

Lynton and Lynmouth Neighbourhood Plan

HABITAT REGULATIONS ASSESSMENT

for

Lynton and Lynmouth Town Council

October 2012



This report was prepared by Somerset County Council on behalf of the Lynton and Lynmouth Town Council, as the 'competent authority' under the Conservation of Habitats and Species Regulations 2010.

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1. Introduction

- 1.1 This report details the findings of the first, screening step of the Habitat Regulations Assessment (HRA) process of the Lynton and Lynmouth Neighbourhood Plan September 2012. As the 'competent authority' under the Conservation of Habitats and Species Regulations 2010, Lynton and Lynmouth Town Council is required to assess its Neighbourhood Plan through the HRA process as policies in the plan can potentially affect Natura 2000 sites.
- 1.2 The Neighbourhood Plan for the parish of Lynton and Lynmouth and Barbrook will set out the Lynton and Lynmouth Town Council's policies for sustainable growth which support the local economy, provide for affordable housing and attract new businesses whilst protecting the environment.
- 1.3 The Lynton and Lynmouth Neighbourhood Plan will be expected to conform to the Exmoor Local Plan. The current Exmoor National Park Local Plan was adopted in 2005. However a new Local Plan is currently being developed alongside the Exmoor National Park Partnership Plan 2012-17. Both plans will work together with the focus of delivery being different. The Partnership Plan will focus on delivery of the National Park purposes and priorities over the next five years, and the Local Plan will provide a longer term statutory framework for development within the National Park.
- 1.4 Natura 2000 sites, for the purpose of considering development proposals that may affect them, include European Sites - Special Protection Areas (SPA) classified under the Conservation of Wild Birds Directive 2009 and Special Areas of Conservation (SAC) are designated under the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (known as the 'Habitats Directive'), and, as a matter of Government policy, all Ramsar sites as if they are fully designated European Sites for the purpose of considering development proposals that may affect them.
- 1.5 The definition of 'Habitat Regulations Assessment' is simply an assessment, which must be appropriate to its purpose under the Habitats Directive and Regulations. According to The Conservation of Habitats and Species Regulations 2010, regulation 61 (1) before authorising a plan, which is likely to have a significant effect on a European site, and is not connected to the management of the site, shall assess the implications for the site in view of its conservation objectives.
- 1.6 The purpose of HRA of land use plans is to ensure that protection of the integrity of European sites (Natura 2000 sites) and is a part of the planning process from higher level to local level plans. The requirement for Habitats Regulations Assessment of plans or projects is outlined in Article 6(3) and (4) of the Habitats Directive'.

2. Methodology

- 2.1 The Department for Communities and Local Government's (DCLG) consultation document '*Planning for the Protection of European Sites: Appropriate Assessment*' (August 2006). This document gives three main tasks to the Appropriate or Habitats Regulations Assessment¹ process:
1. Likely significant effects
 2. Appropriate assessment and ascertaining the effect on site integrity
 3. Mitigation and alternative solutions
- 2.2 The process is further detailed in '*The Appropriate Assessment of Spatial Plans in England*', published by the Royal Society for the Protection of Birds (Dodd et al, 2007).
- 2.3 The RSPB guidance (2007) sets out a 3-step approach to appropriate assessment as follows.

Step 1: Screening for likely significant effects.

This is the initial evaluation of a plan's effects on a Natura 2000 site. If it cannot conclude there will be no significant effect upon any Natura 2000 site, an Appropriate Assessment (AA) is required. In the DCLG guidance this is called evidence gathering. Where counter-acting measures can be employed they will be applied at this stage. Counter-acting measures are those which are changes in the wording of policy or within text will clearly prevent a potential significant effect from the Plan.

Step 2 Appropriate Assessment – scoping and further information gathering

Preparation for the AA where the screening has shown there is likely to be significant effects or where there is uncertainty about a potential significant effect upon a Natura 2000 site.

Step 3 Appropriate Assessment

An evaluation of the evidence gathered on impacts and consideration of whether changes to the plan are needed to ensure that it will have no significant adverse effect upon any Natura 2000 site. This should be the end of the AA process and the plan can be adopted.

- 2.4 This report contains Step 1 of the process and compiles information in order to

¹ Note that the terms Habitats Regulations Assessment and Appropriate Assessment have been used interchangeably. However, for the purpose of this report the term Appropriate Assessment will refer to Stage 3 of the Habitats Regulations Assessment process.

assess the likely effects of potential activities arising out of policy in the draft Neighbourhood Plan on Natura 2000 sites alone, or in combination with other plans or projects.

- 2.5 When carrying out this screening, it must be viewed as a coarse filter and therefore a 'Precautionary Approach' has been taken in the assessment of significance. The EC Guidance sets out a number of principles as to how to approach decision making during the process. The primary one is the 'Precautionary Principle', which requires that the conservation objectives of Natura 2000 sites should prevail where there is uncertainty. In other words if the answer is 'don't know' an adverse impact is assumed. This is the case throughout the HRA process.
- 2.6 Once potential impacts have been identified, their significance will be considered. A judgement about significance is made in relation to the conservation objectives and targets using the Precautionary Principle.
- 2.7 Natural England and other relevant stakeholders will be consulted on the screening opinion to ensure all elements of the plan are considered which, either alone or in-combination, have the potential for a significant effect on relevant sites. This will help the Lynton and Lynmouth Town Council identify potential impacts, likely pathways for those impacts and key indicators to be used for identifying impacts. The screening should therefore look at the significant effects of the plan objectives and of each individual policy.
- 2.8 This screening report will include the following information for the Natura 2000 sites:
 - Why the site is important for wildlife, i.e. the features (species and habitats) for which the site was designated;
 - The conservation objectives for the site;
 - The latest assessment of the site's ecological condition; and
 - Any particular problems or sensitivities of the site's features that could be affected by a plan's policies or proposals

3. Characteristics and Description of the Natura 2000 Sites

Introduction

- 3.1 This section identifies which Natura 2000 sites are potentially affected
- 3.2 Special Areas of Conservation (SAC) are designated due to the presence or providing ecological support to habitats, listed in Annex I, and species, listed in Annex II of the Habitats Directive (92/43/EEC).
- 3.3 Special Protection Areas (SPA) are designated for bird species listed under Article 4 of the Birds Directive (2009/147/EEC).
- 3.4 Ramsar sites are important wetland sites that have been designated under the Ramsar Convention on Wetlands 1971. Under Government policy, as set out in Planning Policy Statement 9: Biodiversity and Geological Conservation, they are to be treated as Natura 2000 sites.

Identification of Natura 2000 sites

- 3.5 The following Natura 2000 sites have component sites present within the geographic area administered by the Lynton and Lynmouth Parish.

- Exmoor Heaths SAC
- Exmoor and Quantock Oakwoods SAC

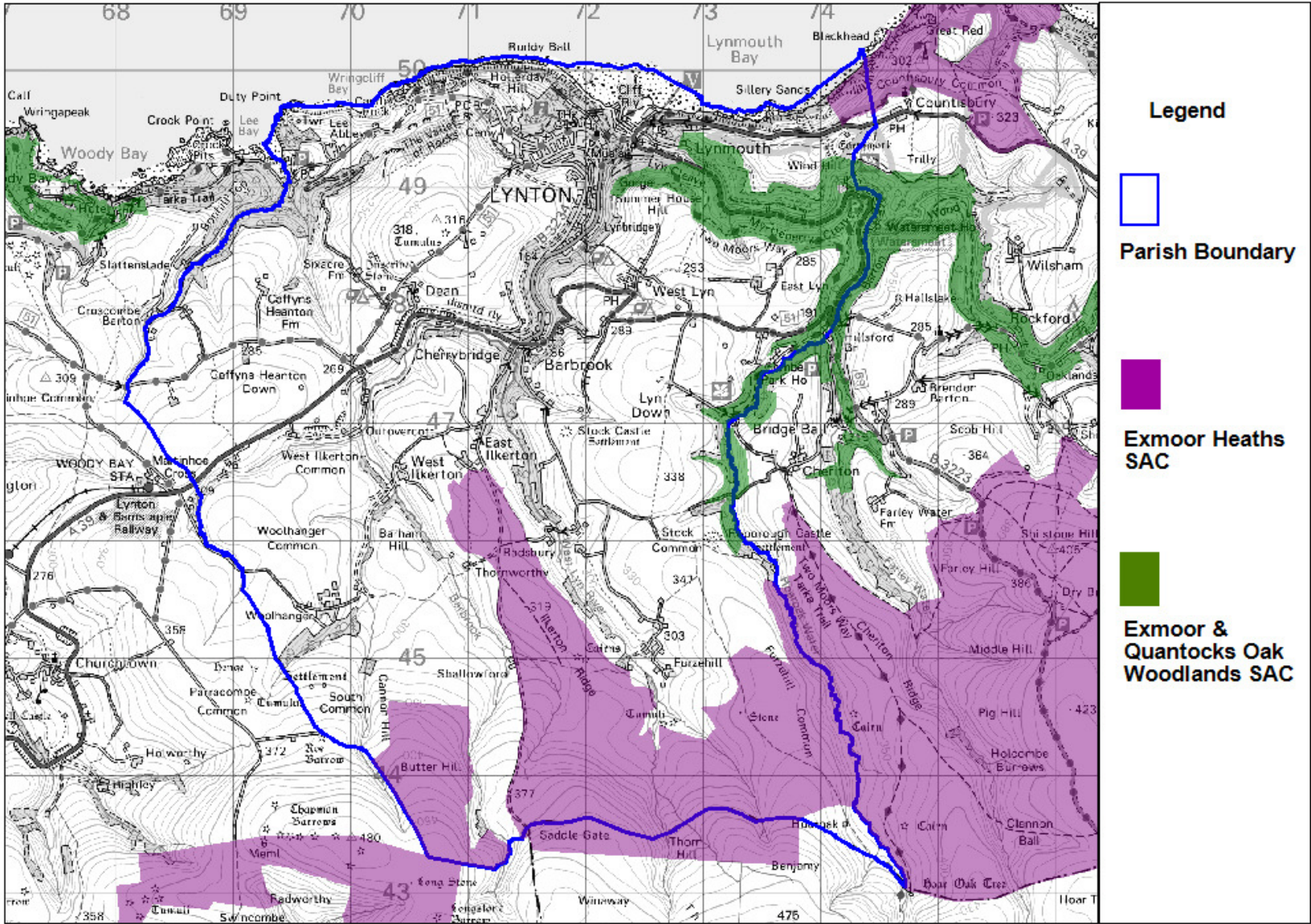
The extent of these is shown in Figure 1 below.

- 3.6 There are no other Natura 2000 sites potentially affected within 10 kilometres of the Parish boundary

Ecological Zones of Influence

- 3.7 Natura 2000 sites are designated for both species and habitat features. Conservation objectives and targets relate to maintaining the integrity of these features. This section describes how 'Ecological Zones of Influence' (EZI) are arrived at for each of the Natura 2000 sites potentially affected by the implementation of actions within the Neighbourhood Plan. These are areas outside the designated Natura 2000 site, which nonetheless if affected can adversely impact on the integrity of the site's conservation objectives. For example, bat flight lines and feeding areas supporting a designated roost site if lost may affect the viability of the population.

Figure 1: Natura 2000 Sites



- 3.8 Habitats are affected directly from on-site loss due to damage or destruction from land use change. However, they can also be influenced by off site factors such as hydrology. Where there are no significant off site requirements in maintaining a sites habitat the EZI is the same as the Natura 2000 sites boundary. However, sites affected by air pollution will be assessed by distances set out below. All flora species are affected by airborne pollution, although some, such as lichens and bryophytes are more vulnerable.
- 3.9 Unlike habitats, species are not limited by the designated site boundary yet its integrity may depend on habitat several kilometres from the site. For each Natura 2000 site, where a qualifying species is listed as a feature, a description is given, the potential impacts, which are likely to affect that species population's integrity in terms of the site's nature conservation objectives, and the methodology of how the EZI is formed.
- 3.10 Finally all the EZI for each of a site's features, i.e. the site itself, its species and habitats, are combined into one EZI per site. A map of the EZI is given at the end of this chapter.

