Habitat Regulations Assessment (Appropriate Assessment)

Dartmoor National Park Authority

Detailed Assessment of the LDF Core Strategy

April 2008

About this document

This document sets out the detailed Appropriate Assessment of the Dartmoor National Park Local Development Framework Core Strategy. It is the second stage in the process required by the 'Habitats Directive' and should be read in conjunction with the Habitat Regulations Assessment (Appropriate Assessment) Screening Report.

HRA is required of all plans that may have an impact on 'European Sites'; areas designated because of their exceptional importance as habitat. The screening process considered the potential impact each policy of the Core Strategy could have on European sites. The policies which are being considered in this document are those which have not been screened from the process, because a potential impact cannot be ruled out. These policies therefore require a more detailed assessment to determine whether they do have a significant effect on European sites, and to consider where necessary any measures required to mitigate impact.

The HRA process has been carried out by officers of the Authority working closely with Natural England and in consultation with a range of relevant bodies (set out in Appendix 2 of the Screening Report).

The Core Strategy is currently undergoing independent examination by an Inspector from the Planning Inspectorate. It was considered at the conclusion of the HRA screening stage that, whilst a potential impact on European sites by the Core Strategy could not be ruled out, any impact would not likely be significant and that the Core Strategy could not offer any further protection of sites. As such this document should consider whether policies may have an impact and, where this is the case, lead the preparation of the Development Control and Site Specific Policies DPD, and the Design Guidance SPD, in affording sites additional protection or mitigation.

The following issues have not been screened from the HRA screening report and as such require more detail consideration, in order to determine whether they may have an adverse effect on the integrity of European Sites.

Dartmoor SAC

- Physical damage to blanket bogs associated with recreational use
- Disturbance of otter habitat as a result of recreational disturbance
- Disturbance of Atlantic salmon habitat as a result of recreational disturbance
- Changes to flow as a result of new development impacting Atlantic salmon habitat

South Hams SAC

- Disturbance to areas surrounding greater horseshoe bat roost as a result of new development
- Disturbance to greater horseshoe bat maternity roost as a result of new development
- Change in light levels in caves as a result of new development
- Disturbance to caves as a result of new development

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Methodology

The Habitats Directive and Regulations do not specify how assessment should be undertaken. The methodology for this report is therefore based on the approach set out in the DCLG draft guidance document *Planning for the Protection of European Sites: Appropriate Assessment (2006),* the European Commission document *Assessment of plans and projects significantly affecting Natura 2000 sites (2001)* and the RSPB guidance *The Appropriate Assessment of Spatial Plans in England (2007).* It is also guided by the approach of the assessment of the Regional Spatial Strategy.

The guidance sets out the main stages of completing the process of Appropriate Assessment; this document sets out the detailed Appropriate Assessment (the screening report is produced separately, and should be read alongside this document).

Screening	**Identifying the sites, reasons for designation, the condition of the SAC and the SACs vulnerabilities** ↓ **Identifying other plans and programmes, that may have an impact on sites** ↓ **Identifying possible effects of the plans aims on the SACs** ↓ **Assessing whether possible effects could arise as a result of specific plan policies (coarse screening)** ↓ **Assessing the significance of effects of plan policies against the conservation objectives of the SAC and identifying whether detailed Appropriate Assessment is required**
Detailed Appropriate Assessment	**Scoping: gathering any further data on the site(s)** ↓ **Scoping: gathering any further information on the potential impacts** ↓ **Evaluation of impacts** ↓ **Consideration of any mitigation measures necessary**

The following section presents the detailed Appropriate Assessment of the potential impacts on the Dartmoor and South Hams SACs.

Dartmoor SAC

Blanket bogs and recreational use

What are the potential effects?

The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the Dartmoor SAC. A primary reason for the selection of this site, and the priority feature, is blanket bog. Dartmoor is the southernmost blanket bog in Europe and is representative of blanket bogs in south-west England. The main vegetation community is M17 *Scirpus cespitosus – Eriophorum vaginatum* blanket mire. Many of the bogs are dominated by purple moor-grass *Molinia caerulea*. Good areas are frequently encountered that are very wet, support frequent and widespread *Sphagnum* mosses of a range of species, and display small-scale surface patterning. Of particular note is the rare *Sphagnum imbricatum*, which occurs at two localities.

