

5. RESPONDING TO CLIMATE CHANGE AND MANAGING RESOURCES

Objective 19: *To minimise the net emissions of carbon dioxide and other greenhouse gases into the atmosphere, and support measures which contribute to carbon neutrality in ways that both conserve and enhance the National Park.*

Objective 20: *To adapt to the anticipated effects of climate change on Exmoor's communities, businesses, landscape, wildlife and coast including flood risk, sea level rise, and unexpected weather events and so on.*

Objective 21: *To minimise waste and emissions and support opportunities for reuse and, recycling in ways compatible with Exmoor's National Park designation.*

Climate Change Mitigation and Adaptation

Context

5.1 Climate change is likely to be one of the most significant challenges facing Exmoor in the future. It is expected to impact on all aspects of the National Park – its natural beauty, wildlife and cultural heritage, the special qualities that people visit to enjoy and understand, and on local communities and economic activity. The UK Climate Projections 2009, predicted significant changes to Exmoor's climate across a range of different greenhouse gas emissions scenarios.¹⁵⁶ In all cases, a rise in temperature is seen to be a highly probable outcome, with the main doubt being around by how much temperatures will rise. The main consequences of this change in climate are likely to be hotter, drier summers, and warmer, wetter winters that are characterised by periods of long duration rainfall. In contrast, frequent and short duration, high-intensity rainfall linked with longer drier summers is predicted. There is also likely to be a rise in sea level and increased storminess at the coast.¹⁵⁷ These scenarios could potentially cause increased flooding from fluvial, surface water, coastal and tidal flooding. Although the exact nature of these changes on Exmoor is not known, the impacts on way of life are likely to be significant. Exmoor's communities therefore need to plan to mitigate and adapt to climate change, facing up to the threats it poses and taking advantage of any opportunities presented.

5.2 The Government has set statutory targets to reduce carbon dioxide emissions by 80% by 2050,¹⁵⁸ with at least a 34% reduction by 2020. The main sources of emissions of greenhouse gases from

Exmoor are land management (including agricultural activity, land use change and forestry), energy and transport. Energy use accounts for 18% of Exmoor's carbon footprint, principally comprising carbon dioxide emissions from the burning of fossil fuels from the domestic and commercial sectors. Transport makes up about 17% of Exmoor's carbon footprint, arising from carbon dioxide emissions from vehicle movements within the National Park.¹⁵⁹ National Parks are expected to lead the way in adapting to and mitigating climate change as exemplars of sustainability, and the Local Plan Vision includes a commitment to work towards becoming a carbon neutral National Park.¹⁶⁰

5.3 The Local Plan can only influence the spatial planning aspects of climate change mitigation and adaptation. These are set out below. As climate change is such a cross-cutting issue, many of the policies in this Plan will contribute to meeting the challenges of both reducing greenhouse gases, and adapting to changes in climate. In particular, policies on increasing the efficiency of existing and new build development through re-use, retrofitting, design and sustainable construction (policies CE-S5 Principles for the Conversion or Structural Alteration of Existing Buildings, CE-S6 Design and Sustainable Construction Principles); encouraging more sustainable modes of travel and reducing the need to travel (policy AC-S1 Sustainable Transport); and enabling wildlife and heritage assets to adapt to a changing climate (policies CE-S4 Cultural Heritage and Historic Environment, CE-D3 Conserving Heritage Assets) will be important.

¹⁵⁶ DEFRA (2009) Adapting to Climate Change - UK Climate Projections. Department for the Environment, Food and Rural Affairs.

¹⁵⁷ Scott Wilson (2009) Strategic Flood Risk Assessment Level 1 Report prepared for West Somerset Council and ENPA. ENPA, Dulverton.

¹⁵⁸ HM Government (2008) Climate Change Act.

¹⁵⁹ ENPA (2010) Carbon Neutral Programme Consultation 2010. ENPA, Dulverton.

¹⁶⁰ DEFRA (2010) English National Parks and the Broads UK Government Vision and Circular (Paragraph 4.2)

Climate Change Mitigation

5.4 Since energy use accounts for 18% of Exmoor's carbon footprint, minimising energy use and increasing energy efficiency are effective ways to reduce carbon emissions. Energy consumption can be significantly reduced through the location of development, site layout and building design, the type of materials used, and the prudent use of existing and new resources (policy CE-S6 Design and Sustainable Construction Principles). Once the demand for energy has been minimised, the incorporation of low carbon or renewable energy technologies within existing properties or new build development will also help to reduce the National Park's carbon footprint. Small-scale renewable energy schemes that are carefully sited and designed to avoid harm to sensitive habitats and wildlife, can also have a part to play. Policy CC-S5 Local Carbon and Renewable Energy Development provides more detail on renewable energy.

5.5 All development, including replacement and enhancement schemes, will need to demonstrate how it has had regard to the energy hierarchy by:

- a) reducing the need for energy;
- b) using energy more efficiently; and
- c) using low carbon and renewable energy.

5.6 As climate change could lead to increased pressures on water resources, the conservation and prudent use of water resources will also be important in the future. Reducing the demand for water, and improving the efficiency with which it is used through, for example, rainwater and greywater harvesting and water conservation technologies, can be encouraged during refurbishment of existing properties and through high standards of sustainable design and construction with new build development as set out in policy CC-D2 Water Conservation.

5.7 Other components of the National Park's carbon footprint arise from agricultural activity, land use change and forestry. Changes to land use and land management and increased carbon storage in peat and woodland provide important opportunities for reducing greenhouse gas emissions and are highlighted in the Exmoor National Park Partnership Plan 2012-2017. Whilst these measures do not directly fall within the planning system, associated development (or change of use) may be required.

Climate Change Adaptation

5.8 The Exmoor Climate Change Adaptation Study sets out a range of responses to climate change, including managing flood risk and coastal change, ensuring existing and new buildings are well adapted, helping wildlife and habitats to be more resilient, and managing changes to the landscape and historic environment resulting from a changing climate or necessary mitigation measures.¹⁶¹

5.9 The UK Climate Projections indicate that changes in the duration and intensity of rainfall, sea level rise and increased storminess at the coast could increase the risk of flooding on Exmoor. Milder, wetter winters, characterised by periods of long duration rainfall are predicted, along with longer drier summers with frequent and short duration, high-intensity rainfall. These scenarios are likely to cause increased flooding from fluvial, surface water and sewer sources. In addition, the effects of climate change on sea level will increase the likelihood of coastal and tidal flooding in low lying areas.

5.10 The management of water flow is one of the key aspects of catchment management as concentrated periods of high rainfall can lead to flash flood events. Rapid run-off is thought to have been exacerbated by land drainage schemes on the moors and high ground, and by compacted soils which are unable to absorb high intensity rainfall. Farm and forestry tracks, bridleways and footpaths act as pathways for water and high intensity rainfall also exacerbates erosion. Different approaches to reduce flood risk through good rural land management are being tested which could benefit properties in Bossington, Allerford, West Luccombe and Horner through changes in rural land management in the catchment, slowing down the passage of water and reducing rapid run off.¹⁶² Some of these land management techniques include controlling headwater drainage, reducing run-off along tracks and paths, creating new woodlands and retaining water on lowland flood meadows.

5.11 Policy CC-S1 Climate Change Mitigation and Adaptation, directs development away from areas at risk of flooding and encourages land management that reduces flood risk by increasing infiltration and flood storage, slowing down the passage of water

¹⁶¹ ENPA (2011) Preparing for Climate Change. ENPA, Dulverton.

¹⁶² DEFRA (2011) Multi Objective Flood Management Demonstration Project

into rivers, avoiding soil compaction and erosion. Further detail is set out in Policies CC-D1 Flood Risk, CC-S2 Coastal Development, and RT-D12 Access Land and Rights of Way. Policy CC-S3 Porlock Weir

Coastal Change Management Area recognises the need to adapt to coastal changes which could have important implications for some of Exmoor's communities.

CC-S1 Climate Change Mitigation and Adaptation

1. Climate change mitigation measures will be encouraged by:
 - a) Promoting the energy hierarchy through: first reducing the need for energy; then using energy efficiently; and using small scale low carbon and renewable energy including through sustainable design and construction (GP1 and CE-S6).
 - b) Avoiding sites that would put wildlife at risk.
 - c) Measures that ensure sustainable and efficient water supplies and reduce the demand for water including through water conservation.
 - d) Measures that support the management of uplands and woodlands to assist in carbon sequestration and storage.
2. Proposals to adapt to the consequences of climate change will be encouraged by:
 - a) Avoiding development in areas at risk of flooding (CC-D1).
 - b) Improving the resilience of development, essential services and infrastructure to cope with changes in climate.
 - c) Promoting land management which reduces the overall risk of flooding in and around the area, working with natural processes.



Flood Risk

5.12 Flood risk can arise from fluvial, surface water and tidal flooding. A large part of central Exmoor forms the upper part of the Exe catchment, is drained by the River Exe itself and its main tributary, the River Barle. The west side of the National Park is drained by the rivers Yeo, Mole and Bray into the River Taun. The northern side of the National Park is drained by shorter rivers and streams running north into the Bristol Channel including the UMBER, Heddon, and West and East Lyn in the west, and the Hawkcombe Stream, Horner, Aller, Aville and Washford Rivers in the east. Many of the watercourses on Exmoor flow through steep confined valleys which respond rapidly to rainfall. Settlements on the coast, particularly Lynmouth, Porlock and Porlock Weir, are vulnerable to coastal change and flood risk.

5.13 The Environment Agency is responsible for managing the risk of flooding from main rivers, large reservoirs, estuaries and the sea, and must be consulted on certain applications. Somerset and Devon County Councils are the lead local flood authorities and are responsible for managing local flood risks, involving flooding from surface water, ordinary watercourses, groundwater and small reservoirs.¹⁶³ North Devon and West Somerset District Councils also act as coastal erosion risk management authorities. The management of storm water and foul water is the responsibility of South West Water (SWW), Wessex Water (WW), Somerset and Devon County Councils. In addition, private individuals may be responsible for drainage systems that operate prior to discharge either into a watercourse or into a public sewer. SWW and WW are the statutory water undertakers responsible for the public sewer systems. SWW is responsible for the majority of the Exmoor National Park Authority administrative area, including the settlements of Dulverton, Lynnton and Lynmouth. WW is responsible for public sewer systems within the settlement of Porlock. There are currently no flooding issues to properties attributable to the public sewer system.

5.14 Flood risk on Exmoor has been assessed through the Strategic Flood Risk Assessment (SFRA¹⁶⁴), taking into account tidal, fluvial and surface water flood risk and the implications of climate change. The SFRA defines Flood Zones 3a (high risk) and 3b (functional floodplain) within the local service centres of Dulverton, Porlock and Lynnton and Lynmouth. For areas outside of these settlements, the precautionary approach has been adopted whereby the whole of Flood Zone 3 is considered to constitute the functional floodplain. Flood risk zones are shown on the Policies Map (as combined Flood Zones 2 and 3). Other potential flood sources (such as surface water flooding), and records of historic flood events are shown in the SFRA and on the Environment Agency's website.¹⁶⁵ Areas not lying within Flood Zone 2 or 3a/b are classified as Flood Zone 1 (lowest risk). Porlock Weir is highlighted in the SFRA as the settlement most affected by tidal/coastal flooding.

5.15 The presence of formal raised manmade flood defences within the National Park is limited. Long term planning for flood risk within the National Park is set out in Catchment Flood Management Plans¹⁶⁶ (CFMP) to cover fluvial and tidal flood risk, and Shoreline Management Plans (SMP) dealing with coastal flood risk. The National Park is covered by three CFMPs: North Devon, East Devon (covering the Exe) and South and West Somerset. These provide a catchment overview of the main sources of flood risk and how these can be managed in a sustainable way for the next 50 to 100 years. The policy options range from no active intervention, to taking further action to reduce flood risk. The policy options for the catchment units within the National Park are summarized in the SFRA and will be taken into account in decision-making relating to Policies CC-S1 Climate Change Mitigation and Adaptation and CC-D1 Flood Risk.

5.16 Flooding from artificial sources occurs when storage features, such as reservoirs become overwhelmed as a result of dam or bank failure. The

¹⁶³ Designated under the Flood and Water Management Act (FWMA) 2010

¹⁶⁴ Scott Wilson (2009) Strategic Flood Risk Assessment Level 1 Report prepared for West Somerset Council and ENPA. ENPA, Dulverton and URS (2014) Exmoor National Park SFRA Addendum URS

¹⁶⁵ Environment Agency (2015) What's in my backyard?

¹⁶⁶ Environment Agency (2009) Exe, North Devon, and West Somerset Catchment Flood Management Plans (updated 2012)

likelihood of failure is low due to regular inspection and maintenance, however, in the event of a breach, the consequences are likely to be significant. There are five reservoirs on Exmoor - Challacombe, Pinkery Pond, Holywell, Nutscale and Wimbleball - and the maximum flood extent from these is shown in the SFRA and on the Environment Agency's website.

5.17 The North Devon and Somerset Shoreline Management Plan (SMP) covers the stretch of coast from Hartland Point in Devon to Anchor Point in Somerset and includes the whole of the Exmoor coastline.¹⁶⁷ It provides information regarding the risks of coastal change and the preferred strategy when considering future development and land use change on the coast, taking into account the impacts of climate change, risks to people and the developed, historic and natural environment. The Exmoor coastline is largely undeveloped and dominated by steep cliffs interspersed by steep sided valleys and Porlock Vale. The SMP approach to coastal change is to continue to allow it to evolve naturally to conserve important landscape characteristics; however, it is proposed that the sea

defences at Lynmouth will be maintained. At Porlock Weir it is proposed that there is no active intervention, and the policy approach is set out in CC-S3 Porlock Weir Coastal Change Management Area and CC-S4 Replacement Development from Coastal Change Management Areas. Natural coastal evolution will be allowed to continue along the Porlock shingle ridge area.

5.18 The National Planning Policy Framework advocates that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk or, where development is necessary, making it safe without increasing flood risk elsewhere. Impacts from coastal change should also be avoided (policies CC-S2 Coastal Development and CC-S3 Porlock Weir Coastal Change Management Area).¹⁶⁸

Flood Zones and the Sequential Test

5.19 Flood zones have been developed by the Environment Agency as set out in Table 5.1 below, with the risk of flooding increasing as you move down the table.

Table 5.1 Flood Zone Definitions¹⁶⁹

Flood Zone	Definition
Flood Zone 1	Low probability - Defined as zone where there is a less than 1 in 1000 annual probability of river or sea flooding in any year.
Flood Zone 2	Medium probability - Defined as having between a 1 in 100 year and 1 in 1000 year annual probability of river flooding or between a 1 in 200 year and a 1 in 1000 year annual probability of sea flooding in any year.
Flood Zone 3a	High probability - Defined as having a 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.
Flood Zone 3b	Functional floodplain - Defined as land where water has to flow or be stored in times of flood.

¹⁶⁷ North Devon & Somerset Coastal Advisory Group (2010) North Devon & Somerset Shoreline Management Plan

¹⁶⁸ DCLG (2012) National Planning Policy Framework (Paragraphs 100-108). DCLG

¹⁶⁹ DCLG (2015) Planning Practice Guidance: Flood Risk and Coastal Change, Table 1. Note: These Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences, Paragraph: 065

5.20 National policy sets out a sequential test for assessing the flood risk of proposed development.¹⁷⁰ The sequential test is a simple decision-making tool designed to ensure that sites at little or no risk of flooding are developed in preference to areas at higher risk. Development should avoid areas of flood risk, and the presumption is that all development should be located within Flood Zone 1 (areas with the least risk of flooding). Where this is not possible, then sites within Flood Zone 2 can be considered (areas of low to medium risk). Only where there are no reasonably available sites in Flood Zones 1 or 2 should the suitability of sites in Flood Zone 3 (highest risk) be considered, taking into account the flood risk vulnerability of the type of development proposed.¹⁷¹ The National Park Authority will consult the Environment Agency on any proposals within flood risk areas. A sequential approach should be used in areas known to be at risk from any form of flooding. Other sources of flooding (not included in the flood zones), which require consideration, are surface and ground water flooding, and flooding from sewers and artificial sources. The National Park Authority will consult the lead local flood authority on proposals which raise surface water or other local flood risk issues.