Description and Characterisation of Natura 2000 Sites

Exmoor Heaths SAC

Component Sites

- 3.11 Component SACs sites are:

North Exmoor SSSI
South Exmoor SSSI
Exmoor Coastal Heaths SSSI
West Exmoor Coast and Woods SSSI

- 3.12 Given the likely scale of development arising from the Neighbourhood Plan for Lynton and Lynmouth only those component sites within the Parish are considered further. These are the North Exmoor SSSI and the Exmoor Coastal Heaths SSSI.

Site Condition

- 3.13 Based on the tables for the equivalent Site of Scientific Interest the condition of the affected components, by % of site, on September 14th, 2012 is as follows:

Table 1: Exmoor Heaths Condition Summary

SAC component site	Favourable	Unfavourable recovering	Unfavourable no change	Unfavourable declining	Destroyed, part destroyed
North Exmoor	11.91	83.73	4.06	0.30	0
Exmoor Coastal Heaths	8.25	91.06	0	0.70	0

The condition of SSSIs includes areas that are outside of the SAC boundary. Within the SAC the component North Exmoor SSSI is in 100% favourable condition.

Determining Reasons for Designation

- 3.14 The North Exmoor component site is a southern outpost of typically northern and upland elements of Britain's flora and fauna. The site is nationally important for its south-western lowland heath communities and for transitions from ancient semi-natural woodland through upland heath to blanket mire. The site is important for breeding birds and the 2008 Exmoor Moorland Breeding Bird Survey showed Exmoor to currently hold nationally important populations of nightjar, whinchat, stonechat, grasshopper warbler and Dartford warbler, and regionally significant numbers of merlin. The site is also of importance for its large population of the nationally rare Heath Fritillary butterfly *Mellicta athalia*, an exceptional woodland lichen flora and its palynological interest of deep peat on the Chains. The site is in two main blocks: the major one to the North and a smaller one by Simonsbath to the South. The highest point, Dunkery Beacon, is 519 metres above sea level, the lowest heathland is at about 250 metres and the site extends down to 80 metres in woodland.
- 3.15 Exmoor Coastal Heaths This site contains extensive areas of heathland communities which are rare in Britain or confined largely to South West England and South Wales. The site is also important for the presence, range and transitions between habitats including upland heath, mires and grassland. At lower altitudes and in the coastal zone further important habitats occur including woodland and scrub, acidic and maritime grassland. Associated particularly with the coastal communities and woods are a wide range of nationally rare and scarce plants. A breeding colony of a nationally rare butterfly also occurs. The site comprises four separate blocks (between Combe Martin and Minehead) centred on Trentishoe, Cosgate Hill, Countisbury and North Hill.
- 3.16 Exmoor is representative of upland wet heath in south-west England. Exmoor Heath SAC is designated for the presence of **Northern Atlantic wet heaths with *Erica tetralix*** habitat. M15² *Scirpus cespitosus* – *Erica tetralix* wet heath

² Reference numbers refer to the National Vegetation Classification described in Rodwell, J. S. (ed.) 1998/2000. *British Plant Communities. Volumes 1 – 5*. Cambridge: University of Cambridge Press.

predominates on gently-sloping and level ground. It is extremely variable in nature and has in places been modified by management, particularly burning. Typically, heather *Calluna vulgaris* dominates, with scattered plants of purple moor-grass *Molinia caerulea*, cross-leaved heath *Erica tetralix*, bilberry *Vaccinium myrtillus* and deergrass *Trichophorum cespitosum*. In other areas *Molinia* and *Calluna* are more-or-less co-dominant, with the former forming tussocks. There are transitions to H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath on well-drained, steeper slopes and to M17 *Scirpus cespitosus* – *Eriophorum vaginatum* blanket mire on deeper peat, where the northern species crowberry *Empetrum nigrum* occurs.

- 3.17 The conservation objective for the feature is **‘To maintain, subject to natural change, in favourable condition, the habitats for the Northern Atlantic wet heaths with *Erica tetralix*’** (Natural England conservation objectives). The attributes that measure the condition of the feature are:

- Extent
- Dwarf-shrub diversity and cover
- Bryophyte abundance
- Age structure
- Graminoid cover
- Grazing impact
- Vegetation mosaic
- Water quality and soil nutrient status
- Hydrology

- 3.18 Exmoor Heath SAC is also designated for the presence of **European dry heaths**. The site is notable because it contains extensive areas of H4 *Ulex gallii* – *Agrostis curtisii* heath, a type most often found in the lowlands, and H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath, a predominantly upland type, together with areas of H8 *Calluna vulgaris* – *Ulex gallii* heath. In wetter situations or on peat there can be a high frequency of purple moor-grass *Molinia caerulea* and cross-leaved heath *Erica tetralix*, which results in frequent transitions to wet heaths. The associated valley mires support the oceanic species pale butterwort *Pinguicula lusitanica* and ivy-leaved bellflower *Wahlenbergia hederacea*. The Exmoor heaths are also important as the largest stronghold for the heath fritillary butterfly *Mellicta athalia*, associated with sheltered slopes in the transition to woodland. The site holds a small breeding population of merlin *Falco columbarius* that is the most southerly in the western Palearctic.

- 3.19 The conservation objective for the feature is **‘To maintain, subject to natural change, in favourable condition, the habitats for the European dry heaths’** (Natural England conservation objectives). The attributes that measure the condition of the feature are:

- Extent
- Bryophyte / lichen abundance
- Dwarf-shrub diversity and cover
- Grazing impact
- Vegetation structure
- Vegetation mosaic
- Soil structure and nutrient status
- Species characteristic of the site: Heath Fritillary

3.20 **Blanket bogs** are a feature of the Exmoor Heaths SAC. These extensive peatlands have formed in areas where there is a climate of high rainfall and a low level of evapotranspiration, allowing peat to develop not only in wet hollows but over large expanses of undulating ground. The blanketing of the ground with a variable depth of peat gives the habitat type its name and results in the various morphological types according to their topographical position, e.g. saddle mires, watershed mires, valley side mires.

3.21 Blanket bogs show a complex pattern of variation related to climatic factors, particularly illustrated by the variety of patterning of the bog surface in different parts of the UK. Such climatic factors also influence the floristic composition of bog vegetation. An important element in defining variation is the relative proportion of pools on the bog surface. In general, the proportion of surface patterning occupied by permanent pools increases to the north and west, although the precise shape and pattern of pools appears to depend on local topography as well as geographical location. Variety within the bog vegetation mirrors this pattern and is also affected by altitude. Similarly, the number of associated habitats and communities, such as springs, flushes, fens and heath, is greater in the milder, wetter and geologically and topographically more complex north and west.

3.22 'Active' is defined as supporting a significant area of vegetation that is normally peat-forming. Typical species include the important peat-forming species, such as bog-mosses *Sphagnum* spp. and cotton grasses *Eriophorum* spp., or purple moor-grass *Molinia caerulea* in certain circumstances, together with heather *Calluna vulgaris* and other ericaceous species. Thus sites, particularly those at higher altitude, characterised by extensive erosion features, may still be classed as 'active' if they otherwise support extensive areas of typical bog vegetation, and especially if the erosion gullies show signs of re-colonisation.

3.23 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, the habitats for the Blanket bogs**' (Natural England conservation objectives). The attributes that measure the condition of the feature are:

- Extent

- Bryophyte abundance
- Dwarf-shrub diversity & cover
- Graminoid cover
- Grazing impact
- Extent of bare ground or ground covered by algal mats
- Hydrology

- 3.24 **Alkaline fens** form another feature of the Exmoor Heaths SAC. They consist of a complex assemblage of vegetation types, characteristic of sites where there is tufa and/or peat formation with a high water table and a calcareous base-rich water supply. The core vegetation is short sedge mire (mire with low-growing sedge vegetation). At most sites there are well-marked transitions to a range of other fen vegetation, predominantly, but not exclusively, to M14 *Schoenus nigricans* – *Narthecium ossifragum* mire and S24 *Phragmites australis* – *Peucedanum palustre* tall-herb fen in the lowlands. Alkaline fens may also occur with various types of swamp (such as species-poor stands of great fen-sedge *Cladium mariscus*), wet grasslands (particularly various types of purple moor-grass *Molinia caerulea* grassland) and areas rich in rush *Juncus* species, as well as fen carr and, especially in the uplands, wet heath and acid bogs. There is considerable variation between sites in the associated communities and the transitions that may occur. Such variation can be broadly classified by the geomorphological situation in which the fen occurs, namely: flood plain mire, valley mire, basin mire, hydroseral fen (i.e. as zones around open waterbodies) and spring fen. Another important source of ecological variation is altitude, with significant differences between lowland fens, which are rich in southern and continental species, and upland fens, which are rich in northern species.
- 3.25 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, the habitats for the Alkaline fens**' (Natural England conservation objectives). The attributes that measure the condition of the feature are sward structure and composition.
- 3.26 In conjunction with heaths this site also supports tracts of **old sessile oak woods**. These woods are rich in bryophytes, ferns (including *Dryopteris aemula*) and epiphytic lichens, the latter often associated with old pollards, since parts are former wood-pasture rather than the oak coppice that is more common with this type.
- 3.27 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, the habitats for the old sessile oak woods with *Ilex* and *Blechnum* in the British isles**' (Natural England conservation objectives). The attributes that measure the condition of the feature are:
- Area

- Natural processes and structural development
- Regeneration potential
- Composition
- Distinctive and desirable elements:
 1. Rich Atlantic bryophyte communities.
 2. Epiphytic lichens
 3. Western oakwood
 4. Breeding bird community.
 5. River, stream and mires.
 6. Transition to open heath with c. 3 km of wood/heath edge & Heath Fritillary colony.
 7. Heronry

Table 2: Exmoor Heaths SAC Key Environmental Conditions

Qualifying features	Key environmental conditions to support site integrity
Northern Atlantic wet heaths with <i>Erica tetralix</i>	Air quality Soil conditions Hydrological conditions Appropriate management Control of inappropriate invasive species
European dry heaths	Air quality Appropriate management Soil conditions Control of inappropriate invasive species
Blanket bogs	Appropriate management The control of inappropriate and invasive species. Hydrology Water quality Air quality

Qualifying features	Key environmental conditions to support site integrity
Alkaline fens	Topography Hydrology Drainage Water quality Soil conditions Appropriate management
Old sessile oak woods with <i>Ilex</i> (holly) and <i>Blechnum</i> (fern) in the British Isles	Appropriate woodland management Air quality

Ecological Zone of Influence

- 3.28 For the purposes of this assessment it is considered that the EZI lies entirely within the site boundary as any impacts are only likely to be from visitor pressure. However, it is considered that there may be air quality effects on flora communities within 200 metres of major roads.

Vulnerability

- 3.29 These heathlands retain significant areas of mature heather stands. This habitat is dependent upon low intensity, traditional agricultural management by grazing and controlled burning. Such management is becoming less economic, except with agri-environment funds. Agri-environment schemes such as the Environmentally Sensitive Area Scheme and the Higher Level Stewardship Scheme have been useful in promoting traditional grazing management, as have other management agreements and conservation body ownership. Illegal and uncontrolled burning is adversely affecting heathland structure in some areas, and localised winterfeeding of cattle and overgrazing has caused some losses to heathland in the past although these have been largely resolved through prescriptions in agri-environment agreements. Incentive payments are currently seen as the only effective means of influencing burning practices. *Rhododendron* has spread in some areas, and work to eliminate it from heathland sites has been funded through National Park Authority grants and conservation plans which form part of Natural England's agri-environment scheme agreements.
- 3.30 This site is also vulnerable to atmospheric deposition and eutrophication.