The previous Dartmoor National Park Management Plan (2001) identified areas and specific sites managed to accommodate heavy use, as well as areas with low recreational capacity (see Appendix 2). Whilst these have not been identified in the new Plan (2007-2012) a Recreation Strategy for Dartmoor is being prepared by the Authority which is likely to highlight these same areas, which currently receive a high volume of visitors and thus require special management.

The potential impact identified is that an increase in the population of the National Park, and surrounding areas may lead to an increase in recreational visits to more sensitive areas of Dartmoor, including the Dartmoor SAC. Exact numbers of current recreational visits are difficult to quantify, whilst the STEAM tourism report for the Dartmoor National Park estimated 2 million tourist day visitors and 1.8 million leisure day visitors in 2003 there is little evidence on the number of visitors undertaking specific activities (e.g. walking, or visiting a beauty spot) or on the geographical distribution of these visitors.

The indicative level of growth set out in the RSS for the DNP is just 50 dwellings per year. Population projections for the National Park indicate an increase of 1,000 by 2021 (a 3% increase over 15 years).

What might be the impact on the SAC?

SSSI condition monitoring indicates the South Dartmoor SSSI is generally in unfavourable recovering condition. Where a cause is identified this usually relates to overgrazing or undergrazing, some areas are also recovering from fires (some of which are planned and some unplanned). Similarly the North Dartmoor SSSI is mainly in either unfavourable recovering, or favourable condition, the reasons for less favourable conditions relate to again to the overgrazing or moor burning.

It is considered as part of the Screening Report that physical damage could occur within the SAC as a result of increased recreational activity. This would include trampling and erosion, resulting in damage of blanket bog habitat and an affect on the conservation objectives of the site. Equally a rising number of recreational visits can result in increase in the occurrence of accidental fires within the SAC and

consequential damage to blanket bog. Fire is considered a potentially significant issue in the Dartmoor SAC as identified in SSSI condition monitoring and reflected in Commons Management Plans.

What measures already exist to minimise impacts?

The areas identified as being managed to accommodate heavy use are not purely reactionary. They are not in existence simply as a result of being popular areas with visitors, but because they are considered to be in areas capable of sustaining a degree of heavy use and as they also have appropriate facilities in place to cater for a larger volume of visitors. Further to this information and interpretation is used to guide people away from particularly sensitive areas and draw their attention to their own potential impact.

Areas managed to accommodate heavy use can be located close to areas with low recreational capacity. Key visitor car parks and sites managed to accommodate heavy use are however a reasonable distance from the SAC with Cadover Bridge, Shipley Bridge and Burrator car parks 1.7km, 2.4km and 3km respectively from the South Dartmoor SSSI. The North Dartmoor SSSI has Postbridge within 1.5km, and Meldon and Fernworthy reservoirs adjacent to the SAC. Live military firing on the north moor limits public access, however, and the areas is less likely to receive large numbers of day visitors.

It is considered that even with an increase in the number of visitors to these sites (only a very minor number of which might be apportioned to the Core Strategy) the distance from key visitor car parks would mean a very small increase in visitors to the SAC. Furthermore the focussed management of sites adjacent to, and close to the SAC, is designed to direct visitor movements within desired areas which most visitors are already intending to visit.

A programme of alerting the public to the dangers of starting accidental fires is already undertaken by the National Park Authority. In addition, a Moorland Management Forum is established so that farmers and conservationists can share knowledge on moorland management and reduce the potential for damage by fires. A Moorland Fire Liaison Group has now been in existence for several years.

Is any remaining impact significant?

It is considered that there is no significant impact on the integrity of the SAC. The Core Strategy is likely to result in a negligible increase in visitor number to popular 'honey pot' sites on Dartmoor. Existing measures are already in place to prevent a high number of recreational visits to the SAC. It is also important to note that a significant proportion of fires are started intentionally and not accidentally started by visitors.

It is also important to note that any existing recreational impact is not considered to be having an effect on the integrity of the SAC (as measured through SSSI monitoring), most concerns over poor condition are related to grazing levels or fire.

Are any further mitigation measures required?
No further mitigation measures are required, though it is considered important that the effective management of heavily used sites and areas is sustained through the DNPA Recreation Strategy in conjunction with SAC and SSSI conservation objectives.