5.21 If, following application of the sequential test, it is not possible for the development to be located in zones of lower probability of flooding, the exception test can be applied to allow necessary development to occur whilst managing flood risk. For the exception test to be passed it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk. In addition, a site-specific Flood Risk Assessment (FRA) must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.¹⁷² A site-specific FRA will be required for proposed development (except minor development) within Flood Zones 2 or 3, and for any applications within Flood Zone 1 over 1 hectare or in an area which has critical drainage problems.¹⁷³ The Environment

Agency also advises that FRAs should be undertaken if the development site is located in an area known to have critical flooding problems from any flood source; the development is located within 20m of any watercourse regardless of Flood Zone classification; or liaison with the National Park Authority identifies the requirement for a FRA.¹⁷⁴ Where the development type is highly vulnerable, more vulnerable, less vulnerable or essential infrastructure, and a site is impacted by a recurrent flood source (other than tidal or fluvial), the site and flood sources should be investigated further as part of a FRA.¹⁷⁵

5.22 Further advice on undertaking site-specific FRAs is available from the Environment Agency website. The Environment Agency publishes maps of flood risk on its website, and these should be referred to along with the SFRA as the most up to date source of information on flood risk. These maps are kept up to date, and will be used in the consideration of this policy.

5.23 Development should not increase flood risk elsewhere, and surface water run-off from new development should be minimized through careful location, layout and design including the use of sustainable drainage systems (SuDs) such as permeable materials, rainwater harvesting, filter strips and swales, soakaways, or ponds (CE-S6 Design and Sustainable Construction Principles). The surface water drainage arrangements for any development site should be such that the volumes and peak flow rates of surface water leaving a developed site are no greater than rates prior to the proposed development, unless specific off-site arrangements are made and result in the same net effect. In the absence of Flood Zones 2 and 3, the Flood Map for Surface Water will be used to identify areas prone to surface water flooding. Where development is proposed within these surface water flood map extents, further investigation may be required as part of a site-specific FRA. Applicants should consult the relevant Sustainable Drainage Systems Approving Bodies and the National Park Authority when considering the design of sustainable drainage systems.¹⁷⁶

¹⁷⁰ DCLG (2012) National Planning Policy Framework (Paragraph 100). DCLG

¹⁷¹ DCLG (2015) Planning Practice Guidance: Flood Zone and Flood Risk Tables, Table 2: Flood Risk Vulnerability Classification, Paragraph: 066 Reference ID: 7-066-20140306

¹⁷² DCLG (2012) National Planning Policy Framework (Paragraph 102). DCLG

¹⁷³ DCLG (2012) National Planning Policy Framework (Paragraph 103, footnote 20). DCLG

¹⁷⁴ DEFRA (2015) Flood Risk Assessment: Local Planning Authorities

¹⁷⁵ DCLG (2015) Planning Practice Guidance: Flood Zone and Flood Risk Tables, Table 2: Flood Risk Vulnerability Classification, Paragraph: 066 Reference ID: 7-066-20140306

5.24 If, having applied the sequential approach and exception tests, development proceeds in an area of flood risk, residual risks should be managed including through flood resilience or resistance measures, (although these should not be used to justify development in inappropriate locations). Development design must be appropriate to the degree of flood risk identified, for example flood-resilient construction may be required to reduce the consequences of flooding and facilitate recovery from the effects of flooding sooner than conventional buildings. This may be achieved through designing buildings so that water can flow through lower levels, the use of water-resistant materials for floors, walls and fixtures and the siting of electrical controls, cables and appliances at a higher than normal level. In some circumstances, flood-resistant construction may be required, which can prevent entry of water or minimise the amount of water that may enter a building where there is flooding outside. Safe access and escape routes accounting for climate change must also be provided and agreed with the Environment Agency for developments within Flood Zones 2 and 3.

5.25 Where permission is granted, developer contributions towards providing the necessary flood defences will be sought.

Managing Flood Risk On Exmoor

5.26 Some existing infrastructure is at risk of flooding. Transport links within West Somerset, such as the A39 in the vicinity of Williton, Ellicombe and Dunster Marsh, and transport routes within Exmoor National Park such as the A396 around Timberscombe/ Dunster and Dulverton are affected by fluvial flooding (see AC-S2 Transport Infrastructure). The Police Station and Fire Station are also at risk from fluvial flooding in Dulverton. Surface water flooding is typically generated by short duration, intense rainfall events where rainfall is unable to infiltrate the ground or enter drainage systems.

5.27 Land used for holiday or short-let caravans and camping, and permanently occupied caravan and mobile home sites give rise to special problems in relation to flooding. Caravan or mobile home sites intended for permanent occupation are regarded to be at higher risk (classified as 'highly vulnerable').¹⁷⁷ The instability of such structures places their occupants at special risk and they are likely to be occupied throughout the year including the winter months when flood risk is likely to be higher. Sites intended for temporary occupation are considered to be at lower risk (classified as 'more vulnerable') because they are usually occupied during the summer when flood events are less likely to occur, although they may be located for amenity and recreational reasons on coastal or riverside sites with a high residual risk of flooding. Consequently, permanently occupied sites ('highly vulnerable' development) will not be permitted in Zones 3a and 3b, and temporarily occupied sites ('more vulnerable' development) will not be permitted in Zone 3b (functional floodplain).

5.28 Flood watch areas have been established in several parts of the National Park, where the Environment Agency provides a flood warning system.¹⁷⁸ Emergency responses to extreme flood events are co-ordinated via the Somerset and Devon Flood Warning Response Plans bringing together the emergency services, local authorities and other partners.

¹⁷⁶ Devon and Somerset County Councils are the relevant Sustainable Drainage Systems Approving Body Bodies under the Floods and Water Management Act 2010 and must approve drainage systems in new developments and re-developments before construction begins.

¹⁷⁷ DCLG (2015) Planning Practice Guidance: Flood Zone and Flood Risk Tables, Table 2: Flood Risk Vulnerability Classification

¹⁷⁸ Scott Wilson (2009) Strategic Flood Risk Assessment Level 1: Flood watch areas within Study Area, Figures 7 A & B

CC-D1 Flood Risk

1. Development proposals will be permitted where they:
 - a) are consistent with the sequential test and applicants demonstrate that sites at little or no risk of flooding are developed in preference to areas at higher risk;
 - b) do not increase the risk of flooding elsewhere;
 - c) do not reduce the potential of land used for current or future flood management;
 - d) are compatible with the appropriate Catchment Flood Management Plan or Shoreline Management Plan; and
 - e) use development to reduce the risk of flooding through location, layout and design and incorporate sustainable drainage systems to minimise surface water run-off and avoid pollution.
2. Where appropriate, a site-specific Flood Risk Assessment should support proposals.
3. Where, as a result of applying the sequential test, a development is approved on an exceptions basis, planning agreements or developer contributions will be sought to ensure that the development is protected from flooding to the appropriate standard throughout its lifetime. Any required additional or enhanced flood defences should not conflict with National Park purposes.

Coastal Development

5.29 Exmoor has a wild, undeveloped coast, characterised by high cliffs, headlands and uninterrupted views giving a sense of tranquillity and remoteness. It also has a level of coastal vulnerability associated with it due to the impact of coastal change. The coast is important for its natural beauty, historic assets and supports a range of habitats and species. A significant proportion of the coast has a number of designations including Sites of Special Scientific Interest, Special Areas of Conservation, Heritage Coast and areas identified on the Section 3 Conservation Map (shown on the Policies Map). Furthermore, the coast is a tourism asset; the South West Coast Path is a national trail which follows the Exmoor coast for part of its length and it makes an important contribution to the local economy. Proposals at the coast will need to be consistent with other policies in this plan which reflect these coastal interests including: GP3 Spatial Strategy, CE-S1 Landscape and Seascape Character, CE-S3

Biodiversity and Green Infrastructure, CE-S6 Design and Sustainable Construction Principles, CE-S4 Cultural Heritage and Historic Environment, RT-S1 Recreation and Tourism, RT-D12 Access Land and Rights of Way.

5.30 Planning at the coast requires a strategic approach due to natural processes acting across regional and local authority boundaries. Exmoor National Park Authority will therefore work closely with neighbouring partners to ensure a co-ordinated approach. This includes the Marine Management Organisation, as there is an overlap of jurisdiction with local planning powers extending from the land down to low water mark, and marine plans from the sea to the high water mark. The UK Marine Policy Statement (MPS) provides the policy framework for the marine planning system and provides the context for marine plans.¹⁷⁹ Marine plans are intended to put into practice the objectives for the marine environment that are identified in the MPS

¹⁷⁹ HM Government (2011) The UK Marine Policy Statement, London, The Stationary Office, London

alongside the NPPF and the Localism Act 2011, with the core aim to achieve sustainable development. They are a key part of achieving the Government's vision for the marine environment of "clean, healthy, safe, productive and biologically diverse oceans and seas".¹⁸⁰ Marine plans are being produced for all the marine plan areas around the coast of England – Exmoor National Park's coastline sits within the South West inshore marine plan area. This has not yet been prepared, but once it has been adopted, Exmoor National Park Authority will take account of any policies relevant to the National Park in decision-making. In the absence of marine plans the MPS acts as the relevant marine document which local authorities must take into account. A concordat has been agreed between the main regulatory and advisory bodies and local planning authorities (including National Park Authorities) to provide a framework within which the separate processes for the consenting of coastal developments in England can be better coordinated.¹⁸¹

5.31 To protect the undeveloped nature of the Exmoor coastline, new development should be located in named settlements unless it can be demonstrated that the proposal is essential in an undeveloped coastal location and is consistent with policy CC-S2 Coastal Development.¹⁸²

5.32 Development at the coast has the potential to be visually intrusive, for example by affecting the skyline and views along the coast including undeveloped stretches (CE-S1 Landscape and Seascape Character). Proposals must demonstrate that there will be no adverse impact on the coastline, landscape character and seascape in accordance with CE-D1 Protecting Exmoor's Landscapes and Seascapes. Any coastal issues that may arise will need to be carefully considered including direct, indirect, cumulative, long-term and short-term impacts. Proposals must also demonstrate they are appropriate to the coastal location and that they will not affect natural coastal processes or result in coastal water pollution (CC-S7 Pollution) to the detriment of surrounding areas including those outside the National Park.¹⁸³

5.33 The traffic impacts of new development should also be carefully considered as there is a need to minimise the impact of seasonal traffic on narrow roads that lead to the coast particularly around popular destinations such as Porlock and Lynton & Lynmouth.

5.34 Improvements to existing sea defence works are not usually subject to planning control although Exmoor National Park Authority would expect to be consulted on any proposed changes. Planning permission is however required for new sea defence works. As sea defences can have a considerable effect on the coastal environment and natural beauty of the area, good design will be essential to ensure proposals conserve or enhance their surroundings visually.

5.35 The risk of coastal change including by flooding means that a precautionary approach should be taken to minimise risk to life and property. Development at the coast should therefore avoid areas known to be at risk of climate change or those areas which are likely to become an area at risk within the lifetime of the development as indicated by the Shoreline Management Plan 2010 and other evidence. Where development is proposed in a location considered to be at risk of coastal change, the applicant must be able to demonstrate that the development will be safe during its lifetime and have accounted for the impacts of flooding, climate change and sea level rise.

¹⁸⁰ HM Government (2011) The UK Marine Policy Statement, London, The Stationary Office, London

¹⁸¹ DEFRA (2013) A Coastal Concordat for England

¹⁸² Supported by Your Future Exmoor consultation events 2009-2010

¹⁸³ DCLG (2012) National Planning Policy Framework (Paragraph 106). DCLG

CC-S2 Coastal Development

1. Proposals for development should avoid areas at risk from coastal change, ensure they are compatible with the latest Shoreline Management Plan and available coastal vulnerability data, and where necessary undertake a vulnerability assessment. Development that would increase the risk of coastal erosion will not be permitted.
2. Development will be permitted at the coast only where it has been demonstrated that it:
 - a) is located in a named settlement (GP3 Spatial Strategy) or requires a coastal location;
 - b) is not within an area identified at risk of coastal change including Coastal Change Management Areas unless it is essential infrastructure or sea defences which clearly require such a location and there are no alternative solutions;
 - c) is appropriate to the setting and character of the coastline (CE-S1 Landscape and Seascape Character, CE-D1 Protecting Exmoor's Landscapes and Seascapes) and does not adversely affect coastal interests including coastal biodiversity and heritage assets; and
 - d) does not increase risk to life or property, or affect the natural coastal processes at any part of the coastline both within and outside of the National Park.

Responding to Coastal Change

5.36 Coastal change refers to a physical change to the shoreline including permanent inundation, erosion and coastal accretion. This is of particular concern where it is likely to adversely affect existing communities and development. The impacts of climate change leading to sea-level rise and increased storminess are exacerbating coastal change and increase the coastline's vulnerability. Evidence of coastal change within Exmoor National Park includes the 1996 breach of the shingle ridge at Porlock Bay which also flooded the low lying freshwater marsh behind. Rapid evolution of the beach and the development of salt marsh followed.¹⁸⁴

5.37 The North Devon and Somerset Shoreline Management Plan 2010 (SMP) provides the long-term plan for the management of the risks associated with coastal processes, and forms an

important part of the evidence base for planning in coastal areas.¹⁸⁵ The SMP continues a 'hold the line' policy at Lynmouth, implying that the defences will be maintained and eventually replaced with larger structures to continue to provide protection to Lynmouth. Impacts could include the loss of beach width due to the combination of sea level rise and retention of coastal defence, the potential loss of terrestrial habitat from the Exmoor Coastal Heaths SSSI and Exmoor Heath and Coast SAC. Further impacts could include the loss of or damage to a number of non-designated archaeological features, scheduled monuments and parts of the South West Coast Path.

5.38 The SMP includes changes to the coastal policy at Porlock Weir from a 'Hold the Line' policy to 'No Active Intervention' commencing from the adoption

¹⁸⁴ Environment Agency (2004) An evaluation of the breach processes at Porlock shingle ridge

¹⁸⁵ North Devon & Somerset Coastal Advisory Group (2010) North Devon & Somerset Shoreline Management Plan Review Final (October 2010) Hartland Point to Anchor Head

of the SMP. This implies that assets at Porlock Weir including residential properties, listed buildings and local infrastructure would become at risk of flooding and erosion. To 'hold the line' at Porlock Weir would, in the short term, require existing defences to be replaced with much larger structures to withstand the increased exposure to wave action. This would make it technically and economically difficult to sustain coastal defences here. It is noted in the SMP that it is unlikely that future sea defence provision at Porlock Weir would attract public funds, although there is flexibility for the existing localised defences to be maintained or replaced if alternative funding is made available. However, it also questions the sustainability of defences at Porlock Weir because their retention could potentially impact on the wider coastline of Porlock Bay in the long term. Continued defence would only be acceptable if there was limited impact on sediment transport along the coastline. The impact of coastal change at Porlock Weir was further studied by the Somerset Coastal Change Pathfinder project, this demonstrated through a visual mapping exercise the possible significant consequences of coastal change at Porlock Weir.^{186, 187}

5.39 National government promotes the adoption of proactive strategies when responding to coastal change. Any area likely to be affected over the next 100 years by physical changes to the coast (defined primarily from evidence provided by SMPs and other up-to-date material information on coastal change as it becomes available) will be identified as a Coastal Change Management Area (CCMA).¹⁸⁸

5.40 Policy CC-S3 Porlock Weir Coastal Change Management Area, will be applied only to those communities where there is accepted evidence that they are at risk of coastal change. Any proposals for replacement of development through relocation will need to demonstrate that the overall proposal both for new development created and measures for the management of that which is to be lost are consistent with the principles in Policy CC-S3.