Exmoor and Quantocks Oak Woodlands SAC

Component Sites

- 3.31 The only component site of the Exmoor and Quantocks Woodlands SAC within the Lynton and Lynmouth Parish is the Watersmeet SSSI.
- 3.32 Given the likely scale of development in the Parish other component sites forming the SAC are not considered and no further details are given.

Site Condition

- 3.33 Based on the tables for the equivalent Site of Special Scientific Interest the condition of the affected components, by % of site, on September 12th, 2012 is as follows:

Table 3: Exmoor and Quantock Oak Woodlands Condition Summary

SAC component site	Favourable	Unfavourable recovering	Unfavourable no change	Unfavourable declining	Destroyed, part destroyed
Watersmeet	0.41	94.59	5.00	0	0

Determining Reasons for Designation

- 3.34 Watersmeet encompasses an extensive area of ancient oak woodland, of special interest as one of the largest remaining semi-natural ancient woodlands in south west Britain; with rare and local plant species and rich breeding bird populations. The site also has important geological features. It occupies the winding valley system of the East Lyn river and its tributaries, with an altitude range from near sea level to 290m. The generally shallow soils are derived from the underlying Devonian sandstones and slates and are of a fine loamy or silty nature.
- 3.35 Most of the site is dominated by sessile oak (*Quercus petraea*) woodland. A classic sequence of stand types is found, from the well-drained, poor soils of the valley tops down to the nutrient rich and deeper soils of the lower slopes and valley bottoms. On the uppermost slopes, scattered downy birch (*Betula pubescens*) mixes in with the oak. Lower down, oak dominates the closed canopy, especially on the steepest scree slopes, with beech (*Fagus sylvatica*) and sycamore (*Acer pseudoplatanus*) becoming locally abundant on the deep soil. Hazel (*Corylus avellana*), rowan (*Sorbus aucuparia*) and holly (*Ilex aquifolium*) occur in varying amounts in the understorey and ash (*Fraxinus excelsior*) occurs on mid-slope we flush area.
- 3.36 On the lowest slopes and in the valley bottoms the soil is richer and the water table is permanently high. Here ash, alder (*Alnus glutinosa*), sallow (*Salix cinerea*) and occasionally wych elm (*Ulmus globra*) dominate the canopy. The

site is of particular interest for its various rare whitebeams, which include *Sorbus vexans*, *S. subcuneata* and the Devon whitebeam (*S. devoniensis*).

- 3.37 The permanently moist conditions along the rivers provide suitable conditions for rich lichen and bryophyte communities. Over 50 species of lichen are present, with *Cladonia* and *Parmelia* species being especially common in some parts. Several ancient woodland indicators occur, including *Thelotrema lapadinum*, *Enterographa crassa*, *Peltigera horizontalis* and *Pyrenula nitida*. Ferns are frequent throughout the area; the abundance of soft shield-fern (*Polystichum setiferum*) in certain parts being of note, as is the presence of hay-scented buckler-fern (*Dryopteris semula*) and the rare Wilson's filmy-fern (*Hymenophyllum wilsonii*).
- 3.38 The site supports some important areas of heathland, containing a mixture of heather, bilberry, western gorse (*Ulex gallii*) and bell heather (*Erica cinerea*), whilst some other areas of the upper woodland fringe have been invaded by bracken (*Pteridium aquilinum*) or gorse (*Ulex europaeus*).
- 3.39 The Watersmeet SSSI does not support populations of Bechstein's or barbastelle bats and therefore these features are not considered further in this assessment.
- 3.40 This SAC supports extensive tracts of **old sessile oak woods** in conjunction with heath. They are rich in bryophytes, ferns (including *Dryopteris aemula*) and epiphytic lichens, the latter often associated with old pollards, since parts are former wood-pasture rather than the oak coppice that is more common with this type.
- 3.41 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, the habitats for the old sessile oak woods with *Ilex* and *Blechnum* in the British isles**' (Natural England conservation objectives). The attributes that measure the condition of the feature are:
- Age/size class variation within and between stands; presence of open space and old trees; dead wood lying on the ground; standing dead trees
 - Successful establishment of young stems in gaps or on the edge of a stand
 - Cover of native versus non-native species (all layers)
 - Death, destruction or replacement of native woodland species through effects of non-native fauna or external unnatural factors
 - Ground flora type
 - Distinctive and desirable elements:
 1. Rich Atlantic bryophyte communities.
 2. Western oakwood
 3. Breeding bird community.
 4. Streams and mires.

- 5. Transitions to alder wood.
 - 6. Transition to open heath with c. 15km of wood/heath edge
 - Air quality measures
 - Presence of undesirable indicator species
- 3.42 **Alluvial forests with *alder and ash*** comprises woods dominated by alder *Alnus glutinosa* and willow *Salix* spp. on flood plains in a range of situations from islands in river channels to low-lying wetlands alongside the channels. The habitat typically occurs on moderately base-rich, eutrophic soils subject to periodic inundation.
- 3.43 Many such woods are dynamic, being part of a successional series of habitats. Their structure and function are best maintained within a larger unit that includes the open communities, mainly fen and swamp, of earlier successional stages. On the drier margins of these areas other tree species, notably ash *Fraxinus excelsior* and elm *Ulmus* spp., may become abundant. In other situations the alder woods occur as a stable component within transitions to surrounding dry-ground forest, sometimes including other Annex I woodland types.
- 3.44 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, the habitats for Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)**' [Natural England conservation objectives]. The attributes that measure the condition of the feature are:
- Age/size class variation within and between stands; presence of open space and old trees; dead wood lying on the ground; standing dead trees
 - Structures associated with the hydrological regime
 - Successful establishment of young stems in gaps or on the edge of a stand
 - Cover of native versus non-native species (all layers)
 - Death, destruction or replacement of native woodland species through effects of non-native fauna or external unnatural factors
 - Ground flora type
 - Distinctive and desirable elements:
 - *Epiphytic lichens* (see Old sessile oak woods)
 - Transitions to old sessile oak woods.
 - Streams and mires.
- 3.45 **Otter *Lutra lutra*** are found on all types of watercourse including canals, ponds, lakes and reservoirs. They use tiny ditches and streams including dry watercourses as regular commuting routes. They may also cross overland between watersheds and will short cut across bends in rivers. (Chanin, 2003)

- 3.46 Otters are generally nocturnal and use undisturbed holts and couches in which to rest up. Couches occur in thick vegetative cover. Otter holts are usually tunnels in riverbanks among roots and boulders. Holt sites, used for lying up and breeding areas are located in areas away from human disturbance and can occur up to 50 metres away over dry land (Chanin 1993). Holts are known to occur in urban areas but are likely to be closer to a watercourse than in a rural setting.
- 3.47 Natal holts seem to be located away from main watercourses and from water altogether even being found 500 metres away. Most sites are within 3.5 metres of water although have been recorded 40 metres from a lake edge and 100 metres in a young conifer plantation. Breeding sites are generally located on but not restricted tributary streams (width 0.7 to 4 metres). (Chanin, 2003)
- 3.48 Main habitat types for otter breeding sites are: reed beds; ponds and lakes; deciduous woodland (ranging from 20 metre strip to several hectares; young conifer plantations; and extensive areas of scrub. Structures or buildings immediately adjacent to a watercourse may be used occasionally. Mature sycamore and ash trees are important as potential holt sites and holt density is higher in areas dominated by peat. (Liles, 2003)
- 3.49 Otter breeding sites require security from disturbance; one or more potential natal den sites; play areas for cubs; no risk of flooding; and access to good food supply. (Liles, 2003)
- 3.50 The presence of ash or sycamore trees along river banks is particularly important to otters as the roots of these species provide the majority of den sites. Other species used include rhododendron bushes, oak and elm trees. Bank side vegetation, such as woodland and scrub, can provide cover for otters. They also use reed beds and islands as rest sites and marshy areas to forage for frogs. Optimal habitat includes stream banks with dense herbaceous vegetation and fringes of trees (e.g. alder) with branches hanging low near the water, lakes, coastlands, rivers and marshes. (Chanin, 2003)
- 3.51 A dog otter requires about 20 kilometres of lowland river by about 20 metres wide as territory whilst a bitch requires about 11 kilometres (Wayre, 1979). Estimates for area of water occupied vary between 2 hectares and 50 hectares per otter. This is equivalent to one individual every 3–50km of stream (median value of one otter per 15 km of stream) (Chanin, 2003). An otter territory is approximately 15 to 20 kilometres long in Somerset or approximately three riverside parishes (pers. comm. James Williams, Somerset Otter Group) and are likely to be a similar extent in Devon.
- 3.52 Current factors considered to be causing loss or decline in otters include:
- Road mortality

- Pollution events
- Loss or fragmentation of habitat
- Human disturbance
- Liver fluke (introduced from 'alien' fish species)

3.53 The conservation objective for the feature is '**To maintain, subject to natural change, in favourable condition, Otter**'. The attributes that measure the condition of the feature are water quality, flow rate, site integrity, fish stocks, disturbance, bank side cover and the presence of otters.

Table 4: Exmoor and Quantock Oak Woodlands Qualifying Features

Qualifying features	Key environmental conditions to support site integrity
Old sessile oak woods with <i>Ilex</i> (holly) and <i>Blechnum</i> (fern) in the British Isles	Appropriate woodland management Air quality
Alluvial forests with <i>Alnus glutinosa</i> (alder) and <i>Fraxinus excelsior</i> (ash)	Appropriate woodland management Hydrology
Otter <i>Lutra lutra</i>	Maintenance of river water quality and flow Fish stocks Bankside vegetation Levels of disturbance

Ecological Zone of Influence

3.54 The **woodland habitats** are sensitive to changes in hydrology and to changes in air quality. The habitat therefore may be influenced outside the SAC by air pollution resulting from issues set out in Chapter 6.

3.55 There are records of **otters** for the East Lyn River and its tributaries and the species is likely to make use of all watercourses in the Lyn catchment. The watercourses are digitised for 10 kilometres both sides of a record and then buffered by an extent of 100 metres. (Otter holts can be located up to 100 metres away from water but most are within 3.5 metres [Liles, 2004]). This then forms the Ecological Zone of Influence for otters.