Otter habitat and recreational disturbance

What are the potential effects?
The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the Dartmoor SAC. The otter is an Annex II species present as a qualifying feature, but not a primary reason for site selection**.** The JNCC notes that "historically, otters (*Lutra lutra)* occurred over most of the UK. However, persecution, habitat loss and, more recently, the impact of toxic organochlorine insecticides caused a marked reduction in the range of the species. Sites that are known to support high densities have been selected [as SACs] to represent the current strongholds of the population. The sites selected also cover the ecologically variable conditions in which the species is found across its range. As well as a known high density of otters, sites selected have good quality habitat features necessary for feeding and breeding". (JNCC 2008) The latter applies to the Dartmoor SAC, designated as it is considered to support a significant presence of the species.

The previous Dartmoor National Park Management Plan (2001) identified areas and specific sites managed to accommodate heavy use, as well as areas with low recreational capacity (see Appendix 2). Whilst these have not been identified in the new Plan (2007-2012) a Recreation Strategy for Dartmoor is being prepared by the Authority which is likely to highlight these same areas, which currently receive high volume of visitor and thus require special management.

The potential impact identified is that an increase in the population of the National Park, and surrounding areas may lead to an increase in recreational visits to more sensitive areas of Dartmoor, including the Dartmoor SAC. Exact numbers of current recreational visits are difficult to quantify, whilst the STEAM tourism report for the Dartmoor National Park estimated 2 million tourist day visitors and 1.8 million leisure day visitors in 2003 there is little evidence on the number of visitors undertaking specific activities (e.g. walking, or visiting a beauty spot) or on the geographical distribution of these visitors.

The indicative level of growth set out in the RSS for the DNP is just 50 dwellings per year. Population projections for the National Park indicate an increase of 1,000 by 2021 (a 3% increase over 15 years).

What might be the impact on the SAC?
Otters are vulnerable to disturbance from a range of recreational activities. Otters can be tolerant of disturbance but rely on adequate cover and secure areas to rest. Activities such as the use of rivers by canoeists, anglers and walkers can disturb them; otters (and nursing females in particular) can be sensitive to disturbance by dogs

What measures already exist to minimise impacts?
The areas identified as being managed to accommodate heavy use are not purely reactionary. They are not in existence simply as a result of being popular areas with visitors, but also because they are considered to be in areas capable of sustaining a degree of heavy use and as they have appropriate facilities in place to cater for a larger volume of visitors. Further to this information and interpretation is

used to guide people away from particularly sensitive areas and draw their attention to their own potential impact.

Popular areas for gaining access to the rivers linked with Dartmoor SAC include: New Bridge, Dartmeet, Lower Cherrybrook Bridge, Two Bridges, Bellever and Postbridge (The Dart); Shipley Bridge (The Avon); Cadover Bridge (The Plym); and Meldon Reservoir (The West Okement) (see Appendix 2).

It is considered that even with an increase in the number of visitors to these sites (only a very minor number of which might be apportioned to the Core Strategy) the distance from key visitor car park would mean a very small increase in visitors to the SAC. Furthermore the focussed management of sites adjacent to, and close to the SAC, is designed to direct visitor movements within desired areas which most visitors are already intending to visit.

The implementation of the CRoW Act allowed for public access into areas which may have been previously restricted. Some such areas were considered to be of a particularly sensitive nature and restrictions were imposed on access. On the West Dart between Two Bridges and Huccaby access is restricted to ensure walkers keep dogs on a lead, this is due to the particular importance of this area as both otter and salmon habitat. The restriction has been imposed since the implementation of the CRoW Act and is due a review of its success in 2008, which will be undertaken by the National Park Authority.

The River Dart is the most popular canoeing destination in the National Park and the magnificent white water is considered by many canoeing enthusiasts to be amongst the best mid grade runs in the west. Canoeists are made aware that if they are planning to canoe the Dart they should remember that the Dart valley is a habitat of European importance and has been identified as prime biodiversity area. To preserve the special qualities of the area canoeing is only permitted during the winter months and the numbers of canoeists permitted to paddle on any one day are limited. A booking system is operated on the upper section only by the British Canoe Union. Dartmoor National Park Authority Recreation and Ranger Service has an agreed Code of Conduct with the Canoe Union.

Is any remaining impact significant?

A range of measures are in place to minimise the impact of recreational activities on the otter habitat of the Dartmoor SAC. Whilst the direct impact on the SAC is limited due to its accessibility from popular locations it is important to consider the downstream links. It is considered however that measures which are already in place to limit recreational impacts on otter habitat remain equally robust against any minor increase in visitors arising from the level of growth set out in the Core Strategy.

