



Dorset
Council

Sustainability Appraisal Scoping Report

Dorset Local Plan

November 2019

Sustainability Appraisal Scoping Report

Dorset Local Plan

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1 Introduction

- 1.0.1 This document is the Scoping Report for the Sustainability Appraisal of the Dorset Local Plan.
- 1.0.2 The purpose of the Sustainability Appraisal process is to ensure that the Dorset Local Plan achieves sustainable development by ensuring that the key environmental, social and economic issues are considered throughout the making of the Dorset Local Plan.
- 1.0.3 The first stage in the Sustainability Appraisal process is the scoping stage. During the scoping stage, the key environmental, social and economic issues for the Dorset Local Plan are identified and used to develop a series of sustainability objectives, which are later used as criteria to assess the emerging Local Plan.
- 1.0.4 The Sustainability Appraisal Scoping Report firstly introduces the topic of sustainable development, explains the legal basis for the sustainability appraisal and provides details of the scope of the Dorset Local Plan (Chapter 1). Each of the key environmental, social and economic topics are then considered in turn, with the key messages from other plans, baseline data and environmental problems presented for each topic (Chapters 2 to 11). This information is brought together to establish the Sustainability Objectives upon which the Dorset Local Plan and its alternatives will be tested against through the plan making process (Chapter 12).

1.1. WHAT IS SUSTAINABLE DEVELOPMENT?

- 1.1.1 In 1987, the World Commission provided the following definition of sustainable development¹:
- "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
- 1.1.2 This definition is used in the European Union's European Sustainable Development Strategy (2006), which introduces the European wide policy framework to deliver sustainable development.
- 1.1.3 In 2005, the UK Government produced a Sustainable Development Strategy which developed the definition of sustainable development slightly further by aiming to:
- "Enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations."
- 1.1.4 The UK Sustainable Development Strategy also establishes the five guiding principles which form the basis for sustainable development in the UK, which are:

¹ World Commission on Environment and Development's (the Brundtland Commission) report Our Common Future (Oxford: Oxford University Press, 1987).

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- **Living within environmental limits:** Respecting the limits of the planet's environment, resources and biodiversity - to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations;
- **Ensuring a strong healthy and just society:** Meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion, and creating equal opportunity for all;
- **Achieving a sustainable economy:** Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays) and efficient resource use is incentivised;
- **Using sound science responsibly:** Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle) as well as public attitudes and values; and
- **Promoting good governance:** Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy and diversity.

1.1.5 The National Planning Policy Framework ('NPPF'), revised in 2019, sets out the Government's planning policy for England. The NPPF definition of sustainable development was updated in 2019, and explains that the following three overarching objectives should be pursued in order to achieve sustainable development:

- **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- **an environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

1.1.6 In 2017, the United Nations General Assembly provided a series of sustainable development goals and targets which also intend to balance the three dimensions of sustainable development: the economic, social and environmental.

1.2. LEGISLATIVE BACKGROUND TO SUSTAINABILITY APPRAISAL

- 1.2.1 European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment ('the SEA Directive') states that a Strategic Environmental Assessment is mandatory for plans prepared for town and country planning and land use purposes.
- 1.2.2 The SEA Directive is transposed into UK law through the Environmental Assessment of Plans and Programmes Regulations (2004), which requires the Sustainability Appraisal of local development plan documents. The Sustainability Appraisal is wider in scope than Strategic Environmental Assessment, considering the social and economic effects of plans in addition to the environmental effects required by the SEA Directive. The combined Sustainability Appraisal and Strategic Environmental Assessment process is referred to as Sustainability Appraisal in this document.
- 1.2.3 The Town and Country Planning (Local Planning) Regulations (2012) state that a sustainability appraisal report must be completed for Local Plan documents in accordance with section 19(5) of the Planning and Compulsory Purchase Act 2004.
- 1.2.4 The National Planning Policy Framework reiterates the requirement for a Sustainability Appraisal of Local Plan documents, stating that:
- "A sustainability appraisal which meets the requirements of the European Directive on strategic environmental assessment should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors".

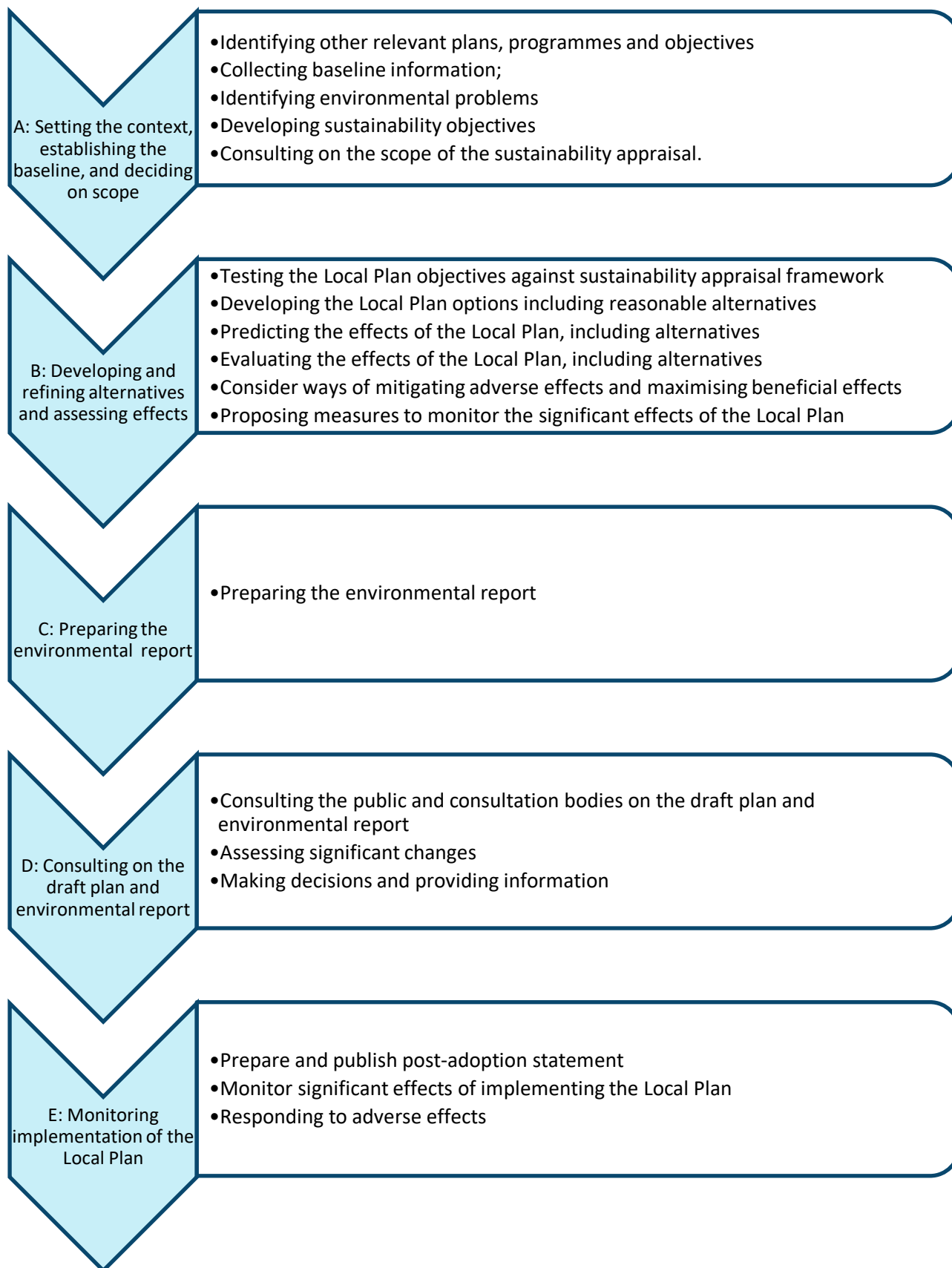
1.3. THE SUSTAINABILITY APPRAISAL PROCESS

- 1.3.1 The Government's guidance² on Strategic Environmental Assessment and Sustainability Appraisal sets out five key stages in the preparation of Sustainability Appraisal for Local Plans, which are shown in Figure 1.1.

² <http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/>

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Figure 1.1: The key stages of sustainability appraisal



1.3.2 The scoping stage of the sustainability appraisal process, which is presented in this report, represents stage A in figure 1.1 and involves the following steps:

- **Identifying other relevant plans, programmes and objectives:** Reviewing the plans and programmes which are relevant to the Dorset Local Plan helps to identify the objectives and targets from across a wide range of disciplines so they can be reflected in the sustainability objectives of the Sustainability Appraisal. This ensures that the Dorset Local Plan incorporates the common objectives between the local plan and other plans, so that these plans work together to achieve a mutual goal rather than acting in conflict.

The key messages from the review of other plans, programmes and objectives are presented for each environmental topic in this report, with the full review of the documents presented in Appendix A.

- **Collecting baseline information:** Characterising the state of the environment within the plan area helps to identify the key issues that the Sustainability Appraisal should focus on, and provides a benchmark for the appraisal and post-adoption monitoring.
- **Identifying environmental problems:** The main environmental, social and economic problems are identified from the review of other plans and the baseline information. This helps to streamline the information gathered at the previous stages of the scoping process and focus the sustainability objectives on the key problems.
- **Developing sustainability objectives:** The sustainability objectives are informed by the findings of the review of plans and programmes, the characteristics of the plan area, and the key issues within the plan area. This ensures that the sustainability objectives are relevant and specific to the Local Plan and address the key sustainability concerns.
- **Consulting on the scope of the sustainability appraisal:** The statutory consultation bodies and key stakeholders will be consulted on the scope of the sustainability appraisal.

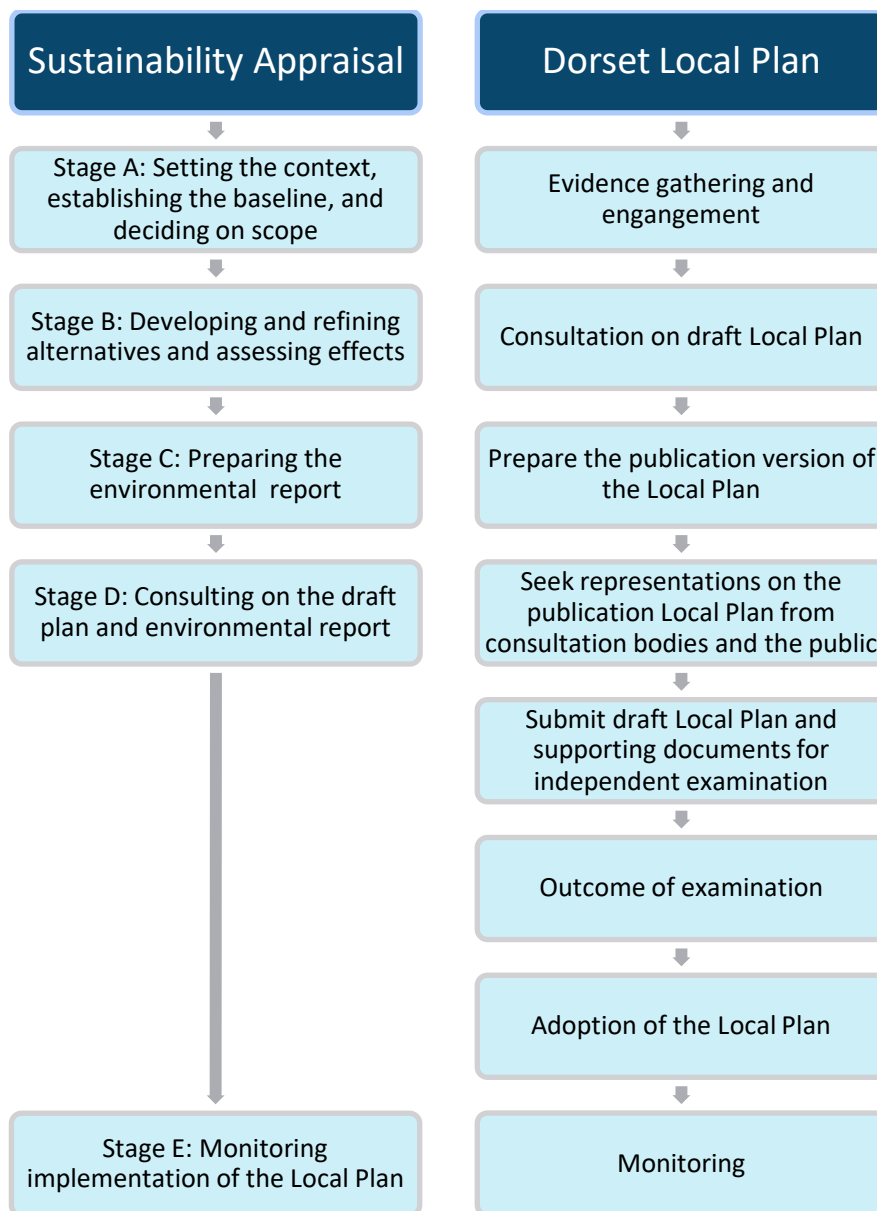
1.3.3 The Sustainability Appraisal process is iterative, in that the stages of the Sustainability Appraisal occur alongside the development of the Dorset Local Plan, feeding into the plan through each stage in its development. This is shown in Figure 1.2, which is taken from the Government guidance on Sustainability Appraisal for Local Plans³, and shows the key stages of the sustainability appraisal and how they fit with the Local Plan process.

1.3.4 The scoping stage of the sustainability appraisal will occur alongside the evidence gathering and engagement stage of the Dorset Local Plan.

³ <http://planningguidance.communities.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/sustainability-appraisal-requirements-for-local-plans/>

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Figure 1.2: The key stages of sustainability appraisal and the Dorset Local Plan process



1.3.5 Annex I of the SEA Directive and Schedule 2 of the Environmental Assessment of Plans and Programmes Regulations (2004) lists a series of environmental issues which the sustainability appraisal should consider, which include:

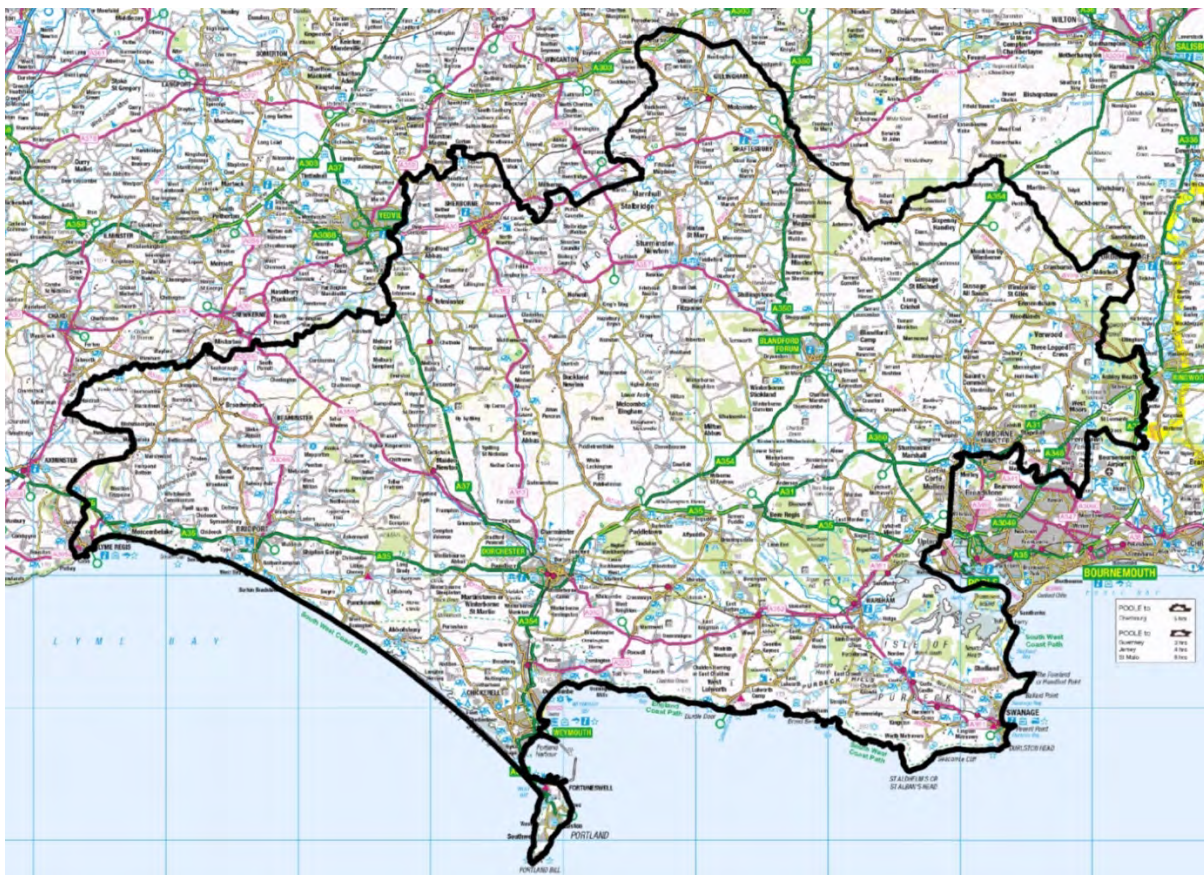
- Biodiversity;
- Population;
- Human health;
- Fauna;
- Flora;
- Soil;
- Water;

- Air;
- Climatic factors;
- Material assets;
- Cultural heritage (including architectural and archaeological heritage); and
- Landscape

1.4. THE DORSET LOCAL PLAN

- 1.4.1 The Dorset Local Plan will provide the planning policies that will be used to guide decisions on planning applications and set out the locations for future development across the Dorset Council area.
- 1.4.2 The Dorset Local Plan aims to achieve sustainable development in the Dorset Council area by meeting the housing and employment needs whilst avoiding unacceptable environmental impacts.
- 1.4.3 The Dorset Local Plan will cover the entire administrative area of Dorset Council, a unitary council formed on 1st April 2019, bringing together five former districts and boroughs and the majority of the area previously controlled by Dorset County Council (Figure 1.3).

Figure 1.3: A map showing the Dorset Local Plan area, shown within the black line



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- 1.4.4 The Dorset Local Plan will look ahead until at least 2038 in order to ensure provision for growth for 15 years on adoption.

1.5. LIKELY EVOLUTION OF THE PLAN AREA WITHOUT THE DORSET LOCAL PLAN

- 1.5.1 The purpose of the planning system is to contribute to achieving sustainable development and the local plan sets out what that means for the local area. Local Plans set out the locations where development will take place and the policies that will be used to guide decisions on planning applications. They form part of the statutory development plan, meaning that decisions on applications must be made in accordance with them unless material considerations indicate otherwise.
- 1.5.2 The Local Plans adopted by the predecessor councils have been carried forward as policies of the new Dorset Council, and will remain the statutory development plans for their respective areas until they are replaced by a new plan. Therefore, they continue to be the policy framework against which the council will make decisions on planning applications.
- 1.5.3 Local Plan policies carry less weight where the plans are more than five years old and where the council are no longer able to provide sufficient land for housing, by being unable to demonstrate that it has the required five-year supply of deliverable sites for housing.
- 1.5.4 Considering the current adopted Local Plans in the Dorset Local Plan area, the Purbeck Local Plan and Christchurch and East Dorset Local Plan are both more than five years old and consequently the same weight cannot be attached to their policies. The West Dorset, Weymouth & Portland Local Plan and North Dorset Local Plan will be five years old in October 2020 and January 2021 respectively.
- 1.5.5 Therefore, if a Local Plan for the Dorset Council area was not taken forward and adopted, the local plans for the entire Dorset Council area would be out of date. Less weight would be given to Local Plan policies in decisions on planning applications, with the national ‘presumption in favour of sustainable development’ applying instead. The council would have a lack of control over development decisions in the Dorset Council area, potentially resulting in unplanned, speculative development coming forward in less sustainable locations. This is likely to result in sustainable development not being achieved, with significant detrimental environmental, social and economic effects in the Dorset Council area.
- 1.5.6 A new Local plan also provides an opportunity to evaluate the focus of the Local Plan and the nature of future development across Dorset, in light of new evidence and changing priorities both nationally and locally. For example, a climate emergency has been declared both by the UK Parliament and by Dorset Council since the adoption of the previous Local Plans. The new Dorset Local Plan provides an opportunity to address the climate change issue, and the other issues which have emerged since the adoption of the existing Local Plans.

2 Biodiversity, flora and fauna

- 2.0.1 Biodiversity is a measure of the ‘diversity of species’⁴. It is therefore a term which refers to the variation of life, including both plants (‘flora’) and animals (‘fauna’).
- 2.0.2 Each species, irrespective of how small and seemingly insignificant, plays a role in maintaining a well-balanced, healthy and functioning ecosystem. This is because species are dependent on one another for survival. The absence of a species, perhaps through extinction or the loss of a local population, can throw an ecosystem out of balance with far reaching consequences upon the habitat and remaining species and the wider environment due to degrading air, soil and water quality and the cycling of nutrients.
- 2.0.3 A biologically diverse ecosystem also has widespread social and economic benefits by providing the biological resources for trade (such as wood), agriculture and fisheries, ecotourism and recreation, medicine production and scientific research. These multiple, interlinked benefits are known as Ecosystem Services. Plants and species also have a great cultural and spiritual importance amongst many communities.
- 2.0.4 There has been an alarming trend towards a loss in biodiversity in recent history. This decline in biodiversity is largely attributed to human actions, resulting in overexploitation, pollution and land use change. Given the reliance of environmental, social and economic systems upon biodiversity, it is imperative that biodiversity is safeguarded to prevent widespread catastrophic problems.

2.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 2.1.1 The United Nations developed a series of global development goals which aim to deliver sustainable development in the document titled **Transforming our world: the 2030 Agenda for Sustainable Development (2015)**. One such goal is:

“Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.”

EUROPEAN

- 2.1.2 The European Union’s **Seventh Environmental Action Plan (2013)** outlines the wider long term environmental vision for the European Union and includes the following aims:
- Halt the loss of biodiversity and the degradation of ecosystem services, including pollination, are halted, ecosystems and their services are maintained and at least 15 % of degraded ecosystems have been restored;

⁴ United Nations Conference on Environment and Development (1992)

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- Forest management is sustainable, and forests, their biodiversity and the services they provide are protected and, as far as feasible, enhanced and the resilience of forests to climate change, fires, storms, pests and diseases is improved.
- 2.1.3 The **EU Biodiversity Strategy to 2020** focuses more closely on biodiversity issues, and intends to achieve the following headline target:
- “Halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.”
- 2.1.4 This strategy intends to achieve this headline vision by achieving the following:
- Fully implement the Birds and Habitats Directives;
 - Maintain and restore ecosystems and their services;
 - Increase the contribution of agriculture to maintaining and enhancing biodiversity;
 - Increase the contribution of forestry to maintaining and enhancing biodiversity;
 - Ensure the sustainable use of fisheries resources and achieve good environmental status;
 - Help combat invasive alien species; and
 - Help avert global biodiversity loss.
- 2.1.5 In addition to the European strategies relating to biodiversity, flora and fauna, there is a broad range of relevant European legislation. The **EU Directive on the Conservation of Habitats and wild fauna and flora (92/43/EEC as amended by 97/62/EC)** (“Habitats Directive”) and **EU Directive on the Conservation of Wild Birds (79/409/EEC as amended by 97/49/EC)** (“Birds Directive”) are key components of the European legal framework, and aims to protect of habitats and species through achieving the following goals:
- Maintenance of favourable conservation status of all wild bird species across their distributional range
 - Contributing towards ensuring biodiversity by protecting important natural habitats (approximately 220 listed in Annex I), and species of wild fauna and flora (approximately 1,000, listed in Annex II, species in need of strict protection, listed in Annex IV, and species whose taking from the wild can be restricted by European law, in Annex V) within the European Community; and
 - Using measures to ensure that habitats and species are maintained or restored at "favourable conservation status" in their natural range (Articles 3 and 4), through establishing a network of areas designated as Special Areas of Conservation (SAC) and by the management of landscape features of importance to wildlife outside SACs through land-use and development policy.
- 2.1.6 The **EU Water Framework Directive (2000/60/EC)** aims to protect and enhance biodiversity in the water environment through achieving the goal of:

“Preventing further deterioration and protecting and enhancing the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands.”

NATIONAL

2.1.7 The **UK Government’s Sustainable Development Strategy (2005)** has the objective of:

“Respecting the limits of the planet’s environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations.”

2.1.8 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)**, also known as the 25 Year Environment Plan, sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following objectives and actions relating to biodiversity, flora and fauna:

“We will achieve a growing and resilient network of land, water and sea that is richer in plants and wildlife”.

- At sea, we will do this by:
 - reversing the loss of marine biodiversity and, where practicable, restoring it;
 - increasing the proportion of protected and well-managed seas, and better managing existing protected sites;
 - making sure populations of key species are sustainable with appropriate age structures;
 - ensuring seafloor habitats are productive and sufficiently extensive to support healthy, sustainable ecosystems.
- On land and in freshwaters, we will do this by:
 - restoring 75% of our one million hectares of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long term;
 - creating or restoring 500,000 hectares of wildlife-rich habitat outside the protected site network, focusing on priority habitats as part of a wider set of land management changes providing extensive benefits;
 - taking action to recover threatened, iconic or economically important species of animals, plants and fungi, and where possible to prevent human induced extinction or loss of known threatened species in England and the Overseas Territories; and
 - increasing woodland in England in line with our aspiration of 12% cover by 2060: this would involve planting 180,000 hectares by end of 2042.

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“We will enhance biosecurity to protect our wildlife and livestock, and boost the resilience of plants and trees”.

- We will do this by:
 - managing and reducing the impact of existing plant and animal diseases; lowering the risk of new ones and tackling invasive non-native species;
 - reaching the detailed goals to be set out in the Tree Health Resilience Plan of 2018;
 - ensuring strong biosecurity protection at our borders, drawing on the opportunities leaving the EU provides; and
 - working with industry to reduce the impact of endemic disease.

2.1.9 The Government’s strategic direction for biodiversity policy is presented in **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services (2011)**, which includes the following aims:

“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.”

2.1.10 In terms of the planning system, this strategy intends to:

“Through reforms of the planning system, take a strategic approach to planning for nature within and across local areas. This approach will guide development to the best locations, encourage greener design and enable development to enhance natural networks. We will retain the protection and improvement of the natural environment as core objectives of the planning system.”

2.1.11 The **National Planning Policy Framework (2019)** (NPPF) for England states that the planning system should “contribute to protecting and enhancing our natural, built and historic environment; including...helping to improve biodiversity.” The planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing...sites of biodiversity; and
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

2.1.12 The NPPF states that to protect and enhance biodiversity, Local Plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider 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 national and local partnerships for habitat management, enhancement, restoration or creation;
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and

- identify and pursue opportunities for securing measurable net gains for biodiversity.
- 2.1.13 The NPPF requires the following principles to be applied through the planning system:
- if significant harm to biodiversity 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;
 - development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact 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;
 - development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
 - development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

LOCAL

- 2.1.14 The **Dorset Biodiversity Strategy (Mid Term review) (2010)** sets the priorities for Dorset's major biodiversity issues up until 2015, and includes the following guiding principles:
- Conserve existing biodiversity;
 - Conserve Protected Areas and other high quality habitats;
 - Conserve range and ecological variability of habitats and species;
 - Conserve and enhance local variation within sites and habitats;
 - Make space for the natural development of rivers and coasts;
 - Establish ecological networks through habitat protection, restoration and creation;
 - Respond to changing conservation priorities.
- 2.1.15 The **Dorset Local Nature Partnership's Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which include the following objectives relating to biodiversity:
- Healthier natural systems which are managed in an integrated way;
 - Bigger, better and more joined up wildlife sites;
 - Moving from a net loss of biodiversity to achieving net gains for nature;

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- Demonstrable improvements in the quality and accessibility of green and blue infrastructure in urban and rural areas;
- A spatial planning system which is proactive in the way in which it seeks to deliver landscape scale, ecological networks that are able to withstand the pressures of climate change;
- An holistic approach to planning and development which takes account of the need to maintain and create quality natural and historic environments near where people live, and space for wildlife to get food and shelter in a changing environment; and
- Dorset's 'ecological footprint' being reduced over time both locally and globally.

2.1.16 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to biodiversity:

- Safeguard existing priority habitats and the species they support;
- Restore lost or declining habitats and their associated species
- Develop and support measures and activities which conserve and enhance the AONB's natural assets including priority habitats and species, ecosystem flows and the services they provide;
- Develop and support measures and activities which connect and expand ecological networks;
- Support woodland planting and management proposals that are appropriate to landscape character and deliver clear enhancements for biodiversity, habitat connectivity and public amenity; and
- Avoid and reduce the impacts of development on biodiversity. Require development to follow the hierarchy of avoid, mitigate and compensate and to achieve a net gain for biodiversity;
- Developments will be required to make a positive contribution to the overall green infrastructure and ecological networks. All aspects of green infrastructure, e.g. sustainable drainage, also require good design that respects local character and must also make an appropriate contribution to landscape ecology. The net result of these contributions should be landscape gain.

2.1.17 The **Cranborne Chase & West Wiltshire Downs AONB Management Plan 2014-19 (2014)** also contains objectives relating to biodiversity:

- All pests, pathogens, and invasive non-native species causing harm in the AONB are being effectively addressed; and
- Coherent and resilient ecological networks are established and maintained across the AONB.

2.1.18 The **Poole Harbour Catchment Initiative Catchment Plan (update) (2014)** intends to deliver improvements to Poole Harbour, for the environment and for wildlife as well as other receptors, with the aim of achieving:

“Improvements to biodiversity habitats both in the form of naturally functioning rivers, floodplains and wetlands and appropriately located woodland and low-input grassland.”

2.1.19 The **River Avon Special Area of Conservation Nutrient Management Plan for Phosphorus (2015)** intends to help reduce and manage phosphorus levels in the River Avon Special Area of Conservation (SAC) by ensuring that new development in the River Avon catchment does not add to the phosphorus load in the river. This nutrient management plan has two primary objectives:

- To achieve compliance with the requirements of the Habitats Directive (see paragraph 2.1.5), in particular:
 - To establish the necessary conservation measures and implement appropriate steps to avoid deterioration within the River Avon SAC which might result from nutrient loading;
 - To achieve the ambition reduction targets in the short term and the conservation objectives targets for phosphorus in the longer term to support the achievement of Favourable Conservation Status; and
 - To facilitate development within the catchment in a manner which is compliant with the requirements of the Habitats Regulations, whilst securing that existing consented activities do not adversely affect the integrity of the River Avon SAC.
- To achieve compliance with the Water Framework Directive through delivery of the ‘protected area’ standards.

2.1.20 The **Nitrogen Reduction in Poole Harbour (2017)** supplementary planning document provides a framework for ensuring that new development within the Poole Harbour catchment does not result in a net increase in nitrogen into Poole Harbour. Elevated concentrations of nitrogen in the harbour, a proportion (~15%) of which is from human sewage, is encouraging the formation of algal mats which are compromising the ability of wading birds to feed in addition to affecting the estuarine habitat.

2.1.21 The draft **Poole Harbour Recreation Planning Framework 2019-2034 (2019)** supplementary planning document provides a means of address the issue of increasing recreational activity within Poole Harbour, as a result of the intensification of development in Poole and Purbeck, causing disturbance to wading birds and adversely affecting the estuarine habitat.

2.1.22 The **Poole Harbour Catchment Initiative Catchment Plan (update) (2 014)** aims to protect and restore the groundwater, rivers and Poole Harbour by delivering the following vision relating to biodiversity:

“Improvements to biodiversity habitats both in the form of naturally functioning rivers, floodplains and wetlands and appropriately located woodland and low-input grassland”

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2.1.23 The **Dorset Heathlands Planning Framework 2015-2020 (2015)** supplementary planning document retains as its guiding principle that there is no net increase in urban pressures on internationally important heathland as a result of additional development, and intends to protect the integrity of the Dorset Heaths by:

- Improving the quality of habitat;
- Reducing the effects of fragmentation and isolation by linking and securing sympathetic land use; and
- Implementing heathland avoidance elements of the green infrastructure.

2.2. BASELINE INFORMATION

2.2.1 Dorset is home to an incredibly diverse range of wildlife habitats and species, some of which are of exceptional ecological importance.

2.2.2 The Dorset Local Plan area includes large areas of important heathland, mixed deciduous woodland and calcareous grassland habitats which are listed as ‘priority habitats’ in the Natural Environment and Rural Communities Act 2006 and provide the focus of wildlife conservation in the Government’s 25 year Environment Plan (Figure 2.1).

Figure 2.1: A table showing the extent of priority habitats within the Dorset Local Plan area

Priority Habitat	Area (ha)
Lowland heathland	4673
Lowland mixed deciduous woodland	4283
Lowland calcareous grassland	3286
Lowland fens	689
Lowland meadows	668
Maritime cliff and slope	670
Wood-pasture and parkland	590
Lowland dry acid grassland	565
Wet woodland	553
Saline Lagoons	511
Purple moor grass and rush pastures	499
Coastal and floodplain grazing marsh	460
Coastal saltmarsh	376
Reedbeds	272
Coastal vegetated shingle	100
Coastal sand dunes	90

Source: Dorset Environmental Records Centre, July 2019

2.2.3 The ecological designations within the plan area include:

- European sites: European sites are strictly protected sites and include Special Areas of Conservation (SAC) and Special Protection Areas (SPA), which are designated under the habitats directive⁵ and birds directive⁶, respectively. Ramsar sites, which are wetlands of international importance designated under the Ramsar Convention⁷, have similar status to European sites.
- National sites: Sites of Special Scientific Interest (SSSI), National Nature Reserves and Local Nature Reserves are all designated on a national level.
- Local sites: Sites of Nature Conservation Interest (SNCI).

2.2.4 The plan area occupies approximately 252,100ha, of which approximately 6.1% is occupied by international sites, approximately 8.5% by national sites, and approximately 5.3% by local sites (Figure 2.2). However, there is some overlap between the wildlife designations, for example all European sites also have Sites of Special Scientific Interest status.

Figure 2.2: A table showing the coverage of wildlife designations within the Dorset Local Plan area

Designation		Area (ha)
European sites	Special Area of Conservation	11681
	Special Conservation Area	11022
	Ramsar	9121
	Total*	15,488
National sites	Site of Special Scientific Interest	19048
	National Nature Reserve	2226
	Local Nature Reserve	174
	Total	21,449
Local sites	Site of Nature Conservation Interest	11809
	Total	13,258

* Excluding overlap between the International designations

Source: Dorset Environmental Records Centre, July 2019

2.2.5 The International sites within the plan area occupy large areas of the coast, particularly at Chesil beach and the Fleet, and the southeastern part of the plan area due to the Dorset Heathlands designation (Figure 2.3).

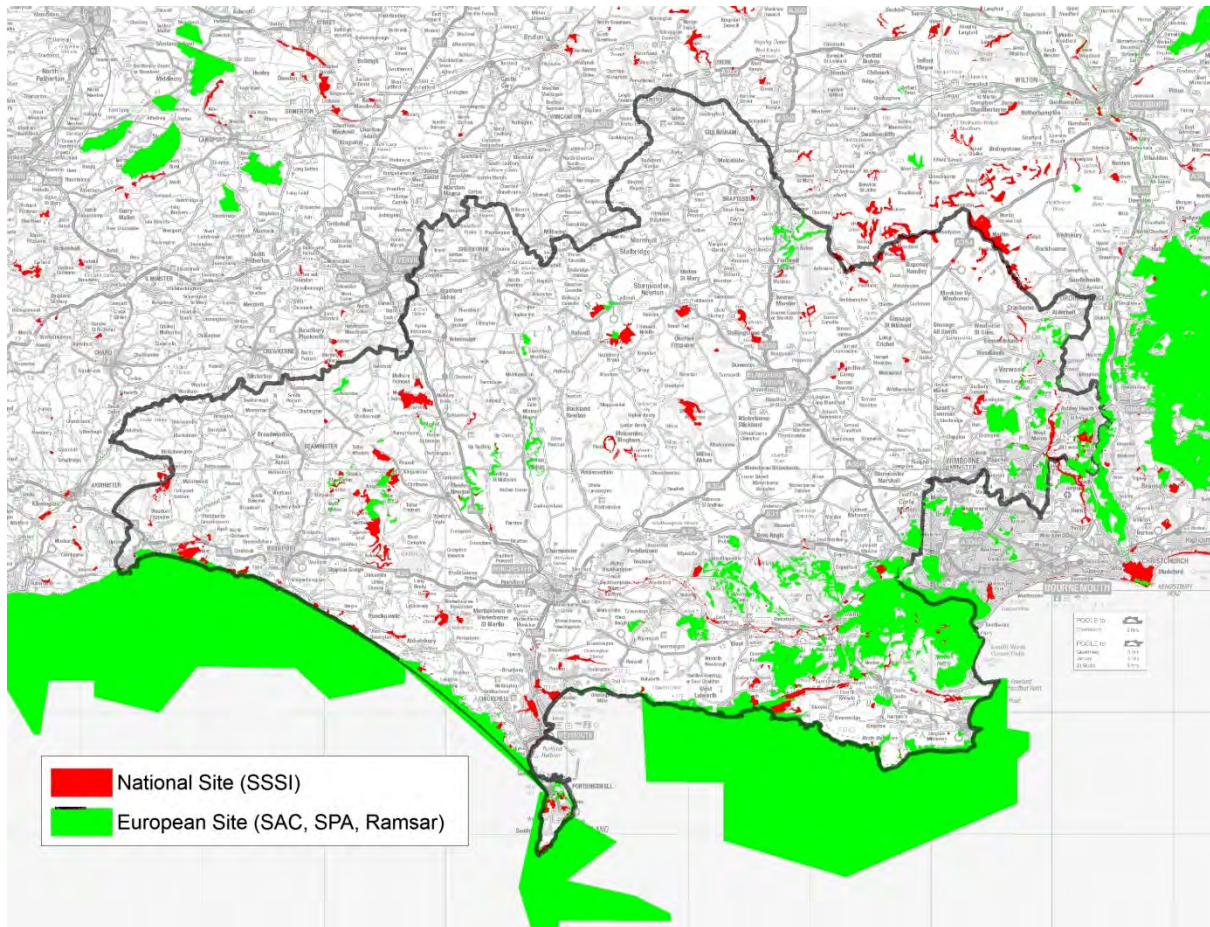
⁵ Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

⁶ Directive 2009/147/EC on the conservation of wild birds

⁷ The Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat

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Figure 2.3: The location and extent of European and national wildlife designations in the Dorset Local Plan area



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2.2.6 Monitoring of the condition of the wildlife designations within the Dorset Local Plan area has indicated that the majority (55%) of land occupied by the Site of Special Scientific Interest designation in the plan area is in unfavourable condition⁸.

