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# **Environmental and Infrastructure Capacity Study**

for Purbeck District Council

Prepared by LUC in association with Navigus Planning

October 2017



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## 1 Introduction

1.1 LUC was commissioned by Purbeck District Council to undertake an Environmental and Infrastructure Capacity Study of the District. The purpose of the study was to identify whether Purbeck District can accommodate the 'Objectively Assessed Need' for housing that will be identified in the Eastern Dorset Strategic Housing Market Assessment (SHMA) update, in addition to allocations already being taken forward by the adopted Purbeck Local Plan (PLP1) (2012). The study will be used to inform the on-going Review of the Purbeck Local Plan Part 1. This report describes the approach taken in the study and presents its findings.

## Background

- 1.2 Purbeck District Council's Local Plan was adopted in 2012; however, during its examination, the Inspector suggested that the Council could do more to explore all housing growth potential in the District. The Council agreed to review the Plan to look at the potential for higher growth and, as a result, consulted upon its Issues and Options in early 2015. A consultation on the Options followed in 2016 and responses to the 2016 consultation led to this study being commissioned.
- 1.3 In late 2015, the Eastern Dorset Strategic Housing Market Assessment (SHMA) was published, which sets out the objectively assessed need (OAN) for each of the Councils within the Eastern Dorset area. The SHMA identifies the need for Purbeck District Council to plan for 3,080 new homes in addition to those already identified through the Local Plan process; the SHMA is currently being updated. Further explanation of the District's housing requirement and the need for this study are provided below.

## Housing need in the Eastern Dorset HMA and Purbeck

- 1.4 Purbeck District falls within the Eastern Dorset Housing Market Area (HMA) which also comprises of the local authority areas of Bournemouth, Poole, Christchurch, East Dorset and North Dorset and has a total population of 589,300 persons during 2013. Between 2001 and 2011 the HMA experienced a growth of 9.3% (21,603) households, which is over the national average of a 7.9% increase<sup>1</sup>. The population of Purbeck is 45,400 which represents 7.7%, the smallest proportion of the HMA's population.
- 1.5 The existing PLP1 makes provision for 2,520 dwellings to meet housing needs over the plan period 2006-2027. The Eastern Dorset SHMA (2015) identified an OAN for Purbeck up to 2033, which resulted in the need to plan for a further 3,080 dwellings over the period to 2033, in addition to the 2,520 identified through PLP1. The SHMA is also being updated as part of the Local Plan Review, meaning this number may still change however, it is anticipated that Purbeck will still be expected to deliver additional housing. Nearly half (47%) of Purbeck's residents live and work within the District, the most common destination for workers to commute to (25%) outside of the District is Poole. Indicators show that higher earning residents in the HMA are working in areas beyond the HMA boundary.
- 1.6 Around a third (32%) of households within the HMA are single person household, which is slighter higher than both the regional and national averages. Only a quarter (24%) of households within the HMA have dependent children, which is lower than the regional and national averages. Similarly to the other authorities in the HMA, Purbeck has an ageing population with 30% of the population aged 65 or over, ranking 14<sup>th</sup> of all of England's authorities. This is forecast to increase.

<sup>&</sup>lt;sup>1</sup> Eastern Dorset 2015 Strategic Housing Market Assessment, GL Hearn (2015). www.poole.gov.uk/EasySiteWeb/GatewayLink.aspx?alId=36432

- 1.7 Purbeck's Strategic Housing Land Availability Assessment (SHLAA) is currently being updated, but the Site Selection Background Paper<sup>2</sup> notes that the extant SHLAA identified 51 sites, providing 4,060 homes that could be delivered in Purbeck. Although the Background Paper recognises that the SHLAA took the AONB and Green Belt into consideration, it states that the methodology adopted for the SHLAA does not take into account certain constraints that would affect the deliverability of sites, and thereby over estimates the number of dwellings available. This study therefore takes into account the key factors affecting deliverability (see **Chapter 7**).
- 1.8 One key issue is that the SHLAA does not consider the cumulative impact on sites, which will need to be considered owing to around 20% of the District being designated by European law and thereby subject to the requirements of the Habitats Regulations, and the majority of Purbeck lies within the 5km Dorset Heathlands development buffer. This may lead to developments requiring the provision of Suitable Alternative Natural Greenspaces (SANGs) where several sites are in close proximity and their combined effects require mitigation.

## Representations from the Purbeck Local Plan Part 1 Options Consultation

1.9 The need for this capacity study also arose due to a number of consultation responses received (in response to the 2016 options consultation) expressing concerns that meeting the OAN could lead to significant environmental impacts within the District. .

## Study aims and objectives

- 1.10 The overall aim of the study is to provide a detailed and robust assessment of the constraints to development in Purbeck District, in order to understand the capacity of the District to accommodate its OAN. There are significant environmental constraints and existing pressures on infrastructure within the District, both of which have the potential to limit future development. This study will therefore form an important component of the evidence base for the on-going Local Plan Review of the PLP1, reviewing the balance between the need for the District to accommodate housing, whilst also protecting the natural and social environment.
- 1.11 The key objectives of the study are to:
  - Outline the current environment within Purbeck, the ecosystem services it offers and any existing and potential trends that may affect its future, including the sensitivity of the environment to change.
  - Identify where development within the District is constrained and conversely where there is greatest capacity (taking into account key sensitivities and pressures).
  - Review existing infrastructure provision within the District, where services are at capacity, or where there is scope for improvement and the implications of this for how much additional development can be accommodated.
  - Make recommendations on how issues that have a potentially limiting impact on development could be overcome.

<sup>&</sup>lt;sup>2</sup> Purbeck Local Plan Partial Review: Site Selection Background Paper (2016) https://www.dorsetforyou.gov.uk/media/214775/site-selection-background-paper/pdf/site-selection-background-paper.pdf

## Structure of report

- 1.12 This report is set out as follows:
  - Chapter 2 describes the methodology used to undertake the study;
  - Chapters 3, 4 and 5 outlines the three environmental capacity themes considered in the study which include:
    - Geology, water and wildlife;
    - Productive land; and
    - Landscape, green space and historic environment.

The chapters provide information on:

- > Why the environmental assets are important;
- Current baseline and future trends; and
- > The sensitivity of the assets.
- **Chapter 6** summarises the findings of the constraints analysis and identifies the most and least environmentally constrained areas of Purbeck.
- **Chapter 7** provides an assessment of how well the District is served by infrastructure and services particularly within those areas that are least environmentally constrained.
- **Chapter 8** summarises the findings of the study regarding the least constrained areas in the District and its overall capacity to accommodate development It also sets out the studies required to identify appropriate mitigation for sites within these areas.
- **Chapter 9** presents the study's conclusions.

## 2 Methodology

- 2.1 This Chapter sets out the methodology that was used to undertake the study. This includes four key stages.
  - Identification of the environmental assets within the District, their value and their capacity to withstand change.
  - 2 Mapping of the environmental constraints within the District to identify areas of the District that are the least constrained.
  - Assessment of the suitability of those areas for housing, with reference to their proximity to and capacity of infrastructure and services, and their potential deliverability; and
  - 4 Analysis of where additional housing can be located.
- 2.2 The chapter sets out the principles of environmental capacity, the study themes and how the environmental assets have been assessed. A description is then provided of how the data gathered has been mapped and how the areas potentially suitable for housing have been identified.

## Principles of environmental capacity

- 2.3 The environment provides a range of services or benefits to society. These 'ecosystem services' (**Table 2.1**) are important for two main reasons:
  - Some are important for **sustaining life** (e.g. the need for clean air to breathe, water to drink, food to eat, materials for housing, protection from flooding, genetic biodiversity, pollination of plants and crops, etc.).
  - Some are important for **enriching the quality of life** (e.g. sense of place and heritage, tranquillity, attractive landscapes and townscapes).
- 2.4 Without some ecosystem services we could not survive and without others, the quality of our lives would be severely diminished. The resources to deliver these services are finite.

Table 2.1 Examples of ecosystems services

Type of ecosystem service	Examples of benefits from environmental assets	
Provisioning services the products that we get from the land	Food; fuel; fibre; fresh water; genetic resources	
Regulating services regulation of our environment	Climate regulation; flooding and erosion regulation; noise regulation; pollination; disease and pest regulation; regulation of water, air and soil quality	
Supporting services supporting plant and animal life	Soil formation; nutrient cycling; water cycling; primary production (vegetation growth)	
Cultural services culture and our quality of life	Cultural heritage; recreation and tourism; aesthetic experience; education; inspiration; sense of place	

- 2.5 There are strong links between ecosystem services, environmental limits and thresholds, and environmental capacity. Common to them all is the important concept of 'acceptability'. It can be argued that the environmental limit of a location to accommodate development is at the point when the loss, damage or erosion to the environment turns from being acceptable to being unacceptable.
- 2.6 Acceptability is determined by society. This can be done in a variety of ways:
  - (i) At the international and national level, acceptability is often decided by the setting of quantitative targets or standards. For example, targets or standards have been set for carbon emissions in order to prevent climate change, for pollutants to air to ensure human health, for pollutants in water, and for the maintenance of the integrity of Natura 2000 sites to protect ecological diversity and networks.
  - (ii) Some are set down in national policy, most notably through the National Planning Policy Framework (NPPF), and related guidance, such as for flood risk, and for the protection of SSSIs, historic assets, designated landscapes, and best and most versatile agricultural land. These comprise a mix of quantitative and qualitative measures that can often involve interpretation and argument.
  - (iii) Some can only realistically be set at the local level, through engagement with Council Members, stakeholders and the general public, to determine what is acceptable or unacceptable to communities. Examples of these may include how much development a local community might be willing to accept on greenfield land to deliver essential housing, economic activity, or community infrastructure. In these instances, there are likely to be widely divergent views depending upon the priorities of the individuals or communities concerned, and the views may not necessarily reflect what is acceptable in planning terms.
- 2.7 The purpose of an environmental capacity study, therefore, is not to determine the exact point at which targets, standards and policy intent is likely to be compromised. It is instead to provide in an as objective way as possible, a description and evaluation of the effects of further development to inform those with an interest and decision makers.
- 2.8 In order to determine environmental capacity, it is important not just to focus on each environmental theme or topic in isolation. The cumulative impact of development on a range of topics and themes also needs to be taken into account. Thus, a development proposal such as an urban extension may not breach any single identifiable environmental limit, but it may impinge on a range of environmental limits that, together, could be considered to lead to significant environmental effects.
- 2.9 Finally, it is possible to mitigate and compensate for the impacts of development in such a way as to ensure that environmental capacity is not breached. For example, investment in the upgrading of a sewage treatment works may allow more development to be accommodated without damaging water quality. The incorporation of water efficient appliances and sustainable drainage systems may allow for more development to be delivered without risk of unacceptable water abstraction or flooding. The use of materials and design in development, so that they strengthen local character and distinctiveness, can help to make new developments more acceptable to local people. The restoration and creation of new habitats (e.g. green infrastructure) can help to compensate for those lost to development.
- 2.10 All of these factors are important in feeding into decisions on the environmental capacity of a location to accept development. Ultimately, it is only by going through such thought processes that policies in Local Plans can be developed, tested, consulted upon, and adopted. The benefit of undertaking an environmental capacity study is that it makes this process explicitly rather than simply implicitly implied.
- 2.11 This study is a district-wide desk study that provides an indication of the District's environmental capacity and provides the basis on which more detailed site-level assessment can be undertaken.

## Study themes

- 2.12 Purbeck District benefits from a wide range of ecological, landscape, agricultural and green infrastructure assets that combine to create a valued and diverse environment. Identifying the environmental capacity of the District requires consideration of the environmental capacity of each of its assets and the way in which they work together. The types of environmental assets have therefore been grouped into themes, drawing together related topics. **Table 2.2** shows the study themes, the assets that are included in each theme and the main ecosystems services that they provide.
- 2.13 Many of the topics are interrelated and assets provide more than one type of ecosystem service, for example supporting services such as nutrient or water cycling are provided by productive land as well as designated biodiversity assets and water bodies. The main ecosystem services that apply to each theme are therefore listed.

Table 2.2 Ecosystems services and study themes

Ecosystems services	District-scale assets providing those services	Study theme	
Regulating services: climate	Biodiversity and geodiversity assets e.g.	Geology, water and wildlife	
regulation, flooding and erosion regulation, noise regulation,	Sites designated for biodiversity or geodiversity;		
pollination, disease and pest regulation, and regulation of	Priority habitats;		
water, air and soil quality	Water assets e.g.		
Supporting services: soil	Rivers and canals;		
formation, nutrient cycling, water cycling, and primary production	Lakes and reservoirs;		
(vegetation growth)	Areas required for natural processes e.g.		
	Floodplains;		
	Areas for managed erosion.		
	Other assets e.g.		
	Clean air (Note that Purbeck has no current areas of poor air quality that would directly constrain development. Air quality has therefore only been briefly considered in Chapter 3 in relation to biodiversity and geodiversity assets.)		
Provisioning services: food, fuel,	Agricultural and forestry assets e.g.	Productive land	
fibre, fresh water, and genetic resources	Agricultural land;		
	Commercial forestry;		
	Other productive land e.g.		
	Allotments.		
Cultural services: cultural	Landscape assets <sup>3</sup> e.g.	Landscape, green space	
heritage, recreation and tourism, aesthetic experience, education,	<ul> <li>Areas of Outstanding Natural Beauty;</li> </ul>	and historic	
inspiration, and sense of place	Community and greenspace assets e.g.	environment	
	<ul> <li>Registered common land and village greens;</li> </ul>		
	Public parks;		
	Open access land;		
	Heritage assets e.g.		
	Scheduled Monuments and World Heritage Sites;		
	Battlefield sites and registered parks and gardens.		

 $<sup>^{3}</sup>$  Note that Green Belt has not been included as it is a planning designation rather than an indicator of landscape quality or environmental capacity.

- 2.14 This report presents Purbeck's environmental capacity under each of these themes, in **Chapters 3, 4 and 5**. For each theme, the chapters describe:
  - the types of asset considered and the sources of data available on those assets;
  - why the assets are important;
  - an explanation of the baseline conditions and how they might be expected to change over time;
  - an assessment of the significance, vulnerability and overall sensitivity of the environmental assets; and therefore
  - the environmental capacity of the District, in relation to that theme.

## Characterising environmental assets

#### **Data sources**

2.15 Data on environmental constraints has been collated from sources in the public domain and from data held by Purbeck District Council and Dorset County Council. **Chapters 3-5** include a summary of the data sources for each asset. Full details of the data used and how it has been analysed are provided in **Appendix 1**; a bibliography is provided in **Appendix 2**.

## Assessing environmental sensitivity

- 2.16 It was important that the approach taken to identifying the assets that are most sensitive to future change allows a consistent approach to be taken across all the themes but is also sophisticated enough to measure both the **significance of the asset** (either nationally or locally important) and its **capacity to withstand change** vulnerability (either susceptible or robust).
- 2.17 The significance of the asset was scored according to the following criteria:
  - **National/international importance** The asset is considered to be of national or international importance, as recognised by statutory designations or national policy.
  - **Local importance** The asset does not qualify as being nationally important, but is considered to have local importance.
- 2.18 The capacity of an asset to withstand change takes two factors into account. The first is the fragility of the environmental asset to change which would damage its condition and value (in terms of the benefits it is providing). This fragility may depend on the scale of the asset and the extent to which threats affecting part of the asset would affect its overall integrity (i.e. landscape-scale assets being potentially less fragile than smaller sites). The assessment of fragility does not take account of the impact of protection from planning policy, but does consider specific statutory protection from legal designations. Socio-economic factors such as the ownership and management of assets (at both local and national level) are considered where such management seeks to control the drivers of environmental change. The second is the recoverability of the asset i.e. the extent to which its condition and value would regenerate after damage takes place. We have also taken into account known local issues, for example those raised in response to the Purbeck Local Plan Partial Review Options consultation (2016).
- 2.19 The two scores from the assessment of 'capacity to withstand change' are as follows:
  - **Susceptible** The asset is fragile and would not be expected to recover within a reasonable period OR (if the asset is not fragile), recovery from any harm caused would be slow or would not take place at all (i.e. the damage would be irreversible).
  - More robust The asset is not particularly fragile (i.e. it could withstand a moderate level of disruption from the anticipated threats before suffering significant harm OR (if it is fragile), the asset is likely to regenerate strongly within a reasonable period (e.g. 5-10 years) after the disruption from the threat has taken place).
- 2.20 The overall sensitivity score for each asset type is assigned based on the scores for the significance of the asset and to the capacity of the asset to withstand change, as in the matrix

illustrated in **Table 2.3**, giving a score of Higher Sensitivity, Moderate Sensitivity or Lower Sensitivity.

Table 2.3 Proposed classification of sensitivity values

		Level of significance		
		Nationally/internationally	Locally significant	
		significant		
Capacity	Susceptible			
to	(Lower capacity)	Higher sensitivity	Moderate sensitivity	
withstand	More robust			
change	(Higher capacity)	Moderate sensitivity	Lower sensitivity	

- 2.21 Justification for the level of sensitivity assigned to each environmental asset is provided in the tables and supporting text in each of the theme chapters (**Chapters 3-5**).
- 2.22 In some cases, reference has been made to the relevant Purbeck Local Plan policy, to illustrate the importance of an issue at the local level. The Local Plan is under review and, as such, some policies may be subject to change in the future; however, the current Local Plan provides an indication of the importance of specific issues within the District.

## Mapping the data

#### **Physical constraints**

- 2.23 Physical constraints have been mapped in order to exclude from the assessment areas where development cannot be physically located. The following have been considered to be physical constraints:
  - buildings;
  - roads and railway lines;
  - water bodies (including rivers, streams, ponds, lakes etc.);
  - military land; and
  - areas affected by coastal change (indicative erosion zones).
- 2.24 For more information on the source of these datasets and their spatial analysis, please refer to **Appendix 1**.

#### **Environmental constraints**

- 2.25 Mapping of the environmental constraints has been carried out in two main stages as described below.
  - 1. Mapping environmental constraints and sensitivity
- 2.26 The location of the environmental assets within each of the three themes has been mapped in vector format, accurately showing the site boundaries. The sensitivity score (higher = 3, moderate = 2 and lower = 1) has been assigned to each dataset. The scores of relevant datasets within each theme and sub-theme have been combined to establish the maximum score within each of them, to produce an overall sensitivity map for that theme.
- 2.27 The sensitivity scores across all three themes have then been combined into a single map that shows the highest level of sensitivity for the study area. For example, if an area is defined as an ancient woodland (higher sensitivity in the theme 'Geology, water and wildlife'), allotment (lower sensitivity in the theme 'Productive land'), and open space (moderate sensitivity in the theme 'Landscape, greenspace and historic environment'), the highest sensitivity score (ancient woodland) will be assigned to it.

- 2. Comparing areas of moderate and low sensitivity
- 2.28 Areas of higher sensitivity have been excluded from further assessment as these environmental constraints preclude development. Areas of moderate sensitivity may accommodate development in some locations with mitigation and areas of lower sensitivity, while suitable for development, may still need to provide environmental mitigation in some cases. It has therefore been necessary to consider areas of moderate and lower sensitivity in detail to identify areas within those that are more or less environmentally constrained.
- 2.29 One approach would be to count the number of moderate and lower sensitivity assets in each location, however some locations might be included in more than one asset category (for example 'amenity open space' and 'SANGs', which belong to the same 'Community & Greenspace' subtheme), without a resulting increase in sensitivity. Instead, we have considered the number of sub-themes within each of the three main themes (geology, water and wildlife; productive land; and landscape, greenspace and the historic environment). Moderate sensitivity ratings across several themes would indicate a more sensitive location than a moderate sensitivity within a single theme. We have therefore identified the number of moderate sub-themes within each theme and the total number of moderate sub-themes for all three themes. Figure 6.1 shows the overall sensitivity of the project area. Shades of purple and blue were used to display the number of moderate sub-themes affecting each area. The maximum number of moderate sub-themes at any location is 4 (dark purple on Figure 6.1). Considering lower sensitivity scores have been assigned only within one theme (Productive land) and they cover very few parts of the study area (e.g. north from Charborough House), the number of lower sensitivity sub-themes has not been calculated.

## Identifying areas suitable for housing

2.30 The mapping of environmental constraints enables the environmental sensitivity of the District to residential development to be identified. Areas of high environmental sensitivity are generally not considered to be appropriate for development. Areas of moderate sensitivity may be able to accommodate residential development but mitigation is likely to be required to minimise any potential effects. Areas of low sensitivity may be more suitable for residential development but again mitigation measures may be required to minimise any potential effects. Areas identified as being the least environmentally constrained were also considered in terms of their proximity to infrastructure and services and the deliverability of those areas, including the type of infrastructure upgrades that might be needed. This information has been combined to provide an indication of the suitability of different areas for residential development.

## Infrastructure proximity and capacity

- 2.31 Areas identified as being the least environmentally constrained (low or moderate sensitivity overall, i.e. with the potential for environmental impacts to be mitigated) have been considered in terms of their proximity to infrastructure and services, as described below.
- 2.32 The mapping of infrastructure and services considered proximity to:
  - Education facilities- primary and secondary schools;
  - Health facilities- primary healthcare services (GP surgeries);
  - Road transport the strategic road network and public transport;
  - Emergency services police, ambulance and fire services;
  - Utilities water and sewerage, gas, electricity, and waste and recycling;
  - Retail outlets shopping areas; and
  - Leisure facilities sports/leisure centres and outdoor pitches.

- 2.33 Distances to each type of service have been assessed with reference to the Institute of Highways and Transportation guidance<sup>4</sup> on desirable and acceptable walking distances.
- 2.34 Although new development may provide opportunities to improve infrastructure provision, the capacity of existing infrastructure and services may need to be enhanced to deliver housing at some sites. Issues with infrastructure and service capacity have been identified by:
  - reviewing current baseline and proposed improvements to services, for example as set out in the Purbeck Infrastructure Plan (2016); and
  - engaging with the infrastructure providers to establish:
    - the potential to support theoretical growth levels (as established in consultation with Purbeck District Council) in the low sensitivity and moderate sensitivity areas in terms of their infrastructure needs; and
    - > the cost of provision.

#### Deliverability

- 2.35 Rather than assess the deliverability of individual sites, the study has assessed the deliverability of various levels of growth within all areas with low or moderate environmental sensitivity. This is because deliverability of specific sites considers many broader factors than just infrastructure costs and it is not the objective of this study to determine the deliverability of individual sites. Rather, overall deliverability of growth in broad locations of low or moderate sensitivity has been established, based on the cost of providing new infrastructure and where there is a reasonable likelihood, that this cost will need to be borne by the developer.
- 2.36 Ultimately all infrastructure constraints can be overcome through enhanced provision (providing that any new infrastructure is not itself limited by physical/environmental constraints) but there is a point at which the cost will make development unviable. This would create a strategy that is in conflict with the NPPF requirement to pay careful attention to viability and costs in plan-making. This has been informed by the economic viability work used to underpin the Purbeck Community Infrastructure Levy (CIL)<sup>5</sup>. Equally, if the burden of provision is legally placed upon the provider and that provider has reported that there is little prospect of such major infrastructure provision being part of its asset plans moving forward, this has been used as a clear indicator of a constraint to development.
- 2.37 Further information on the approach adopted in the assessment of infrastructure capacity and housing deliverability is provided in **Chapter 7**.

### Site ranking

- 2.38 This study provides an indication of the type of constraints present in locations around the District and the type of mitigation that might be required to enable residential development to be brought forward in those locations. However, the suitability of individual sites needs to be confirmed via detailed site studies and the development of site-specific mitigation. The ranking of sites before this detail is known could therefore provide misleading results.
- 2.39 This study instead identifies where some locations are more or less constrained than others, overall, and then provides an explanation of what would be required to enable development at that location.

<sup>&</sup>lt;sup>4</sup> Institute of Highways and Transportation (2000) *Guidelines for Providing for Journeys on Foot.* 

<sup>&</sup>lt;sup>5</sup> Purbeck District Council (2016) Purbeck District Partial Review of Purbeck Local Plan Part 1 and revised Community Infrastructure Levy Economic Viability Assessment https://www.dorsetforyou.gov.uk/media/214777/viability-assessment/pdf/viability-assessment.pdf

# 3 Environmental Capacity: Geology, Water and Wildlife

3.1 This chapter considers the environmental capacity of assets that provide mainly regulating and supporting ecosystems services, for example designated wildlife sites, water bodies and floodplains.

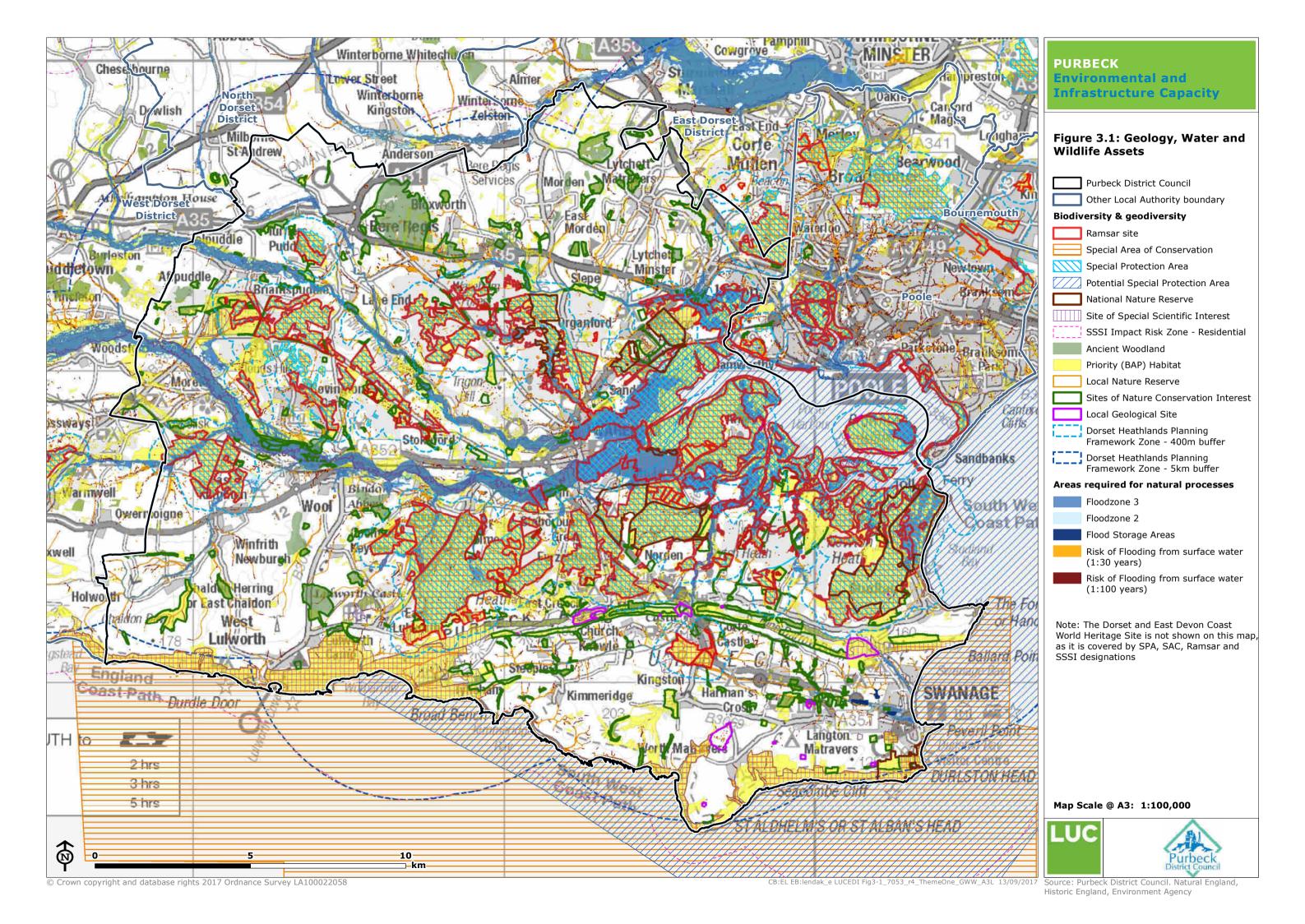
## Types of assets and data sources

3.2 **Table 3.1** identifies the assets that have been considered and where the data on those assets has been obtained from.

Table 3.1 Geology, water and wildlife assets and data sources

Type of asset	Data topic	Data source	
Biodiversity and geodiversity	Internationally designated sites (SPA / pSPA / SAC / Ramsar)	Natural England	
	Nationally designated sites (SSSI, including residential IRZs / NNR)	Natural England	
	Dorset Heathlands Planning Framework Zone	Natural England	
	Local sites (LNR / SNCI / LGS)	Natural England & Dorset Environmental Records Centre	
	Ancient woodland	Natural England	
	Priority habitats	Natural England	
Water assets	Water bodies	n/a – see from paragraph 3.56	
	Source protection zones		
	Nitrogen vulnerable areas		
Areas required for natural processes	Flood zones (2, 3a and 3b), land subject to surface water flooding, and flood storage areas	Purbeck DC & Environment Agency	
	Areas affected by coastal change	Purbeck DC	
	Mapped as a physical constraint (see from paragraph 3.86)		
Clean air	Air quality	n/a – see from paragraph 3.109	

- 3.3 **Figure 3.1** shows the type and location of geology, water and wildlife assets within the District.
- 3.4 For each type of assets the remainder of this Chapter sets out:
  - Why the environmental assets are important.
  - Current baseline and future trends.
  - The sensitivity of the assets.



## Biodiversity and geodiversity

#### Why are these assets important?

- 3.5 Biodiversity has intrinsic importance and at a global scale, its preservation is also vital to the continued functioning of complex ecosystem interactions which underpin the habitability of the planet and provide a host of services to humans. Examples of these 'ecosystem services' include provision of food, fuel and fibre; purification of air and water; provision of a 'bank' of genetic resources which are a key input to new crop varieties and medicines; maintenance of soil fertility through nutrient cycling and decomposition of wastes<sup>6</sup>. Biodiversity also has an important role to play as an indicator of the health of the sub-region's natural environment since thriving biodiversity provides evidence that other environmental factors (e.g. water resources, water quality, air quality, soil fertility etc.) are in good condition.
- 3.6 Geodiversity relates to landform and geology, which underpin the landscapes and types of habitat that the District supports. It can also provide cultural services, for example Purbeck's spectacular Jurassic coast. Water assets are intrinsically linked to both biodiversity and geodiversity and provide valuable provisioning, supporting and regulating services, for example flooding and erosion regulation, as well as fresh water.
- 3.7 Biodiversity and geodiversity assets are dynamic and subject to changes that might have natural and man-made components, for example flooding, erosion, deposition, and climate change. In some cases, areas may need to be safeguarded to manage or allow these processes of change.

#### Legislation

- 3.8 The treatment of biodiversity and geodiversity assets is set out in European and UK legislation.
- 3.9 The Habitats Directive<sup>7</sup> forms part of the European legislation and requires Member States to maintain, restore and provide protection to the natural habitats and species listed in Annexes of the Directive so that they are in favourable status. The Directive was transposed into UK law in 1994. Amendments to the UK law were then consolidated by The Conservation of Habitats and Species Regulations 2010, referred to as the 'Habitat Regulations'. The purposes of these Regulations are to designate and protect European sites and protected species and to ensure that the planning policy and mechanisms support these protected sites<sup>8</sup>.
- 3.10 Section 40 of the Natural Environment and Rural Communities Act 2006 requires local authorities to ensure that conserving biodiversity is an integral part of policy and decision making. This Act also cites that local authorities must pay regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992.
- 3.11 In addition, local authorities must adhere to the commitments made by the Government in its Biodiversity 2020 strategy whose mission is:
  - "to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people<sup>9</sup>."

#### National planning policy

3.12 The protection and enhancement of the natural environment is a core aspect of national policy and achieving sustainable development is the overarching aim of the National Planning Policy Framework (NPPF). It calls for:

"positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life, including (but not limited to): ...moving from a net loss of biodiversity to achieving net gains for nature 10."

<sup>&</sup>lt;sup>6</sup> Secretariat of the Convention on Biological Diversity (2000) Sustaining life on Earth: How the Convention on Biological Diversity promotes nature and human well-being.

 $<sup>^7</sup>$  Also known as the Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora.

<sup>&</sup>lt;sup>8</sup> JNCC, The Conservation of Habitats and Species Regulations 2010 http://jncc.defra.gov.uk/page-1379

<sup>&</sup>lt;sup>9</sup> Biodiversity 2020: A strategy for England's wildlife and ecosystem services, DEFRA (2011), page 12.

3.13 The NPPF sets out twelve Core Planning Principles that should be the basis for plan-making and decision making. One of these principles states that planning should:

"contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this Framework<sup>11</sup>."

3.14 In addition, the NPPF contains a section that considers the natural environment. Paragraph 109 states:

"The planning system should contribute to and enhance the natural and local environment by: (...) minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures<sup>12</sup>."