Areas which are particularly vulnerable are already afforded a further degree of protection through the careful management, agreed codes of conduct and CRoW restrictions.

Are any further mitigation measures required?
The continuation of existing schemes and the monitoring of their success is vital to the careful safeguarding of otter habitat. The implementation of the Dartmoor National Park Management Plan 2007-2012 and the preparation of the Dartmoor Recreation Strategy will also play an important role in the continued protection of the SAC

Atlantic salmon habitat and changes to flow

What are the potential effects?

The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the Dartmoor SAC. Atlantic salmon is an Annex II species present as a qualifying feature, but not a primary reason for site selection. The JNCC states that "site selection has… taken into account the considerable variation in the ecological and hydrological characteristics of salmon rivers in the UK, and in the life-cycle strategies adopted by the salmon within them" (JNCC 2008) and notes that Dartmoor SAC is considered to support a significant presence of the species. The JNCC notes in general that "the species is subject to many pressures in Europe, including pollution, the introduction of non-native salmon stocks, physical barriers to migration, exploitation from netting and angling, [and] physical degradation of spawning and nursery habitat..." (JNCC 2008).

The indicative level of growth set out in the RSS for the DNP is just 50 dwellings per year, Cores Strategy policy CO2 aims to achieve 60% of this development in the 8 Local Centres. Population projections for the National Park indicate an increase of 1,000 by 2021 (a 3% increase over 15 years).

What might be the impact on the SAC?

There is potential for the salmon habitat to be negatively affected by new development, such impacts are more likely to be of significance outside the SAC along river corridors which lead from potential spawning areas within the SAC. Of particular note are the Local Centres of Buckfastleigh, Ashburton, South Brent, Horrabridge and Princetown; the Rural Settlements of Buckfast, Meavy, Postbridge, Sticklepath and Widecombe-in-the-Moor also have salmon records nearby (see Appendix 2).

Damage to salmon habitat could potentially take the form of flow changes resulting from channelisation (for example to reduce flood risk within a settlement) as well as other flood defence measures within rivers. There is also the possibility that changes to abstraction rates may affect flow levels which in turn have the potential to impact spawning areas and fish movements. There is a range of abstraction points within and downstream of Dartmoor SAC including on rivers with salmon records.

What measures already exist to minimise impacts?

The Environment Agency (EA) has completed Catchment Abstraction Management Strategies (CAMS) which include a consideration of Water Resource Management Units (WRMUs) which are linked with Dartmoor SAC. WRMUs close to Dartmoor SAC are almost wholly at a status of either 'over-abstracted' or 'no water available'. Over abstracted status means "existing abstraction may be causing unacceptable damage to the environment at low flows" (Environment Agency 2007), where a CAMS area includes SACs the Environment Agency has a duty to consider the impact of licenses upon these sites as a 'competent Authority' responsible for delivering the Habitats Directive. Existing licenses are being considered within the Review of Consents (RoC) process.

In addition to statutory protection specific works have been undertaken to improve salmon habitat as part of the Action for Wildlife project (in support of the Dartmoor Biodiversity Action Plan). This includes work at Lower Cherrybrook Bridge, Merryfield Weir, the Blackaton Brook, the West Webburn, the South Teign and the Wildlife Action Zones for salmon.

Further to consideration of the impact of abstraction the Core Strategy establishes important protection for biodiversity interests through Policy COR7. Further protection is also provided through policy ENV1 in the draft Regional Spatial Strategy. Policy ENV1 states "any development that could have any negative effect on the integrity and conservation objectives of a N2K site would not be in accordance with the development plan" (SWRA 2008). Additionally, at a sub-regional policy level with reference to South Hams SAC it is stated that "the integrity of the N2K sites should be protected from adverse effects; there is likely to be a need for HRAs at an LDD stage or project level application proposals" (SWRA 2008).

Is any remaining impact significant?

It is considered that robust protection is already in place through existing policy and protection mechanisms. The CAMS and water abstraction license process prevents any further licensed abstraction on rivers which may adversely affect the integrity of an SAC. It is also a requirement that new licenses are demonstrated to have no adverse affect on an SAC. As a competent Authority the EA has a duty to ensure any flood protection mechanisms will not adversely affect the integrity of the SAC (i.e. the implementation of the Habitats Directive). Further to this it has been shown that new development is likely to occur at such a small level through the Core Strategy that existing measures remain strong.