2.2.7 However, records indicate an improvement in the management of local wildlife designations, with approximately 67.5% of designations in the Dorset Local Plan area under positive conservation management in 2019, marking a 20% increase from 2009, when 47.2% of sites were managed positively⁹.

⁸ Dorset Environmental Records Centre, July 2019

⁹ 'Single data List 160-00- Nature Conservation: Local sites in positive conservation management', Dorset Environmental Records Centre, 1st July 2019

2.3. SUSTAINABILITY ISSUES

ENVIRONMENTAL ISSUES RELATING TO EUROPEAN SITES

- 2.3.1 The SEA Directive requires particular consideration to be given to the environmental problems affecting sites which have been designated under the Birds and Habitats Directives (see paragraph 2.1.5).
- 2.3.2 These sites of exceptional ecological importance, known as European Sites, include the following designations:
- Special Areas of Conservation (SAC) designated under the Habitats Directive; and
 - Special Protection Areas (SPA) designated under the Birds Directive.
- 2.3.3 Wetlands of international importance, designated following the Ramsar Convention of 1971, are given similar status to European sites according to the NPPF.
- 2.3.4 Approximately 15,488ha of the Dorset Local Plan area, which represents 6.1% of the plan area, is designated as SPA, SAC or Ramsar.
- 2.3.5 The key environmental problems affecting European sites which are relevant to the Dorset Local Plan include:
- Elevated concentrations of phosphates affecting the River Avon SAC, Avon Valley SPA and Ramsar;
 - Elevated concentrations of nitrogen and recreational pressure affecting the Poole Harbour SPA and Ramsar;
 - Recreational pressure affecting the Dorset Heaths SAC, Dorset Heathlands SPA and Ramsar;
 - The deposition of atmospheric nitrogen and recreational pressure affecting the Fontmell & Melbury Downs SAC and Cerne and Sydling Downs SAC;
 - Recreational pressure affecting the Chesil and the Fleet SAC, SPA and Ramsar; and
 - Elevated concentrations of phosphates affecting the Somerset Levels and Moors SPA and Ramsar.
- 2.3.6 These impacts are considered in the following paragraphs.
- River Avon SAC, Avon Valley SPA and Ramsar**
- 2.3.7 The Avon Valley has a greater range of habitats and a more diverse range of flora and fauna than any other chalk river in Britain¹⁰.
- 2.3.8 The River Avon is a large, lowland river system that includes sections running through chalk and clay. It supports important populations plant, fish and invertebrate species, and is a

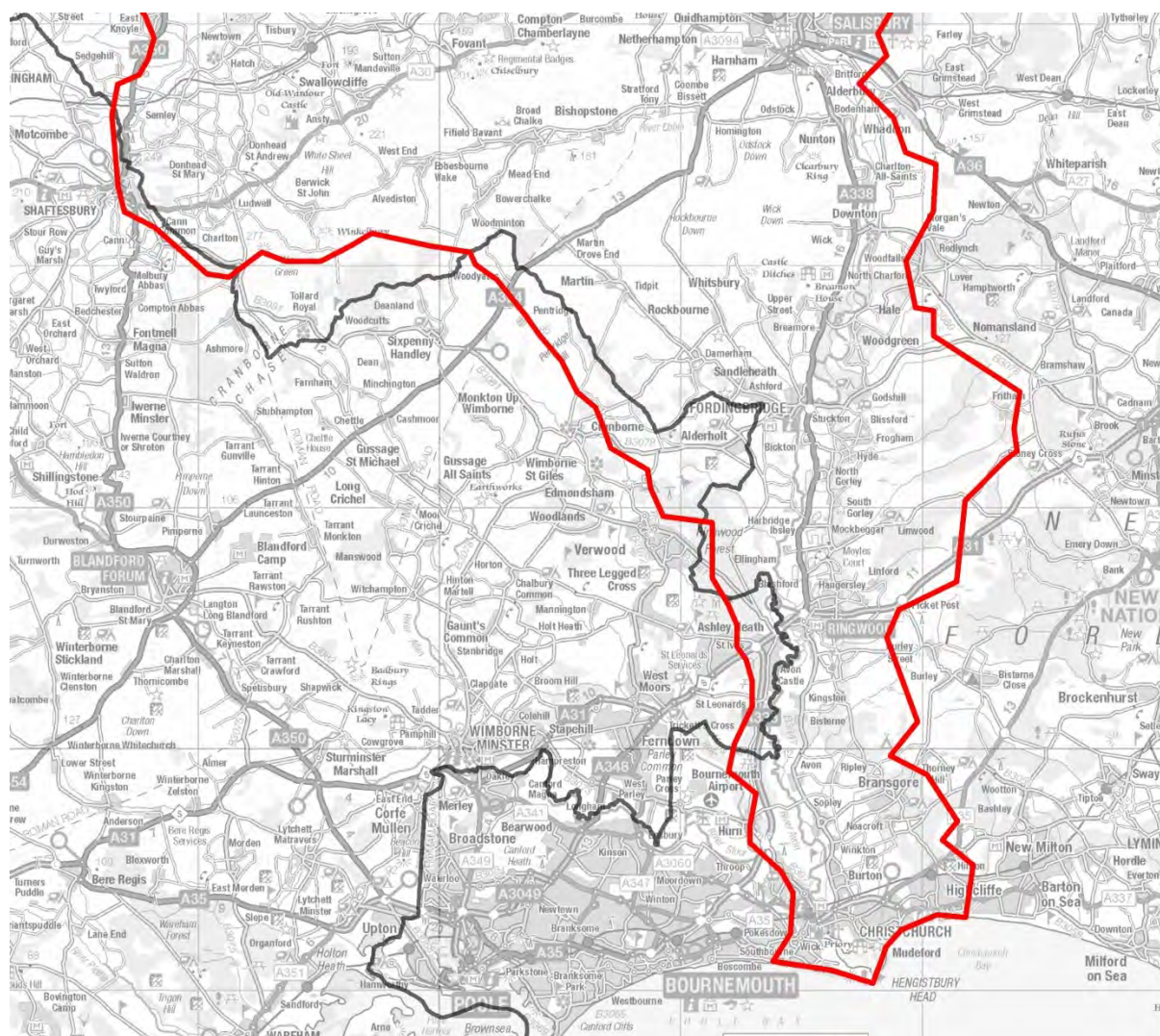
¹⁰ According to the Joint Nature Conservation Committee (JNCC), a public body that advises the UK Government and devolved administrations on UK-wide and international nature conservation

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designated Special Area of Conservation (SAC) under the Habitats Directive. The lower reaches of the River Avon SAC lie within the Avon Valley Special Protection Area (SPA) which is classified due to the population of over wintering bird species of European importance which inhabit the site. In addition the areas of the Avon Valley downstream of Fordingbridge include the Avon Valley Ramsar site, a wetland area of international importance.

- 2.3.9 Studies have shown that elevated concentrations of phosphates in freshwater systems results in increased plant growth, algal blooms and an accumulation in organic matter all of which contribute to a decrease in oxygen availability and a degradation in water quality. This effect, known as eutrophication, can result in catastrophic ecological impacts.
- 2.3.10 The Hampshire Avon failed to achieve Good Ecological or Groundwater Chemical Status under the Water Framework Directive in 2014 and 2015. This may be at least partly attributed to elevated levels of phosphates, the main sources of which are fertiliser from farming activities, fish farms and cress beds, wastewater effluent from residential properties and industrial development, and a natural contribution from the Upper Greensand underlying geology.
- 2.3.11 Wessex Water strips the vast majority of phosphate from sewage at Sewage Treatment Works in accordance with Environment Agency permit conditions before it is discharged to the river. However, despite this, elevated concentrations of phosphate are making a significant contribution to overall phosphate concentrations in the River Avon, resulting in impacts upon the River Avon and Avon Valley European sites.
- 2.3.12 Sections of the eastern boundary of the Dorset Local Plan area are within the hydrological catchment of the Hampshire Avon (Figure 2.4). New development within the part of Hampshire Avon's hydrological catchment which lies within the Dorset Local Plan area may result in additional inputs of phosphate into the Hampshire Avon European site, affecting the integrity of the River Avon and Avon Catchment European sites.

Figure 2.4: A map showing the extent of the River Avon catchment (catchment shown in red, Dorset Plan area shown in black)



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 Source of River Avon catchment area: Environment Agency

Poole Harbour SPA and Ramsar

- 2.3.13 Poole Harbour is a natural harbour and an outstanding natural feature on the south coast of England. Poole Harbour is of great nature conservation importance, as a wetland habitat and for birds and as a wetland habitat.
- 2.3.14 Poole Harbour is being affected by both elevated concentrations of nutrients (nitrogen) entering the harbour and by recreational pressure.
- 2.3.15 Scientific evidence suggests that high concentrations of nitrogen in the harbour are encouraging the growth of wide spread algal mats through the process of eutrophication. These mats restrict the availability of invertebrates, which are an important food source for wading birds and affect other important features and processes within the harbour. The

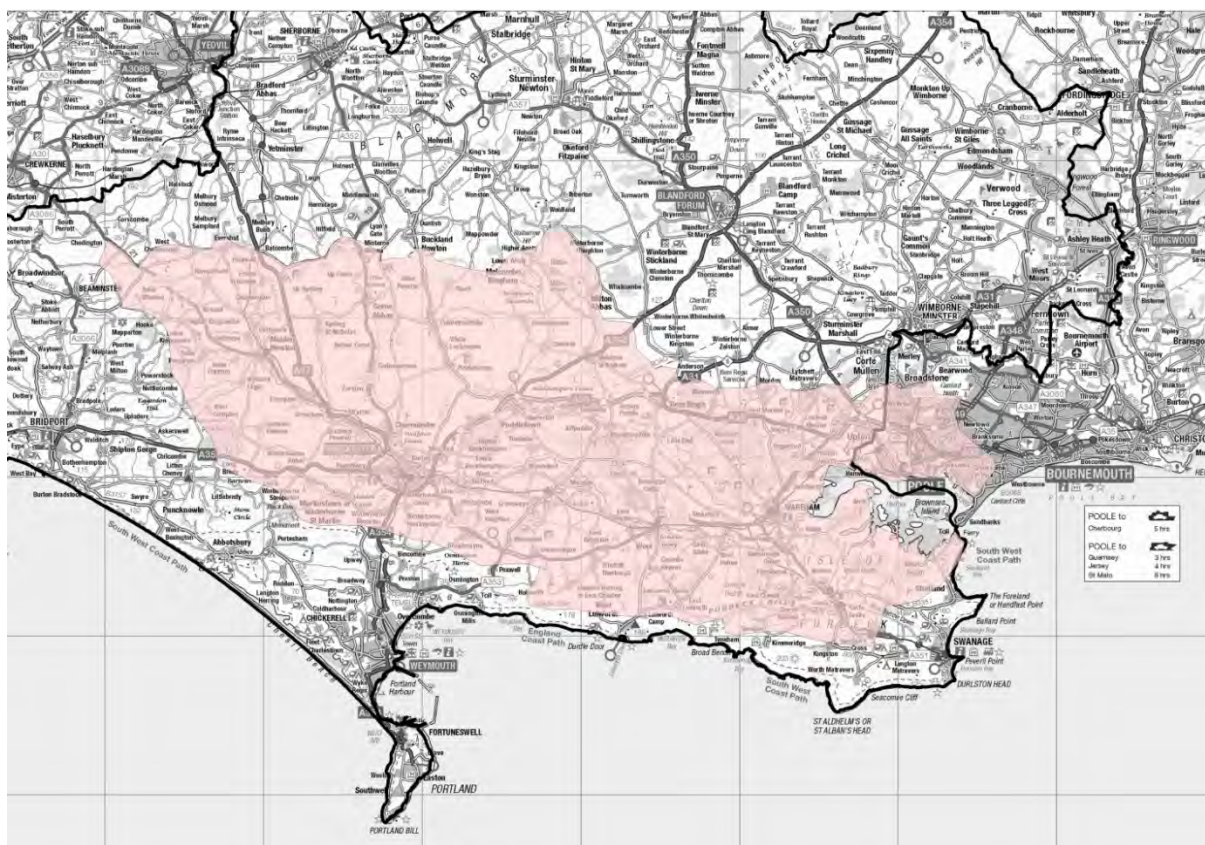
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extent of the algal mats has increased since the 1960s, expanding from Holes Bay to become widespread across the harbour.

2.3.16 The majority (~85%) of nitrogen entering Poole Harbour from land sources is generated by agriculture within the Poole Harbour catchment which occupies an area of 820km² and comprise the rivers and streams which drain into Poole Harbour. However, a proportion (~15%) of the nitrogen entering Poole Harbour is from human sewage discharged within the Poole Harbour catchment, since the Sewage Treatment Works remove only part of the nitrogen from human waste.

2.3.17 In response to this problem, the local authorities which occupy the Poole Harbour Catchment developed a supplementary planning document titled 'Nitrogen Reduction in Poole Harbour (2017)'. The objective of the document is to ensure that the potential impacts of future development upon the Poole Harbour International Site are mitigated against by ensuring that new development within the Poole Harbour hydrological catchment does not result in an increase in nitrogen entering Poole Harbour (and is therefore 'nitrogen neutral').

Figure 2.5: The location and extent of Poole Harbour hydrological catchment (shown in the pink area, with the Dorset Local Plan area within the black border).



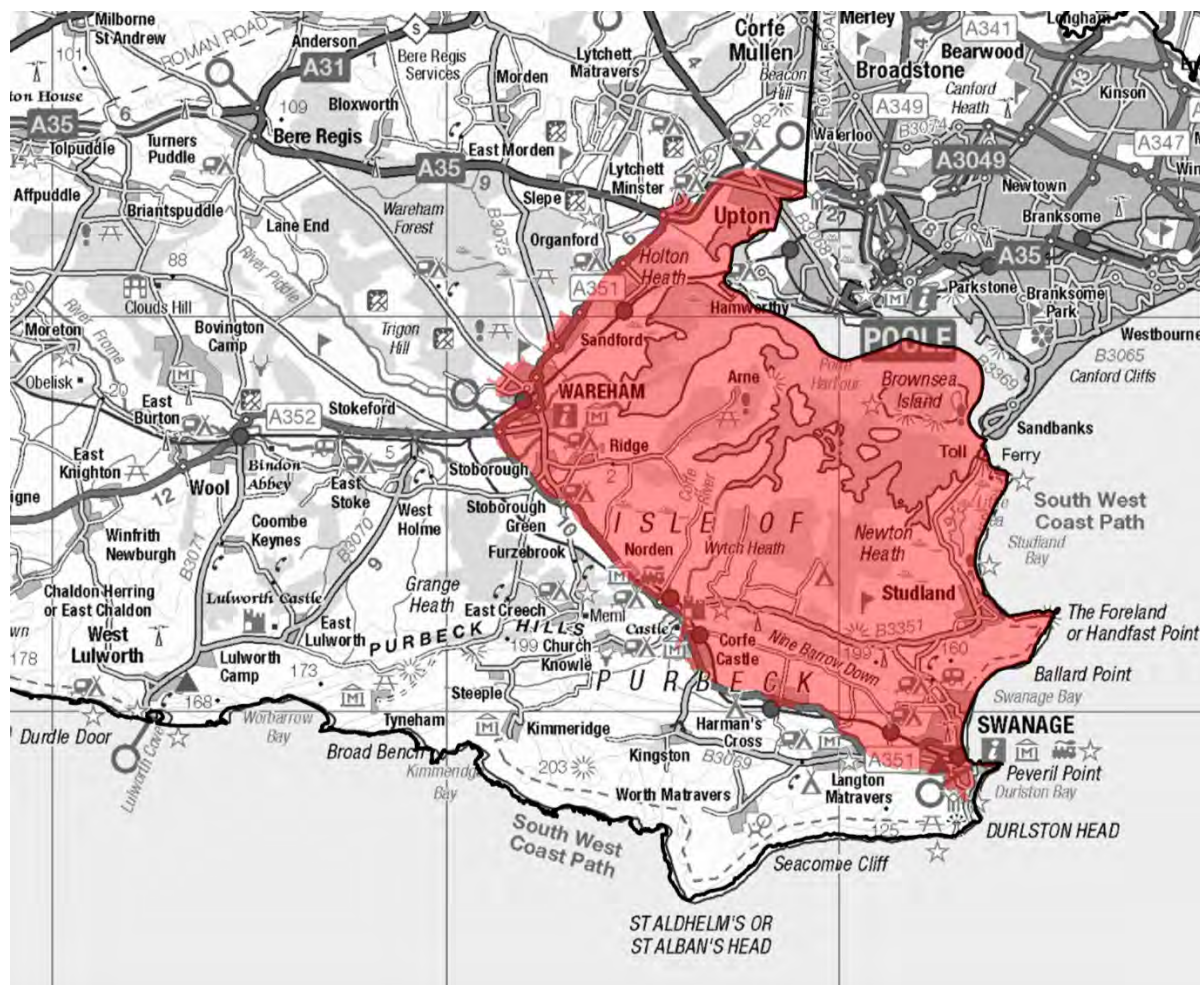
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- 2.3.18 Some recreational activities (including dog walking, cycling and water sports) around Poole Harbour are creating disturbance to wading birds and adversely affecting the estuarine habitat.
- 2.3.19 Survey studies show that local people visiting the harbour for recreational purposes tend to derive from a wide catchment of areas around Poole. It is thought that the draw is due to the uniqueness of the harbour which cannot be replaced, nor is there any comparable area in the rest of Poole for certain recreational activities such as watersports.
- 2.3.20 There is however, clearly a link between proximity to the harbour and frequency of visits. In the plan area, proximity to the harbour is shown to be more significant as the visitor survey studies show that most of the local people who visit the harbour tend to live in the towns and villages which are close to the A35 and A351, such as Swanage, Corfe Castle, Stoborough, Wareham, Lytchett Matravers and Upton.
- 2.3.21 Further residential development in those areas surrounding the harbour would result in an increase in population around the harbour, and would be likely to result in an adverse effect on the Poole Harbour European site.
- 2.3.22 The Poole Harbour Recreation Supplementary Planning Document (2019) has been drafted to mitigate the impact of new development from recreational activities by taking financial contributions from development and using this to provide mitigation measures, including:
- Strategic Access Management and Monitoring (SAMMS): further surveys and monitoring, wardens/rangers, awareness raising projects, and developing an Access Management Plan; and
 - Poole Harbour Infrastructure Projects (PHIP): Projects to manage visitor access and minimise disturbance, including for example the provision of alternative access around the Poole Harbour shoreline. Could potentially include Suitable Alternative Natural Greenspace (SANG).
- 2.3.23 The document sets out the Poole Harbour Recreation Zone within which the adverse effects of new residential development must be avoided or mitigated (Figure 2.6). The Poole Harbour Recreation Zone occupies an area in the southeast of the plan area, within the former district of Purbeck.

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Figure 2.6: The location and extent of Poole Harbour Recreation zone

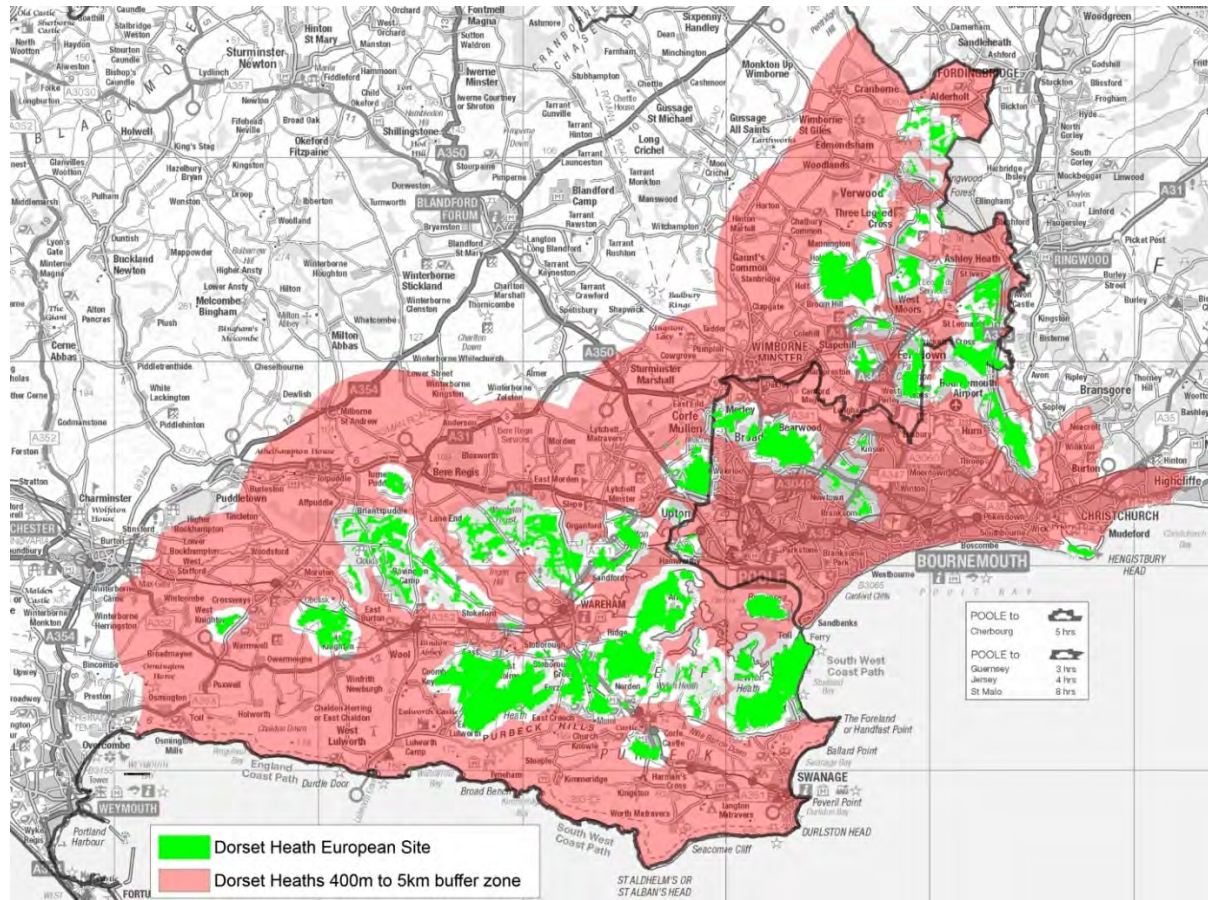


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Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar

- 2.3.24 The Dorset Heaths SAC and Dorset Heathlands SPA and Ramsar are sensitive to additional recreational pressure and so any development involving a net increase in local residents or staying visitors could be detrimental if not mitigated. The potential impacts include increased cat predation of wildlife, higher instances of wildfire, disturbances to ground nesting birds, increased nutrients from dog fouling and damage from increased footfall (trampling) on the heaths.
- 2.3.25 These impacts are most marked for developments within 400m of heathland sites, where it is considered that a negative effect upon the Dorset designated site would result. Residential development in these areas is therefore not permitted (Figure 2.7).
- 2.3.26 In the area between 400m and up to 5km from a heathland site (“5km buffer zone”), the effect of residential development is less marked but still likely to be significant. However, mitigation in these areas is more likely to be successful and therefore residential developments within this area may go ahead.

Figure 2.7: The location and extent of the Dorset Heaths buffer zones.



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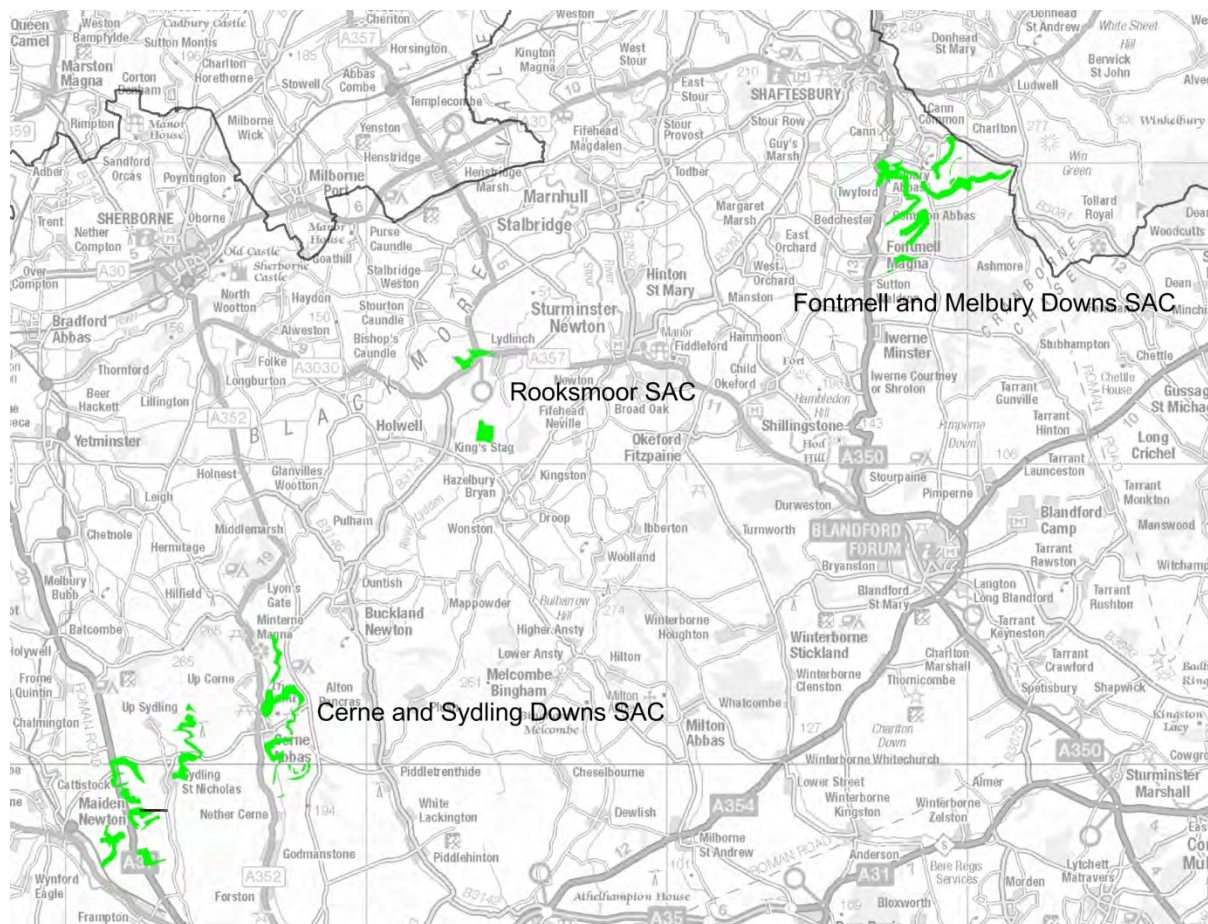
Fontmell & Melbury Downs SAC and Cerne and Sydling Downs SAC.

2.3.27 The Fontmell and Melbury Downs SAC and Cerne and Sydling Downs SAC are characterised predominantly by semi-natural dry grassland with some scrub and heathland on the chalk valley slopes of north Dorset (Figure 2.8).

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Figure 2.8: The location and extent of the Fontmell & Melbury Downs SAC, Cerne and Sydling Downs SAC, and Rooksmoor SAC.



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- 2.3.28 These chalk grassland habitats are sensitive to recreational pressure as a result of trampling and erosion by walking or cycling. Those parts that are steep and with thin soils, especially near access points where pressures are more concentrated, are particularly vulnerable. The addition of nutrients from dog faeces is also an threat, as this results in an input of nutrients into the soil and chalk grassland habitats are necessarily naturally low in nutrients.
- 2.3.29 New development in the areas surrounding these European Sites may increase the local population and the number of visits to these sites, increasing the recreational pressure. Surveys have indicated that the core recreational catchment, defined by the zone within which 75% of visitors derive, is typically 4-6km from a European Site and rarely larger.
- 2.3.30 These European Sites are also sensitive to the deposition of atmospheric nitrogen from vehicle exhaust emissions as this results in the enrichment of soils within a habitat which naturally requires low nutrient levels.
- 2.3.31 Within a 'typical' housing development, by far the largest contribution to the emission of nitrogen (approximately 92%) is from the associated road traffic. Therefore, the impact of

atmospheric deposition of nitrogen from new development is a particular issue close to roads. According to the Department of Transport's Transport Analysis Guidance, "*Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant*". This is due to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases. Also, as traffic exhausts are situated only a few inches above the ground and are horizontal to it, the vast majority of emitted pollutants are never dispersed far and are very quickly deposited.

- 2.3.32 The deposition of atmospheric nitrogen is also an issue at the Rooksmoor SAC, which is characterised by species-rich meadows, copses, and Common Land on neutral to acidic soils. The majority of the site is necessarily naturally low in nutrients, and therefore the enrichment of soils through the deposition of atmospheric nitrogen represents a threat to the integrity of this European site. Once again, this is a particular issue in those areas within 200m of the road, since vehicle emissions represent the greatest source of atmospheric nitrogen.

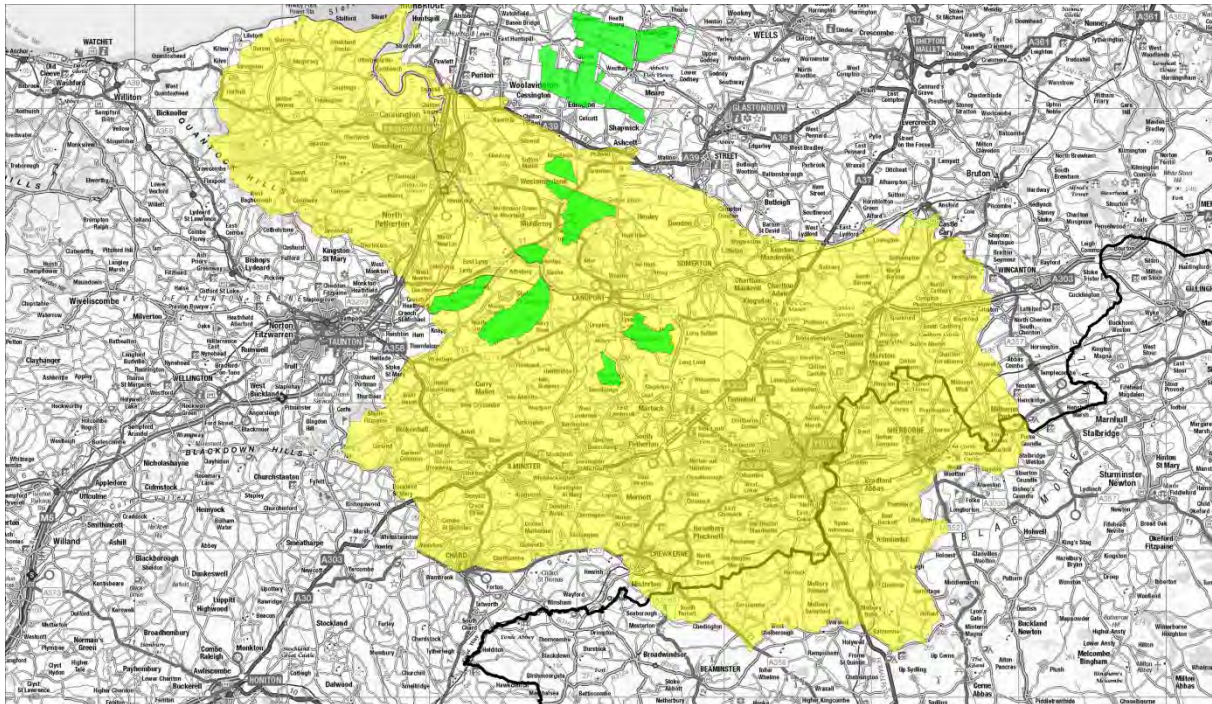
Somerset Levels and Moors SPA and Ramsar

- 2.3.33 The Somerset Levels and Moors SPA and Ramsar is located approximately 12km to the north of the Dorset Plan Area (Figure 2.9).
- 2.3.34 The Somerset Levels and Moors contain the largest area of lowland wet grassland in England, contributing 21% of the resource. The Somerset Levels and Moors are characterised by extensive flatness and frequent floods. The open expanse of grasslands broken up by isolated hills and ridges is some of the lowest land in the UK, with large areas lying below the level of the highest tides. Water dominates the landscape and a complex network of watercourses is evidence of a long history of drainage to reclaim productive farmland from marshland.
- 2.3.35 The Somerset Levels and Moors European Site occupies an area of approximately 6,400ha, representing approximately 12% of the total floodplain area. Much of the area outside the European site is a farmed grassland monoculture and is likely to be too dry at critical times of the year to support wetland wildlife.
- 2.3.36 Huge flocks of migratory waterfowl arrive at the Somerset Levels and Moors in winter and its importance for bird species is year round as it is one of the UK's most important breeding areas for Lapwing, Curlew, Redshank and Snipe. Meadows with more than 60 species of plant in a single field and ditches supporting a unique assemblage of rare invertebrates add to its diversity.
- 2.3.37 The uppermost areas of the Somerset Levels hydrological catchment occupy a section of the northern extent of the Dorset Local Plan area. The rivers within the Somerset Levels drain into the Bristol Channel, which has the second highest tidal range in the world.

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Figure 2.9: The location and extent of the Somerset Levels and Moors SPA and Ramsar (in green) and the Somerset Levels hydrological catchment.