3.15 Within this same section, the NPPF requires local planning authorities to:

"Set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure<sup>13</sup>."

- 3.16 To help prevent adverse impacts on biodiversity and geodiversity, the NPPF states that planning policies should:
  - "plan for biodiversity at a landscape-scale across local authority boundaries;
  - identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them and areas identified by local partnerships for habitat restoration or creation;
  - promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;
  - aim to prevent harm to geological conservation interests; and
  - where Nature Improvement Areas are identified in Local Plans, consider specifying the types of development that may be appropriate in these Areas 14."
- 3.17 The NPPF also sets out six principles by which local planning authorities should aim to conserve and enhance biodiversity when determining planning applications, including:
  - "If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
  - proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;

<sup>&</sup>lt;sup>10</sup> National Planning Policy Framework, CLG (2012) paragraph 9.

<sup>&</sup>lt;sup>11</sup> National Planning Policy Framework, CLG (2012) paragraph 17.

<sup>&</sup>lt;sup>12</sup> National Planning Policy Framework, CLG (2012) paragraph 109.

National Planning Policy Framework, CLG (2012) paragraph 114.

National Planning Policy Framework, CLG (2012) paragraph 117.

- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss<sup>15</sup>."
- 3.18 National Planning Policy Guidance (PPG) notes that along with other partners, local authorities should consider opportunities to enhance biodiversity on site as well as connecting to other wildlife and habits in individual planning applications.
- 3.19 'Keepers of Time' provides a statement of policy for England's ancient and native woodland and outlines the Government's commitment and 2020 vision for Ancient Woodland, notably that:
  - "Ancient woodlands, veteran trees and other native woodlands are adequately protected, sustainably managed in a wider landscape context, and are providing a wide range of social, environmental and economic benefits to society."
- 3.20 The document provides a number of key policies relating to the protection and management of Ancient Woodland as it recognises their value and their need for protection.
  - Local Planning Policy
- 3.21 Biodiversity and geodiversity are also considered within a more a local context. Policy BIO in Purbeck's Local Plan Part 1 (2012), aims to protect, manage and enhance biodiversity and geodiversity within the District through linking and creating habitats. More specifically, Policy BIO states new development:
  - "Will need to ensure that there are no adverse effects upon the integrity of European protected sites (SPA, SAC, Ramsar, possible SAC, potential SPA).
  - Within the vicinity of areas that support nationally significant numbers of Annex 1 bird species (nightjar and woodlark), undertake a risk based approach to ensure that there is no significant adverse effect upon these species and their habitats.
  - Will need to ensure that there are no adverse impacts upon SSSI, for example an indirect effect of disturbance from increased public access.
  - Will need to demonstrate that it avoids significant adverse impacts upon Sites of Nature Conservation Interest (SNCI), National Nature Reserves (NNR), Local Nature Reserves (LNR), Ancient Woodland, aged or veteran trees, wetland interests (for example, watercourses, ponds, reedbeds), and Habitats of Principal Importance. Any significant adverse impacts on these sites and features which cannot be avoided through location on an alternative site, must be adequately mitigated, or, as a last resort, compensated.
  - Should incorporate any opportunities for biodiversity in and around the development<sup>16</sup>."
- 3.22 Policy BIO also considers direct, indirect and cumulative impacts of planning applications on the natural environment.
- 3.23 The adopted Dorset Heathlands Planning Framework<sup>17</sup> provides further detail to Policy DH: Dorset Heaths International Designations in the Purbeck Local Plan Part 1. The framework sets out an implementation plan to mitigate the impact of new housing development upon the Dorset Heaths Special Protection Area (SPA) through the use of the Dorset Heathlands Avoidance and Mitigation Strategy. The Dorset Heathlands strategy identifies a 400 metre zone around the Dorset Heaths SPA in which residential development should not be permitted and an additional zone of up to 5km in which development may be possible, subject to appropriate mitigation.

<sup>&</sup>lt;sup>15</sup> National Planning Policy Framework, CLG (2012) paragraph 118.

<sup>&</sup>lt;sup>16</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 80.

<sup>&</sup>lt;sup>17</sup> The Local Authorities of Bournemouth, Poole and Purbeck have adopted the Dorset Heathlands Planning Framework 2015-2020 Supplementary Planning Document, which took effect on 19 January 2016. Christchurch and East Dorset have also adopted the document, with it taking effect on 3 January 2017.

3.24 The strategy considers that appropriate mitigation will include:

"projects that provide facilities to attract people away from protected heathland sites (...) Of these projects SANGs (Suitable Alternative Natural Greenspaces) are the most significant element of provision, having a key role in attracting residents away from the Dorset Heaths. Other projects are likely to be more bespoke to local areas and for example may consist of creating linkages between open green spaces, recreational facilities such as BMX tracks or fire access measures<sup>18</sup>."

- 3.25 Purbeck's marine environment includes internationally designated sites. Local policies that relate to the marine environment are identified under 'water assets', below.
- 3.26 Furthermore, Policy CO: Countryside outlines that development needs to "enhance biodiversity" and any development outside of a settlement boundary will not be permitted if it has significant adverse effects on the environment and ecology.

## Current baseline and future trends

- 3.27 Purbeck's biodiversity and geodiversity assets are summarised below, along with an indication of how they might be expected to change in the future.
- 3.28 The Dorset Local Nature Partnership (LNP) was officially recognised by government in 2012 and its Natural Value Report notes 'Dorset's outstanding environment' and refers to biodiversity designations as 'Dorset's crown jewels' 19. The report acknowledges that changes to the climate, economy and demographics all threaten the resilience of biodiversity. In relation to climate change, the report recognises that it is not just climate change itself that can have adverse effects on ecology, but human actions in response to climate change such as coastal defence construction can exacerbate the negative impacts to wildlife.
- 3.29 Some of the information in this section refers to studies undertaken as part of the Wild Purbeck project. The project ran from 2012 to 2015 and was a result of the area being designated as a 'Nature Improvement Area'<sup>20</sup>, which was intended to deliver large scale initiatives to improve ecological connectivity and biodiversity. The project covered a larger area than the Purbeck District boundary.

#### Internationally designated sites

- 3.30 Purbeck is host to a diverse biodiversity and a fifth of the District is internationally designated by eight sites of international biodiversity designation (SAC, SPA and Ramsar). In addition to the eight internationally designated sites, there are also two possible Special Protection Areas (pSPAs) that could be designated in the future: Poole Harbour (as an extension to the existing SPA) and Solent & Dorset Coast. Much of the marine area surrounding the Purbeck coast is also designated as the Studland to Portland Marine SAC. The Marine SAC and pSPAs are considered in the water assets section.
- 3.31 The Dorset Heathlands, although fragmented, covers a large proportion of the District and is covered by all three of the international designations highlighted above. This will have a key impact on potential residential development as Natural England considers that any net increase in dwellings within 5km of the Heathlands will bring significant negative effects to these sites owing to increased recreational pressure, and that residential development (similar) within 400m<sup>21</sup> should be avoided. Development between 400m and 5km from the Dorset Heathlands would therefore require mitigation to avoid impacts such as the introduction of non-native species, loss of vegetation, soil erosion and disturbance by humans and their pets. It is therefore anticipated that any development located within this threshold would require avoidance or mitigation measures such as the provision of SANGs for permission to be granted. Most of the District lies

<sup>&</sup>lt;sup>18</sup> Dorset Heathlands Planning Framework 2015-2020 Supplementary Planning Document (2016), page114.

 $<sup>^{19}</sup>$  Natural Value: The State of Dorset's Environment, Dorset Local nature Partnership (2014)

https://www.dorsetlnp.org.uk/hres/natural-value-report.pdf

<sup>&</sup>lt;sup>20</sup> http://www.dorsetaonb.org.uk/our-work/wildpurbeck

<sup>&</sup>lt;sup>21</sup> Note that Natural England has agreed an adjustment to the 400m buffer at Upton to take into account the barrier to recreational pressure presented by an adjacent dual carriageway. For the purposes of this report, however, we have not mapped this change as the vast majority of the area affected is within an existing urban area and therefore changes to it will not affect the assessment.

- within the 5km Dorset Heaths buffer<sup>22</sup>. A map showing the key environmental designations in the District is provided in Figure 3.1.
- The Habitats Regulations Assessment (2011)<sup>23</sup> identified potential adverse effects on European 3.32 sites; however the work enabled mitigation measures (including the Dorset Heathlands Strategy) to be incorporated into the Plan such that, following mitigation, no adverse effects were expected. This work was subsequently updated, most recently in May 2016 to assess the potential effects of the proposed growth options being considered in the Local Plan Review of the Local Plan. This HRA<sup>24</sup> considered eight options for housing growth, taking into account any provision for SANGs included in the proposed options. A number of the sites had issues and constraints related to potential impacts on European sites, particularly those around Wareham and Lytchett Minster. The deliverability of these sites for residential development is considered further in **Chapter 7**.
- Specific potential impacts on internationally designated sites that were identified within the HRA<sup>25</sup> 3.33 include:
  - Increased numbers of pet cats and increased predation of ground-nesting birds (Dorset Heathlands SPA) and other wildlife (Dorset Heaths SAC, Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC).
  - Increased fire risk (Dorset Heathlands SPA, Dorset Heaths SAC, Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC).
  - Increased levels of recreation, with the potential for disturbance impacts to ground-nesting birds (Dorset Heathlands SPA); trampling and damage to the SAC interest (Dorset Heaths SAC; Dorset Heaths (Purbeck and Wareham) and Studland Dunes); eutrophication from dog fouling (Dorset Heaths SAC; Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC).
  - Anti-social behaviour and contamination through vandalism, fly tipping, littering and the introduction of alien plants and animals (Dorset Heaths SAC, Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC).
- Although the 2015 HRA<sup>26</sup> also identified potential issues relating to air quality at the Langton 3.34 Matravers site as the road access from Corfe cuts through Corfe Common, which is part of the Dorset Heaths SAC.
- 3.35 The impacts of additional housing on internationally designated sites, in terms of any impact as well as air pollution, will need to be assessed within the next iteration of the HRA. During the HRA process, the requirement for mitigation would be identified and agreed with Natural England.
- 3.36 Of Purbeck's biodiversity and geodiversity assets, it is the internationally designated sites that are of the highest value and these sites are made up of numerous smaller sites with national or local designations. Their sensitivity to change is related to their current condition and the pressures upon them, as summarised in Table 3.2, below. The threats and pressures also indicate the processes by which the sites might be expected to change in the future.

<sup>&</sup>lt;sup>22</sup> See 'Purbeck in context: Healthlands (page 17) of the most recent Sustainability Appraisal Scoping Report Partial Review of the Purbeck Local Plan Part 1 https://www.dorsetforyou.gov.uk/media/200979/Purbeck-Local-Plan-Part-1-Partial-Review-Sustainability-Appraisal-Scoping-Report/pdf/Purbeck\_SA\_scoping\_for\_partial\_review.pdf

23 https://www.dorsetforyou.gov.uk/media/166011/Habitats-Regulations-Assessment---Core-Strategy---Proposed-Changes-to-the-Pre-

Submission---2011/pdf/Purbeck\_HRA\_proposed\_changes\_to\_pre\_submission\_as\_sent\_30th\_Aug.pdf

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https://www.dorsetforyou.gov.uk/media/214756/habitats-regs-assessment/pdf/habitats-regs-assessment.pdf

https://www.dorsetforyou.gov.uk/media/214756/habitats-regs-assessment/pdf/habitats-regs-assessment.pdf

 $<sup>^{26}\</sup> https://www.dorsetforyou.gov.uk/media/201425/Habitats-Regulation-Assessment-of-the-Partial-Review-of-the-Purbeck-Local-Planders and the second of the property of the$ Part-1/pdf/Purbeck\_HRA\_landO\_230115.pdf

Table 3.2 Internationally designated sites in Purbeck

Asset	Summary <sup>27</sup>	Threats and pressures <sup>28</sup>
Dorset Heaths SAC,  Dorset Heaths (Wareham & Purbeck) and Studland Dunes SAC,  Dorset Heathlands SPA, and  Dorset Heathlands  Ramsar	A once-contiguous but now fragmented collection of heathland sites. The Purbeck sites between them represent 5% of the UK's lowland heathland and are home to 56% of the UK's sand lizard population.  The Dorset Heathlands Planning Framework <sup>29</sup> and Policy DH of the PLP1 require that no residential development occurs within 400m of the Dorset Heaths and that any other residential development within 5km must provide mitigation for recreational pressure and urban edge effects.	Inappropriate scrub control; public access / disturbance; under-grazing; forestry and woodland management; drainage; water pollution; invasive species; habitat fragmentation; conflicting conservation objectives; wildfire/arson; air pollution (nitrogen); deer.
Isle of Portland to Studland Cliffs SAC, and St Albans to Durlston Head SAC	Limestone sea cliffs and calcareous grassland that support a number of rare plants, including the UK's largest population of early spider orchid.	Under-grazing; inappropriate scrub control; invasive species; agricultural management practices; public access / disturbance; water pollution; habitat fragmentation; inappropriate coastal management; natural changes to site conditions; managed rotational burning.
Poole Harbour SPA and Ramsar (Note that this SPA and Ramsar consists mainly of terrestrial habitats. The marine SAC is considered under 'water assets')	A bar-built estuary with extensive intertidal mudflats and saltmarsh that support important numbers of waterbirds.	Water pollution; air pollution (nitrogen); fisheries; coastal squeeze; public access / disturbance; deer.
Solent and Dorset Coast pSPA	Included in water assets section	

### World Heritage Site

- 3.37 Purbeck's coastline forms part of the Jurassic Coast, England's only natural World Heritage Site<sup>30</sup> which was designated in 2001 by UNESCO owing to the outstanding geology and geomorphology containing 185 million years of the earth's history.
- 3.38 Although the World Heritage Site has no formal development planning arrangements, the Jurassic Coast lies entirely within other sites protected for their biodiversity value by European or UK law and therefore does not require an additional unique development buffer zone. In the context of this study, as it overlaps with other highly sensitive biodiversity and geodiversity assets, the World Heritage Site will not be considered as a separate asset.
- 3.39 The World Heritage Site is vulnerable to extreme coastal erosion events and the increased frequency and severity of these<sup>21</sup> that climate change might bring. Areas in which coastal erosion is anticipated are discussed under 'areas required for natural processes', below.

Nationally designated sites

3.40 Purbeck has 48 sites that are designated at the national level (SSSI or NNR). The majority of these lie within the boundaries of European-designated sites (SAC or SPA), although there are

<sup>&</sup>lt;sup>27</sup> Summarised from Natural England's Site Improvement Plans and the 2012 Habitats Regulations Background paper prepared to supplement the Purbeck Local Plan: https://www.dorsetforyou.gov.uk/media/171364/Volume-11-Habitats-Regulations-Background-Paper/pdf/Volume\_11-\_Habitats\_Regulations\_Background\_Paper.pdf

<sup>&</sup>lt;sup>28</sup> Summarised from Natural England's Site Improvement Plans: http://publications.naturalengland.org.uk/category/5755515191689216

<sup>&</sup>lt;sup>29</sup> https://www.dorsetforyou.gov.uk/article/387392/Dorset-Heathlands-Planning-Framework

<sup>&</sup>lt;sup>30</sup> Dorset and East Devon Coast World Heritage Site Management Plan 2014-2019 http://jurassiccoast.org/wp-content/uploads/2015/10/Jurassic-Coast-World-Heritage-Site-Management-Plan-2014---2019-Approved-small-file.pdf

- exceptions including: the River Frome, Wareham Common, Purbeck Ridge, Oakers Wood, and Lulworth Park & Lake (all SSSIs), and Holton Heath (NNR).
- 3.41 The majority of Purbeck's SSSIs are either in favourable or unfavourable recovering condition<sup>31</sup>. Of the SSSIs that fall outside SAC or SPA designation, the following have SSSI Units have been identified as being in unfavourable or unfavourable declining condition:
  - River Frome SSSI: c.67% unfavourable / unfavourable declining, mainly due to poor water quality (phosphates, nitrogen and silt) caused by agricultural practices and sewage;
  - Morden Bog & Hyde Heath SSSI: c.8% unfavourable / unfavourable declining, due to encroachment of other habitats and some nutrient enrichment; and
  - Holton & Sandford Heaths SSSI: c.21% unfavourable / unfavourable declining, due to the encroachment of other habitats e.g. scrub.
- 3.42 While the causes of poor condition at Morden Bog & Hyde Heath SSSI and Holton & Sandford Heaths SSSI relate to management of the sites themselves, the River Frome SSSI is likely to be sensitive to pressures from future changes such as population increase or changes to land use that would affect the volume of nutrients entering the river. This is considered further under 'water assets', below.
- 3.43 Natural England has identified Impact Risk Zones (IRZs) for SSSIs. These are buffer zones in which certain types of development could have an adverse effect on each site, according to the features it is designated for. Development proposals within those zones, must be consulted upon by Natural England, in case there are risks to the SSSIs, and any necessary mitigation identified and agreed. Many of the SSSIs within Purbeck have IRZs that identify residential development as a potential risk to the sites; the distance at which Natural England need to be consulted depends on the scale of development and the site. For example any net gain in the number of homes within 1km of the River Frome SSSI is considered to potentially have an adverse effect on the SSSI.

Locally designated sites

- 3.44 Purbeck has 206 SNCI sites and three Local Nature Reserves.
- 3.45 The sites cover a wide range of habitat types, throughout the District and therefore subject to a range of pressures. As a group they have therefore been assumed to be susceptible to change. Their designation confirms that they support locally-important biodiversity.
- 3.46 Although residential development that encroaches upon these sites should be avoided, it might be possible to compensate for impacts on a locally designated site through habitat creation elsewhere, depending on the characteristics of the site involved.

Ancient woodland

- 3.47 Ancient woodland is that which has been continuously wooded since 1600; however it can still be considered ancient woodland if it has been felled and replaced with plantation woodland. A distinction is therefore often made between ancient semi-natural woodland (ASNW), and plantations on ancient woodland sites (PAWS). Ancient woodland, by definition, cannot be replaced elsewhere and therefore has a low capacity for change.
- 3.48 Purbeck has c.100 sites of ancient woodland larger than 2ha, which comprise approximately half ASNW and half PAWS<sup>32</sup>.
- 3.49 The Dorset Biodiversity Strategy<sup>33</sup> recognises the former commercial restocking of ancient woodland with conifers or non-native broadleaf species has had a severe impact on ancient woodlands, but that their restoration to native broadleaves is now a priority. The strategy also identifies that forests and woodlands, including ancient woodland, are now vulnerable to climate

<sup>31</sup> http://magic.defra.gov.uk/MagicMap.aspx

<sup>32</sup> Environment Report for Wild Purbeck, 2013: http://www.dorsetaonb.org.uk/assets/downloads/wild-purbeck/Environment\_Report\_for\_Wild\_Purbeck\_NIA\_27\_03\_2013.pdf
Note that the Wild Purbeck project boundary is larger than Purbeck district.

<sup>&</sup>lt;sup>33</sup> Dorset Biodiversity Strategy, 2003, Topic Action Plan: Forestry and Woodland https://www.dorsetwildlifetrust.org.uk/the\_dorset\_biodiversity\_strategy.html

- change, rising deer numbers, isolation, fragmentation and the changing role of wood products in the economy. The strategy to restore native broadleaf woodland on sites of ancient woodland is also a key objective for the Forestry Commission in their management of Purbeck's Forests<sup>34</sup>.
- 3.50 Although ancient woodland sites would be inappropriate for residential development, they may be suitable for other uses e.g. as part of a SANG provision, particularly if they involve the restoration of PAWS to native broadleaf woodland.

## Priority habitats

- 3.51 The identification of priority habitats originally arose from the UK Biodiversity Action Plan (BAP), with UK-wide lists of priority habitats drawn up between 1995 and 1999. These have subsequently been updated by local biodiversity partnerships and been used to inform biodiversity strategies. UK priority habitats were selected where they meet one or more of the following criteria<sup>25</sup>:
  - Habitats for which the UK has international obligations.
  - Habitats at risk, such as those which are rare or have a high rate of recent decline.
  - Habitats that are functionally important for species inhabiting wider environments.
  - Habitats important for species of particular conservation concern.
- 3.52 These represent sites of high value and sensitivity, therefore many priority habitats in Purbeck also coincide with designated sites. Purbeck supports 32 of the 45 UK priority habitats.
- 3.53 Although residential development that encroaches upon priority habitats should be avoided, it might be possible to compensate for impacts through habitat creation elsewhere, depending on the habitats involved.

#### Local geological sites

3.54 Local geological sites, also known as Regionally Important Geological Sites (RIGS), have been selected locally on the basis of their conservation and education value. Purbeck has 19 RIGS<sup>35</sup>, which include a number of quarries as well as natural formations. These sites are not replaceable, and may be affected by accelerated erosion or climate change.

## Sensitivity of assets

3.55 The capacity of each asset to withstand change, their significance and their overall sensitivity is summarised in **Table 3.3**.

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 $<sup>^{34}\</sup> https://www.forestry.gov.uk/pdf/Introduction.pdf/\$file/Introduction.pdf$ 

<sup>35</sup> http://dorsetrigs.org.uk/southeastrigs/

Table 3.3 Sensitivity of biodiversity and geodiversity assets

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	International	High
Internationally designated sites (SPA, SAC, Ramsar)  (note that the marine SAC is considered under 'water assets')	All of the sites have been identified as being subject to numerous pressures and threats (see <b>Table 3.2</b> ). Pressures relating to residential development include public access / disturbance; wildfire / arson; and air pollution (nitrogen from traffic)	Afforded protection at the European level by the EC Habitats Directive, EC Birds Directive, the Convention on Wetlands of International Importance, and the UK laws that transcribe them	Avoid residential development
World Heritage Site	n/a - not mapped as it is already above).	considered by the internationally o	lesignated sites (see
Dorset Heathlands	Susceptible	National (ie higher than local)	High
Planning Framework zone (400m buffer around Dorset Heaths sites)	This defines the area in which residential development could place recreational / urban edge pressure on the Dorset Heaths. Development and will not be permitted (as per Dorset Heathlands Planning Framework)	Supports sites that are designated at the European level but restricts development at the local level	Avoid residential development
	Susceptible	Local	Moderate
Dorset Heathlands Planning Framework zone (400m to 5km buffer around Dorset Heaths sites)	This defines the area in which residential development could place recreational / urban edge pressure on the Dorset Heaths. Development and will require mitigation (as per Dorset Heathlands Planning Framework)	Supports sites that are designated at the European level but guides the siting of development at a local level	Residential development may be possible in some locations
Possible Special Protection Areas (pSPAs)	The pSPAs in Purbeck are marine assets', below.	sites and have therefore been con	sidered under 'water
	Susceptible	National	High
Nationally designated sites (SSSI, NNR)	As with the internationally designated sites, these are susceptible to a variety of development pressures and some are currently in unfavourable condition	Afforded protection at the UK level by the Wildlife and Countryside Act, and the Countryside and Rights of Way Act	Avoid residential development
	Susceptible	Local	Moderate
SSSI Impact Risk Zones that identify residential development as a risk	These are a tool to identify locations in which residential development could have an adverse effect on SSSIs	Supports sites that are designated at the UK level	Residential development may be possible in some locations
	Susceptible	National	High
Ancient woodland	Ancient woodland is any wooded area that has been continuously wooded since at least 1600AD and is therefore irreplaceable.	Ancient woodland is protected by national policy (the NPPF)	Avoid residential development

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	Local	Moderate
Local wildlife sites (LNR / SNCI)	While these tend not to support habitats and species that are as vulnerable to change as nationally or internationally designated sites, they are an important part of the District's green infrastructure and biodiversity network	Not afforded any statutory protection but protected by Purbeck Local Plan Policy BIO: Biodiversity and Geodiversity	Residential development may be possible in some locations
	Susceptible	Local	Moderate
Priority habitats	As with local wildlife sites, these are an important part of the District's green infrastructure and biodiversity network	Not afforded any statutory protection but protected by Purbeck Local Plan Policy BIO: Biodiversity and Geodiversity	Residential development may be possible in some locations
	Susceptible	Local	Moderate
Local geological sites (previously Regionally Important Geological Sites)	As with local wildlife sites, these are an important part of the District's network of geological sites and cannot be replaced.	Not afforded any statutory protection but protected by Purbeck Local Plan Policy BIO: Biodiversity and Geodiversity	Residential development may be possible in some locations

## Water assets

#### Why are these assets important?

- 3.56 Water is a fundamental natural resource, and the need for clean water to drink is an essential human need. In addition to this most basic of needs, water is required for agriculture, for power generation and to supply industries and homes. Water assets provide ecosystems services across all four types: provisioning services such as fresh water, regulating services such as climate and flooding regulation, supporting services such as water cycling, and cultural services such as opportunities for recreation and tourism.
- 3.57 The flooding and erosion regulation function provided by water assets is covered under 'areas required for natural processes'.

#### Legislation

- 3.58 The European Water Framework Directive (2000) became part of UK law in 2003, through the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003. It acts in relation to river basin districts. The Framework has been amended by The Water Environment (Water Framework Directive) (England and Wales) (Amendment) Regulations 2015. The Environment Agency is the lead body on the Water Framework Directive but all organisations are expected to help deliver it.
- 3.59 As detailed in the Nitrogen Reduction in Poole Harbour SPD, the catchment of which Purbeck falls into (and which is addressed in detail later in this chapter):

"To conform to the requirements of the Habitats Regulations and the Water Framework Directive, the Council's planning for a growth in population have to be certain that development has either avoided harm to European protected sites or mitigated the impact to ensure that there is no adverse effect." 36

#### National planning policy

3.60 Addressing the potential adverse impacts of water pollution resulting from development paragraph 9 of the NPPF states that:

<sup>&</sup>lt;sup>36</sup> Borough of Poole, North Dorset District Council, Purbeck District Council and West Dorset District Council (2017) Nitrogen Reduction in Poole Harbour page 2. https://www.dorsetforyou.gov.uk/media/221531/Nitrogen-Reduction-in-Poole-Harbour-SPD-Adopted/pdf/Nitrogen\_Reduction\_in\_Poole\_\_Harbour-SPD-adopted.pdf

"The planning system should contribute to and enhance the natural and local environment by: [...] preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of [...] water [...] pollution."<sup>37</sup>

3.61 Water assets and water supply in particular can be vulnerable to climate change and this is recognised through the NPPF which also requires that appropriate mitigation is considered with this regard:

"Local Plans should take account of climate change over the longer term, including factors such as [...] water supply [...] New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures." 38

3.62 Protecting water assets and the supply of water in Purbeck will also require appropriate infrastructure which is of the appropriate quality and supplied at the appropriate level to achieve this aim. The NPPF also details through paragraph 156 that:

"Local planning authorities should set out the strategic priorities for the area in the Local Plan. This should include strategic policies to deliver: [...] the provision of infrastructure for [...] water supply [and] wastewater." 39

3.63 Related to this requirement paragraph 162 of the NPPF also states that:

"Local planning authorities should work with other authorities and providers to: [...] assess the quality and capacity of infrastructure for [...] water supply, wastewater and its treatment." 40

Local planning policy

3.64 The Purbeck Local Plan Part 1 provides local planning policy context for the protection of water assets in the District. Groundwater is recognised as an important source of drinking water within Purbeck and the existing water supply found in the chalk valleys of the District has been highlighted as a source which will require specific protection. Policy GP states that:

"Development will be permitted if there is no risk to the quality or quantity of groundwater. Development should have no impact on licensed supplies or any other private supplies or water features." 41

- 3.65 This policy also offers specific protection to Groundwater Source Protection Areas in Purbeck stating that at proposals within such areas "additional safeguards may be required in consultation with the Environment Agency".
- 3.66 The Plan also provides protection for water quality at the Poole Harbour SPA and Ramsar site. This additional location specific local policy protection has been provided given that the HRA for the Local Plan concluded that there is a significant risk that additional development would have adverse impacts on this European site. As such Policy PH of the Local Plan includes provision for the protection of water quality at this location:

"New development may be required to incorporate measures to secure effective avoidance and mitigation of the potential adverse effects of nutrient loading on the ecological integrity of the Poole Harbour internationally designated sites.

The Council will work with neighbouring local authorities, the Environment Agency, Wessex Water and Natural England, supported by other relevant stakeholders, to secure effective and deliverable mitigation, and mechanisms that will fund and enable implementation of these measures."

<sup>&</sup>lt;sup>37</sup> National Planning Policy Framework, CLG (2012) paragraph 9.

<sup>&</sup>lt;sup>38</sup> National Planning Policy Framework, CLG (2012) paragraph 99.

<sup>&</sup>lt;sup>39</sup> National Planning Policy Framework, CLG (2012) paragraph 156.

<sup>&</sup>lt;sup>40</sup> National Planning Policy Framework, CLG (2012) paragraph 162.

<sup>&</sup>lt;sup>41</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 90.

<sup>&</sup>lt;sup>42</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 85.

- 3.67 The District of Purbeck adjoins Poole Harbour to the south east. The catchment area of Poole Harbour takes in the water bodies of the River Frome, River Piddle and Sherford River which flow through the District. Given the close relationship of Purbeck to Poole Harbour it will be appropriate to consider planning policy which addresses the protection of the natural environment at the harbour.
- 3.68 The Local Authorities of Poole, North Dorset, Purbeck and West Dorset have produced the Nitrogen Reduction in Poole Harbour SPD. The SPD sets out the potential for nitrogen generation from development to accommodate population growth in addition to that which is likely to result from agriculture.
- 3.69 It also sets out requirements for mitigation to be achieved through the operation of CIL and the entering of S106 agreements with prospective developers:

"It will be the responsibility of each Council to ensure that a suitable proportion of the total income from CIL (and any S106 monies<sup>43</sup>) during a financial year is spent on securing the necessary mitigation. The mitigation will be top sliced from the overall CIL monies to ensure that mitigation is prioritised. The mitigation can be delivered anywhere in the catchment and the councils can work together to ensure appropriate delivery. The mitigation needs to be provided before the new development is occupied and remain in perpetuity<sup>44</sup>."

#### Current baseline and future trends

3.70 Purbeck's water assets are summarised below, along with an indication of how they might be expected to change in the future.

Water bodies

- 3.71 Purbeck's two principal rivers are the River Frome and the River Piddle (or Trent) and their tributaries; both flow from the west of the District, through Wareham to Poole Harbour. The Corfe and Sherford rivers also flow into Poole Harbour and smaller watercourses flow to the sea at other points along the coast.
- 3.72 The marine environment around Purbeck has a high biodiversity value. From Ringstead Bay to Studland, the inshore waters are designated as part of the Studland to Portland SAC. The inshore waters from Worbarrow Bay eastwards, excluding Poole Harbour, are part of the Solent and Dorset Coast possible Special Protection Area (pSPA). The Greater Solent already encompasses four SPAs<sup>45</sup>.
- 3.73 The terrestrial and inter-tidal areas down to mean low water (MLW) around Poole Harbour are already designated as an SPA and Natural England proposes to extend this designation to include the sub-tidal and inter-tidal areas<sup>46</sup>.
- 3.74 The River Frome is designated as a SSSI, which includes the river itself as well as some adjacent habitats. Only one third of its SSSI units have been identified as being in favourable or unfavourable recovering condition<sup>47</sup>. Reasons for the adverse condition of the river units of the SSSI are water pollution including nutrient enrichment from agriculture and sewage, inappropriate river structures and invasive species.

 $<sup>^{</sup>m 43}$  No more than five S106 agreements can be pooled and used for one infrastructure project.

The final draft version of the SPD currently is embedded within the Council papers which can be found here https://www.dorsetforyou.gov.uk/article/424959/Council-Meeting---21-March-2017

<sup>&</sup>lt;sup>45</sup> The new marine designation will include the sub-tidal areas not currently encompassed in the existing SPA's. Depending on the location of terns and the existing four SPA designations, the landward boundary for the Solent and Dorset Coast SPA will be at either the mean low water or mean high water. Public consultation occurred between September 2016 and January 2017 and Natural England is analysing responses at the time of writing this study.

The proposal to extend the Poole Harbour Special Protection Area (SPA) marine site went to public consultation between January and April 2016. Natural England is analysing responses at the time of writing this study.