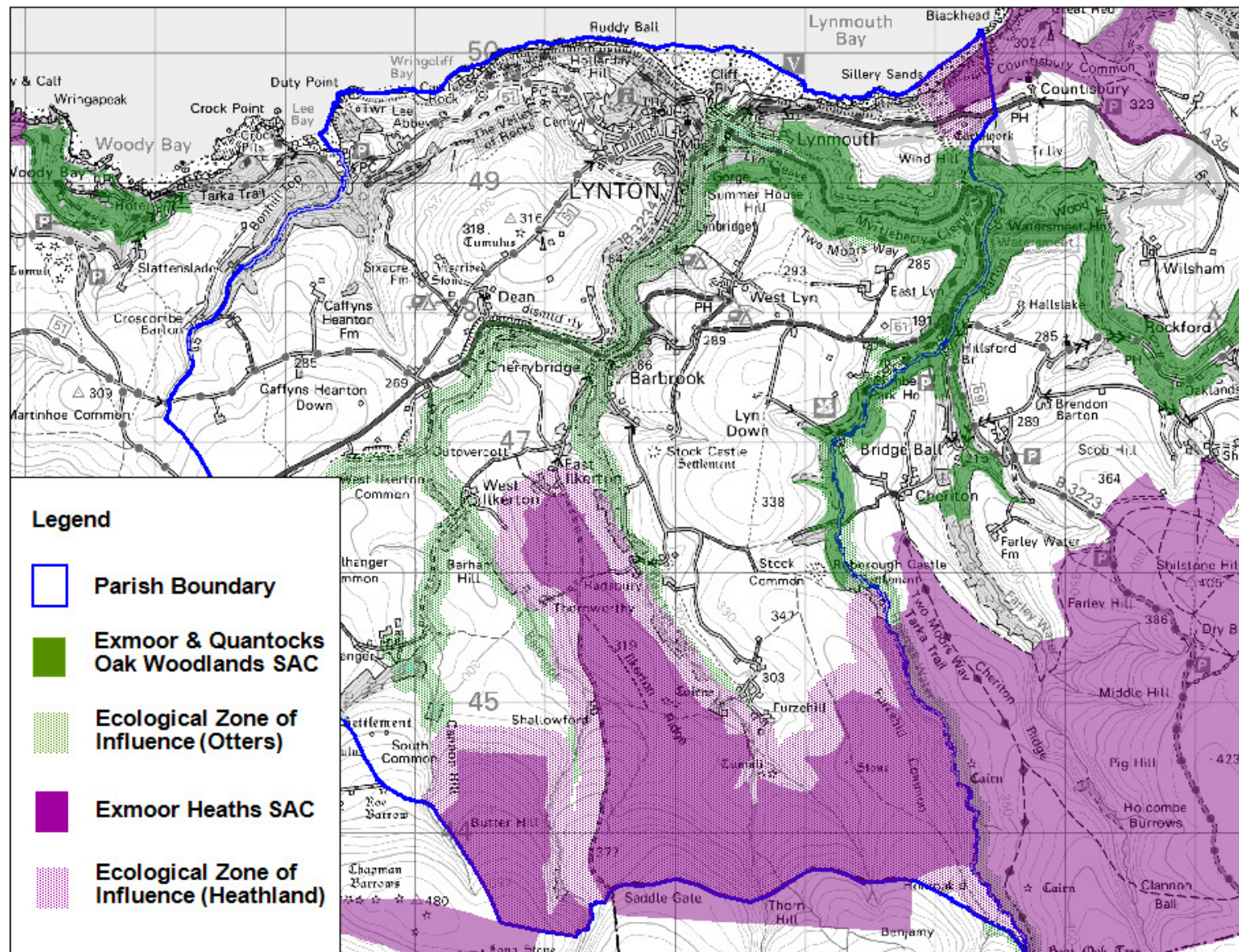
Vulnerability

3.56 Some grazing/browsing is essential to maintain conditions suitable for lower plant

assemblages, which are a key feature of the woodlands. However, sheep and/or red deer graze many woods and this can prevent regeneration and change the ground flora. Invasive non-native species such as *Rhododendron* are a problem in some woods and beech continues to be problematic in many sessile oak woodlands. Conservation bodies or management agreements are eliminating these species. Dense monocultures of coppiced oak occur, of little structural or species diversity. Opportunities are being taken to diversify age and species composition to restore near-natural conditions where possible, especially to encourage important upland breeding bird migrants such as wood warbler, redstart and pied flycatcher for which Exmoor woodlands has a stronghold.

- 3.57 Drainage and potential impacts of lowering water table (including abstraction) is potentially an issue. In the review of Agency consents, there are seven Agency consented abstraction and two discharge consents identified as potentially having a significant effect on the site.
- 3.58 There is potential conflict between forestry and woodland management, and potential impacts from surrounding land use (e.g. agriculture, pheasant rearing affecting bats and otter)

Figure 2: Ecological Zones of Influence (EZI)



4. Potential Impacts of the Plan on Ecology

Introduction

- 4.1 This chapter considers further the potential ecological impacts from actions in the Neighbourhood Plan on features of Natura 2000 sites. Any distances mentioned in the text will be used in considering impacts that may affect a Natura 2000 site and areas supporting ecological functioning arising, and are explained in the following sections.
- 4.2 The following potential affects on features of Natura 2000 sites are considered:
- Recreational Pressure
 - Habitat Loss
 - Habitat Fragmentation
 - Barrier Effects
 - Habitat Isolation
 - Proximity Impacts
 - Air Pollution
 - Hydrological Changes
 - Renewable Energy Schemes
 - Cumulative Impacts

Recreational Pressure

- 4.3 Increased recreational pressure from urban populations, including dog walking, jogging, horse riding, mountain biking, motorbike scrambling, off road car driving and other, mostly informal, are likely to result from housing and other development proposed in Local Plans or Core Strategies of district and borough councils within and surrounding the National Park. (Lowen et al, 2009; Penny Anderson Associates, 2009)
- 4.4 Exmoor National Park including Lynton and Lynmouth are also a popular holiday and leisure destination, and has many environmental assets that attract both visitors as well as residents. This can lead to significant pressure on sensitive habitats resulting in damage and disturbance to the species they support. Typical impacts of tourism and recreation include:
- Physical damage, for example from trampling and erosion.
 - Disturbance to species, such as ground-nesting birds and wintering wildfowl, from walking, cycling, and water sports, resulting in increased mortality and nesting success, and displacement.
 - Air pollution (dealt with under air quality below) and disturbance from traffic.

- Disturbance from dogs and damage from dog excrement.
- 4.5 In addition, in particular where sites are close to urban areas, recreational pressures can be exacerbated by other damaging activities described as proximity impacts above, rubbish tipping, vandalism, arson, and predation particularly by cats (see proximity impacts below).
 - 4.6 The impacts of tourism, recreation and urban effects can affect a wide variety of habitat types. Some of the most sensitive are heathland habitats, coastal habitats including dunes, shingle banks and estuaries, other wetlands and watercourses, woodland and grasslands. Trampling can be a serious issue which causes damage to or loss of vegetation. (Lowen et al, 2009; Penny Anderson Associates, 2009)
 - 4.7 The presence of humans can cause visual disturbance to some species, for example to birds (Treweek, 1999; Evink, 2002; Seiler, 2002). The introduction or increase in human activity in an area can affect sensitive species by reducing the amount of time spent on essential activity such as feeding or rearing young, and can lead to displacement, declines in populations or even local extinction. Where there is an open aspect human activity may cause disturbance affecting behaviour of sensitive birds, such as golden plovers, at some distance. For example, breeding golden plovers can be disturbed at distances of 200 metres by the presence of humans (Finney *et al*, 2005).
 - 4.8 Another example is otters. Anecdotal evidence suggests that otters are not seriously affected by disturbance from anglers, walkers and dogs. Otters do not appear to avoid houses, industry, roads and campsites. The response of otters to the sounds of anglers or walkers with dogs is to move to a position where they can see the source of disturbance, dive and swim underwater, then resurface and rest on the bank before resuming their previous activity a short while later. Although individual otters do not appear to be influenced by short periods of disturbance there is a lack of information on how sustained levels of disturbance influences female otters with young. (McCafferty, n/d)
 - 4.9 Traffic noise has been shown to affect the behaviour of species, e.g. bird densities decline where noise is over 50 dbA. Dutch and Swedish research (Reijnen et al, 1995; Helldin & Seiler, 2003) into breeding bird populations has shown an increased shift away from roads according to the amount and speed of traffic.
 - 4.10 Street lighting is known to effect wildlife by altering nocturnal conditions. Street lighting can disturb the diurnal rhythm of species. Many of the species, including otters and bats are sensitive to artificial lighting. Indeed, the introduction of street lighting can have significant effects on their behaviour, cause loss of access to feeding areas and resting areas, and hence affect the viability of populations. (Outen, 2002; Stone, 2009).

Habitat Loss

- 4.11 There is unlikely to be direct loss of habitat within the designated boundaries of a Natura 2000 site. However, outside the designated site loss of habitat is more likely through non recognition of the function it provides in ecologically supporting the conservation objectives of the features of the Natura 2000 site. This can be where land provides habitat which supports qualifying species that are usually mobile, e.g. bats and otters or where a habitat relies on water sources upstream of the site.
- 4.12 Habitat loss is a major threat to species. In some cases it is directly linked to mortality, and in other cases survival depends on the ability of displaced species to locate alternative habitat. Species require minimum habitat to maintain their populations and it is difficult to assess the impacts of any single scheme. Size of habitat left after loss is also important for species diversity, as there is a threshold for many species that makes smaller patches unviable. The spatial placement of habitat is also important (Treweek, 1999).
- 4.13 The effects may be local or on a larger geographic scale. Delayed effects of habitat loss are probably common but rarely analysed in ecological impact assessments. Species are not only threatened by habitat loss but also by reorganisation of land use and by reduction in size of habitat patches (Treweek, 1999).
- 4.14 There are specific issues relating to bats (where these are qualifying features) that need to be considered when assessing the potential effects of the plan. In many instances, Natura 2000 sites will have been designated for bat breeding and roosting sites. However, bats often rely on foraging habitat some distance away from the designated sites, and on habitat features linking foraging locations with breeding and roosting sites. As a result, in order to maintain the integrity of the Natura 2000 sites, and in particular to ensure that there are no adverse effects on bats as qualifying features, the foraging habitat and flight paths also need to be considered, and direct effects such as physical loss from development, or from indirect effects such as disturbance from people, traffic or artificial lighting need to be avoided. Direct loss or change of habitat due to land use change could affect the numbers and types of prey available.
- 4.15 Generally within the Lynton and Lynmouth Parish habitat loss is most likely to occur as a result of land use change, for example from forestry operations or agricultural practice, but also potentially from housing development.

Habitat Fragmentation

- 4.16 Fragmentation is the breaking down of habitat units into smaller units of habitat. It is linked to changes in quality and quantity. These could include increase in edge

effects, reduction in size of habitat and changes in species composition (Treweek, 1999).

- 4.17 A key issue in a fragmented landscape is the ability of species populations to survive in and move between small isolated habitat patches scattered within an urban and agricultural landscape. Research has shown that habitat size and wildlife corridors are of vital importance to nature conservation, and to a thriving and diverse wildlife (English Nature, 1996; Dufek, 2001; Evink, 2002). The value of a large area of semi natural habitat outweighs its division into smaller areas where alterations, for example to light, hydrology and levels of disturbance can have a radical effect on species survival. Fragmentation into smaller areas can lead to extinction of predators, larger species and habitat specialists as well effecting pollination in flora – for example Bluebells produce less seed in smaller areas. Road construction and widening would increase fragmentation effects. (Treweek, 1999; Evink, 2002; Seiler, 2002)
- 4.18 The reduction in habitat area would be less able to support a level of population prior to the land use change and may result in inbreeding to genetic problems and eventual local extinction (Treweek, 1999).
- 4.19 Changes in land management and improved rights of way access are most likely to cause habitat fragmentation in the Exmoor National Park.

Barrier Effects

- 4.20 Linear development, such as new roads and even cycle ways, can form barriers, which prevent the movement of wildlife through the landscape. This is a particular problem for migrating species. Many amphibians use different habitat at different seasons of the year. Barriers formed by roads can cause traffic casualties or reluctance in a species to cross it. Small mammals will not cross roads of 20 to 25 metres wide. Traffic density also forms part of the ability of species to cross roads. (Treweek, 1999)
- 4.21 Wild flowers, invertebrates, amphibians, reptiles and small mammals will be affected by the presence of a road. Those species, which are unable or reluctant to cross roads, will become isolated and hence lose genetic diversity. This isolation could also lead to in the long term the local extinction of some species, which in turn may affect others up the food chain. The creation of barriers or other obstacles affecting the movement of animals may be caused by cumulative development, be it roads and/or housing, within a species range. Road casualties are a significant cause of fauna mortality. In Somerset, otters are increasingly becoming victims of vehicle collision. In 2008 approximately 25% to 30% of the Somerset population were casualties. The situation is likely to be similar in Devon. Numbers of casualties counted are often under estimated (Slater, 2002).
- 4.22 Within the Parish barrier effects are most likely to occur from increased visitor

traffic using roads to access visitor locations.

Habitat Isolation

4.23 Habitat Isolation is the combined effect of habitat loss, fragmentation and barrier effects. It affects the genetics of a population if it cannot interact with populations elsewhere which can have a long-term effect on viability.

4.24 In general, consequences are:

- Loss of key species (species on which the ecology of other species depend); Reduction or extinction of species at newly formed edges, increased vulnerability to external influences such as disturbance, increased likelihood of invasion by uncharacteristic species;
- Inbreeding;
- Loss of characteristic species; and
- Increased vulnerability to stochastic events, e.g. climate change.