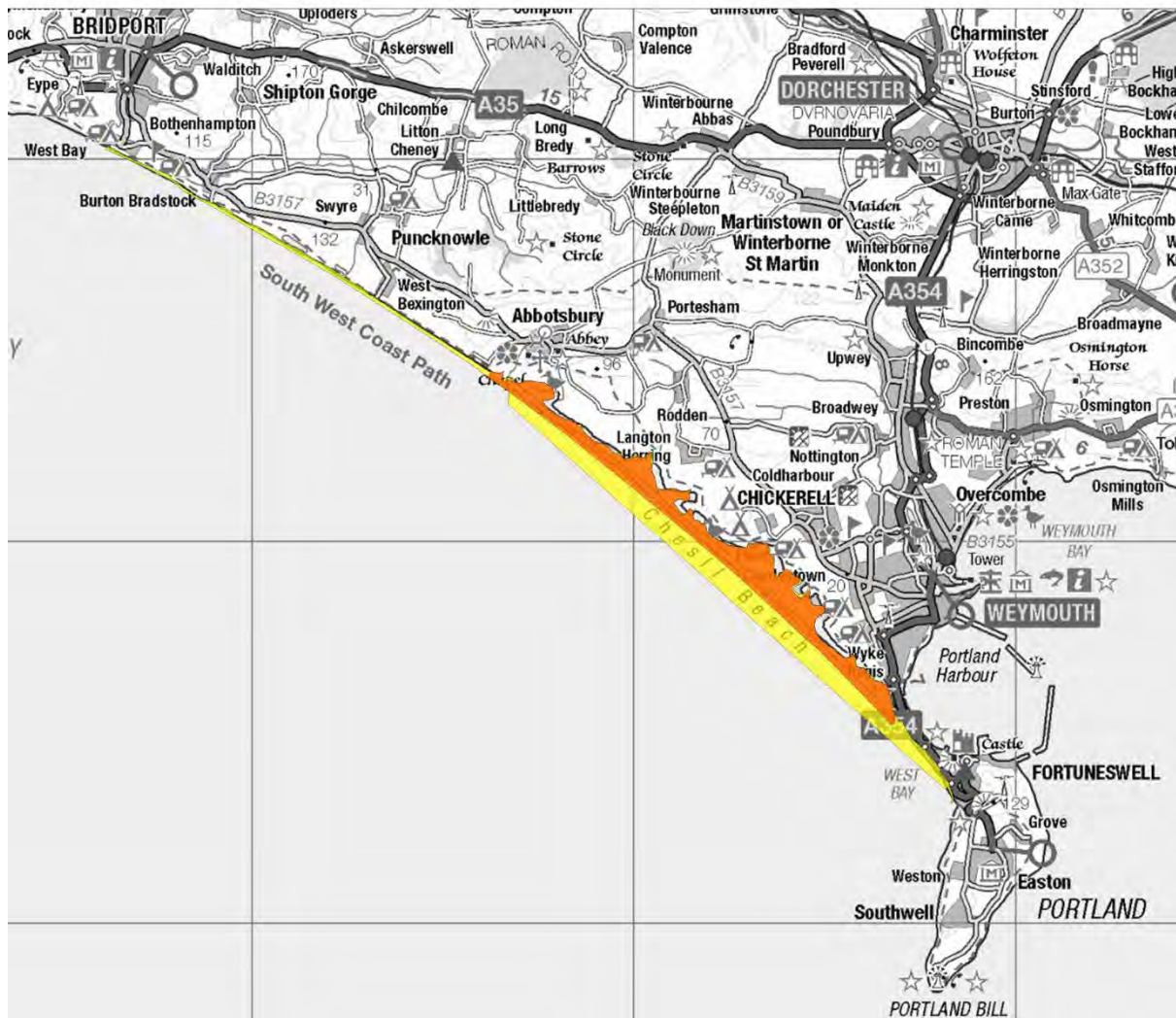
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2.3.38 Monitoring of the condition of the European site undertaken by Natural England has shown that elevated concentrations of phosphates within the water bodies at the European site are resulting in algal dominance and a decrease in plant diversity, resulting partly from a decline in vascular plants. This has resulted in some areas within the European site being classified as ‘unfavourable declining’.

Chesil and the Fleet SAC, SPA and Ramsar

2.3.39 The Chesil and the Fleet European site is characterised by a 29km long shingle bar and a coastal lagoon called the Fleet (Figure 2.10). The SPA element of the European site, designated under the Birds Directive, occupies the Fleet and immediate surroundings. The SAC and Ramsar designation occupies the Fleet and surroundings and occupies the shingle bar up to West Bay in the west.

Figure 2.10: The location and extent of the Somerset Levels and Moors SAC, SPA and Ramsar (SAC, SPA and Ramsar shown in orange, and the SAC and Ramsar shown in yellow).



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2.3.40 The Chesil and the Fleet SAC element of the European site is primarily designated for the following habitats:

- Coastal lagoon;
- Annual vegetation of drift lines;
- Perennial vegetation of stony banks; and
- Mediterranean and thermos-Atlantic halophilous scrubs (*Sarcocornetea fruticioia*).

2.3.41 The coastal lagoon, known as the Fleet, is the largest lagoon in England and supports the greatest diversity of habitats and species of any lagoon in the UK. The marine invertebrate communities and flora of the Fleet are exceptionally diverse with a number of nationally rare, scarce and protected species.

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- 2.3.42 The Mediterranean and thermos-Atlantic halophilous scrubs habitat is largely associated with this lagoon habitat, since it is found predominantly on the seaward margin of the Fleet.
- 2.3.43 Chesil Beach represents an extensive area of ‘perennial vegetation of stony banks’, with most of it is relatively undisturbed by human activities. Chesil Beach supports the most extensive occurrences of the rare sea-kale (*Crambe maritima*) and sea pea (*Lathyrus japonicas*) in the UK, together with other grassland and lichen-rich shingle plant communities typical of more stable conditions.
- 2.3.44 In addition, Chesil beach is also one of two representatives of Annual vegetation of drift lines on the south coast of England. The inner shore of the beach supports extensive drift-line vegetation dominated by sea beet (*Beta vulgaris maritima*) and orache (*Atriplex*).
- 2.3.45 The Chesil and the Fleet SPA provides a nesting site for the Little Tern (*Sterna albifrons*), Common tern (*Sterna hirundo*) and Ringed Plover (*Charadrius hiaticula*) between February and August.
- 2.3.46 Natural England, in their consultation response, have raised concerns about the threat to the Chesil and the Fleet European site posed by recreational pressure.
- 2.3.47 The recreational pressure at the Chesil and the Fleet European site is typically as a result of walking, bird watching, fishing and boating. This may have a direct impact upon the SAC and Ramsar habitats.
- 2.3.48 In terms of the Chesil and the Fleet SPA, recreational pressure is likely to cause disturbance to bird species during breeding season may result in the birds expending energy unnecessarily, not feeding properly, and or tending to eggs or nestlings if the disturbance is close to the nesting site. This is likely to affect the condition of the birds and reduce the survival rate of the eggs and nestlings, ultimately compromising the survival of the birds. Disturbance to over wintering species is also a concern.
- 2.3.49 Whilst disturbance is generally less during the winter months, bird populations are particularly vulnerable during this time of year due to food shortages. Disturbance can result in the abandonment of suitable feeding areas can have severe consequences for those birds involved.

KEY ENVIRONMENTAL ISSUES RELATING TO BIODIVERSITY, FLORA AND FAUNA

- 2.3.50 The key environmental issues relating to biodiversity, flora and fauna are:
- The potential loss of biodiversity and irreplaceable habitats (such as ancient woodland and veteran trees) and degradation of ecosystems through the effects of development;
 - The potential loss of wildlife corridors which provide important links between habitats. This results in a loss of connectivity between habitats, preventing species from freely migrating and causing populations to become isolated. This is likely to be a greater issue in future as the effects of climate change are realised, as wildlife sites connected by corridors allow species to freely migrate to a more suitable climates;

- Maintaining or restoring the favourable conservation status of European sites, designated under the Bird and Habitats Directives, and Ramsar sites. Minimising the impacts upon the Dorset Heaths as a result of additional recreational pressure from development, Poole Harbour due to the input of nitrates and recreational pressure from development, the River Avon valley from the input of phosphates, and the chalk grasslands of north Dorset from the atmospheric deposition of nitrogen and recreational pressure.
- Maintaining or restoring the favourable conservation status of Sites of Special Scientific Interest, many of which are in unfavourable condition within the Dorset Local Plan area;
- The protection and enhancement of local wildlife designations, such as Sites of Nature Conservation Interest (SNCI); and
- Maintaining and restoring the favourable conservation status of priority (S41) habitats and species, which are species and habitats of principal importance for the conservation of biodiversity in England, published as a requirement of the NERC Act Section 41 (S41).

3 Soil

- 3.0.1 Soil is the uppermost layer of the earth's crust, containing the organic and mineral matter which enable plants to grow.
- 3.0.2 Soil is an invaluable component of the natural environment, for example playing a key role in nutrient cycling by storing carbon, filtering water of contaminants as it leaches through the soil profile, and aiding drainage and flood management.
- 3.0.3 Soil is also an important natural resource both for the community and the economy, providing food, clean drinking water, and building materials.
- 3.0.4 Given the importance of soil, the global trend of soil degradation has been recognised as a serious and widespread problem. Soil degradation may occur:
- Physically: for example through accelerated soil erosion or the decline of structural condition which aids drainage;
 - Chemically: for example through the loss of nutrients or elevated concentrations of contaminants; and/or
 - Biologically: for example through the depletion of soil organic matter and the imbalance of populations of organisms which enable the healthy functioning of the soil.
- 3.0.5 The cause of soil degradation is often due to improper use or land management practices, such as deforestation and changes of land use, agricultural practices such as overgrazing, overexploitation and fertiliser use, and industrial activities.
- 3.0.6 Soil contamination is a form of soil degradation caused by elevated concentrations of chemicals in the soil, often as a legacy of previous land use, industrialisation, and inappropriate waste disposal.
- 3.0.7 Soil provides the medium for growing crops, and supplies the essential nutrients required to support healthy crop yields. Conserving soil quality is therefore key in maintaining agricultural productivity, ensuring food security and achieving a sustainable agricultural system.
- 3.0.8 Soil is largely a product of the underlying geology, since it is formed by the weathering of bedrock. This Chapter will also consider geodiversity, defined as range of rocks, minerals, fossils, soils and landforms¹¹, and conservation of the geological resource within the plan area.

3.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 3.1.1 The United Nations developed a series of global development goals which aim to deliver

¹¹ Annex 2: Glossary of the National Planning Policy Framework (2019)

sustainable development in the document titled **Transforming our world: the 2030 Agenda for Sustainable Development (2015)**. One such goal is:

- End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

EUROPEAN

3.1.2 The European Commission's **European Spatial Development Perspective (1999)** intends to achieve balanced and sustainable development through the 'Conservation of natural resources'.

3.1.3 The European Union's **Seventh Environmental Action Plan (2013)** outlines the wider long term environmental vision for the European Union and includes the goal of ensuring that by 2020:

- land is managed sustainably in the Union, soil is adequately protected and the remediation of contaminated sites is well underway; and
- the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

NATIONAL

3.1.4 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)**, also known as the 25 Year Environment Plan, sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following objectives and actions relating to soil and pollution:

- We will ensure that resources from nature are used more sustainably and efficiently. We will do this by:
 - improving our approach to soil management: by 2030 we want all of England's soils to be managed sustainably, and we will use natural capital thinking to develop appropriate soil metrics and management approaches
- We will make sure that chemicals are safely used and managed, and that the levels of harmful chemicals entering the environment (including through agriculture) are significantly reduced. We will do this by:
 - seeking in particular to eliminate the use of Polychlorinated Biphenyls by 2025, in line with our commitments under the Stockholm Convention
 - substantially increasing the amount of Persistent Organic Pollutants material being destroyed or irreversibly transformed by 2030, to make sure there are negligible emissions to the environment
 - fulfilling our commitments under the Stockholm Convention as outlined in the UK's most recent National Implementation Plan

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3.1.5 The strategy for the future of soils in England is presented in the **Safeguarding our Soils: A strategy for England (2009)**, which sets out the following vision:

“By 2030, all of England’s soils will be managed sustainably and degradation threats tackled successfully. This will improve the quality of England’s soils and safeguard their ability to provide essential services for future generations”.

3.1.6 The **National Planning Policy Framework (2019)** (NPPF) for England states that the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing...geological conservation interests and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- 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; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

3.1.7 The Government’s strategic direction for biodiversity is presented in **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services (2011)**, which includes the following aims with respect to agriculture:

- Priority action 3.1: Improve the delivery of environmental outcomes from agricultural land management practices, whilst increasing food production; and
- Priority action 3.2: Reform the Common Agricultural Policy to achieve greater environmental benefits.

LOCAL

3.1.8 West Dorset District Council’s **Contaminated Land Strategy 2008-13 (West Dorset District Council) (2008)** aims to prevent contamination of land from causing unacceptable risks to human health or the wider environment. The former Council’s priorities in dealing with contaminated land (in order of priority, with 1 being the most important) are as follows:

1. To protect human health
2. To protect controlled waters
3. To protect designated ecological systems
4. To protect property
5. To protect property in the form of buildings
6. To prevent any further contamination of land
7. To encourage voluntary remediation
8. To encourage the re-use of brownfield land

3.1.9 The **Dorset Local Nature Partnership’s Vision and Strategy (2016)** sets out the following strategic priorities for the nature partnership, which include the following objectives relating to water:

- Secure and stable support for the good management of the farmed and marine environment;
- More efficient and effective use being made of scarce natural resources, particularly land; and
- Productive agriculture which contributes to a healthy and attractive environment.

3.1.10 The **Dorset Local Geodiversity Action Plan (2005)** aims to:

- draw together existing information and ongoing projects concerned with the geology, geomorphology, soils and landscapes of Dorset and the East Devon Coastal Corridor, and to initiate further actions that will lead to the conservation and enhancement of the geological resource; and
- Increasing appreciation and understanding of the geological heritage of the area.

3.1.11 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to geodiversity:

- Full consideration of geodiversity conservation is required in plans and strategies affecting the AONB, e.g. local plans, mineral plans and shoreline management plans. The close links between geodiversity, conservation, extraction industries, landscape and built environment conservation should be recognised.

3.2. BASELINE INFORMATION

3.2.1 The Agricultural Land Classification system classifies land into five grades. The best and most versatile agricultural land, according to National Planning Policy Guidance, is defined as grades 1 (Excellent) and 2 (Very Good). This land which is 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.

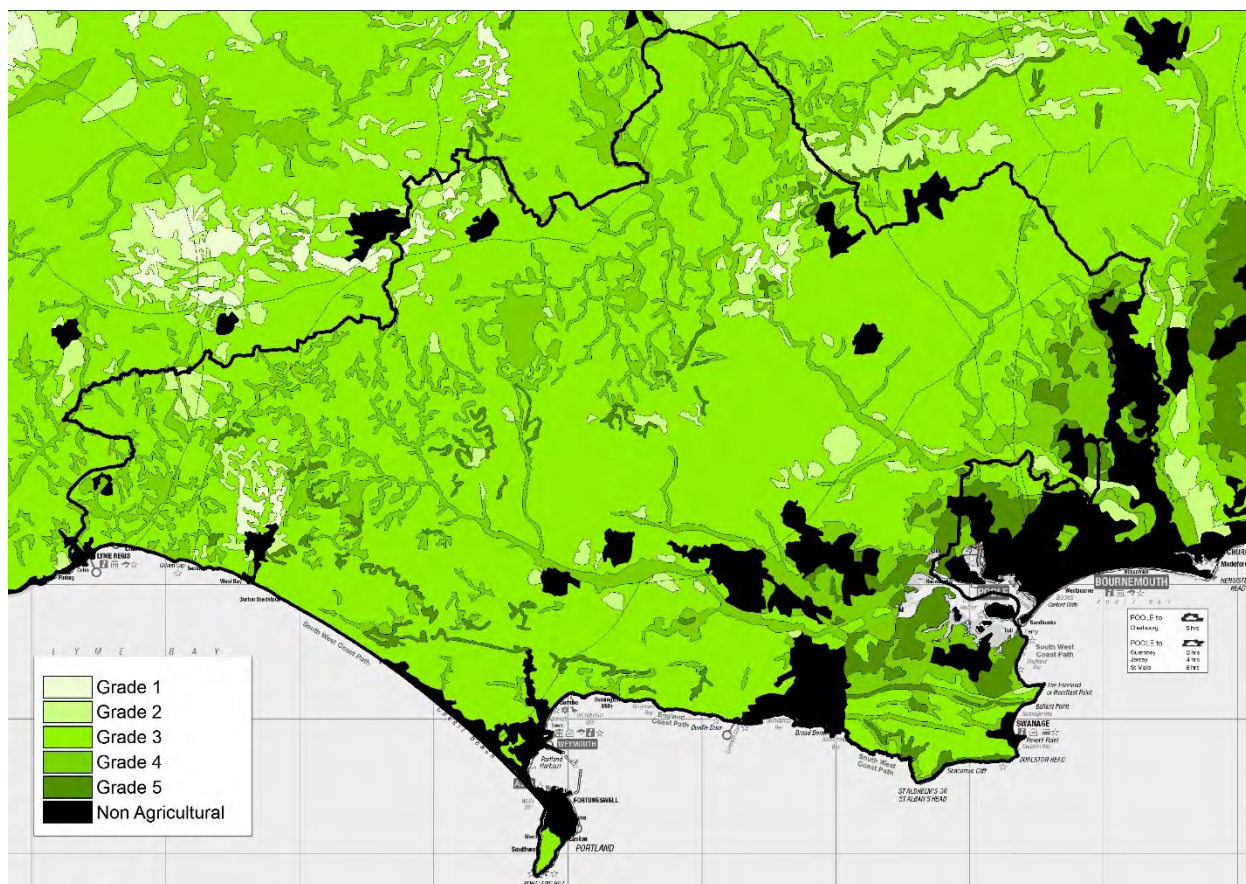
3.2.2 Grade 3 is classified as 'moderate', grade 4 is 'poor', and grade 5 is 'very poor' agricultural land.

3.2.3 The highest grade agricultural land within the plan area is situated to the north of Bridport, to the west of Sherborne, and to the north of Blandford Forum (Figure 3.1).

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Figure 3.1: The location and extent of agricultural land grades within the Dorset Local Plan Area



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3.2.4 Local Authorities have duties and responsibilities under Part IIA of the Environmental Protection Act 1990 to investigate land which is defined as contaminated under the terms of the act.

3.2.5 Prior to the establishment of Dorset Council in April 2019, the individual councils held separate public register of part IIA sites¹². These registers are yet to be combined to a single register. However, at the time of writing (July 2019), the public registers of part IIA sites within the Dorset Plan area contain the following two sites which have been identified as contaminated land under the definition provided in the Environmental Protection Act (1990):

- **Former Sherborne Landfill Site at West Mill Lane, Sherborne, Dorset:** The site occupies an area of approximately 5.5 ha. The site was a stream valley owned by Sherborne Castle Estates. It was leased by Sherborne Urban District Council, who culverted the stream and used the site to tip domestic refuse from 1970 onwards. The lease passed to Dorset County Council in 1974. Tipping at the site ceased in

¹² Further information on contaminated land in Dorset is provided here:

<https://www.dorsetcouncil.gov.uk/planning-buildings-land/planning/planning-constraints/contaminated-land/contaminated-land.aspx>

1993. The site was formally designated by West Dorset District Council as contaminated land on 29th July 2003, and Dorset County Council obtained government funding to repair the collapsing culvert and remediate the site to current standards.

- Cogdean Elms Industrial Estate, Higher Merley Lane, Corfe Mullen, Wimborne: Companies that use chemicals have been present on the industrial estate since 1954. Uncontrolled practices resulted in small amounts of chemicals spilled into the ground or disposed to soakaway. Once the contamination is in the ground it enters groundwater and then enters the Ashington Stream. The site has been determined as contaminated and a “special site” as the contamination affects groundwater and surface water. As a special site, the Environment Agency took on responsibility for inspection, enforcement, and ensuring the site is remediated.

3.3. SUSTAINABILITY ISSUES

3.3.1 The key environmental issues relating to soil are:

- The potential loss of the most productive soils to development, mainly situated north of Bridport, to the west of Sherborne, and to the north of Blandford Forum. The loss of productive soils would compromise the ability to produce crops locally, affecting food security and sustainable agriculture;
- New development causing contamination and contributing to unacceptable concentrations of pollutants in soil;
- The remediation of soils on contaminated sites, to prevent impacts to human health, controlled waters, property and ecological systems; and
- The protection of geodiversity and conservation of geological interests from the impacts of new development.

4 Water

- 4.0.1 Water covers 70% of the earth's surface and is one of the world's most important resources. Water cycles around the planet, evaporating from the earth's surface and the oceans into the atmosphere and condensing to form clouds, before precipitating back onto the land to replenish groundwater and the oceans.
- 4.0.2 Water is essential for life and without it there would be no life on earth. It supports all ecosystems, providing aquatic and marine habitats and supplying the nutrients and minerals that plants and animals need to survive. Water is also critical for human health and wellbeing, making up two thirds of the human body and playing a role in every bodily function.
- 4.0.3 The social and economic value of water is immeasurable. Access to clean drinking water is a fundamental human right, and water is essential for agriculture, many industrial processes and a host of recreational and tourism based activities.
- 4.0.4 Given the widespread importance of water, the consequences of the decline in water quality are severe. Human activity is largely attributed as the cause of the decline in water quality, for example through pollution due to discharge of chemicals and other materials such as micro-plastics into watercourses, global temperature rise and overexploitation of water resources.
- 4.0.5 This section considers a broad range of issues relating to the topic of water and the aquatic environment including:
- coastal waters, defined as water up to one mile from the coast;
 - transitional waters, which are surface waters in the vicinity of river mouths which are partly saline as a result of their proximity to coastal waters but which are substantially influenced by freshwater flows; and
 - freshwater and related features such as wetlands and floodplains. This includes groundwater.

4.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

EUROPEAN

- 4.1.1 The European Union's **Seventh Environmental Action Plan (2013)** outlines the wider long term environmental vision for the European Union and includes the following aim:
- The impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) is significantly reduced to achieve, maintain or enhance good status, as defined by the Water Framework Directive.
- 4.1.2 The EU **Water Framework Directive (2000/60/EC)** establishes the European framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater with the intention of:

- Preventing further deterioration and protecting and enhancing the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands;
- Promoting sustainable water use based on long-term protection of available water resources;
- Aiming at enhanced protection and improvement of the aquatic environment;
- Ensuring the progressive reduction of pollution of groundwater and preventing its further pollution; and
- Contributing to mitigating the effects of floods and droughts.

4.1.3 The Water Framework Directive contains the following targets:

- Achieve good ecological & chemical status by 2015 unless there are grounds for derogation.
- Reduce & ultimately eliminate priority hazardous substances.

4.1.4 The EU **Nitrates Directive (91/676/EEC)** is an integral part of the Water Framework Directive and is one of the key instruments in the protection of waters against agricultural practices. The Directive aims to protect water quality across Europe by:

- preventing nitrates from agricultural sources polluting ground and surface waters; and
- promoting the use of good farming practices.

NATIONAL

4.1.5 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)** sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following objectives and actions relating to water:

“We will achieve clean and plentiful water by improving at least three quarters of our waters to be close to their natural state as soon as is practicable by:

- reducing the damaging abstraction of water from rivers and groundwater, ensuring that by 2021 the proportion of water bodies with enough water to support environmental standards increases from 82% to 90% for surface water bodies and from 72% to 77% for groundwater bodies;
- reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water as per our River Basin Management Plans;
- supporting OFWAT’s ambitions on leakage, minimising the amount of water lost through leakage year on year, with water companies expected to reduce leakage by at least an average of 15% by 2025; and

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- minimising by 2030 the harmful bacteria in our designated bathing waters and continuing to improve the cleanliness of our waters; we will make sure that potential bathers are warned of any short-term pollution risks.

4.1.6 The 25 year plan states that the Government will make sure that chemicals are safely used and managed, and that the levels of harmful chemicals entering the environment (including through agriculture) are significantly reduced by reducing land-based emissions of mercury to water by 50% by 2030.

4.1.7 The **National Planning Policy Framework (2019)** (NPPF) for England states that 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. Development should, wherever possible, help to improve local environmental conditions such as...water quality, taking into account relevant information such as river basin management plans.

4.1.8 The Government's strategic direction for biodiversity presented in **Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011)** includes the following priority actions with respect to water management:

- *Priority action 3.6:* Align measures to protect the water environment with action for biodiversity, including through the river basin planning approach under the EU Water Framework Directive
- *Priority action 3.7:* Continue to promote approaches to flood and erosion management which conserve the natural environment and improve biodiversity
- *Priority action 3.8:* Reform the water abstraction regime. The new regime will provide clearer signals to abstractors to make the necessary investments to meet water needs and protect ecosystem functioning. We will also take steps to tackle the legacy of unsustainable abstraction more efficiently

LOCAL

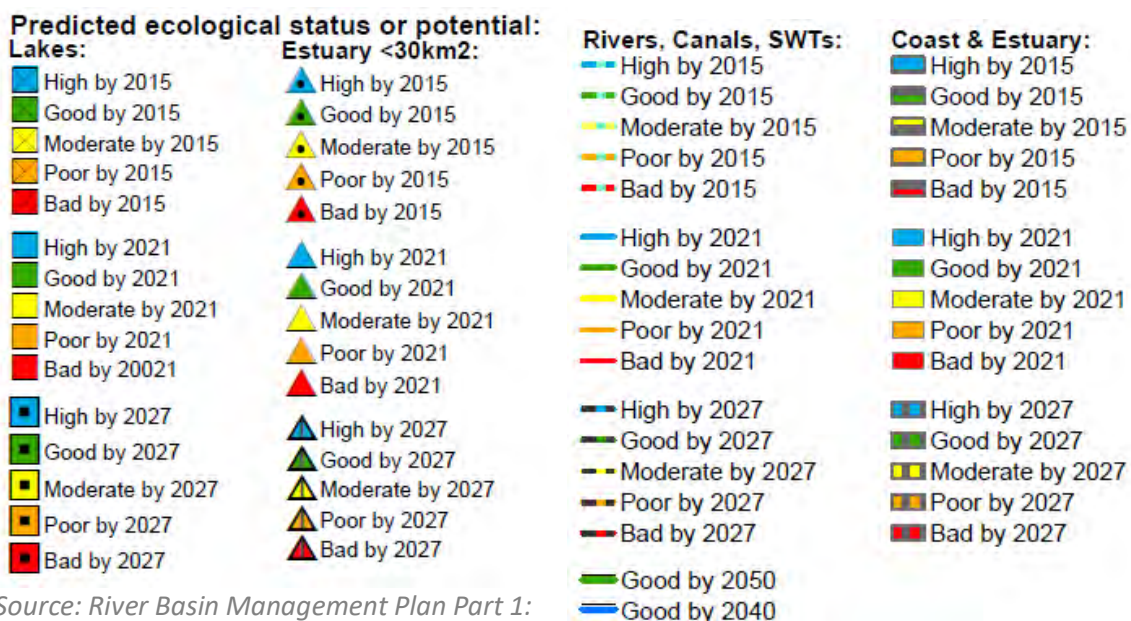
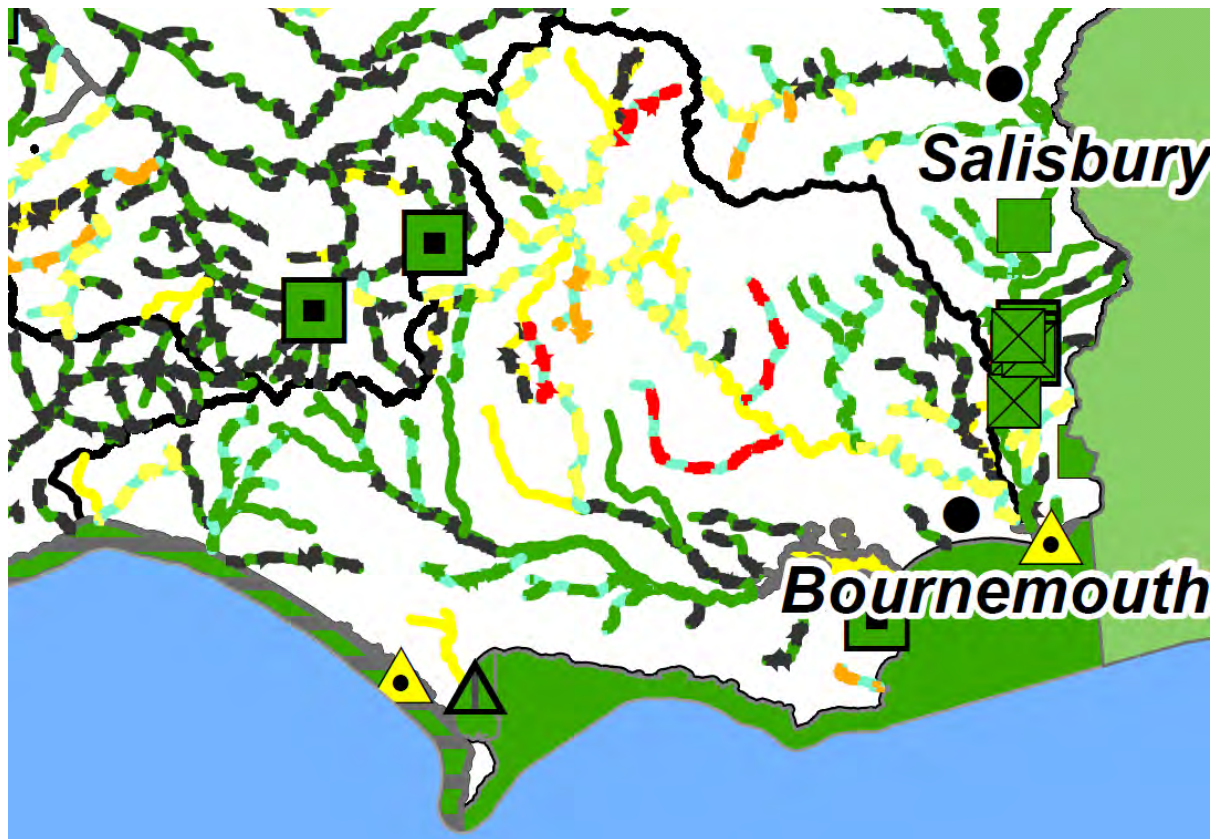
4.1.9 The **River Basin Management Plan Part 1: South West River Basin District (2015)** aims to provide a framework for protecting and enhancing the benefits provided by the water environment, partly by informing decisions on land-use planning. The plan aims to meet the objectives of the **Water Framework Directive (2000/60/EC)**, including the following:

- to prevent deterioration of the status of surface waters and groundwater;
- to achieve objectives and standards for protected areas (Figures 4.1 to 4.3);
- to aim to achieve good status for all water bodies or, for heavily modified water bodies and artificial water bodies, good ecological potential and good surface water chemical status;
- to reverse any significant and sustained upward trends in pollutant concentrations in groundwater;

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- the cessation of discharges, emissions and losses of priority hazardous substances into surface waters; and
- progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants.

Figure 4.1: The objectives for the ecological status of water bodies in Dorset

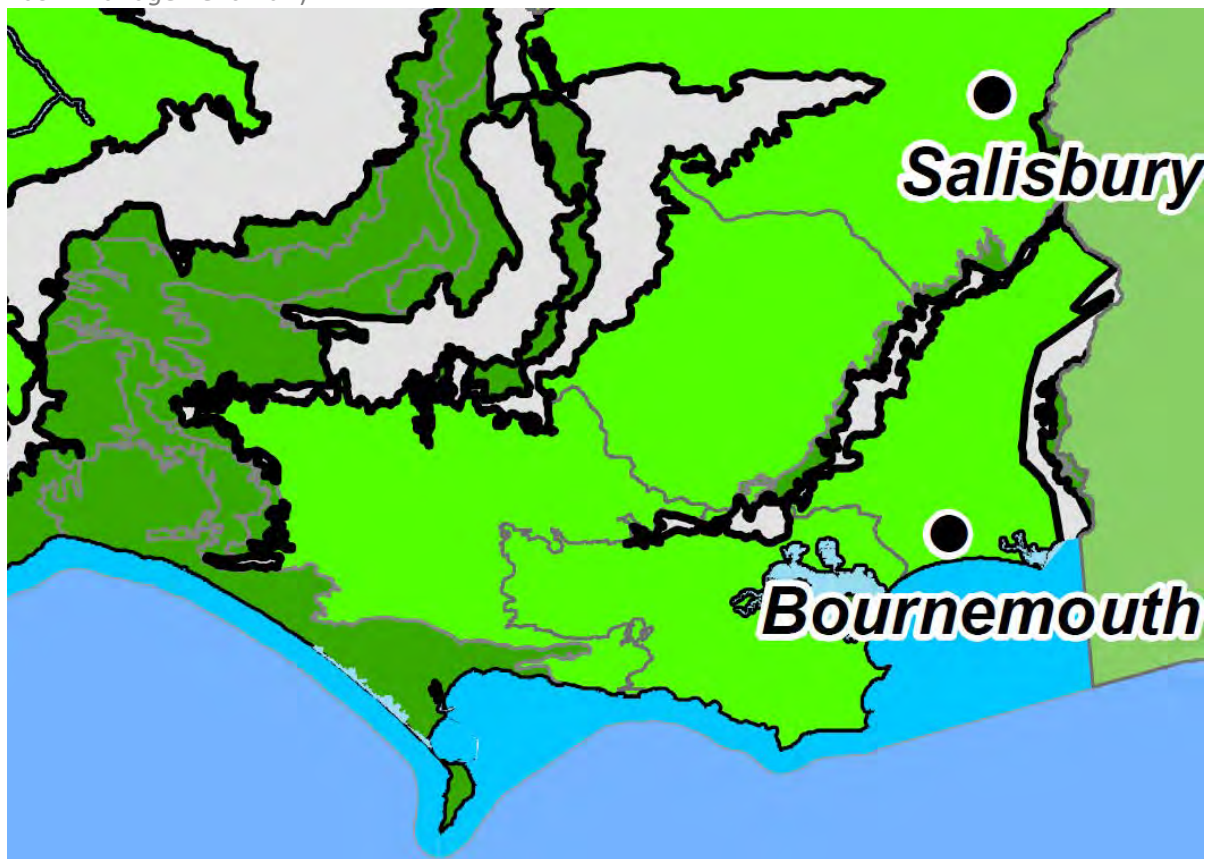


Source: River Basin Management Plan Part 1: South West River Basin District (2015)

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Figure 4.2: The objectives for the chemical status of water bodies in Dorset (taken from the River Basin Management Plan)

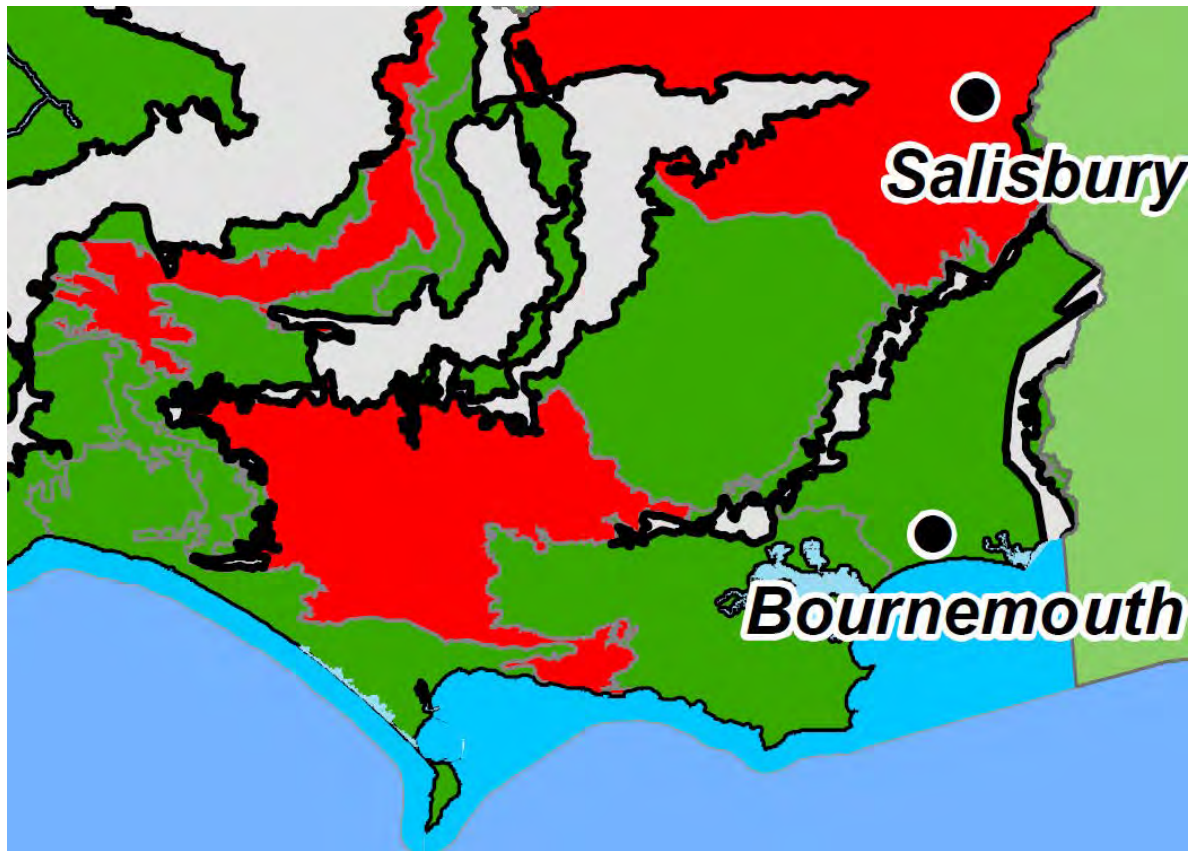


Groundwater predicted chemical status



Source: River Basin Management Plan Part 1: South West River Basin District (2015)

Figure 4.3: The objectives for the quantitative status of water bodies in Dorset (taken from the River Basin Management Plan)



Groundwater predicted quantitative status

-  Good By 2015
-  Poor By 2015
-  Good By 2021
-  Good By 2027

Source: River Basin Management Plan Part 1: South West River Basin District (2015)

4.1.10 The **Poole Harbour Catchment Initiative Catchment Plan (update) (2014)** aims to protect and restore the groundwater, rivers and Poole Harbour, and contains the following visions:

- Sustainable farming, development, water use and sewage treatment that supports healthy rivers and groundwater in the Poole Harbour catchment;
- Recognition of the ecosystem services that the catchment can provide and adequate payment to those that manage the land to provide these services;
- Improvements to biodiversity habitats both in the form of naturally functioning rivers, floodplains and wetlands and appropriately located woodland and low-input grassland; and

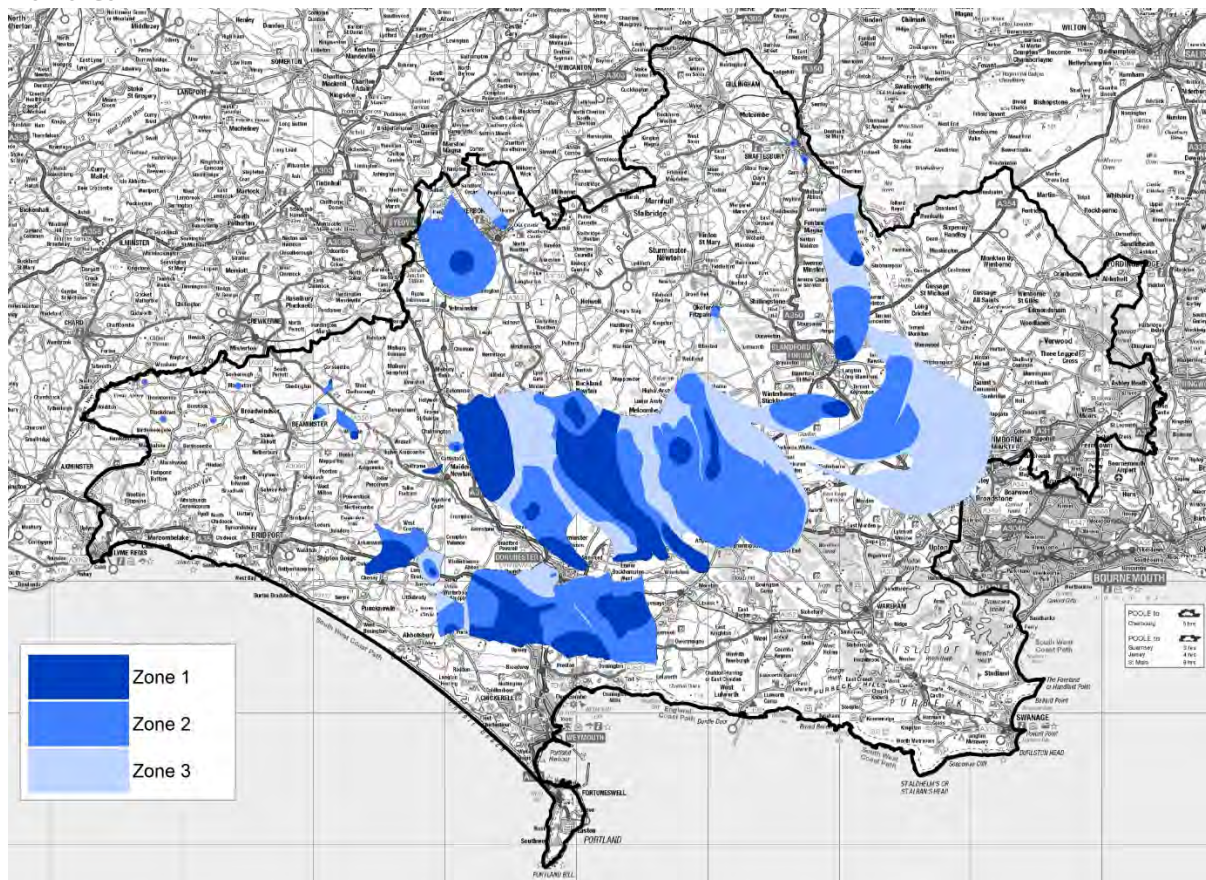
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- Achievement of national environmental standards for the benefit of wildlife and users of these waters and Poole Harbour.