Are any further mitigation measures required?

No further measures are required in relation to EA licensed abstraction. Further consideration of any direct impacts on the river channel will be achieved through the careful allocation of any sites in the Generic Development Control and Site Specific Policies DPD, which will itself also be subject to Appropriate Assessment.

Atlantic salmon habitat and recreational disturbance

What are the potential effects?

The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the Dartmoor SAC. Atlantic salmon is an Annex II species present as a qualifying feature, but not a primary reason for site selection. The JNCC states that "site selection has also taken into account the considerable variation in the ecological and hydrological characteristics of salmon rivers in the UK, and in the life-cycle strategies adopted by the salmon within them" (JNCC 2008) and notes that Dartmoor SAC is considered to support a significant presence of the species. The JNCC notes "the species is subject to many pressures in Europe, including pollution, the introduction of non-native salmon stocks, physical barriers to migration, exploitation from netting and angling, [and] physical degradation of spawning and nursery habitat..." (JNCC 2008).

The previous Dartmoor National Park Management Plan (2001) identified areas and specific sites managed to accommodate heavy use, as well as areas with low recreational capacity (see Appendix 2). Whilst these have not been identified in the new Plan (2007-2012) a Recreation Strategy for Dartmoor is being prepared by the Authority which is likely to highlight these same areas, which currently receive high volume of visitor and thus require special management.

The potential impact identified is that an increase in the population of the National Park, and surrounding areas may lead to an increase in recreational visits to more sensitive areas of Dartmoor, including the Dartmoor SAC. Exact numbers of current recreational visits are difficult to quantify, whilst the STEAM tourism report for the Dartmoor National Park estimated 2 million tourist day visitors and 1.8 million leisure day visitors in 2003 there is little evidence on the number of visitors undertaking specific activities (e.g. walking, or visiting a beauty spot) or on the geographical distribution of these visitors.

The indicative level of growth set out in the RSS for the DNP is just 50 dwellings per year. Population projections for the National Park indicate an increase of 1,000 by 2021 (a 3% increase over 15 years).

What might be the impact on the SAC?

Recreational disturbance of salmon habitat can take several forms. Dam building (usually by children) across rivers and streams can stop fish from moving upstream, trap them in pools so they become easy targets for predators and cause silt to build up so that the gravel becomes unsuitable for spawning. At certain times of the year (October to May) footsteps and disturbance by humans and dogs can damage or destroy the eggs in a redd. Finally, catching and releasing juvenile salmon can kill them.

Popular areas for gaining access to the rivers linked with Dartmoor SAC include: New Bridge, Dartmeet, Lower Cherrybrook Bridge, Two Bridges, Bellever and Postbridge (The Dart); Shipley Bridge (The Avon); Cadover Bridge (The Plym); and Meldon Reservoir (The West Okement).

What measures already exist to minimise impacts?
A number of mechanisms exist which aim to minimise the potential impact of recreation on salmon habitat. The previous Dartmoor National Park Management Plan established sites managed to accommodate heavy visitor use, such sites are a focus for information and interpretation which advises visitors of the sensitivity of sites and their potential impacts, and walks and routes are often designed to guide visitors away from the most sensitive areas. Such areas also often have on-site facilities such as toilets and will receive a regular ranger presence.

Specific works have been undertaken to improve salmon habitat as part of the Action for Wildlife project (in support of the Dartmoor Biodiversity Action Plan). This includes work at Lower Cherrybrook Bridge, Merryfield Weir, the Blackaton Brook, the West Webburn, the South Teign and the Wildlife Action Zones for salmon. Wildlife action zones for salmon were established by the National Park Authority in 2002. Four areas at Pizwell (SX 669776), Runnage (SX 668788), Lower Cherrybrook (SX 632747) and Bellever (SX 658773) were identified as locations where important salmon habitat occurred in areas popular with visitors. In these areas information is provided in the form of leaflets available at information centres and information boards at the sites or nearby car parks. Information is provided which advises visitors of the sensitivity of the sites and of the potential impacts which they may have on salmon habitat.