(Treweek, 1999)

4.25 Limitations on genetic exchange and response to climate change may have an effect on the population of the species maintained. This isolation can result in a 'sink' where a population is growing but there is not sufficient habitat to support this increase and there is no route out of the area to enable migration (Hanski, 1999).

Proximity Impacts

4.26 These are impacts on species and habitats arising from the closeness of development to a Natura 2000 site. They are numerous but can include:

- Disturbance effects from construction activities (including noise and lighting);
- Increased traffic impacts from construction activities;
- Increase human disturbance from use of the new site;
- Increased predation from domestic cats and increases in urban living species, such as foxes, rats and corvids;
- Increased fly tipping;
- Increased incidence of fires on heathland;
- Increased levels of lighting;
- Increased random disturbance events.

4.27 Habitat may also be degraded through increased fly tipping including of garden waste, which in turn may introduce alien species (e.g. see Gilbert & Beavan, 1997). Increased numbers of domestic cats (*Felis catus*) can lead to higher mortality to wildlife within 400 metres of new development (Woods et al, 2003).

- 4.28 Street lamps can also have an effect on prey availability to bats (Outen, 2002; pers. comm. Emma Stone, University of Bristol). Whereas they do not sustain insect populations *per se* but attract insects from the surrounding natural environment. Therefore, as a consequence of attracting the insects, street or other artificial lights can deplete prey availability for light sensitive bats in the surrounding area to where they have been installed.

Air Pollution

- 4.29 Certain interest features of Natura 2000 or Ramsar sites can be directly and/or indirectly affected by pollutants concentrated in the air such as oxides of nitrogen (NO_x), oxides of sulphur (SO_x) or ammonia, or by pollutants deposited on the ground through acidification or terrestrial eutrophication via soil (deposition of nitrogen).
- 4.30 Road transport is the source of a number of airborne pollutants. The impacts of nitrogen and nitrogen oxides deposition on vegetation growth are of particular concern. Transport produces other pollutants including sulphur dioxide, ozone and particulates. Air pollution has been linked to ill health amongst trees, particularly over mature specimens, and also a failure to regenerate, either from coppice, pollard or seed. In grassland nitrogen loving species will suppress sensitive flora. Lichens and bryophytes are particularly sensitive.
- 431 The Habitat Regulations Assessment of the draft Regional Spatial Strategy for the South West (2006) considered 200 metres as the outer distance from a road where nitrogen deposition is expected to occur. Bignall et al, (2004) consider that at an outer distance of 150 metres air quality returns to background levels. The greater distance is used, as a precautionary approach is required.
- 4.32 Within the Parish increased levels of visitor traffic are potentially the source of raised levels of deposition.

Hydrological Impacts

Water Quality

- 4.33 Many Natura 2000 sites are dependent upon there being appropriate water quality to support their integrity, including water courses and estuaries and other wetland habitats, as well as less obvious habitat types (such as heathlands) which may be dependent on ground water quality. Water quality can be affected by a number of factors, such as:
- Pollution from toxic chemicals, metals, oils, pesticides, etc., arising for example from accidental spills, industrial processes, run-off from urban areas, and agriculture.

- Pesticides and nutrient enrichment, for example from agricultural fertilisers, leading to eutrophication.
- Discharges from sewage treatment works, and over-flowing foul water systems at times of high rainfall and flooding.

4.34 Many of the most significant risks to water quality are as a result of agricultural activity. Housing development can potentially increase the risk of water quality being affected due to extra loads being placed on sewage treatment works, increased hard surfacing and hence run-off, and potential accidental spills, for example from port related activity. Diffuse pollution could result in an in combination impact. Changes in hard surface runoff may lead to changes in flow patterns in watercourses (storm water surges), and increased nutrient and sediment levels in watercourses. River, ditch and floodplain habitats such as alluvial forests would be especially vulnerable.

Groundwater Supply

4.35 Both groundwater and surface water levels can be affected by abstraction for public water supply and for industrial and agricultural uses. Climate change is likely to lead to drier summers, which could reduce the availability of water at a time when both population growth and per capita water usage is increasing. Particularly vulnerable are those habitats dependent on groundwater

Flood Risk Management

4.36 This impact may arise due to flood management schemes altering flows in river, stream and ditch habitats. Such impacts may not necessarily be negative, especially if the flood plain is used to manage flood risk.

Renewable Energy Schemes

4.37 Bat species that are features of Natura 2000 sites may be vulnerable to mortality from the development of wind turbines (Hötter et al, 2006; Mitchell-Jones & Carlin, 2009). There may also be other impacts as described above, such as disturbance effects, habitat loss and fragmentation.

In addition, an increasing number of hydro-electric schemes are being approved within the National Park Authority some of which could have impacts on otters. Hydroelectric schemes can also potentially including terrestrial and aquatic plants, lichens and fungi, and plant communities in a variety of ways, Potential effects are due to three categories of project operations:

1. Land disturbance and maintenance (e.g., installation and upkeep of pipework, electric lines and corridors, access tracks & roads);
2. Fluctuations in river/stream flows (e.g., flow alterations related to project operation);

3. Impoundment of water (e.g., changes in weir or ponded water elevations due to project operations).
4. Indirect effects of 2 & 3 on humidity in ravine and the stream/river adjacent habitat or host trees/substrates for lichens/mosses

Cumulative Impacts

4.38 Cumulative impacts are those where an impact in itself may not be significant, but in combination with other impacts from the plan, or from other plans and projects, may amount to a significant impact.

Summary of Potential Effects from Actions in the Neighbourhood Plan on SAC Features

4.39 The following table provides a general guidance on the potential significant effects that could arise from actions in the Neighbourhood Plan on the features of the Exmoor SACs. It is assumed that the effects of habitat loss, fragmentation and isolation on features would occur outside the designated site boundaries.

Table 5: Potential Impacts on SAC Features arising from the Neighbourhood Plan

Qualifying features	Recreational Pressure	Habitat Loss	Habitat Fragmentation	Barrier Effects	Habitat Isolation	Proximity Impacts	Air Pollution	Hydrological Impacts	Renewable Energy
Northern Atlantic wet heaths with <i>Erica tetralix</i> (Cross-leaved heath)	X					X	X	X	X
European dry heaths	X					X	X		
Blanket bogs	X					X	X	X	X
Alkaline fens						X	X	X	X
Old sessile oak woods with <i>Ilex</i> (holly) and <i>Blechnum</i> (fern) in the British Isles	X					X	X		X

Qualifying features	Recreational Pressure	Habitat Loss	Habitat Fragmentation	Barrier Effects	Habitat Isolation	Proximity Impacts	Air Pollution	Hydrological Impacts	Renewable Energy
Alluvial forests with <i>Alnus glutinosa</i> (alder) and <i>Fraxinus excelsior</i> (ash)	X					X	X	X	
Otter <i>Lutra lutra</i>	X	X		X		X		X	X

5. Other Relevant Plans or Projects

- 5.1 Article 6(3) of the Habitats Directive requires a HRA of ‘...any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect there on, either individually or in combination with other plan or projects’. Therefore it is necessary to identify plans and projects that may have ‘in-combination’ affecting the Nature 2000 sites, which are the focus of this assessment.
- 5.2 The assessment of significant effects for the Neighbourhood Plan needs to take account of the impact in combination with other plans and projects. For Natura 2000 sites where it is unlikely that the Neighbourhood Plan on its own will require a stage 2 Appropriate Assessment in relation to that site, it has been necessary to consider whether ‘in-combination’ effects are likely to result in an Appropriate Assessment being required.
- 5.3 The guidance states that only those that are considered most relevant should be collected for ‘in combination’ testing - an exhaustive list could render the assessment exercise unworkable. The following plans or strategies are considered to have potential effects and therefore have been included within the assessment.

Table 6: Assessment of Plans and Projects for In-Combination Effects

Plan or Project	Implications for the Neighbourhood Plan	Likely Significant Effects
Exmoor National Park Local Plan 2005 - 2011	The Neighbourhood Plans will have to conform to the policies and principles set out in these plans.	The Partnership Plan is not part of the development plan – it does not have policies, but a series of objectives and priorities to focus and co-ordinate efforts by us and other agencies to achieve the purposes for which the National Park was designated. One of the twelve priorities is to “support community led initiatives that help to meet local needs”. The Partnership Plan has a similar role to that of sustainable community strategies – the emerging Local Plan will therefore be a mechanism for delivering much of what is set out in the Partnership Plan.
Exmoor National Park Partnership Plan 2012 – 2017		<p>The Partnership Plan has undergone a HRA and amendments should ensure that there is no significant effect on Natura 2000 sites.</p> <p>The current Local Plan was adopted in 2005. This is currently under review and will be subject to a HRA in the process of adoption by the National Park Authority..</p>

Plan or Project	Implications for the Neighbourhood Plan	Likely Significant Effects
<p>Local Planning Authorities' Core Strategies or Local Plans including:</p> <p>North Devon</p> <p>West Somerset</p>	<p>New housing resulting from policy in district council Local Plans could have in-combination effects from increased potential for recreational effects on Natura 2000 sites.</p>	<p>Provisions in the Exmoor National Park Partnership Plan should prevent recreational damage to habitats and other disturbance to wildlife from increased visitor pressure. This will be considered in the assessment below.</p>
	<p>Traffic resulting from new housing and encouragement of tourism could potentially cause a decrease in air quality at sensitive sites.</p>	<p>Alone it was considered that air quality declines from traffic were either remote or distant from sensitive locations or that levels or traffic was small.</p>
<p>Rights of Way Improvement Plan 2006 (Somerset County Council)</p>	<p>As there are potentially in-combination impacts arising from increased recreational pressure where previously obstructed rights of way are opened up to or have improved access.</p>	<p>Provisions in the Exmoor National Park Partnership Plan should prevent recreational damage to habitats and other disturbance to wildlife from increased visitor pressure. This will be considered in the assessment below. However, this has not been adopted yet.</p>

6. Analysis of Policy in the Neighbourhood Plan

Introduction

- 6.1 The draft Neighbourhood Plan sets out Lynton and Lynmouth's policies for sustainable development which includes social, economic and environmental objectives.
- 6.2 Each policy will be assessed against each of the qualifying features of the Natura 2000 site's, identified in this report, in terms of 'significant effects' on those features. Many actions are likely to have a neutral or positive effect on each site feature and are therefore are likely to be eliminated at this stage of the HRA process as they would not have any significant effect on a Natura 2000 site.
- 6.3 "Significant" is interpreted as an effect likely to adversely affect a Natura 2000 site's integrity. "Integrity" is described in ODPM Circular 06/2005: Biodiversity and Geological Conservation as *'the site's coherence, ecological structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of species for which it was classified'* (ODPM Circular 06/2005, para. 20).
- 6.4 Significance will vary from site to site according to conservation sensitivities and magnitude of the potential impact. Assessment is triggered by likelihood not certainty in line with precautionary principle (European Communities, 2000). Therefore, the assessment considers whether effects are 'likely' and 'significant' and not every conceivable effect or fanciful possibility. The 'Waddensee' tests are used:
- Would the effect undermine the conservation objectives for the site?
 - Can significant effects be excluded on the basis of objective information?
- 6.5 Significant effects are also determined in-combination with other plans or projects and take account of cumulative effects.

Analysis of Effects on Natura 2000 Sites

- 6.6 This chapter will look at the likely direct, indirect or secondary impacts of each action listed against priorities, identified as potentially having a significant effect in the previous chapter on the integrity of designated sites, alone or in-combination with other relevant plans.
- 6.7 The determination of 'favourable condition'³ of a site is separate from the judgement of effect upon integrity. For example, there may be a time-lag

³ 'Favourable condition' means that the Natura 2000 site's features are being adequately conserved and is meeting the site is meeting its 'conservation objectives', however, there is scope for the enhancement of these sites

between a plan being implemented and a consequent adverse effect upon integrity becoming manifest in the condition assessment. In such cases, a plan may have an adverse effect upon integrity even though the site remains in favourable condition.