<sup>&</sup>lt;sup>47</sup> Natural England SSSI condition surveys for the River Frome:

https://designated sites.natural england.org.uk/ReportConditionSummary.aspx? SiteCode = S2000220 & ReportTitle = River%20 Frome%20 SSI

- 3.75 The Environment Agency<sup>48</sup> has recorded water quality for the River Frome and Corfe River as excellent for biological and chemical measures, but the rivers have moderate to high levels of nitrates and phosphates. The River Piddle is similar but with lower levels of phosphates and much higher levels of nitrates. The Sherford River has good biological and chemical quality, but high levels of phosphates and nitrates. Agriculture is the main source of these pollutants.
- 3.76 Aquifers in superficial deposits (those nearest the surface) are broadly aligned with the river valleys<sup>49</sup>. The bedrock (deeper) aquifers are located in the north of the District and around West Lulworth and, from there, parallel to the chalk ridges to Swanage.
- 3.77 There are no large freshwater lakes in Purbeck, however there are a number of small lakes, particularly in the Dorset Heathlands. Small lakes are also present as a result of human activity; some have been designed into landscaped estates and others reflect the quarrying activity, such as Blue Pool.
- 3.78 Water bodies themselves cannot be built upon, however residential development within their catchments has the potential to impact upon their water quality, for example by introducing pollution sources or changing land use. The River Frome SSSI is covered by an Impact Risk Zone (IRZ). As such Natural England has identified that the SSSI is particularly sensitive to certain types of development within this area. Given that Local Planning Authorities have a duty to consult Natural England before granting permission for development which is within or is likely to affect a SSSI, the River Frome IRZ can be used by Purbeck to ensure appropriate consideration of development in relation to likely effects on this SSSI. In consulting Natural England, any required mitigation would need to be identified and agreed, for example pollution control measures. Nitrate vulnerable zones cover much of the District to help prevent the nutrient enrichment of rivers, groundwater and harbours in Purbeck. The District contains no further strategic constraints which related to the proximity of development to water bodies.

Groundwater source protection zones

- 3.79 Areas above the bedrock aquifers have been defined as Source Protection Zones; these are areas in which polluting activities pose the highest risk to drinking water sources, with the inner zones being the most sensitive. Pollution risks to groundwater include industrial sources but also agriculture, for example nitrates.
- 3.80 Source protection zones are not inherently sensitive to residential development and would not pose a constraint to development.

Nitrate vulnerable zones

- 3.81 Most of Purbeck, with the exception of the coastal areas in the southeast of the District, has been identified as being within a nitrate vulnerable zone<sup>50</sup>. These are areas that are at risk from agricultural nitrate pollution and are classified according to the type of water body at risk:
  - Surface water: Tadnoll Brook in the west, Devils Brook in the northwest, and North Winterbourne in the north.
  - Groundwater: overlying the main areas of bedrock aquifer around West Lulworth and in the north / west of the District.
  - Already eutrophic water body: the River Frome and River Piddle catchments, flowing into the
    eutrophic Poole Harbour. This is the nitrate vulnerable zone that encompasses most of the
    District.
- 3.82 Greenfield residential development has the potential to impact positively upon the quality of rivers, groundwater and Poole Harbour by removing land from agricultural use, but negatively if waste water treatment works serving those homes discharge into sensitive water bodies.

<sup>&</sup>lt;sup>48</sup> From the Environment Agency's 'What's In Your Back Yard' river quality data: http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=357683.0&y=355134.0&scale=1&layerGroups=default&ep=map&lang=\_e&textonly=off&topic=riverquality#x=391186&y=84353&lg=2,10,&scale=6

<sup>&</sup>lt;sup>49</sup> From the Environment Agency's 'What's In Your Back Yard' groundwater data: http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=392500.0&y=87500.0&topic=groundwater&ep=map&scale=9&location=Wareham,%20Dorset &lang=\_e&layerGroups=default&distance=&textonly=off#x=381452&y=87687&lg=4,10,&scale=5

From the Environment Agency's 'What's In Your Back Yard' nitrate vulnerable zones data: http://maps.environment-agency.gov.uk/wiyby/wiybyController?topic=nvz&layerGroups=default&lang=\_e&ep=map&scale=6&x=396180&y=91662#x=396147&y=87449&lg=2,10,&scale=5 (2013 and 2017 data)

- 3.83 The Poole Harbour catchment covers the majority of Purbeck, but Swanage and the south of the District do not fall within its catchment. In order to address the increase in nitrates across the Poole Harbour catchment, the four of the five local authorities<sup>51</sup> in the catchment (including Purbeck) have identified three mitigation options:
  - Improve/introduce nitrogen stripping at Sewage treatment works (direct mitigation);
  - Implement technologies such as reed beds and wetlands to remove nitrogen (direct mitigation); and,
  - Change agricultural land from high nitrogen input to low input (indirect mitigation) 52.
- 3.84 This is not a constraint to residential development in any specific location in Purbeck as nitrate increases can be mitigated elsewhere in the catchment if necessary; however it could constrain overall housing numbers or the rate of development, if infrastructure improvements and offsetting measurements cannot be brought forward. If additional housing was included within Purbeck's Local Plan, this would need to be subject to Habitats Regulations Assessment (HRA) and this would need to include assessment of potential to mitigate nitrogen increases. Infrastructure constraints are considered further in **Chapter 7**.

## Sensitivity of assets

3.85 The capacity of each asset to withstand change, their significance and therefore sensitivity are summarised in **Table 3.4**.

Table 3.4 Sensitivity of water assets

Asset	Capacity to withstand change	Significance	Sensitivity	
World Heritage Site	n/a - not mapped as it The World Heritage Site lies entirely within other internationally designated sites (see above).			
Water bodies	n/a - mapped as a physical constraint to development  Unable to be developed upon. The catchments of sensitive water bodies are protected by assets described elsewhere (SPA/Ramsar designation, SSSI IRZs and flood zones)			
Source protection zones	n/a - not mapped as an environmental constraint  Not inherently sensitive to residential development and would not pose a constraint to development			
Nitrate vulnerable zones	n/a - not mapped as an environmental constraint  Purbeck's main rivers and Poole Harbour have high levels of nitrates, both from agricultural and residential sources, and will be affected by changes in land use and new residential development. The Nitrogen Reduction in Poole Harbour SPD sets out the mitigation strategy for achieving nitrogen neutrality in the harbour catchment. This will not constrain the location of future residential development, but it could constrain the overall number of homes that the District can support if mitigation cannot be brought forward and the HRA of the revised housing proposals finds that impacts on Poole Harbour cannot be avoided.			

<sup>&</sup>lt;sup>51</sup> A small proportion of the catchment falls within East Dorset District, however this area is a protected habitat where no development is planned so mitigation is required.

The final draft version of the SPD currently is embedded within the Council papers which can be found here https://www.dorsetforyou.gov.uk/article/424959/Council-Meeting---21-March-2017

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	International	High
Marine pSPA / SAC	All of the sites have been identified as being subject to numerous pressures and threats (see <b>Table 3.2</b> ). Pressures relating to residential development include public access / disturbance; wildfire / arson; and air pollution (nitrogen from traffic)	Afforded protection at the European level by the EC Habitats Directive, EC Birds Directive, the Convention on Wetlands of International Importance, and the UK laws that transcribe them	Avoid residential development that impacts upon asset

## Areas required for natural processes

## Why are these assets important?

- Biodiversity, geodiversity and water assets are part of dynamic natural systems. Natural 3.86 processes such as flooding and erosion are an essential part of these systems, although their scale and frequency can be affected by human activity, for example as a result of climate change or changes in land use. In order to allow natural processes to occur and to mitigate extreme natural events, land may need to be safeguarded from development.
- 3.87 Floodplains and flood storage areas provide storage for water during flooding, slowing down the speed of flow and reducing flooding elsewhere in the catchment. Development within floodplains, as well as being vulnerable to flooding, can reduce the capacity of the floodplain, increasing flooding elsewhere. The ability of a catchment to manage flooding also affects coastal landforms and habitats, for example those sensitive to siltation or scouring. The coastline is also sensitive to erosion and deposition from the sea and therefore areas may be unsuitable for development, where the coastline is expected to retreat.

#### Legislation

- 3.88 The principal legislation relating to management of flood risk and coastal change are summarised below, although many more laws also relate to water and coastal management, to a lesser extent.
- 3.89 The EU Flood Directive (2007) has been transposed into UK law as the Flood Risk Regulations 2009. These require local authorities to undertake strategic flood risk assessments, to map areas of flood risk and plan for managing floods<sup>53</sup>.
- The Regulations are complemented by the Flood and Water Management Act 2010, which aims for 3.90 the sustainable management of coastal risk and flooding from all sources. The Flood and Water Management Act 2010 updates and brings together aspects of older legislation, including the Coast Protection Act 1949<sup>54</sup>. The 2010 Act identifies responsibilities for producing flood risk and coastal management strategies, and for carrying out coast protection works.
- 3.91 These strategies are realised at a local level by the following:
  - The Frome and Piddle Catchment Flood Management Plan<sup>55</sup> (CFMP), which covers almost all of the District, and the River Stour and West Dorset CFMPs that cover small areas of the District: and
  - Durlston Head to Rame Head Shoreline Management Plan and Durlston Head to Hurst Spit Shoreline Management Plan<sup>56</sup>.

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/292931/geho0610bsue-e-e.pdf

 $<sup>^{53}\</sup> https://www.qov.uk/government/publications/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-coastal-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2015-government-policy-flooding-and-change/2010-to-2010-government-policy-flooding-and-change/2010-to-2010-government-policy-flooding-and-change/2010-to-2010-governmen$ government-policy-flooding-and-coastal-change

54 The Coastal Handbook, 2010

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/294053/Frome\_and\_Piddle\_Catchment\_Flood\_Manage

<sup>&</sup>lt;sup>56</sup> https://www.dorsetforyou.gov.uk/coastprotection/purbeck

#### National planning policy

3.92 Section 10 of the NPPF, Meeting the challenge of climate change, flooding and coastal change states that:

"Local planning authorities should adopt proactive strategies to mitigate and adapt to climate change, taking full account of flood risk, coastal change and water supply and demand considerations.; and

Local Plans should take account of climate change over the longer term, including factors such as flood risk, coastal change, water supply and changes to biodiversity and landscape. New development should be planned to avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure."

- 3.93 It also sets out the process by which development will be directed away from areas at highest risk of flooding by taking a strategic approach to flood risk assessment. Additional guidance is provided in the national Planning Practice Guidance (PPG). It is expected that local authorities' Strategic Flood Risk Assessments will adopt a Sequential Test to steer development to areas with the lowest probability of flooding. Where it is not possible to locate development in areas of low flood risk, an Exception Test can be applied. The Exception Test must demonstrate that the benefits of the development outweigh the risk and that a site-specific Flood Risk Assessment demonstrates that the development will be safe and will not increase flood risk elsewhere.
- 3.94 The PPG defines areas of flood risk as:
  - **Zone 1 Low Probability:** Land having a less than 1 in 1,000 annual probability of river or sea flooding. Suitable for all types of development;
  - Zone 2 Medium Probability: Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. Exception Test required for development classed as 'highly vulnerable' (includes basement dwellings and residential caravans, mobile homes and park homes);
  - **Zone 3a High Probability:** Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. Not suitable for 'highly vulnerable' development and Exception Test required for 'essential infrastructure' and 'more vulnerable' (includes all other dwelling types) uses; and
  - Zone 3b The Functional Floodplain: This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. Suitable only for 'water compatible' uses, although 'essential infrastructure' may be permitted following Exception Test.
- 3.95 The PPG also states that essential infrastructure may be appropriate within a coastal change management area but, for other types of development:
  - Within the short-term risk areas (i.e. 20-year time horizon) only a limited range of types of development directly linked to the coastal strip, such as beach huts, cafes/tea rooms, car parks and sites used for holiday or short-let caravans and camping all with time-limited planning permissions.
  - Within the medium (20 to 50-year) and long-term (up to 100-year) risk areas, a wider range of time-limited development, such as hotels, shops, office or leisure activities requiring a coastal location and providing substantial economic and social benefits to the community, may be appropriate. Other significant development, such as key community infrastructure, is unlikely to be appropriate unless it has to be sited within the coastal change management area to provide the intended benefit to the wider community and there are clear, costed plans to manage the impact of coastal change on it and the service it provides.
  - Permanent new residential development will not be appropriate within a coastal change management area.

- 3.96 Note that Purbeck District Council has not yet designated any coastal change management areas but is considering doing so (see paragraphs 3.106-3.108).
- 3.97 The national flood and coastal erosion risk management strategy for England<sup>57</sup> (2010) sets out the Government's intention for partnership working to identify and manage flooding and erosion risks, and identifies roles and means of implementation of management measures, including funding.

Local planning policy

3.98 Local Plan Policy FR: Flood Risk states that "the impact of flooding will be managed by locating development in accordance with Purbeck's Strategic Flood Risk Assessment (SFRA)"58. Policy FR: Flood Risk outlined within Purbeck's SFRA59 states that:

"New development, or the intensification of existing uses, should be planned to avoid risk of flooding (from surface water run-off, groundwater, fluvial and coastal sources), where possible<sup>60</sup>."

3.99 Local Plan Policy CE states that:

New development within 400 metres of the coastline as shown on the proposals map, known as the 400m No-water Discharge Consultation Zone, that has the potential to impact upon surface water and/or groundwater drainage, should demonstrate how water can be discharged without having an adverse effect upon the stability of nearby cliffs. This may preclude the use of soakaways.

#### Current baseline and future trends

3.100 Purbeck's productive assets required for natural processes are summarised below, along with an indication of how they might be expected to change in the future.

Flood zones and flood storage areas

- 3.101 Purbeck lies within the Frome and Piddle Catchment and some areas of the District, including Swanage and Wareham, are subject to river flooding, tidal flooding and surface water drainage flooding<sup>61</sup>. However the Level 1 Strategic Flood Risk Assessment (SFRA)<sup>62</sup> which covers the whole of Purbeck excluding Swanage<sup>63</sup>, notes that there are no current or future development proposals identified within the District that are to be developed in areas that encounter flood risk, or are at risk of increasing flood risk elsewhere. It will also be important that this study takes flood risk into account, but in addition recognises the ecosystem services that other areas within the District provide in reducing flood risk.
- 3.102 A separate SFRA has been prepared for Swanage and has assessed two potential housing sites in the town. The updated Level 1 SFRA applied the Sequential Test to the two sites and found that both sites passed as no other suitable sites at lower risk of flooding are available within the town centre. The town's latest Level 2 SFRA<sup>64</sup> provides further evidence for the second part of the Exception Test, to ensure that developments at the sites would be safe throughout their lifetimes.
- 3.103 The majority of Purbeck is within the catchment of the River Frome and River Piddle, with the exception of a small area in the northeast of the District that is within the River Stour catchment<sup>65</sup>

 $<sup>^{57}\</sup> https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/228898/9780108510366.pdf$ 

<sup>&</sup>lt;sup>58</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 89.

<sup>&</sup>lt;sup>59</sup> Note that Purbeck District Council are currently updating the SFRA.

<sup>&</sup>lt;sup>60</sup> Purbeck Local Plan Partial Review: Strategic Flood Risk Assessment (2016) page 20.

https://www.dorsetforyou.gov.uk/media/214772/SFRA-may-2016/pdf/SFRA-may-2016.pdf

<sup>&</sup>lt;sup>61</sup> Frome and Piddle Catchment Flood Management Plan Summary Report (2012)

 $https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/294053/Frome\_and\_Piddle\_Catchment\_Flood\_Management\_Plan.pdf$ 

<sup>&</sup>lt;sup>62</sup> Purbeck Local Plan Partial Review: Strategic Flood Risk Assessment (2016) https://www.dorsetforyou.gov.uk/media/214772/SFRA-may-2016/pdf/SFRA-may-2016.pdf

<sup>&</sup>lt;sup>63</sup> A separate Level 1 SFRA has been produced in support of the emerging Swanage Local Plan, and as number of policy proposals included in the Swanage Local Plan would result in development within areas of flood risk.

<sup>&</sup>lt;sup>64</sup> JBA Consulting (2016) Swanage Level 2 Strategic Flood Risk Assessment https://www.dorsetforyou.gov.uk/media/221781/Swanage-Level-2-Strategic-Flood-Risk-Assessment/pdf/2015s3179\_Swanage\_SFRA\_Final\_Report\_v2.0\_Oct\_2016.pdf

 $<sup>^{65}\</sup> https://www.gov.uk/government/publications/dorset-stour-catchment-flood-management-planelset and the control of the c$ 

and a small area in the southwest that is within the West Dorset<sup>66</sup> catchment. The Frome and Piddle Catchment Plan<sup>67</sup> states that:

"This catchment has a long history of flooding, the most significant event in recent years occurred in Piddletrenthide, Maiden Newton, Sydling St Nicholas (upstream of Purbeck) and other hamlets in October 2000 to January 2001 when 90 properties and two caravan parks were affected by groundwater, surface water and river flooding after periods of heavy rainfall. Currently the main sources of flood risk for people, property, infrastructure and the land are:

- River flooding from the River Frome in Dorchester and Maiden Newton (upstream of Purbeck), River Piddle in Wareham, River Carne in Cerne Abbas (upstream of Purbeck), and River Swan in Swanage;
- Tidal flooding in Wareham and Swanage;
- Surface water drainage flooding, which has occurred in Frampton (upstream of Purbeck), Swanage and Wareham. Other towns have the potential to be at risk from surface water flooding;
- Groundwater flooding which has occurred in Milborne St Andrew, Cerne Abbas, Dorchester (all upstream of Purbeck) and other isolated locations throughout the catchment.

At present there are around 1,900 people and 1,160 commercial and residential properties at risk in the whole catchment from a 1% annual probability river flood taking into account current flood defences. This means that 1% of the total population living in the catchment are currently at risk from flooding."

- 3.104 The Council also holds data which shows which land is at risk from surface water flooding. Land at risk of flooding from surface water is categorised into four different risk types according to how often it floods. These risk types correspond with the Flood Risk Zones which describe the probability of flooding from main rivers and the sea. This data has been used to assess the sensitivity of assets required for natural processes.
- 3.105 Although national policy allows residential development within Flood Zone 2 (albeit following an Exception Test for caravans, mobile homes and park homes), Purbeck's Local Plan requires that all new residential development is situated in Flood Zone 1, in line with its SFRA, although other types of development may be permitted in Flood Zone 2. In addition, the NPPF requires the Sequential Test to be applied to locations of proposed development in the local plan and when determining planning applications.

Areas affected by coastal change

- 3.106 The two Shoreline Management Plans for Purbeck set out how the coastline will be managed in the short, medium and long term to address the risks arising from changes to the coastline. Other than Swanage, most of the Purbeck coast is covered by designations (e.g. SAC, SPA and SSSI) which constrain development. The policy in the Poole and Christchurch Bays Shoreline Management Plan (2011) for the section of coastline between Ballard Common to Peveril Point (which includes Swanage) is to maintain all defences ('hold the line') and to develop a scheme for transitional management on the northern frontage (managed realignment).
- 3.107 As part of the review of the Purbeck District Local Plan (2012), the Council is considering whether to designate Coastal Change Management Areas (CCMA). In those areas which are likely to be affected by coastal change, Planning Practice Guidance states that if the management policy in the Shoreline Management Plan is to maintain existing defences for the whole period covered by the Management Plan (in this case up to 2105), it is not necessary to designate CCMAs if there is evidence showing that the requirements of the policy can be secured. The Council has not yet concluded whether a CCMA needs to be designated along all or part of the coastline between Ballard Common and Perveril Point.

<sup>66</sup> https://www.gov.uk/government/publications/west-dorset-catchment-flood-management-plan

 $<sup>^{67}\</sup> https://www.gov.uk/government/publications/frome-and-piddle-catchment-flood-management-plan$ 

3.108 Once designated, CCMAs would act as a constraint on permanent new homes. This study has identified land next to the coastline (using the indicative erosion zones identified in the Poole and Christchurch Bays Shoreline Management Plans) which is likely to be affected by coastal change over the duration of the Management Plan up to 2105. Due to the uncertainty of the Council's emerging policy relating to CCMAs, this study has applied a precautionary approach to these areas, which have been mapped as a physical constraint to new residential development.

Clean air

3.109 The National Planning Policy Framework states that:

Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in local areas. (paragraph 124)

- 3.110 Air pollution is associated with a number of harmful health impacts and often affects the most vulnerable in society: children and older people, and those suffering with heart and lung conditions.
- 3.111 The Council published an Air Quality Annual Status Report in June 2017. The report concludes that air quality in Purbeck is generally very good. The report does not recommend that any Air Quality Management Areas need to be declared.
- 3.112 For these reasons, air quality is not currently a constraint on development in Purbeck. Future development may affect air quality and this would need to be assessed both at the site level and the district-wide level (as part of an HRA), where required.

#### Sensitivity of assets

3.113 The capacity of each asset to withstand change, their significance and therefore sensitivity are summarised in **Table 3.5**.

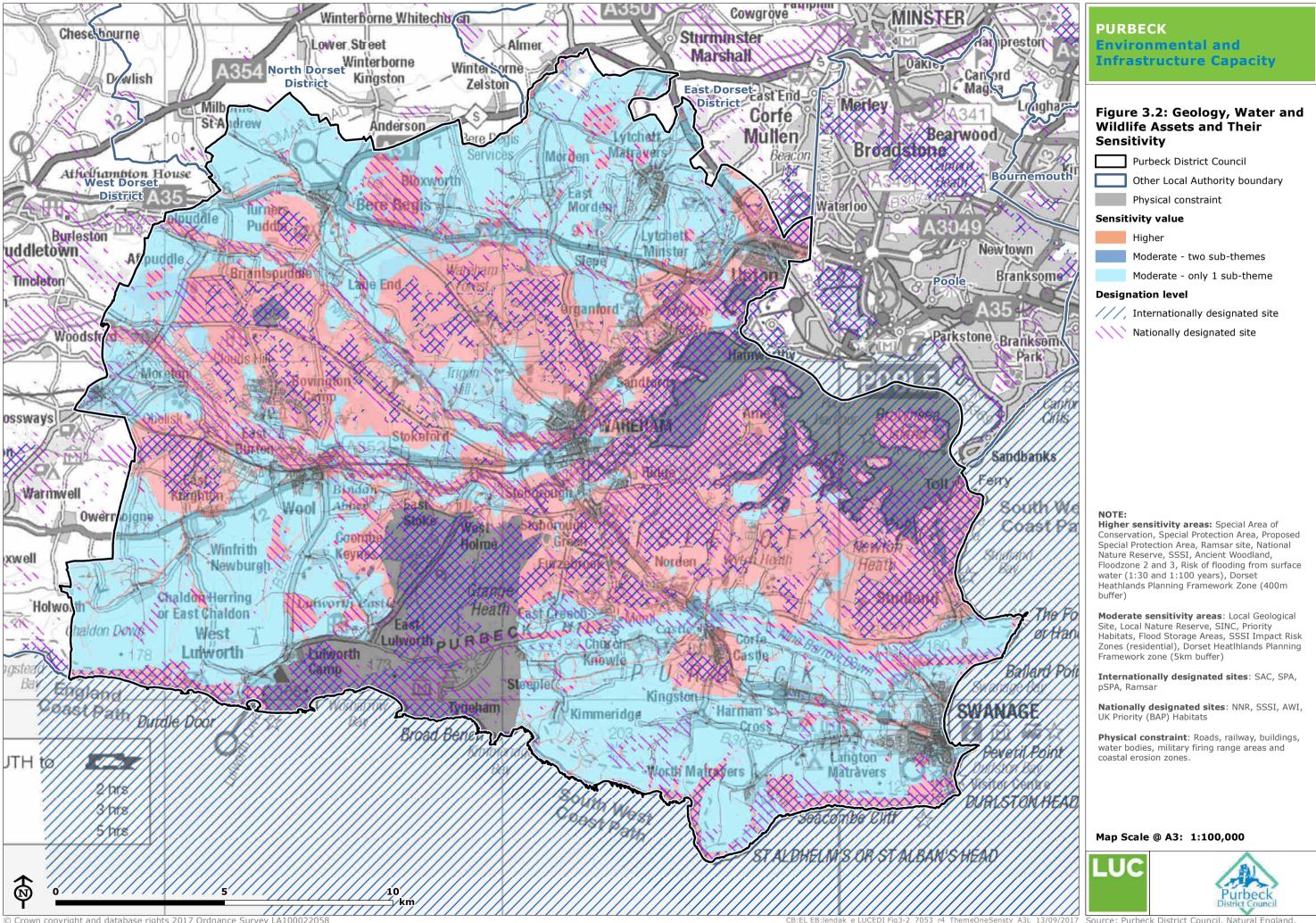
Table 3.5 Sensitivity of assets required for natural processes

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	National	High
Flood zones 3a and 3b (chance of flooding greater than 1:30)	Flood zone 3b is the functional floodplain and is an essential area in which water is stored in times of flood. Flood zone 3a has a high probability of flooding; development in this location would interfere with flood storage capacity. Development on land where there is a high probability of flooding from surface water is likely to be at significant risk and potentially increase the risk of flooding elsewhere	National planning policy does not permit residential development ('more vulnerable') in flood zone 3b and will only permit it in zone 3a if it passes the 'exception test'	Avoid residential development
Flood zone 2 (chance of flooding between 1:100 and 1:1,000)	Susceptible  Flood zone 2 has a medium probability of flooding; development in this location would interfere with flood storage capacity. Development on land where there is a moderate probability of flooding from surface water is likely to be at risk and potentially increase the risk of flooding elsewhere.	National (ie higher than local)  Although national policy does permit residential development in zone 2 (subject to an Exception Test in some cases), Purbeck's SFRA states that no development should be permitted in flood zone 2. Purbeck's policy on flood zone 2 is under review and so development may be considered in the future, where a sequential test indicates it would be appropriate	High Avoid residential development

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	Local	Moderate
Flood storage areas	The flood storage areas in Purbeck have been designed to withstand a 1:100 year flood and therefore provide the same function as flood zone 2	Flood storage areas are not covered by planning policy but do contribute to flood management, locally	Residential development may be possible in some locations
Areas at risk of coastal change (indicative erosion zones)	Mapped as a physical constraint to development  PPG states that "Permanent new residential development will not be appropriate within a coastal change management area." Land affected by coastal change is therefore mapped as a physical constraint in this study.		

# Environmental capacity of the District

- 3.114 The sensitivity of the district's geology, water and wildlife assets has been mapped, as shown in **Figure 3.2**.
- 3.115 The maps shows that, while the designated sites around Poole Harbour, important areas of heathland, the coast, and features such as the rivers and ridges constrain much of the District, there are large areas in the south-western, south-eastern and northern parts of the District that are less sensitive in relation to geology, water and wildlife assets.
- 3.116 The sensitivity of the District, taking into account all environmental assets is presented in **Chapter 6**.



# 4 Environmental Capacity: Productive Land

4.1 This chapter considers the environmental capacity of assets that provide mainly provisioning ecosystems services, for example agricultural land and forestry.

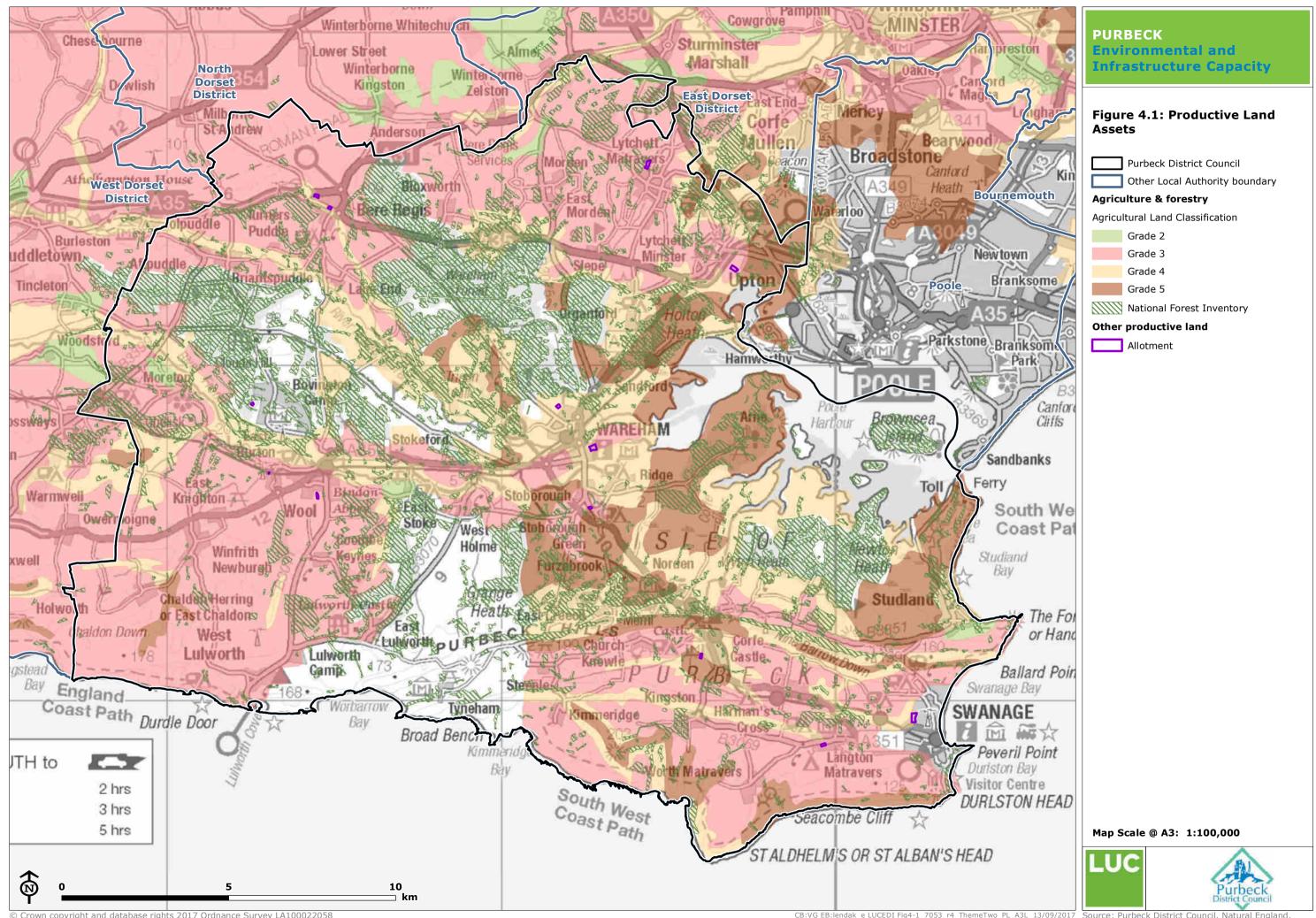
# Types of assets and data sources

4.2 **Table 4.1** identifies the assets that have been considered and where the data on those assets has come from.

Table 4.1 Productive land assets and data sources

Type of asset	Data topic	Data source
Agriculture, forestry and allotments	Agricultural land classification	Natural England
allotments	National Forest Inventory	Forestry Commission
	Allotments	Purbeck DC

- 4.1 **Figure 4.1** shows the type and location of productive land assets within the District.
- 4.2 For each type of assets the remainder of this Chapter sets out:
  - Why the environmental assets are important.
  - Current baseline and future trends.
  - The sensitivity of the assets.



## Agriculture, forestry and allotments

#### Why are these assets important?

- 4.3 Soil is an invaluable and non-renewable natural resource. The socio-economic and environmental contribution made by soil is often overlooked, but it provides a range of vital ecosystem services including food, timber, wildlife habitats, clean water, run-off and flood management, nutrient cycling, and carbon storage. As set out in the Soil Strategy for England, "soil is one of the building blocks of life." 68
- 4.4 Agriculture involves the production of crops and the breeding, feeding and raising of livestock that is a source of food. Farming also is an important economic sector within the UK, according to the latest statistics<sup>69</sup>, the total income from farming is £3.8 billion. In terms of ecosystem services, agriculture is part of the provisioning and supporting services as it provides food as well as primary production (please see **Table 2.1**).
- 4.5 In addition to economic input, forestry and woodland form an important resource to the natural environment in relation to its biodiversity, water and flood catchment management qualities and makes way for recreation and tourism. Furthermore, forests and woodland also form a means of carbon storage as well as providing a renewable source of materials and energy. Combining all these non-market benefits of forestry and woodland, it is estimated that forests and woodland in Great Britain have a non-market value of £1.1billion each year<sup>70</sup>. In relation to ecosystem services, woods and forestry contribute to both the supporting and cultural services (please see **Table 2.1**).
- 4.6 Allotments both hold environmental and social value as people enjoy tending their plot of land, growing fresh produce whilst also socialising with others.

Legislation

- 4.7 The Town and Country Planning (General Permitted Development) (England) Order 2015 permits certain types of development (without permission from the local authority) on agricultural and forestry land; mainly development that is small in scale and directly connected to the agricultural or forestry operations.
- 4.8 The Forest Reproductive Material Directive 1999/105/EC sets out the marketing procedures and requirements that seek to guarantee the continuous supply of high quality forestry reproductive material within the European Community. Thereby ensuring both the economic stability and productivity of forests as well as ensuring forests are able to be disease resistant and diverse.
- 4.9 Section 8 of the Allotment Act 1925 specifies that land purchased or appropriated by local authorities for use as allotments must not be disposed of without Ministerial consent. The Secretary of State must be satisfied that "adequate provision will be made for allotment holders displaced by the action of the local authority, or that such provision is unnecessary or not reasonably practicable"<sup>71</sup>.