4.2. BASELINE INFORMATION

- 4.2.1 The most vulnerable groundwater sources to pollution within the plan area have been defined by the Environment Agency as Groundwater Source Protection Zones.
- 4.2.2 Groundwater Source Protection Zones show the risk of contamination from any activities that might cause pollution. The extent of Groundwater Source Protection Areas depend on ground conditions, groundwater abstraction techniques and other environmental factors.
- 4.2.3 Zone 1 denotes the most vulnerable areas, where there is just a 50 day travel time from any point below the water table to the source. Within a Zone 2 area, the travel time is 400 days from a point below the water table to the source. A Zone 3 area is defined as the area around a source within which all the groundwater recharge is discharged at the source.
- 4.2.4 The Groundwater Source Protection Areas are largely located across the central section of the Dorset Local Plan area. This reflects the geology of the area, as a vast swath of chalk runs from northeast to southwest across the central parts of the plan area (Figure 4.1).

Figure 4.4: The location and extent of Groundwater Source Protection Zones within the Dorset Local Plan area



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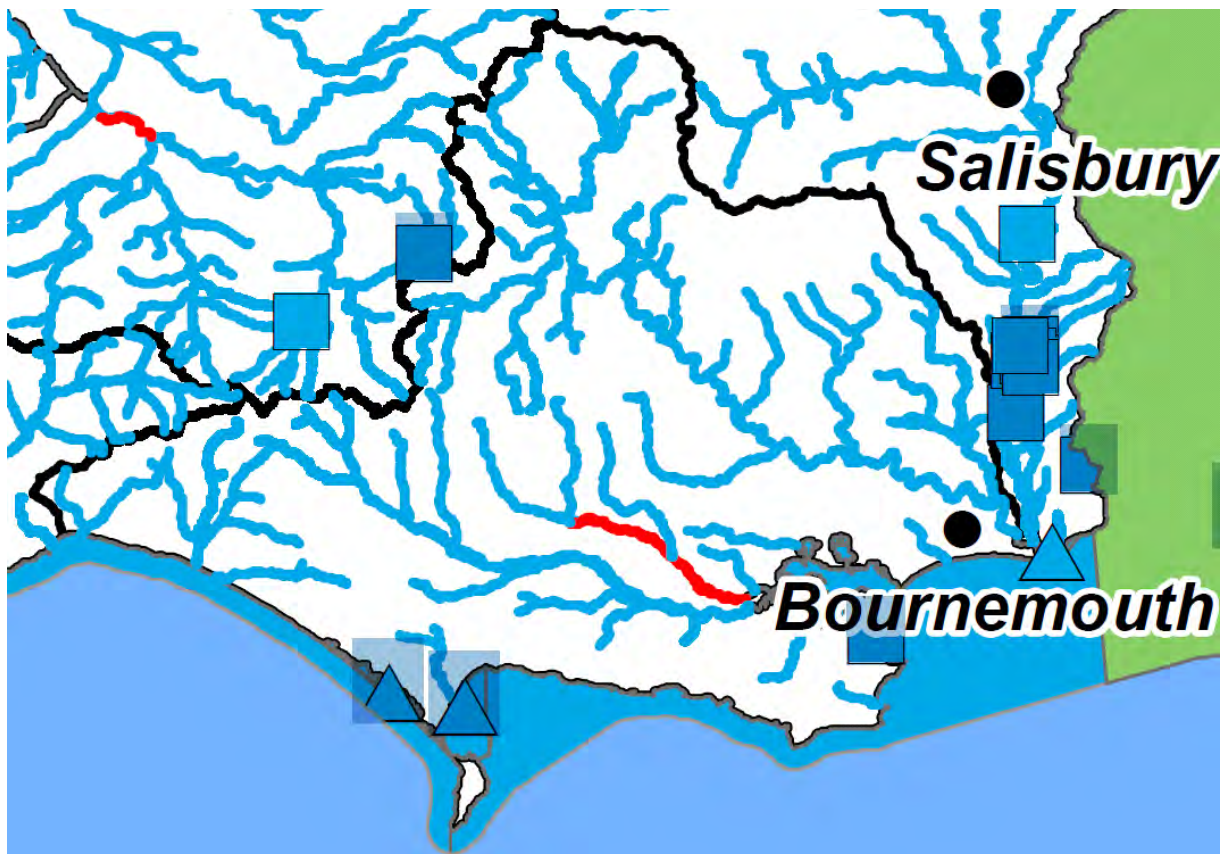
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4.2.5 The River Basin Management Plan Part 1: South West river basin district (2015) provides information on the chemical, quantitative and ecological status of water bodies within Dorset.

4.2.6 The chemical status of the water bodies in Dorset is classified as 'good', apart from the River Piddle downstream of approximately Puddletown (Figure 4.5).

Figure 4.5: The chemical status of water bodies in Dorset



Chemical status:

Lakes

- Good
- Failing to achieve Good

Estuaries <30km²

- ▲ Good
- ▲ Failing to achieve Good

Rivers, Canals, SWTs

- Good
- Failing to achieve good

Estuarine & Coastal

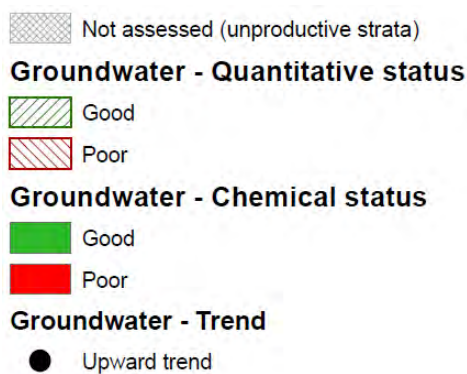
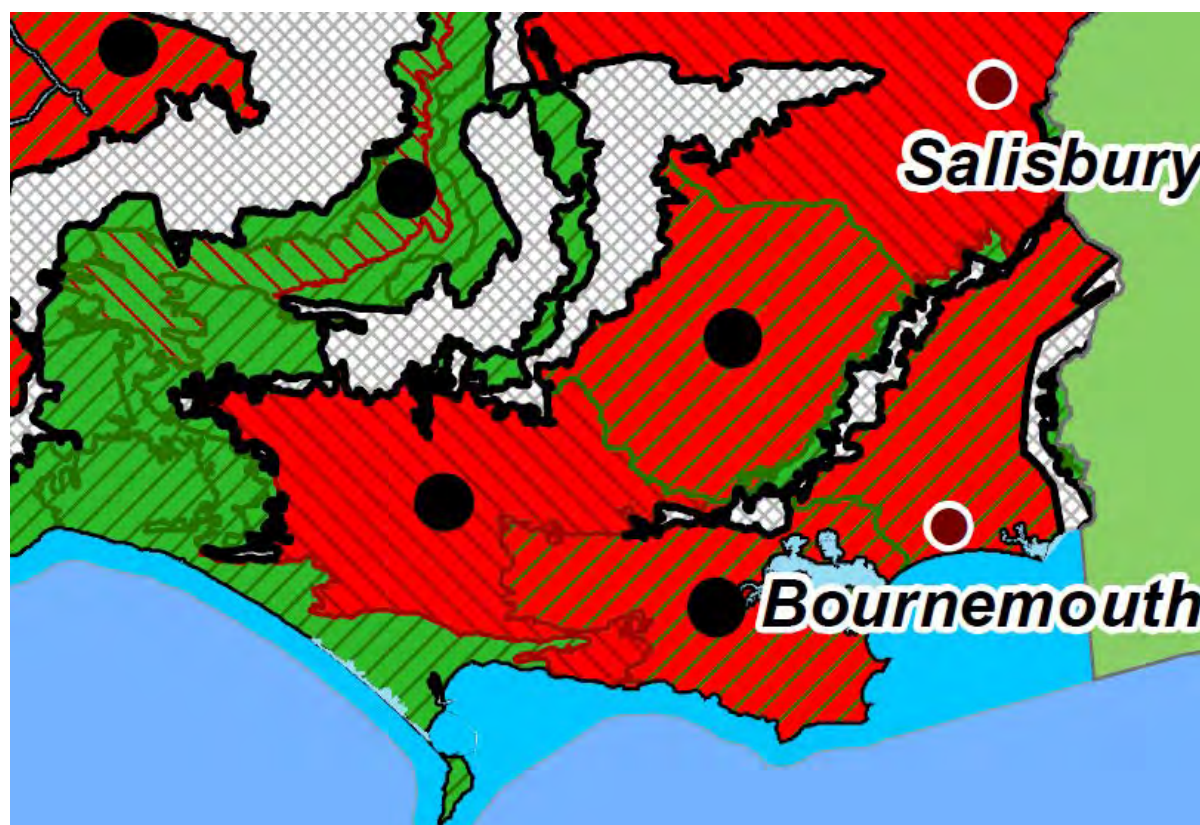
- Good
- Failing to achieve Good

Source: River Basin Management Plan Part 1: South West River Basin District (2015)

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4.2.7 The quantitative and chemical status of the groundwater in Dorset is presented in Figure 4.6. The chemical status of the groundwater within the plan area is mainly classified as 'poor', with some areas classified as 'good' in the west of the plan area. The quantitative status of the groundwater in the plan area, defined as the amount of groundwater available, is classified as 'good' except for some northern and central parts of the plan area. There is an upward trend in groundwater status across the majority of the plan area.

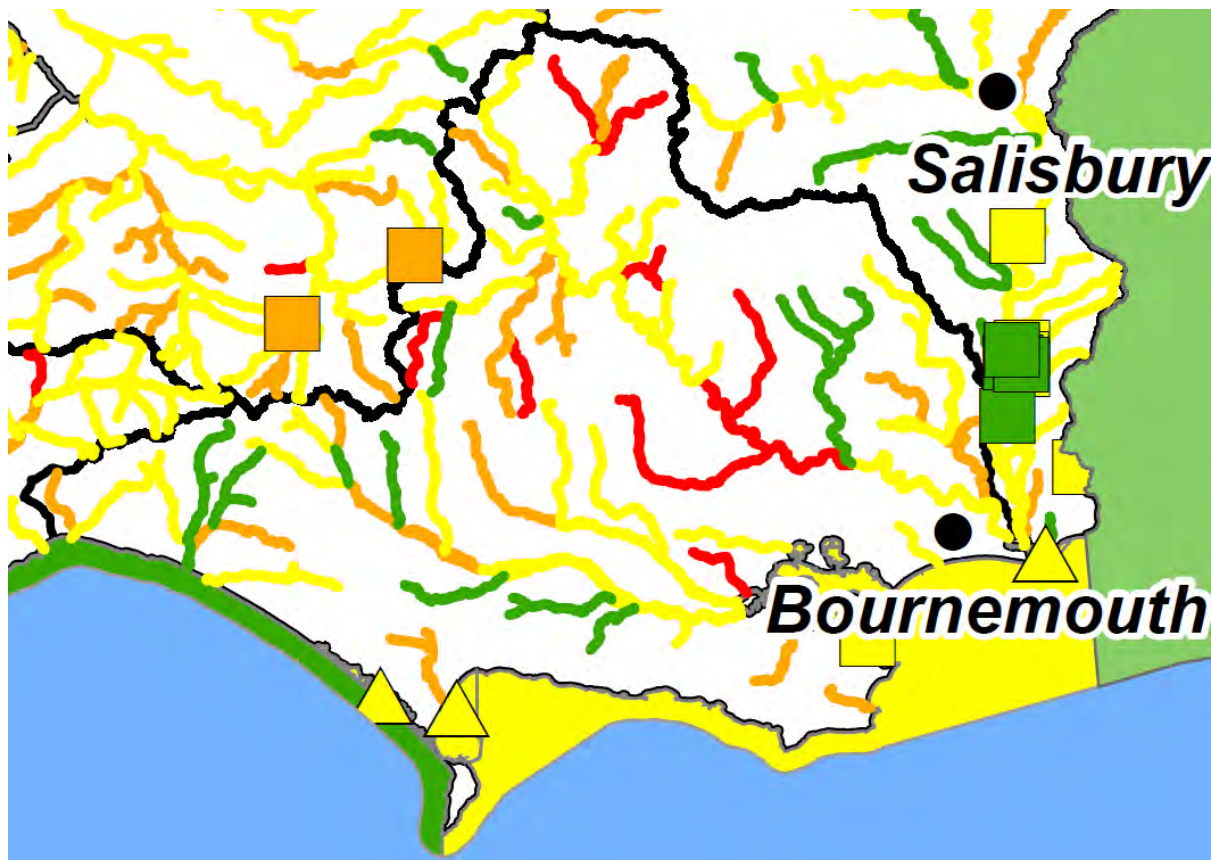
Figure 4.6: The chemical and quantitative status of groundwater in Dorset



Source: River Basin Management Plan Part 1: South West River Basin District (2015)

4.2.8 The ecological status of some of the Wareham Forest Stream within the Poole Harbour catchment and some of rivers within the catchment of the Dorset Stour has been classified as 'bad' (Figure 4.7).

Figure 4.7: The ecological status of water bodies in Dorset



Ecological status or potential:

Lakes	Rivers, Canals & SWTs	Estuary <30km2	Coast and Estuary
High	High	High	High
Good	Good	Good	Good
Moderate	Moderate	Moderate	Moderate
Poor	Poor	Poor	Poor
Bad	Bad	Bad	Bad

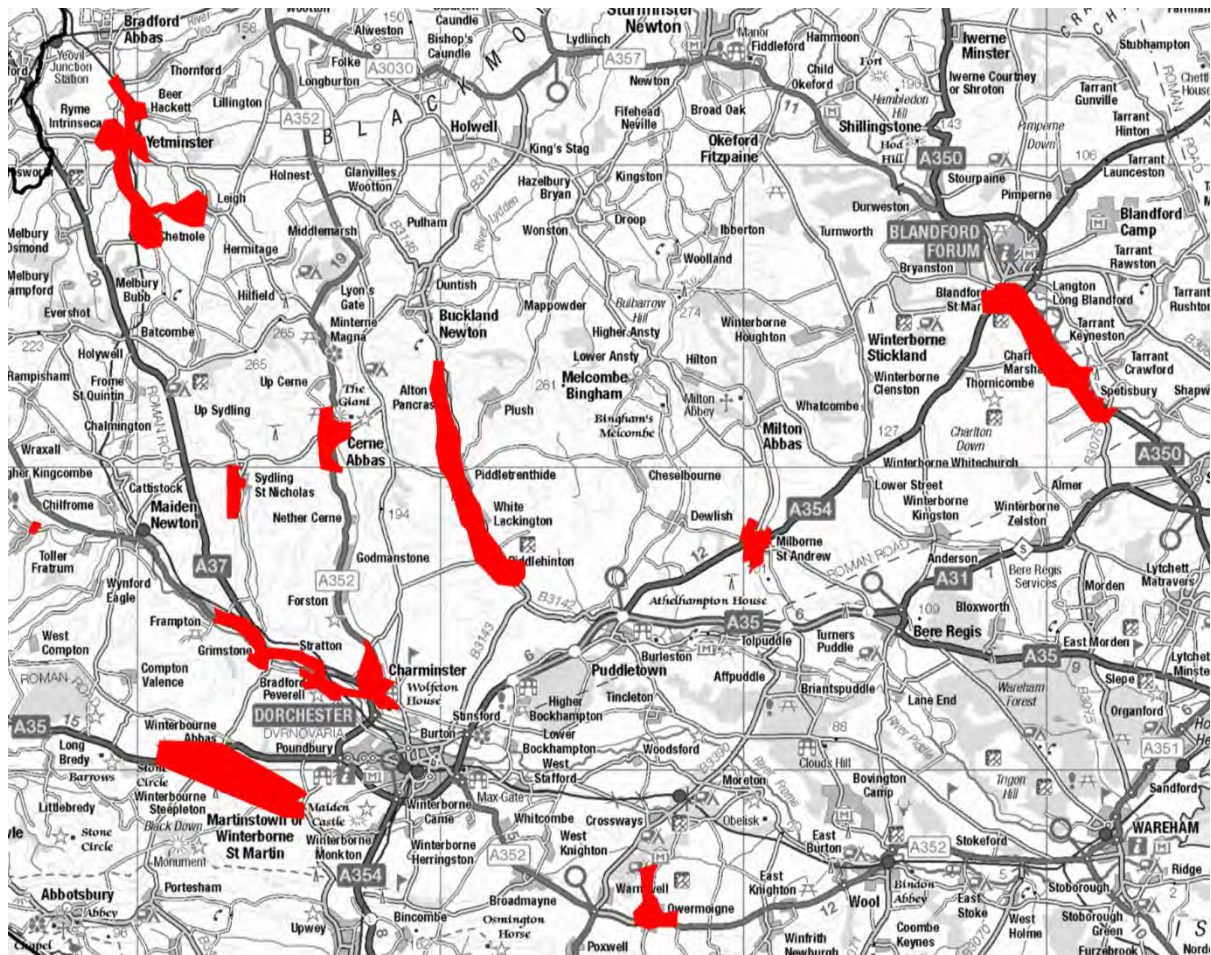
Source: River Basin Management Plan Part 1: South West River Basin District (2015)

- 4.2.9 The Environment Agency and Wessex Water have highlighted the issue of groundwater inundation into the sewerage network within the Dorset Local Plan area.
- 4.2.10 The infiltration of groundwater into the foul drainage network can cause them to become inundated with water. If left unmanaged, this can cause the drains to fail leading to pollution and a deterioration in groundwater quality, or can cause foul drainage sewers to flood in downstream properties.

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4.2.11 Groundwater inundation within the Dorset Plan Area is a particular issue to the south of Blandford Forum, to the southwest and north of Dorchester, Yetminster, and within the Piddle Valley.

Figure 4.8: The areas affected by groundwater inundation of the foul drainage network within the plan area, and their associated upstream catchment



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4.3. SUSTAINABILITY ISSUES

4.3.1 The key environmental issues relating to water include:

- The ecological and chemical status of some water bodies in Dorset are classified as 'poor' or 'bad'. Of particular concern is the chemical status of the River Piddle below Dorchester and groundwater across the majority of the plan area, and the ecological status of the Wareham Forest Stream and some rivers within the Dorset Stour hydrological catchment. Further deterioration of the chemical, quantitative, and ecological status of the water environment could potentially occur as a result of development, for example through the input of nutrients, pollution and a change in land use; and

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- Large areas across the central section of the Dorset Local Plan area are classified as groundwater source protection zones. These areas are important for supplying drinking water and therefore the consequences of pollution in these areas are more significant. New development could result in pollution and land use change, compromising the drinking water quality in these areas;
- The infiltration of groundwater into the sewer network, particularly following a rainfall event, may cause it to become inundated with flood water. This can lead to flows of sewerage from the foul drain leading to pollution and a deterioration in water quality generally. This is an issue in some areas of the Dorset Local Plan, including those areas to the south of Blandford Forum, to the southwest and north of Dorchester, Yetminster, and within the Piddle Valley.
- The quantitative status of the central parts of the plan area is classified as 'poor'. New development could affect the quantity of groundwater, for example through changes in the drainage characteristics of the area and abstraction from rivers and lakes.

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5 Air

- 5.0.1 Air quality is a measure of the degree of how polluted the air is. Air pollution comprises a mix of particles and gases. The major components of urban air pollution are particulate matter (PM) which are a complex mixture of solid and liquid particles of varying size and composition, and nitrogen dioxide (NO₂) a gas produced by combustion processes from vehicle emissions, power generation and industrial processes.
- 5.0.2 There are many sources of air pollution, both natural and man-made. These sources of air pollution include industrial processes, agriculture, vehicle exhaust emissions, energy generation and household heating systems involving gas and wood burners.
- 5.0.3 Poor air quality poses the greatest environmental risk to public health in the UK¹³. Exposure to air pollution increases the risk of respiratory and cardiovascular diseases, and may exacerbate existing conditions such as asthma. It is estimated that long term exposure to air pollution in the UK has the effect of 28,000 to 36,000 deaths a year¹⁴. Evidence suggests that areas of poor air quality are also more prevalent in less affluent areas¹⁵.
- 5.0.4 Air pollution also has widespread environmental impacts, affecting the health of plants and animals and compromising biodiversity. Since many air pollutants are also greenhouse gases, poor air quality contributes to climate change and the associated far reaching impacts which are explored in Chapter 6.
- 5.0.5 From a financial perspective, the Government estimated in 2010 that the annual cost of the health impacts of air pollution was between £8.5 to £20 billion¹⁶. In addition, air pollution may result in a decrease in agricultural productivity, leading to reduced crop yields and an adverse economic effect.

5.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

EUROPEAN

- 5.1.1 The European Union's **Seventh Environmental Action Plan (2013)** outlines the wider long term environmental vision for the European Union and includes the following strategic aim for air quality:
- air pollution and its impacts on ecosystems and biodiversity are further reduced with the long-term aim of not exceeding critical loads and levels.
- 5.1.2 The EU **Air Quality Directive (2008/50/EC)** is the main piece of European legislation which addresses air quality issues. It intends to tackle the environmental and health problems relating to air quality. The Directive sets standards and target dates for reducing

¹³ 'Clean Air Strategy 2019', Department for Environment, Food and Rural Affairs, 2019.

¹⁴ 'Health Matters: Air Pollution', Public Health England, 14th November 2018

¹⁵ 'Environmental equity, air quality, socioeconomic status and respiratory health', undertaken by AEA Technology on behalf of the Department for Environment, Food and Rural Affairs, 2010

¹⁶ 'Air Quality, Fifth Report of Session 2009-10 Vol 1 (HC 229-I)', House of Commons Environmental Audit Committee, 16th March 2010

concentrations of fine particles which are among the most dangerous pollutants for human health. This includes a limit value of $25\mu\text{g}/\text{m}^3$ for $\text{PM}_{2.5}$.

- 5.1.3 Annex XI of the Air Quality Directive contains a series of limit values of concentrations of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter (PM_{10} and $\text{PM}_{2.5}$), lead, benzene and carbon monoxide for the protection of human health.

NATIONAL

- 5.1.4 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)**, also known as the 25 Year Environment Plan, sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following actions relating to achieving clean air:

- meeting legally binding targets to reduce emissions of five damaging air pollutants; this should halve the effects of air pollution on health by 2030
- ending the sale of new conventional petrol and diesel cars and vans by 2040
- maintaining the continuous improvement in industrial emissions by building on existing good practice and the successful regulatory framework

- 5.1.5 The 25 year plan states that the Government will make sure that chemicals are safely used and managed, and that the levels of harmful chemicals entering the environment (including through agriculture) are significantly reduced by reducing land-based emissions of mercury to air by 50% by 2030.

- 5.1.6 The **National Planning Policy Framework (2019) (NPPF)** for England states that 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 air...pollution. Development should, wherever possible, help to improve local environmental conditions such as air...quality.”

- 5.1.7 The NPPF states that:

“Significant development should be focused on locations which are or can be made sustainable, through limiting the need for travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.”

- 5.1.8 The NPPF suggests 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 Clean Air Zones, and the cumulative impacts on air quality from individual sites in local areas. The NPPF states that:

“Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the

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plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.”

5.1.9 The Government’s **Clean Air Strategy 2019 (2019)** sets out the Government’s intention to tackle all sources of air pollution, making our air healthier to breathe, protecting nature and boosting the economy. The strategy aims achieve this by driving down the national emissions of pollutants, reducing background pollution, and minimising human exposure to harmful concentrations of pollution. The strategy sets the following targets for reducing emissions against a 2005 baseline:

- particulate matter by 30% by 2020 and 46% by 2030;
- ammonia by 8% by 2020 and 16% by 2030;
- nitrogen oxides by 55% by 2020 and by 73% by 2030; and
- sulphur dioxide by 59% by 2020, and by 88% by 2030.

5.1.10 The Government’s strategic direction for biodiversity, titled **Biodiversity 2020: A strategy for England’s wildlife and ecosystem services (2011)**, includes the following priority actions with respect to air quality and its effects on biodiversity:

- Reduce air pollution impacts on biodiversity through approaches at national, UK, EU and international levels targeted at the sectors which are the source of the relevant pollutants (nitrogen oxides, ozone, sulphur dioxide, ammonia).

5.2. BASELINE INFORMATION

5.2.1 The only statutory target for air pollution which the UK are currently failing to meet is with respect to roadside nitrogen dioxide concentrations¹⁷. This is reflected in local air quality monitoring for Dorset, which indicates that nitrogen dioxide targets in some parts of the plan area are not being met.

5.2.2 Prior to the establishment of Dorset Council in April 2019, the individual councils published separate local air quality reports to fulfil their statutory duty to review and assess air quality under Part IV of the Environment Act 1985.

5.2.3 The Air Quality monitoring reports for the former areas of Purbeck¹⁸, North Dorset¹⁹, Weymouth & Portland²⁰, and East Dorset²¹ concluded that there were no exceedances in the concentrations of air pollutants. Therefore, no Air Quality Management Areas have been declared in these areas.

¹⁷ ‘Clean Air Strategy 2019’, Department for Environment, Food and Rural Affairs, 2019.

¹⁸ Purbeck Air Quality annual Status Report (2018), published by Purbeck District Council

¹⁹ Local Air Quality Management Updating and Screening Assessment (2015), published North Dorset District Council

²⁰ Air Quality Annual Status Report (2018), published by Weymouth & Portland Borough Council

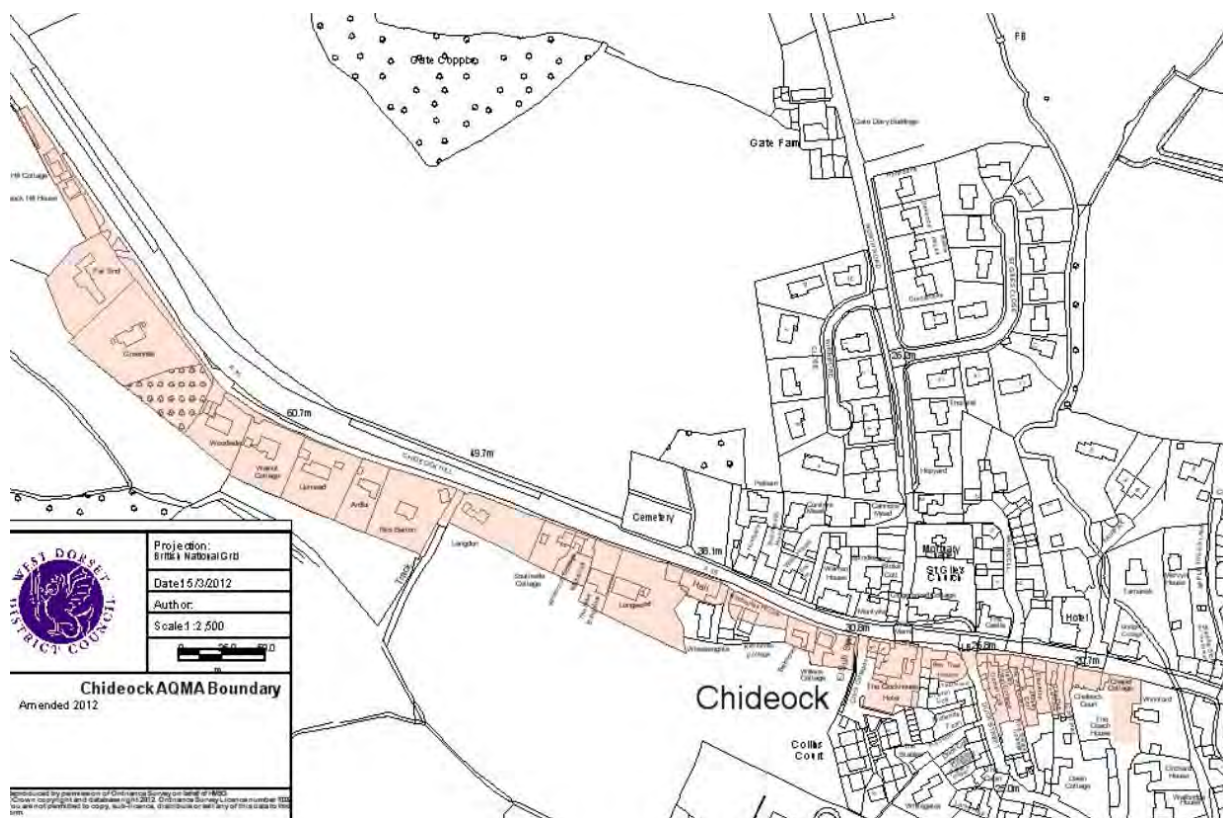
²¹ East Dorset Annual Status Report (2016), published by East Dorset District Council

5.2.4 However, the West Dorset report²² suggested that air quality in West Dorset is generally very good due to the predominantly rural environmental, but reported that air quality had exceeded the objective level for nitrogen dioxide at the following locations, which were designated as Air Quality Management Areas (AQMA) accordingly:

- Main Street, Chideock (declared an AQMA in 2007, boundary amended in 2012); and
- High Street East, Dorchester (declared an AQMA in 2009).

5.2.5 The Chideock AQMA consists of a series of properties along the A35, which rises steeply as it leaves the village to the west (Figure 5.1). The main source of this air pollution is vehicle emissions as a result of factors such as vehicle speed, traffic congestion and topographical features such as the incline in the A35 to the west of Chideock.

Figure 5.1: A map showing the extent of the Air Quality Management Area in Chideock



Source: Air Quality Annual Status Report (2018), published by West Dorset District Council

5.2.6 At the time of declaring the Chideock AQMA, in 2007, the maximum recorded concentration of nitrogen dioxide was $45.5\mu\text{g}/\text{m}^3$ and the air quality objective was set at an annual mean of $40\mu\text{g}/\text{m}^3$.

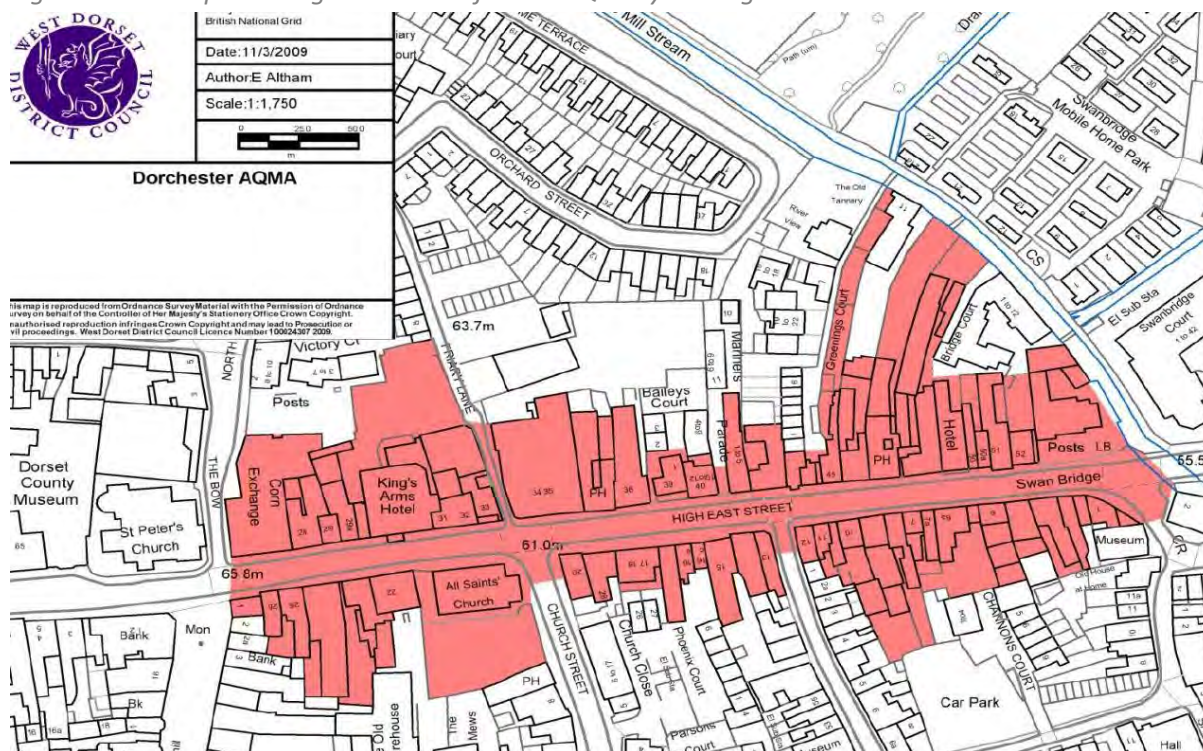
5.2.7 No improvement in air quality has been noted since the introduction of the Chideock AQMA. The maximum recorded concentration of nitrogen dioxide in 2017 was $61.83\mu\text{g}/\text{m}^3$, exceeding the air quality objective.

²² Air Quality Annual Status Report (2018), published by West Dorset District Council

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- 5.2.8 The council are continuing to work with Highways England to produce an Action Plan to address the air quality issue at this location.
- 5.2.9 The Dorchester AQMA, declared in May 2009, consists of residential properties along High East Street, Dorchester (Figure 5.2). The main source of air pollution at the Dorchester AQMA is vehicle emissions as a result of factors such as vehicle speed, congestion and topographical features.

