England/Countryside Council for Wales are adequate in addressing the latter issue. Positive management is being promoted through management plans (CCW), Site Management Statements (EN) and management agreements, and the Woodland Grant Scheme (including specialised targeting) is being encouraged where possible and appropriate to return some woods to active management. *'Highbury' and 'The Hudnalls' are both National Nature Reserve sites in the Wye Valley Woodlands.

2. Qualifying Features:

Annex I habitats that are a primary reason for selection of this site:

Asperulo-Fagetum beech forests: for which this is considered to be one of the best areas in the United Kingdom.
The Wye Valley contains abundant and near-continuous semi-natural woodland along the gorge. Beech stands occur as part of a mosaic with a wide range of other woodland types, and represent the western range of *Asperulo-Fagetum* beech forests. Such a variety of woodland types is rare within the UK. In places lime *Tilia* sp., elm *Ulmus* sp. and oak *Quercus* sp. share dominance with the beech. Structurally the woods include old coppice, pollards and high forest types. Lady Park Wood, one of the component sites, is an outstanding example of near-natural old-growth structure in mixed broad-leaved woodland, and has been the subject of detailed long-term monitoring studies.

Tilio-Acerion forests of slopes, screes and ravines: for which this is considered to be one of the best areas in the United Kingdom.
The woods of the lower Wye Valley on the border of south Wales and England form one of the most important areas for woodland conservation in the UK and provide the most extensive examples of *Tilio-Acerion* forest in the west of its range. A wide range of ecological variation is associated with slope, aspect and landform. The woodland occurs here as a mosaic with other types, including beech *Fagus sylvatica* and pedunculate oak *Quercus robur* stands. Uncommon trees, including large-leaved lime *Tilia platyphyllos* and rare whitebeams such as *Sorbus porrigentiformis* and *S. rupicola* are found here, as well as locally uncommon herbs, including wood barley *Hordelymus europaeus*, stinking hellebore *Helleborus foetidus*, narrow-leaved bitter-cress *Cardamine impatiens* and wood fescue *Festuca altissima*.

Taxus baccata woods of the British Isles: for which this is considered to be one of the best areas in the United Kingdom.

Wye Valley is representative of yew *Taxus baccata* woods in the south-west of the habitat's range. It lies on the southern Carboniferous limestone, and yew occurs both as an understorey to other woodland trees and as major yew-dominated groves, particularly on the more stony slopes and crags.

Annex II species present as a qualifying feature, but not a primary reason for site selection:
Lesser horseshoe bat *Rhinolophus hipposideros*: for which the area is considered to support a significant presence.

3. Conservation Objectives

The Conservation Objectives for this site are, subject to natural change, to maintain Broadleaved, mixed and yew woodland habitats and geological features in favourable condition (or restored to favourable condition if features are judged to be unfavourable), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated. In particular:

- To maintain the Broadleaved, mixed and yew woodland (W7,W8, W10, W12c, W14, W16) habitat at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined in terms of: area; structure and natural processes; regeneration potential; composition; indicators of quality/local distinctiveness
- To maintain the hibernating population of horseshoe bats at this site in favourable condition. Favourable condition is defined in terms of: entrance condition, security and vegetation; cave condition; disturbance; use by bats (Upper Wye Gorge only).

Walmore Common

Designation: Special Protection Area (SPA) & Ramsar site
Location: Forest of Dean

1. The characteristics of the European Site:

General Site Character: Walmore Common SPA is a low-lying basin in the Severn Vale adjacent to the River Severn, which is subject to extensive winter flooding and high, artificially maintained water levels in summer.

The site supports a range of unimproved and improved wet grasslands overlying a large area of peat and is of botanical and ornithological importance. There is also a large network of ditches that has an important hydrological function as well as supporting a diverse community of flora and fauna.

The common is part of a series of sites within the Severn Vale which, in winter, form an important refuge and feeding area for wildfowl. The highest bird numbers are

seen during the harshest winters, when Walmore Common provides an essential feeding and roosting area.