National planning policy

#### 4.10 Section 11 of the NPPF states that:

"The planning system should contribute to and enhance the natural and local environment by: (...) protecting and enhancing (...) soils; preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil (...) pollution or land instability."

 $<sup>^{68}</sup>$  Safeguarding our soils: A strategy for England, DEFRA (2009)

<sup>&</sup>lt;sup>69</sup> Agriculture in the United Kingdom, DEFRA (2015)

https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/557993/AUK-2015-05oct16.pdf

<sup>&</sup>lt;sup>70</sup> The UK Forestry Standard: The government's approach to sustainable forestry, Forestry Commission (2011) https://www.forestry.gov.uk/theukforestrystandard

<sup>&</sup>lt;sup>71</sup> Allotments Act 1925

4.11 The NPPF encourages the effective use of land<sup>72</sup>, it also provides guidance in relation to locating development on agricultural land:

"Local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality." <sup>73</sup>

#### Local planning policy

- 4.12 The aim of Policy CO: Countryside is to protect the countryside from inappropriate development and farm diversification proposals will only be permitted if:
  - "Agriculture, forestry or horticulture is still the primary purpose of the enterprise;
  - Diversification will support the current agriculture, forestry or horticulture."<sup>74</sup>
- 4.13 Although allotments are not specifically mentioned in Policy GI: Green Infrastructure, Recreation and Sports Facilities, its supporting text notes that along with other elements of GI, existing allotments areas are to be safeguarded and new development is to either improve or create new areas<sup>75</sup>. In other words, development can be permitted if loss of allotments would not lead to a current or future shortfall in provision and / or suitable replacement facilities are provided.

#### Current baseline and future trends

4.14 Purbeck's productive land assets are summarised below, along with an indication of how they might be expected to change in the future.

#### Agricultural land

4.15 Agricultural land is classified from Grade 1 (excellent) to Grade 5 (poor), with Grade 3 subdivided into 3a (good) and 3b (moderate). Grades 1 to 3a are identified in the NPPF as the best and most versatile agricultural land classifications<sup>76</sup>, and this land is considered to be the:

"most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non food uses such as biomass, fibres and pharmaceuticals." <sup>77</sup>

- 4.16 The data used in this study does not distinguish between Grade 3a and 3b, therefore the sensitivity applied reflects the fact that Grade 3a/3b land falls between low and high sensitivity (see **Table 4.2**).
- 4.17 High quality agricultural land cannot be replaced, therefore the NPPF requires local planning authorities to favour poorer quality land for development over higher quality grades<sup>78</sup>.
- 4.18 As a predominantly rural District, a large area of Purbeck is classified as agricultural land; only Swanage is classified as urban. There are three large areas of non-agricultural land located on MOD land, Newton Heath, Wareham Forest and the tank grounds and plantations north of Bovington Camp.
- 4.19 There are only six pockets of Grade 2 classified land, the highest grade in the District. The Grade 2 classified land is located around Philliols Farm (near Lane End) close to Moreton, East Stoke, Morden, land due south of Studland, land on the District boundary just south of Sturminster Marshall and land just within the District boundary near West Gate on Hurst Heath.
- 4.20 The two main threats to agriculture are<sup>79</sup>:
  - a movement from traditional, lower intensity farming practices which leads to unmanaged land; and

National Planning Policy Framework, CLG (2012) paragraph 111

National Planning Policy Framework, CLG (2012) paragraph 112

Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 72

<sup>&</sup>lt;sup>75</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 87

<sup>&</sup>lt;sup>76</sup> National Planning Policy Framework, CLG (2012) Annex 2

<sup>77</sup> Agricultural Land Classification: protecting the best and most versatile agricultural land: Natural England Technical Information Note TIN049, Natural England (2012) http://publications.naturalengland.org.uk/file/4424325

<sup>&</sup>lt;sup>78</sup> National Planning Policy Framework, CLG (2012) paragraph 112

<sup>79</sup> Topic Action Plan: Agriculture, Dorset Wildlife Trust (no date) https://www.dorsetwildlifetrust.org.uk/hres/06ch23.pdf

• previous intensive agricultural activity has resulted in habitat loss, fragmentation and change.

#### Plantations and forestry land

- 4.21 Many of Purbeck's wooded areas have licences to fell trees by the Forestry Commission<sup>80</sup>. The largest licenced areas are around Arne, Studland, Bovington Camp, Winfrith and Stoborough Heath. However, there are also many other large areas of woodland that have not been licenced by the Forestry Commission but which may include timber production as part of their management, including Wareham Forest, Bere Wood, Rempstone, Hethfelton and Moreton.
- 4.22 We have therefore used National Forest Inventory data to map the presence of forestry / woodland. This data does not indicate the importance of commercial forestry at each of those sites, but does allow sites where commercial forestry may be in operation to be identified.
- 4.23 The Forestry Commission has produced a revised Purbeck Forest Design Plan<sup>81</sup> (FDP) that covers a group of Dorset woodlands, 2972ha in area, which lie in Purbeck to the south of the A35/A31 between Poole Harbour and Puddletown. The FDP aims to restore 194.7ha of existing forest to heathland within these seven Forest Blocks, six of which are located in Purbeck:
  - Purbeck Forest– also known as Rempstone;
  - Wareham Forest;
  - Gore Heath;
  - Hethfelton;
  - Affpuddle;
  - Moreton.
- 4.24 Although this practise results in a direct loss to woodland and forestry, there is a drive to compensate for these losses by creating higher value woodland at different locations<sup>82</sup>.
- 4.25 Fragmentation and isolation of forests within Dorset are considered to be a key issue along with the rise in the sika deer population, colonisation of invasive species and lack of appropriate management<sup>83</sup>.
- 4.26 Climate change is also a threat to woodland and forestry as the reduced rainfall in the summer combined with potential water logging in the winter months can lead to tree stress. Trees under stress are more susceptible to disease and pest infestations<sup>84</sup>. Furthermore, the warmer winters can result in earlier bud burst that prevent the trees from producing as many seeds.
- 4.27 While the loss of commercial forestry should ideally be avoided and may have related impacts on biodiversity or recreation access, impacts on its function as a productive (economic) resource can be mitigated, for example through financial compensation.

#### **Allotments**

- 4.28 Purbeck has 12 allotment sites<sup>85</sup> that provide residents of some of the District's villages and towns with opportunities for growing food.
- 4.29 Consultation responses to the recent Local Plan Review Options Consultation<sup>86</sup> reflected concern over new development proposals in North Wareham which would result in the loss of allotments. The most common concern in relation to this site was the loss of allotments which consultees cites as being 'detrimental' given the high value of the existing allotment site and importance in the

<sup>80</sup> http://magic.defra.gov.uk/MagicMap.aspx

<sup>&</sup>lt;sup>81</sup> Purbeck Forest Design Plan: Phase F South England Forest District, Forestry Commission (2013). https://www.forestry.gov.uk/pdf/Introduction.pdf/\$file/Introduction.pdf

<sup>82</sup> Conservation management of Purbeck's woodlands in the face of climate change, Wild Purbeck Nature Improvement Area (no date) http://www.dorsetaonb.org.uk/assets/downloads/wild-purbeck/Wild\_Purbeck-WOODLANDS.pdf

<sup>&</sup>lt;sup>83</sup> Topic Action Plan: Forestry and Woodland, Dorset Wildlife Trust (no date) https://www.dorsetwildlifetrust.org.uk/hres/05ch22.pdf

<sup>&</sup>lt;sup>84</sup> Conservation management of Purbeck's woodlands in the face of climate change, Wild Purbeck Nature Improvement Area (no date) http://www.dorsetaonb.org.uk/assets/downloads/wild-purbeck/Wild\_Purbeck-WOODLANDS.pdf

Allotment sites in Purbeck are administered by the local town or parish council.

<sup>&</sup>lt;sup>86</sup> The Purbeck Local Plan Partial Review Options consultation ran between June and August 2016.

- local community<sup>87</sup>. Natural England also objected to the proposed eastern extent of the proposal owing to the loss of allotments.
- 4.30 Where loss of allotments is unavoidable, it may be possible to compensate with alternative provision elsewhere.

#### Sensitivity of assets

4.31 The capacity of each asset to withstand change, their significance and their overall sensitivity is summarised in **Table 4.2**.

Table 4.2 Sensitivity of agriculture and forestry assets

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	National	High
Agricultural land (Grade 1-2)	Higher grade agricultural land, of which there is a very limited supply in the District is highly susceptible to change.	The NPPF encourages the use of poorer quality land for development in preference to the best and most versatile land (Grades 1-3a)	Avoid residential development
	More robust	National	Moderate
Agricultural land (Grade 3a and 3b)	Good to moderate quality agricultural land of which there is a greater supply within the District.	The NPPF encourages the use of poorer quality land for development in preference to the best and most versatile land (Grades 1-3a). Grade 3b is not considered to be the best and most versatile land <sup>88</sup> . The higher significance has been used as the two categories are grouped together in the data.	Residential development may be possible in some locations
	More robust	Local	Low
Agricultural land (Grade 4-5)	Lower grade agricultural land which is considered more preferable for development compared to the higher grades of agricultural land by the NPPF.	Not afforded any protection but may contribute to the local economy.	Residential development possible
	More robust	Local	Low
Allotments	It is likely that alternative allotment sites could be provided if any of the existing provision was lost.	New allotments are encouraged through local Policy GI, as part of the green infrastructure network.	Residential development possible (mitigation required)
	More robust	Local	Low
National Forest Inventory (commercial forestry)	Commercial forestry may pose a constraint at some NFI sites, however loss of commercial sites could be mitigated financially.	Commercial forestry is not afforded any specific protection but may contribute to the local economy.	Residential development possible

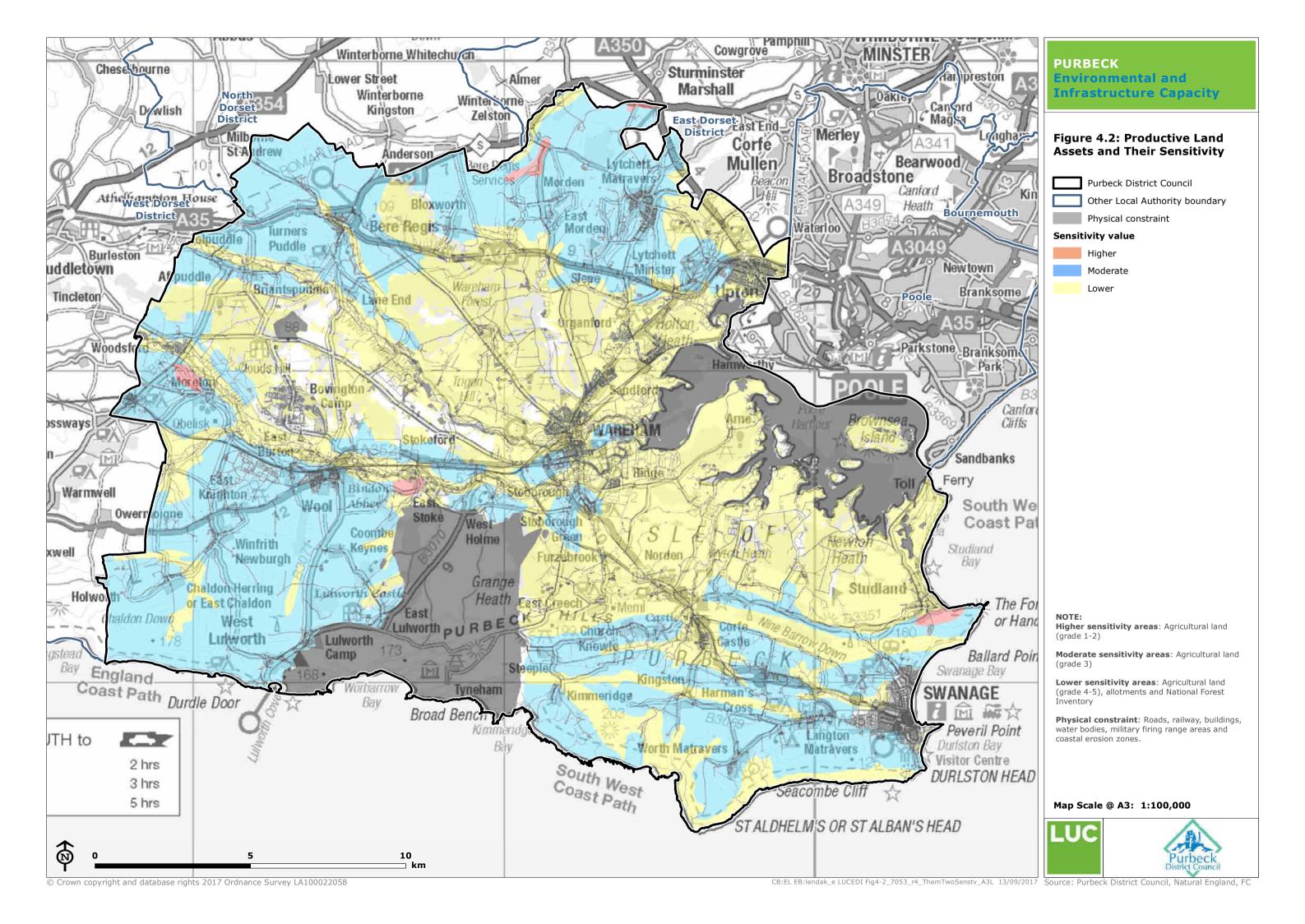
<sup>87</sup> Purbeck Local Plan Partial Review: Partial Review Options Consultation Report January 2017.

https://www.dorsetforyou.gov.uk/purbeck-partial-review

88 Note that if data was available to distinguish between Grade 3a and 3b, Grade 3a would be higher owing to its protection under the NPPF and therefore have a high sensitivity and Grade 3b would be considered as having a lower sensitivity.

# Environmental capacity of the District

- 4.32 **Figure 4.2** shows that the least environmentally constrained areas are located in the northwest and central areas of the District.
- 4.33 There are five small areas which are of higher sensitivity as these are classified as Grade 2 land by the Agricultural Land Classification (ALC). The NPPF defines this as best and most versatile land and other lower quality land areas should be considered for development in preference of these areas.
- 4.34 Much of the land to the north, south west and large pockets to the south east of Purbeck have moderate sensitivity as the ALC has recorded these areas as Grade 3 land. The distinction between grade 3a and 3b land is currently unknown but development on grade 3a land should be avoided unless needed and therefore have a higher sensitivity, whereas development on grade 3b land would be considered as having a lower sensitivity.
- **4.35** The sensitivity of the District, taking into account all environmental assets is presented in **Chapter 6**.



# 5 Environmental Capacity: Landscape, Greenspace and the Historic Environment

5.1 This chapter considers the environmental capacity of assets that provide mainly cultural ecosystems services, for example areas designated for their landscape quality, heritage features and green infrastructure.

# Types of assets and data sources

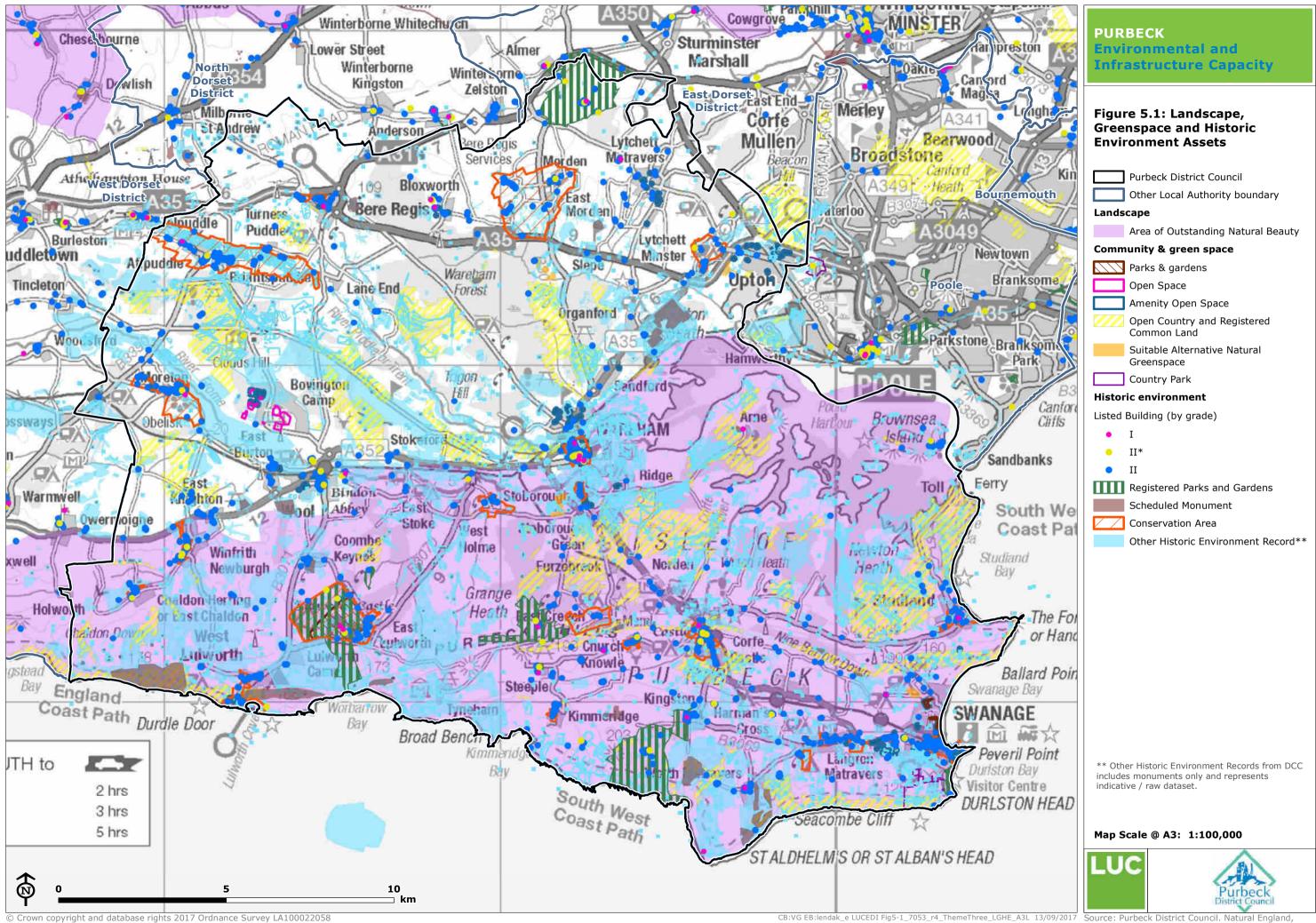
5.2 **Table 5.1** identifies the assets that have been considered and where the data on those assets has been obtained from.

Table 5.1 Landscape and sense of place assets and data sources

Type of asset	Data topic	Data source
Landscape	Area of Outstanding Natural Beauty (AONB)	Natural England
Community and greenspace	Open access land (including registered common land)	Natural England
	Public parks and greenspace	Purbeck DC
	Village greens	Data not available: viewed online <sup>89</sup>
	Country Park	Natural England
	SANGs	Purbeck DC
Historic environment	Schedule monuments	Historic England
	Other historic environment records	Historic England & Dorset CC
	Listed buildings	Historic England & Purbeck DC
	Conservation areas	Historic England & Purbeck DC
	Registered parks and gardens and battlefields	Historic England

- 5.3 **Figure 5.1** shows the type and location of landscape, greenspace and historic environment assets within the District.
- 5.4 For each type of assets the remainder of this Chapter sets out:
  - Why the environmental assets are important.
  - Current baseline and future trends.
  - The sensitivity of the assets.

 $<sup>^{89}\</sup> http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx$ 



## Landscape

#### Why are these assets important?

- 5.5 Landscape and open space, whether it is rugged coastline, peri-urban greenspace or an urban park, is the setting for every aspect of our lives. It serves a variety of cultural functions, and provides not just aesthetic pleasure but also contributes to sense of place and tranquillity. An appreciation of how today's landscape was formed can also inform an understanding of its management over time and contribute to future land use planning. Understanding of landscape character and sense of place is also important to providing a sense of identity and community.
- 5.6 Landscape is also vitally important as it provides us with a wide variety of goods and services/benefits. It is therefore an essential cornerstone of quality of life for people and communities, and of sustainable development which fits within environmental limits an ultimately finite resource which needs careful management if it is to retain its ability to provide the fullest range of services, whether provisioning (food/fuel), cultural/social, environmental or economic.
- 5.7 Although not a landscape designation, the overall function of a Green Belt relates to landscape as it can contribute significantly to openness of land, as the NPPF states:

"The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence." $^{90}$ 

- 5.8 It must be noted however, that "land within the Green Belt is not protected for its landscape qualities" and "openness is not the same as landscape character". 91 Openness relates to a lack of built development as opposed to visual openness.
- 5.9 The allocation of Green Belt land is a planning designation and is not linked to the environmental capacity of the land. We have therefore considered Green Belt land not as an environmental capacity constraint, but a potential planning constraint to deliverability. We therefore discuss it further in **Chapter 7**.

Legislation

- 5.10 The European Landscape Convention recognises the importance of the cultural, ecological, environmental and social value of landscape. The convention provides a platform for landscape to be considered at all stages; planning, protection and management in order to achieve sustainable development.
- 5.11 AONBs are designated under the National Parks and Access to the Countryside Act 1949, amended in the Environment Act 1995. The Countryside and Rights of Way Act 2000 clarifies the procedure and purpose of designating AONBs. In terms of conservation, AONBs have the same status as National Parks.

National planning policy

5.12 Section 11 of the NPPF states that:

"The planning system should contribute to and enhance the natural and local environment by: protecting and enhancing valued landscapes(...)" 92

5.13 It also states that:

"Great weight should be given to conserving landscape and scenic beauty in (...) Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty." 93

<sup>90</sup> National Planning Policy Framework, CLG (2012) paragraph 79

<sup>91</sup> Planning Officers Society, Planning for a Better Future: We need to talk about the Green Belt (2015)

<sup>92</sup> National Planning Policy Framework, CLG (2012) paragraph 109

<sup>93</sup> National Planning Policy Framework, CLG (2012) paragraph 115

- 5.14 While this permits some small-scale development within an AONB, major development is only permitted in exceptional circumstances. For the purposes of this assessment, we have assumed that any housing provision of sufficient scale to contribute meaningfully to Purbeck's housing need would be considered 'major'.
- 5.15 The NPPF states that assessments of landscape sensitivity should be prepared for areas where there are major expansion options. 94 It states at para 113 that local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged.
- 5.16 The national Planning Practice Guidance (PPG) section on the Natural Environment promotes the preparation of landscape character assessments to achieve the objective for planning to recognise the intrinsic character and beauty of the countryside<sup>95</sup>.

Local planning policy

- 5.17 The Local Plan considers the landscape through numerous policies including Policy LD: General Location of Development that requires new development to be located within settlement boundaries.
- 5.18 In addition, Policy CO: Countryside states that any new development in the countryside should "make a positive contribution to landscape character" 6. The policy also requires conversions of rural buildings to housing to provide "an enhancement to the immediate setting" and their "intrinsic character (...) and the contribution they make to the interest and attractiveness of the countryside should not be harmed." 97
- 5.19 Policy LHH: Landscape, Historic Environment and Heritage states that development proposals "will be expected to conserve the appearance, setting, character, interest, integrity, health and vitality of landscape (including trees and hedgerows)" 98. Furthermore the Policy LHH does not consider development proposals in isolation as it will consider the "direct, indirect and cumulative impacts relative to the significance of the asset affected". 99

#### Current baseline and future trends

5.20 Purbeck's landscape assets are summarised below, along with an indication of how they might be expected to change in the future.

Area of Outstanding Natural Beauty

- 5.21 Much of Purbeck lies within the Dorset Area of Outstanding Natural Beauty (AONB) which was designated in 1959. The AONB incorporates the following landscape character areas <sup>100</sup>:
  - Poole Harbour;
  - South Purbeck Heaths;
  - Frome Valley Pasture;
  - Rempstone Wooded Pastures;
  - Purbeck Ridge;
  - Corfe Valley;
  - Kimmeridge Coast;
  - Purbeck Plateau;
  - Swanage;
  - Lulworth Wooded Pastures;

<sup>&</sup>lt;sup>94</sup> National Planning Policy Framework, CLG (2012) paragraph 170

<sup>95</sup> Planning Practice Guidance, Reference ID: 8-001-20140306

<sup>&</sup>lt;sup>96</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 71

<sup>97</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 72

<sup>98</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 96

<sup>99</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 96

 $<sup>^{100}\</sup> http://www.dorsetaonb.org.uk/our-work/landscapework/landscape-character$ 

- South Dorset Escarpment;
- · Chaldon Downs; and
- Osmington Ridge and Vale.
- 5.22 The most recent Management Plan<sup>101</sup> identifies that development pressure for additional housing is a current key challenge, in addition to reduced availability of finance for the AONB, and the pressures of climate change. The following, in particular, are highlighted:
  - Greater and more unpredictable risk of coastal erosion as a result of rising sea levels and increased storminess, with potential for damage to coastal properties, businesses, infrastructure and access.
  - Potential impacts and changes to Dorset's agricultural sector, including flooding/saturation
    and a reduced number of days that land can be worked, greater risk of soil erosion, increase/
    change in pests and diseases, crop damage, increased need for irrigation, changes in crops
    and cropping practices. The viability of Dorset's agricultural sector is heavily influenced by
    fluctuations in commodity prices, which are significantly impacted by severe weather events
    in the world's 'breadbaskets'.
  - Greater flooding from more intensive rain events.
  - Significant impacts to the natural environment including the loss of some species as they are unable to adapt to new climatic conditions and the arrival of new species, some of which may harm native species and indigenous ecosystems.
  - Risks to our health and wellbeing from greater extremes of temperature and rainfall and the impacts on our homes and services.
- 5.23 Purbeck District Council is currently undertaking a detailed assessment of landscape sensitivity within the AONB to determine whether there are any sites within the AONB that may be suitable for residential development. The study has considered sites in the vicinity of existing settlements but has not yet concluded. Preliminary findings indicate that, although the landscape within the AONB remains sensitive, there may be the potential for homes, close to existing settlements, without significantly changing or harming existing landscape character.
- 5.24 Any sites that the Council identifies through this review process will be specifically assessed against the criteria in paragraphs 115 and 116 of the NPPF, along with other relevant constraints, before they are put forward as an option to meet the District's housing need.
- 5.25 As this work has not yet concluded, we have assumed for the purpose of this study that the whole of the AONB is unsuitable for residential development.

#### Sensitivity of assets

5.26 The capacity of each asset to withstand change, their significance and their overall sensitivity is summarised in **Table 5.2**.

Table 5.2 Sensitivity of landscape assets

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	National	High
Dorset AONB	This is sensitive landscape susceptible to change which is why it is given national policy protection. It is recognised however that some areas within the AONB may be less sensitive. Further work is being undertaken by Purbeck District Council on this.	The AONB is protected at the UK level by the NPPF	Avoid residential development

<sup>101</sup> The Dorset AONB Management Plan 2014-2019: A Framework for the Future http://www.dorsetaonb.org.uk/assets/downloads/ManagementPlan/2014-2019-DAONB-MP.pdf

## Community and greenspace

#### Why are these assets important?

- 5.27 This section considers open spaces that are an important part of the green infrastructure network but also have an important community accessibility component. The provision of greenspace in terms of its amenity value is considered further in the assessment of infrastructure and service availability, in Chapter 7.
- 5.28 Parks are provided for community benefit, while Village Greens are sites that have been designated for their community value. Open access land and common land are types of greenspace that have been granted specific rights of access. SANGs are intended to provide space for recreation, for example dog walking, that would otherwise take place at sensitive wildlife sites. All of these forms of greenspace have both an environmental and community benefit.
- 5.29 Greenspaces and the wider green infrastructure network as a whole provide a range of benefits to the environment, society and the economy. These assets provide regulating and supporting services such as areas for primary production, improved air quality and climate regulation such as reducing local temperatures and alleviating flood risk. Assets also provide cultural services as they provide spaces for leisure and recreational activities that afford to human health benefits (both physical and mental wellbeing). Economic benefits are gained through increasing the attractiveness of the local area which is an asset to employers and employees, supporting the tourism sector and reducing healthcare costs.

#### Legislation

- 5.30 Local communities can make the legal case for designating open green spaces as 'assets of community value' under the Localism Act 2011 or 'Town or Village Greens' under the Commons Act 2006.
- 5.31 The Commons Act 2006 provides some protection against encroachment and severance on common land. The Countryside and Rights of Way Act 2000 (CROW) ensures that the public have the right to use common land and open access land.
- The requirement for SANGs usually arises as a result of the Habitats Regulations <sup>102</sup>, in order to 5.32 protect European designated sites (SAC, SPA or Ramsar) from impacts related to recreation; however the Regulations do not provide any protection for SANGs themselves.
  - National planning policy and guidance
- 5.33 The NPPF (para. 74) sets out the only circumstances in which an open space can be developed for different uses. It clarifies that existing open space should not be built on unless:
  - an assessment has been undertaken which has clearly shown the open space to be surplus to requirements; or
  - the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or
  - the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss.
- 5.34 The NPPF provides a mechanism by which local authorities can protect some open spaces under a 'Local Green Space' designation (paras.76-77), and provides high level criteria for such a designation.
- 5.35 There are no national standards for open space provision, however the NPPF states that:

"Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities. Planning policies should be based on robust and up-to-date assessments of the needs for open space, sports and recreation facilities and opportunities for new provision. The assessments should identify specific needs and quantitative or qualitative deficits or surpluses of open space,

<sup>&</sup>lt;sup>102</sup> The Conservation of Habitats and Species Regulations 2010

sports and recreational facilities in the local area. Information gained from the assessments should be used to determine what open space, sports and recreational provision is required."

Local planning policy

- 5.36 At a local level, Policy GI: Green Infrastructure, Recreation and Sports Facilities, requires new residential developments to provide recreation, sport and/or open space facilities and green infrastructure. The Policy requests that this provision is designed into schemes and make them integral to the development, however where this is not possible, off-site provision or a financial contribution is required.
- 5.37 Policy GI also safeguards existing green infrastructure, recreation and sports facilities:

"All open space, sport and recreation areas will be protected. Any loss of these uses will only be permitted where there is a proven excess of such provision and the proposed loss will not result in a current or future shortfall in the plan period and/or suitable replacement facilities are provided." 103

5.38 The policy notes that any replacement facilities will need to:

"take account of the needs of the area and current standards of open space, sport and/or recreational provision but should be equivalent to, or an improvement upon, the existing resource, in terms of size, attractiveness, quality and accessibility." 104

5.39 A green infrastructure strategy for the District has not yet been prepared and there are no District-wide open space standards, however Policy DH: Dorset Heaths International Designations requires:

"Between 400 metres and 5km of a heathland, new residential development and tourist accommodation will be required to take all necessary steps on site to avoid or mitigate any adverse effects upon the internationally designated site's integrity or, where this cannot be achieved within the residential development, to make a contribution towards mitigation measures designed to avoid such adverse effects taking place. Measures will include:

- Provision of open space and appropriate facilities to meet recreation needs and deflect pressure from heathland habitats;
- Heathland support areas;
- Warden services and other heathland/harbour management;
- Access and parking management measures; and
- Green infrastructure."
- 5.40 The requirement for SANGs to mitigate the potential impact of proposed residential development on heathland are also identified within Policy NW: North West Purbeck, CEN: Central Purbeck, and NE: North East Purbeck.
- 5.41 A draft GI Strategy has however been prepared for Swanage<sup>105</sup> that concluded that the town had a wide range of GI assets which provided several functions, however the condition of these assets ranged from average or poor. Using the audit and analysis undertaken for existing GI in Swanage, the Strategy has identified 21 proposals to help improve GI and maximise its benefits in the town.

**Current baseline and future trends** 

5.42 Purbeck's community and greenspace assets are summarised below, along with an indication of how they might be expected to change in the future.

 $<sup>^{103}</sup>$  Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 88

<sup>104</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 88

<sup>105</sup> Swanage Green Infrastructure Strategy: Draft for Consultation (2015)

https://www.dorsetforyou.gov.uk/media/208451/Appendices-to-Draft-Swanage-Green-Infrastructure-Strategy/pdf/Appendices\_to\_Draft\_Swanage\_Green\_Infrastructure\_Strategy.pdf

The green infrastructure network as a whole

- The most recent Green Infrastructure (GI) Strategy for South East Dorset 106 (which only covers 5.43 the eastern portion of the District) highlights the importance of the natural environment and its contribution to the wider economic strategy as well as providing social and environmental gains.
- 5.44 In order to strengthen the Green Infrastructure Network, the strategy identifies 14 Key Strategic Priority Projects, some of which will be enhancing GI in Purbeck including:
  - The Cycleway Project: new cycle routes and upgrades to existing routes, primarily within urban areas, to improve linkages between major employment centres, residential areas and greenspaces;
  - The Local Open Space Project: encourages local authorities to consider the role of smaller parks and open spaces in their green infrastructure strategies;
  - Woodland Restoration Project: intended to provide direction to local authorities in the restoration of ancient woodland and the protection of trees; and,
  - Heath Restoration Project: identifying opportunities for heathland expansion, for example securing land adjacent to heaths to improve the resilience of species and habitats to urban pressures and climate change.
- 5.45 It recognises however, that funding will be diminishing and it is important that the existing assets are maintained and new assets are required to support the growth of the population.