Figure 5.4: A map showing the extent of the Air Quality Management Area in Dorchester



Source: Air Quality Annual Status Report (2018), published by West Dorset District Council

- 5.2.10 At the time of declaring the Dorchester AQMA, the maximum recorded concentration of nitrogen dioxide was $43.0\mu\text{g}/\text{m}^3$. The air quality objective for the Dorchester AQMA was set at an annual mean of $40\mu\text{g}/\text{m}^3$.
- 5.2.11 The air quality monitoring results for 2017 showed that the annual mean for nitrogen dioxide was met at all locations in Dorchester, both within and outside the AQMA. The maximum recorded concentration of nitrogen dioxide in 2017 in Dorchester was $37.02\mu\text{g}/\text{m}^3$, below the air quality objective.
- 5.2.12 There have been no exceedances in air quality in Dorchester for the past two years, and the council will continue to monitor the air quality in Dorchester to establish if there is a downward trend in nitrogen dioxide concentrations that may result in the Dorchester AQMA being revoked in the next 2-3 years.
- 5.2.13 In addition to the Chideock and Dorchester AQMAs, air quality monitoring in West Dorset has showed exceedances in nitrogen dioxide concentrations at East Road, Bridport. A detailed assessment of nitrogen dioxide was undertaken in Bridport in 2011 and the council resolved not to declare an AQMA, but continue to monitor levels of nitrogen

dioxide in Bridport.

- 5.2.14 The air quality monitoring results for 2017 in West Dorset indicated that the objective concentration for nitrogen dioxide had been exceeded at East Street, Bridport.
- 5.2.15 The Government's Department for Environment, Food and Rural Affairs (Defra) have recommended that despite the exceedances in Bridport being at a single property location only, that the area should be declared as an AQMA.

5.3. SUSTAINABILITY ISSUES

- 5.3.1 The key environmental issues relating to air are:
- Air pollution as a result of industrial processes, agriculture, vehicle exhaust emissions, energy generation and household heating systems involving gas and wood burners are causing widespread environmental and health problems; and
 - Vehicle emissions resulting in elevated concentrations of nitrogen dioxide both nationally, as the UK are failing to meet their statutory target, and locally in Chideock, Dorchester and Bridport.

6 Climatic Factors

- 6.0.1 Climate change is the long term variation in expected weather patterns as a result of the growing concentration of greenhouse gases in the atmosphere.
- 6.0.2 Human activities since the start of the industrial revolution are largely attributed to causing the spike in the concentration of greenhouse gases in the atmosphere and the corresponding change in global climate. The majority of global greenhouse emissions are from the combustion of fossil fuels such as oil, coal and natural gas for energy and heat production (25%). Other significant human activities include deforestation, changes in land use and agriculture which contributes to 24% of global emissions²³.
- 6.0.3 Greenhouse gases absorb energy and emit it as thermal energy, causing a warming effect known as the greenhouse effect. Water vapour makes the highest contribution to the greenhouse gas effect, followed by carbon dioxide, then methane.
- 6.0.4 Climate projections²⁴ suggest an increased chance of milder, wetter winters and hot, drier summers along with an increase in the frequency and intensity of extreme events in the UK.
- 6.0.5 The possible environment, social and economic impacts of climate change are complex, far reaching and potentially catastrophic. It has been reported that climate change may cause the widespread extinction of species, global famine and the collapse of the global economy. Immediate and ambitious action may be needed to reduce the concentration of greenhouse gases in the atmosphere and address the climate change issue, which has been acknowledged by the declaration of a climate emergency nationally by the UK Parliament and locally by Dorset Council.
- 6.0.6 Since there is approximately a 40 year lag in the atmosphere between the cause and effect, a degree of future climate change is inevitable, irrespective of what action is taken to reduce greenhouse gas emissions now. Carefully planning is needed to adapt and avoid increased vulnerability to the range of impacts arising from future climate change.

6.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 6.1.1 The **United Nations Framework Convention on Climate Change (1992)**, signed by 197 nations, has the objective of preventing dangerous man-made interference with the global climate system.
- 6.1.2 The **Kyoto Protocol (1997)**, ratified by 192 parties but significantly not the world's major

²³ Boden, T.A., Marland, G., and Andres, R.J. (2017). Global Fossil-Fuel CO₂ Emissions. U.S. Department of Energy.

²⁴ UK Climate Projections 2018 (UKCP18). Met Office Hadley Centre Climate Programme, Department of Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra).

emitters of greenhouse gases and therefore covers only 12% of global emissions, agreed the following targets:

- 1st period (2008-12) – industrialised countries committed to reduce emissions by an average of 5% below 1990 levels; and
- 2nd period (2013-20) – Parties who joined this period committed to reduce emissions by at least 18% below 1990 levels.

6.1.3 The **Paris Agreement (2015)**, made at the Paris Climate Conference, aims to avoid dangerous climate change by limiting global warming to well below 2 °C and pursuing efforts to limit it to 1.5°C. The deal was adopted by 195 countries, which agreed to:

- a long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels;
- to aim to limit the increase to 1.5°C, since this would significantly reduce risks and the impacts of climate change;
- on the need for global emissions to peak as soon as possible, recognising that this will take longer for developing countries; and
- to undertake rapid reductions thereafter in accordance with the best available science.

6.1.4 The United Nations developed a series of global development goals which aim to deliver sustainable development in the document titled **Transforming our world: the 2030 Agenda for Sustainable Development (2015)**. These goals include:

- Take urgent action to combat climate change and its impacts; and
- Ensure access to affordable, reliable, sustainable and modern energy for all.

EUROPEAN

6.1.5 The **European Sustainable Development Strategy (2006)** sets out a strategy on how the EU will deliver its commitment to meet the challenges of sustainable development, and includes the following key objective:

- Limiting climate change and its effects to society and the environment.

6.1.6 This strategy includes the following target:

- Improving resource efficiency to reduce the overall use of non-renewable natural resources.

6.1.7 The **EU Renewable Energy Directive (2018/2001/EU)**, which aims to help deliver the targets of the Paris Agreement (see paragraph 6.1.3) which was ratified by the EU member states, includes the target of at least 32% of energy generation by renewable energy sources by 2030.

6.1.8 The **2030 climate and energy framework (adopted 2014, revised 2018)** includes the following targets for EU member states for 2030:

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- At least 40% cuts in greenhouse gas emissions (from 1990 levels);
- At least 32% share for renewable energy; and
- At least 32.5% improvement in energy efficiency.

NATIONAL

6.1.9 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)**, also known as the 25 Year Environment Plan, sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following actions relating to climate change:

- We will reduce the risk of harm to people, the environment and the economy from natural hazards by:
 - ensuring interruptions to water supplies are minimised during prolonged dry weather and drought
 - boosting the long-term resilience of our homes, businesses and infrastructure
- We will ensure that resources from nature are used more sustainably and efficiently. We will do this by:
 - maximising the value and benefits we get from our resources, doubling resource productivity by 2050
- We will take all possible action to mitigate climate change, while adapting to reduce its impact. We will do this by:
 - continuing to cut greenhouse gas emissions including from land use, land use change, the agriculture and waste sectors and the use of fluorinated gases
 - making sure that all policies, programmes and investment decisions take into account the possible extent of climate change this century
 - implementing a sustainable and effective second National Adaptation Programme.

6.1.10 The UK **Climate Change Act (2008)** aims to mitigate against further climate change by achieving a legally binding target of reducing carbon emissions in the UK by at least 80% by 2050, against a 1990 baseline. The UK House of Commons passed a Bill in June 2019 to amend the target provided by the Climate Change Act (2008) to require carbon emissions to be 'net-zero' by 2050.

6.1.11 The **National Planning Policy Framework (2019)** (NPPF) for England explains that in order to achieve sustainable development, the planning system should contribute to mitigating and adapting to climate change, including moving to a low carbon economy.

- 6.1.12 The NPPF advises that the Local Plan should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures.
- 6.1.13 The NPPF states that the planning system should support the transition to a low carbon future in a changing climate, and should help to:
- shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience;
 - encourage the reuse of existing resources, including the conversion of existing buildings; and
 - support renewable and low carbon energy and associated infrastructure.
- 6.1.14 New development should be planned for in ways that:
- a) 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; and
 - b) can help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.
- 6.1.15 In terms of renewable energy, the NPPF states that Local Plans should help increase the use and supply of renewable and low carbon energy and heat in the following ways:
- a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
 - b) consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
 - c) identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

LOCAL

- 6.1.16 The **Bournemouth, Dorset and Poole Renewable Energy Strategy (2013)** includes an aspirational target for renewable energy generation which is for 7.5% of energy used in Dorset to be generated from renewable sources by 2020.
- 6.1.17 The **Bournemouth, Dorset and Poole Energy Efficiency Strategy (2009)** seeks to improve energy efficiency and reduce energy demand across Dorset in order to reduce carbon emissions in line with national targets of 30% reduction by 2020 (and also eliminate fuel poverty and save energy costs).

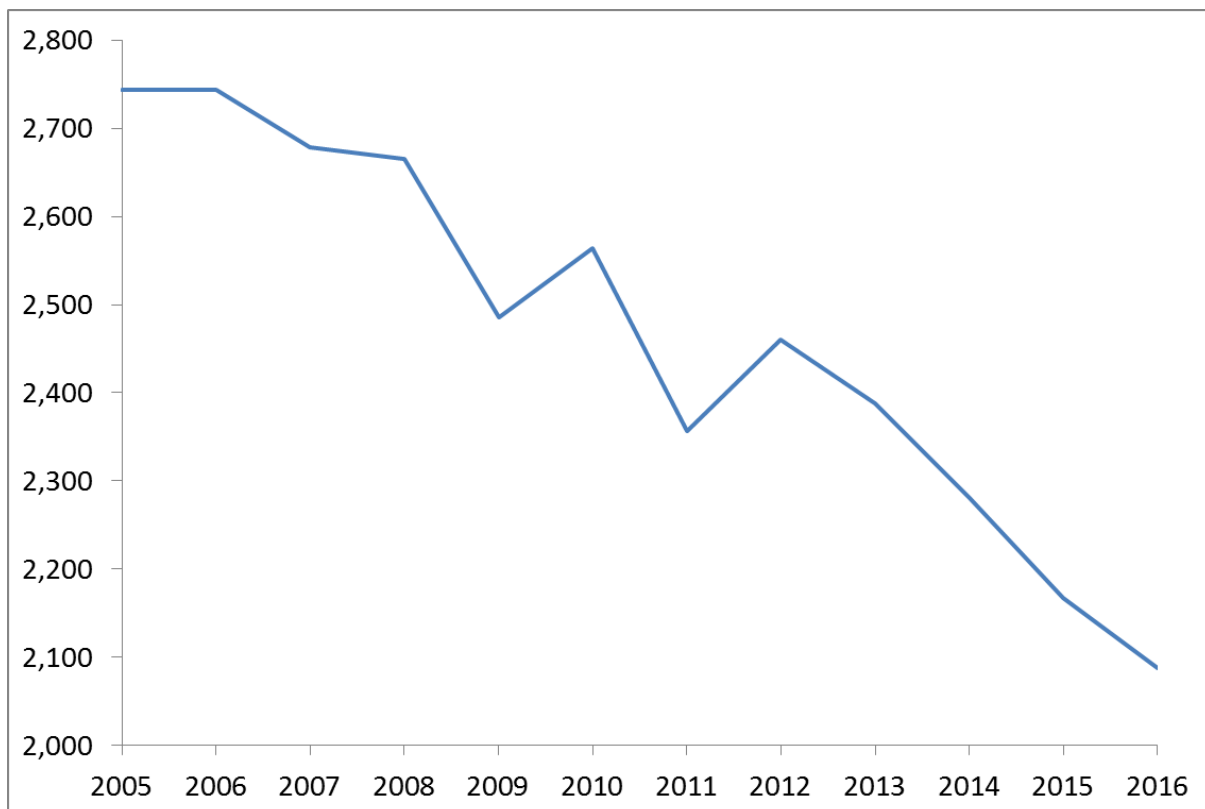
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- 6.1.18 The **West Dorset Climate Change Strategy (2009)** was produced by the West Dorset Partnership, and aims to help residents, businesses and other organisations reduce their carbon emissions by 30% by 2020 from 2005 levels by a wide range of measures.
- 6.1.19 The **West Dorset Community Plan 2010-26 (2010)** aims to improve the quality of life for residents and workers in the district, and contains the following theme on climate change and peak oil:
- “One of the biggest threats to us is that of climate change which has major economic, social and health consequences. It is anticipated that in the future as oil reserves dwindle and new sources of oil become expensive to extract, fuel prices will rise and we will need to find alternatives to relying on fossil fuels. To tackle climate change and peak oil we need to become more resilient within local communities where possible, and rethink the way we live and work.”
- 6.1.20 The **Dorset Local Nature Partnership’s Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which include the following objectives relating to climatic factors:
- Secure and affordable energy supplies making more effective use of locally available, appropriate renewable sources of energy;
 - More effective action to manage the risks associated with a changing climate, such as the spread of non-native invasive species and diseases; and
 - A high quality built environment meeting increasingly high standards of sustainable construction, waste reduction, water and energy efficiency in new and existing development, and in which sustainable travel options are promoted.
- 6.1.21 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to climate change:
- Support measures to increase energy efficiency;
 - Develop understanding of a dynamic landscape and changing climate.
 - Support renewable energy production where compatible with the objectives of AONB designation;
 - Ensure environmental resilience and adaptation to change at a landscape scale.
 - Discourage practices that do not support natural processes or allow evolution with environmental change.

6.2. BASELINE INFORMATION

- 6.2.1 The Government's most recent climate projections²⁵ suggest that there is an increased chance of milder, wetter winters and hot, drier summers in the southwest of England. It also predicts an increase in the frequency and intensity of extreme events in the UK.
- 6.2.2 The carbon footprint of an individual, event or a product is a measure of the amount of gases that cause climate change (known as greenhouse gases) which it releases into the atmosphere.
- 6.2.3 A carbon footprint may be calculated in terms of greenhouse gas emissions, which is a measure of the release of greenhouse gases, or carbon emissions, which is a measure of the equivalent amount of carbon dioxide.
- 6.2.4 Within the Dorset Local Plan area, the total carbon emissions have decreased by 24% between 2005 and 2016, declining from 2,744 kT CO₂ to 2,088 kT CO₂²⁶ (see Figure 6.1).

Figure 6.1: A graph showing the trend in total carbon emissions (kT CO₂) within the Dorset Local Plan area between 2005-16



²⁵ UK Climate Projections 2018 (UKCP18). Met Office Hadley Centre Climate Programme, Department of Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra).

²⁶ Local Authority Carbon Dioxide Emissions Estimates 2016, Department for Business, Energy & Industrial Strategy (<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2016>)

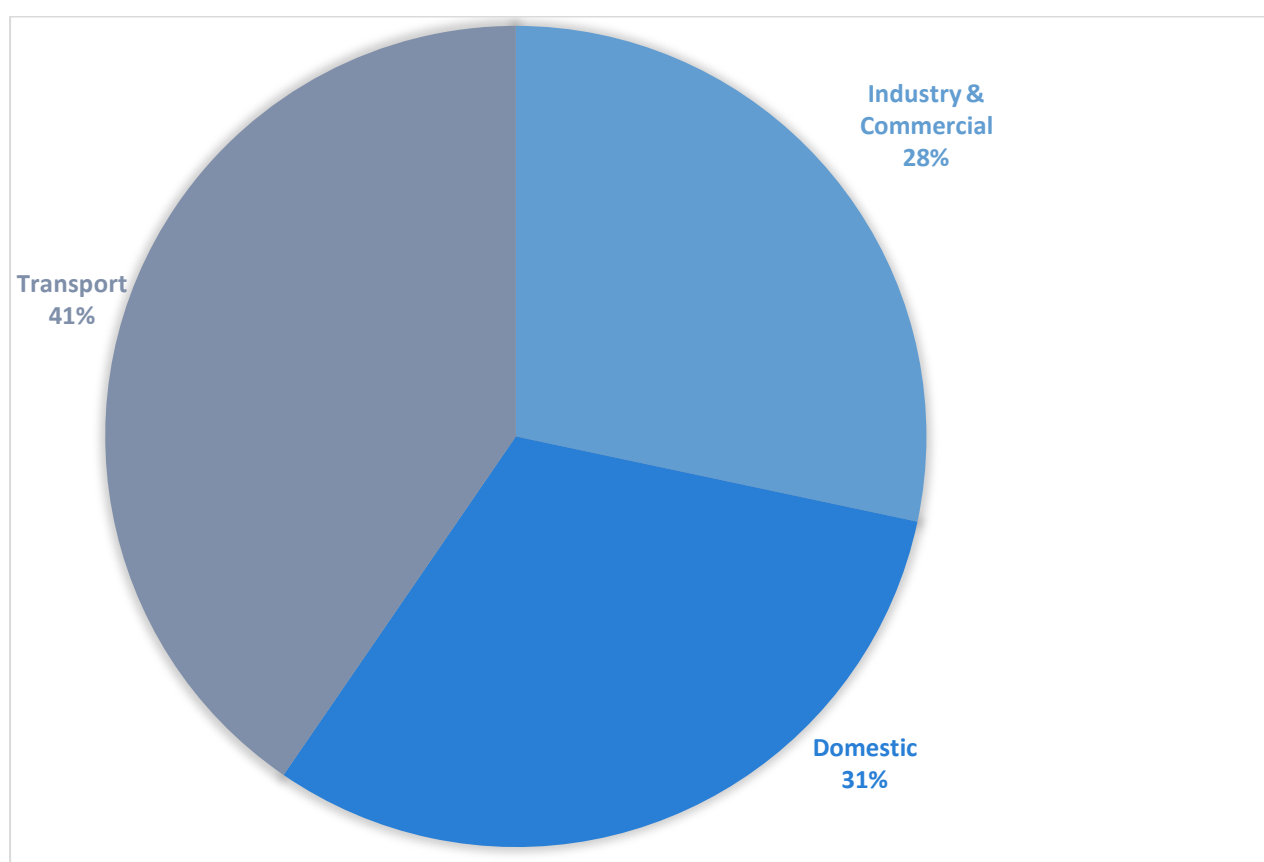
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Source: Local Authority Carbon Dioxide Emissions Estimates 2016, Department for Business, Energy & Industrial Strategy

- 6.2.5 The total carbon emissions may be split into industrial and commercial, domestic and transport sources (Figure 6.2).
- 6.2.6 The highest contribution of greenhouse gas emissions within the Dorset Plan Area is from transport sources which provides 38% of emissions. Domestic sources provide 29% and industry & commercial 27% of the total carbon emissions within the Dorset Plan Area (Figure 6.3).

Figure 6.2: A chart showing the contribution of table showing the carbon emissions from industrial and commercial, domestic and transport sources within the Dorset Local Plan area in 2017



- 6.2.7 The carbon emissions from industrial & commercial and domestic sources have reduced by 39% and 35% respectively between 2005 and 2016 (Figures 6.3 and 6.4). This represents a significant decrease in greenhouse gas emissions from these sources.
- 6.2.8 However, carbon emissions from transport sources have only reduced by 4% during the period between 2005 and 2016, representing a slight decrease in carbon emissions during this period.

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Figure 6.3: A table showing the carbon emissions according to industrial and commercial, domestic and transport sources within the Dorset Local Plan area

	Carbon emissions (kT CO ₂)											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Industry & Commercial	898	881	845	840	763	788	715	768	726	722	616	555
Domestic	936	943	895	909	828	892	768	829	800	677	651	612
Transport	828	833	842	816	790	775	760	745	743	757	770	792
Total*	2,744	2,744	2,679	2,665	2,485	2,564	2,357	2,460	2,388	2,280	2,167	2,088

* Corrected to take account of land use, land use change and forestry activities

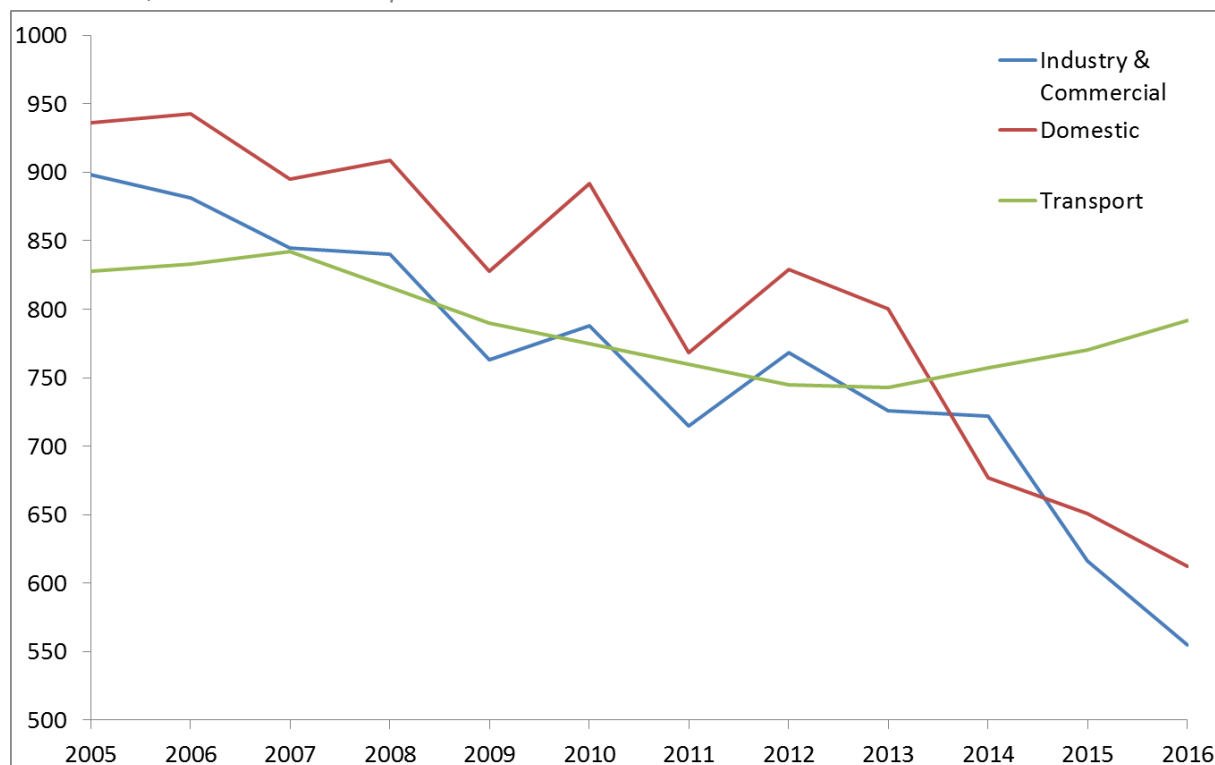
Source: Local Authority Carbon Dioxide Emissions Estimates 2016, Department for Business, Energy & Industrial Strategy

- 6.2.9 Carbon emissions from industrial & commercial and domestic sources have decreased every year between 2012 and 2016, displaying a downward trend in carbon emissions from these sources.
- 6.2.10 Furthermore, there is an upward trend in carbon emissions from transport sources, with an increase in emissions recorded every year between 2013 and 2016. This corresponds with the national and local air quality issues resulting from vehicle emissions (see Chapter 5).

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Figure 6.4: Carbon emissions (kT CO₂) within the Dorset Local Plan area from industrial and commercial, domestic and transport sources between 2005-16



- 6.2.11 The use of renewable sources to generate electricity and heat reduces the consumption of fossil fuels, which leads to lower emissions of greenhouse gases.
- 6.2.12 The total capacity of renewable energy in the plan area was 307,344MW in 2017 (Figure 6.5).
- 6.2.13 The vast majority of renewable electricity is derived from solar photovoltaics in the Dorset Local Plan area (82%), with contributions also from landfill gas (8.5%) and anaerobic digestion (8.8%).

Figure 6.5: Installed capacity of renewable energy (MW) within the Dorset Local Plan area in 2017

	Photovoltaics	Onshore Wind	Hydro	Anaerobic Digestion	Landfill Gas	Total
Installed capacity (MW)	251,969	1,974	391	26,033	26,976	307,344
% of total installed capacity	82.0%	0.6%	0.1%	8.5%	8.8%	-

Source: Regional Renewable Statistics (2018), Department of Business, Energy and Industrial Strategy

6.3. SUSTAINABILITY ISSUES

6.3.1 The key environmental issues relating to energy and climate change include:

- Elevated concentrations of greenhouse gases in the atmosphere causing climate change.
- Development may result in an increase in carbon emissions from industrial and commercial, domestic and transport sources, both in terms of total emissions and emissions per capita, contributing to future climate change.
- Whilst total carbon emissions across the Dorset Local Plan area are decreasing, there is an upward trend in carbon emissions from transport sources between 2013 and 2016.
- Immediate and ambitious action, both locally and nationally, is needed to meet the national target of 'net zero' carbon emissions by 2050 and address the climate change issue.
- Development must be carefully planned to avoid increased vulnerability to the range of impacts arising from climate change, ensuring that the area is resilient to the effects of future climate change.

7 Flooding and Coastal Change

- 7.0.1 Flooding is a natural phenomena which involves the temporary covering by water of land not normally covered by water.
- 7.0.2 Flooding can devastate natural habitats, force people to leave their homes and businesses, destroy livelihoods, and take lives.
- 7.0.3 In the UK, there are currently 5.2 million homes and businesses at risk of flooding²⁷. In future, the risk of flooding in the UK is likely to increase due to climate change.
- 7.0.4 Climate projections²⁸ indicate an increased chance of wetter winters, with up to 35% more precipitation in winter by 2070, and an increase in the frequency and intensity of extreme events.
- 7.0.5 In addition, as the UK population grows, it is predicted that the number of properties built on the flood plain will almost double by 2065, exposing more homes and businesses to flooding.
- 7.0.6 Climate change is also likely to influence the complex natural processes which result in coastal change, such as erosion and coastal landslip. Climate change is likely to cause sea level to rise by between 0.4m and 1m and the annual maximum significant wave height to increase by up to 1m (or 20%) off the coast of southwest England by 2100.
- 7.0.7 It is predicted that approximately 700 properties in England are likely to be vulnerable to coastal erosion over the next 20 years²⁹.
- 7.0.8 Development must be carefully planned to avoid increased vulnerability to flooding and coastal change.

7.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

EUROPEAN

- 7.1.1 The **EU Directive on the Assessment and Management of Flood Risks (2007/60/EC)** introduces the requirement to establish a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community.
- 7.1.2 The **European Sustainable Development Strategy (2006)** sets out a strategy on how the EU will deliver its commitment to meet the challenges of sustainable development, and includes the target of ‘contributing to mitigating the effects of floods and droughts’.

²⁷ Long Term Investment Scenarios (2019). Environment Agency.

²⁸ UK Climate Projections 2018 (UKCP18). Met Office Hadley Centre Climate Programme, Department of Business, Energy and Industrial Strategy (BEIS) and the Department for Environment, Food and Rural Affairs (Defra).

²⁹ Draft National Flood and Coastal Erosion Risk Management Strategy for England (2019), Environment Agency

NATIONAL

7.1.3 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)** sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following actions relating to flooding and coastal change:

- We will reduce the risk of harm to people, the environment and the economy from natural hazards including flooding, drought and coastal erosion by:
 - making sure everyone is able to access the information they need to assess any risks to their lives and livelihoods, health and prosperity posed by flooding and coastal erosion
 - bringing the public, private and third sectors together to work with communities and individuals to reduce the risk of harm
 - making sure that decisions on land use, including development, reflect the level of current and future flood risk

7.1.4 **National Flood & Coastal Erosion Risk Management Strategy (2011)** has the overall aim to ensure the risk of flooding and coastal erosion is properly managed.

7.1.5 This strategy is being updated and a draft version, titled the **Draft National Flood and Coastal Erosion Risk Management Strategy for England (2019)**, is currently being consulted on. The draft strategy has 3 ambitions which will be achieved through a series of objectives:

Ambition 1: Climate Resilient Places

- Objective 1.1: Between now and 2050 the nation will be resilient to future flood and coastal risks. Over the next year the Environment Agency will work with partners to explore and develop the concept of standards for flood and coastal resilience.
- Objective 1.2: Between now and 2050 risk management authorities will help places plan and adapt to flooding and coastal change across a range of climate futures.
- Objective 1.3: Between now and 2030 all those involved in managing water will embrace and embed adaptive approaches to enhance the resilience of our environment to future flooding and drought.
- Strategic objective 1.4: Between now and 2030 risk management authorities enhance the natural, built and historic environments so we leave it in a better state for the next generation.
- Strategic objective 1.5: Between now and 2030 risk management authorities will use funding and financing from new sources to invest in making the nation resilient to flooding and coastal change.

Ambition 2: Today's growth and infrastructure – resilient to tomorrow's climate

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- Strategic objective 2.1: Between now and 2030 all new development will contribute to achieving place based resilience to flooding and coastal change.
- Strategic objective 2.2: Between now and 2030 all new development will seek to support environmental net gain in local places.
- Strategic objective 2.3: Between now and 2030 all risk management authorities will contribute positively to local economic regeneration and sustainable growth through their investments in flooding and coastal change projects.
- Strategic objective 2.4: Between now and 2050 places affected by flooding and coastal change will be 'built back better' and in better places.
- Strategic objective 2.5: Between now and 2030 all flooding and coastal infrastructure owners will understand the responsibilities they have to support flood and coastal resilience in places.
- Strategic objective 2.6: Between now and 2050 the Environment Agency and risk management authorities will work with infrastructure providers to ensure all infrastructure investment is resilient to future flooding and coastal change.

Ambition 3: A nation of climate champions, able to adapt to flooding and coastal change through innovation

- Strategic objective 3.1: Between now and 2030 young people at 16 should understand the impact of flooding and coastal change, but also recognise the potential solutions for their place, and opportunities for career development.
- Strategic objective 3.2: Between now and 2030 people will understand the potential impact of flooding and coastal change on them and take action.
- Strategic objective 3.3: Between now and 2030 people will receive a consistent and coordinated level of support from all those involved in response and recovery from flooding and coastal change.
- Strategic objective 3.4: Between now and 2030 the nation will be recognised as world leader in managing flooding and coastal change, as well as developing and attracting talent to create resilient places.

7.1.6 The **National Planning Policy Framework (2019)** requires that planning system to support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change.

7.1.7 The NPPF requires Local Plans to apply a sequential, risk-based approach to the location of development, taking into account the current and future impacts of climate change so as to steer new development to areas with the lowest risk of flooding and avoid, where possible, flood risk to people and property.

7.1.8 In terms of coastal change, the NPPF requires Local Plans to reduce risk from coastal change by avoiding inappropriate development in vulnerable areas and not exacerbating the impacts of physical changes to the coast. Local Plans should also identify Coastal

Change Management Areas in those areas which are likely to be affected by physical change to the shoreline.

LOCAL

- 7.1.9 The **Local Flood Risk Management Strategy (2014)** sets out the following vision for managing local flood risk across the Dorset Local Plan area:
- "working together to manage local flood risk in Dorset so communities are resilient and prepared for flooding".
- 7.1.10 The strategy aims to deliver this vision by achieving the following objectives:
- understand flood risk across Dorset;
 - manage the likelihood and impacts of flooding;
 - help Dorset's communities to manage their own flood risk;
 - ensure flood risk is considered in local land development proposals; and
 - improve flood prediction, warning, response and flood recovery.
- 7.1.11 The **Dorset Coast Strategy 2011-2021**, which sets out how the members of the Dorset Coast Forum will work to improve the planning and management of the Dorset Coast, contains the following objectives:
- A thriving and diverse coastal economy which uses the resources of the coast sustainably;
 - A coast that is used, enjoyed and appreciated by the people of Dorset and visitors;
 - A coast where Dorset is a world-leading area in coastal management, where all the key partners are taking decisions and acting together to deliver the highest practical quality of management possible; and
 - A coast that is managed to adapt to the issues of changing climate, economy and communities.
- 7.1.12 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to coastal change:
- Approaches to coastal management that promote natural processes will be adopted wherever possible and the objectives of coastal change management areas will be implemented; and
 - Ensure coastal and flood defences, as well as aquaculture and fishery development, are compatible with the AONB's exceptional undeveloped coastline.
- 7.1.13 The **Dorset Local Nature Partnership's Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which includes the following objective:
- Adoption of catchment-based approaches to managing the water environment, applying lessons learnt from pilot schemes operating in Dorset already to...help manage flood water; and

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- More effective action to manage the risks associated with a changing climate, such as...the accelerated impacts of coastal erosion and the increased incidence of flooding and other extreme weather events.

7.1.14 The role of Catchment Flood Management Plans (CFMPs) is to establish flood risk management policies which will deliver sustainable flood risk management for the long term within 77 hydrological catchments across England and Wales.

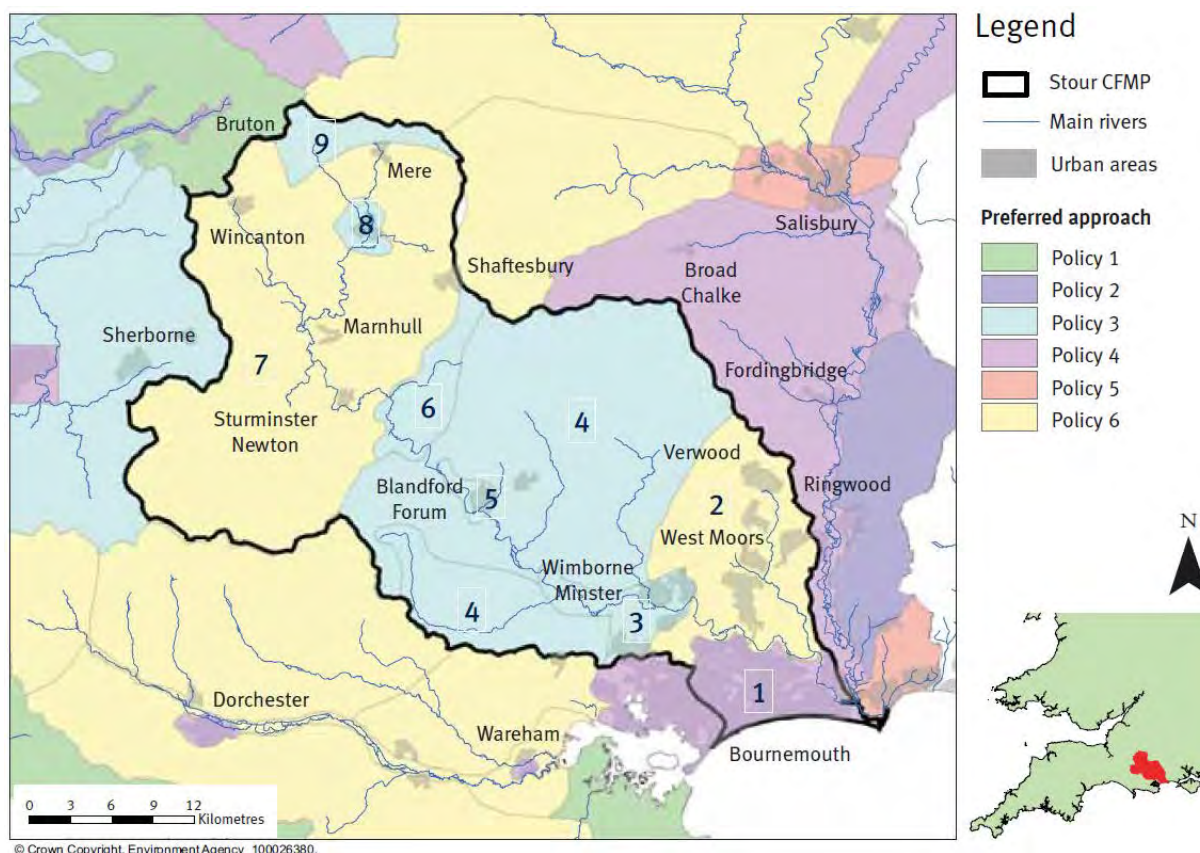
7.1.15 CFMPs consider all types of inland flooding, from rivers, ground water, surface water and tidal flooding, but not flooding directly from the sea (coastal flooding), which is covered by Shoreline Management Plans which are considered later in this section.

7.1.16 The Dorset Local Plan area is largely within three catchment areas:

- Dorset Stour;
- Frome and Piddle; and
- West Dorset

The Environment Agency's **Dorset Stour Catchment Flood Management Plan (2012)** presents the strategic policies relating to the Dorset Stour catchment which occupies the majority of the eastern section of the Dorset Local Plan Area (Figure 7.1).