5.41 Due to the adoption of a 'No Active Intervention' policy for Porlock Weir, and the increased risk of coastal change, a CCMA has been designated for Porlock Weir (as shown in Map 5.1 and on the Policies map), in consultation with relevant bodies including the Environment Agency and Porlock Manor Estate. Within the CCMA Policies CC-S3 Porlock Weir Coastal Change Management Area, and CC-S4 Replacement Development from Coastal Change Management Areas, will be followed to:

- a) be clear as to what development will be appropriate in such areas and in what circumstances; and
- b) make provision for development and infrastructure that needs to be relocated away from CCMA's.¹⁸⁹

5.42 The designation of the CCMA provides the mechanism for areas at risk, such as Porlock Weir, to respond to climate change. Within the CCMA, no new dwellings will be permitted as this would increase the number of people at risk from flooding and coastal change. Some developments may be permitted where these contribute to sustainable development and are important to the economic and social well-being of the local community, and are less vulnerable or water compatible in flood risk terms, such as change of use to tourism-related development (excluding holiday accommodation), shops, small scale business or leisure activities requiring a coastal location.^{190, 191} Key community infrastructure, such as flood and coastal erosion risk management options or changes to the car park and toilets, would be allowed where this has to be sited within the CCMA. Such proposals should demonstrate that there are benefits to the wider community and be accompanied by clear, costed plans to manage the impact of coastal change on the infrastructure and the service it provides. Any development permitted will be subject to time-limited planning permissions. The provision of

¹⁸⁶ DEFRA funded from 2009-2011. The project had the aim of assisting those coastal communities most at risk from sea level rise to help them adapt to projected changes at the coast. Project outputs included the development of a scenario for Porlock Weir following a major storm event

¹⁸⁷ Somerset Coastal Change Pathfinder Project (2011) Porlock Weir

¹⁸⁸ DCLG (2012) National Planning Policy Framework (Paragraph 106). DCLG

¹⁸⁹ Ibid

¹⁹⁰ DCLG (2014) Planning Practice Guidance: Flood Zone and Flood Risk Tables, Table 2: Flood Risk Vulnerability Classification. Paragraph: 066 Reference ID: 7-066-20140306

¹⁹¹ DCLG (2014) Planning Practice Guidance: Coastal Change Management Areas. Paragraph: 071 Reference ID: 7-071-20140306

affordable housing within other parts of Porlock Weir outside the CCMA will be considered in accordance with GP3 Spatial Strategy and relevant housing policies. Proposals for business development within other parts of Porlock Weir outside the CCMA will be considered in accordance with SE-S2 Business Development in Settlements. Porlock Weir lies within the ecological zone of influence of the barbastelle bat feature of the Exmoor and Quantocks Oakwoods SAC (CC-S3 Porlock Weir Coastal Change Management Area). These are generally foraging habitats which vary through the seasons. Development proposals should therefore ensure that barbastelle bat habitat is maintained so there is no net loss of habitat as a result of development.

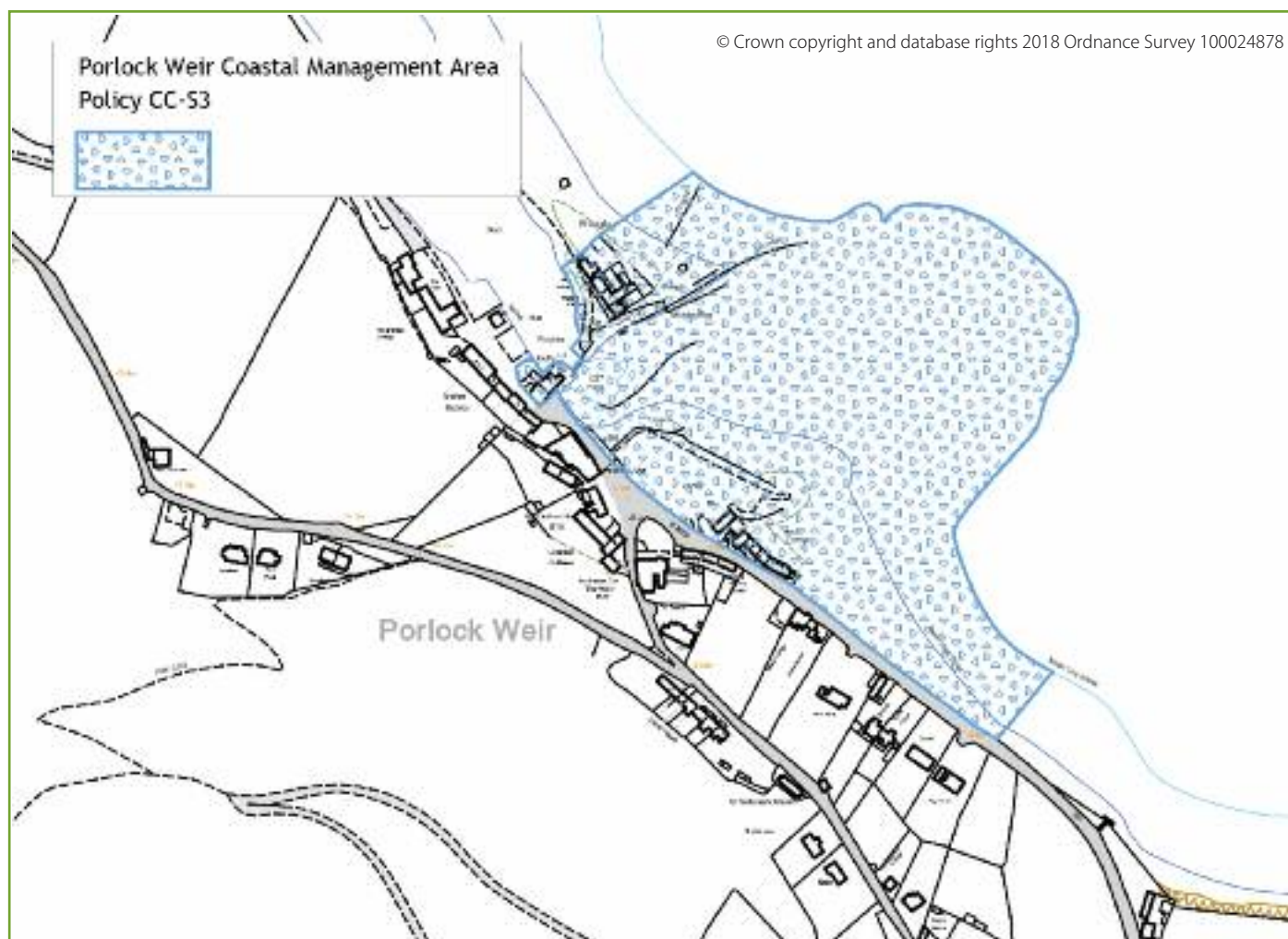
5.43 It is envisaged that a strategy for Porlock Weir and surrounding area will be produced to manage the overall sustainability of the community likely to be affected by physical changes at the coast. The strategy will set out how development at risk from coastal change can be relocated away from the CCMA. As Porlock Weir is a conservation area with a number of listed buildings, including some within the CCMA, the strategy will consider how changes to the historic environment will be managed, in accordance with CE-S4 Cultural Heritage and Historic Environment and CE-D3 Conserving Heritage Assets. The relocation of development at risk to 'safer' areas could be achieved in a number of different ways, including the relocation further inland or to neighbouring settlements. Any proposals for adaptation and relocation at Porlock Weir should accord with this strategy.



CC-S3 Porlock Weir Coastal Change Management Area

1. A Coastal Change Management Area (CCMA) is designated at Porlock Weir as shown on the Policies Map.
2. Within the Porlock Weir CCMA:
 - a) Permanent new residential development will not be permitted.
 - b) Change of use will be permitted for less vulnerable and water compatible tourism-related development, shops, small scale business or leisure activities requiring a coastal location and providing substantial economic and social benefits to the community.
 - c) Key community infrastructure will be permitted, which has to be sited within the CCMA to provide the intended benefits to the wider community and there are clear, costed plans to manage the impact of coastal change on it and the service it provides.
 - d) Adaption measures to existing buildings and businesses, which increase resilience to flood risk will be supported.
 - e) Barbastelle bat habitat will be maintained so that there is no net loss from development.
3. Any development permitted under (2) above will be subject to time-limited planning permissions.
4. Replacement of buildings and facilities likely to be lost as a result of coastal change will be permitted in accordance with policy CC-S4 Replacement Development from CCMA's.
5. A strategy for Porlock Weir and surrounding area will be produced in line with the principles in (2) above and CC-S4 Replacement Development from CCMA's. Any proposal for adaptation and relocation at Porlock Weir will be required to be achieved in accordance with this strategy.

Map 5.1 Porlock Weir Coastal Change Management Area



5.44 Where the replacement of development from the CCMA through relocation is proposed, the replacement of dwellings will be given priority as these are within the highest vulnerability category and pose greatest risk to life. Replacement of facilities, such as car parks and toilets will be considered where this can be achieved without detriment to the landscape and historic character of the settlement. For other buildings at risk, such as the hotel, pub, shops and cafes, where replacement may not be viable within the settlement, adaptation measures will be supported to increase resilience to flooding.

5.45 Proposals to relocate development being displaced as a result of coastal change should be able to demonstrate the reasons for the choice of location for any relocated development including local socio-economic links between the relocated development and the community from which the development was displaced. Proposals for the replacement of facilities, such as car parks, should investigate alternative options including a shuttle service from Porlock for visitors. Any new dwellings or other development intended to replace that threatened by coastal erosion should be located in accordance with the spatial strategy (GP3). Time limited conditions will be used to enable flexibility in replacement through relocation. Exmoor National Park Authority will work with partners to consider the full range of options based on sound evidence for a community 'at risk' to find the most appropriate solution for it, which will include the impact on the natural, cultural and built environment.

5.46 Future arrangements should be made for the buildings to be replaced to ensure they are rendered safe, either through clearance or 'managed,' which may include a temporary and alternative use of the site. Where permission is granted, a planning obligation will be secured to ensure the satisfactory management of the development which is to be lost. The co-ordination of the development which is to be lost and the new replacement development may be managed through a legal agreement. Proposals for the relocation of an existing dwelling should apply the same principles as those in HC-D17

Replacement Dwellings in respect of floorspace and reflect the scale of the original building it is replacing. Development should also be of a character and quality commensurate with its location in a National Park and should be well integrated within its locality, ensuring the place will function well (CE-S6 Design and Sustainable Construction Principles). Proposals for relocation may provide an opportunity for the enhancement of the National Park; this should be consistent with policy GP1 Achieving National Park Purposes and Sustainable Development.

CC-S4 Replacement Development from Coastal Change Management Areas

1. The replacement of development within CCMA's at risk from coastal change through relocation must be consistent with the following principles:
 - a) it is important to the well-being of the coastal community affected;
 - b) it is not within an area likely to be affected by physical changes to the coast;
 - c) it is well-related to current buildings and infrastructure including in its siting, scale, height and design (CE-S6);
 - d) replacement development is of the same size and use as the original asset at risk unless an opportunity for significant visual enhancement can be demonstrated in accordance with GP1. In the case of dwellings, they accord with the floorspace provision in HC-D17;
 - e) the site of the original development at risk it replaces is either cleared or managed to be rendered safe for the local community, environment and consistent with National Park purposes; and
 - f) the overall proposal considering both new development and management of that which is to be lost will result in no unacceptable impact on the landscape, biodiversity (including habitats used by barbastelle bats), built environment, townscape or local communities.

Water Conservation

5.47 The National Park is an important source of water for communities both within and outside the National Park. The catchments on Exmoor supply drinking water to over half a million people including in Tiverton, Exeter and Taunton. The implications of growth in settlements outside the National Park for water conservation on Exmoor will need to be assessed as part of adjacent authorities' local plan appraisals. Its popularity as a tourist destination, along with many other parts of the South West, also increases demand for water supplies, particularly during the summer months. Water resources are important for the local economy and businesses, particularly agriculture. Careful management and protection of these water catchments is important to ensure that their ability to provide ecosystem services is not compromised including capturing and storing rainfall, managing flood risk, water re-cycling, the supply of clean, fresh water, and support for wildlife habitats and species. Monitoring programmes are required by the EU Water Framework Directive (WFD) to establish an overview of the water status in each river basin district. WFD assessments by the Environment Agency have generally found rivers and streams on Exmoor to have 'good' ecological status.

5.48 Water is supplied primarily from Roadford and Wimbleball reservoirs, other smaller reservoirs, a number of rivers and their tributaries and numerous groundwater resources. They are administered by South West Water and Wessex Water. Wessex Water covers parts of the eastern side of the National Park. Groundwater is an important component of water resource availability for Wessex Water, although supplies are also drawn from Wimbleball reservoir and a number of rivers and tributaries. Assessment of water requirements and likely supplies in this part of the National Park over the period of the Plan (including climate change implications) has identified that there is sufficient water to meet demands, provided action is taken to improve water conservation (along with other actions by the water company including reducing leakage). This area is considered to be at low risk of water stress.¹⁹²

5.49 South West Water covers parts of the western side of the National Park. The key resources that are available include Roadford and Wimbleball reservoirs, the River Exe and its tributary the Barle, which are used to recharge Wimbleball reservoir, and a number of groundwater resources. Assessment of water requirements and likely supplies in this part of Exmoor National Park over the period of the Plan has identified that sufficient water can be provided to meet demands, provided measures to improve demand management and leakage control are undertaken and there is further investment in water supply infrastructure (outside the National Park). It is recognised, however, that the rising population in large settlements outside the National Park is likely to put increasing pressure on water resources. This area is considered to be at moderate risk of water stress.¹⁹³ There are no plans to invest in additional water supply infrastructure within the National Park during the Plan period.¹⁹⁴

5.50 In some cases, in more remote areas, private water may be supplied from sources such as springs, wells and boreholes where connections to a public water supply are too expensive due to distance. These supplies can be sourced from shallower aquifers, making them more prone to water scarcity during periods of extreme dry weather. It is therefore important that any proposals for new development on a private water supply are able to demonstrate that sufficient water is available, and that existing water supplies and the environment will not be adversely affected by the additional demand for water.¹⁹⁵ Local building control and environmental health teams (in the district councils) can provide further advice regarding appropriate pressure and flow to support sufficient water availability.

¹⁹² Wessex Water (2014) Final Water Resources Management Plan

¹⁹³ South West Water (2014) Water Resources Management Plan

¹⁹⁴ ENPA (2015) Infrastructure Delivery Plan

¹⁹⁵ This applies to water supplies for drinking, washing and cooking or used in businesses (dwellings and commercial premises such as holiday accommodation, restaurants and so on)

5.51 As well as the supply of public drinking water, water is essential for Exmoor's landscapes and wildlife, and it is vital for the livelihoods of those who live and work on Exmoor, particularly for agriculture and other non-domestic uses. Water is essential for the conservation of biodiversity - both the quality and the quantity of water available to support the survival of water dependent species and wetland habitats.¹⁹⁶ A number of river and wetland sites are designated on Exmoor and are dependent upon there being appropriate water quality to support the habitats and species for which they were designated (CE-S3 Biodiversity and Green Infrastructure). Water supplies are also required to provide a sufficient base flow for rivers to maintain fish stocks and other aquatic species, and to dilute any pollution and sewage (CC-S7 Pollution).

5.52 The Government is committed to protecting water ecosystems to achieve good ecological status through a river basin planning approach, under the Water Framework Directive which is a key policy driver. It requires the protection, improvement and sustainable use of freshwater systems and coastal waters and sets a timetable to reach good chemical and ecological status for inland and coastal waters. To meet WFD objectives the Environment Agency has produced a series of River Basin Management Plans (RBMPs) that set out a programme of measures for protecting and improving the water environment. This includes a River Basin Management Plan (RBMP) for the South West River Basin District – which includes the river catchment areas on Exmoor. The South West RBMP encourages sustainable water management, such as water efficiency measures by builders and developers, and promotes the use of sustainable drainage systems in new developments as well as retrofitting where appropriate.