Country parks and gardens

Durlston Country Park is the only Country Park within Purbeck and the majority of its boundary 5.46 lies within a National Nature Reserve (NNR), however there are two parcels of land that lie outside of the NNR; on to the north of the NNR boundary and the other is the central parcel that contains the Information Centre and car park.

Registered common land

- There are 26 registered parcels of common land within Purbeck<sup>107</sup>. Common land can be owned 5.47 by a local council, the National Trust or privately, however most areas include the right to roam where the public are allowed to conduct activities such as walking, running, climbing and wildlife watching.
- 5.48 Common land often includes biodiversity designations and as they were exempt from agricultural activity including ploughing, these areas are often host to many pre-historic features such as settlement boundaries and field systems.
- 5.49 Urban and industrial expansion, the intersection of transport routes all threatens common land. Furthermore, the lack of active management can lead to vegetation over growing which in turn can change the landscape and severs views as woodland often emerges.
- 5.50 Reverting to previous land practices on common land such as grazing, is thought to be a good approach to active management. There are however challenges with this concerning the right mix of livestock, fencing and the interaction of human's recreation use including dog walking.

Village greens

- Village greens are generally located within a centre of a defined settlement and are defined under 5.51 the Commons Registration Act, 1965. They are privately owned, but similarly to common land, they can be used for lawful sports and recreation and some also allow grazing. It is typical for village greens to have organised or ad-hoc fetes, picnics and games.
- There are 11 village greens currently in Purbeck 108: 5.52
  - Churchland Green, East Morden (0.07ha);

<sup>&</sup>lt;sup>106</sup> Investing in Green Places: South East Dorset Green Infrastructure Strategy (2011) https://www.dorsetforyou.gov.uk/media/190178/GI-Strategy--Investing-in-Green-places/pdf/GI\_Strategy\_-\_Investing\_in\_Green\_Places.pdf

107
Common-Land.com, Land Near Purbeck https://common-land.com/lands/show/Purbeck

 $<sup>^{108}</sup> www.natureonthemap.naturalengland.org.uk/MagicMap.aspx$ 

- Bloxworth Green, Bloxworth (6.5ha);
- Stockford Common allotment, Stokeford (1.2ha);
- The Cross, Wool (0.06ha);
- The Green, East Chaldon (0.09ha);
- Three separately listed Greens in East Lulworth (0.02ha, 0.06ha & 0.24ha);
- Worth Village Pond, Worth Matravers (0.06ha);
- The Green, Studland (0.11ha); and
- Herston Fields, Swanage (c.6ha).

#### Open access land

- 5.53 Purbeck is host to c.4,800 hectares of open access land. Members of the public have the 'right to roam' on open access land and so are able to go beyond designated paths.
- 5.54 Some of Purbeck's open access land is restricted, however, as it is located on land owned by the MoD where routine military practice occurs.

Public parks and gardens

5.55 There are eight public parks and gardens in Purbeck; six are located within Swanage, one at Lulworth Castle, which is the largest, and one in Moreton.

#### Sensitivity of assets

5.56 The capacity of each asset to withstand change, their significance and their overall sensitivity is summarised in **Table 5.3**.

Table 5.3 Sensitivity of community and greenspace assets

Asset	Capacity to withstand change	Significance	Sensitivity	
	Susceptible	National	High	
Village greens	This designation relates to the qualities of a specific place and, which may be difficult to replace.	The Commons Act 2006 provides some protection against encroachment.	Avoid residential development	
	of environmental constraints. Howev	Note that GIS data for village greens was not available to incorporate into the mapping of environmental constraints. However, this data is available to view online and has been taken into account in the assessment of each parcel (see <b>Table 8.1</b> )		
	More robust	National	Moderate	
Open access land (including registered common land)	Open access land may coincide with other biodiversity or heritage features, but the designation itself refers to how the land is used, which could be accommodated elsewhere.  However, common land designations may be complex and related to historic rights that cannot easily be accommodated elsewhere.  As the two datasets are combined, open access land has been classed as 'more robust' as development may be possible in some areas.	Open access land is designated by the Countryside and Rights of Way Act 2000.  The Commons Act 2006 provides some protection against encroachment onto common land.	Residential development may be possible in some locations	

Asset	Capacity to withstand change	Significance	Sensitivity
	More robust	National	Moderate
Country Park	The primary purpose of these designations is to offer leisure and recreation opportunities close to population centres, however they also often have biodiversity value.	Country Parks are statutorily declared and managed by local authorities in England and Wales under the Countryside Act 1968.	Residential development may be possible in some locations
	The majority of the country park is also classed as an NNR (high sensitivity), the small areas outside the NNR are considered to be more robust.		
	Susceptible	Local	Moderate
Public parks and gardens (including amenity open space and SANGs)	These are located to meet the needs of specific communities and as such may be difficult to replace.	Afforded protection by Local Plan Policy GI	Residential development may be possible in some locations

#### Historic environment

#### Why are these assets important?

5.57 Heritage features, buildings and archaeology, field patterns and land uses combine to create the historic environment. The historic environment shapes an area's character and identity, providing links with our heritage and past generations. The historic environment and the heritage features it contains are finite resources which enhance quality of life and provide communities with a sense of place which can be shared through education and enjoyed in recreation<sup>109</sup>. The historic environment is not limited to built features and archaeological remains, but also includes historic land uses, such as coppiced woodland or grazing marsh which may have existed in a similar form for many centuries.

Legislation

5.58 Listed building consent should be determined in accordance with the Planning (Listed Buildings and Conservation Areas) Act 1990. This Act also sets out measures for the designation of conservation areas and control over demolition within them.

National Planning policy

5.59 Section 12 of the NPPF (Conserving and enhancing the historic environment) states that:

"Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance." <sup>110</sup>

5.60 Section 12 the NPPF also draws on the significance of heritage assets:

"When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites,

<sup>&</sup>lt;sup>109</sup> National Planning Policy Framework (2012)

<sup>&</sup>lt;sup>110</sup> National Planning Policy Framework, CLG (2012) paragraph 126

battlefields, grade I and II\* listed buildings, grade I and II\* registered parks and gardens, and World Heritage Sites, should be wholly exceptional."<sup>111</sup>

#### Local planning policy

5.61 Purbeck's historic environment is considered in the Local Plan under Policy LHH: Landscape, Historic Environment and Heritage.

"Proposals for development and other works will be expected to conserve the appearance, setting, character, interest, integrity, health (...) and heritage assets - be these locally, nationally or internationally designated or otherwise formally identified by the Local Planning Authority." 112

5.62 The policy also considers the impact of one new development on historic assets as well as multiple developments:

"In considering the acceptability of proposals the Council will assess their direct, indirect and cumulative impacts relative to the significance of the asset affected, and balance them against other sustainable development objectives."

5.63 Where new development is to impact on the historic environment or heritage assets, Policy LHH also requires development, where appropriate, to enhance and improve conservation at these locations.

#### Current baseline and future trends

- Purbeck has a wealth of cultural heritage assets that all contribute to Purbeck's sense of place, identity, character and local distinctiveness, with many of the features being described as 'irreplaceable' 113. The Royal Society for the Encouragement of the Arts, Manufactures and Commerce (RSA) produces a Government-recognised Heritage Index, which takes into account 120 indicators from tangible heritage assets such as historic buildings to heritage related activities such as community initiatives. The Heritage Index combines data on the heritage assets recorded in the area with details of heritage activity to produce a score that demonstrates how well an area is making use of its heritage assets. Purbeck scores within the top 5% of all the 325 local authorities in England.
- 5.65 Recognising the rise in development and changes in land management practices in Purbeck since the Second World War, particularly to heathland, Historic England commissioned the National Mapping Programme, Mapping of Wild Purbeck Project. Aerial photographs were systematically taken, assessed and added to the Historic Environment Record. The results inform strategic planning and future research frameworks for the area and also trigger holistic heathland management practices<sup>114</sup>.
- 5.66 The most recent data<sup>115</sup> shows that 53 of Purbeck's designated historic assets are on the Heritage at Risk register as they are known to be at risk from neglect, decay or inappropriate development.
- 5.67 Environmental factors such as climate change, sea level rise and erosion are also likely to put pressure on the District's historic assets.

#### Scheduled monuments

- 5.68 Scheduled monuments are archaeological sites and monuments that are considered to have national importance. Historic England recognises that some change at these sites is possible, but it is anticipated that scheduled monuments remain as they are found.
- 5.69 Purbeck's landscape is rich in archaeology and has 258 scheduled sites and reflects the interactions of our ancestors and the natural environment. Many of these landscapes however are currently being under managed and have led to assets being damaged from vegetation or

<sup>111</sup> National Planning Policy Framework, CLG (2012) paragraph 132

<sup>&</sup>lt;sup>112</sup> Purbeck Local Plan Part 1: Planning Purbeck's Future (2012), page 96.

<sup>&</sup>lt;sup>113</sup> Purbeck Heritage Priorities 2016-2020.

<sup>114</sup> Cornwall Archaeological Unit, National Mapping Programme: Mapping of Wild Purbeck

<sup>(2015).</sup>https://content.historicengland.org.uk/images-books/publications/nmp-mapping-of-wild-purbeck/wild-purbeck-nmp-6600-report pdf/

report.pdf/

115 Historic England: Search the Heritage at Risk Register https://historicengland.org.uk/advice/heritage-at-risk/search-register/

lying in settings that are alien to their original landscape 116. Other archaeological sites are at threat from agricultural activities such as ploughing which particularly presents risk to scheduled ancient monuments.

5.70 In some cases, scheduled monuments (as well as other types of heritage asset) may have areas around them which contribute to their setting. There is no data that identifies the areas in which the setting of any heritage asset could be affected; this is typically informed by detailed studies at specific sites. We have therefore excluded 'setting' as a specific asset but have taken it into account in the consideration of detailed studies that might be required at the site level (Chapter

Other historic environment records

- 5.71 The Dorset Historic Environment Record (HER) contains all known non-designated historic assets as well as designated assets and is held on a Geographical Information System (GIS). There are mainly three types of record within the HER:
  - Monuments (these can define any type of heritage feature, including buildings);
  - Events (fieldwork such as excavation or building survey); and,
  - Sources and archives.
- Currently the Dorset HER contains over 3,000 records for assets located in Purbeck, with nearly 5.72 2,000 records added from the National Mapping Programme of the District in 2015<sup>117</sup>. Records are regularly being added and updated with new information found in from site work, field work and research.
- 5.73 Historic England states that "HERs are a primary source of information for planning, developmentcontrol work, and land management." 118

Listed buildings

- 5.74 Historic England note that listings "highlight what is significant about a building or site, and helps to make sure that any future changes to it do not result in the loss of its significance." 119
- The built historic environment plays an intrinsic role in defining localities within Purbeck as 5.75 differing construction methods and materials reflect the District's varying geology as well as the predominant extractive industry in which elements of it are still in existence today.
- Listed Buildings are designated by the Planning (Listed Buildings and Conservation Areas) Act 5.76 1990<sup>120</sup> which classifies them into three grades:
  - Grade I buildings are of exceptional interest;
  - Grade II buildings are particularly important buildings of more than special interest; and,
  - Grade II\* are of special interest warranting every effort to preserve them.
- There are 1,441 Listed Buildings within the District<sup>121</sup> and over 95% of these designations are 5.77 Grade II 122. Development that takes place within close proximity to Listed Buildings can affect their setting.

Conservation areas

There are currently 25 conservations areas within Purbeck. A conservation area is locally 5.78 designated and is defined as "an area of special architectural or historic interest, the character

<sup>&</sup>lt;sup>116</sup> Purbeck Heritage Strategy 2010-2015.

<sup>117</sup> Cornwall Archaeological Unit, National Mapping Programme: Mapping of Wild Purbeck

<sup>(2015).</sup>https://content.historicengland.org.uk/images-books/publications/nmp-mapping-of-wild-purbeck/wild-purbeck-nmp-6600-

report.pdf/

118 Historic England, Historic Environment Records (HERs) https://historicengland.org.uk/advice/technical-advice/information-

<sup>119</sup> Historic England, What is Listing? https://historicengland.org.uk/listing/what-is-designation/

<sup>120</sup> Planning (Listed Buildings and Conservation Areas) Act 1990 http://www.legislation.gov.uk/ukpga/1990/9/contents

<sup>121</sup> Historic England https://www.historicengland.org.uk/listing/the-

list/results?q=&county=&grade=&searchtype=nhlesearch&searchResultsPerPage=100

Dorset for You https://www.dorsetforyou.gov.uk/listedbuildings/purbeck

and appearance of which it is desirable to preserve or enhance." <sup>123</sup> The character of these areas help determine the 'sense of place' as the designation considers elements beyond just that of building quality; it encompasses the historic form of an area including the layout of historical transport routes and boundaries and use of materials.

5.79 Conservation areas thereby recognise the historical value of an area, rather than one single Listing. Development is not prevented within these areas, but is managed<sup>124</sup>. This means that any property alterations designated or not, such as changes to the exterior of a building within these areas, may require planning permission<sup>125</sup>.

Registered parks and gardens, and battlefields

- 5.80 There are six registered parks and gardens and no battlefields within the District. Historic England note they are a "fragile and finite resource: they can easily be damaged beyond repair or lost forever. Whether in town or country, such places are an important, distinctive, and much cherished." 126 Through the registration process, it is hoped that the sites will be protected and managed with due care.
- 5.81 It is the designed spaces that are the focus of the registered parks and gardens designations and their landscapes are a 'material consideration' if a proposed development has the potential to impact on a registration.

#### Sensitivity of assets

5.82 The capacity of each asset to withstand change, their significance and their overall sensitivity is summarised in **Table 5.4**.

Table 5.4 Sensitivity of historic environment assets

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	National	High
Scheduled monuments	The preservation in situ and protection of the setting of scheduled monuments are paramount to their designation, therefore Historic England recommends that they remain as they are found. The extent of the setting of scheduled monuments does however vary.	Scheduled monuments are identified in the NPPF which places great weight on the impact of proposed development on the significance of an asset. The NPPF states that "Substantial harm to or loss of a () notably scheduled monuments () should wholly be exceptional".	Avoid residential development
	Susceptible	Local - National	Moderate
Other historic environment records	The HER contains a wide variety of historic assets and therefore some will have a higher susceptibility to change than others.	The HER contains a wealth of identified heritage assets, some of which have national importance. The NPPF states that Nondesignated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.	Residential development may be possible in some locations

<sup>123</sup> Planning (Listed Buildings and Conservation Areas) Act 1990 http://www.legislation.gov.uk/ukpga/1990/9/contents

Dorset for You: Conservation Areas https://www.dorsetforyou.gov.uk/article/384644/Conservation-Areas

<sup>&</sup>lt;sup>125</sup> Historic England: Conservation Areas https://historicengland.org.uk/listing/what-is-designation/local/conservation-areas/

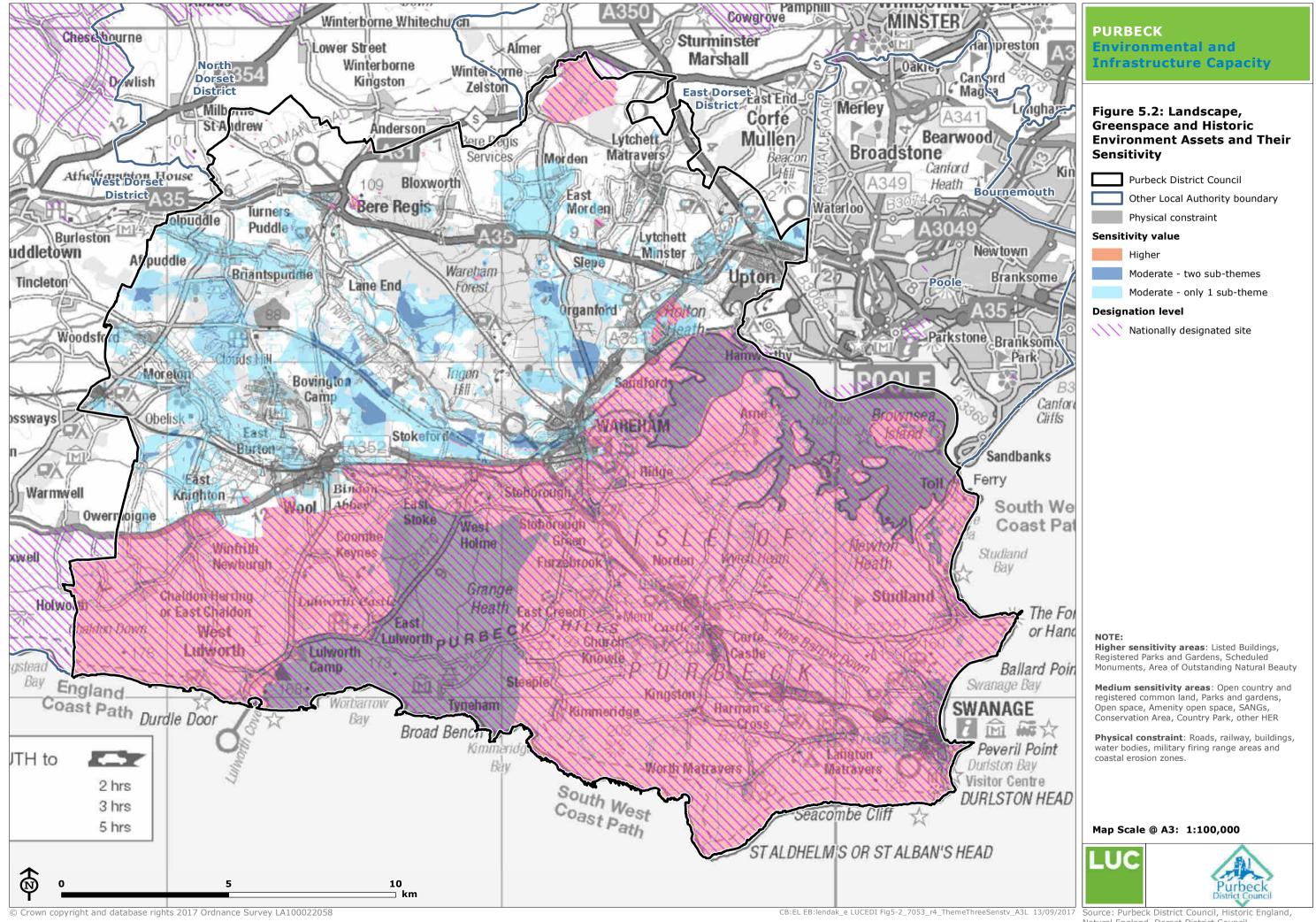
<sup>&</sup>lt;sup>126</sup> Historic England: Registered Parks and Gardens https://historicengland.org.uk/listing/what-is-designation/registered-parks-and-gardens/

Asset	Capacity to withstand change	Significance	Sensitivity
	Susceptible	National	High
Listed buildings	Listed buildings are of special architectural or historic interest and may be irreplaceable.	Listed Buildings are designated by the Planning (Listed Buildings and Conservation Areas) Act 1990 <sup>127</sup> . The NPPF states that substantial harm to or loss of to grade I or II* listed building should be wholly exceptional.	Avoid residential development
	Susceptible	Local	Moderate
Conservation areas	The character of these areas help determine the 'sense of place' and therefore any development that is not in keeping with the character of these areas can result in the erosion of their identity.	Conservation areas are designated by the local planning authority.	Residential development may be possible in some locations
	Susceptible	National	High
Registered parks and gardens and battlefields	Historic England note they are a "are a fragile and finite resource: they can easily be damaged beyond repair or lost forever." 128	Registered parks and gardens are identified in the NPPF which places great weight on the impact of proposed development on the significance of an asset. The NPPF states that "Substantial harm to or loss of a () notably battlefields (), grade I and II* registered parks and gardens () should wholly be exceptional".	Avoid residential development

<sup>127</sup> Planning (Listed Buildings and Conservation Areas) Act 1990 http://www.legislation.gov.uk/ukpga/1990/9/contents
128 Historic England: Registered Parks and Gardens https://historicengland.org.uk/listing/what-is-designation/registered-parks-andgardens/

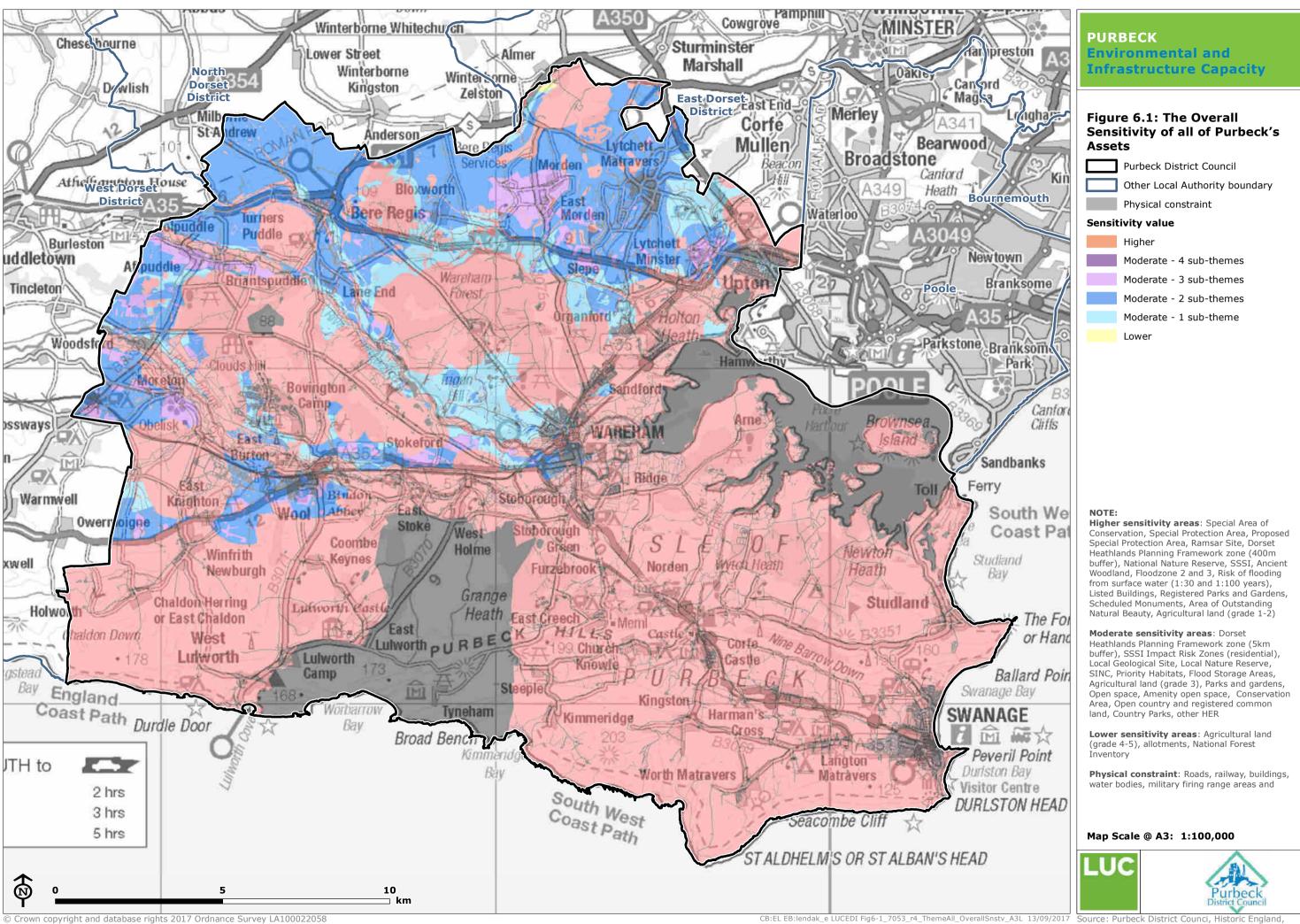
# Environmental capacity of the District

- 5.83 **Figure 5.1** shows that over half of the District is constrained by the Dorset AONB, a national designation. It is likely that some of the areas within the AONB (for example sites close to existing settlements) may have capacity for residential development, and therefore have moderate sensitivity. Purbeck District Council is currently undertaking a study to identify any possible areas of the AONB suitable for residential development. However, until that work has been completed the whole AONB has been treated as high sensitivity.
- Aside from the AONB, all other areas showing as higher sensitivity are cultural heritage assets. Charborough Park, a Grade II\* Registered Park and Garden represents the large area of higher sensitivity on Purbeck's northern boundary. There are also four village greens outside the AONB area at East Morden, Bloxworth, Stokeford and Wool. These are not shown on **Figure 5.1** but are located in relation to the assessed parcels, in **Table 8.1**.
- 5.85 The moderately sensitive areas in the west of Purbeck generally depict open country and registered common land.
- 5.86 There are no areas with 'lower' sensitivity in this theme and the north west of Purbeck has areas that have no mapped environmental constraints within this theme.
- 5.87 The sensitivity of the District, taking into account all environmental assets is presented in **Chapter 6.**



# 6 Purbeck's Least Environmentally Constrained Areas

- 6.1 The majority of Purbeck is constrained by assets of high sensitivity; the remainder is constrained by moderate sensitivity assets, with the exception of one very small area of low sensitivity in the north of the District near Winterbourne Zelston; see **Figure 6.1**. Residential development would not be appropriate in areas of high sensitivity, but might be possible in areas of moderate sensitivity, if appropriate mitigation can be identified and implemented. The areas identified as being of moderate sensitivity are generally found around the north and west of the District, with the exception of narrow corridors lying approximately between Bere Regis and Wareham, and Wool and Wareham. Corridors between Bere Regis and Wareham, and Bere Regis and Upton, currently appear to be the least environmentally constrained.
- 6.2 Despite some areas appearing to be less constrained than others, the identification of suitable sites for housing will require further detailed analysis at the site level, to identify any potential constraints (that it has not been possible to identify in this strategic assessment). This will be required to assess potential impacts more accurately and to develop appropriate mitigation. Any of the moderate or low sensitive areas identified within the District could mean that residential development is not appropriate at a specific site and would need further investigation.
- 6.3 In order to further narrow down the areas in which residential development may be possible, the next stage of assessment (as set out in **Chapter 7**) considers any barriers to deliverability posed by infrastructure or services capacity constraints, and planning constraints such as Green Belt.

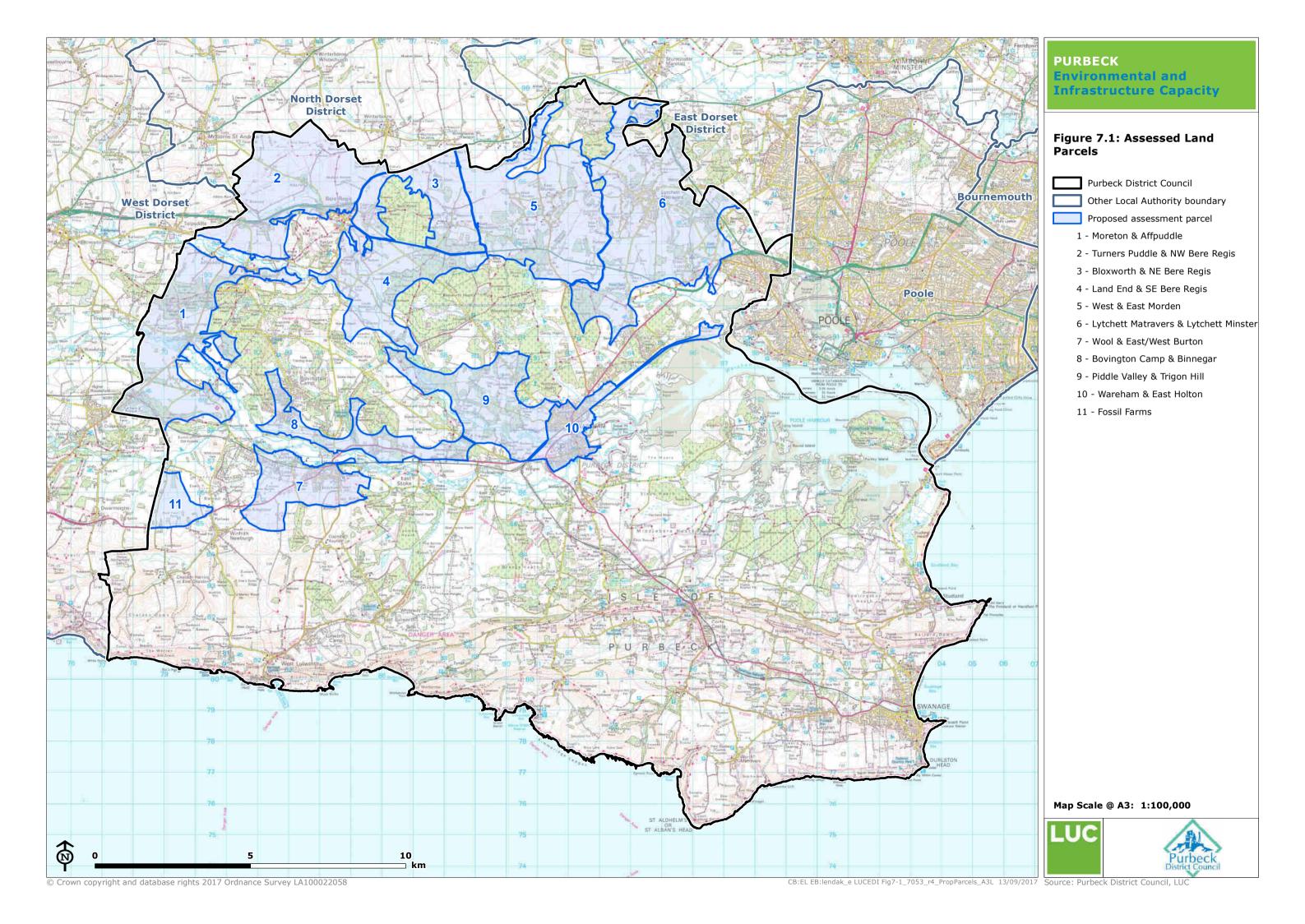


# 7 Infrastructure Capacity and Housing Deliverability

- 7.1 As noted in **Chapter 2**, this chapter assesses the potential to deliver the necessary infrastructure to sustainably support growth in the least environmentally constrained areas in the District. The study has focused on the main strategic infrastructure which is needed to support sustainable communities, namely: education, transport, emergency services, utilities & waste management, health facilities, retail and leisure services. This collectively represents the range of facilities that together determine the health, social, recreational, economic and cultural wellbeing of existing and future communities. In other words, good access to facilities will provide a better quality of life and more sustainable outcomes. In addition to the main infrastructure needed to support development, the Council will also need to consider site specific infrastructure needed to support development. As examples this might include telecommunications connections to allow access to superfast broadband and improvements in access to the local countryside.
- 7.2 This chapter also provides a summary of the Green Belt study undertaken by Purbeck District Council and considers the effect that Green Belt designations could have on the deliverability of housing within the District.
- 7.3 Limitations to deliverability posed by land ownership constraints are beyond the scope of this assessment, however land ownership will clearly affect the deliverability of specific sites.

# **Approach**

- 7.4 The approach adopted has been to take the areas identified as being least environmentally constrained and to divide them into parcels. In the absence of specific development sites, this has enabled an appropriate high level assessment to be undertaken. The parcels do not necessarily follow particular administrative areas but were identified using the judgement of the consultant team. The intention was to be able to create parcels that, where possible, related well to existing settlements, either within the District, or in neighbouring districts. In some cases this left some areas not fitting logically into any particular parcel, in which case a new parcel was created. The parcels identified are:
  - 1 Moreton & Affpuddle
  - 2 Turners Puddle & North West Bere Regis
  - 3 Bloxworth & North East Bere Regis
  - 4 Lane End & South East Bere Regis
  - 5 West Morden & East Morden
  - 6 Lytchett Matravers & Lytchett Minster
  - 7 Wool & East/West Burton
  - 8 Bovington Camp & Binnegar
  - 9 Piddle Valley & Trigon Hill
  - 10 Wareham & East Holton
  - 11 Fossil Farms
- 7.5 The location of these parcels is shown in **Figure 7.1**.