The implementation of the CRoW Act allowed for public access into areas which may have been previously restricted. Some such areas were considered to be of a particularly sensitive nature and restrictions were imposed on access. On the West Dart between Two Bridges and Huccaby access is restricted to ensure walkers keep dogs on a lead, this is due to the particular importance of this area as both otter and salmon habitat. The restriction has been imposed since the implementation of the CRoW Act and is due a review of its success in 2008, which will be undertaken by the National Park Authority.

Is any remaining impact significant?
It has been shown that the projected increase in population of the National Park is relatively limited and can be assumed therefore that any increase in recreational visitor numbers is likely to be equally limited in increase.

Existing projects and mechanisms aimed at reducing the impact of recreational activities on salmon habitat have proven successful (if only on an ad hoc monitoring basis). Additional work on the review of the West Dart CRoW restrictions and the preparation of the Dartmoor Recreation Strategy will highlight any remaining significant impact on salmon habitat in these areas and identify any measures necessary to mitigate any impacts.

Are any further mitigation measures required?
The continuation of existing schemes and the monitoring of their success are vital to the careful safeguarding of salmon habitat. The implementation of the Dartmoor National Park Management Plan 2007-2012 and the preparation of the Dartmoor Recreation Strategy will also play an important role in the continued protection of the SAC

Dartmoor SAC - Information sources:
- Map of Dartmoor SAC
- Dartmoor SAC Conservation Objectives (Natural England)
- SSSI Condition Survey (Natural England)
- Dartmoor National Park Management Plan 2001 (DNPA)
- Dartmoor National Park Management Plan 2007-2012 (DNPA)
- Joint National Conservation Committee (JNCC): UK SAC site list http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012929
- STEAM report for Dartmoor National Park 2003 (DNPA)
- Strategic Environmental Assessment of the DNP Core Strategy (DNPA)
- Dartmoor Biodiversity Action Plan (DNPA)
- Tamar Catchment Abstraction Management Strategy (EA)
- Teign, Torbay & S. Hams Catchment Abstraction Management Strategy (EA)
- Torridge & Hartland Streams Catchment Abstraction Management Strategy (EA)
- HRA of the Plymouth City Council LDF Core Strategy (PCC – Jan 2007)
- EA Salmon monitoring data (DNPA GIS)
- Action for Wildlife – Wildlife Action Zone for Salmon: Visitor Information (DNPA 2002)
- CRoW restrictions (DNPA)

South Hams SAC

Areas surrounding greater horseshoe bat roost and new development

What are the potential effects?
The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the South Hams SAC. The primary reason for the selection of this site is the significant population of Greater Horseshoe bats; this SAC is thought to hold the largest population of the species in the UK. It contains the largest known maternity roost in the UK, and possibly Europe. The Joint Nature Conservation Committee notes the bats are vulnerable to the loss of insect food supplies due to insecticide use, changing farming practices and the loss of broad-leaved tree-cover, and to the loss or disturbance of underground roost sites.

The SAC is comprised of a number of constituent SSSIs including Bulkamore Iron Mine SSSI (near Rattery, 1.5km from the National Park), Haytor and Smallacombe Iron Mine SSSI (near Haytor Vale, within the National Park), and the largest site at Buckfastleigh Caves SSSI (Buckfastleigh, within the National Park) (see Appendix 2).

Guidance on Greater Horseshoe bat habitat protection notes the importance of the retention of ancient woodlands, orchards and old trees; grazed permanent pastures, particularly as small fields with large hedges; hedges managed as tall bushy structures with mature trees; creating new hedgerows and tree lines across open pasture. It advises that priority is given to foraging areas within 4km of maternity roosts (JNCC 2001).

What might be the impact on the SAC?
The English Nature radio tracking study of Buckfastleigh Caves SSSI found the majority of foraging areas lay within 6km of the main roost (English Nature 2003). The most favoured foraging areas were associated with mosaics of high overgrown hedges and tree lines surrounding pasture, rough grassland or scrub with nearby woodland edge and riparian habitat. Key flight corridors were found to be associated with watercourses and tall bushy hedgerows particularly along roads.

Hedgerows were found to be particularly important foraging places for this colony, appropriate attention should be given to the maintenance of high dense hedgerows with proximity of the roost, and particularly along flight corridors and in foraging areas identified in the radio tracking study.

Buckfastleigh is classified as a Local Centre under policy COR2 of the DNPA Core Strategy; as such it will be expected to meet (along with 7 other settlements) 60% of the projected new housing guideline provision (of 50 dwellings pa) for the National Park. Policy COR15 sets out the type (tenure) of housing that will be permitted in the Local Centres, policy COR18 set out the type of employment and business development which would be acceptable.