A large part of the catchment is used as a feeding and roosting site for nationally and internationally important numbers of Bewick's Swan and for regionally important numbers of other wintering waterfowl.

This seasonally-flooded wetland is drained by a network of open ditches. Approximately 60% of the neutral grassland has been reseeded with rye grass. The eastern area, however, is still unimproved with a tussocky structure and a wider range of plants dominated by grasses and rushes. The ditches have a fairly rich flora including species such as yellow iris *Iris pseudacorus*, purple loosestrife *Lythrum salicaria* and flowering rush *Butomus umbellatus.*

Vulnerability: The site is a Ramsar site, a Special Protection Area and a Site of Special Scientific Interest. A water level management plan, currently in preparation, will ensure appropriate conditions are retained for the wintering bird interest. The marsh grassland and ditches will be maintained and enhanced by maintaining high water levels from spring to autumn.

2. Qualifying Features:
This site qualifies under Habitats Directive 79/409/EES Article 4.1 by regularly supporting (in winter) internationally important numbers of Bewick's swan *Cygnus columbianus bewickii*. During the five winter periods 1986/87 to 1990/91 the average peak count was 207 birds (1% of the NW European population and 3% of British. Source: SPA citation.

This site qualifies under Ramsar criterion 6 by supporting species/populations occurring at levels of international importance: The qualifying species/populations (peak counts in winter) is Bewick's swan *Cygnus columbianus bewickii*, 43 individuals, representing an average of 0.5% of Great Britain's population (5 year peak mean 1998/9 – 2002/3).

3. Conservation Objectives:

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified, and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- The extent and distribution of the habitats of the qualifying features
- The structure and function of the habitats of the qualifying features
- The supporting processes on which the habitats of the qualifying features rely
- The population of each of the qualifying features, and,
- The distribution of the qualifying features within the site.

Severn Estuary

Designation: Special Area of Conservation (SAC) / Special Protection Area (SPA) / Ramsar site
Location: Stroud, Forest of Dean, South Gloucestershire, Monmouthshire, Bristol City, North Somerset, Newport, Cardiff, Vale of Glamorgan

There is a vast amount of existing data on the Severn Estuary over and above what can be repeated here in this report. The NE/CCW report (see below) is an important as a source of much more detailed information on conservation objectives and particular vulnerabilities as well as additional detail on condition, advice on operations and various methods of assessment.

The Severn Estuary / Môr Hafren European Marine Site comprising: The Severn Estuary / Môr Hafren Special Area of Conservation (SAC). The Severn Estuary Special Protection Area (SPA). The Severn Estuary / Ramsar Site Natural England & the Countryside Council for Wales' advice given under Regulation 33(2)(a) of the Conservation (Natural Habitats, &c.) Regulations 1994, as amended. June 2009"

This report is available at:
http://www.ccw.gov.uk/landscape--wildlife/protecting-our-landscape/special-sites-project/the-severn-estuary-european.aspx?lang=en

1. The characteristics of the European Site:

General Site Character: The estuary's classic funnel shape, unique in Britain, is a factor causing the Severn to have the second-largest tidal range in the world (after the Bay of Fundy, Canada). This tidal regime results in plant and animal communities typical of the extreme physical conditions of liquid mud and tide swept sand and rock. The species-poor invertebrate community includes high densities of ragworms, lugworms and other invertebrates forming an important food source for passage and wintering waders. A further consequence of the large tidal range is the extensive intertidal zone, one of the largest in the UK, comprising mudflats, sand banks, shingle, and rocky platforms. Glassworts and annual sea-blite colonise the open mud, with beds of all three species of eelgrass occurring on more sheltered mud and sandbanks. Large expanses of common cord-grass also occur on the outer marshes. Grazed saltmarsh fringes the estuary with a range of saltmarsh types present. The middle marsh sward is dominated by common saltmarsh-grass with typical associated species. In the upper marsh, red fescue and saltmarsh rush become more prominent. The estuary is an important habitat for migratory fish.