5.53 Demand for water resources in the future is expected to increase with a growing population, particularly in communities outside the National Park who are serviced by water arising on Exmoor. Climate change and the associated warmer, drier, summers are likely to affect the availability of resources including reduced flows in rivers, reductions in the recharge of aquifers and a consequent lowering of groundwater levels. Water Resource Management Plans have tried to take into account the implications in the assessment of long term water availability. Increased frequency of extreme weather events may also affect both water supplies and the risk of flooding (CC-D1 Flood Risk).¹⁹⁷ There may also be other effects on the water environment, such as increased water temperatures, which will also impact on aquatic species and habitats. These potential effects would be exacerbated by likely increases in the demand for water from households and industry. Additional measures for storing and conserving water resources, for example through rainwater harvesting or small scale on-farm water storage including reservoirs, bunds and ponds, may be required in future.¹⁹⁸

5.54 The emphasis is therefore on conserving water resources on Exmoor, including maintaining river flows at periods of low rainfall, and managing water on a catchment basis. Development should not have a detrimental impact on the water environment and should incorporate measures to support water efficiency and re-use (see policy CE-S6 Design and Sustainable Construction Principles). This could include minimising demand, recycling and storing water, and retrofit where appropriate. Retrofitting on listed buildings would require listed building consent, and on traditional buildings would need to not cause harm to the historic fabric of the building (CE-S5 Principles for the Conversion or Structural Alteration of Existing Buildings).

¹⁹⁶ DEFRA (2011) Biodiversity 2020 – A Strategy for England's Wildlife and Ecosystem Services

¹⁹⁷ Environment Agency (2008) Water resources in England and Wales - current state and future pressures.

¹⁹⁸ DEFRA (2011) Water for Life

CC-D2 Water Conservation

1. Development proposals should demonstrate how water conservation measures will be incorporated in their proposals and how demand for water will be minimised, including measures for the recycling, storage and reuse of rainwater and greywater. Retrofitting of existing properties will also be encouraged where appropriate.
2. On-farm water storage through small scale reservoirs, bunds and ponds will be supported where they enhance water supplies and are compatible with National Park purposes.
3. Development proposals which lead to an increase in the demand for water in locations where the existing water supply is inadequate or cannot be satisfactorily improved, or where additional abstraction will have an adverse effect on existing supplies, fisheries, recreational or nature conservation interests will not be supported.

Low Carbon and Renewable Energy Development

Context

5.55 The Government has set a UK target to deliver 15% of the UK's energy consumption from renewable sources by 2020, and also has an ambition that by 2020, 12% of heating should come from renewable sources.

5.56 The National Planning Policy Framework places the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. Renewable and low carbon energy development should be encouraged, while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts. Community-led initiatives are also encouraged for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning.¹⁹⁹

5.57 The Government's vision for National Parks highlights the role of National Park Authorities' as exemplars of sustainability in responding to climate change, including promoting energy efficiency and the generation of renewable energy, whilst not compromising their overriding duty under the 1949 Act.²⁰⁰ It recognises that National Parks offer important opportunities for a range of renewable

energy technologies, including biomass (woodfuels), micro-hydro, anaerobic digestion (which will also reduce waste), wind and solar power installations, appropriate to the national value of the landscape.

5.58 The use of energy accounts for about 18% of Exmoor's carbon footprint. The greatest demand for energy is from domestic heating, which is currently provided through a combination of oil, cylinder gas, coal, electricity, woodfuel and a small amount of mains gas. As a consequence, domestic heating also accounts for around two-thirds of emissions arising from energy use. The remaining emissions related to energy are from electricity for homes, heating and electricity for businesses.²⁰¹

5.59 The National Park Authority has encouraged the use of renewable technologies through the Carbon Neutral Exmoor programme. In appropriate circumstances, small scale renewable energy schemes utilising technologies such as solar panels, biomass heating, small scale wind turbines, photovoltaic cells and combined heat and power schemes can be incorporated both into new developments and some existing buildings – this is supported in appropriate circumstances through policy CE-S6 Design and Sustainable Construction Principles.

¹⁹⁹ DCLG (2012) National Planning Policy Framework (Paragraph 97). DCLG

²⁰⁰ DEFRA (2010) English National Parks and the Broads UK Government Vision and Circular

²⁰¹ ENPA (2010) Exmoor Carbon Neutral Programme Consultation

5.60 The Renewable Energy Resource Assessment for Exmoor National Park identifies the potential for a range of technologies across Exmoor.²⁰² This highlights, in particular, the opportunities from biomass due to the availability of woodfuel and other crops within the National Park. Hydropower is another potential source within the National Park, although not all water courses may be suitable and other interests will need to be taken into account. Solar heat and electricity (PV) have become more widespread (particularly following Government incentives and reductions in cost), and probably to a lesser degree, ground and air source heat pumps. The wind resource is good, however potential in Exmoor is likely to be limited by the need to site turbines in locations sympathetic to the natural beauty, wildlife and cultural heritage of the National Park. Energy from waste technologies could provide a sustainable way of managing residual municipal waste and agricultural wastes providing travel distances are minimised. Tidal stream and wave energy are developing technologies that are not currently commercially viable, but could become so over the Plan period. Any such proposals will be considered by the relevant authorities in accordance with the Coastal Concordat, Marine Planning Statement, and any adopted Marine Plan for the South West inshore area. Exmoor National Park Authority will liaise with the Marine Management Organisation and other relevant authorities in relation to the development of any associated on-shore infrastructure.^{203, 204} Proposals for renewable energy technologies would need to consider the implications of flood risk (CC-D1) and coastal change (CC-S2).

Renewable Energy

5.61 Not all renewable energy technologies will require planning permission. However, the National Park Authority encourages applicants to consider the full range of technologies available and to discuss proposals with the Local Planning Authority at an early stage. The Environment Agency regulates and permits many types of renewable energy schemes, and early consultation with them is also encouraged.

Applicants will be expected to demonstrate that they have undertaken measures to reduce the need for energy and improve energy efficiency before considering renewable energy and the type of renewable energy technology to be used. This is to ensure that they are consistent with the National Parks' Vision and Circular that in National Parks renewable energy generation is appropriate to the national value of the landscape.²⁰⁵

5.62 The National Park Authority is supportive in principle of small-scale renewable energy developments which contribute towards meeting domestic, community or business energy needs within the National Park, provided that there is no significant environmental harm to the area concerned or the National Park as a whole. For the purposes of this policy, 'small-scale' is defined as schemes of a scale that can be carried out within the capacity of the local environment and consistent with its landscape character, without causing damage to its natural beauty, cultural heritage, wildlife, or eroding enjoyment of the special qualities of an area, in accordance with statutory purposes and national policy.²⁰⁶ This will include cumulative impacts when considered in combination with any existing schemes within the National Park or affecting its setting. Where the impacts are acceptable, small scale renewable energy schemes that provide community benefits or environmental enhancement will be particularly supported. Large and medium scale renewable energy projects will not be acceptable within Exmoor. Nationally significant energy infrastructure projects will be determined by the Secretary of State.²⁰⁷

5.63 Planning permission for renewable energy developments likely to have an adverse effect on a site with internationally or nationally recognised designations (Special Areas of Conservation, Sites of Special Scientific Interest, National Nature Reserves, scheduled monuments, conservation areas, listed buildings, and registered parks and gardens identified on the Policies Map) will not be granted, unless an assessment has shown that the objectives

²⁰² Climate Action West (2008) Renewable Energy Resource Assessment. ENPA, Dulverton

²⁰³ DEFRA (2013) A Coastal Concordat for England

²⁰⁴ HM Government, et al. (2011) UK Marine Policy Statement (section 3.3.). The Stationery Office, London

²⁰⁵ DEFRA (2010) English National Parks and the Broads UK Government Vision and Circular (Paragraph 47)

²⁰⁶ DCLG (2012) National Planning Policy Framework (Paragraph 14; footnote 9). DCLG

²⁰⁷ Defined in the Overarching National Policy Statement for Energy Infrastructure as onshore wind or biomass schemes generating more than 50 megawatts and offshore wind schemes over 100 megawatts

of designation of the area will not be compromised by the development, and any significant adverse effects on the qualities for which the area has been designated have been mitigated and are clearly outweighed by the environmental, social and economic benefits. Impacts on Local Wildlife Sites and other areas of nature conservation or heritage interest will also be subject to a similar assessment.

5.64 Where necessary, landscape sensitivity and capacity analysis, ecological or historic environment/archaeological surveys or other investigations deemed necessary by the National Park Authority should be carried out to inform the application. Environmental Impact Assessment (EIA) will be required for certain renewable energy projects where the development falls into a category within Schedule 2(3) of the Regulations and the National Park Authority adopts a 'screening opinion' that an EIA is required.²⁰⁸

Issues to be Considered in Proposals for Renewable Energy Development

5.65 There are many different types of renewable energy technologies, and some are more compatible with National Park purposes than others. Applicants are therefore encouraged to consider the range of technologies available at an early stage, and to discuss proposals with officers so that appropriate schemes can be supported. Proposals should clearly set out the benefits arising from the development including, for example, reductions in emissions, environmental enhancements, community or social benefits, and economic benefits such as job creation and retention. However, care must also be taken in the detailed design of any proposal to minimise potential adverse impacts, both during construction and operation. Applications should assess the impacts of the proposed scheme along with any required infrastructure such as buildings, tracks, overhead cables or pipelines. The impacts will vary according to the type of scheme proposed, and the level of assessments and information required should be proportionate to the scale of the proposal and its likely impact. Further details are given below.

5.66 Planning conditions may be used to ensure that any residual impacts of approved schemes are acceptable, to require removal of approved structures if they become redundant, and restoration of the site.

Landscape and Visual Impact

5.67 The potential landscape and visual effects of particular renewable energy developments will vary on a case by case basis according to the type of development, its location and the landscape setting and sensitivity. Landscape sensitivity is the degree to which a particular landscape character type or area can accommodate change without unacceptable detrimental effects on character.

5.68 The effects of renewable energy schemes on landscape can include:

- a) direct impacts on landscape fabric (for example loss of a hedge or other feature);
- b) impacts on landscape and seascape character, including effects on the distinct pattern of elements of the landscape such as scale, landform, vegetation patterns, historic and cultural features; and/or
- c) impacts on the perceptual characteristics of landscape – including feelings of openness, remoteness, tranquillity, and beauty.

5.69 The visual impacts of renewable energy schemes will depend on where they can be seen from and who will see them. Landform is a fundamental issue for Exmoor, particularly moorland landscapes which have a horizontal emphasis of ridges, plateaux, and smooth horizons. As with landscape character, the significance of visual impacts will vary according to the sensitivity of the receptor environment, and the magnitude of change, for example a scheme in a remote moorland area, or within the undeveloped coast, with open views and few visible human artefacts would be more sensitive to visually intrusive vertical elements, such as wind turbines, than areas with more existing activity and structures.

5.70 Some of these effects may be minimised through appropriate siting, design (including material specification and colour) and landscaping schemes, depending on the size and type of development proposed. For example, visibility of wind turbines from valleys can be decreased if the siting of turbines avoids blades breaking the skyline from important or sensitive viewpoints. The quietest, most scenic and tranquil areas should be avoided, as should any visual competition with historic features such as church towers, historic settlements, or other

²⁰⁸ HM Government (2011) Statutory Instrument 2011 No.1824 – The Town and country Planning (Environmental Impact Assessment) Regulations 2011

landmarks. Grouping any necessary structures with existing buildings, trees or landform can help visual integration, and for smaller schemes screening may be possible. The design of structures is also important, and traditional materials and form should be used where possible. The colour of wind turbines can also help to reduce visual impacts.

5.71 The cumulative impacts of a number of structures associated with the scheme and with other existing renewable energy schemes within the locality or visible from it should also be considered. Cumulative landscape effects and visual effects should be considered separately. The former refers to the effects of a proposed development on the landscape fabric, character and quality and so concerns the degree to which renewable energy development becomes a significant or defining characteristic of the landscape. Cumulative visual effects concern the degree to which renewable energy development becomes a feature in particular views (or sequences of views), and the effect this has upon the people experiencing those views.

5.72 Applicants should consider issues of landscape and visual impact and demonstrate that any impacts can be avoided, minimised or mitigated such that the proposals will not detract from the natural beauty of the National Park. Further guidance on assessing landscape impacts should be considered.²⁰⁹

Wildlife

5.73 The impact of renewable energy schemes on the local ecology should be carefully assessed and where possible, result in an overall benefit for wildlife. The potential impacts depend on the type of technology and its location. Wind turbines may have direct impacts on habitats in relation to their siting and any access tracks required, and also potential impacts on species particularly birds and bats which can be struck by the moving blades. Care is needed to ensure that turbines are not located on migratory routes or on commuting routes between roosts and foraging areas for example. Hydro schemes also have potential ecological impacts through disturbance to the river bed and bank; impact on the watercourse as a habitat for fish and other aquatic creatures including through water abstraction; and impact on the ecological value of other land affected by the

development. A number of rivers are designated or are important for migratory fish such as salmon and sea trout, and any barriers to movement such as new weirs are unlikely to be approved by the Environment Agency. The demand for woodfuel for biomass could also lead to the loss of deadwood habitats if wood is cleared from the forest floor. Domestic renewable energy schemes such as PV panels also need to ensure that there is no disturbance during installation or maintenance to species such as bats or barn owls which may be using the roof space. There is also emerging evidence that the reflection of polarised light from solar panels can be damaging to aquatic insects.²¹⁰ Such impacts will need to be judged on a case by case basis and will need to be kept under review.

5.74 Whilst negative impacts need to be avoided or minimised, there are also potential wildlife benefits that can be gained from renewable energy schemes. For example, careful management of woodlands for woodfuel could enhance biodiversity; energy crops can provide cover and potentially over-wintering sites for birds and other species; and water management for hydro could benefit aquatic species, for example some turbine types oxygenate the water which can benefit fish.

Cultural Heritage and Historic Environment

5.75 The impacts on cultural heritage and the historic environment should be assessed including impacts on heritage assets such as historic landscapes, listed buildings and conservation areas or their settings. Renewable heat systems, such as solar panels or biomass boilers, could affect historic buildings and although these might not require planning permission, they may require listed building consent. Visualisations may be required to demonstrate the effects of a proposed wind turbine on historic landscapes or the setting of heritage assets. Hydro schemes may utilise existing buildings and the impact on any historic interest will need to be carefully assessed. The risk of potential damage to archaeology, particularly during construction should also be assessed.

²⁰⁹ Land Use Consultants (2013) Devon Landscape Policy Group Advice Note 2: Accommodating Wind and Solar PV Developments in Devon's Landscape

²¹⁰ Buglife (2011) A Review of the Impact of Artificial Light on Invertebrates



5.76 Potential schemes should include an assessment of the implications for archaeological remains, historic buildings and designed landscapes, as well as the historic character and associations of the wider landscape. Such assessments should embrace both the direct physical effects of projects and any indirect impacts, such as hydrological impacts in surrounding areas.

Tranquillity, Noise and Shadow Flicker

5.77 Tranquillity is one of the special qualities of the National Park that is valued by people and any potential impacts on tranquillity from renewable energy schemes, including noise or shadow flicker from wind turbines, would need to be minimised to a level which would not adversely affect people's enjoyment of the National Park. There may also be impacts on residential properties, particularly where schemes are located close to existing dwellings or buildings. Air source heat pumps can potentially cause noise disturbance to neighbouring properties. Noise from traffic and plant operations will need to be carefully considered, particularly in relation to biomass and anaerobic digestion plants according to likely levels of traffic to and from the site in order to transport biomass fuel and subsequent by-products.