- 7.6 The assessment has not tested development on individual sites within each parcel. Rather, for each parcel, the infrastructure implications of different scales of growth have been assessed. These scales were:
  - 50 dwellings 'small development';
  - 250 dwellings 'large development';
  - 500 dwellings 'strategic development'; and
  - 1,000 dwellings 'new settlement / major strategic urban extension'.
- 7.7 These different scales were agreed with Purbeck District Council and were considered to represent a reasonable spread of realistic types of development.
- For these scales of growth and land parcels, two stages of assessment were undertaken. This first involved engaging with the providers of the strategic infrastructure to identify what the possible implications would be of each scale of growth in each location. Whilst it is not possible for these strategic providers to be definitive about the infrastructure required, the purpose was to identify whether there were any potential issues in terms of infrastructure delivery. This was both in terms of the feasibility of provision and also whether such provision would have the potential to undermine the deliverability of development, due to the high costs of provision not being capable of being addressed through contributions from development. Given that many of the parcels assessed are in more rural locations, our experience is that many of the infrastructure providers are less likely to actively choose to invest in new infrastructure in these locations, even if there was growth proposed at the higher scales tested. This is because this would represent an inefficient use of their resources. It is therefore assumed for the purposes of the study, that developer contributions from the proposed growth would need to fully fund the new infrastructure provision.
- The 2016 Economic Viability report<sup>129</sup> undertaken for Purbeck District Council does suggest that large strategic sites, along with 40% affordable housing, could support between £19,000 and £22,000 per dwelling for developer contributions (para. 3.4.50). For a 1,000-dwelling scheme this would equate to between £19m and £22m. The £19,000 to £22,000 surplus per dwelling is based on a sales value of £3,450/m². This figure is indicative of sales values in Upton, Purbeck Rural Fringe and Purbeck Rural Centre. The surplus, and developer funding for infrastructure, may need to be adjusted for development in parcels outside these sub-market areas. The surplus on individual sites will also be determined by site specific constraints. At this scale of development (given that, in other locations, the typical cost of a two-form entry primary school is anywhere between £7m and £7.5m), there would be some significant infrastructure costs that would account for a large proportion of the available developer contributions.
- 7.10 This is not to say that development of a 1,000-dwelling new settlement in more rural parts of the district would be undeliverable, rather that it would have a significant burden placed upon it by the infrastructure required to support it and therefore this would need to be very carefully planned and thoroughly tested. We recommend that more work is undertaken for specific sites to ascertain (i) the scale of infrastructure requirements and the associated impact on viability; and (ii) the scale of growth that would be required to ensure deliverability. This work would be needed to inform any review of the emerging Local Plan.
- 7.11 The second stage of the assessment has then looked at the sustainability of the parcels of land at a finer grain. Specifically this has tested the distance of each parcel from a range of existing services, based on guidance from the Institute of Highways and Transportation130 on desirable and acceptable walking distances. This has been assessed against the following services (Table 7.1).

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<sup>&</sup>lt;sup>129</sup> DSP (2016) *Purbeck District Partial Review of Purbeck Local Plan Part 1 and revised Community Infrastructure Levy Economic Viability Assessment*, for Purbeck District Council.

<sup>&</sup>lt;sup>130</sup> Institute of Highways and Transportation (2000) *Guidelines for Providing for Journeys on Foot* 

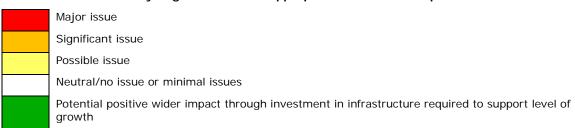
Table 7.1 Acceptable and desirable walking distances from specific facilities and services

Infrastructure theme	Specific item	Desirable maximum walking distance	Acceptable maximum walking distance
Education	Primary schools	1,000m	2,000m
Transport	Bus stops Railway stations	400m	800m
Health	GP surgery	800m	1,200m
Retail	Proximity to a local retail centre, as defined in the Purbeck Local Plan	400m	800m
Leisure	Outdoor sports facilities, sports pitches and leisure centres	800m	1,200m

- 7.12 Clearly not all parts of any parcel will be within the same distance of facilities, so any further assessment would need to review more closely the location of different services for different parts of individual parcels. However, it is a clear and consistent principle, in reviewing the outputs, that the most accessible locations in terms of access to services are in the parts of parcels that are closest to the largest existing settlements. Many of the most accessible locations would effectively represent extensions to existing settlements. Accordingly, when assessing the sustainability of parcels, the proximity of infrastructure in neighbouring parcels was also taken into account.
- 7.13 The tables in this section provide an assessment of potential impacts ranging from dark red cells, which mean that there is likely to be a major issue in providing the required supporting infrastructure, through to amber cells where there could be a possible, albeit not fundamental, issue in providing the infrastructure. There is also a category where the impact of infrastructure provision is considered to have no impact (the white cells). In some circumstances development could serve to enhance the quality and quantity of wider infrastructure provision, e.g. if the scale of growth is sufficient to trigger the need for a new GP surgery, then this will provide improved health services for the wider community. In these circumstances the assessment has given this a green rating. Positive impacts are more difficult to assess than possible detrimental impacts, as they are dependent on a wider range of factors, such as investment decisions by infrastructure providers and the restriction on new development addressing historic deficits in infrastructure provision. The scoring system is shown in **Table 7.2** below.

Table 7.2 Assessment criteria

Extent of impact of either providing infrastructure required to support level of growth, or sustainability of growth without appropriate infrastructure provision



7.14 It is important to be clear that the assessment considers each infrastructure theme, e.g. public transport, education capacity, etc, individually. The assessment summary at the end of this section seeks to provide an overarching understanding of the issues and opportunities. However, it does not seek to add together the individual scores for each parcel across all the infrastructure themes in order to identify the most sustainable location at each scale of

growth. To better understand this will require more detailed assessment of the individual issues and a more in-depth assessment of the cross-cutting issues. For example, whilst a site may be close to a leisure centre and existing retail facilities, the lack of health provision and the limited capacity of the local schools may make that location relatively unsustainable; if however, at a larger scale of growth, the site could contribute towards the expansion of health and/or education provision, then that site would become significantly more sustainable.

- 7.15 The list of strategic infrastructure providers that were consulted is shown in **Appendix 3**. All information provided represents a high level assessment and more detailed work would be needed to establish, for a more specific location within an assessed parcel, the precise infrastructure requirements, the cost of provision and the implications for the deliverability of any possible development scheme.
- 7.16 Ultimately the assessment and recommendations in the study regarding the deliverability of development in each of the parcels represents a judgement based on our experience of infrastructure delivery planning. In the absence of specific sites to test it is not possible for the strategic infrastructure providers to identify definitive needs. Moreover, this study does not undertake any viability assessments of locations in order to support the judgements made about the deliverability of development within any parcel. This has however been informed by the 2016 viability assessment undertaken for the District Council to inform possible updates to the Community Infrastructure Levy (CIL).

#### **Green Belt**

- 7.17 Although Green Belt as a designation is related to the landscape in terms of its openness and lack of built development, it is itself a planning designation rather than an indicator of landscape quality or environmental capacity. We have therefore considered it in relation to housing deliverability. For residential development to occur on Green Belt land, a detailed Green Belt review is required to identify the potential harm to the Green Belt and the implications of its removal on the integrity of the remaining Green Belt.
- 7.18 Purbeck District Council is in the process of undertaking an initial Green Belt review, but has not yet concluded the work. This study has therefore referred to its preliminary findings.
- 7.19 During the review, Green Belt land was divided into 38 separate study areas. The parts of the Green Belt which were not suitable for housing, based on the analysis of environmental constraints, were not assessed through the review. Each of the Green Belt parcels was ranked according to their performance in meeting the purposes of the Green Belt<sup>131</sup> as defined in the NPPF and exhibiting its essential characteristics.
- 7.20 The initial findings from the Purbeck Green Belt Review have are presented below to provide additional context to the likely deliverability of each parcel.

#### Baseline

7.21 The Purbeck Infrastructure Plan<sup>132</sup> 2016 did not identify any significant infrastructure issues in terms of addressing the infrastructure needs of the Local Plan Partial Review. Needs were identified across all infrastructure areas but none were considered to either be so significant as to prevent development or to be placing a burden on the infrastructure network which would serve to place a limit on future development in that location.

#### Education

7.22 The proximity of each parcel of land to primary and secondary schools is shown in **Appendix** 4.

<sup>&</sup>lt;sup>131</sup> Paragraph 80, NPPF.

<sup>&</sup>lt;sup>132</sup> Purbeck District Council (2016) Reviewing the Plan for Purbeck's future: Purbeck Infrastructure Plan.

#### Primary education

- 7.23 The general approach taken by Dorset County Council (DCC) as the education authority is that 1,000 new houses requires approximately one form of entry at primary school level, based on a typical mix of houses. A one-form entry primary school is, in most cases, the smallest school that it would develop. However, a cluster of developments that produces over 750 houses may warrant a suitably located school if the existing local provision is full or non-extendable. Thus a grouping of three 250-unit developments may require a new primary school.
- 7.24 The strategic education assessment has identified the following needs for children of primary school age (**Table 7.3**).
- 7.25 This shows that for most parcels, the infrastructure requirements of low levels of growth (approximately 50 dwellings) would be minimal in isolation. However, if there was growth of this scale across a number of adjacent parcels, then this could create an aggregated need for an extension to an existing school. However, this would very much depend on the parcels in question, the location of growth within those parcels and the numbers of dwellings proposed.
- 7.26 **Table 7.3** also shows, for the smallest scale of development, how sustainable the parcel is to accommodate development, based on the proximity of the parcel to the nearest existing primary school. Where the smallest scale of development would require extension of an existing school, this is likely to be a significant issue for the education authority, given the very limited number of additional pupils that would be accommodated, when compared with the costs of extending the schools in question. This may be mitigated if growth in other parcels also creates additional pupil needs which could be served by the extension of that same school.
- 7.27 **Table 7.3** shows that, at larger scales of growth, there is a greater likelihood of the need to deliver new primary schools and DCC has indicated that, in principle, such provision can be made. Given that new primary schools can typically cost between £5 million and £7 million and it would be likely that developer contributions would be required to address these costs, at least in part, then there would be a greater prospect of delivery of this infrastructure if development was at the highest levels tested, i.e. at least 1,000 dwellings.

#### Secondary education

- 7.28 For secondary education, none of the scales of development would be remotely sufficient to warrant new school provision, including 1,000 dwellings. The higher cost of secondary schools compared with primary schools means that it is preferable to address secondary education needs at a smaller number of larger schools. DCC has therefore identified that the provision of higher levels of growth in terms of secondary education, for all development parcels, would be challenging. It would be necessary to assess this strategically across the entire District.
- 7.29 **Table 7.4** identifies which parcels are within walking distance of the nearest secondary school, which will reduce the burden on school bus services to support new growth. This is the major cost associated with accommodating additional secondary education needs of children that are located outside the catchment of a school with available places.

Table 7.3 Summary of primary education needs by growth level and proximity of development parcel to primary school

Parcel	Existing provision	Re	equirements to accommoda	nte growth	
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1. Moreton & Affpuddle	Only a very small part of the parcel is within acceptable walking distance of the primary school at Bovingdon Camp (possible issue)	Extension to existing school (possible issue)	Possible extension of existing school <sup>1</sup> or new school <sup>2</sup> depending on unit numbers in other adjoining parcels (possible issue)	New school required <sup>3</sup> (significant issue)	New school required <sup>4</sup> (possible issue)
Turners Puddle     NW Bere     Regis	A small part of the parcel is within desirable walking distance of the primary school at Bere Regis (neutral)	Extension to existing school (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)
3. Bloxworth & NE Bere Regis	A small part of the parcel is within desirable walking distance of the primary school at Bere Regis (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels  (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)
4. Lane End & SE Bere Regis	A small part of the parcel is within desirable walking distance of the primary school at Bere Regis (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels  (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)
5. West Morden & East Morden	Part of the parcel is within acceptable walking distance of the primary school at Lytchett Matravers (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)
6. Lytchett Matravers & Lytchett Minster	A large part of the parcel is within desirable walking distance of the primary school at Lytchett Matravers (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)
7. Wool & East/West Burton	A large part of the parcel is within desirable walking distance of the primary school at Wool (neutral)	Possible extension to existing school – but linked to growth in adjoining parcels (possible issue)	Possible new school required depending on number of dwellings that are accommodated in surrounding locations, e.g. the area around Bovington Camp (significant issue)	New school required (significant issue)	New school required (possible issue)

Parcel	Existing provision	R	equirements to accommoda	ate growth	
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
8. Bovington Camp & Binnegar	Large parts of the parcel are within desirable walking distance of the primary schools at Wool and Bovingdon Camp. A small part of the parcel is within walking distance of the primary school at Crossways (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels  (possible issue)	Possible new school required depending on number of dwellings that are accommodated in surrounding locations, e.g. the area around Wool and East/West Burton (significant issue)	New school required (significant issue)	New school required (possible issue)
9. Piddle Valley & Trigon Hill	A large part of the parcel is within desirable walking distance of a primary school in Wareham (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels (possible issue)	Possible new school required depending on number of dwellings that are accommodated in surrounding locations, e.g. Wareham & East Holton (significant issue)	New school required (significant issue)	New school required (possible issue)
10. Wareham & East Holton	A large part of the parcel is within desirable walking distance of two primary schools in Wareham (neutral)	Possible extension to existing school  – but linked to growth in adjoining parcels  (possible issue)	Extension to existing school but could require a new school depending on numbers of dwellings that are accommodated in surrounding locations (possible issue)	New school required (significant issue)	New school required (possible issue)
11. Fossil Farms	A small part of the parcel is within desirable walking distance of the primary school at Winfrith Newburgh (neutral)	Possible extension to existing school – but linked to growth in adjoining parcels (possible issue)	New school required (significant issue)	New school required (significant issue)	New school required (possible issue)

<sup>&</sup>lt;sup>1</sup> DCC has stated that any extension would be to the first school and possibly the middle school (three tier system).

<sup>&</sup>lt;sup>2</sup> DCC has stated that a new school at Moreton & Affpuddle would be a middle school, if extension of the existing middle school provision is not sufficient (three tier system).

<sup>&</sup>lt;sup>3</sup> DCC has stated that any new school at Moreton & Affpuddle would be a middle school (three tier system).

<sup>&</sup>lt;sup>4</sup> DCC has stated that at Moreton & Affpuddle a new first school would be required and possibly a new middle school (three tier system).

Table 7.4 Summary of secondary education needs by growth level and proximity of development parcel to secondary school

Parcel	Existing provision		Requirements to acco	mmodate growth	
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1. Moreton & Affpuddle	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
2. Turners Puddle & NW Bere Regis	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
3. Bloxworth & NE Bere Regis	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
4. Lane End & SE Bere Regis	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
5. West Morden & East Morden	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
6. Lytchett Matravers & Lytchett Minster	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
7. Wool & East/West Burton	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)
8. Bovington Camp & Binnegar	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)

Par	cel	Existing provision	Requirements to accommodate growth					
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings		
9.	Piddle Valley & Trigon Hill	A large part of the parcel is within desirable walking distance of the secondary school in Wareham (neutral)	No impact (neutral)	Possible need to extend existing school (significant issue)	Possible need to extend existing school (significant issue)	Possible need to extend existing school (possible issue)		
10.	Wareham & East Holton	A large part of the parcel is within desirable walking distance of the secondary school in Wareham (neutral)	No impact (neutral)	Possible need to extend existing school (significant issue)	Possible need to extend existing school (significant issue)	Possible need to extend existing school (possible issue)		
11.	Fossil Farms	Not within 2km of a secondary school (possible issue)	Possible need to increase school bus services (possible issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (significant issue)	Possible need to extend existing school and likely increase in bus services (possible issue)		

## **Transport**

7.30 The proximity of each parcel of land to transport services is shown in **Appendix 4**.

#### Roads

- 7.31 Engagement has taken place with both DCC, as local highways authority, and Highways England, as the strategic authority. For growth levels below 500 dwellings, no specific infrastructure needs were identified and therefore there are no specific issues relating to deliverability of development in any of the parcels. This is distinct from site-specific mitigation which would still be needed in most if not all cases, mainly to ensure appropriate access to sites.
- 7.32 However, DCC did identify that they would consider, in accessibility terms, some more rural parcels to be unsustainable because of the lack of alternatives to the private car. These are shown below in **Table 7.5**.
- 7.33 None of the specific junction issues identified by Highways England and summarised in **Table 7.5** are currently priority issues within the Dorset Local Transport Plan 2017.

### **Public transport**

- 7.34 Through the study there has been engagement with GO Coast, the main bus company serving the District. In addition, DCC has provided commentary on the proximity of parcels to railway services.
- 7.35 **Table 7.6** summarises the main issues relating to public transport provision, including the analysis of proximity to bus stops and railway stations. All development parcels are within at least an acceptable walking distance of either a bus stop or a railway station. In the case of bus services, this does not take into account the frequency of services or their routes. At higher scales of growth (500 dwellings or more), there is a greater prospect of development contributing towards the improvement of existing bus services experience elsewhere is that at least 500 dwellings is needed to deliver and maintain a commercially feasible new bus service. However, at the highest levels of growth, the likely level of service improvement is well below the level of service needed to represent sustainable development; therefore this creates a major potential issue.
- 7.36 A number of the parcels are within a good buffer distance of both a railway station and a bus stop. This has meant that they are considered to be more sustainable locations given the choice of sustainable modes of transport.

## **Emergency services**

- 7.37 Fire and Rescue Services identified the following possible impacts which, at the higher levels of growth, could ultimately result in the need for a new fire station which would be unlikely to be funded solely through developer contributions (see **Table 7.7**). The impacts are based on a target response time of 10 minutes. A location being beyond the 10-minute catchment doesn't mean it cannot be served. Rather, this only becomes a problem when any new development planned is of a significant scale, e.g. 500 dwellings or more. Development at the higher scales of growth however would be able to make a greater contribution towards any specific needs identified.
- 7.38 In respect of Police services, the presence of any new development will always have some impact on the policing requirements of an area. The Police Service would therefore expect the need for appropriate infrastructure/facilities to support the increase in built environment and population. However, no fundamental issues were identified in respect of specific infrastructure provision.

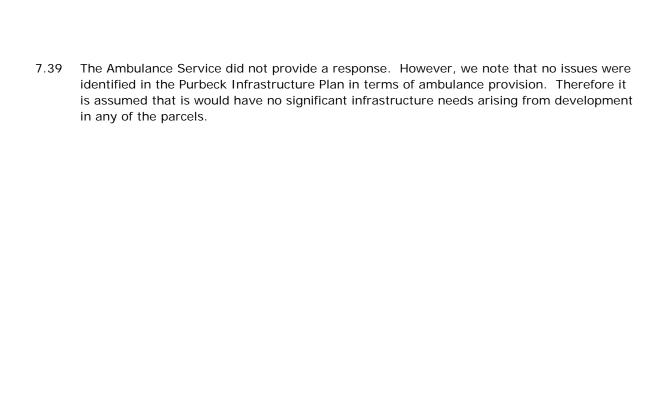


Table 7.5 Summary of accessibility and transport issues associated with growth

Parcel				Requirements to accommodate growth	
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1.	Moreton & Affpuddle	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on A35/Dorchester Road and A35/A31 Bere Regis junctions – full cost may be unlikely to be borne by developer (possible issue)	Possible significant impact on A35/Dorchester Road and A35/A31 Bere Regis junctions – full cost may be unlikely to be borne by developer (significant issue)
2.	Turners Puddle & NW Bere Regis	Sustainable location (neutral)	Sustainable location (neutral)	No identified issues (neutral)	Possible significant impact on A35/Dorchester Road and A35/A31 Bere Regis junctions – full cost may be unlikely to be borne by developer (significant issue)
3.	Bloxworth & NE Bere Regis	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on A35/A31 Bere Regis junction and at-grade junctions on A31 – full cost may be unlikely to be borne by developer (possible issue)	Possible significant impact on A35/A31 Bere Regis junction and at-grade junctions on A31 – full cost may be unlikely to be borne by developer (significant issue)
4.	Lane End & SE Bere Regis	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on A35/A31 Bere Regis junction – full cost may be unlikely to be borne by developer (possible issue)	Possible significant impact on A35/A31 Bere Regis junction – full cost may be unlikely to be borne by developer (significant issue)
5.	West Morden & East Morden	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on at-grade junctions on A31 – full cost may be unlikely to be borne by developer (possible issue)	Possible significant impact on at-grade junctions on A31 – full cost may be unlikely to be borne by developer (significant issue)
6.	Lytchett Matravers & Lytchett Minster	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on A31/A350 junction – full cost may be unlikely to be borne by developer (possible issue)	Possible impact on A31/A350 junction – full cost may be unlikely to be borne by developer (possible issue)
7.	Wool & East/West Burton	Sustainable location (neutral)	Sustainable location (neutral)	No identified issues (neutral)	Possible impact on A35/A31 Bere Regis junction and at-grade junctions on A31 – full cost may be unlikely to be borne by developer (possible issue)
8.	Bovington Camp & Binnegar	Sustainable location (neutral)	Sustainable location (neutral)	Possible queuing issues at A352 Wool level crossing during barrier downtime. Contributions from development unlikely to be capable of enabling issue to be addressed (possible issue)	Possible impact on A35/Dorchester Road and A35/A31 Bere Regis junctions – full cost may be unlikely to be borne by developer.  Possible queuing issues at A352 Wool level crossing during barrier downtime. Contributions from development unlikely to be capable of enabling issue to be addressed (significant issue)

Parcel	Requirements to accommodate growth						
	50 dwellings	250 dwellings	500 dwellings	1,000 dwellings			
9. Piddle Valley & Trigon Hill	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on A352 (possible issue)	Likely impact on A352 (possible issue)			
10. Wareham & East Holton	Sustainable location (neutral)	Sustainable location (neutral)	No identified issues (neutral)	Possible impact on road network			
11. Fossil Farms	Sustainable location (neutral)	Sustainable location (neutral)	Possible impact on road network (possible issue)	Possible impact on A35/A352 junction – full cost may be unlikely to be borne by developer (possible issue)			

Table 7.6 Summary of potential issues relating to public transport provision

Development parcel	Existing provision	50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1. Moreton & Affpuddle	Part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (neutral).	Scale of development will not contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (neutral)	Scale of development unlikely to contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)
2. Turners Puddle & NW Bere Regis	No rail links in close proximity.  Part of parcel within good buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)
3. Bloxworth & NE Bere Regis	No rail links in close proximity.  Part of parcel within good buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)
4. Lane End & SE Bere Regis	No rail links in close proximity.  Part of parcel within good buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)
5. West Morden &	No rail links in close proximity.	Scale of development will not contribute towards	Scale of development unlikely to contribute towards	Scale of development could contribute towards	Scale of development could contribute towards

De\ par	velopment cel	Existing provision	50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
	East Morden	Part of parcel within good buffer distance of bus stop (possible issue)	improvement of public transport services (possible issue)	improvement of public transport services (significant issue)	improvement of public transport services (bus only) (significant issue)	improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)
6.	Lytchett Matravers & Lytchett Minster	No rail links in close proximity.  Part of parcel within good buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)
7.	Wool & East/West Burton	Part of parcel within good buffer distance of rail station and bus stop (neutral)	Scale of development will not contribute towards improvement of public transport services (neutral)	Scale of development unlikely to contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)
8.	Bovington Camp & Binnegar	Part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (neutral)	Scale of development will not contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (neutral)	Scale of development unlikely to contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)
9.	Piddle Valley & Trigon Hill	No rail links in close proximity. Part of parcel within acceptable buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable

Development parcel	Existing provision	50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
					contribution towards sustainable patterns of movement (major issue)
10. Wareham & East Holton	Part of parcel within good buffer distance of rail station and bus stop (neutral)	Scale of development will not contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (neutral)	Scale of development unlikely to contribute towards improvement of public transport services but part of parcel within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)	Scale of development could contribute towards improvement of public transport services and part of parcel already within acceptable buffer distance of rail station and good buffer distance of bus stop (possible issue)
11. Fossil Farms	No rail links in close proximity.  Part of parcel within good buffer distance of bus stop (possible issue)	Scale of development will not contribute towards improvement of public transport services (possible issue)	Scale of development unlikely to contribute towards improvement of public transport services (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) (significant issue)	Scale of development could contribute towards improvement of public transport services (bus only) but unlikely to be sufficient to make reasonable contribution towards sustainable patterns of movement (major issue)

Table 7.7 Summary of impacts of growth levels on Fire and Rescue services

Par	cel	Existing provision		R	equirements to accommodate gr	owth
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1.	Moreton & Affpuddle	Parcel falls outside 10- minute response time	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)	Potentially could require a new fire station – full cost may be unlikely to be borne by developer (possible issue)
2.	Turners Puddle & NW Bere Regis	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)
3.	Bloxworth & NE Bere Regis	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)
4.	Lane End & SE Bere Regis	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)
5.	West Morden & East Morden	Parcel falls outside 10- minute response time	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)	Potentially could require a new fire station – full cost may be unlikely to be borne by developer (possible issue)
6.	Lytchett Matravers & Lytchett Minster	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)
7.	Wool & East/West Burton	Parcel falls outside 10- minute response time	No issue (neutral)	Minimal issues (neutral)	Potentially could require a new fire station – full cost highly unlikely to be borne by developer (possible issue)	Potentially could require a new fire station – full cost may be unlikely to be borne by developer (possible issue)
8.	Bovington Camp & Binnegar	Parcel falls outside 10- minute response time	No issue (neutral)	Minimal issues (neutral)	Potentially could require a new fire station – full cost highly unlikely to be borne by developer (possible issue)	Potentially could require a new fire station – full cost may be unlikely to be borne by developer (possible issue)
9.	Piddle Valley & Trigon Hill	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)

Parcel	Existing provision	Requirements to accommodate growth				
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings	
10. Wareham & East Holton	Parcel within 10-minute response time	No issue (neutral)	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)	
11. Fossil Farms	Parcel falls outside 10- minute response time	No issue (neutral)	Minimal issues (neutral)	Minimal issues (neutral)	Potentially could require a new fire station – full cost may be unlikely to be borne by developer (possible issue)	

# Utilities and waste management

### Drinking water and sewerage

- 7.40 Wessex Water is the provider of drinking water and sewerage services in the District.
- 7.41 No issues were identified for developments of 50 or 250 dwellings in any of the parcels. For 50-dwelling schemes, local network improvements would be required and for 250-dwelling schemes, network reinforcement is likely to be required. However, this is a standard requirement and is not sensitive to location, i.e. it doesn't matter where the scheme is brought forward, these improvements and reinforcement are expected to be necessary.
- 7.42 At the 500- and 1,000-dwelling scale of development, the needs were the same across all parcels, i.e. again, the requirements are not sensitive to location. For both scales of growth, it is predicted that a planned scheme of works would be required to boost provision in the network and also to increase treatment capacity. Whilst the connections may require major off-site work, e.g. mains upsizing, this is expected by Wessex Water and would not represent a significant issue in any case. This is summarised in **Table 7.8**.
- 7.43 Dorset County Council, as Lead Local Flood Authority, has identified localised surface water flooding issues exacerbated by sewerage capacity around Lytchett Minster 133. In addition, work to support a proposed urban extension at Wool also found that it would not be possible to discharge surface water run-off to the sewerage network due to distance from the network 134. These have the potential to impact on the Lytchett Matravers & Lytchett Minster and Wool & East/West Burton parcels, but the degree of constraint cannot be confirmed without site-level studies development of mitigation (for example sustainable drainage).

Table 7.8 Summary of impacts of growth levels of sewerage provision

	Requirements to accommodate growth						
	50 dwellings	250 dwellings	500 dwellings	1,000 dwellings			
All parcels	Local network improvements required (neutral)	Network enforcement likely to be required (neutral)	Planned scheme of works required to boost provision in the network as required and to increase treatment capacity (neutral)	Planned scheme of works required to boost provision in the network as required and to increase treatment capacity (neutral)			

#### Gas

7.44 National Grid and Southern Gas Network (the gas distribution network company for Purbeck) did not provide a response to the assessment. However, we note that no specific issues were identified in the Purbeck Infrastructure Plan in terms of gas provision. It is therefore assumed that, whilst the connection costs from a gas distribution network system to a new residential development will be met by the developer as part of the build costs, the provision of gas infrastructure is unlikely to be a fundamental issue in any of the development parcels.

<sup>&</sup>lt;sup>133</sup> Environment Agency/Dorset County Council/Wessex Water and Purbeck District Council (2016) *Lytchett Minster Flood Risk Study*, Non-Technical Summary

<sup>&</sup>lt;sup>134</sup> Peter Brett Associates (2017) *Flood Risk and Surface Water Drainage: Technical Overview – Wool Urban Extension*, for Lulworth Estate and Redwood Partnership

#### **Electricity**

7.45 SSE, the electricity company serving the District, did not provide a response to the assessment. However, we note that no specific issues were identified in the Purbeck Infrastructure Plan in terms of electricity provision. It is therefore assumed that, whilst the electricity connection costs to a new residential development will normally be apportioned between developer and DNO (Distribution Network Operator), the provision of electricity infrastructure is unlikely to be a fundamental issue in any of the development parcels.

#### Waste and recycling

- 7.46 Waste and recycling is dealt with by the Dorset Waste Partnership which brings together the seven Dorset councils to provide waste, recycling and street cleaning services.
- 7.47 Any significant scale of growth in the District would likely require improved Household Recycling Centre (HRC) facilities in Wareham. The existing HRC in Swanage is a modern, purpose-built facility so would not be upgraded. At the current time there is no funding for any improvement to the Wareham HRC and therefore developer contributions would be sought. In this regard, a greater proportion of development would increase the levels of funding to support the required improvements, but it is not known at the present time what the costs would be and therefore what level of contribution would be required for each scale of growth.
- 7.48 Whilst the operational depot in Wareham has funding to carry out improvements to accommodate additional collection vehicles, there are likely to be future pressures on the service to collect waste from new developments. This may require extension or replacement to service the number of proposed new properties identified. Funding would also be required to increase the operational fleet and associated running costs, along with extra staff to service the new collection rounds. This may come from developer contributions or perhaps more likely, through Council Tax revenues.
- 7.49 None of these matters identified represent fundamental restrictions to growth in any of the development parcels.

#### Health

- 7.50 Since April 2013 the Dorset Clinical Commissioning Group (Dorset CCG) has been responsible for primary care, community services, mental health services and acute hospital care across the areas previously covered by NHS Dorset and NHS Bournemouth & Poole. Dorset CCG area is divided into localities and the majority of the District is covered by the Purbeck locality which includes GP practices in Wool, Wareham, Sandford, Corfe Castle, Swanage and Bere Regis.
- 7.51 The GP surgeries in Upton and Lytchett Matravers are located in the geographical area of NHS Dorset, but are serviced by the Adams Practice which is based outside the Purbeck locality in Poole.
- 7.52 In addition there are two community hospitals in Purbeck at Wareham and Swanage. The proximity of each parcel of land to health facilities is shown in **Appendix 4**. The assessment is shown in **Table 7.9**.