Vulnerability: The conservation of the site features is dependent on the tidal regime. The range is the second highest in the world and the scouring of the seabed and strong tidal streams result in natural erosion of the habitats. The estuary is therefore vulnerable to large scale interference, including human actions. These include land-claim, aggregate extraction/dredging, physical developments such as barrage construction flood defences, pollution (industrial, oil spillage), eutrophication and tourism based activities and disturbance. These issues are being predominantly addressed through existing control measures. The Severn Estuary Strategy (a non statutory plan developed since 1995) has been working towards the sustainable management of the site, through the involvement of local authorities, interested

parties and local people. In addition the marine part of the European site is managed under a Management Scheme prepared by the Association of Severn Estuary Relevant Authorities (ASERA) to ensure that the occurrence of current activities of all the Relevant Authorities are compatible with the site's conservation objectives.

2. Qualifying features

Qualifies as a SAC as follows:

The Severn Estuary has been designated an SAC on the basis that it supports occurrences of habitat types and species listed in Annexes I and II respectively of the Habitats Directive that are considered important in a European context and meeting the criteria in Annex III of the Directive. The designation includes an overarching "estuaries" feature within which subtidal sandbanks, intertidal mudflats and sandflats, Atlantic salt meadows and reefs (of Sabellaria alveolata) and three species of migratory fish are defined as both features in their own right and as sub-features of the estuary feature. In addition hard substrate habitats including eel grass beds, the estuary-wide assemblage of fish species and the assemblage of waterfowl species (for which the Ramsar Site and SPA are specifically designated) are identified as notable estuarine assemblages which are an intrinsic part of the estuary ecosystem – these are therefore covered by the "estuaries" feature.

Interest Features of the SAC

SAC details, qualifying features:
Annex I habitats that are a primary reason for selection of this site;
- Estuaries
- Mudflats and sandflats not covered by seawater at low tide
- Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site;
- Sandbanks which are slightly covered by sea water all the time
- Reefs

Annex II species that are a primary reason for selection of this site
- Sea lamprey Petromyzon marinus
- River lamprey Lampetra fluviatilis
- Twaite shad Alosa fallax

Qualifies as a SPA as follows:

The Severn Estuary was classified as an SPA on 13 July 1995 (subsuming a previously designated SPA called the Upper Severn Estuary). It should be noted that since designation changes in bird numbers have occurred in relation to the qualifying thresholds, which have themselves changed.

The SPA within the European Marine Site boundary includes saltmarshes and the adjacent extensive areas of intertidal mud, sand and rocky shores. All these habitats provide essential food and resting places for the wide range of wintering and

migratory waterfowl and are therefore identified as key “supporting habitats” for the conservation of these species.

The Qualifying Features and supporting Habitats of the SPA

Information on populations of bird species using the Severn Estuary European Marine Site at the time the Severn Estuary SPA was classified (1995). (Also note the species listed in point 2 of the footnote.)

Internationally important populations of regularly occurring Annex 1 species		
Species	**Population (5 yr peak mean :1988/9 to 1992/3)**	
SPA interest feature 1: **Bewick’s swan**	289 birds	4.1% Great Britain 1.7% NW Europe
Internationally important populations of regularly occurring migratory bird species		
Species (wintering)	**Population (5 yr peak mean: 1988/9 to 1992/3)**	
SPA interest feature 2: **European white-fronted goose**	3,002	50% British, 1% North West Europe
SPA interest feature 3: **Dunlin**	41,683	2.9% East Atlantic flyway
SPA interest feature 4: **Redshank**	2,013	1.3% East Atlantic flyway
SPA interest feature 5: **Shelduck**	2,892	1.2% North West Europe
SPA interest feature 6: **Gadwall**	330	2.8 % NW Europe
SPA interest feature 7: **An internationally important assemblage of waterfowl** *(Assemblage includes above species plus the following listed nationally important populations)*		
Importance	**Population (5 yr peak mean: 1988/9 to 1992/3)**	
The Severn Estuary supports over 20,000 wintering waterfowl.	68,026 individual birds comprising 17,502 wildfowl and 50,524 waders	
Nationally important bird populations within internationally important assemblage of waterfowl		
Species	**Population (5 yr peak mean: 1988/9 to 1992/3)**	
Wigeon	3,977 birds	1.6% Great Britain
Teal	1,998	2.0% Great Britain
Pintail	523	2.1% Great Britain
Pochard	1,686	3.8% Great Britain
Tufted duck	913	1.5% Great Britain
Ringed plover	227	1.0% Great Britain
Grey plover	781	3.7% Great Britain
Curlew	3,096	3.4% Great Britain
Whimbrel	246	4.9% Great Britain
Spotted redshank	3	1.5% Great Britain