5.78 A specific issue in relation to wind turbines is shadow flicker, where the shadow of the rotating blades falls across a dwelling and can cause light within the dwelling to brighten and darken. Government guidance states that impacts are only likely to occur when the property is located within 130 degrees either side of north of a turbine, and that shadow flicker decreases with distance from the turbine, with a general guide of more than 10 rotor diameters from the turbine being seen as acceptable.²¹¹ However, this may conflict with locating turbines close to existing buildings, in order to reduce visual impact, and so will need to be considered in combination with other objectives. Noise from wind or hydro turbines must also be assessed according to the latest standards. Applicants should provide information on the assessment of noise, vibration and shadow flicker impacts, including noise associated with the construction, operation and (if relevant) decommissioning of the scheme. Noise limits may need to be set using planning conditions to protect general amenity and any nearby residential properties.

²¹¹ DCLG (2014) Planning Practice Guidance, Paragraph: 020 Reference ID: 5-020-20140306

Air And Water Quality, Dust, Odour

5.79 Air and water quality in the National Park are generally good, and any potential impacts from renewable energy schemes will need to be carefully considered.

5.80 Potential impacts on air quality can arise from the dust generated by biomass plants, particularly when large quantities of materials are required. The efficient burning of modern biomass boilers could help to improve air quality, particularly in comparison to conventional oil or coal fuelled boilers. However, biomass plants over 50kW may pose risks from emissions of fine particulates (PM₁₀) and nitrogen dioxide (NO₂) which can affect health.²¹² These may also lead to landscape and visual impacts due to the design and height of the stack. Applications for biomass plants over 50kW should demonstrate that predicted emission concentrations associated with the stack height do not have a significant impact on air quality objectives for NO₂ and PM₁₀, or on landscape character.

5.81 Anaerobic digestion plants are, by their nature, odorous. Proposals should examine predicted odour effects and, if necessary, include mitigating measures, such as odour control systems. However, anaerobic digestion plants also provide opportunities to deal with farm wastes, such as slurry, which otherwise may form a potential pollution hazard.

5.82 The growing of biomass crops, such as miscanthus, could impact on water quality from the use of chemical fertilizers and pesticides, although generally such crops are low input and, once established, reductions in soil disturbance and erosion can also be achieved compared with conventional arable crops, thereby potentially improving water quality by reducing runoff and sedimentation.²¹³

5.83 The impact of hydro schemes on water quality and resources will need careful assessment, particularly during any required engineering or construction works and once the scheme is operational.

Recreation and Access

5.84 Tourism and recreation are important to the National Park, and one of the primary purposes of the National Park is to promote understanding and enjoyment of its special qualities. Any potential impacts on recreation and access should be considered. These could include disruption to public rights of way or access, or impacts on important views due to siting of a wind turbine for example, or disruption to riverbank access from a hydro scheme.

5.85 Applicants will also be expected to provide information on access requirements for the scheme and any potential impacts arising. This includes access for construction and maintenance. The landscape and visual impacts of any access tracks will need to be considered in particular, as well as any associated impacts on wildlife or cultural heritage.

Transport and Traffic

5.86 Transport of equipment to the site will need to be considered, for example the construction of wind turbines will require sufficient access for long and wide load items. The weight of individual components could also be an issue, and it is important that all sections of roads and bridges on the proposed delivery route can accommodate the size and weight of the loads.

5.87 Some renewable energy technologies may require regular transport movements, for example deliveries of biomass, or additional feedstock for anaerobic digesters. The impacts on rural roads, settlements and the tranquillity of the National Park will need to be considered.

Grid Connection

5.88 The impacts of grid connection either by overhead cables or underground pipelines are important considerations, as they can have significant impacts on landscape, ecology and the historic environment. Policy AC-D6 Fixed Line Transmission Infrastructure requires that new connections are underground where possible.

5.89 Most micro-generation technologies can either operate connected to a national or local grid or as stand-alone systems that power buildings directly or feed into an energy store, such as a battery. Micro-generation is particularly suited to rural locations where mains connectivity may not be available.

²¹² Environmental Protection UK – Biomass and Air Quality Guidance for Local Authorities

²¹³ DEFRA (2007) Planting & Growing Miscanthus: Best practice guidance

Environmental Enhancement or Community Benefits

5.90 Whilst the potential impacts of renewable energy schemes need to be carefully considered, there may also be opportunities to provide environmental enhancement or community benefits, and applicants should include details of any such benefits in their proposals. This will include any carbon savings that will be achieved and reductions in greenhouse gas emissions.

5.91 Other environmental enhancement could include wildlife benefits from increased management of woodland and hedgerows for biomass. Low tech anaerobic digesters can be beneficial in reducing potential pollution hazards, and also assist in meeting the requirements of Nitrate Pollution Prevention Regulations and extension of Nitrogen Vulnerable Zones.²¹⁴

5.92 There could also be some benefits from a shift to renewable heating systems, particularly as the majority of communities are not on mains gas, and there are consequently high levels of solid fuel boilers (oil and coal in particular). The volatile price of oil and

concerns over future security of supply, mean that a local, renewable source of fuel could greatly benefit communities. The potential for communities to benefit from deploying and owning renewable energy generation capacity is of great interest; it offers an opportunity to engage communities in responding to climate change and for them to realise an income stream which could be used to fund local projects of their choice, helping to empower and build more cohesive communities in Exmoor.

5.93 Local communities may also benefit from the expansion of renewable energy technologies across Exmoor, including jobs for suppliers and contractors in installing and maintaining systems.

Removal Of Redundant Facilities and Reinstatement of Site

5.94 Where new structures are proposed, applications should make provision for the removal of these structures, and reinstatement of the site including opportunities for enhancement, should the renewable energy scheme cease to be operational.

CC-S5 Low Carbon and Renewable Energy Development

1. Development proposals for small scale renewable energy schemes that assist in contributing towards reducing greenhouse gas emissions and moving towards a carbon neutral National Park will be permitted where they:
 - a) contribute towards meeting domestic, community or business energy needs within the National Park;
 - b) are compatible with the landscape and seascape character of the locality and avoid the most sensitive landscapes;
 - c) do not compromise the natural beauty, wildlife, cultural heritage or historic environment of the National Park, or lessen the enjoyment of its special qualities, either on their own, or in a combination with other schemes;
 - d) do not adversely affect habitat quality or the maintenance of wildlife populations;
 - e) provide environmental enhancement or community benefits wherever possible;
 - f) conserve the amenity of the area including in relation to landscape and visual impact, tranquillity, access and recreation, air and water quality, noise, dust, odour and traffic generation; and
 - g) make provision for the removal of the facilities and reinstatement of the site, should it cease to be operational.
2. Proposals for renewable energy development that do not meet the criteria in (1) above, will not be permitted.

²¹⁴ HM Government (2015) The Nitrate Pollution Prevention Regulations 2015

Small Scale Wind Turbines

5.95 Whilst the National Park Authority is supportive of renewable energy, wind turbines are, by their very nature, often intrusive in the landscape. The Exmoor National Park Landscape Character Assessment (LCA) 2007 identified intrusive development as one of the main threats to landscape character. The LCA recognises that Exmoor National Park “*is small in extent and as such is fragile in relation to change – not least small cumulative issues that, collectively, can have a significant impact on the landscape*”. The Exmoor National Park Partnership Plan 2012-17 recognises that wind turbines can, individually and cumulatively, erode the unspoilt, uncluttered nature of the landscape and they can have a detrimental impact on tranquillity.^{215,216} The potential for exploiting the wind resource in Exmoor is therefore likely to be limited by the need to ensure that turbines do not detract from the statutory purposes to conserve the natural beauty, wildlife and cultural heritage of the National Park. Some landscapes, such as moor and heath, including in coastal locations, are so sensitive to intrusive development from vertical structures due to their open vistas and wild character, that it may not be acceptable to have any turbines. Areas not considered to be suitable for wind energy development are Landscape Character Types A: High Coastal Heaths and D: Open Moorland, as shown on Policies Map 24. However, in other landscape types in the National Park, it may be possible for individual small scale wind turbines that are similar in scale to existing buildings and trees, against a backdrop or suitably screened and in an appropriate colour, to be assimilated into the landscape.

5.96 Consistent with the need to conserve and enhance the National Park’s natural beauty, turbines should generally be in the range of 10m to 15m in height to rotor tip. Occasionally, wind turbines up to a maximum of 20m height (to rotor tip) may be capable of being accommodated within the National Park given careful consideration of any potential adverse impacts on National Park purposes. This maximum height reflects experience in assessing the impacts of wind turbine proposals some of which have approached 20m to the rotor tip. Turbines of this height have only

been judged to be acceptable where the landscape is considered to be sufficiently robust, for example, where existing vertical features in the landscape such as a backdrop of trees have enabled a turbine structure to be accommodated, and where it would not break the skyline. Turbines approaching the range of 15-20m should be well related to existing vertical features, such as trees, which can be critical in providing a backdrop or screen and where the turbine cannot be viewed against the skyline from surrounding public viewpoints (including roads, rights of way and access land). Where trees are essential in providing screening or a backdrop and are under the control of the applicant, a management plan of ongoing maintenance will be a condition of any planning consent.

5.97 Large and medium scale wind turbines over 20m height (to rotor tip) and wind farms are not considered to be appropriate within the National Park given their intrusive nature and impacts on the landscape character and tranquillity.

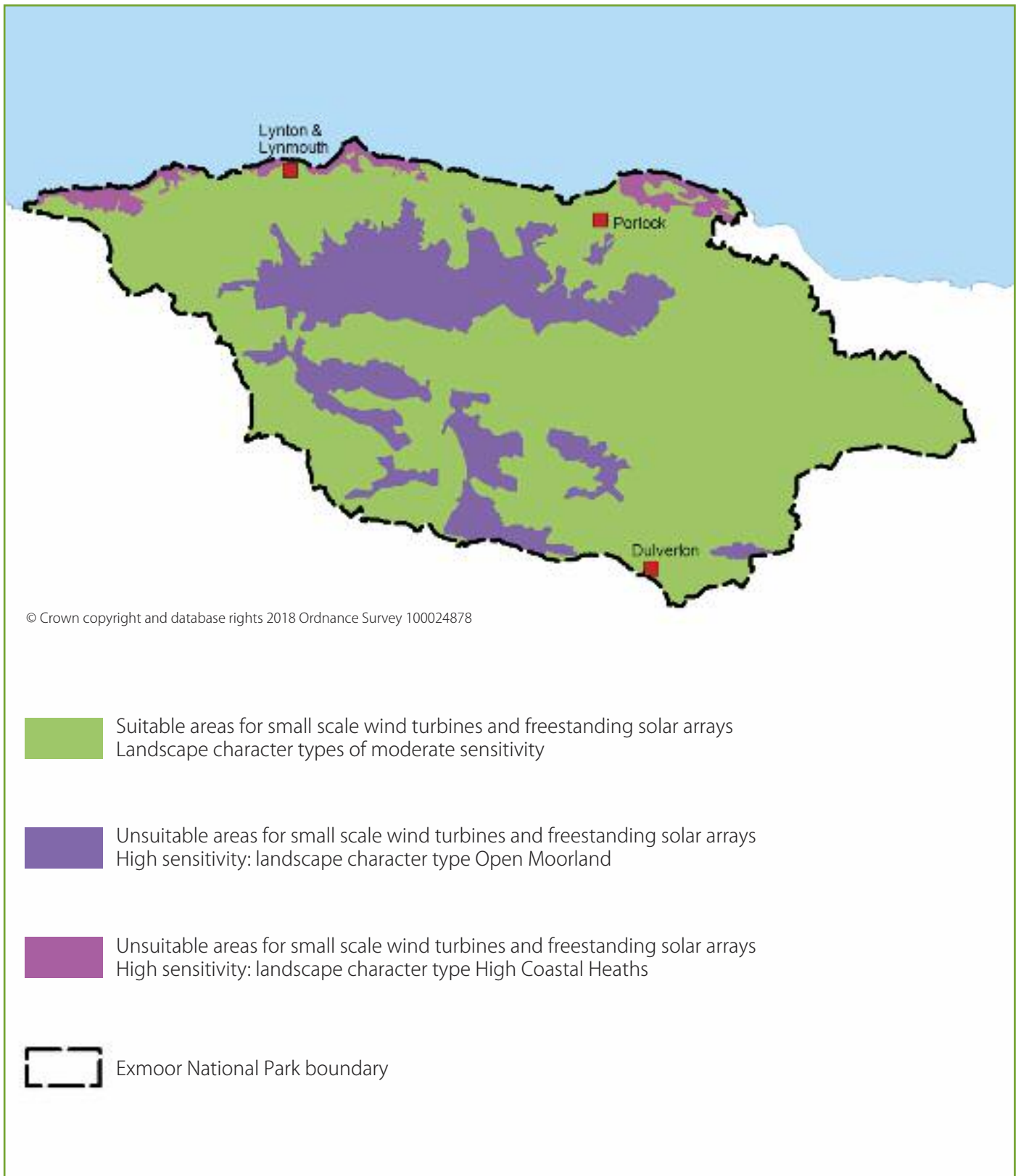
5.98 In order to judge whether the potential impacts of a proposal are likely to be acceptable, applicants should consider the impacts of the wind turbine along with any required infrastructure, such as road access, on site tracks, turbine foundations, hard standings, anemometer masts, a construction compound, electrical cabling and an electrical sub-station and control building. Some of these features are permanent and others are required only in the construction phase and as such are temporary. Applications should include any necessary supporting information regarding the assessment of impacts on landscape, wildlife, cultural heritage, historic environment and other resources as set out under the issues to be considered in proposals for renewable energy development (CC-S5 Low Carbon and Renewable Energy Development) paragraphs 5.55 to 5.94. Applicants will be expected to demonstrate that, following consultation, the planning impacts identified by affected local communities and ‘communities of interest’ such as users of the National Park have been fully addressed and the proposal has their backing.²¹⁷ Proposals within any areas of search allocated in a Neighbourhood Plan will be considered to have the backing of that local community.

²¹⁵ ENPA (2012) Exmoor National Park Partnership Plan 2012-2017

²¹⁶ The Exmoor National Park Partnership Plan recognises a special quality of Exmoor National Park as “A timeless landscape mostly free from intrusive development with striking views inside and out of the National Park and where the natural beauty of Exmoor and its dark night skies can be appreciated”

²¹⁷ House of Commons (2015) Written Statement (HCWS42) made by Secretary of State for Communities and Local Government on 18 June 2015. Local Planning (wind energy development)

Map 5.2 Suitable Areas for Small Scale Wind Turbines and Freestanding Solar Arrays



CC-D3 Small Scale Wind Turbines

1. Proposals for individual wind turbines serving individual properties or groups of properties will only be permitted where:
 - a) they are sited within suitable areas of the National Park, excluding Landscape Character Types A: High Coastal Heaths and D: Open Moorland as shown on the Policies Map;
 - b) they are appropriate in scale to the property being served, with a maximum height of 20m to rotor tip;
 - c) there is no unacceptable landscape or visual impact including cumulative impacts; and any residual impacts are minimised by locating the turbine close to any associated development or features and by screening and colour of the turbine;
 - d) there is no unacceptable adverse impact on tranquillity or amenity including the effects of shadow flicker and noise on nearby properties or access routes;
 - e) the location does not conflict with the use of the area for recreation and access, and public safety is not compromised; and
 - f) access to the site for construction and maintenance can be provided without damage to rural roads or historic bridges and fords

Freestanding Solar Arrays

5.99 A solar array is a linked collection of solar panels. Given the sensitivity of traditional buildings in the National Park to roof mounted panels, a number of schemes have come forward that mount solar panels on the ground or on stand-alone frames.