There is a risk that new development could impact the SAC through the disturbance or destruction of foraging areas, or through the disturbance of flight

corridors. It is also important to consider the conversion, renewal or redevelopment of existing buildings, particularly disused buildings and those in areas identified by the radio tracking study.

Haytor Vale is not a classified settlement and as such would be considered open countryside from a policy perspective in the Core Strategy; development would therefore be limited to meeting need for agricultural buildings of accommodation essential to the needs of a rural business.

What measures already exist to minimise impacts?
The Core Strategy does not indicate where within the Buckfastleigh area new development would be acceptable. The next Development Plan Document to be prepared, the Development Control and Site Specific Policies DPD, will indicate more clearly which areas may be appropriate for residential or employment development and may allocate sites accordingly. This will be subject to Appropriate Assessment.

The Core Strategy establishes important protection for biodiversity interests through Policy COR7 and additional protection is provided through draft policy in the Regional Spatial Strategy. Policy ENV1 states "any development that could have any negative effect on the integrity and conservation objectives of a N2K site would not be in accordance with the development plan" (SWRA 2007). Additionally, at a sub-regional policy level with reference to South Hams SAC it is stated that "the integrity of the N2K sites should be protected from adverse effects; there is likely to be a need for HRAs at an LDD stage or project level application proposals" (SWRA 2007).

At a local level the National Park Authority already has procedures in place to identify any applications for development which may impact bats; this is set out in Appendix 1.

Is any remaining impact significant?
There is no evidence on the effectiveness of existing procedures designed to protect bat habitat. Such procedures are, however, based on best practice and it is considered that there is no significant impact. With regard to the impact of the Core Strategy policies COR2, COR15 and COR18, in conjunction with the rigorous application of COR7 and RSS policy ENV1 it is considered that adequate protection exists for the SAC at a strategic policy level and that there is no significant impact resulting from these policies.

Are any further mitigation measures required?
Given the Core Strategy does not indicate where development may occur in the Buckfastleigh area it is essential that Appropriate Assessment is carried out of the Generic Development Control and Site Specific Policies DPD. This should include a consideration of the potential impact of any identified sites on the integrity of the SAC.

Following the adoption of the RSS it is also important that the requirements set out in ENV1 in relation to HRA of “project level application proposals” is included in DNPA development control procedures.

Greater horseshoe bat maternity roost and new development
Change in light levels in caves and new development
Disturbance to caves and new development

What are the potential effects?
The Dartmoor National Park Authority Habitat Regulations Assessment Screening Report sets out the reasons for designation of the South Hams SAC. The primary reason for the selection of this site is the significant population of Greater Horseshoe bats; this SAC is thought to hold the largest population of the species in the UK. It contains the largest known maternity roost in the UK, and possibly Europe. The Joint Nature Conservation Committee notes the bats are vulnerable to the loss of insect food supplies due to insecticide use, changing farming practices and the loss of broad-leaved tree-cover, and to the loss or disturbance of underground roost sites (JNCC 2008).

The SAC is comprised of a number of constituent SSSIs including Bulkamore Iron Mine SSSI (near Rattery, 1.5km from the National Park), Haytor and Smallacombe Iron Mine SSSI (near Haytor Vale, within the National Park), and the largest site at Buckfastleigh Caves SSSI (Buckfastleigh, within the National Park) (see Appendix 2).

Bats are very loyal to particular roost sites, and tend to return to the same sites each year. South Hams is a particularly important SAC as it contains both a maternity roost and hibernation sites.

What might be the impact on the SAC?
Management of the caves must be undertaken with care to ensure routes to and from the entrance are maintained and that the entrance remains clear. Bats are also vulnerable to changes in activity, lighting and temperature (for example through changes in ventilation) at roost and hibernation sites.

SSSI condition monitoring of Buckfastleigh Caves shows all features of the site to be in either favourable or unfavourable recovering condition.

The site at Buckfastleigh includes the former Bullycleaves Quarry, which now contains light industrial and employment uses. There is scope for the expansion of the industrial site within the quarry, such development might, in principle, be in accordance with policy COR18. Such a development might also have an impact on the integrity of the SAC.