Table 7.9 Potential issues with GP provision

Par	rcel	Existing provision	Requirements to accommodate growth					
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings		
1.	Moreton & Affpuddle	Small part of parcel is within desirable distance of Atrium Health Centre. Expansion on the existing site is not possible.	No issues (neutral)	No issues (neutral)	Additional primary care infrastructure likely to be needed (possible issue)	Additional primary care infrastructure likely to be needed (possible issue)		
2.	Turners Puddle & NW Bere Regis	Small part of parcel is within desirable distance of Bere Regis Surgery. An extension is planned to the existing surgery. However, additional planned growth at Moreton and Crossways could impact on provision.	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed but is likely to be accommodated through planned expansion (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed but is likely to be accommodated through planned expansion (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed which could be accommodated through planned expansion (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed which is unlikely to be capable of being accommodated through planned expansion. Further expansion would be necessary but is possible on the site (possible issue).		
3.	Bloxworth & NE Bere Regis	Small part of parcel is within desirable distance of Bere Regis Surgery. An extension is planned to the existing surgery. However, additional planned growth at Moreton and Crossways could impact on provision.	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed which could be accommodated through planned expansion (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed which is unlikely to be capable of being accommodated through planned expansion. Further expansion would be necessary but is possible on the site (possible issue)		

Par	cel	Existing provision		Requiremer	nts to accommodate growth	
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
4.	Lane End & SE Bere Regis	Small part of parcel is within desirable distance of Bere Regis Surgery. An extension is planned to the existing surgery. However, additional planned growth at Moreton and Crossways could impact on provision.	No issues (neutral)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure may be needed (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure may be needed which could be accommodated through planned expansion (possible issue)	Potential to create capacity issues at Bere Regis Surgery. Additional primary care infrastructure will be needed which is unlikely to be capable of being accommodated through planned expansion. Further expansion would be necessary but is possible on the site (possible issue)
5.	West Morden & East Morden	Not within acceptable distance of any surgery. Nearest surgery is Lytchett Matravers which is unable to expand on present site, although it is not fully manned currently.	No issues (neutral)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional primary care infrastructure may be needed but surgery is unable to expand on present site (possible issue)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional primary care infrastructure will be needed but surgery is unable to expand on present site. Planned growth at Bere Regis Surgery could potentially accommodate this growth, although this is outside the acceptable distance for patients to travel sustainably to access healthcare provision (significant issue)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional primary care infrastructure will be needed but surgery is unable to expand on present site. Planned growth at Bere Regis Surgery unlikely to be capable of accommodating this growth and its location is outside the acceptable distance for patients to travel sustainably to access healthcare provision (significant issue)
6.	Lytchett Matravers & Lytchett Minster	Lytchett Matravers surgery is within parcel. Surgery is unable to expand on present site, although it is not fully manned currently. A small part of the parcel is within acceptable distance of Sandford Surgery which has some capacity for additional patients.	No issues (neutral)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional capacity is available at Sandford Surgery to accommodate the additional patients (neutral)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional capacity is available at Sandford Surgery to accommodate the additional patients and there is physical capacity to expand Sandford Surgery on its existing site (possible issue)	Potential to create capacity issues at the Lytchett Matravers surgery. Additional capacity is available at Sandford Surgery to accommodate the additional patients and there is physical capacity to expand Sandford Surgery on its existing site (possible issue)

Par	cel	Existing provision		Requiremer	nts to accommodate growth	
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
7.	Wool & East/West Burton	Wellbridge Practice in Wool is within the parcel. Surgery is able to expand on its current site to meet growth needs.	No issues (neutral)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)
8.	Bovington Camp & Binnegar	Small part of parcel is within desirable distance of Wellbridge Practice in Wool. Surgery is able to expand on its current site to meet growth needs.	No issues (neutral)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)
9.	Piddle Valley & Trigon Hill	Small part of parcel is within desirable distance of Wareham Surgery. Expansion of surgery provision is being planned.	No issues provided planned expansion of surgery provision is delivered (neutral)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which should be capable of being accommodated if planned expansion of surgery provision is delivered (possible issue)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which may be capable of being accommodated if planned expansion of surgery provision is delivered (possible issue)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which may require further expansion of surgery provision beyond that which is planned. However, there is capacity at Sandford Surgery to accommodate such expansion (possible issue)

Parcel	Existing provision		Requiremer	nts to accommodate growth	
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
10. Wareham & East Holton	Small part of parcel is within desirable distance of Wareham and Sandford Surgeries. Expansion of surgery provision is being planned.	No issues provided planned expansion of surgery provision is delivered (neutral)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which should be capable of being accommodated if planned expansion of surgery provision is delivered (possible issue)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which may be capable of being accommodated if planned expansion of surgery provision is delivered (possible issue)	Potential to create capacity issues at Wareham Surgery. Additional primary care infrastructure will be needed which may require further expansion of surgery provision beyond that which is planned. However, there is capacity at Sandford Surgery to accommodate such expansion (possible issue)
11. Fossil Farms	Not within acceptable distance of any surgery. Nearest surgery is Wellbridge Practice in Wool. Surgery is able to expand on its current site to meet growth needs.	No issues (neutral)	Potential to create capacity issues at Wellbridge Practice in Wool. Additional primary care infrastructure will be needed (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)	Potential to create capacity issues at the Wellbridge Practice in Wool. Additional primary care infrastructure will be needed but there is capacity to expand on the present site (possible issue)

- 7.53 The growth at higher scales would undoubtedly put more pressure on GP services. Where there is only limited existing capacity to support growth this may create problems, particularly if an existing surgery is not able to be expanded on its existing site. In such circumstances, higher levels of growth (1,000 dwellings or more) in locations close to existing settlements create a more sustainable scenario because they create the possibility that growth will be able to support and secure the delivery of a new, enlarged GP service.
- 7.54 It is important to stress that patients do have a choice of which GP surgery they wish to register with so it is difficult to accurately predict needs.

### Retail

7.55 An assessment has been undertaken of the proximity of each of the parcels to a retail centre of significance. As defined in the 2012 Local Plan, these are:

Towns	Key Service Villages	Local Service Villages
Swanage	Bere Regis	Langton Matravers
Upton	Bovington	Stoborough
Wareham	Corfe Castle	West Lulworth
	Lytchett Matravers	Winfrith Newburgh
	Sandford	
	Wool	
	*Crossways	

Source: Purbeck Local Plan 2012, Policy LD: General Location of Development

- 7.56 There is also a local centre within Wareham that is separate from the town centre. The proximity of each parcel of land to shops is shown in **Appendix 4**.
- 7.57 The general principle adopted is that if development is of 250 dwellings or less and part of the parcel is within 800m of a local centre or 1,000m of a town centre, then that parcel is generally considered to be sustainable (these being the maximum acceptable walking distances of these service centres). At levels of growth above 250 dwellings, the sustainability of a parcel depends on a combination of proximity to a local centre and its position in the retail hierarchy so development close to any of the three towns is considered to be more sustainable than the same level of growth close to a Local Service Village.
- 7.58 It is generally assumed that growth of 500 dwellings will support the provision of a new convenience retail facility and that growth of 1,000 dwellings will support a small cluster of retail facilities. However, at these scales of growth, this of itself does not make new development sustainable. **Table 7.10** summarises the assessment of sustainability with respect to retail services.
- 7.59 This shows there to be significant variations between development parcels in terms of their sustainability. Consistently however, the higher levels of growth (500 dwellings or more) represent more sustainable options if services are within desirable or acceptable walking distances of an existing retail centre particularly a local centre than smaller scales of growth, and less sustainable options if they are not within acceptable walking distances. In addition, at the highest scales of growth there is a greater likelihood that there will be onsite provision of a range of retail facilities including, for example, a small supermarket. However, all such provision is driven entirely by the market for retail services.

<sup>\*</sup>Whilst Crossways is in West Dorset, Weymouth and Portland Borough and is not defined as a 'key service village' in its Local Plan, the level of retail services provided in Crossways is considered to represent a scale equivalent to a key service village.

Table 7.10 Retail service sustainability of development

Pai	rcel	Existing provision		Requirements to a	ccommodate growth	
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1.	Moreton & Affpuddle	Parcel within acceptable walking distance of Crossways, a village with services equivalent to a Key Service Village	Limited impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Crossways, a village with services equivalent to a Key Service Village (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Crossways, a village with services equivalent to a Key Service Village (potential positive)
2.	Turners Puddle & NW Bere Regis	Part of parcel within desirable walking distance of Bere Regis Key Service Village	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Bere Regis Key Service Village (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Bere Regis Key Service Village (potential positive)
3.	Bloxworth & NE Bere Regis Part of parcel within desirable walking distance of Bere Regis Key Service Village		No impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Bere Regis Key Service Village (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Bere Regis Key Service Village (potential positive)

Par	cel	Existing provision		Requirements to ac	commodate growth	
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
4.	Lane End & SE Bere Regis	Part of parcel within acceptable walking distance of Bere Regis Key Service Village	No impact on sustainability (neutral)	Limited impact on sustainability but scale of development unlikely to create sufficient demand to bring forward any additional retail provision (possible issue)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Bere Regis Key Service Village (neutral)	Considerable impact on sustainability due to distance from Wool Key Service Village but scale of development likely to create sufficient demand to bring forward enhancements to the range of retail facilities in Bere Regis (neutral)
5.	West Morden & East Morden	Parcel not within acceptable walking distance of any local centre	Limited impact on sustainability (neutral)	Limited impact on sustainability but scale of development unlikely to create sufficient demand to bring forward any additional retail provision (possible issue)	Significant impact on sustainability but scale of development likely to create sufficient demand to bring forward some basic convenience services on-site (possible issue)	Major impact on sustainability but scale of development likely to create sufficient demand to bring forward a range of convenience and possibly wider services (possible issue)
6.	Lytchett Matravers & Lytchett Minster	Parcel contains Key Service Village of Lytchett Matravers	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Lytchett Matravers Key Service Village (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Lytchett Matravers Key Service Village (potential positive)
7.	Wool & East/West Burton	Part of parcel within desirable walking distance of Wool Key Service Village	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wool Key Service Village (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wool Key Service Village (potential positive)

Par	cel	Existing provision		Requirements to ac	commodate growth	
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
8.	Bovington Camp & Binnegar	Part of parcel within acceptable walking distance of Wool Key Service Village	No impact on sustainability (neutral)	Limited impact on sustainability but scale of development unlikely to create sufficient demand to bring forward any additional retail provision (possible issue)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wool Key Service Village (neutral)	Considerable impact on sustainability due to distance from Wool Key Service Village but scale of development likely to create sufficient demand to bring forward enhancements to the range of retail facilities in Wool (neutral)
9.	Piddle Valley & Trigon Hill	Part of parcel within acceptable walking distance of the local centre in Wareham	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Considerable impact on sustainability but scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wareham Local Centre (neutral)	Positive impact on sustainability as scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wareham Local Centre as well as some basic convenience facilities onsite (potential positive)
10.	Wareham & East Holton	Large part of parcel within desirable walking distance of Wareham town centre	No impact on sustainability (neutral)	No impact on sustainability (neutral)	No impact on sustainability and scale of development likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wareham Local Centre (potential positive)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to range of retail facilities in Wareham Local Centre (potential positive)
11.	Fossil Farms	Parcel not within acceptable walking distance of any local centre	Limited impact on sustainability (neutral)	Limited impact on sustainability but scale of development unlikely to create sufficient demand to bring forward any additional retail provision (possible issue)	Significant impact on sustainability but scale of development likely to create sufficient demand to bring forward some basic convenience services on-site (possible issue)	Major impact on sustainability but scale of development likely to create sufficient demand to bring forward a range of convenience and possibly wider services (possible issue)

### Leisure

- 7.60 An assessment has been undertaken of the proximity of each of the parcels to managed facilities either leisure facilities (sports centres), outdoor sporting activities or, separately, outdoor sports pitches. Proximity to a sports centre is considered to represent a more sustainable option because such facilities offer a wider range of services that people regularly use. This is shown in **Table 7.10**. The proximity of each parcel of land to schools is shown in **Appendix 4**.
- 7.61 The general principle adopted is that if development is of 250 dwellings or less and part of the parcel is within 1,200m of any type of sports/leisure facility, then that parcel is generally considered to be sustainable (these being the maximum acceptable walking distances to these types of facilities). At levels of growth above 250 dwellings, the sustainability of a parcel depends on a combination of proximity to facilities and the range of facilities it is near to.
- 7.62 It is generally assumed that growth of 500 dwellings will support the provision of new sports pitches 135 and other outdoor facilities and that growth of 1,000 dwellings could support the development of a new indoor sports hall 136. However, at these scales of growth, this of itself does not make new development sustainable. This assessment does not take account of the quality of these existing facilities or their ability to support additional users.
- 7.63 **Table 7.11** summarises the assessment of sustainability in respect of leisure facilities. This shows that generally, growth in most development parcels can be located within desirable or acceptable walking distance of some community facilities and often a combination of facilities. Therefore, at higher scales of growth, this makes development relatively more sustainable where there is the capacity to support the new development at the existing facilities. This is because a greater proportion of new growth can be supported in a sustainable manner by these facilities. Indeed, at the highest levels of growth there is the potential for new provision of both indoor and outdoor leisure facilities.

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<sup>135</sup> Based on an average of 2.4 persons per dwelling along with a standard of 1.2ha of sports pitches being required to support 1,000 population (source: Fields in Trust guidance) and a grass football pitch needing 0.742ha, this equates to approximately two pitches. This is reasonable because provision is rarely made of single grass pitches due to the inefficiency this creates for its management and maintenance.

<sup>&</sup>lt;sup>136</sup> Based on an average of 2.4 persons per dwelling along with a commonly used standard of 3,000-3,450 persons per indoor court (i.e. badminton court), 1,000 dwellings is considered just about sufficient to possibly justify provision of a 1-court sports hall.

Table 7.11 Sustainability of development in respect of leisure facilities

Par	cel	Existing provision			Requirements to accommodate gro	wth
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
1.	Moreton & Affpuddle	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Moreton	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
2.	Turners Puddle & NW Bere Regis	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Bere Regis	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
3.	Bloxworth & NE Bere Regis	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Bere Regis	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
4.	Lane End & SE Bere Regis	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Bere Regis.  Small part of parcel within desirable walking distance of leisure centre in Wareham	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
5.	West Morden & East Morden	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities close to Lytchett Matravers and East Morden	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
6.	Lytchett Matravers & Lytchett Minster	Large part of parcel within desirable walking distance of sports pitches, outdoor sports facilities and the leisure facilities at Lytchett Minster School	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)

Par	cel	Existing provision			Requirements to accommodate gro	wth
			50 dwellings	250 dwellings	500 dwellings	1,000 dwellings
7.	Wool & East/West Burton	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Wool	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
8.	Bovington Camp & Binnegar	Large part of parcel within desirable walking distance of sports pitches, outdoor sports facilities and a leisure centre associated with Bovington Army Camp	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
9.	Piddle Valley & Trigon Hill	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Wareham	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
10	Wareham & East Holton	Large part of parcel within desirable walking distance of sports pitches, outdoor sports facilities and a leisure centre in Wareham town	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)
11	Fossil Farms	Large part of parcel within desirable walking distance of sports pitches and outdoor sports facilities in Winfrith Newburgh	No impact on sustainability (neutral)	No impact on sustainability (neutral)	Some impact on sustainability but scale of development likely to create sufficient demand to bring forward some limited additional outdoor provision on-site (neutral)	Positive impact on sustainability as scale of development highly likely to create sufficient demand to bring forward enhancements to indoor and outdoor leisure provision in (potential positive)

### Green Belt

7.64 This section explains the status of Green Belt land within the District, summarises the work undertaken by Purbeck District Council, and considers the implications of this for housing delivery.

#### Context

National planning policy

- 7.65 With respect to Green Belt, paragraph 80 of the NPPF states that the five fundamental purposes of Green Belt are as follows:
  - To check the unrestricted sprawl of large built up areas;
  - To prevent neighbouring towns merging into one another;
  - To assist in safeguarding the countryside from encroachment;
  - To preserve the setting and special character of historic towns; and
  - To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 7.66 Planning authorities are strongly urged to follow the NPPF's detailed advice when considering whether to permit development in the Green Belt. In the Green Belt there is a general presumption against inappropriate development, unless 'very special circumstances' can be demonstrated to show that the benefits of the development will outweigh the harm caused to the Green Belt.
- 7.67 The NPPF also states that local planning authorities with Green Belts in their area should establish Green Belt boundaries in their Local Plans which set the framework for Green Belt and settlement policy. Once established, Green Belt boundaries should only be altered in 'exceptional circumstances', through the preparation or review of the Local Plan. The Housing White Paper (2017)<sup>137</sup> sets out the key tests local authorities need to follow in order to justify the exceptional circumstances needed for the release of Green Belt land. Local planning authorities must demonstrate that they have examined fully all other reasonable options for meeting their identified development requirements, including:
  - Making effective use of suitable brownfield sites and the opportunities offered by estate regeneration;
  - The potential offered by land which is currently underused, including surplus public sector land where appropriate;
  - Optimising the proposed density of development; and
  - Exploring whether other authorities can help to meet some of the identified development requirement.
- 7.68 Although not currently part of national planning policy, the Housing White Paper sets out proposed key tests for the release of Green Belt land. The Housing White Paper states that where land is removed from the Green Belt, local policies should require the impact to be offset by compensatory improvements to the environmental quality or accessibility of remaining Green Belt land. This is in line with paragraph 81 of the NPPF which states that:

"Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land."

<sup>&</sup>lt;sup>137</sup> At the time of writing, the Housing White Paper consists of proposals which are subject to consultation and therefore possible change.

#### Local planning policy

7.69 Policies CEN: Central Purbeck and NE: Northeast Purbeck, state that the Green Belt will be maintained, subject to some identified alterations. Policy RES: Rural Exception Sites permits affordable housing "adjacent to existing settlements within the Green Belt, where it meets an identified housing need and does not harm the function or integrity of the Green Belt." and Policy TA: Tourist Accommodation and Attractions protects the Green Belt from new tourism sites or extensions to existing chalet or camping sites.

### **Current baseline**

- 7.70 The South East Dorset Green Belt was established by the South East Dorset Structure Plan (1980) but Purbeck's boundaries were not formalised until the adoption of the North East Purbeck Local Plan in 1994. This was subsequently updated in 2012 in the PLP1 which altered the Green Belt to follow more practical boundaries.
- 7.71 The north east of the District lies within the South East Dorset Green Belt which "serves to prevent coalescence of settlements through a westward sprawl of the Poole/ Bournemouth conurbation. It bounds Holton Heath, Lytchett Matravers, Lytchett Minster, Sandford, Upton and Wareham." 138
- 7.72 A Green Belt review was undertaken in 2012 and recommendations for the alterations to the Green Belt boundary were incorporated into the PLP1 Local Plan. In 2015, land put forward by landowners for potential new housing sites, as part of the Local Plan Review Issues and Options work were subjected to a Green Belt review 139. This work identified sites suitable for potential release from the Green Belt, i.e. sites in Lytchett Matravers, Lytchett Minster & Upton, Morden, Sandford, and North Wareham. Several of these sites would harm the Green Belt, however these proposals were considered to have sustainability credentials as they are within close proximity to services and facilities in nearby settlements.
- 7.73 Purbeck District Council is in the process of updating its Green Belt review and has provided some preliminary findings, as shown below.

#### Green Belt review initial findings

- 7.74 Purbeck District Council is in the process of updating its Green Belt review. It has considered the performance of a number of Green Belt parcels, against four of the Green Belt purposes as defined in the NPPF and its fundamental aims of openness and permanence. The parcels considered are shown in **Figure 7.2** alongside the Council's initial ranking of their overall contribution to Green Belt purposes. Further information on the reasons for each ranking is provided in **Table 7.12**.
- 7.75 Purbeck District Council has not yet considered whether any of the parcels would be suitable for removal from the Green Belt, without detriment to the integrity of the Green Belt as a whole. Therefore the findings of the Purbeck Green Belt Review provide additional information only; they cannot be used to identify sites that may be more or less deliverable, at this stage.

<sup>138</sup> Purbeck Local Plan Partial Review: Green Belt Review (2015) https://www.dorsetforyou.gov.uk/media/201408/Green-Belt-Review/pdf/Green\_Belt\_Review.pdf

 $<sup>^{139} \ \</sup>text{https://www.dorsetforyou.gov.uk/media/214764/green-belt-review-options-2016/pdf/green-belt-review-options-2016.pdf}$ 

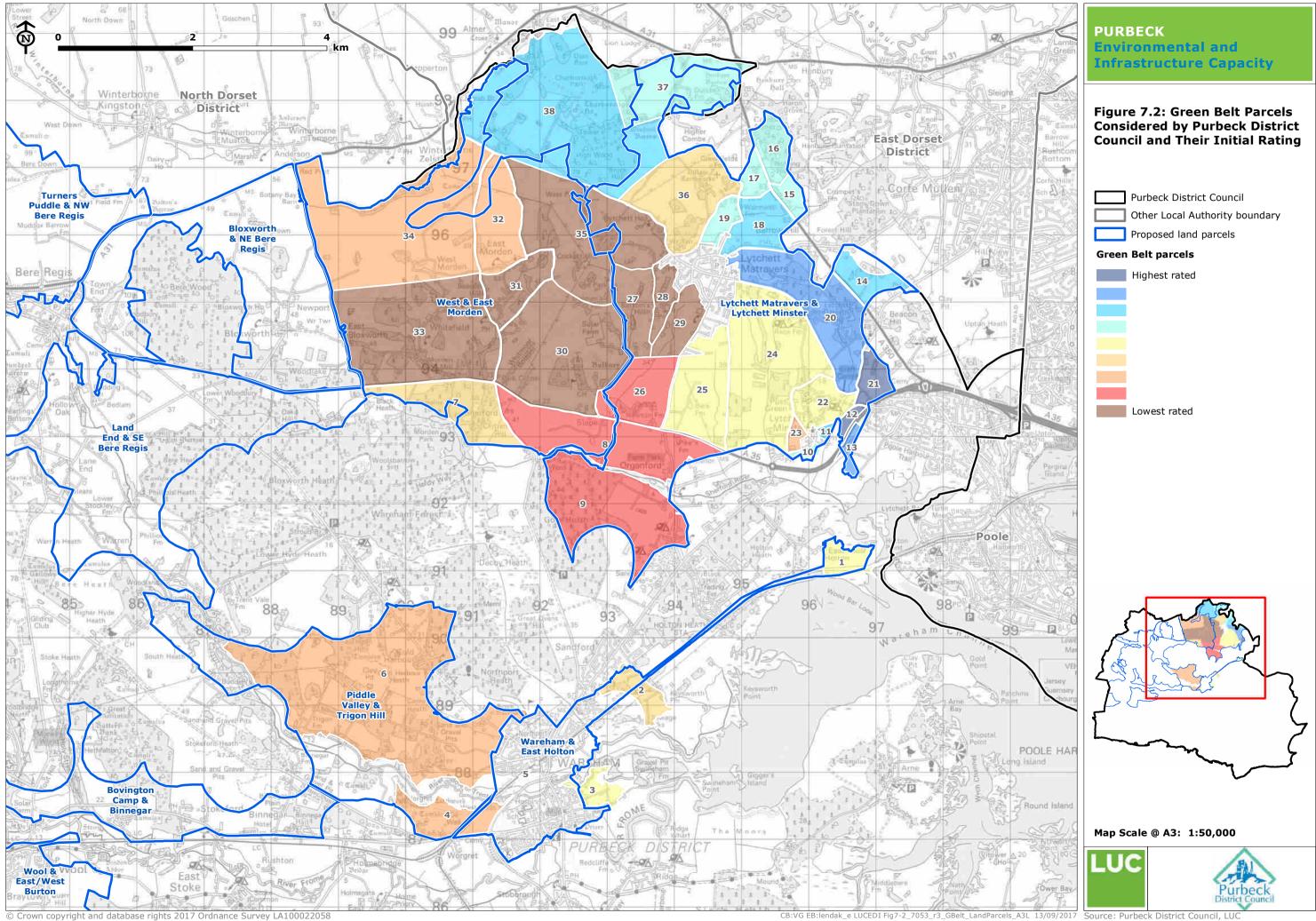


Table 7.12 Initial findings from Purbeck District Council's Green Belt review

Green Belt parcel	Openness	Permanence	NPPF Purpose 1: Check the unrestricted sprawl of large built-up areas	NPPF Purpose 2: Prevent neighbouring towns from merging	NPPF Purpose 3: Assist in safeguarding the countryside from encroachment	NPPF Purpose 4: Preserve the setting and special character of historic towns	High = 3 points Medium = 2 points Low = 1 point No = 0 points	1st = highest rated Green Belt parcel 9th = lowest rated Green Belt parcels
1	High	Medium	No	Medium	High	No	10	5th
2	High	Medium	No	Low	High	No	9	6th
3	High	Medium	No	Low	Medium	Medium	10	5th
4	Medium	High	No	No	Medium	Low	8	7th
5	High	High	No	No	High	High	12	3rd
6	Medium	High	No	No	Medium	Low	8	7th
7	High	High	No	No	High	No	9	6th
8	Medium	High	No	No	Medium	No	7	8th
9	Medium	High	No	No	Medium	No	7	8th
10	High	Medium	Medium	Low	High	No	11	4th
11	High	Medium	Medium	Medium	High	No	12	3rd
12	High	High	High	Medium	High	No	14	1st
13	High	Medium	High	Medium	High	No	13	2nd
14	High	High	Medium	Low	High	No	12	3rd
15	High	High	Low	No	High	No	11	4th
16	High	High	Low	No	High	No	11	4th
17	High	High	Low	Low	High	No	11	4th
18	High	High	Low	Medium	High	No	12	3rd
19	High	Medium	Low	Medium	High	No	11	4th
20	High	High	Medium	Medium	High	No	13	2nd

Green Belt parcel	Openness	Permanence	Check the unrestricted sprawl of large built-up areas	Prevent neighbouring towns from merging	Assist in safeguarding the countryside from encroachment	Preserve the setting and special character of historic towns	High = 3 points Medium = 2 points Low = 1 point No = 0 points	1st = highest rated Green Belt parcel 9th = lowest rated Green Belt parcels
21	High	High	High	Medium	High	No	14	1st
22	Medium	Medium	Medium	Medium	Medium	No	10	5th
23	Medium	Medium	Low	Low	Medium	No	8	7th
24	Medium	Medium	Medium	Medium	Medium	No	10	5th
25	High	Medium	Low	Low	High	No	10	5th
26	Medium	Medium	No	Low	Medium	No	7	8th
27	Medium	Medium	No	No	Medium	No	6	9th
28	Medium	Medium	No	No	Medium	No	6	9th
29	Medium	Medium	No	No	Medium	No	6	9th
30	Medium	Medium	No	No	Medium	No	6	9th
31	Medium	Medium	No	No	Medium	No	6	9th
32	High	Medium	No	No	High	No	8	7th
33	Medium	Medium	No	No	Medium	No	6	9th
34	High	Medium	No	No	High	No	8	7th
35	Medium	Medium	No	No	Medium	No	6	9th
36	Medium	Medium	Low	Medium	Medium	No	9	6th
37	High	Medium	Low	Medium	High	No	11	4th
38	High	High	Low	Medium	High	No	12	3rd

## Summary

- 7.76 There are no fundamental issues associated with any of the scales of growth proposed in any of the development parcels that would prevent development coming forward. However, there are in many cases significant issues that would need to be addressed. Whilst higher growth will bring greater levels of developer contribution, they are also likely to trigger significantly higher needs in terms of new infrastructure, particularly for key items such as education and transport. However, this may also be the case where smaller growth is proposed in a number of neighbouring parcels.
- 7.77 The assessment also shows a number of potential sustainability benefits if development is taken forward in certain parts of particular development parcels. In all cases, these are the parts of the parcels that are closest to or adjacent to existing settlements. It has been assumed that any development would be in those parts of parcels that would be delivered in the form of extensions to existing settlements.
- 7.78 The only exception to this is the delivery of development at the 1,000-dwelling. Considering the likely education requirement for new school provision to support this level of growth (this being one of the most significant costs in terms of infrastructure provision to support growth), this would mean that a significant proportion of any developer contributions would be required to address solely education provision. Yet alongside this in some parcels there are likely to be significant requirements in terms of transport (road and improvements to public transport, also being one of the largest infrastructure costs alongside education), and for health and community infrastructure. Subject to other site specific issues, it is therefore possible in some parcels that these requirements, in aggregate, would render development unviable unless funding could be secured from other sources.
- 7.79 Many of the areas of Green Belt considered in Purbeck District Council's review do not perform well against the NPPF Green Belt purposes and aims. Although it may be possible to remove some areas from Green Belt designation, further work needs to be done to determine the effect of doing so on the integrity of the Green Belt as a whole. Green Belt has therefore not been considered further in the assessment of housing deliverability.
- 7.80 **Table 7.13** shows a high level summary of the issues relating to each parcel. This suggests that the parcels and particular locations within those parcels with the fewest significant sustainability issues and the greatest potential to deliver positive impacts at the highest scales of growth are:
  - Moreton & Affpuddle close to Crossways;
  - Wool and East/West Burton close to Wool;
  - Wareham and East Holton close to Wareham; and
  - Bovington Camp and Binnegar close to Bovington Camp.
- 7.81 All other locations do not have any significant sustainability issues at 50 dwellings but do for developments of 250 dwellings or above.
- 7.82 Table 7.13 summarises the likely deliverability issues in respect of infrastructure for each parcel, the most sustainable location for development within each parcel, and the most sustainable levels of growth there, based on proximity to infrastructure and services. This study therefore suggests that in the region of 550 to 4,350 dwellings could be accommodated within these parcels, subject to further assessment. This range of dwellings is subject to a number of factors which will require more detailed work, e.g. on the availability of land, viability and the overall package of infrastructure proposed to deliver development.
- 7.83 However, it is important that the assessment is not seen as a ranking of the sites or providing a definitive number of dwellings that could be accommodated. The assessment

criteria used should not be assigned a score for each part of the assessment in order to arrive at an aggregate score for a site. To conclude that a site scoring higher than another site, at this scale of assessment, and is therefore definitively more sustainable cannot be robustly justified. Further work would be needed with the infrastructure providers to determine the specific issues based on the particular location of development within a parcel and the precise number of dwellings proposed.

- 7.84 Moreover, the identification of the 'most sustainable approach' for each location doesn't necessarily mean that other approaches couldn't be considered. For example, some of the issues identified under the 250- and 500- dwelling scenarios may be capable of being overcome, through an alternative approach.
- 7.85 This study does however demonstrate that the most sustainable locations (in terms of infrastructure and services) are those adjacent to larger settlements, in this case Wareham, Wool and Moreton. The sustainability of development at Bovington Camp and Binnegar is within the context of the existing range of services provided by the British Army. As such, the long term potential of any growth in this location would be intrinsically tied to decisions made by the British Army in respect of its future strategy for Bovington Camp.

Table 7.13 Summary of the likely deliverability issues for each assessment parcel and most sustainable locations/scales of growth for development within each parcel

Parcel		Requirements	to accommodate growth	Most sustainable location for development	Most sustainable scales of growth		
		50 dwellings	250 dwellings	500 dwellings	1,000 dwellings		
1.	Moreton & Affpuddle	No significant issues	No significant issues	Significant issue: primary education, secondary education, roads	Significant issue: roads Potential positive: Leisure	Close to Crossways	50-250 dwellings or 1,000 dwellings
2.	Turners Puddle & NW Bere Regis	No significant issues	Significant issue: public transport	Significant issue: primary education, secondary education, roads, public transport	Major issue: Public transport No significant issues Potential positive: retail, leisure	Close to Bere Regis	50 dwellings
3.	Bloxworth & NE Bere Regis	No significant issues	Significant issue: primary education, public transport	Significant issue: primary education, secondary education, roads, public transport	Major issue: Public transport No significant issues Potential positive: retail, leisure	Close to Bere Regis	50 dwellings
4.	Lane End & SE Bere Regis	No significant issues	Significant issue: primary education, public transport	Significant issue: primary education, secondary education, roads, public transport	Major issue: Public transport No significant issues Potential positive: leisure	Close to Bere Regis	50 dwellings
5.	West Morden & East Morden	No significant issues	Significant issue: primary education, public transport	Major issue: Health Significant issue: primary education, secondary education, roads, public transport, health	Major issue: Public transport Significant issue: health Potential positive: leisure	Close to Lytchett Matravers	50 dwellings

Parcel		Requirements	to accommodate growt	Most sustainable location for development	Most sustainable scales of growth		
6.	Lytchett Matravers & Lytchett Minster	No significant issues	Significant issue: primary education, public transport	Significant issue: primary education, secondary education, public transport	Major issue: Public transport Potential positive: retail, leisure	Close to Lytchett Matravers	50 dwellings
7.	Wool & East/West Burton	No significant issues	Significant issue: primary education	Significant issue: primary education, secondary education	No significant issues  Potential positive: retail, leisure	Close to Wool	50 dwellings or 1,000 dwellings
8.	Bovington Camp & Binnegar	No significant issues	Significant issue: primary education	Significant issue: primary education, secondary education	No significant issues Potential positive: leisure	Close to Bovington Camp	50 dwellings or 1,000 dwellings
9.	Piddle Valley & Trigon Hill	No significant issues	Significant issue: primary education, public transport	Significant issue: primary education, secondary education, public transport, health	Major issue: Public transport, health No significant issues Potential positive: retail, leisure	Close to Wareham	50 dwellings
10.	. Wareham & East Holton	No significant issues	Significant issue: primary education	Significant issue: primary education Secondary Education	No significant issues  Potential positive: retail, leisure	Close to Wareham	50 dwellings or 1,000 dwellings
11.	Fossil Farms	No significant issues	Significant issue: Primary Education Public transport	Significant issue: primary education Secondary education Public transport	Major issue: Public transport No significant issues Potential positive: leisure	Close to Winfrith Newburgh	50 dwellings

# 8 Conclusions

8.1 This chapter concludes the assessment with a combined summary of the environmental and infrastructure capacity of each parcel of land identified as having potential for residential development. It also sets out the nature of further studies required to identify appropriate mitigation, to enable sites within those areas to be brought forward as options to meet Purbeck's housing need.