5.100 Small-scale freestanding solar arrays that are well screened in enclosed gardens or closely linked to existing buildings with no or minimal visual impact may be preferable to visually intrusive roof mounted panels. There may also be some circumstances where ground mounted solar arrays to serve groups of properties, community buildings, such as village halls, agricultural properties or other businesses are acceptable, where these are well screened within existing building complexes or by other landscape features such as hedgerows, walls or

trees, and do not detract from any architectural or historic interest. However, freestanding arrays should be sensitively sited to avoid impacts on wildlife and land of high ecological interest. Given the sensitivity of Landscape Character Types A: High Coastal Heaths and D: Open Moorland as shown on Policies Map 24 these are not considered to be suitable locations for freestanding solar arrays. Applicants should highlight the benefits of a ground-mounted array in comparison to a roof-mounted array in these cases. Proposals should consider the potential impacts on the issues listed for renewable energy development (CC-S5), paragraphs 5.55 to 5.94, and provide relevant information to support the application. Flood risk implications should also be considered (CC-D1 Flood Risk).

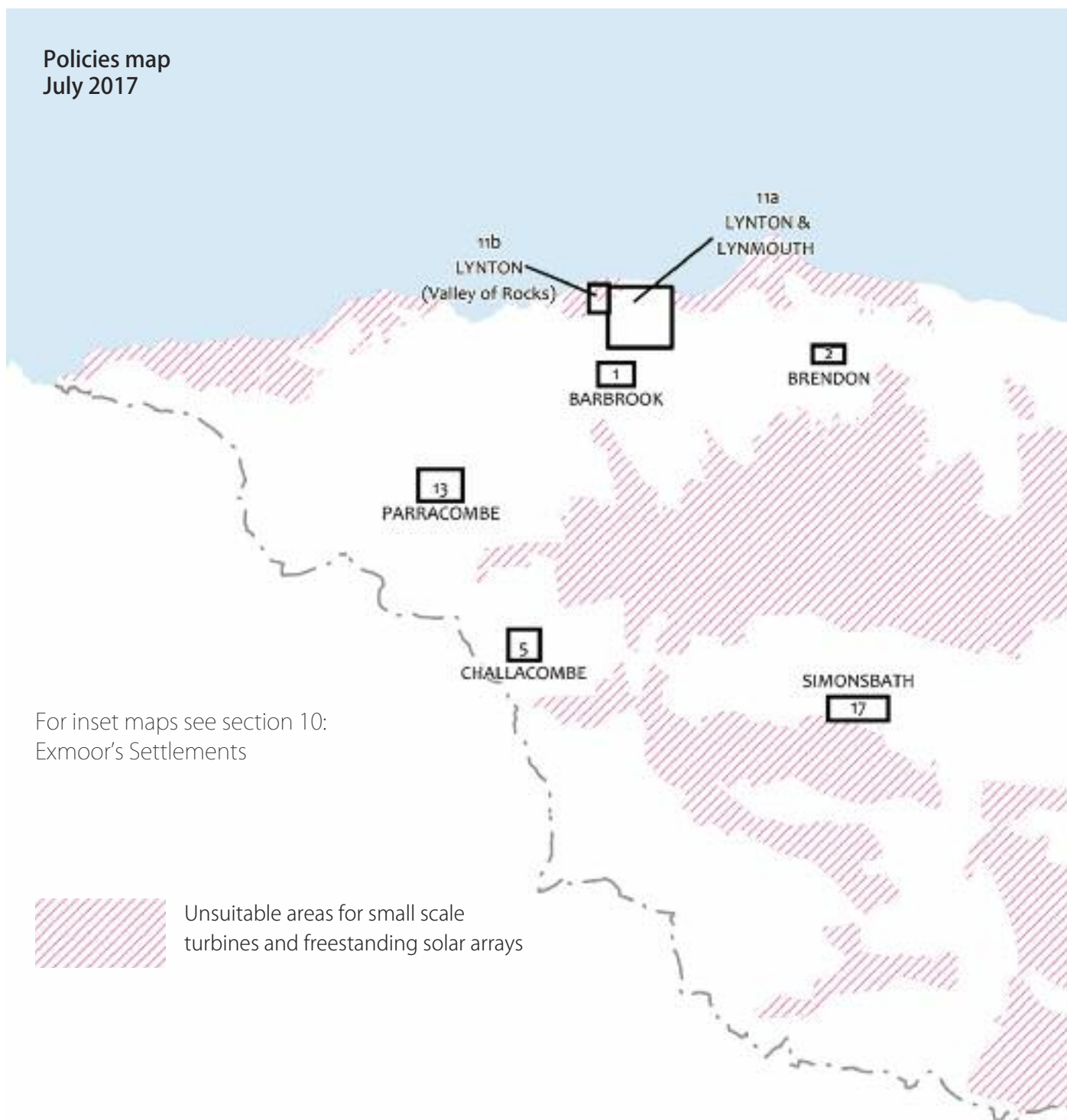
5.101 Where permission is granted for ground mounted solar arrays in preference to roof mounted solar panels, the National Park Authority will attach a condition removing permitted development rights for roof-mounted solar panels to ensure that the cumulative impacts of any future proposals can be properly assessed.

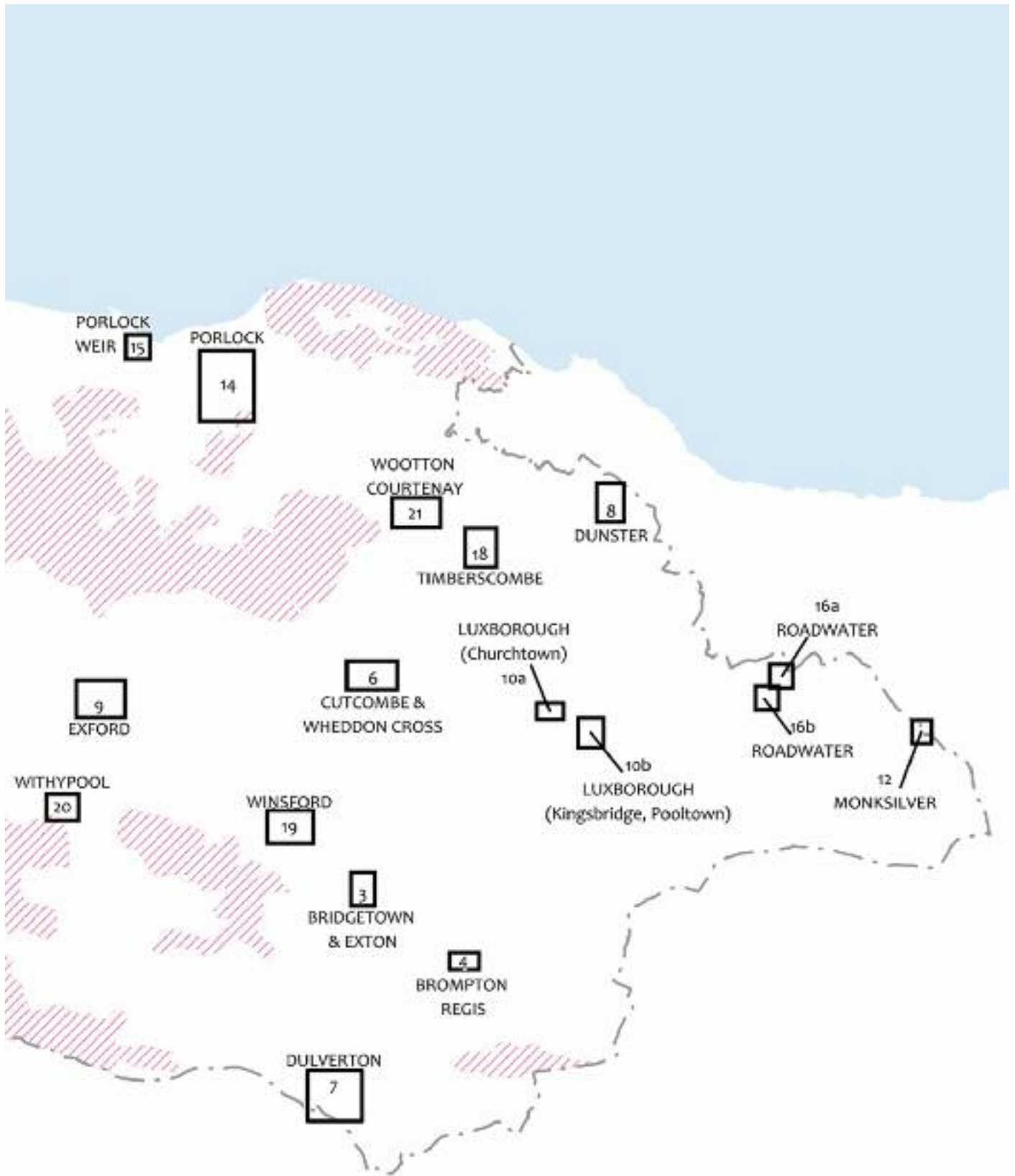
5.102 Visual impacts are likely to be more significant where large numbers of panels are proposed in isolation or unconnected to the buildings or properties that they are intended to serve. Siting a solar array system in a field may constitute a change of use of the agricultural land, which would require planning permission. Proposals for ground-mounted solar arrays that are sited in isolation away from existing built forms are likely to have significant impacts on landscape character and visual amenity and are not considered to be appropriate within the National Park.

CC-D4 Freestanding Solar Arrays

1. Small scale freestanding solar arrays to serve the needs of individual properties, groups of properties, community buildings such as village halls, agricultural properties or other businesses will be permitted where:
 - a) they are sited within suitable areas of the National Park, excluding Landscape Character Types A: High Coastal Heaths and D: Open Moorland as shown on the Policies Map;
 - b) they are appropriate in scale and in proportion to the size of the property they are intended to serve;
 - c) they are suitably sited and screened to avoid any intrusive visual or landscape impact, and where they are clearly associated with the buildings or properties that they are intended to serve;
 - d) they are sensitively sited to avoid impacts on wildlife and land of high ecological interest;
 - e) the design, colour and choice of materials minimises any visual impact; and
 - f) they do not harm the significance and setting of listed buildings or other heritage assets, or cause damage to archaeological interests.
2. Proposals for ground mounted solar arrays that are sited in isolation away from existing built forms will not be permitted.

Map 24: Unsuitable Areas for Small Scale Wind Turbines and Freestanding Solar Arrays





Waste and Resource Management

Context

5.103 The National Park Authority is the Waste Planning Authority and this policy therefore sets out the planning policy for waste and resource management including anaerobic digestion.

5.104 The European Waste Framework Directive defines waste as “any substance or object the holder discards, intends to discard or is required to discard”.²¹⁸

5.105 The overall objective of Government policy on waste, as set out in the strategy for sustainable development, is to protect human health and the environment by producing less waste and by using it as a resource wherever possible. The Waste Framework Directive provides the overall direction for pursuing sustainable waste management. A review of this Framework put particular emphasis on the planning system in ensuring that waste management activities occur in sustainable ways at sustainable locations and that it is vital to apply the waste hierarchy. The waste hierarchy provides for more sustainable waste management through moving the management of waste up the ‘waste hierarchy’ of:

- i. **Prevention:** *the most effective environmental solution is often to reduce the generation of waste, including the re-use of products;*
- ii. **Preparing for reuse:** *products that have become waste can be checked, cleaned or repaired so that they can be re-used;*
- iii. **Recycling:** *waste materials can be reprocessed into products, materials or substances;*
- iv. **Other recovery,** *waste can serve a useful purpose by replacing other materials that would otherwise have been used; and*
- v. **Disposing only as a last resort:** *the least desirable solution where none of the above options is appropriate.*

5.106 Consideration must be given to application of the waste hierarchy, to distinguish between those waste management options which deliver energy as part of the process, and those which do not. The Department of Environment, Food and Rural Affairs provides guidance on this in ‘Guidance on applying the Waste Hierarchy’.²¹⁹ Further guidelines are set out in “Taking sustainable use of resources forward: A Thematic Strategy on the Prevention and Recycling of Waste” which aims to reduce the negative impact on the environment that is caused by waste, from production to disposal, via recycling.²²⁰ This approach means that every item of waste is seen, not only as a source of pollution to be reduced, but also as a potential resource to be exploited.

5.107 The National Waste Management Plan sets out the Government’s ambition to work towards a more sustainable and efficient approach to resource use and management. The National Planning Policy for Waste sets out how the planning system can help to deliver this.^{221 222}

²¹⁸ Waste Framework Directive (European Directive (WFD) 2006/12/EC), as amended by the new WFD (Directive 2008/98/EC, came into force in December 2010)

“Once a substance or object has become waste, it will remain waste until it has been fully recovered and no longer poses a potential threat to the environment or to human health. From this point onwards, the waste ceases to be waste and there is no longer any reason for it to be subject to the controls and other measures required by the Directive.”

²¹⁹ DEFRA (2011) Waste Hierarchy

²²⁰ European Union (2005) Taking sustainable use of resources forward: A Thematic Strategy on the prevention and recycling of waste

²²¹ DEFRA (2013) Waste Management Plan for England

²²² DCLG (2014) National Planning Policy for Waste

Waste Management on Exmoor

5.108 Responsibility for planning for waste management in Exmoor National Park rests with the National Park Authority (as Waste Planning Authority). Domestic waste collection in Exmoor National Park is undertaken by contractors on behalf of the Somerset Waste Partnership and North Devon District Council. This waste is taken to waste recycling and treatment facilities outside the National Park based on contracts between the collection/disposal authorities and the waste industry. Within the National Park, waste is also taken to small reuse and recycling points. Waste collection from commercial and industrial premises within Exmoor National Park is carried out by commercial licensed waste carriers.

5.109 Given the overlap of administrative boundaries, the relevant waste planning authorities of Exmoor National Park Authority and the County Councils of Somerset and Devon, have agreed to work together to continue to achieve sustainable waste management. The Somerset Waste Core Strategy (2013) and Devon Waste Plan (2014) articulate this relationship with Exmoor National Park, acknowledging that the provision of large scale waste facilities for disposal, processing, recovery and recycling is inappropriate on Exmoor due to the area's designation as a National Park. Large scale facilities for the disposal of domestic, industrial and commercial waste are incompatible with National Park purposes because of potential adverse impacts and because they may require the importation of waste which is deemed inappropriate in a National Park. Exmoor National Park policy will therefore presume against new waste facilities within the National Park, and no sites will be allocated. Large scale specialised processing sites, such as commercial composting and recycling plants, will also be inappropriate, because of the potential adverse impacts including on the landscape and the potential for air, land and water contamination (CC-S7 Pollution). Small scale re-use, recycling, and composting facilities will be permitted to serve the needs of individual local communities, but only where they are well related to named settlements (GP3 Spatial Strategy) and do not include importation of waste from outside the community.

5.110 Through the Somerset Waste Core Strategy and Devon Waste Plan, and municipal waste management strategies, Somerset and Devon County Councils and the Somerset Waste Partnership will plan for management of domestic waste arising from within the National Park. Data for domestic waste arising from West Somerset and North Devon Districts have informed both County Councils' technical evidence base on capacity requirements. This means that domestic waste from within Exmoor National Park will continue to be treated or disposed of outside the National Park.

5.111 Devon and Somerset County Councils have agreed to plan for the management of commercial and industrial waste from within Exmoor National Park, using the same source of baseline data provided by DEFRA in 2010.²²³ Somerset County Council also carried out its own industrial and commercial waste survey to inform planning work.²²⁴ The Waste Planning Authorities have agreed to liaise closely in monitoring overall waste arising in the National Park area during the lifetime of their respective Local Plans.

²²³ DEFRA (2015) UK Statistics on Waste 2010-2012

²²⁴ Somerset County Council (2007) Industrial and Commercial Waste Survey

Construction and Demolition Waste

5.112 It is important to integrate waste management considerations into non waste developments, particularly by seeking to minimise the generation of waste in new developments, alterations and extensions, and encouraging sustainable construction methods including the use of recycled materials. Construction and demolition waste should be minimised and must be managed and re-used on site, providing that there will be no harmful impacts. However, where re-use on site may result in a risk to biodiversity, the historic environment (such as archaeology or the setting of a heritage asset), local communities or the water environment; appropriate off-site waste management or disposal will be required. In these circumstances, off-site recovery or reuse will be sought in preference to off-site disposal.