Notes :

1. Previous advice issued in respect of the Severn Estuary SPA in February 2005 excluded Gadwall for the listed species of internationally important populations of regularly occurring migratory birds as they were considered not to use the European Marine Site area to any significant degree. Further recent evidence (2002/03 Low Tide Bird Counts) has demonstrated that this species does make use of areas within the European Marine Site and has consequently now been included.
2. The SPA review has identified that since the classification of the Severn Estuary SPA in 1995 the Severn Estuary now supports nationally important populations of Mallard, Lapwing and Shoveler.

Ramsar Features:

Table 5 : confirmation of Ramsar features in context of 1995 and 2005 Ramsar criteria

Ramsar Features (for which conservation objectives have been written)	**Criteria at designation (1995)** (original criteria)	**Revised Criteria (2005)** (criteria currently used on JNCC website)
Ramsar interest feature 1: ***Estuaries** *- characteristic physical form and flow, estuarine habitat communities and species assemblages - estuarine habitat communities and species assemblages*	**Criterion 1** : qualifies due to its immense tidal range affecting both the physical environment and biological communities present **Criterion 2b** : qualifies due to its unusual estuarine communities, reduced species diversity and high productivity. The high tidal range leads to strong tidal streams and high turbidity, producing communities characteristic of the extreme physical conditions of liquid mud and tide swept sand and rock	**Criterion 1** : qualifies due to immense tidal range (second-largest in world), this affects both the physical environment and biological communities. **Criterion 3** : qualifies due to its unusual estuarine communities, reduced diversity and high productivity
Ramsar interest feature 2: **Assemblage of migratory fish species :** Sea Lamprey River Lamprey Twaite Shad Allis Shad Salmon Sea Trout Eel	**Criterion 2c** : qualifies as it is important for the run of migratory fish between sea and river via estuary. Species include Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla*.	**Criterion 4** : qualifies as it is important for the run of migratory fish between sea and river via estuary. Species include Salmon *Salmo salar*, sea trout *S. trutta*, sea lamprey *Petromyzon marinus*, river lamprey *Lampetra fluviatilis*, allis shad *Alosa alosa*, twaite shad *A. fallax*, and eel *Anguilla anguilla*.
** The wider estuarine fish assemblage is covered as a "notable species assemblage" sub feature of the SAC "Estuaries" feature*		**Criterion 8** : qualifies as the fish assemblage of the whole estuarine and river system is one of the most diverse in Britain, with over 110 species recorded.
Ramsar interest feature 3: **Bewick's Swan** *Ramsar interest feature* 4: **European white-fronted goose** *Ramsar interest feature 5:* **Dunlin** *Ramsar interest feature 6:* **Redshank** *Ramsar interest feature 7:* **Shelduck** *Ramsar interest feature 8:* **Gadwall**	**Criterion 3c** : qualifies by regularly in winter supporting internationally important populations (1% or more) of species of waterfowl Bewick's swan European white-fronted goose Dunlin Redshank Shelduck Gadwall	**Criterion 6** : qualifies as it regularly supports 1% of the individuals in a population of one species or subspecies of waterbird. **Species with peak counts in winter - at designation:** Tundra/Bewick's swan Greater /European white-fronted goose Dunlin Common redshank Common shelduck Gadwall