Figure 7.1: The preferred policy options for the Dorset Stour sub-catchments (numbered 1-9)



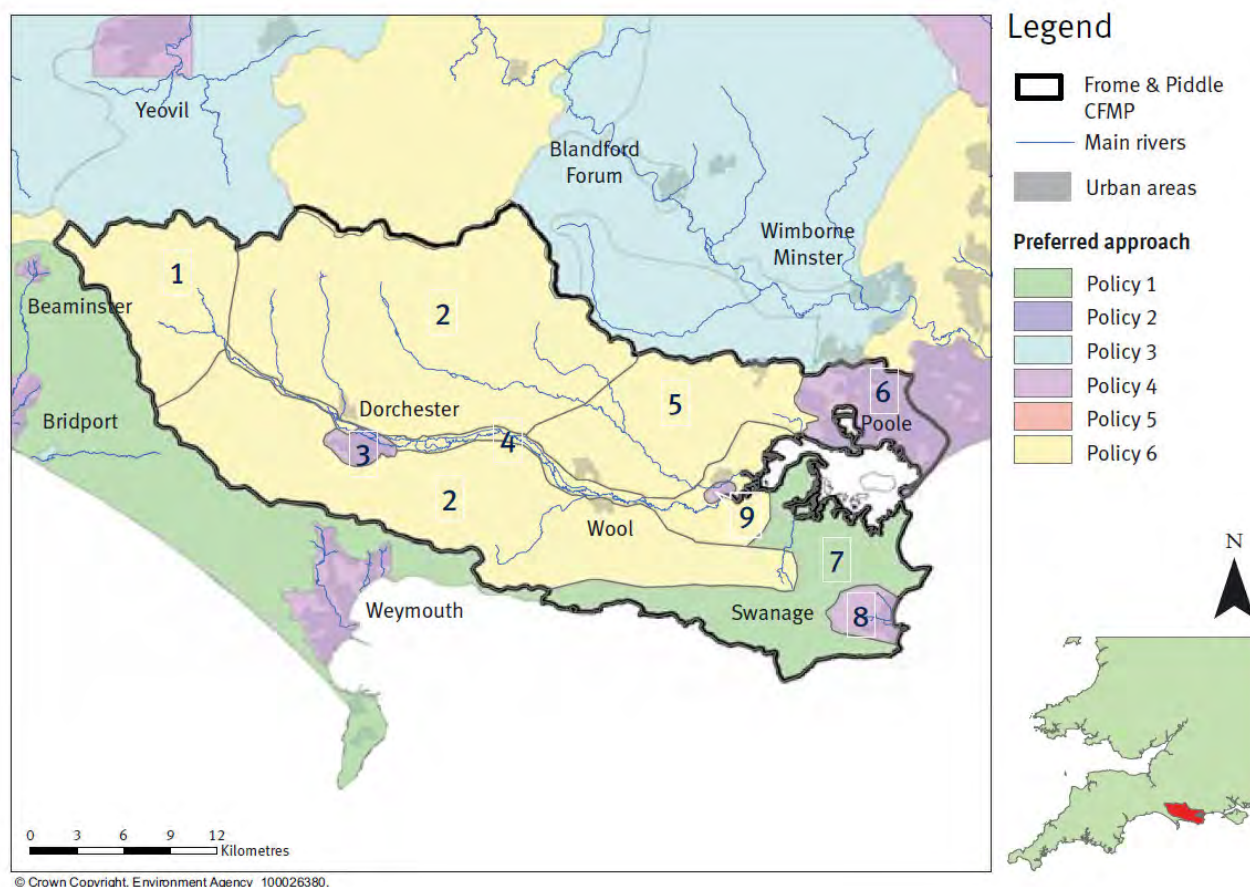
Source: Dorset Stour Catchment Flood Management Plan (2012)

- 7.1.17 The majority of Dorset Stour catchment within the Dorset Plan Area lies within Policy Option 3 and Policy Option 6.
- 7.1.18 The central area of the Dorset Stour catchment within the Dorset Local Plan area is within Policy Option 3 which is “we are generally managing existing flood risk effectively.”
- 7.1.19 The proposed actions to implement Policy Option 3 include:
- Continue to provide Development Control advice, including the use of SuDS, through Local Development Framework policies to ensure no increase in runoff from new developments and seek opportunities to reduce runoff, where possible;
 - Develop Surface Water Management Plans for Wimborne Minster, Corfe Mullen and Sturminster Marshall;
 - Assess potential for improving current defences, to retain standard of protection in the future, as part of the System Asset Management Plan; and
 - Continue with existing level of maintenance, looking for efficiencies and improvements.
- 7.1.20 The northern and southern extents of the Dorset Stour catchments within the Dorset Local Plan area is within Policy Option 6, which is “we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits”.
- 7.1.21 The proposed actions to implement Policy Option 6 include:
- Develop a Blackmore Vale & Upper Stour Strategy to investigate locations for flood attenuation and wetland creation;
 - Set up working groups to explore and encourage Agri-Environment and Woodland Scheme grants to help fund the change of land use and its management to increase water retention in the sub-catchment;
 - Encourage and influence the uptake of Agri-environment schemes to provide better land use practice with respect to rainfall run-off;
 - Strengthen Development Control advice, including the use of SuDS, through Local Development Framework policies to ensure no increase in runoff from new developments and seek opportunities to reduce runoff, where possible; and
 - Develop a Surface Water Management Plan for Wincanton, and Sturminster Newton.
- 7.1.22 The Environment Agency’s **Frome and Piddle Catchment Flood Management Plan (2012)** presents the strategic policies relating to the Frome and Piddle catchments which occupies the coastal areas towards the western boundary of the Dorset Local Plan Area (Figure 7.2).

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Figure 7.2: The preferred policy options for the Frome and Piddle sub-catchments (numbered 1-9)



Source: Frome and Piddle Catchment Flood Management Plan (2012)

7.1.23 The majority of the Frome and Piddle catchment is within policy option 6, which is “we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits”.

7.1.24 The proposed actions to implement preferred policy 6 includes:

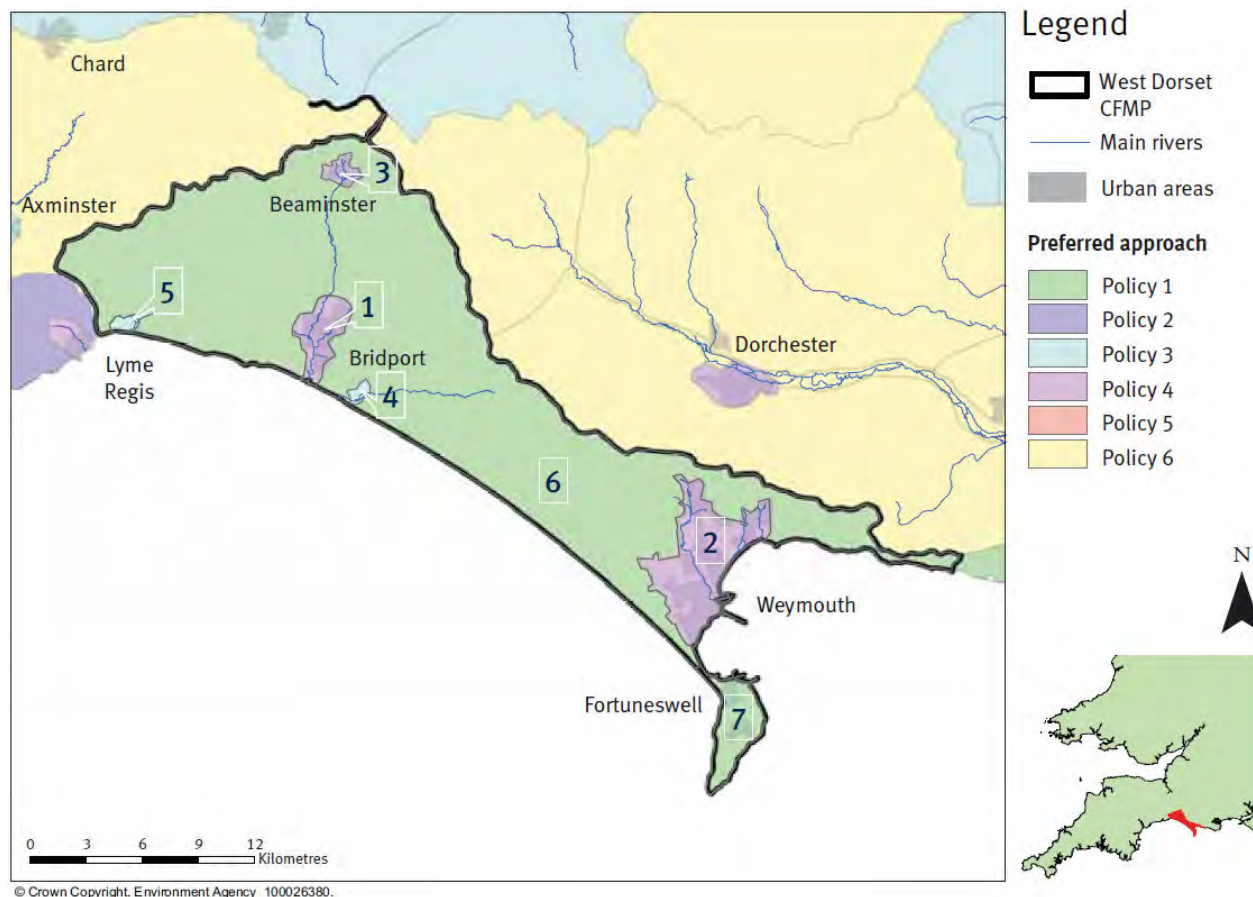
- Investigate the flood risk management opportunities arising from the Catchment Sensitive Farming initiative and Environmental Stewardship schemes and act to ensure they are realised;
- Investigate the potential flood risk management benefits of the Area of Outstanding Natural Beauty tree and woodland planting programme and act to ensure that any opportunities are realised;
- Investigate the impact of raised groundwater and springs on the urban areas of Cerne Abbas, Sydling St Nicholas, Charminster, Milborne St Andrew and the Piddle villages and establish baseline information on damages, and consider feasibility of mitigation measures;
- Identify locations for wetland habitat creation that could have clear flood risk management benefits and carry out feasibility studies for implementation;

- Identify actions contained in the River Frome Water Level Management Plan, which may be maximised for flood risk management benefits;
 - Identify specific locations and devise schemes where watercourses and floodplains can be restored by reducing conveyance where appropriate, reducing incidents of tree clearance in the river corridor (where such features do not increase the flood risk) and removing or altering obstructions such as road and foot bridges and implement findings.
- 7.1.25 Dorchester, Wareham and Swanage are within policy option 4, which is “we are already managing the flood risk effectively, but we may need to take further actions to keep pace with climate change.”
- 7.1.26 The proposed actions to implement this policy includes:
- Identify specific locations where channel maintenance is required to ensure conveyance is adequate and revise the maintenance regime where appropriate;
 - Identify and survey infrastructure at risk and take measures to increase flood resilience;
 - Improve the flood warning service and use awareness campaigns to increase the uptake of the service to local people and businesses in the vulnerable areas of Dorchester;
 - Review the maintenance regime and flood risk management in and around Swanage to ensure it is appropriately targeted and revise as appropriate in order to prevent a future increase in flood risk in Swanage;
 - Review the CFMP policy selected in the light of the Wareham Tidal Banks strategy adopted and hence the likely future flood risk.
 - Carry out a study to research historic surface water flooding events and to set up systems to measure and record all future surface water flooding events and impacts in order to establish baseline information and a monitoring programme;
 - Develop an Integrated Urban Drainage strategy for Dorchester and implement actions.
- 7.1.27 The Environment Agency’s **West Dorset Catchment Flood Management Plan (2012)** presents the strategic policies relating to the West Dorset catchment which occupies the coastal areas towards the western boundary of the Dorset Local Plan Area (Figure 7.2).

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Figure 7.3: The preferred policy options for the West Dorset sub-catchments (numbered 1-7)



Source: West Dorset Catchment Flood Management Plan (2012)

7.1.28 Policy Option 1 applies within the majority of rural areas of West Dorset and the Isle of Portland, which is “we will continue to monitor and advise”.

7.1.29 In Burton Bradstock and Charmouth, policy option 3 applies which is “we are generally managing existing flood risk effectively”.

7.1.30 The proposed actions to implement the preferred policy include:

- Carry out a comprehensive review of current drainage issues in Burton Bradstock, in partnership with the Local Planning Authority, Wessex Water, Highways Authority and Parish Council. Review to include an assessment of whether realignment of the river channel back to its original location is feasible, and whether the regulation of flows in the main river and mill stream could benefit flood risk management;
- Work with the Local Planning Authority to review licences and possible relocation of the caravan and camping sites that are currently in the at risk areas. This is liable to require support from the Local Development Framework; and
- Investigate whether land use and land management changes in the Bride catchment can reduce the risk of surface water run-off from rural areas that affect Burton Bradstock. Opportunities to manage the River Bride more sensitively, particularly for

water voles and the chalk stream habitat. The investigation also needs to take into account issues of sedimentation from surface waters and whether actions can be taken to reduce the ongoing desilting requirements.

7.1.31 In Bridport, Beaminster and Weymouth, policy option 4 applies which is “we are already managing the flood risk effectively but we may need to take further actions to keep pace with climate change”.

7.1.32 The proposed actions to implement the preferred policy include:

- Identify areas in Bridport where surface water run-off issues are causing problems;
- Ensure spatial planning and development does not increase flood risk (PPS25);
- Investigate whether any inappropriate development in the Wey floodplain can be relocated in the medium to long term. Evaluate risk to critical infrastructure and whether this can be relocated;
- Review licences and investigate possible relocation of caravan and camping sites currently at risk, for example on the west side of the lower Brit and River Jordan;
- Determine the link between soils and run-off in the catchment. Currently maintenance comprises mainly removal of silts from watercourses which this action aims to reduce;
- Investigate opportunities to restore drained and degraded wetland. Increase floodplain connectivity (e.g. at Asker Meadows Local Nature Reserve);
- Modify or improve the existing flood alleviation scheme on the lower Asker;
- Investigate if there are any feasible opportunities for smaller on-line storage options for the River Brit and tributaries;
- Investigate whether any mitigation measures can be taken to resolve flooding problems in Upwey from a line of springs;
- Carry out a siltation study in the Wey catchment in partnership with the RSPB, and in support of the RSPB’s ‘Siltation Study at Radipole Lake SSSI’, which will inform site management at Radipole Lake as well as informing flood risk management;
- Use the results of the siltation study to review current drainage issues at Radipole Lake and whether the flood risk to properties in Radipole village can be reduced;
- Investigate opportunity for creation of floodplain grazing marsh in Weymouth for the benefit of flood risk management; and
- Carry out a study to determine the current Standard of Protection in Beaminster, and how flood risk can be managed appropriately in the future. This will include investigating ways in which hydraulic and environmental improvements can be made to the tributary streams through Beaminster (for example by opening up of culverted sections).

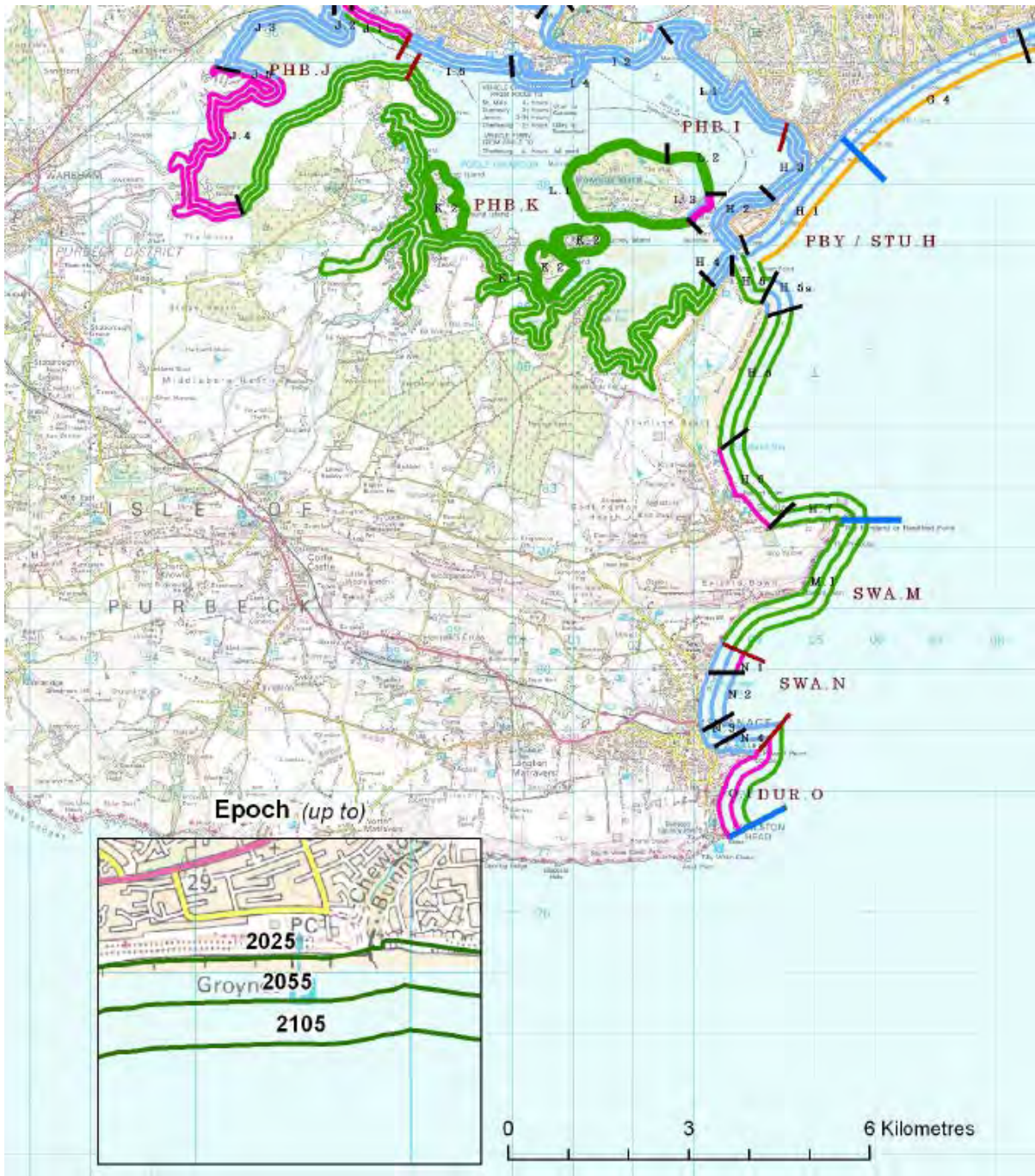
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- 7.1.33 Shoreline Management Plans (SMPs) are large scale assessments of the risks associated with coastal processes and help to reduce the risks to people and the developed, historic and natural environment. SMPs also identify the most sustainable approach to managing the flood and coastal erosion risks to the coastline in the short-term (0 to 20 years), medium term (20 to 50 years), and long term (50 to 100 years) and cover the entire shoreline of England and Wales.
- 7.1.34 The Dorset Plan Area is covered by two SMPs, both of which have been reviewed since the original SMPs were published:
- **Poole & Christchurch Bays Shoreline Management Plan Review (2010)** considers the coastline between Hurst Spit in the east, which is outside the Dorset Local Plan area, and Durlston Head in the west, within the Dorset Local Plan area and on Isle of Purbeck; and
 - **Durlston Head to Rame Head Shoreline Management Plan Review (2011)** covers the section of coastline from Durlston Head, which is on Isle of Purbeck, to White Nothe in the west, which is beyond the western boundary of the Dorset Local Plan area.
- 7.1.35 The **Poole & Christchurch Bays Shoreline Management Plan Review (2010)** includes the following policy approaches towards shoreline management within the Dorset Local Plan Area, as summarised in Figure 7.4:
- Managed realignment of coastal defences at Wareham, allowing coastal processes to realign the 'natural' coastline configuration;
 - Maintain or upgrade the level of protection provided by defences or the natural coastline in the long term at the chain ferry at Shell Bay, to maintain access to the ferry;
 - No active intervention within the western section of Poole Harbour (including the islands within Poole Harbour) and Studland Dunes, largely allowing natural processes to take place;
 - Managed realignment of coastal defences at Studland Village in the short term (up to 2025), with no active intervention in the medium and long term;
 - Maintain or upgrade the level of protection provided by defences or the natural coastline at Swanage; and

Managed realignment at Durlston Bay, from Peveril Point to Durlleston, with no active intervention in the medium and long term.

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Figure 7.4: A map summarising the policy approach towards coastal management in the Poole & Christchurch Bays Shoreline Management Plan Review (2010)



Key:	Policy
Policy Development Zones	Hold the Line
Management Units	Managed Realignment
Policy Units	No Active Intervention
	Hold the Line/Advance the Line

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Source: Poole & Christchurch Bays Shoreline Management Plan Review (2010)

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7.1.36 The **Durlston Head to Rame Head Shoreline Management Plan Review (2011)** includes the following policy approaches towards shoreline management within the Dorset Local Plan Area:

- Durlston Head: The preferred policy along this rocky cliffed shoreline is to continue to allow natural development along this coast;
- White Nothe (east of Ringstead Bay) to Redcliff Point (to the east of Weymouth, between Bowleaze Cove and Osmington Mills): may experience episodic landslide events that can cause tens of metres of retreat as a result of a single event. In places there is a risk of relict landslide complexes becoming reactivated, which makes management of this coastline more difficult. The continuation of the natural erosion process is integral to the World Heritage and SSSI status of the cliffs. Therefore, the long term plan is to allow this coastline to remain in its natural state, ceasing to intervene where this presently occurs;
- Redcliff Point to Portland Bill: the coastline here is more developed, incorporating Weymouth and Portland. The protection of commercial and social assets is key in this area, and the shoreline management plan is to continue to protect built assets but seek more sustainable means of achieving this. That includes some local realignment and possible beach enhancement;
- North-west shore of Portland Harbour: unlikely to be appropriate to intervene along the entire stretch of coast, at least in the short to medium term. The Isle of Portland and Portland Harbour breakwaters are key controls on future evolution as they provide shelter and influence the movement of sediment. The preferred plan includes the assumption that the breakwaters will remain and be maintained.
- Portland Bill to Thorncombe Beacon: coastline is dominated by Chesil Beach, which acts as a natural sea defence in addition to a European wildlife site. A key driver of policy is to maintain the natural status of Chesil Beach and take measures to ensure its future sustainability. Therefore for most of this stretch no intervention is planned.
- Freshwater Beach and Burton Bradstock: Some minimal intervention to manage the realignment of the coast in line with the retreat of adjacent undefended cliffs. This approach, supported by construction of a secondary defence further inland, will reduce local flood risk to properties at Burton Bradstock without compromising natural functioning of the beach.
- West Bay: continued defence of West Bay will also require a secondary defence behind East Beach to enable sustainable long term management of flood risk to be achieved whilst also allowing more natural functioning of the beach.
- Chiswell: The long term plan is to continue to maintain existing defences.

7.2. BASELINE INFORMATION

7.2.1 The Dorset Local Plan area is largely occupied by three hydrological catchments:

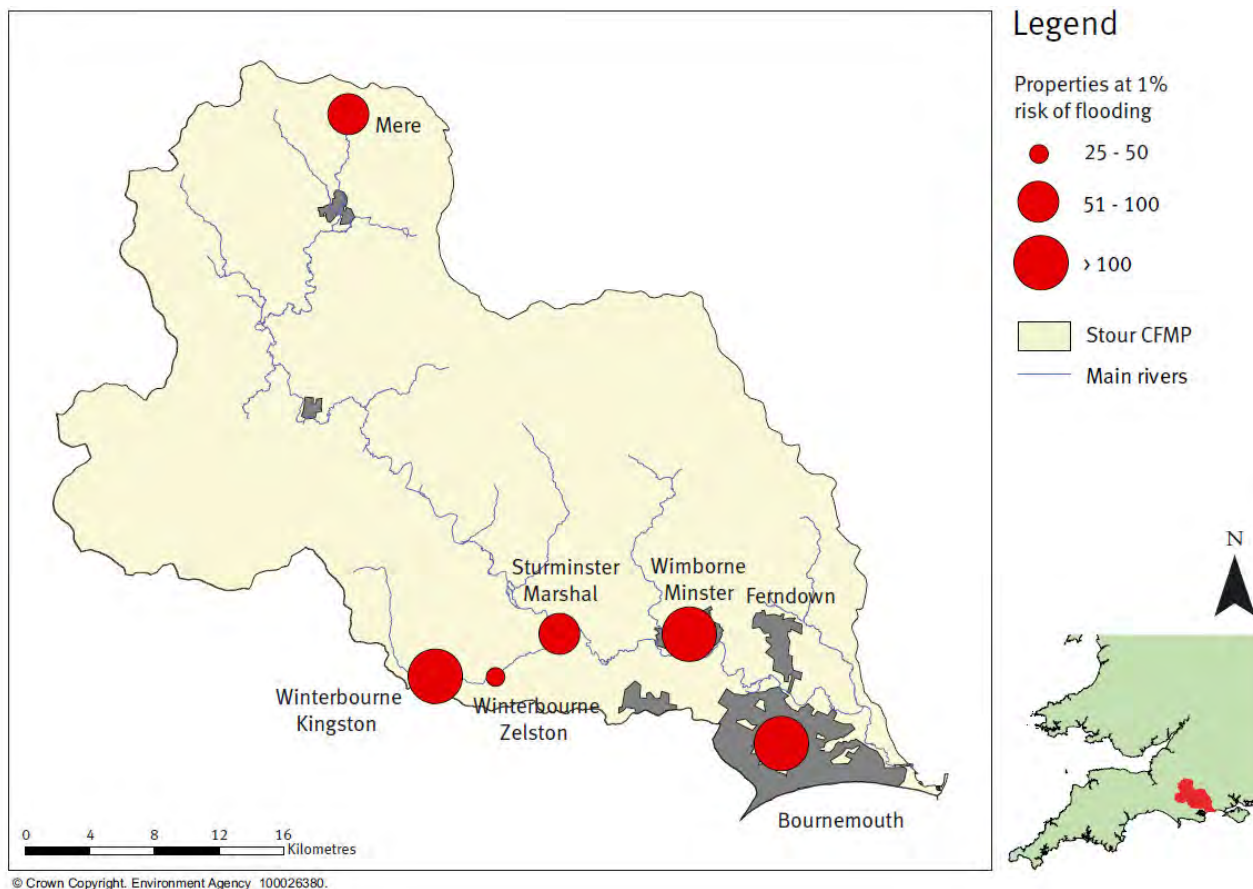
- Dorset Stour

- Frome and Piddle
 - West Dorset
- 7.2.2 This section considers the current flood risk at each of these catchments in turn.
- 7.2.3 According to the Dorset Stour Catchment Flood Management Plan (2012), the Dorset Stour catchment occupies around 1,240km² and includes the River Stour and its tributaries including the rivers Crane, Allen, Tarrant, Winterbourne and Lodden. The southern extent of the catchment includes the Poole, Bournemouth and Christchurch. The remaining areas of the catchment are largely rural but include the settlements of Gillingham, Wincanton, Shaftesbury, Sturminster Newton, Blandford Forum, Verwood, Wimborne Minster and Corfe Mullen.
- 7.2.4 The upper catchment consists of impermeable clays of the Blackmore Vale resulting in shallow valleys with wide floodplains. The central band of permeable chalk on Cranborne Chase results in steeper valleys and narrow floodplains. The lower catchment has the semi-permeable sands, clays and gravels of the Dorset Heaths.
- 7.2.5 The main sources of flood risk in the Dorset Stour catchment within the Dorset Local Plan Area include:
- River flooding from the River Stour particularly in Blandford Forum and Sturminster Newton;
 - Rural areas have the potential to be at risk from surface water flooding; and
 - Groundwater flooding which has recently occurred in Wimborne Minster and Sixpenny Handley and on other watercourses such as those draining Cranborne Chase and the Winterborne.
- 7.2.6 In 2012, there were around 1,500 people and 800 commercial and residential properties at risk in the whole catchment from a 1% annual probability river flood taking into account current flood defences. This represented 1% of the total population living in the catchment.
- 7.2.7 There were more than 100 properties at risk of flooding in a 1% annual probability river flood at Wimborne Minster and Winterbourne Kingston, 51-100 properties of risk in Sturminster Marshall, and 25-50 in Winterbourne Zelston, Motcombe and Gillingham (Figure 7.5).
- 7.2.8 The critical infrastructure at risk includes 1 electricity sub-station, 1 water treatment works, 1 km of main roads, and 0.8km of mainline railway.

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Figure 7.5: A map showing the flood risk to property in a 1% annual probability river flood in the Dorset Stour Catchment

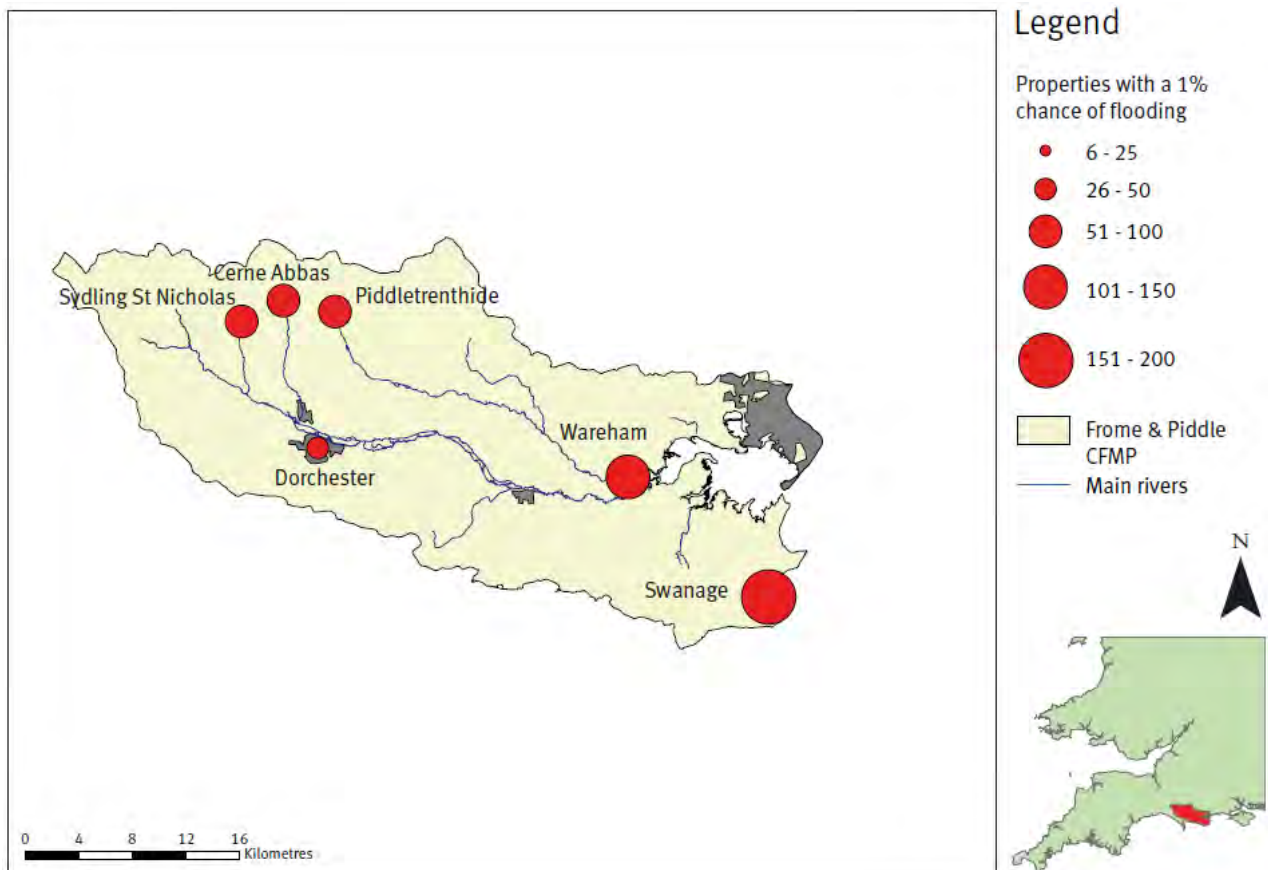


Source: Dorset Stour Catchment Flood Management Plan (2012)

- 7.2.10 According to the Frome and Piddle Catchment Flood Management Plan (2012), the Frome and Piddle hydrological catchment occupies around 900km² and is largely rural with the exception of Poole at the southern end of the catchment.
- 7.2.11 The Frome and Piddle catchment is characterised in the upper reaches of the North Dorset Downs by open chalk downland with clay and alluvial deposits at the lower end. The rivers Frome and Piddle discharge into Poole Harbour at sea level just downstream of Wareham.
- 7.2.12 The main sources of flood risk in the Frome and Piddle catchment within the Dorset Local Plan Area include:
- River flooding from the River Frome in Dorchester and Maiden Newton, the River Piddle in Wareham, the River Cerne in Cerne Abbas, and the River Swan in Swanage;
 - Tidal flooding in Wareham and Swanage;
 - Surface water flooding, which has occurred in Frampton, Swanage and Wareham. Other towns have the potential to be at risk from surface water flooding; and
 - Groundwater flooding which has occurred in Milborne St Andrew, Cerne Abbas, Dorchester and other isolated locations throughout the catchment.

- 7.2.13 In 2012, there were 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 represented 1% of the total population living in the catchment.
- 7.2.14 More than 10% of people and property at risk were located in Swanage, and a further 6% in Wareham.
- 7.2.15 There were more than 100 properties at risk of flooding in a 1% annual probability river flood at Swanage and Wareham, 51-100 properties of risk in Dorchester, Cerne Abbas, Piddletrenthide and Sydling St Nicholas, and 25-50 in Maiden Newton and Milborne St Andrew (Figure 7.6).
- 7.2.16 The critical infrastructure at risk includes 4 water treatment works, 1 healthcare centre, 9km main roads, 7.5km mainline railways, 1 school.

Figure 7.6: A map showing the flood risk to property in a 1% annual probability river flood in the Frome and Piddle catchment



Source: Frome and Piddle Catchment Flood Management Plan (2012)

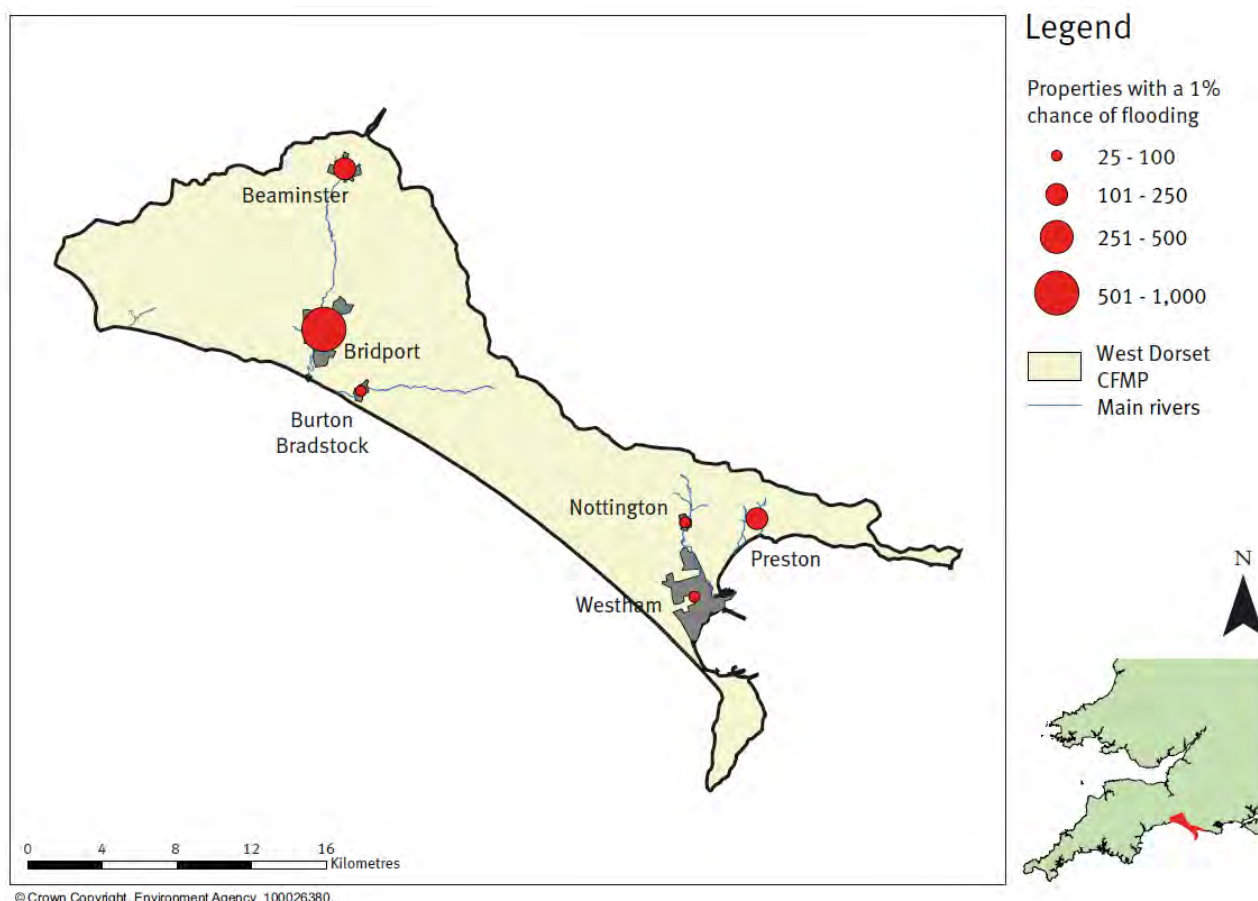
- 7.2.17 According to the West Dorset Catchment Flood Management Plan (2012), the West Dorset hydrological catchment occupies around 370km² and comprises a series of smaller catchments from the Rivers Char, Brit, Bride and Wey, which each flow directly into the sea on the south coast.