5.113 Construction and demolition waste arising in the Exmoor National Park area is not expected to be significant given the level of current development in the National Park. However, major planning applications for developments e.g. for 10 or more dwellings or buildings greater than 1000sqm, are likely to generate a considerable volume of waste compared to the majority of minor developments in the National Park.²²⁵ Policy CC-S6 Waste Management, therefore requires that these applications should demonstrate how waste will be minimised and sustainably managed, both through the construction phase of the development, and its subsequent operation. This should include the potential for appropriate local reuse of topsoil and other relevant materials, in order to reduce transport miles. A waste audit will be required and included as part of the planning application and should provide the following information:²²⁶

- a) The likely nature and volumes of waste generated through construction.
- b) How the design and layout of the development will minimise the amount of waste generated during the construction phase and the steps taken to separate and re-use appropriate wastes on site – where there will be no harmful impact on the environment or local amenity.

- c) How and where waste that cannot be re-used on site will be managed in accordance with the waste hierarchy including the potential for local re-use.
- d) Details of how waste will be managed sustainably once the site is operational e.g. incorporating storage space for recycling materials.

Community Waste Schemes

5.114 The National Park Authority recognises the role that Exmoor's communities can play in making more sustainable use of resources. Measures to drive waste management up the waste hierarchy including through the recycling and responsible reuse of waste via local, very small scale, community-based waste projects will therefore be encouraged.²²⁷ These should deal exclusively with the waste arising from that individual community for reuse, recycling, or community composting. Community facilities should be well related to settlements, in accordance with policy GP3 Spatial Strategy, to reduce the need to travel, providing there is no unacceptable adverse impact on local communities and amenity, landscape, wildlife and the cultural heritage of the National Park. Landscape and environmental impacts are likely to be greater in the open countryside outside settlements where this type of development is unlikely to be acceptable.

Anaerobic Digestors And Agricultural Waste

5.115 The Government's Vision for National Parks recognises the dual opportunities arising from anaerobic digesters in terms of managing waste, and creating a source of renewable energy.²²⁸ These may be particularly relevant in those parts of the National Park along the south west boundary with Devon designated as a Nitrate Vulnerable Zone (NVZ) where restrictions on spreading organic manure may increase the need for either more storage facilities or for treatment by methods such as anaerobic digestion.²²⁹

²²⁵ Major development as defined in: Statutory Instrument 2010 No.2184 The Town and Country Planning (Development Management Procedure) (England) Order 2010 Article 2

²²⁶ DCLG (2014) Planning Practice Guidance, Paragraph: 049 Reference ID: 28-049-20141016

²²⁷ DCLG (2014) National Planning Policy for Waste (Paragraph 3)

²²⁸ DEFRA (2010) English National Parks and the Broads: UK Government Vision and Circular (Paragraph 47)

²²⁹ HM Government (2007) Environmental Permitting (England and Wales) Regulations [as amended]

5.116 Small scale anaerobic digesters dealing with a mixed waste stream (which may include agricultural waste or manure and slurry) will be permitted with appropriate safeguards to ensure that they only use feedstock and waste from within the National Park or from parishes adjoining the National Park for those facilities located near the boundary, to avoid unnecessary traffic generation. Where farms in close proximity wish to group together to achieve economies of scale and economic viability and so that there is sufficient feedstock for the digestion process, the National Park Authority will require a waste management plan to enable an assessment of whether the scale of both the development and operation of the proposal including traffic movements are acceptable within the locality and the National Park as a whole. Proposals will also need to accord with policy CC-S5 Low Carbon and Renewable Energy Development, and ensure that there will be no significant impact on the environment, the local community, and National Park purposes as set out in policy GP1 Achieving National Park Purposes and Sustainable Development. For environmental permits and waste transfer carriers', advice should be sought from the Environment Agency as the regulator.

5.117 Despite the rural nature of the National Park, agricultural waste (including manure, slurry and spoiled straw) is not generally a significant issue for disposal as most is spread on pasture, collected from barns and agricultural sheds and managed in slurry pits or composted on the farm, then spread on the land as a natural fertiliser. Development of new farm or agricultural waste facilities, such as pits or tanks, is normally permitted development but can require planning permission in some circumstances, usually because of proximity to housing, protected buildings or highways. Where permission is required for development to address animal waste (excluding carcasses), small-scale waste management facilities on farms may be permitted provided that waste arises at least in part from the farm or farms concerned. On-farm facilities should be suitably located to avoid harm to the area including to the National Park's special qualities, local amenity, landscape, wildlife and cultural heritage and from traffic generation. Proposals should be consistent with Policy SE-S4 Agricultural and Forestry Development, and where they have the potential to cause pollution, CC-S7 Pollution.

Waste from Sewage

5.118 Waste from sewage can harm the environment where capacity is exceeded and as a result of its transportation. To safeguard environmental quality and the health and amenity of the National Park's residents, sewerage capacity and sewage disposal (including the process of disposal) must be appropriately managed. Exmoor National Park will seek to continue discussions around sewage arisings and capacity with South West Water and Wessex Water as service providers. Policies CC-S6 Waste Management and CC-D5 Sewerage Capacity and Sewage Disposal seek to ensure that these impacts are avoided and to provide appropriately for new or extended sewage infrastructure.

Restoration Of Waste Sites

5.119 The National Park Authority will require appropriate restoration of waste sites to achieve National Park purposes. Such schemes should seek to achieve the conservation and enhancement of the National Park including for geodiversity, biodiversity, green infrastructure, historic environment and quiet enjoyment of the National Park.

CC-S6 Waste Management

1. The National Park Authority will work with the waste collection and disposal authorities, partner organisations and local communities to promote sustainable management of waste through the waste hierarchy.
2. Large scale waste facilities, including landfill sites and specialised processing plants, will not be permitted in the National Park.
3. Construction and demolition waste should be minimised and must be managed and re-used on site where there will be no harmful impacts. Where re-use on site may result in an environmental risk to biodiversity, the historic environment (such as archaeology or setting of a heritage asset), local communities or the water environment, appropriate off-site waste management or disposal will be required.
4. Applications for all major developments (as defined in the Development Management Procedure Order) must demonstrate how the construction and operational phases of the development will be consistent with the principles of sustainable waste management through a waste audit.
5. Waste facilities for small scale reuse, recycling, and composting will only be permitted to meet the identified needs of, and serve individual local communities, where they do not include importation of waste from outside that community. Community waste facilities should be well-related to settlements, in accordance with GP3 Spatial Strategy, to avoid the need to travel and to avoid any unacceptable adverse impact on local communities and amenity, landscape, wildlife and the cultural heritage of the National Park.
6. Small scale anaerobic digesters and waste management facilities on farms will only be permitted where they source feedstock and waste from within the National Park and/or from parishes adjoining the National Park. Farm facilities should be suitably located on the farm to avoid impacts on the natural and cultural environment and traffic generation. Proposals for anaerobic digesters should also accord with policy CC-S5 (Low Carbon and Renewable Energy Development).
7. Proposals relating to waste water and sewage facilities for storage and disposal should ensure that such infrastructure is appropriate in terms of its location, scale and design to avoid adverse impacts on the National Park and surrounding area (policy CC-D5 Sewerage Capacity and Sewage Disposal).
8. The National Park Authority will require the appropriate restoration and after-use of waste sites, through the application of appropriate conditions where necessary, based upon conservation and enhancement of landscape character, geodiversity and biodiversity, the historic environment and quiet enjoyment of the National Park.

Sewerage Capacity and Sewage Disposal

Context

5.120 Sewage disposal (including the process of disposal) is important for the protection of public health. However, it can have negative impacts on the environmental quality of land, air and water where capacity is exceeded. On Exmoor, Wessex Water and South West Water are the operators for mains waste water treatment. Additionally, a number of private operators dispose of non-mains sewage in the area. Sewerage infrastructure within the National Park is relatively small scale but forms an important component of the area's utility provision. For the purposes of this policy, sewerage infrastructure refers to new or extended sewage treatment works, and the transfer, processing, disposal or storage of sewage. Additional sewerage infrastructure, or the expansion of existing infrastructure, may be required during the lifetime of this Plan but are likely to be small scale due to the size of the population.²³⁰ Sewage from non-residential development, such as from boats, recreational development, and businesses, can also impact on the capacity of sewerage works.

5.121 Public mains sewerage infrastructure and non-mains sewerage, including septic tanks, are essential for public health, the maintenance of water quality and the prevention of pollution but can themselves have amenity, public health and environmental implications if they are not managed appropriately. The scale, siting and appearance of sewerage works are important considerations to ensure that what may otherwise be intrusive development is acceptable in the National Park.

5.122 Environmental impacts, such as emissions and discharges, are controlled under other legislation outside of planning management and are monitored by the Environment Agency.²³¹ Sewage treatment plants are classified as 'less vulnerable' development in areas of flood risk. Therefore, provided adequate pollution control measures are in place, sewage transmission infrastructure and pumping stations are seen as water-compatible development (CC-D1 Flood Risk).

Types of Sewage Disposal

5.123 Sewage is carried from its source to the works by two types of sewerage system. In more modern systems, foul sewers are separated from systems that collect stormwater run-off, which is discharged directly into natural watercourses. It is however common, particularly in older areas, for foul and stormwater systems to be combined. In combined works, the flow and concentration of sewage entering the treatment plant vary with rainfall, and when higher flows occur part of the sewage may be diverted and held in stormwater tanks. If the flow is very high, the sewage may be discharged, untreated into the surface watercourse. Ensuring the capacity of sewerage infrastructure is not exceeded is therefore essential to protect public health, and the environmental quality and amenity of the National Park. The recycling and reuse of rainwater and greywater are encouraged in the National Park (CC-D2 Water Conservation) and help to minimise risks of overloading sewerage infrastructure.

5.124 Sewage sludge is treated outside the National Park by sludge treatment centres. Some sewage may be treated by private operators which are small and localised. Sewage treatment can result in a range of wastes which are deposited in different ways. Currently sludge recycling to agricultural land is accepted by DEFRA and the Environment Agency as the most sustainable option.²³² With advances in technology the operation area required for sewerage infrastructure has reduced in recent years.

²³⁰ Consultation results demonstrated people wanted to ensure adequate sewerage infrastructure, including the extension of sewage treatment plants is provided in the National Park

²³¹ For more information please see the Environment Agency website

²³² DEFRA (2012) Guidance: Managing sewage sludge, slurry and silage

Public Health, Environment And Amenity

5.125 Sewerage works are essential to protect public health. The sewage treatment process may however, result in point source localised contaminated land from organic pollutants and pathogens. Due to the nature and function of sewage treatment works it may be inappropriate to locate the development it serves in close proximity to sewage works to protect the amenity and health of the public.²³³ The degree of any nuisance will vary according to the design and age of works, associated landscaping, local topography and prevailing wind. The enclosure of works and effective odour control measures can be used to mitigate against some of these impacts.²³⁴

Safeguards are in place to prevent a statutory nuisance associated with odour emissions from sewerage infrastructure, including the identification of development restraint zones around sewage treatment works by the appropriate water company/sewerage undertaker, and their advice will be sought on individual cases.

5.126 The impact on water quality is a key consideration for applications for sewerage works with the possibility of pollution from the discharges of sewage infrastructure. Good water quality is important for Exmoor's biodiversity. Improvements have been made to the plant at Lynmouth and a new plant was built at Porlock. Problems with water quality can, however, still occur due to overflows from combined sewer outflows or sewer capacity being exceeded during intense rainfall, which can lead to untreated or excessive organic material entering rivers and thereby the sea. Non-mains drainage proposals, including the use of septic tanks, may have an adverse effect on the environment when there is a high water table or if the site is susceptible to flooding. This is likely to be exacerbated by the impacts of a changing climate which may mean that flood resilience measures to avoid overflows are required.

Capacity Issues

5.127 Housing development, in particular, can potentially increase the risk of water quality being affected due to extra demand being placed on sewerage works. The capacity of the sewerage infrastructure will be a key consideration in the drainage design process of any application. Where it is physically possible, development should connect to a public mains sewer and satisfactory arrangements should be made, in consultation with the appropriate sewerage undertaker for the area, to ensure the sewerage infrastructure can cope appropriately with additional demands before the development is occupied or activated.

5.128 If connection to a public sewer is not feasible or available, then proposals for a non-mains sewerage system will be considered. Developers are encouraged to make a full assessment of the suitability of any proposals for non-mains sewerage systems at the project design stage. Measures such as a combined sewage treatment plant incorporating a combination of treatment processes should first be considered, which should demonstrate that it will meet the standard and conditions set by the Environment Agency and which are appropriate in the National Park context. Only where mains sewage or a combined sewage treatment system are not feasible, taking into account practicability, and the scale and size of a development, should a system incorporating septic tank(s) be considered. Where a housing proposal has public mains sewerage constraints but is otherwise acceptable, the provision of septic tanks could be considered as part of the proposal. A proliferation of small private sewage treatment plants should however be avoided, where possible, for reasons which include landscape impact and a greater risk of environmental pollution.

²³³ Consultation highlighted concern over the loss of amenity through odour and noise from some local sewerage works

²³⁴ Types of nuisances are listed in clause 1.b) of Policy CC-D5

5.129 Proposals which require non-mains sewerage must demonstrate that the proposal cannot be connected to a public mains sewer and that arrangements will ensure that sewerage capacity is not exceeded before development is occupied or activated.

5.130 If proposals which require non-mains sewerage infrastructure are assessed as being unsatisfactory, including where they are likely to lead to a significant environmental, amenity or public health problem(s) which cannot be overcome by means of a condition, planning permission will be refused. This will be the case even if the proposal is a temporary measure and will also apply to issues around maintenance and capacity of the infrastructure.

Considerations for Sewerage Infrastructure Proposals

5.131 The design of sewerage infrastructure, whether for additional capacity, the replacement of existing facilities or provision of a new facility, (public or private), should result in the efficient use of infrastructure and should be compatible with the surrounding amenity, environment, public health and landscape. The National Park Authority encourages pre-application discussions on any potential impacts. Planning applications should, therefore, be supported by a full assessment of the proposed use of sewerage infrastructure. This assessment should include a thorough examination of the impact of disposal of the final effluent. Proposals must demonstrate that opportunities to mitigate impacts are taken. Pollution should also be taken into account and be consistent with CC-S7 Pollution. The Environment Agency, and the relevant statutory undertaker for the area will be important stakeholders and consultees in considering any appropriate sewage improvements which may be required for a proposal. The views of other key bodies, such as neighbouring local planning authorities, Natural England and Drainage Boards, may also be material in assessing the suitability of sewerage infrastructure and development requiring sewerage infrastructure improvements. An Environmental Permit or exemption will be required from the Environment Agency if it is proposed to discharge treated sewage effluent to controlled waters or ground.²³⁵

5.132 Under section 106 of the Water Industry Act 1991, and supported by planning case law, when connecting to a public mains sewer it is the undertaker's statutory duty to deal with the burden of additional discharge and not that of the developer. Conditions may be used to ensure sewerage infrastructure is in place before the development is occupied or activated to avoid potential overloading whilst allowing appropriate development to be permitted.

²³⁵ As defined in Section 104 of the Water Resources Act 1991. Source: HM Government

CC-D5 Sewerage Capacity And Sewage Disposal

1. Development proposals for, or which require new or extended sewerage infrastructure, will be permitted where it can be demonstrated that the facility will pose no unacceptable harm to public health, amenity or environmental quality. The following criteria must also be satisfied:
 - a) the appropriate location, scale and design of the infrastructure (CE-S6 Design and Sustainable Construction Principles);
 - b) the use of necessary mitigation measures (including climate change resilience measures), to avoid impacts on surrounding areas including noise, air, soil and water pollution, odour, litter, visual intrusion, and other disturbances; and
 - c) connection to a public mains sewer, where available and physically possible. Where this is not the case, proposals for non-mains sewerage should first consider a combined sewage treatment system, or if this is not feasible, a system incorporating septic tank(s). Proposals which require non-mains sewerage must demonstrate that the proposal cannot be connected to a public mains sewer.
2. Satisfactory arrangements should be made to ensure the public sewerage infrastructure can appropriately manage the additional required capacity of the proposal before the development is occupied or activated.
3. Development proposals which exceed the capacity of private sewerage infrastructure or which do not otherwise include satisfactory arrangements consistent with the requirements of this policy will not be permitted. For development proposals that require new or extended private sewerage infrastructure, this must be provided before the development is occupied or activated to ensure current sewerage capacity is not exceeded.
4. Regularly occupied development such as residential buildings will not be permitted in locations likely to be unacceptably affected by the proximity of sewerage infrastructure.