# Summary of constraints

- 8.2 The assessment of environmental constraints (**Chapters 3-5**) enabled the most highly sensitive areas of the District to be identified and excluded from areas considered for potential residential development. More than half of the District was excluded on this basis. The remaining areas were found to be moderately sensitive (in environmental terms) to varying degrees, depending on how many types of moderately sensitive assets are present at each location, with the exception of one small area of low sensitivity. The low and moderately sensitive areas of the District were then grouped into parcels to enable more detailed analysis to take place.
- 8.3 Moderately sensitive environmental areas are those that might be able to accommodate residential development in some locations, provided that appropriate mitigation is in place. Some of these areas of the District also have assets that have been classed as lower sensitivity, which means that although the asset itself does not pose a firm constraint to residential development, mitigation is still likely to be required.
- 8.4 The infrastructure and services constraints have been assessed by identifying the proximity of existing services and the type of upgrades that would be required to support residential development at various scales. All of the potential capacity issues can be overcome, but the cost of doing so would make some developments unviable and the provision of new infrastructure may itself be limited by environmental / physical constraints.
- 8.5 The scale and nature of environmental effects at any low or moderately sensitive location in the District and the cost of infrastructure / service provision would need to be assessed on a site-specific basis and mitigation developed accordingly, however this study indicates the *types* of mitigation that would be needed to enable residential development to proceed. **Figures 8.1-8.11** show the overall environmental sensitivity of each parcel and **Table 8.1** provides a summary of the type of environmental and infrastructure / services constraint for each parcel. The type of mitigation associated with each constraint is then discussed below.

Figure 8.1 Environmental sensitivity of Parcel 1

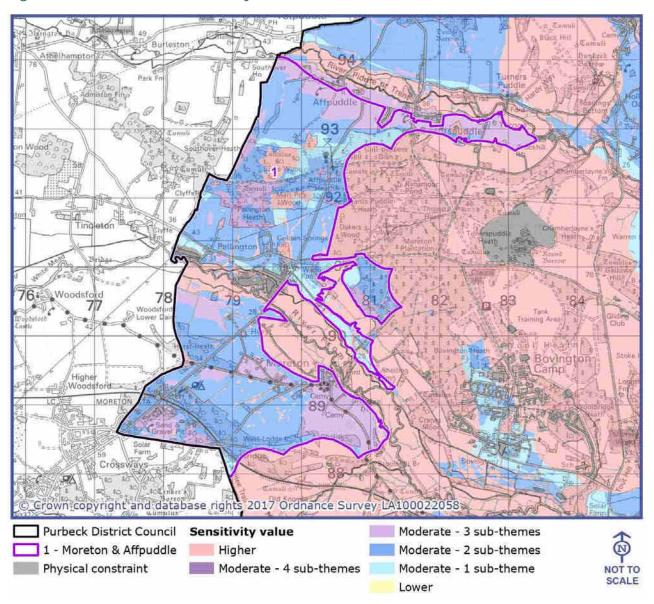


Figure 8.2 Environmental sensitivity of Parcel 2

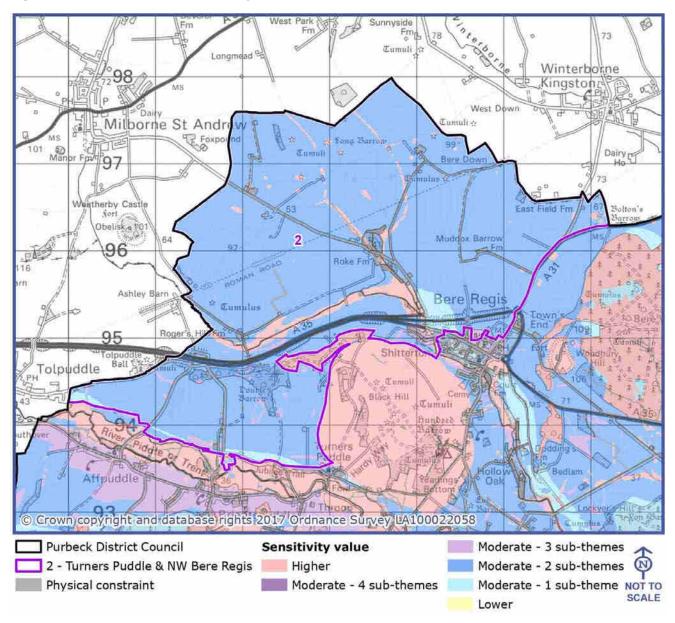


Figure 8.3 Environmental sensitivity of Parcel 3

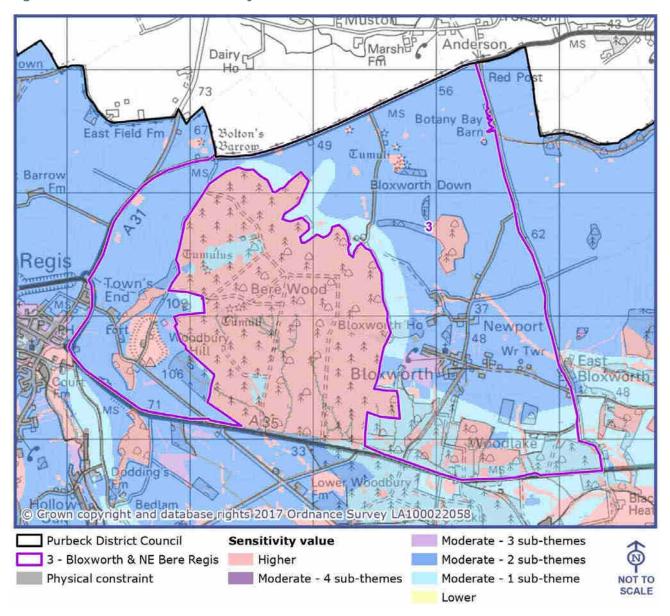


Figure 8.4 Environmental sensitivity of Parcel 4

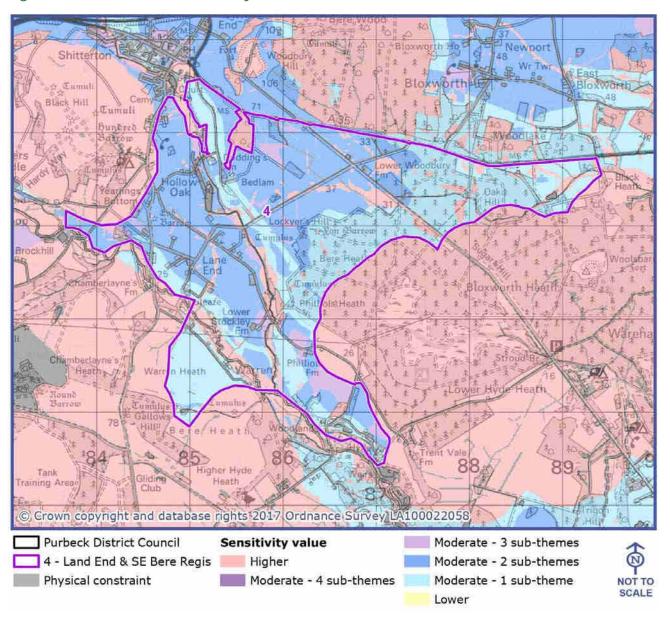


Figure 8.5 Environmental sensitivity of Parcel 5

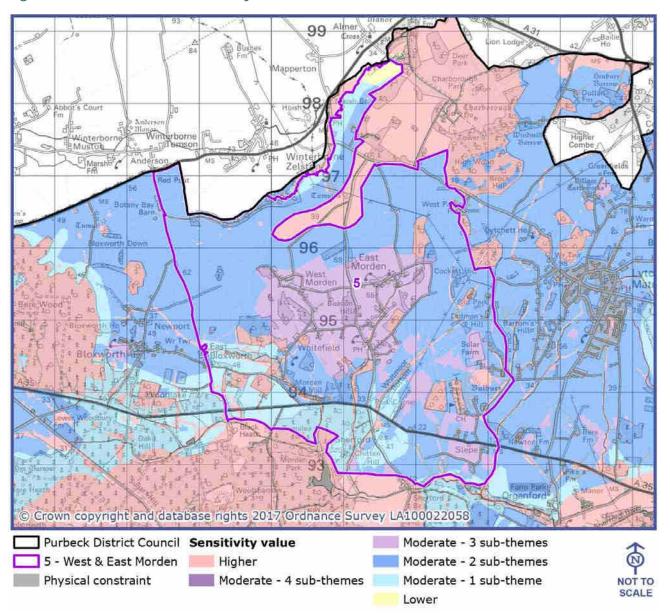


Figure 8.6 Environmental sensitivity of Parcel 6

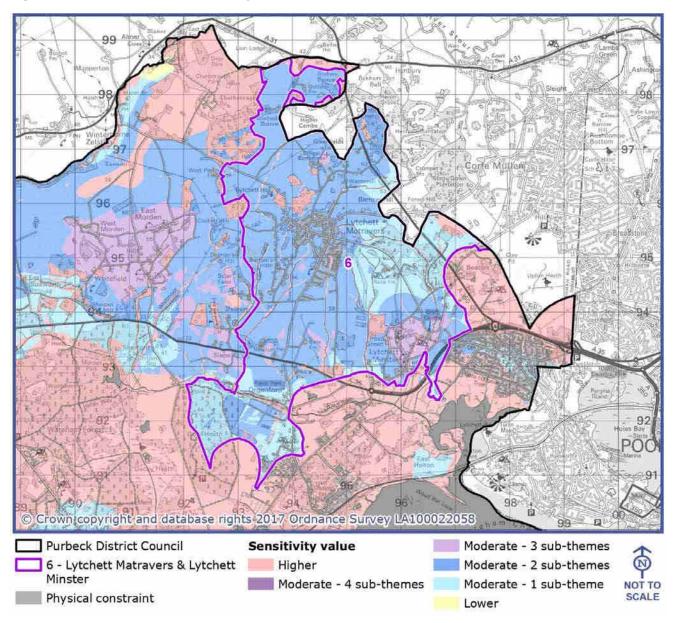


Figure 8.7 Environmental sensitivity of Parcel 7

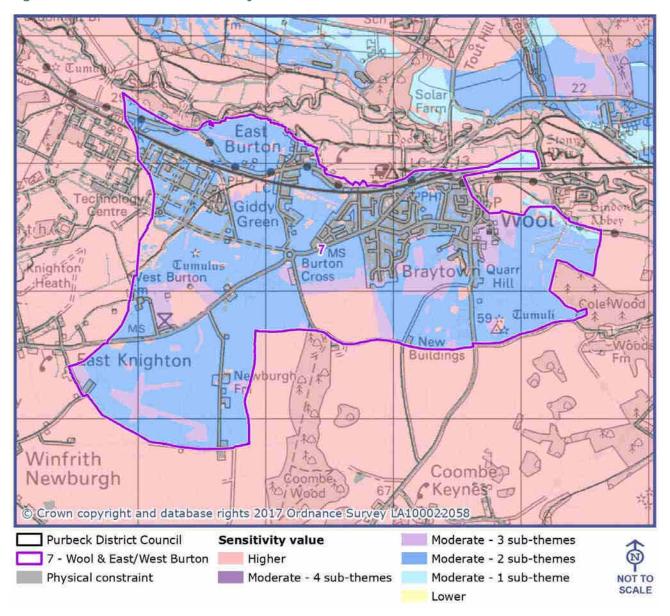


Figure 8.8 Environmental sensitivity of Parcel 8

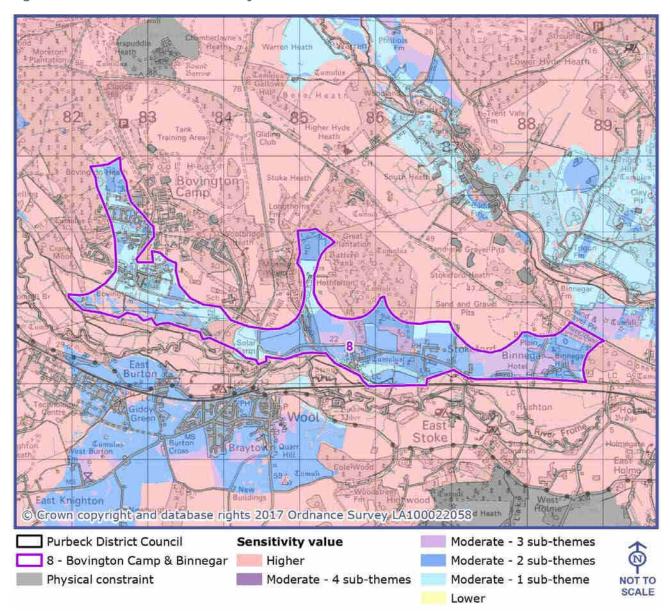


Figure 8.9 Environmental sensitivity of Parcel 9

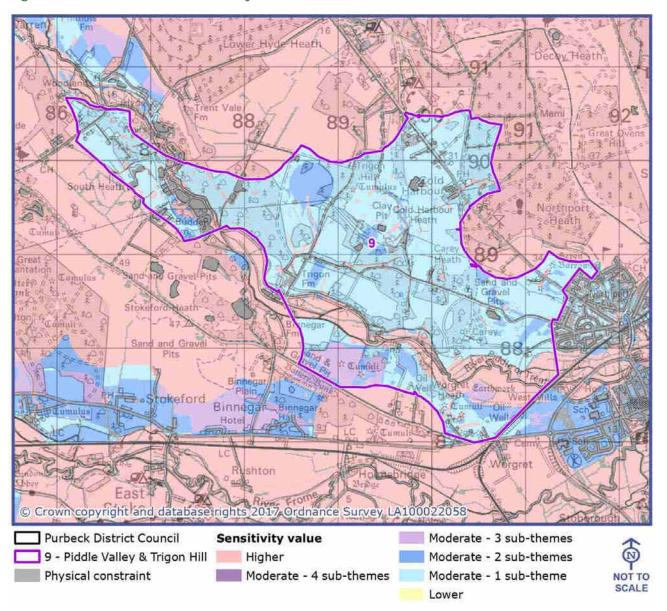


Figure 8.10 Environmental sensitivity of Parcel 10

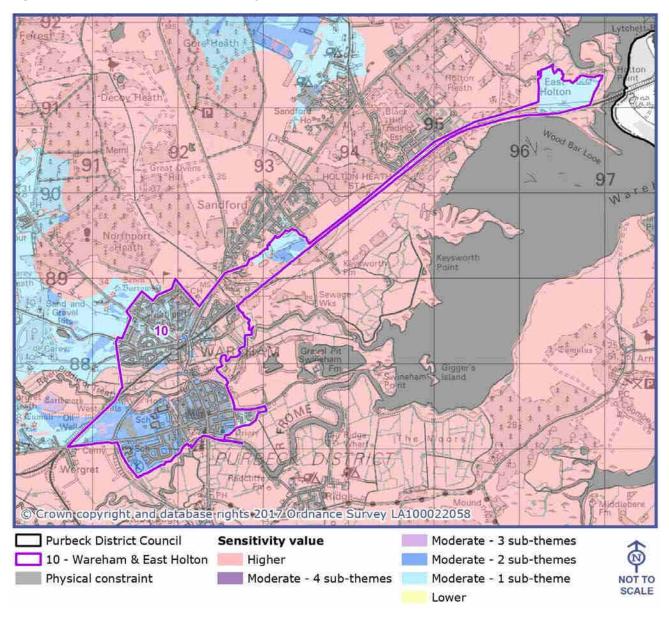


Figure 8.11 Environmental sensitivity of Parcel 11

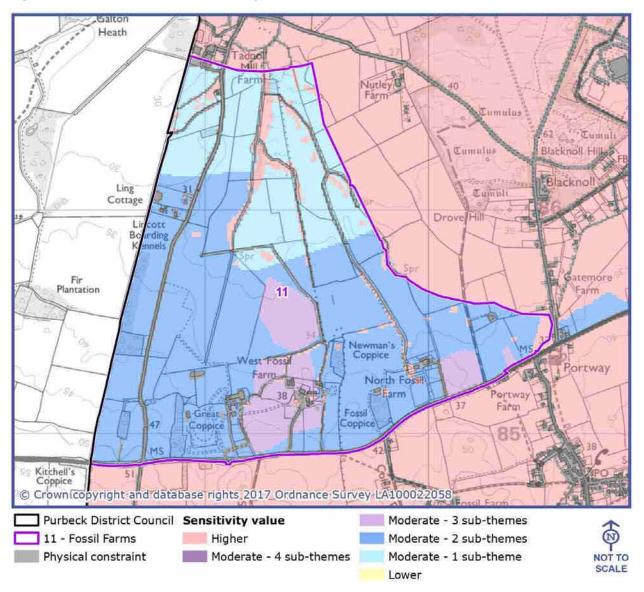


Table 8.1 Summary of environmental and infrastructure constraints requiring mitigation, for each parcel\*

Parcel	Geology, water & wildlife		Productive land			Landscape, greenspace & historic environment					Infrastructure & services					
	Dorset Heaths 5km buffer / SSSI IRZ	LNR or SNCI	Priority habitat	ALC grade 3	ALC grade 4-5 (lower sensitivity)	National Forest Inventory (lower sensitivity)	Allotments (lower sensitivity)	Village greens (high sensitivity – protect from development)	Open country & common land	Parks & garden, open space or amenity open space	SANG	Conservation Area	Other HER	Education	Transport	Health
1) Moreton & Affpuddle	••	•	••	•	•	••			•	•	•	•	••	•	•	
2) Turners Puddle & NW Bere Regis	••	•	•	••	•	•	•					•	•	•	••	
3) Bloxworth & NE Bere Regis	••	••	•	••	•	•	•	•					•	•	••	
4) Lane End & SE Bere Regis	••	•	•	••	••	••	•					•	•	•	••	
5) West Morden & East Morden	••	•	•	••	•	••	•	•			•	••	•	•	••	••
6) Lytchett Matravers & Lytchett Minster	••	•	•	••	•	••	•		•		•	•	•	•	••	
7) Wool & East/West Burton	••		•	••	•	•	•	•				•	••	•	•	
8) Bovington Camp & Binnegar	••	•	••	••	••	••	•	•	•	•			••	•	•	
9) Piddle Valley & Trigon Hill	••	•	••		••	••	•		•		•		••	•	••	•
10) Wareham & East Holton	••	•	•	•	••	•	•		•	•		•	••	•	•	
11) Fossil Farms	••		•	••	•	•							•	•	••	

<sup>\*</sup> A single • indicates that the constraint is present within the parcel. A double •• indicates that the constraint covers a large proportion of the parcel

## Potential housing supply

- 8.6 As presented in **Chapter 7** (**Table 7.13**), proximity to existing infrastructure and services is likely to limit the most sustainable scale of development within each parcel.
- 8.7 The assessment has identified locations within parcels close to Wareham, Wool, Crossways and Bovington Camp have the potential to sustain the highest scales of development, while other locations do not have any significant sustainability issues at 50 dwellings, but do at 250 dwellings or higher.
- 8.8 These suggest that in the region of 550 to 4,350 dwellings could be accommodated within the District, subject to further site-level assessment. The next steps required to undertake more detailed assessment at the site level are identified below.

## Next steps: identifying potential development sites

- 8.9 As the next key step, it is recommended that Purbeck District Council should identify the areas of land that are available for development (e.g. from the Local Plan consultation process or by approaching land owners to identify sites not put forward for consideration through the Local Plan process) within the least constrained areas of the District. A review of these sites can then be undertaken, taking account of site-level environmental and infrastructure constraints to test out the suitability of these potential areas to accommodate development and identify what potential mitigation may be required to minimise any potential impacts. Should the District decide to allocate land for development, any such mitigation can then be embedded in policy guidance or concept masterplans that are prepared as part of the Local Plan process.
- 8.10 **Chapter 7** has identified the areas of each assessed 'parcel' that would be most appropriate for development. In all cases, these are the locations within each parcel that are closest to the largest nearby settlements.

#### Next steps: identifying appropriate mitigation

- 8.11 Although this study identifies areas that may be suitable for residential development, each potential site will need to be considered in detail. It may not be possible to mitigate the impacts on some environmental assets or services, i.e. if the impact is too great and mitigation is not physically possible, or the costs of doing so are too high.
- 8.12 Location-specific impacts will therefore need to be identified and mitigation developed in conjunction with relevant stakeholders. The approach to mitigating impacts on each type of asset is considered in **Table 8.2**.

Table 8.2 Identifying mitigation for impacts on each type of asset

Asset or constraint	Type of mitigation that may be required	How detailed mitigation can be identified
Dorset Heaths 5km buffer or SSSI impact risk zone	SANGs could be created to provide alternatives to the Dorset Heaths for recreation. Additional measures could include funding for improvements to access, monitoring at the sites themselves and considering the opportunities to form coherent and resilient ecological network between sites 140.  Mitigation for impacts to the SSSIs will depend on the nature of the SSSIs. Mitigation for residential development near to the River Frome SSSI, for example, could include measures to improve sewage infrastructure and pollution control measures during construction.	An ecologist would need to undertake a site survey and provide detailed mitigation for any site being considered for housing within these zones.  Mitigation for potential impacts on the Dorset Heaths sites or SSSIs would need to be agreed in consultation with Natural England (the statutory consultee).  Dorset Wildlife Trust and the RSPB could also be consulted in relation to Dorset Heaths – both have raised objections to housing sites considered by Purbeck District Council due to concerns over the effectiveness of SANG provision.
LNR or SNCI	Mitigation for impacts to LNRs or SNCIs will depend on the nature of the wildlife sites.  Partial or complete loss of this type of site would require mitigation for the specific types of habitats or species affected, for example compensatory habitat provision. This could be difficult to achieve, depending on the scale of the impact and habitats / species involved.	An ecologist would need to undertake a site survey and provide detailed mitigation for any site being considered for housing that would affect these sites.  Dorset Wildlife Trust and Purbeck District Council ecologists would need to be consulted over any potential mitigation. Natural England may also want to provide comment.
Priority habitat	Mitigation for impacts to priority habitat will depend on the habitat affected.  It may be possible to compensate for the loss of priority habitat elsewhere, although this will be harder for habitats that are slow- or difficult to establish.	An ecologist would need to undertake a site survey and provide detailed mitigation for any sites being considered for housing with priority habitats.

<sup>140</sup> as suggested in 'Making Space for Nature: A review of England's Wildlife Sites and Ecological Network' 2010.

Asset or constraint	Type of mitigation that may be required	How detailed mitigation can be identified
ALC grade 3, ALC grade 4-5 (lower sensitivity), or National Forest Inventory (lower sensitivity)	Although it would be difficult to replace or mitigate lost productive land, it may be possible to compensate for economic impacts and improve the productivity of other areas.  More detailed ALC assessments may be needed to identify which Grade 3 land is 'best and most versatile' i.e. 3a so that this can be avoided. Loss of higher grade agricultural land would only be in line with the NPPF, if alternative lower grade agricultural land was not available.	A specialist consultant would be needed to assess the value of productive land and ensure that loss of the highest value land (e.g. ALC Grade 3a) is avoided where possible.
Allotments (lower sensitivity), Open country & common land, Parks & garden, open space or amenity open space, or SANG	All of these types of assets contribute to the network of greenspace in the District. Loss of specific features should therefore be considered with reference to overall greenspace provision and the potential wider recreational/ecological effects on any connected greenspaces.  Some types of assets may be inherently difficult to replace or mitigate, for example open country and common land.  Where replacement assets are appropriate, care would need to be taken to ensure that the function of the feature is maintained and that it is accessible to those who use it.	The assessment of impacts and the development of mitigation should involve the input of landscape consultants, ecologists, stakeholders and planners, as appropriate to the type of asset.
Conservation Area or Other HER	Heritage assets cannot be replaced, although development may be appropriate in proximity to them if undertaken sensitively. Mitigation could include minimising excavation, a programme of archaeological / heritage recording, and/or design that minimises visual impacts and any impacts to the setting of historic assets.	Site-specific appraisal would need to be undertaken by a heritage specialist and mitigation agreed in consultation with Purbeck District Council officers or Historic England (depending on the asset).
Education, Transport, or Health	The capacity of infrastructure and services can be improved by providing new infrastructure / services as part of a new development and/or providing a financial contribution.	The needs of specific sites would need to be identified through consultation with providers and/or specific assessments (e.g. Transport Assessment).  Mitigation would be agreed in consultation with service providers and/or the local planning authorities (e.g. Purbeck District Council as part of developer contribution negotiations).

- 8.13 **Table 8.2** only considers constraints that were identified through this study as having the possibility of being mitigated. Any of these constraints could prevent residential development from occurring, if mitigation cannot be achieved at a specific site.
- 8.14 There are also a number of types of constraints that it is not possible to pick up at the strategic level of this study and which would need to be identified at the site level. For example: impacts on protected species, site-level flood risk assessment, contaminated land, visual impacts, or the setting of heritage assets. Mitigation may also be required for these.

#### Conclusion

- 8.15 This study has brought together information from a number of sources and mapped the various environmental constraints to development that exist in the District. Purbeck District is heavily constrained by national and international nature conservation designations and its high quality landscape character; the AONB in particular. Although it is not possible as part of this study to identify areas of the District that are definitively suitable for residential development, it has been possible to identify areas that are likely to be too constrained to enable development, and the type of mitigation that may be required to enable residential development elsewhere.
- 8.16 As outlined in Chapter 2, the purpose of this environmental capacity study is not to determine the tipping point at which targets, standards and policy intent are likely to be breached. It is to provide in an as objective way as possible, a description and evaluation of the effects of further development in order to inform those with an interest and, ultimately, those who have to make decisions on the potential implications of the choices to be made.
- 8.17 The study has shown over half of the District is constrained by highly sensitive environmental assets and would not be suitable for residential development. All of the remaining areas have a high proportion of their overall area constrained by at least three moderately sensitive environmental assets or infrastructure / services constraints. It is not possible to rank these parcels further without more detailed site-level analysis, as each constraint would need to be carefully considered in the context of relevant site level mitigation.
- 8.18 Although this study has considered cumulative impacts at the parcel level, it is not possible as part of this strategic assessment to consider the cumulative impacts of the collective development of a number of sites, particularly at the District scale. These issues would need to be considered as part of the next stage of assessment, once decisions had been taken about which sites may be suitable for allocation. The potential suitability of specific sites will ultimately come down to levels of 'acceptability' (as discussed in Chapter 2), which in turn will be influenced by the mitigation measures proposed and how well they can be implemented.
- 8.19 The assessment of proximity to infrastructure and services has concluded that areas within the assessed parcels that are close to existing settlements are potentially the most sustainable locations for development. Taking into consideration the likely scale of development that could be sustained at those locations, the District may be able to accommodate c. 550 to 4,350 dwellings, subject to further site-level assessment.
- 8.20 As the next key step, it is recommended that Purbeck District Council should identify the areas of land that are available for development (e.g. from the Local Plan consultation process or by approaching land owners to identify sites not put forward for consideration through the Local Plan process) within the least constrained areas of the District. A review of these sites can then be undertaken, taking account of site-level environmental and infrastructure constraints to test out the suitability of these potential areas to accommodate development and identify what potential mitigation may be required to mitigate any potential impacts. Should the District decide to allocate land for development, any such mitigation can then be embedded in policy guidance or masterplans that are prepared as part of the Local Plan process.

## Appendix 1- Data used

The GIS datasets that were included in the assessment are listed in the table below.

Some of these datasets are presented as simple lines (e.g. road centre lines), therefore in order to ensure they were appropriately included in the spatial analysis, buffer distances have been applied to model their approximate footprint:

- Railway lines a 7.5m buffer has been applied to achieve a 15m-wide footprint;
- Roads a 10m buffer has been applied to dual carriageway (A road and primary road) to achieve a 20m-wide footprint and a 5m buffer to all other roads to achieve a 10m-wide footprint.

All other datasets have been provided with their actual footprint and therefore included in the spatial analysis as provided.

For the spatial assessment all physical constraint and environmental asset datasets have been converted into 10m raster datasets. During the conversion and subsequent analysis it was ensured that all smaller features (e.g. Listed Buildings point locations, linear coastal management areas), were retained. The results of the spatial assessments were also prepared as 10m raster datasets.

DATASET NAME	SOURCE	DATE OF DATA / DATE PROVIDED		
LANDSCAPE AND RECREATION				
Dorset AONB	Natural England	February 2017		
Allotments	Purbeck DC	February 2017		
Parks and gardens	Purbeck DC	February 2017		
Open space and amenity open space	Purbeck DC	February 2017		
SANGs	Purbeck DC	September 2017		
Open country and Registered common land	Natural England	January 2017		
Country Park	Natural England	September 2017		
HISTORIC ENVIRONMENT				
World Heritage Site	Historic England	November 2016		
Listed Buildings	Historic England	January 2017		
Registered Parks and Gardens	Historic England	January 2017		
Scheduled Monuments	Historic England	November 2016		
Conservation Areas	Purbeck DC	February 2017		
Dorset HER	Dorset CC	March 2017		
WILDLIFE SITES AND HABITATS				
Ancient Woodland Inventory	Natural England	February 2017		
SPA/SAC	Natural England	February 2017		
SSSI	Natural England	February 2017		
SSSI IRZ (residential)	Natural England	January 2017		
Ramsar	Natural England	February 2017		
NNR	Natural England	February 2017		
LNR	Natural England	February 2017		
SINC & LGS	DERC via Purbeck DC	March 2017		

DATASET NAME	SOURCE	DATE OF DATA / DATE PROVIDED		
Agricultural Land Classification	Natural England	February 2017		
p SPA	Natural England	November 2016		
UK Priority (BAP) Habitats	Natural England	September 2016		
National Forestry Inventory	Forestry Commission	August 2017		
INFRASTRUCTURE				
Railway	Purbeck DC	February 2017		
Roads	Purbeck DC	February 2017		
Railway stations	Ordnance Survey	July 2016		
Buildings	Ordnance Survey	July 2016		
Bus stops	Dorset County Council	February 2017		
Town and Local Centre	Purbeck DC	April 2017		
GP surgeries	Dorset County Council	February 2017		
Hospitals	Dorset County Council	February 2017		
Schools (primary and secondary)	Dorset County Council	February 2017		
HYDROLOGY AND FLOODING				
Flood zones 2 and 3	Purbeck DC	February 2017		
Flood Storage Areas	Environment Agency	February 2017		
Indicative erosion zones	Purbeck DC	February 2017		
Risk of flooding from surface water (1:30 and 1:100 years)	Environment Agency	September 2017		
Water (rivers, canals, lakes)	Ordnance Survey			

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## Emerging evidence and policies

Some of Purbeck District Council's Local Plan evidence base, as well as the policies within the Local Plan, are currently under review. At the time of writing (September 2017), the following documents are emerging:

- Bere Regis and strategic road network transport modelling: Further evidence being prepared as part of the review of the Council's Local Plan;
- Eastern Dorset Strategic Housing Market Assessment update: The Strategic Housing Market
  Assessment is being prepared as part of the review of the Council's Local Plan. The
  Assessment is likely to be finalised later this year. It will supersede the Eastern Dorset
  Strategic Housing Market Assessment Final Report published in October 2015;
- Flood Risk and Surface Water Drainage Technical Overview Wool Urban Extension, February 2017 (unpublished). The report was prepared to provide an overview of the flood risk constraints relating to land being promoted for development around Wool.
- Green belt review: Further evidence being prepared as part of the review of the Council's Local Plan;
- Lytchett Minster Flood Risk Study, May 2017 (unpublished). The study and was prepared to help inform future planning decisions relating to Lytchett Minster.
- Purbeck Green Infrastructure Strategy. Further evidence being prepared as part of the review of the Council's Local Plan;
- Sensitivity of the Area of Outstanding Natural Beauty landscape of Purbeck to housing development: Further evidence being prepared as part of the review of the Council's Local Plan;
- Strategic flood risk assessment (SFRA): Further evidence being prepared as part of the review of the Council's Local Plan. The SFRA is likely to be finalised and published later this year. The SFRA being drafted will replace the SFRA published in June 2016;
- Swanage Green Infrastructure Strategy. Published (September 2015) as a draft in conjunction with the consultation on the Swanage Local Plan and currently being updated; and
- Viability updates: Further evidence being prepared as part of the review of the Council's Local Plan.

In addition, the following Local Plan policies are being considered, as part of the Local Plan review:

- Policy CCMA Coastal Change Management Areas: new policy;
- Policy FR Flood Risk: updated policy; and
- Policy GP Groundwater Protection: updated policy.

## **Appendix 3- List of infrastructure providers**

Infrastructure	Organisation			
Transport	Dorset County Council			
	Highways England			
	Gosouthcoast			
Health	NHS Bournemouth and Poole			
	NHS Property Services			
	NHS Dorset Clinical Commissioning Group			
	NHS Purbeck Locality Clinical Commissioning Group			
	NHS Poole			
	Adams Practice			
Emergency Services – fire	Dorset Fire & Rescue			
Emergency Services - police	Police			
Utilities – waste water	Wessex Water			
Utilities – drinking water	Wessex Water			
Utilities – electricity	National Grid			
Utilities – electricity	SSE			
Utilities - gas	Southern Gas Network			
Education	Dorset County Council			
	Dorset County Council			
	Dorset County Council			
Waste and Recycling	Dorset County Council			

# Appendix 4- Proximity of assessment parcels to infrastructure and services