ie Internationally important <u>populations</u> of waterfowl		**Populations identified subsequent to designation:** Ringed plover (spring/autumn) Eurasian teal (winter) Northern pintail (winter) Lesser black-backed gull (breeding)
Ramsar interest feature 9: **Internationally important <u>assemblage</u> of waterfowl** This feature incorporates : • waterfowl which contribute to the total peak **winter** count (criterion 3a) • the above internationally important **wintering** populations (qualifying under criterion 3c) • the migratory **passage** species (qualifying under criterion 2c) • the nationally important populations (identified under other notable features of the Ramsar Site citation) The species are as follows : (w = wintering and p = passage): **Bewick's swan** (w) **European white-fronted goose** (w) **Shelduck** (w) **Dunlin** (w, p) **Redshank** (w, p) **Gadwall** (w) **Ringed plover** (w, p) **Whimbrel** (p) **Teal** (w) **Pintail** (w) **Wigeon** (w) **Pochard** (w) **Tufted duck** (w) **Grey plover** (w) **Curlew** (w) **Spotted redshank** (w)	Qualifies under **Criterion 2c** as it is particularly important for migratory birds during passage periods in spring and autumn. Nationally important populations of : Ringed plover Dunlin Whimbrel Redshank **Criterion 3a** : qualifies by regularly supporting in winter over 20,000 waterfowl - (1988/89 to 1992/93 average peak count was 68,026 waterfowl: 17,502 wildfowl and 50,524 waders) **Other notable features :** Nationally important wintering populations of: Wigeon, teal, pintail, pochard, tufted duck, ringed plover, grey plover, curlew and spotted redshank. Also nationally important breeding population of Lesser Black backed gull	**Criterion 5 :** qualifies as it supports an assemblage of international importance - (1998/99-2002/2003 5 year peak mean was 70,919 waterfowl

3. Conservation objectives
Severn Estuary SAC

The protection and management of the SAC in accordance with Article 6 of the Habitats Directive, including in particular the consideration of plans and projects under Article 6(3) and 6(4), should be carried out in view of the conservation objectives as detailed below.

Note: Note this is a summary - for the full details see the 2009 CCW / NE report and or the JNCC website. Only the SAC conservation objectives are detailed in this report due to the fact that (a) there are considerable overlaps with the SPA & Ramsar objectives. For the SPA and Ramsar conservation objectives, the 2009 CCW / NE report should be (and will be) referred to in relation to this HRA.

The Conservation Objectives for this site are, subject to natural change, to maintain estuaries, inter-tidal mud and sand flats, saltmarsh and associated transition habitats and rocky littoral shores in favourable condition (or restored to favourable condition if features are judged to be unfavourable), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated. In particular to:

- To maintain the estuaries feature in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: extent; morphology; tidal regime and flow; sediment budget; sediment size, range and distribution; water quality (physio-chemcial parameters); phytoplankton; macroalgae; toxic contaminants; estuarine habitat extent, variety and spatial distribution; abundance of notable species/assemblages.
- To maintain the intertidal mudflats and sandflats in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: extent; mudflats and sandflats extent and variety; distribution; community composition; topography; sediment character.
- To maintain the saltmarshes in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: extent; distribution; extent of spartina anglica; zonation of vegetation; species composition; sward structure; morphology.
- To maintain the hard substrate habitats in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: extent and variety; spatial distribution; community composition; abundance of Eel grass.
- To maintain the vascular plant assemblage in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: rare/notable vascular plant presence; population size; vegetation structure; physical damage; disturbance; hydrology.
- To maintain the assemblage of waterfowl and nationally important populations of waterfowl in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: population size; distribution; disturbance to feeding/roosting areas; habitat (extent, food availability, vegetation characteristics, feeding/roosting sightlines).
- To maintain the migratory fish assemblage in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition to be assessed in terms of: barriers to migration (water

quality, water flow, physical barriers); population size; prey species abundance.