Pollution

Context

5.133 Pollution can lead to environmental damage, loss of amenity, detrimental impacts to quality of life, cause health issues and deplete our natural resources. Pollution can also damage Exmoor National Park's special qualities including its tranquillity, dark night skies and habitats which support a great diversity of wildlife.²³⁶ Exmoor National Park Authority will seek to ensure that new and existing development does not contribute to, be put at unacceptable risk from, or be adversely affected by, unacceptable levels of pollution.²³⁷

5.134 National policy advocates sustainable development, which has an environmental dimension, and part which seeks to minimise pollution. Nationally, a core land-use planning principle underpinning both plan-making and decision-taking, is the contribution to reducing pollution. The planning system should ensure that new and existing development does not contribute to, and is not adversely affected by, unacceptable levels of pollution (including cumulative impacts) and land should be remediated where appropriate. Planning focuses on whether development is an acceptable use of land, and the impacts of its use. The control of processes or emissions relating to pollution is subject to approval under other pollution control regimes which fall outside of planning powers.²³⁸

5.135 Planning and pollution control operate within different legislative frameworks but complement each other. Pollution control aims to prevent pollution by limiting the release of substances and ensuring air and water quality meet standards that guard against impacts to the environment and human health. The planning system has an important role in determining whether the development, use of land and any impacts arising are acceptable. This includes consideration of additional pollution generated by road traffic, the demand for natural resources and any discharges to the environment associated with the proposed development.

5.136 There are various types of pollution which include air, soil, water, light and noise. Pollution can result from point or diffuse sources from various activities which can have direct or indirect impacts. Pollution may be generated outside the National Park boundary but may affect the area including local communities within it, or may be generated within Exmoor but affect areas and local communities outside. Partnership working with neighbouring authorities (including marine planning authorities) is therefore important to prevent and address pollution sources.²³⁹ Pollution can also be reduced by the actions of individuals, for example, car sharing, using sustainable transport modes, minimising water usage, and minimising artificial lighting to protect Exmoor's dark night skies (CE-S2 Protecting Exmoor's Dark Night Sky).

²³⁶ ENPA (2012) Exmoor National Park Partnership Plan 2012-2017. ENPA, Dulverton

²³⁷ DCLG (2012) National Planning Policy Framework (Paragraph 120). DCLG

²³⁸ DCLG (2012) National Planning Policy Framework (Paragraph 122). DCLG

²³⁹ ENPA (2010) Your Future Exmoor consultation events

Air Pollution

5.137 Although Exmoor's air quality is generally good, it can be affected by pollution-laden winds from areas outside the National Park, including mainland Europe.²⁴⁰ The 2007 Air Quality Strategy sets out plans to improve and protect the air quality in the UK.²⁴¹ Good air quality is important for human health and sensitive habitats such as Exmoor's internationally important heathland and oak woodlands. Some of Exmoor's habitats are sensitive to acidification which can be caused by pollutants, such as sulphur and nitrogen oxides, which create acid rain. In 2006, the Environment Agency and English Nature undertook an assessment that showed that overall nitrogen deposition exceeded the maximum critical loads for blanket bog and old sessile oak woods on Exmoor indicating that they could be at risk from air pollution.²⁴²

5.138 District Councils have a statutory duty for local air quality management.²⁴³ They are required to carry out regular reviews and assessment against national objectives. Where it is found that objectives are unlikely to be met, air quality management areas (AQMA) must be designated to tackle the issue of air quality. Although no AQMA have been designated within Exmoor National Park, national surveys show that ground level ozone levels on Exmoor can occasionally reach very high levels during certain atmospheric conditions and can exceed European guidelines²⁴⁴. This can be harmful to human health, but such impacts cannot be controlled through planning policy.

5.139 Future development on Exmoor has the potential to have a detrimental impact on local air quality and therefore should be managed appropriately. Some proposals could lead to increased air pollution and, in these cases, the application must include measures to minimise impacts to an acceptable level. Consideration should be given to neighbouring properties including the impact of unpleasant odours. The emission of greenhouse gases from development is an issue not only locally but in a wider context.²⁴⁵

5.140 Development within the National Park is generally small in scale and so is unlikely to cause significant impacts on air quality. However, some proposals can have the potential, cumulatively, to cause air pollution, including through their impact on the surrounding transport network; opportunities for sustainable transport measures will therefore be a key consideration (AC-S1 Sustainable Transport). Other measures to improve air quality can include energy-efficiency in building design and construction as well as the use of appropriate low carbon renewable energy sources (CC-S1 Climate Change Mitigation and Adaptation; CC-S5 Low Carbon and Renewable Energy Development, CE-S6 Design and Sustainable Construction Principles).

²⁴⁰ ENPA (2011) Sustainability Appraisal Scoping Report. ENPA, Dulverton

²⁴¹ DEFRA (2011) The Air Quality Strategy for England, Scotland, Wales, and Northern Ireland – Volume 1

²⁴² ENPA (2011) Sustainability Appraisal Scoping Report. ENPA, Dulverton - further information is also available from Exmoor's Habitat Regulations Assessment

²⁴³ HM Government (1995) The Environment Act

²⁴⁴ ENPA (2011) Sustainability Appraisal Scoping Report. ENPA, Dulverton

²⁴⁵ ENPA (2010) Exmoor Carbon Neutral Programme Consultation. ENPA, Dulverton

Soil Pollution and Contaminated Land

5.141 Soil pollution can arise from different sources including agricultural activities and fuel storage. For Nitrate Vulnerable Zones (NVZ) guidance is given by DEFRA and the Environment Agency on the storage of organic manure based on the requirements of the Nitrate Pollution Prevention Regulations. Good agricultural practice for farmers, growers and land managers is also provided.

5.142 Soil pollution can lead to contaminated land, which, in turn, can lead to a number of issues including: impacts on human health, buildings (chemical and physical), and the natural environment where pollution affects ecosystems and wildlife populations. Land contamination is not restricted to previously developed industrial land but can also occur on greenfield sites and from natural sources as well as human activities. North Devon and West Somerset District Councils are required to identify, inspect and remediate land in their districts for contamination.²⁴⁶

5.143 Planning also has a role to play in dealing with contaminated land as it provides the means to secure appropriate investigation and remediation. Land contamination is a material consideration in determining applications. Where development is proposed on land that could be contaminated, a site investigation will usually be required. If contamination is found, remedial works would be required to make the land suitable for its intended end use, as a condition of any planning permission.²⁴⁷

5.144 Contamination may create issues away from its source through transport by wind or water for example. Proposals for development such as housing with gardens, schools, nurseries or allotments, where contaminated land would be a particular issue, should consider its possible presence. Each area of potentially contaminated land is likely to be different in terms of its particular contamination and a site specific approach to remediation will therefore be necessary. The Environment Agency has a role in assisting local authorities by providing site-specific local guidance.

5.145 A wide range of industries may historically have caused contamination, or have the potential to contaminate the land they are sited upon (as well as neighbouring land). The Environment Agency sets out further details on the processes, materials and wastes associated with individual industries which have potentially contaminating land uses and situations where land may be affected by contamination. This includes:

- a) Agriculture
- b) Timber treatment
- c) Naturally occurring radioactivity including radon
- d) Methane and carbon dioxide production ²⁴⁸

5.146 When determining planning applications for land that may be contaminated, the National Park Authority will consider whether the proposal takes acceptable account of contamination and what actions will be taken to remediate land to protect the environment and health of future users if contamination is found. As Exmoor has a long history of mineral extraction there may be a number of sites within the National Park which would have some pollution risk if disturbed.

²⁴⁶ Under Part IIA of the Environmental Protection Act 1990 (EPA), which came into force on the 1st of April 2000

²⁴⁷ North Devon Council (2009) Contaminated Land Strategy 2009-2014; West Somerset Council (2011) Environmental Health and Licensing Contaminated Land Inspection Strategy 2011 to 2015

²⁴⁸ Environment Agency (1995) Land contamination: Department of Environment (DOE) industry profiles

Water Pollution

5.147 Exmoor's high quality clean water resource is vital to a wide range of interests, including its nature conservation, fisheries, water supply and bathing water quality as well as its amenity value. Exmoor's river corridors are important wildlife habitats and make an important contribution to the landscape of the National Park. Overall the quality of Exmoor's rivers is rated as very good or good by the Environment Agency. However, there have been some instances where some of Exmoor's rivers have been identified as poor in terms of ecological status.²⁴⁹

5.148 Poor water quality (including bathing water quality) can be the consequence of a range of diffuse sources and point source pollution including agricultural activities, abstraction, disused mines, industrial discharges, accidental spillage, sewage discharge (CC-D5 Sewerage Capacity and Sewage Disposal) and the physical modification of water bodies. To ensure the high quality water environment on Exmoor is maintained, activities in catchments, and those directly affecting the water resource itself, must be managed. Although many of these activities lie outside planning control, planning has a significant role in avoiding and mitigating the impact of pollution from new development proposals, such as through their location and design. Pollutants arising from agricultural activities may include silage effluent, milk and slurry. In some cases, the use of covers on slurry stores may be appropriate to reduce the risk of overflow and discharge.

5.149 Natural fluctuations in water levels occur and, where water levels are low, can result in a higher concentration of contaminants can lead to poor water quality. Increased abstraction of water can also result in low water flows and a lowering of water tables. Furthermore, climate change is likely to add to the issue of low water flows. Water conservation and water quality are therefore closely linked. Catchment abstraction management strategies are produced by the Environment Agency for the management of local water resources and should be referred to by proposals which may have an impact on water resources (CC-D2 Water Conservation). Flooding can also precipitate pollution and proposals which may affect or be affected by flooding should be consistent with CC-D1 Flood Risk. Opportunities to minimise environmental damage and diffuse pollution through the incorporation of sustainable drainage systems is supported (CE-S6 Design and Sustainable Construction Principles).

5.150 New development, which may affect groundwater in certain areas of the National Park, must take into account groundwater Source Protection Zones (SPZs), shown on the Policies Map, and aquifer designations.²⁵⁰ The emphasis is on the prevention of pollution rather than a reactive approach to cleaning up pollution events. This approach minimises the likelihood of future problems. Necessarily, the need to protect groundwater in these zones places constraints on certain types of development particularly those such as landfilling, slurry tanks, oil storage, chemicals and housing which is dependent on effluent disposal through soakaways. Indirect issues including disturbance of contaminated land and its impact on water resources must also be considered in development proposals (paragraphs 5.141 to 5.146).

²⁴⁹ Environment Agency (2016) South West river basin district river basin management plan

²⁵⁰ The Environment Agency provides the latest groundwater SPZ's and aquifer designation data and maps. Source: Environment Agency (2015) What's in my backyard?

Light and Noise Pollution

5.151 The proliferation of artificial lighting has led, in some areas, to a deterioration in the quality of views of the night sky. Proposals should therefore demonstrate that management of light pollution is consistent with CE-S2 Protecting Exmoor's Dark Night Sky. Proposals, including from illuminated advertisements (CE-D5 Advertisements and Private Road Signs), that are likely to result in unacceptable light pollution will not be appropriate in the National Park. Tranquillity, which results from the experience of a combination of low noise and dark night sky, is a special quality of Exmoor. The quiet enjoyment of the National Park is supported by policy RT-S1 Recreation and Tourism. Noise is defined as 'unwanted sound' and its impact is a material consideration in determining planning applications. Unacceptable intrusive noise-generating development is inappropriate in the National Park context and will not be permitted where it would have a significant adverse impact on Exmoor's special qualities, health, environment, surrounding land uses, quality of life or amenity. The adverse impacts of noise should be minimised to avoid the gradual erosion of tranquillity where this may have an effect on the character of an area. Noise should not exceed the lowest observed adverse effect level above which adverse effects on health and quality of life can be detected. Further information is set out in the Noise Policy Statement for England (or subsequent guidance)²⁵¹. Planning obligations and conditions may be used to mitigate the effects of noise (GP5 Securing Planning Benefits – Planning Obligations). It is however recognised that existing businesses should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established.²⁵²

Mineral Extraction And Waste Disposal

5.152 Mineral extraction and waste disposal, if not managed acceptably, have the potential to result in significant environmental impacts including the creation of pollution both directly and indirectly through the generation of traffic. Most mineral extraction applications will need to be accompanied by a formal environment statement to ensure that impacts, including any pollution of the air, water or soil, will be kept to an acceptable level compatible with its location within a National Park (CE-S7 Small Scale Working or Re-working for Building and Roofing Stone and CC-S6 Waste Management).

²⁵¹ DEFRA (2010) Noise Policy Statement for England

²⁵² DCLG (2012) National Planning Policy Framework. (Paragraph 123). DCLG

Considerations For Proposals

5.153 When considering the impact of a development, the various forms of potential pollution including air, soil, water, noise and light, both from individual and cumulative sources will be considered. Where pollution issues are likely to arise, applicants are encouraged to discuss proposals with the National Park Authority at an early pre-application stage so that relevant issues and information which may be required to accompany a proposal can be considered. The Environment Agency provides guidance on pollution prevention measures and is a key stakeholder in assessing the potential pollution implications of proposals. Further information on the impact of pollution on Natura 2000 sites is provided by the Exmoor National Park Habitat Regulations Assessment.²⁵³ Careful siting, layout, design and the choice of materials can help to minimise energy loss and thus carbon emissions as well as other environmental pollutants and conserve natural resources such as water. Such design considerations should also be in conformity with other design principles to ensure that they are compatible with National Park purposes (CE-S6 Design and Sustainable Construction Principles; SE-S4 Agricultural and Forestry Development).

5.154 The National Park Authority will require sufficient information on environmental impacts to enable planning applications to be determined. Where insufficient information is available for potentially high-risk developments, permission is likely to be refused. Development may provide an important opportunity for improving pollution levels and alleviating contaminated land. Proposals which seek to reduce pollution levels in Exmoor and are compatible with National Park purposes and special qualities are encouraged; for example, through sustainable travel plans, carbon reduction or mitigation such as renewable technologies (AC-S1 Sustainable Transport; CC-S1 Climate Change Mitigation and Adaptation; CC-S5 Low Carbon and Renewable Energy Development; CC-D3 Small-Scale Wind Turbines; CC-D4 Freestanding Solar Arrays).

5.155 All proposals should avoid pollution, where possible, by using preventative measures, minimising any residual impacts, storing materials appropriately and remediating contaminated land where required before development proceeds.

CC-S7 Pollution

1. Applicants should first seek to avoid pollution where possible including through using preventative measures and working in partnership.
2. Where pollution cannot be avoided development proposals will be expected to demonstrate that there will be no unacceptable adverse impacts individually or cumulatively on the environment (including groundwater source protection zones, natural resources), public health, communities, quality of life, amenity and neighbouring land uses including areas outside of the National Park by:
 - a) minimising any residual impacts to an acceptable level;
 - b) storing materials including agricultural slurry/by-products in a way that will not pollute the surrounding environment and natural resources including in flood events; and
 - c) remediating contaminated land before development proceeds (in the case of proposals on or affected by contaminated land).
3. Proposals which seek to reduce pollution and include measures to improve the quality of the surrounding environment and resources will be encouraged.

²⁵³ ENPA (2011) Core Strategy and Development Management Policies: Habitats Regulations Assessment Scoping Report. ENPA, Dulverton