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- 7.2.18 The West Dorset catchment is predominantly rural in character, and characterised by broad, bowl shaped vales incised by steep sided river valleys.
- 7.2.19 The main sources of flood risk in the West Dorset catchment within the Dorset Local Plan Area are fluvial, surface water and tidal flooding.
- 7.2.20 In 2012, there were around 700 properties at risk in the whole catchment from a 1% annual probability river flood event or 0.5% annual probability tidal event.
- 7.2.21 There were more than 100 properties at risk of flooding in a 1% annual probability river flood event at Beaminster, Bridport and Preston, 51-100 properties at risk in Nottingham and Broadway, and 25-50 in Burton Bradstock (Figure 7.7).
- 7.2.22 The critical infrastructure at risk includes 1 electricity substation, 3 emergency services, 1 A road and 2 water treatment works.

Figure 7.7: A map showing the flood risk to property in a 1% annual probability river flood in the West Dorset catchment



- 7.2.23 The Dorset Local Plan area includes approximately 144km of coastline, extending from the southern end of Poole Harbour in the east to Lyme Regis in the west.
- 7.2.24 The coastline within the Dorset Local Plan area includes a great variety of coastal landforms and associated coastal processes.

7.3. SUSTAINABILITY ISSUES

7.3.1 The key environmental issues relating to flooding and coastal change include:

- The frequency and severity of flood events which is predicted to increase as a result of climate change. The challenge is to deliver housing and development whilst not increasing and where possible reducing the risk of flooding to people and properties.
- Implementing the appropriate management of coastal areas to ensure that wildlife designations and areas of geological interest are protected along with the communities which live in these areas. The environmental designations in coastal areas often rely on natural processes being allowed to take place, which may conflict with the management of these areas for the protection of local communities; and
- Lack of financial resources available to implement coastal protection schemes.

8 Landscape

- 8.0.1 The landscapes of the 21st century have been shaped by a combination of natural processes and human activity.
- 8.0.2 Geological activity and environmental processes through time have created the hugely diverse range of landforms. The diversity of these landforms across the world reflects the range of geology, climate and natural systems, all of which interact in a complex manner.
- 8.0.3 The onset of civilisation has made a physical impression on these natural landscapes through the ages. Human activity, particularly land management through farming and forestry, and urban development, largely for residential and industrial processes and the growth of urban settlements, have altered the character and quality of the landscape.
- 8.0.4 The pace of social, economic and environmental change is increasing. Without careful planning and management, the quality and condition of the landscape will be irreversibly changed.

8.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

EUROPEAN

- 8.1.1 The **European Landscape Convention (2000)** aims to encourage public authorities to adopt policies and measures at local, regional, national and international level for protecting, managing and planning landscapes throughout Europe. The convention includes the following targets:
- Recognise landscapes in law as an essential component of people's surroundings, an expression of the diversity of their shared cultural and natural heritage, and a foundation of their identity;
 - Establish and implement landscape policies aimed at landscape protection, management and planning;
 - Establish procedures for the participation of the general public, local and regional authorities, and other parties with an interest in the definition and implementation of the landscape policies; and
 - Integrate landscape into its regional and town planning policies and in its cultural, environmental, agricultural, social and economic policies, as well as in any other policies with possible direct or indirect impact on landscape.

NATIONAL

- 8.1.2 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)** sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, including the following with respect to the landscape:

“We will conserve and enhance the beauty of our natural environment, and make sure it can be enjoyed, used by and cared for by everyone.”

- We will do this by:

- safeguarding and enhancing the beauty of our natural scenery and improving its environmental value while being sensitive to considerations of its heritage.

8.1.3 The **National Planning Policy Framework (2019)** (NPPF) for England states that planning policies should ensure that developments:

- are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); and
- establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit.

8.1.4 the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside...; and
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate.

8.1.5 Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues.

8.1.6 The NPPF states that planning policies should:

“limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.”

8.1.7 The NPPF explains that the Government attaches great importance to Green Belts and that 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.

8.1.8 The NPPF states that Green Belt serves five purposes:

- a) to check the unrestricted sprawl of large built-up areas;
- b) to prevent neighbouring towns merging into one another;

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- c) to assist in safeguarding the countryside from encroachment;
- d) to preserve the setting and special character of historic towns; and
- e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

8.1.9 The **Countryside and Rights of Way Act (2000)** confirmed the significance of Areas of Outstanding Natural Beauty and created improved arrangements for their management. Section 85 places a statutory duty on all 'relevant authorities' to have regard to the purpose of conserving and enhancing natural beauty when discharging any function affecting land in AONBs.

LOCAL

8.1.1 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to landscape:

- Remove existing and avoid creating new features which are detrimental to landscape character, tranquillity, and the AONB's special qualities;
- Require the use of previously developed land where this will limit the expansion of built development into sensitive undeveloped countryside;
- Protect and where possible enhance the quality of views into, within and out of the AONB;
- Protect the pattern of landscape features, including settlements, that underpin local identity;
- Avoid and reduce cumulative effects that erode landscape character and quality;
- The landward and seaward setting of the AONB will be planned and managed in a manner that conserves and enhances the character and appearance of the AONB;
- The conservation, enhancement and creation/restoration of appropriate landscape features such as landmarks, artworks, boundary features, tree clumps etc, will be regarded favourably. There should be a net gain in terms of the landscape and its constituent elements; and
- Support development that conserves and enhances the AONB, ensuring sensitive siting and design respects local character. Development that does not conserve and enhance the AONB will only be supported if it is necessary and in the public interest. Major development decisions need to include detailed consideration of relevant exceptional circumstances.

8.1.2 The **Cranborne Chase & West Wiltshire Downs AONB Management Plan 2014-19 (2014)** sets out the following objectives for those responsible for looking after the Cranborne Chase AONB:

- The landscape character, tranquillity and special qualities of the AONB are fully understood by policy makers and land managers;

- The landscape character, tranquillity and special qualities of the AONB and its settings are conserved and enhanced;
 - Understand the rate and degree of landscape change within the AONB;
 - Dark Night Sky status is secured for the AONB;
 - Farmers, foresters, fishery managers and gamekeepers are aware of how their activities can strengthen landscape character and enhance the natural environment of the AONB; and
 - Strategic and local decisions are formulated taking full account of the purposes of designation and are implemented in a comprehensive, coherent and consistent way with regard to the character and quality of the area and its setting, together with views into and out of the AONB such that these decisions result in no net detriment to the special qualities of the AONB.
- 8.1.3 The **Dorset Biodiversity Strategy (Mid Term review) (2010)** contains the following guiding principle:
- Develop ecologically resilient and varied landscapes.
- 8.1.4 The **Dorset Local Nature Partnership’s Vision and Strategy (2016)** sets out the strategic priorities for the partnership, which include the following objective relating to landscape:
- Maintenance and enhancement of high quality landscapes in which change is well managed; and
 - More widespread adoption of landscape scale approaches to extending and joining up natural areas as the best means of improving their resilience to future change.
- 8.1.5 The **Dorset and East Devon Coast World Heritage Site Management Plan 2014 – 2019** contains the following aim:
- To Protect the Site’s Outstanding Universal Value and setting.
- 8.1.6 The Bournemouth, Poole and Dorset Local Transport Plan 3 (2011) includes the following objective:
- Creating attractive public realm and streetscapes.

8.2. BASELINE INFORMATION

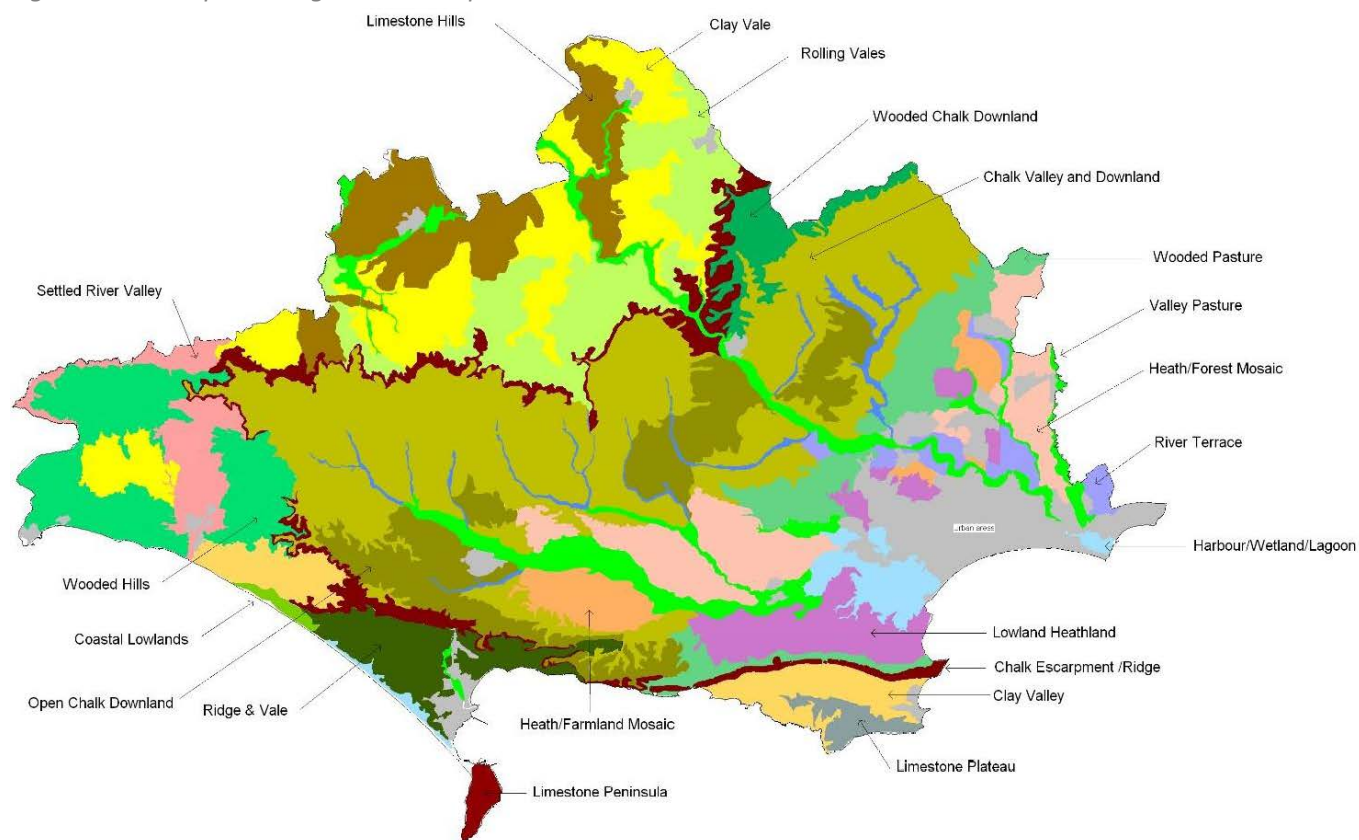
- 8.2.1 The Dorset landscape is unique in its landscape character, variety and quality. This diversity is a product of the range of natural, physical factors such as geology, soils and climate.
- 8.2.2 Geology dominates the landscape and local character of Dorset³⁰, as the great diversity of rock types, erosional processes and structures have created the unique, variable and distinctive countryside (Figure 8.1).

³⁰ Dorset Landscape Character Assessment (2009), Dorset County Council

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Figure 8.1: A map showing the landscape character in the Dorset Local Plan Area



Source: Dorset Landscape Character Assessment (2009), Dorset County Council

- 8.2.3 The central parts of Dorset are dominated by the vast swathe of chalk which runs across Dorset from the southeast to the northeast, and beyond the Dorset Local Plan area to Salisbury Plain in Wiltshire. It is an elevated, spacious landscape with a prominent escarpment with a series of ridge tops which offer uninterrupted panoramic views of the surrounding landscape, with undulating farmlands which define large areas of Dorset.
- 8.2.4 The shallow dip slope of the southern extent of the chalk transitions to the heathland landscapes of the Poole Basin towards the southeast of the Dorset Plan Area. The Poole Basin is defined by an undulating lowland with remnants of a once extensive area of heathland which has been largely lost due to land use change.
- 8.2.5 A high chalk ridge, which once linked Purbeck to the Isle of Wight, separates the heathlands of the Poole Basin from the secluded clay vale to the south.
- 8.2.6 The sequence of cliff and bays along the Purbeck coastline, and the remaining coastline of the Dorset Local Plan area, have been carved by the powerful forces of coastal erosion and deposition, leaving a legacy unique landscape features like Lulworth Cove, Durdle Door, Chesil Beach, and the beaches of Studland Bay.
- 8.2.7 To the north of the chalk escarpment and towards the northern site boundary lies the Blackmore Vale, an extensive, flat clay vale bordered by limestone ridges to the North

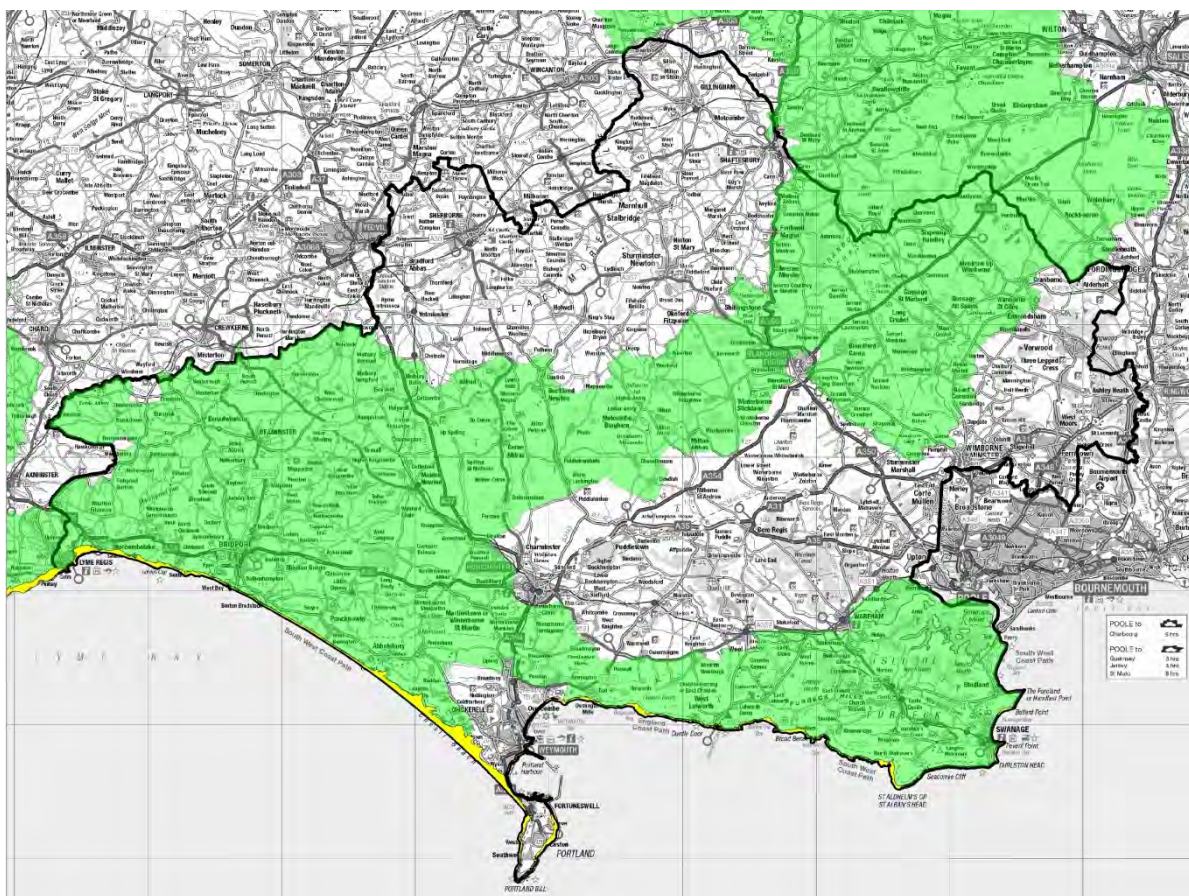
West and deeply undulating foothills beside the escarpment to the south and east of the vale.

8.2.8 The landscape of the west of the county is more varied, reflecting the complex geology, with steep distinctive greensand ridges separating clusters of deeply incised valleys and broad rolling farmland.

8.2.9 The Dorset Local Plan area contains the following Areas of Outstanding Natural Beauty (AONB), which have been designated for conservation in recognition of outstanding scenic quality and significant landscape value of these areas (Figure 8.2):

- Dorset AONB: occupies approximately 1,128km² or 44.7% of the plan area and is characterised by chalk downland with agriculture being the major land use including mixed arable and livestock grazing; and
- Cranborne Chase and West Wiltshire AONB: Occupies approximately 278km² or 11.0% of the plan area and is characterised by rolling downland fringed to the west by a steep scarp slope. The agricultural and forestry sectors are the main employers in the area and these have a significant influence over the landscape.

Figure 8.2: A map showing the extent of the Dorset AONB (in green) and UNESCO World Heritage Site (in yellow) within the Dorset Local Plan area (in black outline).



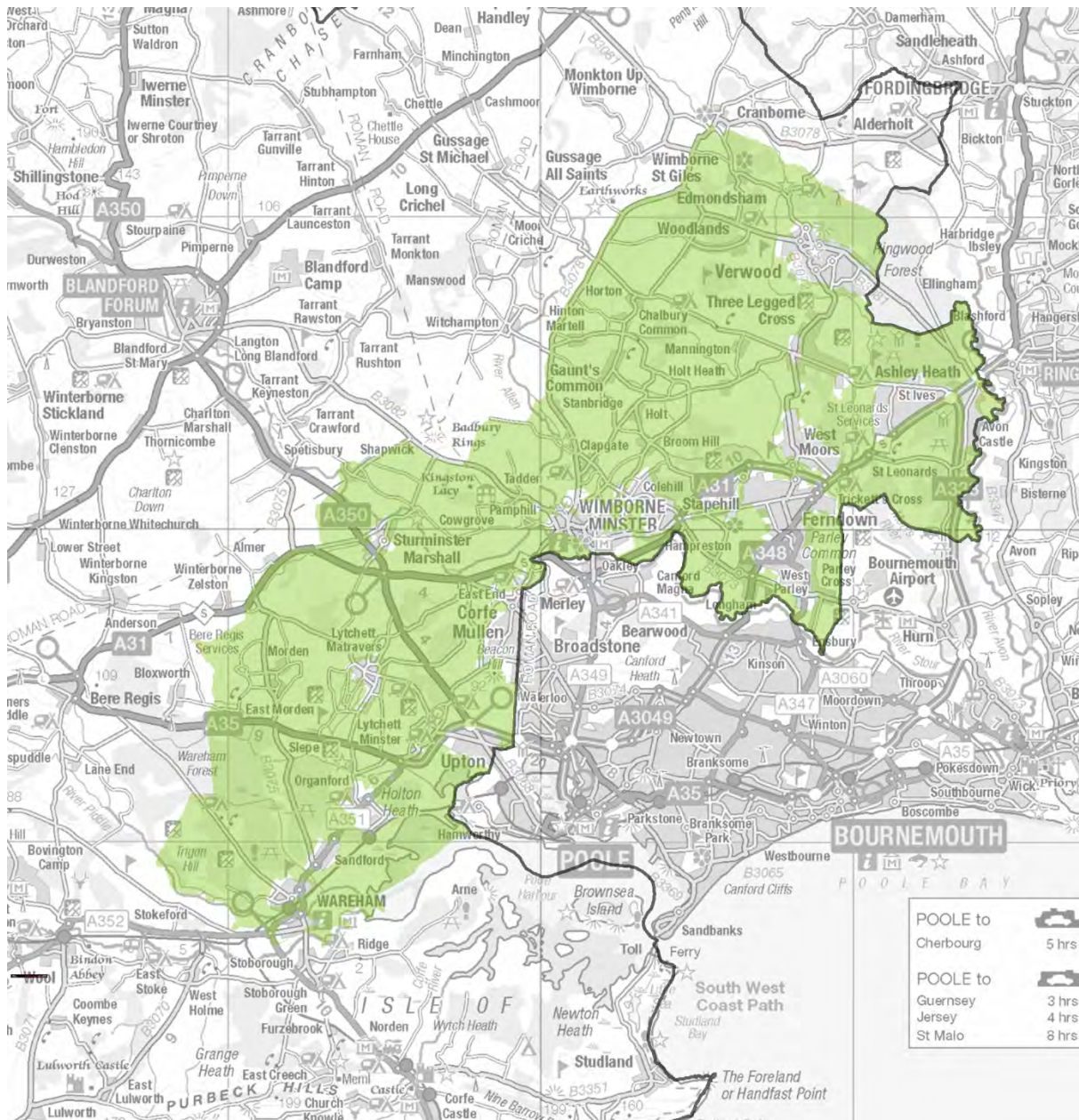
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- 8.2.10 In addition, the vast majority of the 144km coastline within the Dorset Local Plan area is part of the Dorset and East Devon Coast UNESCO World Heritage Site (Figure 8.2). The designation stretches 155km of coastline from Exmouth in Devon which lies beyond the plan area to the west to Studland Bay towards the eastern end of the Dorset Local Plan area. The designation only includes the undeveloped areas of the coast, and therefore omits the sections of the urbanised coastline such as Weymouth, Portland, Bridport, Lyme Regis and Swanage.
- 8.2.11 The Dorset and East Devon Coast UNESCO World Heritage Site recognises the worldwide importance of this section of coastline for the outstanding combination of geological, paleontological and geomorphological features.
- 8.2.12 The site displays approximately 185 million years of the Earth's history, including a number of internationally important fossil localities and a range of outstanding examples of coastal geomorphological features, landforms and processes.
- 8.2.13 The South East Dorset Green Belt occupies approximately 244km² or 9.7% of the Dorset Plan area (Figure 8.3).
- 8.2.14 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 permanence³¹.

³¹ According to the National Planning Policy Framework

Figure 8.3: A map showing the extent of the Green Belt (in green) within the Dorset Local Plan area (in black outline).



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8.3. SUSTAINABILITY ISSUES

8.3.1 The key environmental issues relating to landscape are:

- To conserve and enhance the landscape character and special qualities of the Dorset AONB and Cranborne Chase and West Wiltshire AONB, which together cover approximately 1,407km² or 55.7% of the Dorset Local Plan area, whilst also providing for development.

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- Protecting the Dorset and East Devon Coast World Heritage Site's outstanding universal value and setting whilst also providing for development.
- Controlling urban sprawl in southeast Dorset by restricting harmful development within the Green Belt.

9 Cultural heritage

- 9.0.1 Cultural Heritage is defined by UNESCO as:
- “the legacy of physical artefacts of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations.
- 9.0.2 Cultural Heritage comprises of tangible cultural heritage, which refers to physical things like buildings and monuments, and intangible cultural heritage, which refers to things that are not physical but exist spiritually or socially, such as customs and ways of life.
- 9.0.3 Cultural heritage makes a positive contribution to the economy, the character and identity of a place, and general wellbeing in the community.
- 9.0.4 Heritage helps to drive the economy largely through tourism and by providing an attractive environment to work, study and undertake business. In the UK in 2011, 73% of UK residents and 54% of overseas tourists to the UK visited at least one heritage site, providing 134,000 direct jobs and an estimated £5.1bn economic output³².
- 9.0.5 Historic buildings play a key role in defining local character and distinctiveness, providing a sense of place and a visual link to the history of an area.
- 9.0.6 Whilst the wider social value of culture on the wellbeing of the community is more difficult to measure, it is clear that it influences views, values and relationships across the community, controls social behaviour and increases mutual understanding and social cohesion. In terms of the built environment, studies have shown the positive influence upon quality of life and place, indicating that:
- 87% of people believed that better quality of buildings and public spaces improved quality of life;
 - 90% believed that investment in the historic environment made their area a better place; and
 - 92% believed that investment in historic-led regeneration raised pride in their area.
- 9.0.7 For these reasons, maintaining cultural heritage is a key element of ensuring that sustainable development is achieved.

9.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 9.1.1 The **UNESCO World Heritage Convention (1972)**, the key objective of which was to protect cultural and natural heritage, considers 'that parts of the cultural or natural heritage are of outstanding interest and therefore need to be preserved as part of the world heritage of mankind as a whole'.

³² 'Heritage Counts 2014: The Value and Impact of Heritage (2014)', English Heritage

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EUROPEAN

- 9.1.2 The **Guiding Principles for Sustainable Spatial Development of the European Continent (2000)** includes the following key objective:
- Enhancing the cultural heritage as a factor for development
- 9.1.3 The main objective of **The European Convention on the Protection of Archaeological Heritage (Valetta Convention) (1992)** was to ensure that the historic environment is properly preserved and managed. The convention was particularly concerned with encouraging co-operation among archaeologists and town and regional planners in order to ensure optimum conservation of archaeological heritage. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage.
- 9.1.4 The **Ancient Monuments and Archaeological Areas Act (1979)** aims to protect archaeological heritage by defining ‘ancient monuments’, which are defined as Scheduled Monuments and any other monument which is of public interest by reason of the historic, architectural, traditional, artistic or archaeological interest attached to it, and making it a criminal offence to damage an ancient monument.

NATIONAL

- 9.1.5 The **Town and Country Planning (Listed Buildings and Conservation Areas) Act (1990)** requires local authorities to “have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses” when considering applications for listed building consent. With respect to any buildings or other land in a Conservation Area, special attention must be paid to the desirability of preserving or enhancing the character or appearance of that area.
- 9.1.6 The **National Planning Policy Framework (2019) (NPPF)** provides a definition of sustainable development, explaining there are three overarching objectives which should be pursued in order to achieve sustainable development. The environmental objective includes “to contribute to protecting and enhancing our natural, built and historic environment...”
- 9.1.7 The NPPF advises that strategic policies should make significant provision for the “conservation and enhancement of the natural, built and historic environment” and requires planning policies to ensure that developments “are sympathetic to local character and history, including the surrounding built environment”.
- 9.1.8 The NPPF explains that Local Plans should set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. This strategy should take into account:
- the desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation;
 - the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;

- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

LOCAL

9.1.1 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to the historic environment:

- Promote and support the celebration and conservation of local distinctiveness.

9.1.2 The **Cranborne Chase & West Wiltshire Downs AONB Management Plan (2014)** sets out the following objectives:

- The historic environment and cultural heritage of the AONB is conserved and enhanced
- The historic environment, cultural heritage and traditions of the AONB are understood, valued and celebrated

9.1.3 The **Dorset Local Nature Partnership’s Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which include the following objectives relating to cultural heritage:

- Demonstrable improvements in the condition of heritage assets; and
- Realising the economic, social and cultural potential of heritage assets which reduce resource use and reinforce local distinctiveness.

9.2. BASELINE INFORMATION

9.2.1 The Dorset Local Plan area includes a rich historic and built heritage which include the following designations:

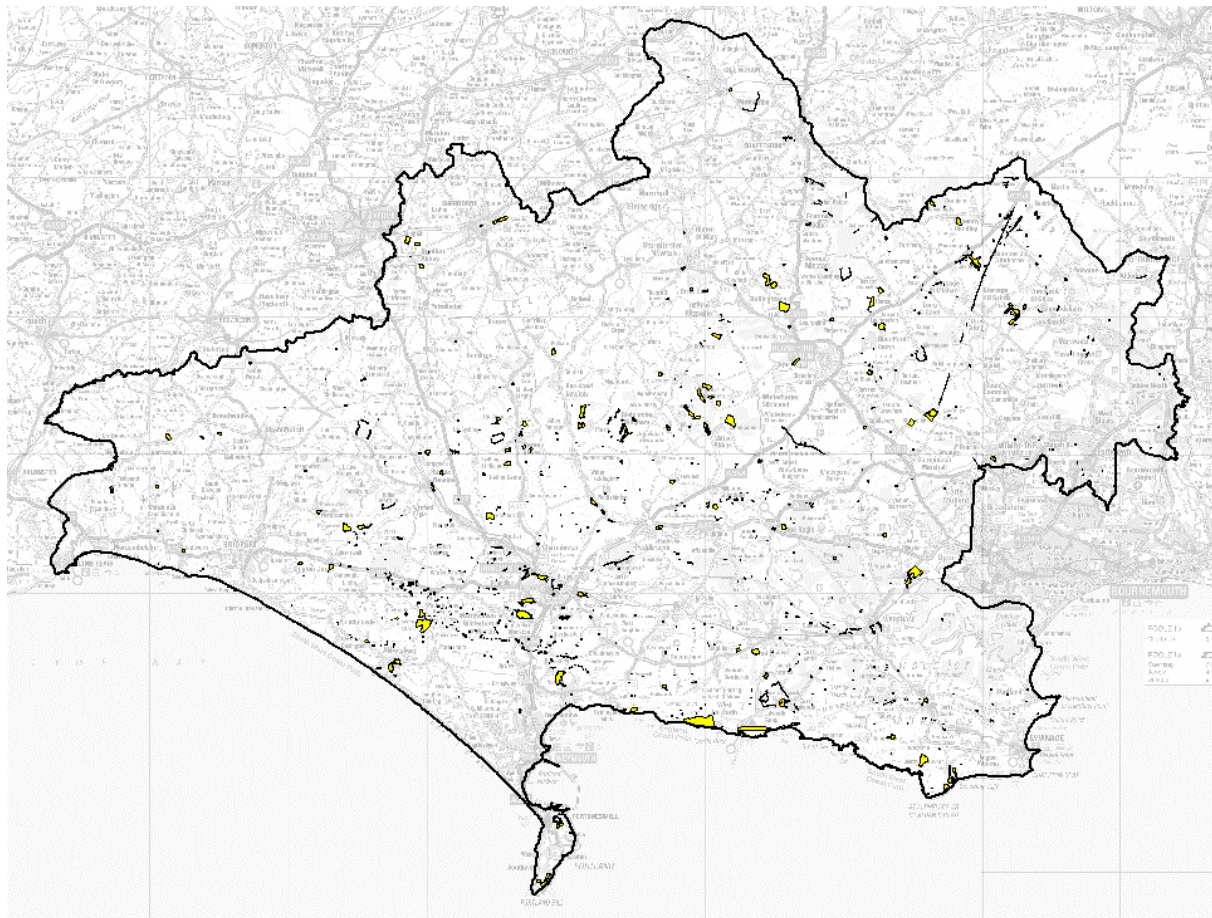
- Scheduled Monuments: Nationally important archaeological sites;
- Conservation Areas: Areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance;
- Historic Parks and Gardens: Gardens which are of special historic interest.
- Listed Buildings: Buildings of special architectural and historic interest. Includes Grade I (Building of exceptional interest); Grade II* (particularly important and more than special interest) ; and Grade II (special interest) Listed Buildings.

9.2.2 Approximately 5% of England’s Scheduled Monuments are within Dorset (Figure 9.1). These areas of archaeological importance on a national level are widely distributed across the Dorset Local Plan Area (Figure 9.1).

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Figure 9.1: A map showing the extent of Scheduled Monuments (shown in yellow with a black border) within the Dorset Local Plan Area



© Historic England 2019. Contains Ordnance Survey data © Crown copyright and database right 2019. The Historic England GIS Data contained in this material was obtained on 2019. The most publicly available up to date Historic England GIS Data can be obtained from <http://www.HistoricEngland.org.uk>.

9.2.3 The Heritage at Risk Register is published annually by Historic England and provides a list of heritage assets, such as listed buildings, or scheduled monuments that are at risk as a result of neglect, decay or inappropriate development, or are vulnerable to becoming so. Approximately a quarter of the scheduled monuments in Dorset are 'at risk'³³.

9.2.4 There are currently 258 items on the Heritage At Risk Register in the Dorset Plan Area, comprising:

- Scheduled Monuments: 235
- Listed Buildings: 17
- Conservation Areas: 5
- Registered Park and Garden: 1

³³ 'State of Dorset: the Natural Environment, Dorset Council, May 2019

9.3. SUSTAINABILITY ISSUES

9.3.1 The key environmental issues relating to cultural heritage include:

- The rich historic and built heritage of the plan area is an irreplaceable resource, and important features of historic, cultural and archaeological interest must be conserved and enhanced to prevent their loss;
- Sustaining and enhancing the significance of heritage assets by putting them to viable uses which are consistent with their conservation; and
- Ensuring that new development makes a positive contribution to local character and distinctiveness, and take opportunities to draw on the contribution made by the historic environment to the character of a place.

10 Human health and population

- 10.0.1 The term 'health' is defined by the World Health Organisation as a:
- “State of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity”.
- 10.0.2 The health of a person is often determined by a person's individual characteristics and behaviors, their social and economic environment, and the physical environment³⁴.
- 10.0.3 It follows therefore that health is closely related to social conditions. A strong, inclusive society, with equal opportunities for all and where crime and fear of crime do not undermine community cohesion, promotes personal wellbeing and encourages a higher quality of life, improving health overall.
- 10.0.4 Whilst the link between public health and the economic environment is complex, it is generally true that wealthier countries have healthier populations and poverty adversely affects life expectancy. In the UK, the increase in lifestyle related and chronic diseases has been experienced particularly among socio-economically disadvantaged groups and areas³⁵.
- 10.0.5 Since the health of an individual is also closely linked to the physical environment in which they exist, the environmental problems considered in the preceding chapters, such as air pollution and flooding, also influence human health.
- 10.0.6 This chapter also explores the issues relating to the population and demographic structure, and social issues such as crime, healthcare and education.

10.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 10.1.1 The United Nations developed a series of global development goals which aim to deliver sustainable development in the document titled **Transforming our world: the 2030 Agenda for Sustainable Development (2015)** which include:
- End poverty in all its forms everywhere;
 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture;
 - Ensure healthy lives and promote well-being for all at all ages;
 - Achieve gender equality and empower all women and girls;
 - Ensure availability and sustainable management of water and sanitation for all;

³⁴ 'The Determinants of Health', World Health Organisation, May 2011

³⁵ 'The UK Government Sustainable Development Strategy', HM Government, March 2005

- Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all;
- Reduce inequality within and among countries;
- Make cities and human settlements inclusive, safe, resilient and sustainable; and
- Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

EUROPEAN

10.1.2 The **European Sustainable Development Strategy (2006)** set out a strategy on how the EU will deliver its commitment to meet the challenges of sustainable development, and includes the following key objectives:

- Promoting good public health and improving protection against health threats;
- Creating a socially inclusive society by taking into account solidarity between and within generations; and
- To secure and increase the quality of life of citizens

10.1.3 The targets within this strategy include:

- Curbing the increase in lifestyle related and chronic diseases, particularly among socio-economically disadvantaged groups and areas; and
- Reducing the number of people at risk of poverty and social exclusion by 2010 with a special focus on the need to reduce child poverty.

NATIONAL

10.1.4 The **UK Government Sustainable Development Strategy (2005)** sets out the five principles for a policy to be sustainable, which form the basis for policy in the UK, one of which is:

- Ensuring a Strong, Healthy and Just Society: meeting the diverse needs of all people in existing and future communities, promoting personal wellbeing, social cohesion and inclusion, and creating equal opportunity for all.

10.1.5 The **National Planning Policy Framework (2019)** (NPPF) for England states that there is a social objective to achieving sustainable development, which is:

“to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being.”

10.1.6 In terms of promoting healthy and safe communities, the NPPF states that planning policies should aim to achieve healthy, inclusive and safe places which:

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- promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;
 - are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and
 - enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.
- 10.1.7 The NPPF states that Planning policies should support development that makes efficient use of land, taking into account:
- the importance of securing well-designed, attractive and healthy places.
- 10.1.8 The NPPF requires planning policies to ensure that developments:
- create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience.
- 10.1.9 **A Green Future: Our 25 Year Plan to Improve the Environment (2018)** sets out the UK government action to help the natural world regain and retain good health. The plan sets a series of goals for improving the environment within a generation and leaving it in a better state than we found it, and includes the following actions relating to health and wellbeing:
- We will conserve and enhance the beauty of our natural environment, and make sure it can be enjoyed, used by and cared for by everyone. We will do this by:
 - making sure that there are high quality, accessible, natural spaces close to where people live and work, particularly in urban areas, and encouraging more people to spend time in them to benefit their health and wellbeing; and
 - focusing on increasing action to improve the environment from all sectors of society.

LOCAL

- 10.1.10 The **Dorset Sustainable Community Strategy 2010-2020 (2010)**, written by the Dorset Strategic Partnership, has the following vision:

‘a living thriving Dorset where everyone has a part to play in creating a better quality of life.’

10.1.11 This strategy includes the following aims:

- Narrowing the inequality gap so that people across Dorset have fairer access to opportunities which can improve their quality of life;
- Everyone can live in a good quality home and neighbourhood that meets their needs;
- Dorset people can access work, education and training, healthcare, essential shopping and leisure opportunities;
- People are safe and feel safe in their communities;
- Communities thrive: everyone feels they belong, can take an active part in community life and can influence decision making;
- Everyone has the opportunity to live a long and healthy life...and to receive high quality care that meets their needs;
- Children and young people realise their potential; and
- Older people are healthy, active and independent in their communities.