- 6.8 In addition, and in order to secure the long term presence and stability of Natura 2000 sites and the network, climate change should be a key consideration in the application of Habitat Regulations Assessment (HRA). Consideration should be given as to whether the plan inhibits in any way the potential of species to adapt to climate change.

Management for Nature Conservation Purposes

- 6.9 The Neighbourhood Plan does not introduce any management measures for nature conservation purposes at this stage.

Plan Analysis

- 6.10 Table 7 analyses the actions given in the Lynton and Lynmouth Neighbourhood Plan and for each gives an assessment of its potential impact on Natura 2000 sites. Those policies that have a potential significant effect are highlighted in Orange. Impacts on each qualifying feature for each site affected are then assessed in detail in Chapter 7.

Table 7: Plan Analysis

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
ENV1	<p>Location of Development & Protection of Open Spaces</p> <p>Previously developed sites within the existing extent of the settlements of Lynton, Lynmouth and Barbrook are the preferred locations for development.</p> <p>The development of Greenfield, infill sites within the settlements will also be supported subject to the following</p>			<p>The policy is non locational and does not give how much Greenfield infill or previously developed sites are available in the Parish.</p> <p>The policy contains generic protection of the environment however '<i>... important to the character and quality of the local environment</i>' is not further defined.</p>

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	<p>criteria:</p> <ul style="list-style-type: none"> the proposals would not result in the loss of open space of used by and of value to the community the proposals would not result in the loss of open space that is important to the character and quality of the local environment <p>The extension of the settlements onto adjoining Greenfield sites is not be supported by the Plan whilst Brownfield and Greenfield, infill sites within the settlements remain available, unless the proposals are covered by policies E7 and E8 (business and storage space), E9 (rural buildings and land in commercial use outside the settlements) and H4 (staff & seasonal workers)</p>	<p>Otters Disturbance at natal holt sites due to increased human activity generated by new residential housing, businesses or visitor pressure</p>	Exmoor and Quantocks Oak Woodlands SAC	<p>Otters at natal holts could be sensitive to increased or sustained human activity (McCafferty, n/d)</p>
		<p>Heathland habitats Degradation and /or loss of habitat due to increased access or development</p> <p>Woodland habitats Degradation and /or loss of habitat due to increased access or development</p>	<p>Exmoor Heaths SAC</p> <p>Exmoor and Quantocks Oak Woodlands SAC</p>	<p>It is considered that development is unlikely to occur within the boundaries of designated sites. However, there are potentially indirect impacts from increased human activity where development occurs on Greenfield sites adjacent or near to SAC boundaries. Development could also result in loss of habitat which ecologically supports the conservation objectives of the SAC outside of its boundaries</p>
		<p>Woodland habitats Degradation and /or loss of habitat due to decreased air quality</p>	Exmoor and Quantocks Oak Woodlands SAC	<p>There is potential for a decrease in air quality due to traffic generated by residential and business development and additional visitors. The A39 is adjacent to SAC woodland but remote from heathland habitats.</p>
E1	<p>Local Economy</p> <p>Proposals for economic development and premises for business will be supported, subject to the following criteria:</p> <ul style="list-style-type: none"> proposals should not have significant harmful impacts on the local community or prevent them 			<p>Although the policy states that <i>'proposals should not have significant harmful impacts on the natural environment of the area...'</i> it is considered that the word 'should' is not adequate when applied to Natura 2000 sites, which are required to be reasonably certain that no significant effect would occur.</p>

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	meeting their needs <ul style="list-style-type: none"> proposals should not have significant harmful impacts on visitors and visitor attractions and facilities proposals should not have significant harmful impacts on the natural environment of the area or the built environment of the villages 	Otters Disturbance at natal holt sites due to increased human activity generated by new residential housing, businesses or visitor pressure	Exmoor and Quantocks Oak Woodlands SAC	Otters at natal holts could be sensitive to increased or sustained human activity (McCafferty, n/d)
		Heathland habitats Degradation and /or loss of habitat due to increased access or development Woodland habitats Degradation and /or loss of habitat due to increased access or development	Exmoor Heaths SAC Exmoor and Quantocks Oak Woodlands SAC	It is considered that development is unlikely to occur within the boundaries of designated sites. However, there are potentially indirect impacts from increased human activity where development occurs on Greenfield sites adjacent or near to SAC boundaries. Development could also result in loss of habitat which ecologically supports the conservation objectives of the SAC outside of its boundaries
		Woodland habitats Degradation and /or loss of habitat due to decreased air quality	Exmoor and Quantocks Oak Woodlands SAC	There is potential for a decrease in air quality due to traffic generated by residential and business development and additional visitors. The A39 is adjacent to SAC woodland but remote from heathland habitats.
		Woodland habitats Loss of bryophyte and lichens species from hydro electric development	Exmoor and Quantocks Oak Woodlands SAC	Bryophytes and lichens would be subject to changes at a micro level in water environments from hydro electric schemes.

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 2	<p>Change of Use of Hotels & Guest Houses</p> <p>The change of use of hotels and guest houses (C1) to other uses will be supported subject to the following criteria:</p> <ul style="list-style-type: none"> • the alternative use will also support local tourism, including self catering accommodation • the alternative use will otherwise support the local economy by providing employment • the alternative use will contribute to the needs of the community – including providing affordable and primary residence housing – either on-site or through contributions to development on other sites 	None likely	None	Policy concerns hotels and guest houses only
E 3	<p>Loss of High Street Uses</p> <p>The loss of business premises used for A1, A2, A3, A4 and A5 uses to other uses will not be supported unless:</p> <ul style="list-style-type: none"> • it can be demonstrated that the use of the premises for these purposes is no longer viable • the proposed alternative use would provide equal or greater benefits for the local economy and community than the current use 	None likely	None	Policy concerns High Street uses only

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 4	Change of Use of Shops The change of use of premises used for A1 purposes to A2, A3, A4 and A5 uses will be supported subject to the following criterion: <ul style="list-style-type: none"> the change of use would not result in significant harmful impacts on the amenities of neighbouring residents 	None likely	None	Policy concerns shop use only
E 5	Other Tourist Facilities The loss of other tourist facilities to other uses will not be supported unless: <ul style="list-style-type: none"> it can be demonstrated that the tourist facility is no longer viable the proposed alternative use would provide equal or greater benefits for the local economy and community than the current use 	Otters Disturbance at natal holt sites due to increased human activity generated by new business	Exmoor and Quantocks Oak Woodlands SAC	Change of use may be detrimental to local wildlife
		Woodland habitats Degradation and /or loss of habitat due to decreased air quality	Exmoor and Quantocks Oak Woodlands SAC	There is potential for a decrease in air quality due to traffic generated by business development compared to former use. Conversely the opposite may also be the case. The A39 is adjacent to SAC woodland but remote from heathland habitats.
E 6	Temporary Uses The temporary use of buildings and open spaces for organised events will be supported subject to the following criteria: <ul style="list-style-type: none"> the temporary use would not have significant harmful impacts on the wider visitor experience the temporary use would not have significant harmful impacts on the amenities of neighbouring residents 	Heathland habitats Degradation and /or loss of habitat due to access Woodland habitats Degradation and /or loss of habitat due to access	Exmoor Heaths SAC Exmoor and Quantocks Oak Woodlands SAC	Although there is potential for disturbance to otters it is considered that the effect would be temporary. However, if the organised event is adjacent or near to the boundaries of a SAC there is potential for habitat loss or degradation due to trampling.

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 7	<p>Business Space</p> <p>The provision of new business space within and adjoining the settlements will be supported subject to the following criterion:</p> <ul style="list-style-type: none"> the proposals would not have significant harmful impacts on the amenities of surrounding residents and other activities the proposals would not have significant harmful impacts on the surrounding rural landscape and landscape setting of the settlement <p>The loss of business space will not be supported unless:</p> <ul style="list-style-type: none"> it is to be replaced with business space of an equal or higher quality on the same site or another site within the parish the proposed alternative use would overall provide equal or greater benefits to the local economy and community 	<p>Woodland habitats Degradation and /or loss of habitat due to decreased air quality</p>	<p>Exmoor and Quantocks Oak Woodlands SAC</p>	<p>It is considered that more sensitive otter holts, i.e. during the raising of cubs, would be located away from existing settlements.</p> <p>There is potential for a decrease in air quality due to traffic generated by new business development. The A39 is adjacent to SAC woodland but remote from heathland habitats.</p>
E 8	<p>Storage</p> <p>The provision of new storage space within and adjoining the settlements will be supported subject to the following criterion:</p> <ul style="list-style-type: none"> the proposals would not have significant harmful impacts on the amenities of surrounding residents and other activities 			<p>It is considered that more sensitive otter holts, i.e. during the raising of cubs, would be located away from existing settlements.</p>

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	<ul style="list-style-type: none"> the proposals would not have a significant harmful impact on the impact on the surrounding rural landscape and landscape setting of the settlement <p>The loss of storage space will not be supported unless:</p> <ul style="list-style-type: none"> it is to be replaced with storage space of an equal or higher quality on the same site or another site within the parish the proposed alternative use would overall provide equal or greater benefits to the local economy and community 	Woodland habitats Degradation and /or loss of habitat due to decreased air quality	Exmoor and Quantocks Oak Woodlands SAC	There is potential for a decrease in air quality due to traffic generated by new business development. The A39 is adjacent to SAC woodland but remote from heathland habitats.

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 9	<p>Rural Buildings and Land in Commercial Use Outside the Settlements</p> <p>The reuse of farm and rural buildings outside the settlements for business purposes will be supported subject to the following criteria:</p> <ul style="list-style-type: none"> • the proposed reuse would not have significant harmful impacts on the surrounding rural landscape • the proposed reuse would not have unacceptable impacts on the local road network • the proposed reuse would not cause unacceptable conflicts with agriculture and other land-based activities • the proposals would not have significant harmful impacts on the amenities of neighbouring residents and other uses • the buildings concerned would not require substantial rebuilding or extension <p>New business development on land already in commercial use outside the settlements will be supported subject to the following criteria:</p> <ul style="list-style-type: none"> • the scale and nature of the proposals would enhance the overall environment of the site and reduce the overall impact of the site on the surrounding rural landscape • the proposals would not have unacceptable impacts on the local road network • the proposals would not cause unacceptable conflicts with agriculture and other land-based activities • the proposals would not have significant harmful impacts on the amenities of neighbouring residents and other uses 	None likely	None	There is likely to be no significant effect on the Exmoor SACs as none support bats which use buildings. However, both bats and barn owls are potentially affected and it is recommended that these species be taken account of in the policy.