What measures already exist to minimise impacts?
The next Development Plan Document to be prepared, the Development Control and Site Specific Policies DPD, will indicate more clearly which areas may be appropriate for residential or employment development and may allocate sites accordingly. This will be subject to Appropriate Assessment.

The Core Strategy establishes important protection for biodiversity interests through Policy COR7 and additional protection is provided through draft policy in the Regional Spatial Strategy. Policy ENV1 states “any development that could have any negative effect on the integrity and conservation objectives of a N2K site

would not be in accordance with the development plan" (SWRA 2007). Additionally, at a sub-regional policy level with reference to South Hams SAC it is stated that "the integrity of the N2K sites should be protected from adverse effects; there is likely to be a need for HRAs at an LDD stage or project level application proposals" (SWRA 2007).

At a local level the National Park Authority already has procedures in place to identify any applications for development which may impact bats; this is set out in the Appendix 1.

Is any remaining impact significant?
The Core Strategy does not direct development specifically towards sites which might affect the South Hams SAC. Any development would be subject to complying with policies COR7 and ENV1 as well as local development control procedures designed to protect bat habitat.

It is therefore considered that adequate protection exists for the SAC at a strategic policy level. There is no remaining significant impact resulting from these policies subject to the rigorous application of protectionist policies set out in the Core Strategy and RSS.

Are any further mitigation measures required?
It will be necessary that the Appropriate Assessment of the Generic Development Control and Site Specific Policies DPD carefully considers the allocation of any sites in close proximity to the Buckfastleigh Caves SSSI.

South Hams SAC - Information sources:
- Map of South Hams SAC
- South Hams SAC Conservation Objectives (Natural England)
- Joint National Conservation Committee (JNCC) Habitat Management for Bats (2001)
- Joint National Conservation Committee (JNCC): UK SAC site list http://www.jncc.gov.uk/protectedsites/sacselection/sac.asp?EUCode=UK0012929
- SSSI Condition Survey (Natural England)
- Dartmoor National Park Management Plan 2007-2012
- Strategic Environment Assessment of the DNP Core Strategy
- Dartmoor Biodiversity Action Plan
- Screening for Appropriate Assessment of the Torbay LDF (TBC – 2006)
- HRA of the Teignbridge LDF – Core Strategy Screening (TDC 2007)
- South Hams HRA
- English Nature (2003) Radio Tracking Study of greater horseshoe bats at Buckfastleigh Caves SSSI (EN Research Report 573)
- Habitat Management for Bats (JNCC 2001)
- Development Control procedure (bat protection)
- SWRA (December 2007) South West EIP Panel report on the Draft Regional Spatial Strategy for the South West

Summary and Conclusions

The Dartmoor National Park Authority Habitat Regulations Assessment (HRA) Screening Report (December 2007) identified the following potential adverse impacts on the integrity of European Sites:

Dartmoor SAC

- Policy COR2: physical damage to blanket bogs associated with recreational use
- Policy COR2: disturbance of otter habitat as a result of recreational disturbance
- Policy COR2: disturbance of Atlantic salmon habitat as a result of recreational disturbance
- Policy COR2: changes to flow as a result of new development impacting Atlantic salmon habitat

South Hams SAC

- Policies COR2, COR15, COR18: Disturbance to areas surrounding greater horseshoe bat roost as a result of new development
- Policies COR2, COR15, COR18: Disturbance to greater horseshoe bat maternity roost as a result of new development
- Policies COR2, COR15, COR18: Change in light levels in caves as a result of new development
- Policies COR2, COR15, COR18: Disturbance to caves as a result of new development

The detailed Appropriate Assessment has concluded that the Core Strategy will not have an adverse effect on the integrity of any European Sites (SACs).

The assessment has highlighted a range of existing measures already in place which afford robust protection including visitor management, recreational user codes of conduct, Environment Agency water resource management, DNPA Development Control service procedures, and Regional Spatial Strategy and DNP Core Strategy policy protection.

The assessment has identified the importance of:

- The continued success of visitor management for the protection of vulnerable habitats and species
- The identification of existing and new visitor management issues in the preparation of the Dartmoor Recreation Strategy
- The rigorous application of policies COR7 and ENV1 in the Core Strategy and SW Regional Spatial Strategy respectively
- The continued monitoring of vulnerable habitats and species through management of the SACs and implementation of the Dartmoor BAP
- The Appropriate Assessment of the Generic Development Control and Site Specific Policies DPD and Design Guidance SPD