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 10	<p>Parking</p> <p>Development proposals resulting in a loss of parking capacity of all types will not be supported unless:</p> <ul style="list-style-type: none"> • for on-street and public car parks equivalent or better capacity is provided elsewhere in the settlement • for private car parks equivalent or better capacity is provided elsewhere instead or the need for the private parking capacity can be shown to be reduced as a result of the development proposals • Proposals for new development will be expected to demonstrate how any additional parking requirements generated will be accommodated 	None likely	None	Policy concerns parking only
E 11	<p>Temporary Parking</p> <p>Proposals for the temporary provision of additional parking capacity will be supported subject to the following criteria:</p> <ul style="list-style-type: none"> • the proposals would not have significant harmful impacts on the wider visitor experience • the proposals would not have significant harmful impacts on the amenities of neighbouring residents and other uses • the proposal is for a specified temporary period 	None likely	None	There are no existing car parks within or adjacent to the SACs

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
E 12	<p>Lynton & Barnstaple Railway</p> <p>The reinstatement of the Lynton & Barnstaple Railway, including the provision of a new Lynton station and the link from the station to the centre of Lynton will be supported subject to the following criteria:</p> <ul style="list-style-type: none"> • the proposals should be demonstrated to be technically feasible and financially viable • the proposals should include an effective means of accessing the centre of Lynton for passengers • the proposals would not have significant harmful impacts on the wider visitor experience • the proposals would not have significant harmful impacts on the amenities of residents and other neighbouring uses 	None likely	None	The railway is remote from the SACs and watercourses that might be used by otters.
H1	<p>Affordable Housing</p> <p>Proposals for affordable housing will be supported, subject to the following criteria:</p> <ul style="list-style-type: none"> • the proposals will contribute to meeting the affordable housing needs of the community in terms of types and sizes of dwelling, levels of affordability, and mix of tenures • the dwellings will be occupied by local persons in housing need in accordance with the definition in policy H3 • for owner occupied properties the net internal floor space will be less than 90 square metres 	None likely	None	The policy concerns affordable housing provision only

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
H2	Primary Residence Housing Proposals for primary residence housing will be supported, subject to the following criteria: <ul style="list-style-type: none"> the proposals are necessary to provide cross subsidy for affordable housing or other development directly benefiting the community, on the same site or another site within the parish the proposals would either meet the housing needs of local people or bring greater balance and mixture to the local housing market and creating new opportunities for people to live and work here the proposals are justified by an open book assessment of viability as defined by this Plan 			The policy does not specify location or amount of new primary residence housing
		Otters Disturbance at natal holt sites due to increased human activity generated by new residential housing	Exmoor and Quantocks Oak Woodlands SAC	Otters at natal holts could be sensitive to increased or sustained human activity (McCafferty, n/d)
		Heathland habitats Degradation and /or loss of habitat due to increased access	Exmoor Heaths SAC	It is considered that development is unlikely to occur within the boundaries of designated sites. However, there are potentially indirect impacts from increased human activity where development occurs on Greenfield sites adjacent or near to SAC boundaries. Development could also result in loss of habitat which ecologically supports the conservation objectives of the SAC outside of its boundaries
		Woodland habitats Degradation and /or loss of habitat due to increased access	Exmoor and Quantocks Oak Woodlands SAC	
		Woodland habitats Degradation and /or loss of habitat due to decreased air quality	Exmoor and Quantocks Oak Woodlands SAC	There is potential for a decrease in air quality due to traffic generated by residential and business development and additional visitors. The A39 is adjacent to SAC woodland but remote from heathland habitats.
H3	Local Connection Affordable houses in the Parish shall only be occupied by: <ul style="list-style-type: none"> persons (and their dependants) whose housing needs are not met by the market; and who have a minimum period of 10 years permanent and continuous residence in the parish or an adjoining parish; or are not now resident in the parish or an adjoining parish but with a local connection with the parish including a period of permanent and continuous residence of 10 years or more within the last 20; or has an essential need to live close to another person who has a minimum of 10 years permanent and 	None likely	None	The policy criteria for affordable housing only

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	<p>continuous residence in the parish or an adjoining parish, the essential need arising from proven age or medical reasons: or</p> <ul style="list-style-type: none"> • need to live close to their place of work in the parish or an adjoining parish <p>Where such a person (and their dependants) cannot be found an affordable house may then be occupied by:</p> <ul style="list-style-type: none"> • persons (and their dependants) whose housing needs are not met by the market; and • who have a minimum period of five years permanent and continuous residence in the parish or an adjoining parish; or • are not now resident in the parish or an adjoining parish but with a local connection with the parish including a period of permanent and continuous residence of five years or more within the last 10; or • has an essential need to live close to another person who has a minimum of five years permanent and continuous residence in the parish or an adjoining parish, the essential need arising from proven age or medical reasons <p>Where such a person (and their dependants) cannot be found, affordable homes may then be occupied by:</p> <ul style="list-style-type: none"> • persons (and their dependants) whose housing needs are not met by the market; and • who have a minimum period of 10 years permanent and continuous residence in the additional adjoining parishes listed below; or • are not now resident in the parish or an adjoining parish but with a local connection with the additional adjoining parishes listed below including a period of permanent and continuous residence of 10 years or 			

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	<p>more within the last 20; or</p> <ul style="list-style-type: none"> • has an essential need to live close to another person who has a minimum of 10 years permanent and continuous residence in additional adjoining parishes listed below, the essential need arising from proven age or medical reasons: or • need to live close to their place of work in the additional adjoining parishes listed below <p>The additional adjoining parishes are: Oare, Porlock, Exford, Withypool & Hawkridge, Mollard, Twitchen, North Molton, Baryford, Bratton Flemming, Kentisbury, Trentishoe.</p>			
H4	<p>Staff and Seasonal Workers</p> <p>Proposals for accommodation for staff & seasonal workers will be supported, subject to the following criteria:</p> <ul style="list-style-type: none"> • the need for such accommodation can be demonstrated, in terms of the business needs and the lack of existing suitable accommodation • that the accommodation is provided on the site of the business concerned - if this is not feasible then the accommodation should be provided within or adjoining the settlements • that should the need for the accommodation cease that it will be required to be offered for sale or rent as affordable housing as specified in policies H1 and H3 	None likely	None	<p>The scale of development is unlikely to be significant and would be located on exiting business use land or then adjacent to settlements. It is considered that more sensitive otter holts, i.e. during the raising of cubs, would be located away from existing settlements / businesses.</p>
S1	<p>Loss of Services and Facilities</p> <p>The loss of services and facilities of use to the community will not be supported unless:</p> <ul style="list-style-type: none"> • they are to be replaced with services and facilities of an equal or higher quality and value to the community on the same site or another site within the parish 	None likely	None	<p>The policy concerns loss of service and facilities only</p>

Policy	Brief Description	Potential Impact on Natura 2000 Sites	Natura 2000 sites Potentially Affected	Comment
	<ul style="list-style-type: none"> • where the services and facilities can be demonstrated to be no longer needed or viable, any proposed alternative use would overall provide equal or greater benefits to the local economy and community, including through contributions to development on other sites 			
S2	<p>New services and Facilities</p> <p>Proposals for the provision of new services / facilities of use to the community will be supported, subject to the following criterion:</p> <ul style="list-style-type: none"> • the proposals would not have significant harmful impacts on the amenities of residents and other neighbouring uses 	None likely	None	Services are likely to be located or adjacent to existing settlements
S3	<p>Community Assets</p> <p>The creation of new community assets through new development will be supported subject to the following criterion:</p> <ul style="list-style-type: none"> • the proposed asset meets a community need or creates opportunities the community wants • the proposed asset would be financially self sustaining • the asset will be held by a suitable body 	None likely	None	Community assets are likely to be located or adjacent to existing settlements

Analysis of Potential Significant Effects on Features of Natura 2000 Sites

6.11 Table 8 summarises the potential impacts identified in Table 7.

Table 8: Summary of Potential Impacts from the Plan

Feature Affected	Natura 2000 site	Potential Impact	Policies Causing Potential Impact
Otters	Exmoor and Quantocks Oak Woodlands SAC	Disturbance to holt sites including those used for breeding due to increased human activity arising from development	ENV1 Location of Development & Protection of Open Species E1 Local Economy E5 Other Tourist Facilities H2 Primary Residence Housing
Heathland Habitats	Exmoor Heaths SAC	Degradation and /or loss of habitat due to increased access	ENV1 Location of Development & Protection of Open Species E1 Local Economy E6 Temporary Uses H2 Primary Residence Housing
Woodland Habitats	Exmoor and Quantocks Oak Woodlands SAC	Degradation and /or loss of habitat due to increased access	ENV1 Location of Development & Protection of Open Species E1 Local Economy E6 Temporary Uses H2 Primary Residence Housing
		Degradation and /or loss of habitat due to decreased air quality	ENV1 Location of Development & Protection of Open Species E1 Local Economy E5 Other Tourist Facilities E7 Business Space E8 Storage H2 Primary Residence Housing
		Loss of bryophytes and lichens due to potential hydro electric schemes	E1 Local Economy

Otters

Disturbance to natal holts arising from development

- 6.12 The Ecological Zone of Influence (EZI) for otters is likely to extend into all watercourses flowing into and through the Exmoor and Quantocks Oak Woodlands SAC given that otter territories typically extend to around 15 to 20 kilometres in Somerset (pers. comm. James Williams, Somerset Otter Group) and are likely to be a similar extent in Devon.
- 6.13 As policy is non locational it is possible for development to occur near to areas where otters are sensitive to disturbance. This could also result in increased human activity along more remote sections of watercourses for leisure and / or dog walking.
- 6.14 Otters would be vulnerable to disturbance if development schemes are constructed near to holt sites, especially natal holts. However, although it was found in Scotland that disturbance to otters by construction work, even in remote locations, was minimal and that the species was tolerant. However, more sensitive natal areas were not investigated (Basset & Winn 2010).
- 6.15 Anecdotal evidence suggests that otters are not seriously affected by disturbance from anglers, walkers and dogs. Otters do not appear to avoid houses, industry, roads and campsites. The response of otters to the sounds of anglers or walkers with dogs is to move to a position where they can see the source of disturbance, dive and swim underwater, then resurface and rest on the bank before resuming their previous activity a short while later. Although individual otters do not appear to be influenced by short periods of disturbance there is a lack of information on how sustained levels of disturbance influences female otters with young. (McCafferty, n/d) Therefore it is assumed for the purposes of this assessment that increased activity around maternity holts could have a significant effect.
- 6.16 Natal holts seem to be located away from main watercourses and from water altogether even being found 500 metres away. Most sites are within 3.5 metres of water although have been recorded 40 metres from a lake edge and 100 metres in a young conifer plantation. Breeding sites are generally located on, but are not restricted to, tributary streams (width 0.7 to 4 metres). (Chanin, 2003)
- 6.17 Otter breeding sites require security from disturbance; one of more potential natal den sites; play areas for cubs; no risk of flooding; and access to good food supply (Liles, 2003).
- 6.18 No data regarding the locations of maternity holts have been obtained at the time of writing this report although Exmoor National Park Authority are trying to source the information. The National Trust has stated that otters are present in the steep

sided wooded valleys at Watersmeet⁴, which may also provide enough undisturbed habitat suitable for natal holts. Given the length of an otter's territory and the length of the River Lyn and its tributaries are unlikely to support a large population of otters and may be a single dog and two or three bitches.

- 6.19 Tourist hotspots include locations such as Glen Lyn Gorge south of Lynton and Lynmouth, which includes the West Lyn River which is likely to be within the territory of otters recorded in Somerset or Devon. A number of popular walks are advertised on the internet along riverside paths⁵ including from Lynmouth to Hillsford Bridge via Watersmeet.
- 6.20 Elsewhere public rights of way either cross or run alongside streams in areas where natal holts may be located but it is considered that current access along these paths is low.
- 6.21 It is considered where the current level of human activity is high any sensitive otter holts would be displaced to more remoter parts of the Lyn watercourses in the Parish and to the east in Somerset and away from roads. The amount of activity generated by development in Lynton and Lynmouth is unlikely to be on a scale that is significant, resultant numbers being sporadic and confined to day time hours only. It is also not expected increased leisure use by residents from new developments would expand the range of walkers into more remote parts to any significance. Increased activity by dogs is also unlikely further from settlements.
- 6.22 Hydro electric schemes have been put forward for Watersmeet. Although this would not prevent otter movement up and down watercourses but there is likely to be disturbance from the construction of access tracks and roads, from the installation and maintenance electricity lines and corridors and of pipework on developments⁶ outside the boundaries of the SAC but nonetheless in habitat that supports the SAC otter population. Hydro electric schemes can cause changes to the watercourse's hydrology including a reduction in water levels below the installation and pounding above and could prevention of fish movement up stream if fish passes are not installed. Fish spawning areas may also be lost⁷. This could affect the amount of prey available to otters. Although there is some evidence that large scale schemes associated with dams have had an adverse effect on otter populations (Mason, 1995; Macdonald & Mason, 1994) there is little evidence to suggest this occurs as a result of small scale schemes as would be appropriate to the streams within the National Park.
- 6.23 **It is concluded that there is unlikely to be significant effects from disturbance to the natal holts of otters caused by policies in the Plan.**

⁴ <http://www.nationaltrust.org.uk/watersmeet/>

⁵ http://www.whatsonexmoor.co.uk/exmoor_walking.htm

⁶ Hydroelectric scoping Watersmeet SSSI; Exmoor & Quantocks SSSI. Dr P F Ulf-Hansen, Unpublished Natural England report, 2008.

⁷ <http://www.snh.org.uk/publications/on-line/advisorynotes/37/37.htm>

Heathland Habitats

Degradation and /or loss of habitat due to increased access

- 6.24 A number of policies in the Neighbourhood Plan could increase and / or encourage recreational activity, which would include walking, cycling and other access to the countryside.
- 6.25 Habitat deterioration and loss from trampling can cause dwarf shrubs to be reduced by 50% cover with less than 200 – 400 passages/year and nitrogen enrichment from dog fouling can change heath to grassland. Wet heath plants are more sensitive. (Penny Anderson Associates, 2009) Even light trampling can damage heathland invertebrate communities. Heathland species may be indirectly affected by lack of grazing pressure in disturbed areas. Impact will depend on current path network, visitor numbers, length of sward, slopes, etc. Tall sward and current paths may minimize impact as walkers are unlikely to walk through tall heather. Fire is a potential hazard on heath especially if on the edge of settlements. (Natural England, unpublished CRow assessment)
- 6.26 Walking on or off paths resulting in repeated foot printing could result in localised trampling of habitat/plants, compaction of substrate or erosion of the peat surface, especially in areas of high use adjacent to honey-pot locations. Creation of new paths could have a similar result as above with trampling widths increasing in popular areas. Flushed areas are most sensitive along with sphagnum communities, which can be destroyed by 50 to 80 passages. An increase in visitor pressure with area-wide access could result in damage to this sensitive habitat. The most sensitive times of year are when the plants are flowering and setting seed. Blanket bog with flushes and bog mosses are most vulnerable to access. (Natural England, unpublished CRow assessment)
- 6.32 There are two areas of heathland in the Parish. Both have open access rights under the Countryside and Rights of Way Act 2000. One the Exmoor Coastal Heath SSSI component of the Exmoor Heaths SAC is located on the coast at the eastern boundary of the Parish and extends eastward into Somerset. This is about 2 kilometres east of Lynmouth. The heath is in an 'unfavourable recovering' condition due to the extent of bracken cover and overgrazing not due to access issues. Although the Southwest Coastal path runs from Lynmouth to Countisbury it runs outside the Exmoor Heaths SAC along its southern border and within the parish there are no other footpath access routes. Therefore, given its location and the likely level of development in Lynton and Lynmouth it is considered that there would not be a significant effect on the Exmoor Coastal Heaths SSSI component of the SAC.
- 6.33 The other SAC component is the North Exmoor SSSI, which is located about 3 kilometres south of Lynmouth at its most northern point. This occupies the southern part of the Parish south of the small settlements of Barbrook and East

Ilkerton. This SSSI is assessed as being in 'favourable condition' and there are no access issues. Footpath access to the heathland is via a single route running south from the settlements to Thornworthy and by a bridleway along the eastern edge of the SAC towards Radsbury and South Sparhanger. It is considered that it unlikely that no large developments would be located in these villages.

- 6.34 The other access across the heathland is by a bridleway running east / west from North Furzehill to Shallowford and by another bridleway running from Furzehill Common to Hoakoak. There are no large settlements nearby and large development is unlikely in the area.
- 6.35 **It is considered that there is unlikely to be a significant effect from actions in the Neighbourhood Plan on heathland habitat the Exmoor Heaths SAC.**

Woodland Habitats

Degradation and /or loss of habitat due to increased access

- 6.36 A number of policies in the Neighbourhood Plan could increase and / or encourage recreational activity, which would include walking, cycling and other access to the countryside.
- 6.37 Therefore, there is a risk that habitat deterioration and loss would occur due to increased leisure use from walkers, dogs, cyclists, horse riders and possibly off road vehicles arising from increased visitor pressure due to the promotion and encouragement of tourism in the National Park. This could be compounded by increased recreational activity arising from housing development in surrounding districts, such as North Devon and West Somerset.
- 6.38 In woodland habitat deterioration and loss from trampling can occur from passages as low as 40 to 50 per year. Bluebell (*Hyacinthoides non-scripta*) stands are damaged through first passages and 35 passages results in a path that is still visible one year after. Trampling can eliminate species, particularly those of low productivity and especially ancient woodland flora; lichens and some mosses. Trampling can affect species presence 10 metres or more off paths. Horse riders and mountain bikers increase the effect. (Penny Anderson Associates, 2009) Plant species on wet soils are more vulnerable and broad leaved plants disappear before grasses. Nitrogen enrichment from dog fouling can also cause species loss. (Footprint Ecology, 2009)
- 6.39 The Watersmeet SSSI component of the Exmoor and Quantocks Oak Woodlands SAC lies about 500 metres to the east of Lynmouth and 200 metres east of Lynton. The nearest compartments of the SSSI (1, 2 and 7) are in 'unfavourable recovering' condition due to woodland management issues and not degradation due to visitor access.
- 6.40 It is not expected that tourists are likely to visit woodland sites away from

hotspots in significant numbers. There are two or three footpaths running east from Lynmouth through the woodland along the East Lyn valley towards Watersmeet. The most popular is likely to be the Two Moors Way path which runs from Lynmouth to Cheriton some of which is under the management of the National Trust. It is more likely that the majority of access will be from leisure use by residents in Lynton and Lynmouth, which could increase following housing development or possibly from new business use such as nearby holiday accommodation.

- 6.41 Potentially an element of use will come from new dog walkers. Dog walkers on average take 3 walks a day totaling 107 minutes in time, or approximately 36 minutes per walk, at an average speed of 6.44 kilometres per hour (Mail on line, 11/2/2011). The average distance walked is therefore likely to be around 3 kilometres. Therefore the range of access is likely to reach about Wester Wood on the northern side of the valley before the majority walkers turn back. On the south side of the valley after climbing steeply up the SAC woodland through Lyn Cleave the Two Moors Way is then routed along the southern boundary of the designated site. Potentially there could be some increased passages along these footpaths causing habitat degradation at the western end of the Watersmeet component SSSI. However, considering the likely size of development at Lynton and Lynmouth and topographical constraints within the town it is unlikely that this would be significant.
- 6.42 **It is considered that significant effects are unlikely as a result of increased recreational access from new residents and businesses.**

Degradation and /or loss of habitat due to decreased air quality

- 6.54 Air quality may be affected by transport emissions from increased vehicle movements resulting from policies in the Neighbourhood Plan.
- 6.55 Road transport is the source of a number of airborne pollutants. The impacts of nitrogen and nitrogen oxides deposition on vegetation growth are of particular concern. Transport produces other pollutants including sulphur dioxide, ozone and particulates. Air pollution has been linked to ill health amongst trees, particularly over mature specimens, and also a failure to regenerate, either from coppice, pollard or seed. Nitrogen deposition can lead to decreases in mycorrhiza, loss of epiphytic lichens and bryophytes, and changes in ground vegetation⁸. It is considered that road traffic's influence is likely to be confined to within 100 metres of the road in woodland habitats (Bignal et al, 2007).
- 6.56 The Exmoor Oak Woodlands sites support extensive tracts of old sessile oak woods in conjunction with heath. They are rich in bryophytes, ferns (including *Dryopteris aemula*) and epiphytic lichens. In the summary of standards/factors that maintain site integrity it is stated that '*...woodland habitats and associated*

⁸ <http://www.apisdev.ceh.ac.uk/src/results?features=H91A0%2CH&submit=Next&sitecode=UK0030148&sitetype=SAC>

moss and lichen communities are sensitive to air pollution.

- 6.57 The A39 runs in a valley through the centre of the Watersmeet component of the oak woodland SAC. Here concentrations of nitrogen oxides are $6.8\mu\text{g NO}_x$ (as NO_2) m^{-3} but nitrogen deposition exceeds critical loading by 14.4 to 24.4 kg N/ha/year. Lichens, which are sensitive to air pollution, are reported to be declining and the part of the site is in unfavourable condition with regard to this group⁹ is located along the A39, which gives access to the popular tourist destinations of Lynton and Lynmouth. The nitrogen deposition of the site attributed to road transport as a percentage is 6.9%¹⁰. However current traffic levels are low. The Annual Average Daily Traffic is 1290 in 2011 and there has been a slight downward trend in vehicular use since 2007 (SCC data). If the presence of lichens is dependant on levels of traffic emissions these would already have been affected within 100 metres of the road by higher levels of traffic in the past and the development of improved emission controls from vehicle engines.
- 6.58 **It is considered that there would not be a significant effect on air quality adversely affecting habitat quality in woodland habitats within the Watersmeet SSSI component of the SAC.**

Changes to Environmental Conditions arising from Hydro Electric Schemes affecting Bryophytes and Epiphytic Lichens

- 6.59 Policy E1 makes it possible for hydro electric development to occur within the Parish.
- 6.60 Bryophytes and lichens are likely to be affected by hydro electric developments on all watercourses flowing into and through the Exmoor and Quantocks Oak Woodlands SAC¹¹.
- 6.61 Incised river valleys and particularly rocky ravines represent key refugia for these species. Many species depend on habitat created following rivers being in spate and on frequent periods of inundation. Humidity and spate flow are important factors.¹²
- 6.62 Hydro electric schemes can cause changes to a watercourse's hydrology including a reduction in water levels below the installation and pounding above. Therefore conditions necessary for some bryophytes and lichens may change with a resultant loss in these species.

⁹ <http://www.sssi.naturalengland.org.uk/Special/sssi/reportAction.cfm?report=sdrt13&category=S&reference=1003886>

¹⁰ <http://www.apis.ac.uk/src/results?features=WOODB%20CPH63&submit=Next&sitecode=1359&sitetype=SSSI>

¹¹ Hydroelectric scoping Watersmeet SSSI; Exmoor & Quantocks SSSI. Dr P F Ulf-Hansen, Unpublished Natural England report, 2008

¹² http://www.sepa.org.uk/water/hydropower/supporting_information/protected_areas_and_species.aspx

- 6.63 In addition there is likely to be disturbance to local habitats from the construction of access tracks and roads, from electricity lines and corridors and from the installation and maintenance of pipework on developments within the SAC.
- 6.64 However, with regard to the Neighbourhood Plan the area is still subject to policy within the Exmoor National Park Authority Local Plan. The adopted Local Plan does not include any specific policy on hydro-electric schemes although Policy LNC17 states that, '*Small scale proposals for renewable energy generation to serve the needs of individual properties or groups of properties will be permitted provided that they are compatible with the conservation of the landscape and wildlife of the National Park.*' The adopted National Park Partnership Plan (2012) [Management Plan] states under Priority C4.2 '*... continue to encourage and support the development of settlement sustainable energy planning, seeking integration where possible with other community planning initiatives (e.g. Neighbourhood Planning) and advising where renewable energy technologies would be unsuitable due to impacts on sensitive wildlife...*'¹³, which was in response to potential impacts from hydro electric schemes within the Habitats Regulations Assessment of that plan. The policy approach in the emerging Exmoor National Park Local Plan will be derived from the shared vision and objectives set out in the Partnership Plan.
- 6.65 **It is considered that although the policy in the Neighbourhood Plan is non locational there is unlikely to significant effect on bryophytes and lichens as a result of hydro electric development both located within and outside the boundaries of the SAC as policy from the higher tier of plan making and national legislation is likely to account for any potential development that might arise.**

¹³ <http://www.exmoor-nationalpark.gov.uk/?a=260857>

7. Conclusion

- 7.1 It is considered that the Lynton and Lynmouth Neighbourhood Plan is unlikely to have a significant effect on the conservation objectives of the Natura 2000 sites assessed.
- 7.2 It is considered that a Stage 2 Appropriate Assessment will not be required.

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