10.1.12 The **Dorset Local Nature Partnership's Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which include the following objectives relating to human health and population:

- Improved physical connectivity between open spaces and access to the environment making a measurable improvement in public health and reducing the costs associated with health treatments;
- A reduction of health inequalities through improved access to the environment in areas and communities where there is currently a deficit;
- Promotion of access to nature as both a remedy and a preventative medicine for a wide range of physical and mental health conditions;
- An increase in healthy outdoor activities;
- Effective management of increased demand for public access to sensitive and vulnerable environments;
- Clear and accurate quantification of the health benefits, the economic value of, and the costs of providing, environmental goods and services; and
- More effective identification and fulfilment of opportunities for individuals and communities to get engaged in caring for and improving the environment.

10.1.13 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to human health and population:

- Promote sustainable living among communities in the AONB to reduce impacts on the local environment and increase access to environmental benefits;
- Support and develop activities that increase health and wellbeing by establishing and strengthening connections to the landscape and nature;

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- Develop and support measures to improve accessibility to the coast & countryside for all, where compatible with the purposes of AONB designation;
- Rationalise and improve interpretation to enhance visitor experience, reduce clutter in the landscape and inform the public about the landscape and safety;
- Support initiatives for children and young people to understand more about the Dorset AONB and its special qualities through learning outside the classroom, curricular and extra-curricular activities;
- Support lifelong learning opportunities in the Dorset AONB;
- Support measures to improve connectivity and functionality of the public rights of way network, including long distance routes, to meet local and visitor needs;
- Develop, support and promote integrated sustainable access and travel options in the AONB;
- Develop and support inland visitor experiences compatible with the purposes of AONB designation to spread economic benefits and reduce pressure on the coast; and
- Develop and support measures to engage communities, cultural organisations and tourism businesses to create and promote sustainable visitor experiences, including use of assets such as local food and drink.

10.1.14 The **Cranborne Chase & West Wiltshire Downs AONB Management Plan 2014-19 (2014)** includes the following policies:

- Proactive and cohesive communities enjoy a high quality of life;
- Communities understand, appreciate and care for the AONB;
- Everyone has the opportunity to access the AONB for responsible enjoyment, in accord with the purposes of designation; and
- Improved health and wellbeing opportunities are developed and promoted throughout the AONB.

10.2. BASELINE INFORMATION

10.2.1 The population of the Dorset Local Plan Area was 375,100 in 2017³⁶.

10.2.2 The population of the plan area grew by 12,000 between 2007-2017, which represents about a 4% growth compared with 8% nationally³⁷.

10.2.3 The number of deaths within the plan area outnumbered the number of births between 2007-17. This resulted in a decrease in the natural population (shown in the orange bar in

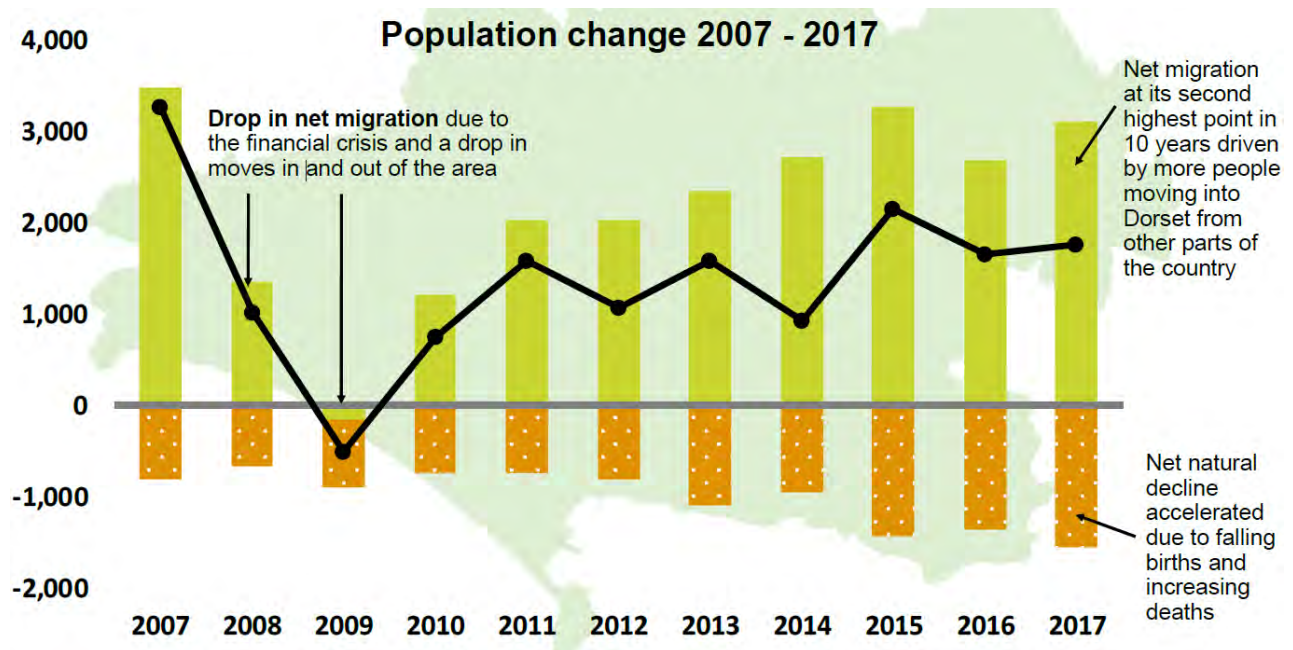
³⁶ According to the 2017 mid-year estimates, published by the Office of National Statistics

³⁷ According to the 2016-based 25-year national population projections, published by the Office of National Statistics

Figure 10.1). The growth in population experienced within the plan area is attributed to the positive net in-migration into the area.

- 10.2.4 The population of those aged over 65 grew by 22,500 between 2007 and 2017, an increase of 27%. The working age population decreased by 9,100 and the number of children fell by 1,400.

Figure 10.1: Annual population change (shown by the black line), net migration (shown by the green bar) and natural population change (shown by the orange bar) between 2007-17 within the Dorset Local Plan Area



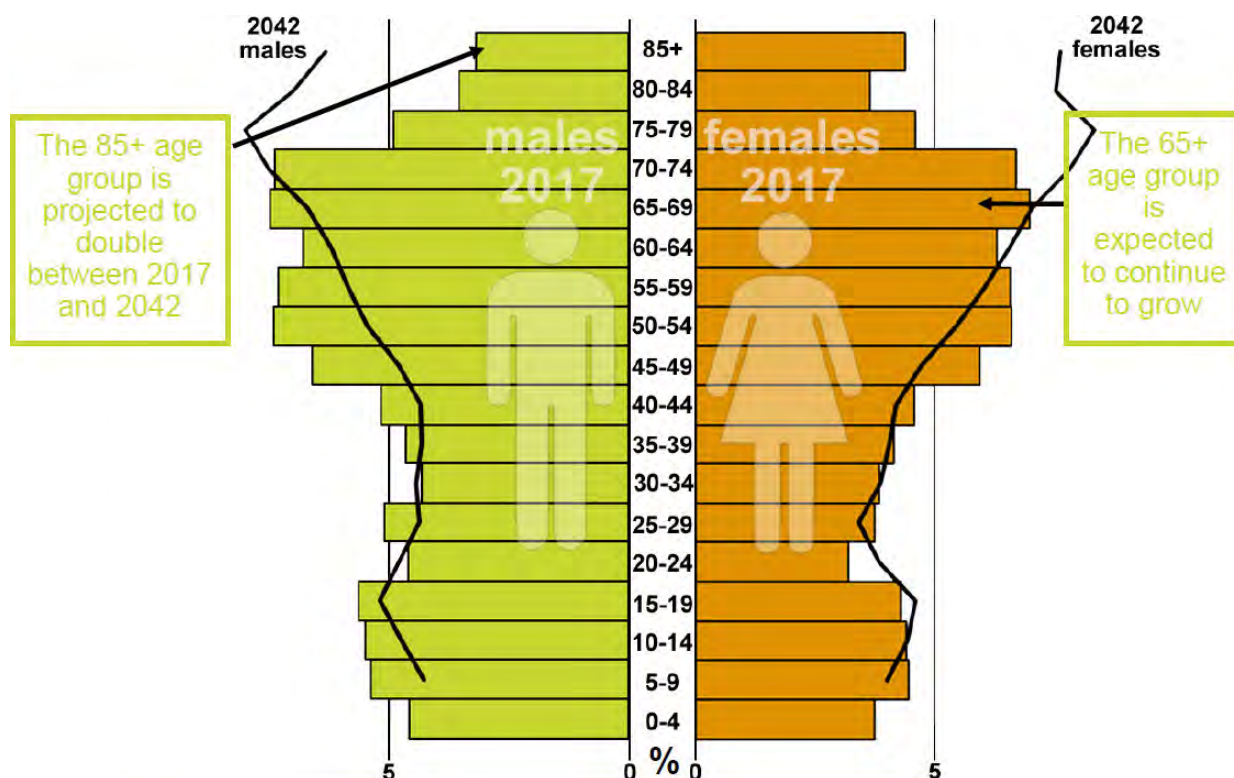
Source: 'State of Dorset: Population', published by Dorset Council in May 2019

- 10.2.5 In terms of future population trends, it is projected that the population of the Dorset Local Plan area will increase at a slower rate than the national average between 2017 and 2042, at about 0.3% per annum compared to the 0.6% nationally.
- 10.2.6 As life expectancy continues to rise, the projected increase in population of those aged over 65 years old will increase by 1.5% and the proportion of those above 85% is expected to double between 2017 and 2042 (Figure 10.2).
- 10.2.7 The population of those within working age is expected to marginally decline between 2017 and 2042 compared to a marginal growth nationally, and the number of children is expected to fall, continuing the trend experienced in the Dorset Local Plan area since 2007.

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Figure 10.2: Population demographics in the Dorset Local Plan area in 2017 and 2042.



Source: 'State of Dorset: Population', published by Dorset Council in May 2019

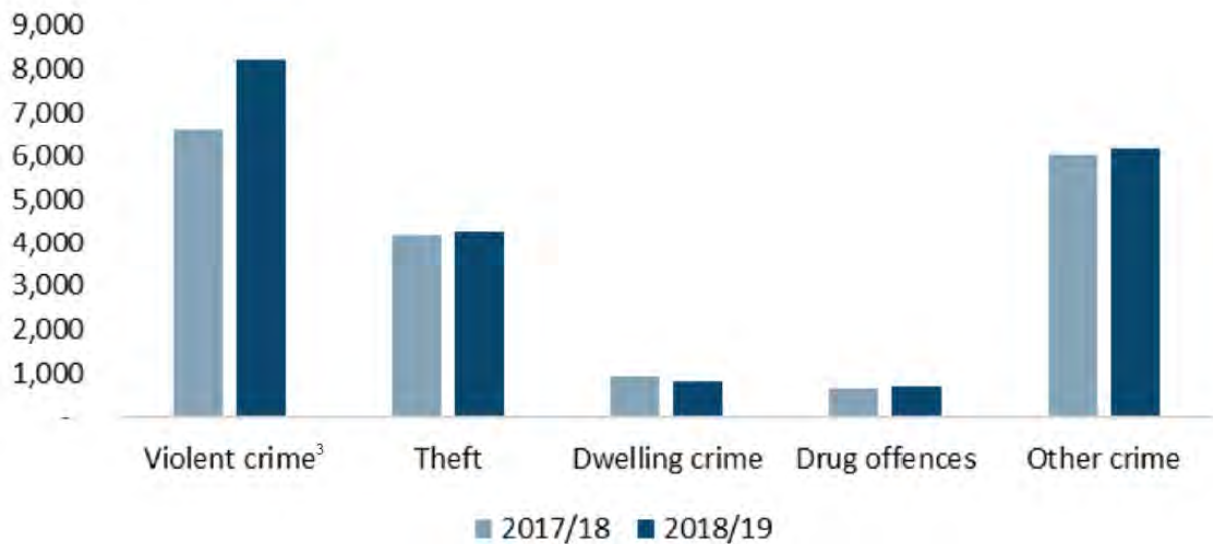
- 10.2.8 These projected future trends in population indicate an ageing population within the Dorset Local Plan area. The growing number of older people is likely to increase demand for health and social care services.
- 10.2.9 Dorset residents are generally healthy³⁸. However, one in five Dorset residents have a long term health problem or disability and 62% of adults in Dorset are classified as obese, which is similar to the national average.
- 10.2.10 Of the 219 areas within the Dorset Local Plan area, 10 are among the top 20% most deprived nationally for multiple deprivation; 9 of these 10 areas are within Weymouth.
- 10.2.11 Deprivation has a significant effect on health and wellbeing. The life expectancy in the former Dorset County Council area is 6 years greater for males and 5.2 years greater for females in the least socially deprived area in comparison to the most socially deprived area³⁹.
- 10.2.12 In terms of economic deprivation, 7 neighbourhoods in Dorset fall within the top 20% nationally for income deprivation, all of which are in the former district of Weymouth & Portland.

³⁸ 'State of Dorset: Health and Wellbeing, Dorset Council, May 2019

³⁹ 'State of Dorset: Deprivation', Dorset Council, May 2019

10.2.13 Crime in the Dorset Local Plan area is below the national average for England⁴⁰. However, the number of criminal offences rose by 8% between 2017/18 and 2018/19, with the greatest increase being in violent crime.

Figure 10.3: Crime in the Dorset Local Plan area according to the type of offence in 2017/18 and 2018/19



10.2.14 In 2018/19, there were 8,358 anti-social behaviour incidents in the Dorset Local Plan area. Weymouth has the highest rate of anti-social behaviour in the Dorset Local Plan area, with 1 in 7 of the anti-social behaviour incidents in the Dorset Local Plan area occurring in Melcombe Regis in Weymouth. The former district of Purbeck had the lowest crime rate in Dorset.

10.2.15 The performance of students in Dorset is generally in line with national figures. 65% of pupils achieved ‘basic measures’ which is defined as a standard pass or higher in English and Maths GCSE, marginally above the national figure of 64%.

10.3. SUSTAINABILITY ISSUES

10.3.1 The key environmental issues for the plan area are:

- The growing number of older people in Dorset is likely to increase demand for health and social care services.
- The lack of social inclusion is affecting the quality of life. New development should encourage greater social interaction through mixed-use developments, strong neighbourhood centres, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages.
- Social isolation may be an issue, particularly amongst older residents in the more remote and inaccessible areas which are not served by public transport.

⁴⁰ ‘State of Dorset: Crime’, Dorset Council, May 2019

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- Inequality in Dorset is affecting human health and quality of life.
- The incidence of crime increased by 8% in Dorset between 2017/18 and 2018/19, and is a particular issue in areas of Weymouth. New development should be designed with community safety in mind, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion;
- Health issues, such as obesity, are affecting human health nationally and in the Dorset Local Plan Area. New development may encourage healthier living through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.

11 Material assets

- 11.0.1 A key element of achieving sustainable development is to deliver the housing, create the jobs, and provide the infrastructure required to meet current needs whilst not compromising the ability of future generations to do so.
- 11.0.2 As the population of England and indeed Dorset continues to grow, so does the need for housing, jobs and infrastructure, such as roads, schools and healthcare facilities. Estimates have put the number of new homes needed in England at between 240,000 and 340,000 per year⁴¹. Whilst housing delivery did increase in 2017/18, the amount of housing provided was below that needed, leading to what has been referred to as a 'housing crisis'.
- 11.0.3 This chapter considers the issues surrounding the delivery of 'material assets', which for the purposes of the Sustainability Appraisal of the Dorset Local Plan refers to the following built and natural assets:
- Built assets: including housing, commercial and industrial premises, transport infrastructure such as rail, roads, cycleways and footpaths, telecommunications, , services infrastructure such as water supply/waste water facilities and electricity substations, community, healthcare and educational facilities; and
 - Natural assets: including mineral assets such as sand, gravel, rock, and slate.

11.1. KEY MESSAGES FROM OTHER PLANS, PROGRAMMES AND OBJECTIVES

INTERNATIONAL

- 11.1.1 The United Nations developed a series of global development goals which aim to deliver sustainable development in the document titled **Transforming our world: the 2030 Agenda for Sustainable Development (2015)**, including the following goals which relate to infrastructure and the economy:
- Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; and
 - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

EUROPEAN

- 11.1.2 The **Guiding Principles for Sustainable Spatial Development of the European Continent (2000)** includes the following key objectives:
- Developing access to information and knowledge, and improving the telecommunications network; and
 - Encouraging development generated by urban functions and improving the relationship between town and countryside.

⁴¹ 'Tackling the under-supply of housing in England', House of Commons Briefing Paper, 12th December 2018

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11.1.3 The **European Sustainable Development Strategy (2006)** set out a strategy on how the EU will deliver its commitment to meet the challenges of sustainable development, and includes the following key objective:

- Ensuring that transport systems meet society's needs whilst minimising their undesirable impacts.

11.1.4 The targets in the document include:

- Addressing social and economic development within the carrying capacity of ecosystems and decoupling economic growth from environmental degradation.

NATIONAL

11.1.5 The **UK Government Sustainable Development Strategy (2005)** sets out the five principles for a policy to be sustainable, one of which is:

- Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (polluter pays), and efficient resource use is incentivised.

11.1.6 The **National Planning Policy Framework (2019)** (NPPF) states that the planning system has an economic objective in achieving sustainable development, which is to:

“to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.”

11.1.7 The NPPF explains that strategic policies should set out an overall strategy for the pattern scale and quality of development, and make sufficient provision for:

- housing (including affordable housing), employment, retail, leisure and other commercial development;
- infrastructure for transport, telecommunications, security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat); and
- community facilities (such as health, education and cultural infrastructure).

11.1.8 The NPPF explains that to support the Government's objective of significantly boosting the supply of homes, it is important that a sufficient amount and variety of land can come forward where it is needed and that the needs of groups with specific housing requirements are addressed.

11.1.9 In terms of the economy, the NPPF states that planning policies should help create the conditions in which businesses can invest, expand and adapt, and should:

- set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;

- set criteria, or identify strategic sites, for local and inward investment to match the strategy and to meet anticipated needs over the plan period;
 - seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment; and
 - be flexible enough to accommodate needs not anticipated in the plan, allow for new and flexible working practices (such as live-work accommodation), and to enable a rapid response to changes in economic circumstances.
- 11.1.10 The NPPF requires that planning policies to support the role that town centres play at the heart of local communities, by taking a positive approach to their growth, management and adaptation.
- 11.1.11 The NPPF calls for transport issues to be considered from the earliest stages of plan-making and development proposals, so that:
- the potential impacts of development on transport networks can be addressed;
 - opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
 - opportunities to promote walking, cycling and public transport use are identified and pursued;
 - the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.
- 11.1.12 The NPPF explains that significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health.
- 11.1.13 The **Housing White Paper (2017)** sets out how the Government intends to boost housing supply and, over the long term, create a more efficient housing market through 4 steps:
- Step 1: Planning for the right homes in the right places;
 - Step 2: Building homes faster;
 - Step 3: Diversifying the market; and
 - Step 4: Helping people now.
- 11.1.14 The **Industrial Strategy: Building a Britain fit for the future (2016)** has the central objective “to improve living standards and economic growth across the country”. The Industrial strategy focuses on three principles:

- invest in ways that support all the objectives of the Industrial Strategy: increasing innovation, developing skills, growing business, and driving productivity and earning power in urban and rural places across the UK;
- take greater account of disparities in productivity and economic opportunity between different places, ensuring our investments drive growth across all regions of the UK; and
- invest to increase UK competitiveness in relation to long-term global economic changes, such as the shift to clean growth. These will be positive choices that enable the UK economy to flourish in the context of these transformational changes.

11.1.15 **The Clean Growth Strategy: Leading the Way to a Low Carbon Future (2017, amended 2018)** intends to deliver higher economic growth with lower carbon emissions. The Clean Growth Strategy estimates that the low carbon economy could grow 11% between 2015 and 2030, four times faster than the projected growth of the economy as a whole. The Clean Growth Strategy has 50 key policies and proposals, including:

- Develop a package of measures to support businesses to improve their energy productivity, by at least 20 per cent by 2030, including by:
 - Following the outcome of the independent review of Building Regulations and fire safety, and subject to its conclusions, we intend to consult on improving the energy efficiency of new and existing commercial buildings;
 - Consulting on raising minimum standards of energy efficiency for rented commercial buildings;
 - Exploring how voluntary building standards can support improvements in the energy efficiency performance of business buildings, and how we can improve the provision of information and advice on energy efficiency to SMEs.
- Phase out the installation of high carbon forms of fossil fuel heating in new and existing businesses off the gas grid during the 2020s, starting with new build;
- Improving the energy efficiency of our homes through the following measures:
 - Support around £3.6 billion of investment to upgrade around a million homes through the Energy Company Obligation (ECO), and extend support for home energy efficiency improvements until 2028 at the current level of ECO funding
 - We want all fuel poor homes to be upgraded to Energy Performance Certificate (EPC) Band C by 2030 and our aspiration is for as many homes as possible to be EPC Band C by 2035 where practical, cost-effective and affordable
 - Develop a long term trajectory to improve the energy performance standards of privately-rented homes, with the aim of upgrading as many as

possible to EPC Band C by 2030 where practical, cost-effective and affordable

- Consult on how social housing can meet similar standards over this period
- Following the outcome of the independent review of Building Regulations and fire safety, and subject to its conclusions, we intend to consult on strengthening energy performance standards for new and existing homes under Building Regulations, including futureproofing new homes for low carbon heating systems
- Rolling out low carbon heating by:
 - Build and extend heat networks across the country, underpinned with public funding (allocated in the Spending Review 2015) out to 2021;
 - Phase out the installation of high carbon fossil fuel heating in new and existing homes currently off the gas grid during the 2020s, starting with new homes;
 - Invest in low carbon heating by reforming the Renewable Heat Incentive, spending £4.5 billion to support innovative low carbon heat technologies in homes and businesses between 2016 and 2021;
 - Innovation: Invest around £184 million of public funds, including two new £10 million innovation programmes to develop new energy efficiency and heating technologies to enable lower cost low carbon homes;
- Develop one of the best electric vehicle charging networks in the world by:
 - Investing an additional £80 million, alongside £15 million from Highways England, to support charging infrastructure deployment
 - Taking new powers under the Automated and Electric Vehicles Bill, allowing the Government to set requirements for the provision of charging points
- Invest £1.2 billion to make cycling and walking the natural choice for shorter journeys
- Work to enable cost-effective options for shifting more freight from road to rail, including using low emission rail freight for deliveries into urban areas, with zero emission last mile deliveries
- Agree tighter targets for 2020 for central government and actions to further reduce greenhouse gas emissions beyond this date
- Introduce a voluntary public sector target of a 30 per cent reduction in carbon emissions by 2020-21 for the wider public sector
- Provide £255 million of funding for energy efficiency improvements in England and help public bodies access sources of funding

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11.1.16 The **Natural Environment White Paper (2011)**, which sets out the Government's vision for the natural environment, aims to mainstream the value of nature by :

- creating a green economy, in which economic growth and the health of our natural resources sustain each other, and markets, business and Government better reflect the value of nature.

LOCAL

11.1.17 The **Bournemouth, Dorset & Poole Local Economic Assessment (2011)** provides a profile of the local economy which gives a detailed understanding of economic strengths, opportunities and challenges in Dorset, and identifies the following future challenges:

- The cost of housing relative to incomes, which is currently a barrier to recruitment, particularly for younger people, including graduates. It will be critical to provide sufficient housing at affordable prices for younger people and graduates if the workforce is to avoid skills depletion as people retire;
- Providing faster and more extensive broadband and ICT infrastructure to ensure that knowledge-intensive sectors, such as creative industries, are able to prosper;
- As more skilled and experienced workers reach retirement age and with the drivers of in-migration still favouring those at or nearing retirement age, the pressure will be on to address the loss of skills and maintain a balanced workforce in terms of age and skills;
- need to increase the supply of housing in sustainable locations with good access to services and facilities, including good schools;
- the range of housing in terms of type, size and tenure should reflect housing needs in the area, including those required to support a prosperous economy;
- High levels of multiple deprivation, combined with poor economic performance mark Weymouth and Portland out as a special case in the Dorset sub-region.

11.1.18 The **Bournemouth Dorset and Poole Workspace Strategy (2016)** provides employment land projections to 2033 and business sector forecasts, and recommends to take forward the 'Step Change growth scenario at 20% Flexibility' which identified the following projections for employment land:

- Eastern Dorset: 222.7ha (20% Flexibility).
- Western Dorset: 56.4ha (20% Flexibility).
- Total (Bournemouth, Dorset and Poole): 279.1ha (20% Flexibility).

11.1.19 The **Bournemouth, Poole and Dorset Local Transport Plan 3 (2011)** sets the following objectives:

- Widening opportunities for healthy lifestyles through integrating active travel into people's everyday lives and providing supporting infrastructure

- Developing a fully integrated public transport system which is easier to use for everyone
- Improving local accessibility and local connectivity for the most vulnerable groups and rural areas of Dorset
- Applying engineering, education and enforcement solutions to create safer travelling environments
- Working with partners to improve community safety and security
- Building upon current public transport provision to improve the availability, quality, reliability and punctuality of services

11.1.20 The **Dorset Sustainable Community Strategy 2010-2020 (2010)** has the following aims:

- A strong economy offers better job opportunities for people in Dorset.

11.1.21 The **Dorset Area of Outstanding Natural Beauty Management Plan 2019 – 2024** has the following objectives relating to material assets:

- Support appropriate farm diversification schemes, particularly where these contribute to the conservation, enhancement and sustainable development of the AONB;
- Support affordable housing within appropriate rural exception sites that meet proven local need. Good, locally-sensitive design should be pursued;
- Support restoration of traditional barns, buildings and other structures that maintains or enhances landscape character quality, ensuring diversification benefits are not outweighed by adverse effects on the environment;
- Protect the AONB from an overprovision of visitor accommodation including camping, caravanning and glamping sites particularly where existing development weakens the character and appearance of the countryside. Changes in landscape condition will be monitored and assessed to inform appropriate action;
- Avoid large scale and/or high density housing and employment development at settlement edges when such development weakens the character and appearance of the countryside;
- Discourage growth in the number of second homes within the AONB;
- Resist proliferation of masts and other vertical structures, requiring the sharing of infrastructure by service providers;
- Promote production, distribution and use of products that deliver positive economic, environmental and social outcomes for the AONB;
- Promote the use of local woodland products, including wood fuel and timber for construction, that are economically, socially and environmentally sensitive for the AONB;

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- Promote production, distribution and use of products that deliver positive economic, environmental and social outcomes for the AONB; and
- Maintain and develop appropriate skills required for the AONB's green economy.

11.1.22 The **Cranborne Chase & West Wiltshire Downs AONB Management Plan 2014-19 (2014)** sets out the following objective

- Local communities benefit from a sustainable rural economy, based on the resources of the AONB, that also conserves and enhances its landscape character and special qualities.

11.1.23 The **Dorset Local Nature Partnership's Vision and Strategy (2016)** sets out the following strategic priorities for the partnership, which include the following objectives relating to material assets:

- A transition to a low carbon, sustainable economy in which every business is a greener business;
- Development of low impact business opportunities with reduced transport related impacts which contribute to a healthy environment; and
- Job creation in, for example, green technologies and rural communities where natural resources are concentrated.

11.1.24 The **Dorset and East Devon Coast World Heritage Site Management Plan 2014–2019 (2014)** contains the following aim:

- To support communities in realising the economic social and cultural opportunities and benefits that World Heritage Status can bring.

11.2. BASELINE INFORMATION

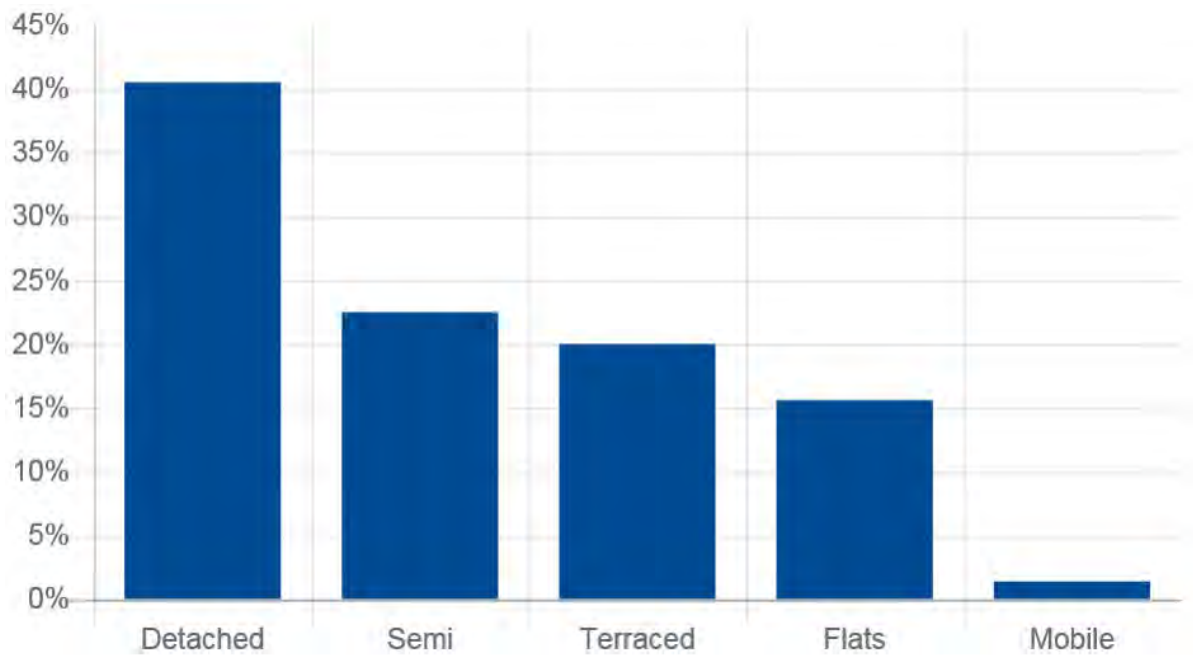
11.2.1 There were 182,677 residential properties within the Dorset Local Plan area in 2011⁴².

11.2.2 The majority of dwellings within the Dorset Local Plan area are detached (40.5%), with 22.5% semi-detached, 20% terraced, and 15.6% flats or maisonettes (Figure 11.1)⁴³.

⁴² 2011 Census, Office for National Statistics

⁴³ <https://apps.geowessex.com/stats/AreaProfiles/UnitaryAuthority/dorset-council>

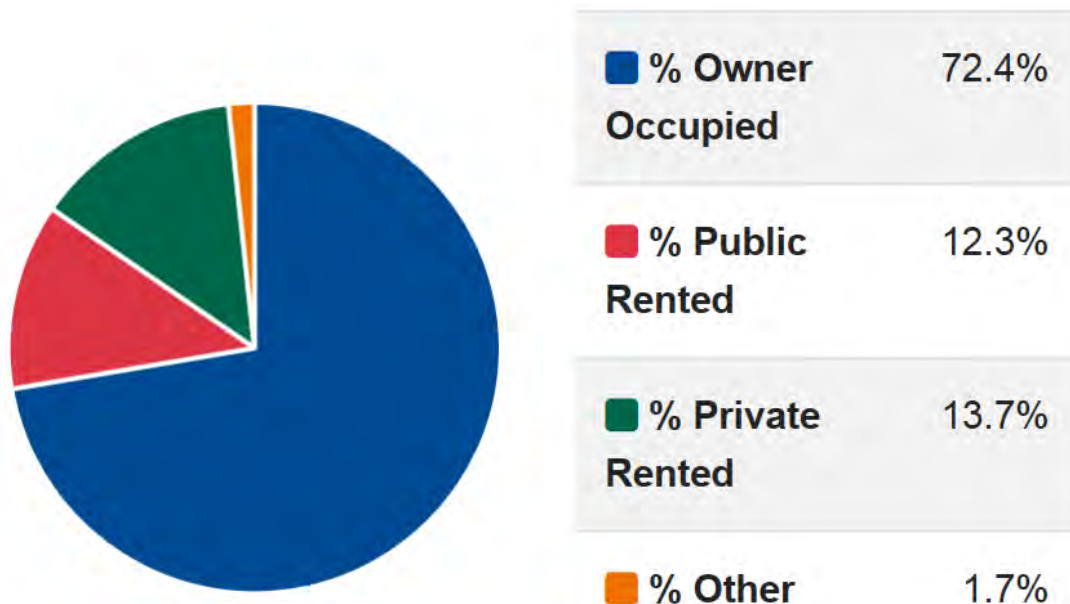
Figure 11.1: Dwelling type in the Dorset Plan Area in 2011



Source: Geowessex

11.2.3 In terms of tenure, the majority of dwellings are owner occupied (72.4%). The rental sector represents 26% of the market, with 12.3% public rented and 13.7% private rented (Figure 11.2).

Figure 11.2: Tenure type in the Dorset Plan Area in 2011



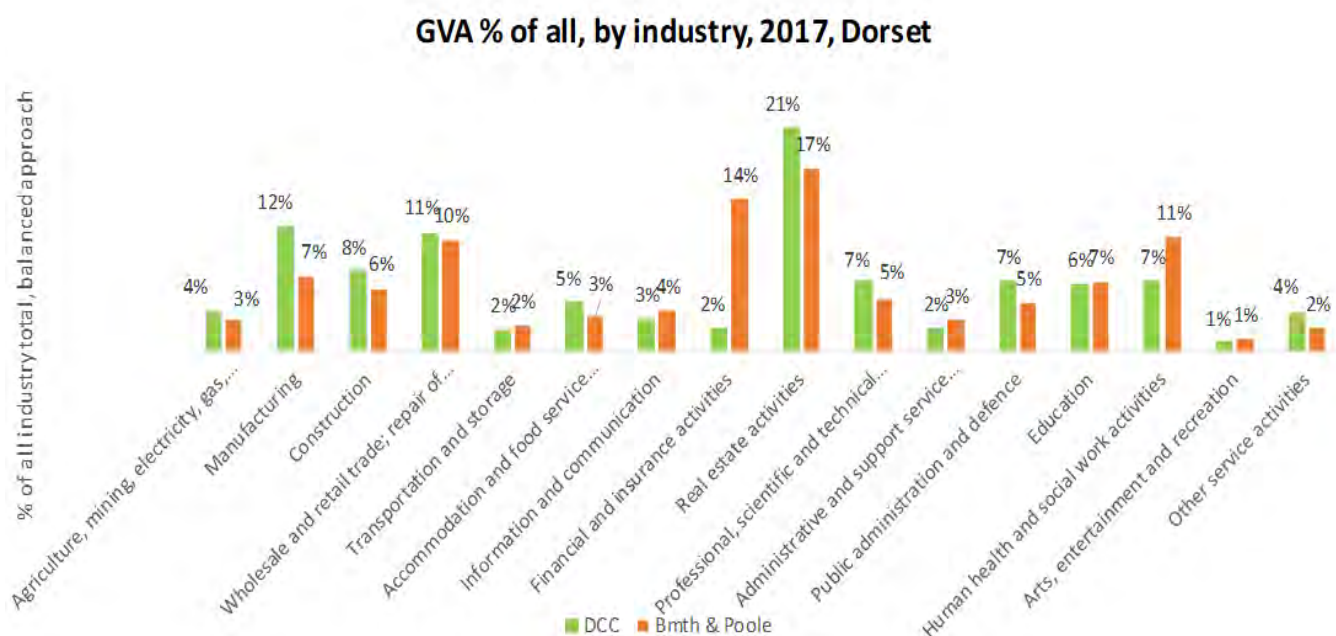
Source: Geowessex

11.2.4 House prices across the UK have been rising faster than wages, reducing the affordability of housing.

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- 11.2.5 Dorset is one of the most desirable places to live in the UK, and consequently has some of the least affordable housing. Home ownership among 25-34 year olds in the former Dorset County Council area is the lowest in the UK at only 16%⁴⁴.
- 11.2.6 The former district of East Dorset has the least affordable housing in East Dorset, with average house prices at nearly 14 times the average annual salary⁴⁵. The most affordable housing is in the former district of Weymouth & Portland, with average house prices at 8.6 times the average annual salary.
- 11.2.7 There are 5541 households on the housing register in the Dorset Local Plan according to the Council's database at the time of writing, in July 2019.
- 11.2.8 Global growth has weakened, particularly in Europe, after looking stronger in 2017. The UK economy has also performed below expectation since the Brexit referendum in 2016 with uncertainty having a significant impact on investment growth and private consumption.
- 11.2.9 In the South West region, both employment and real GVA saw growth over the year to 2017. However, GVA per head in the former Dorset County Council area remains below that of neighbouring areas.
- 11.2.10 The GVA by industrial sector indicates that Real Estate is the most significant contributor, followed by Manufacturing and the Wholesale & Retail Trade in the former Dorset County Council area (Figure 11.3).

Figure 11.3: GVA by industrial sector in Dorset in 2017



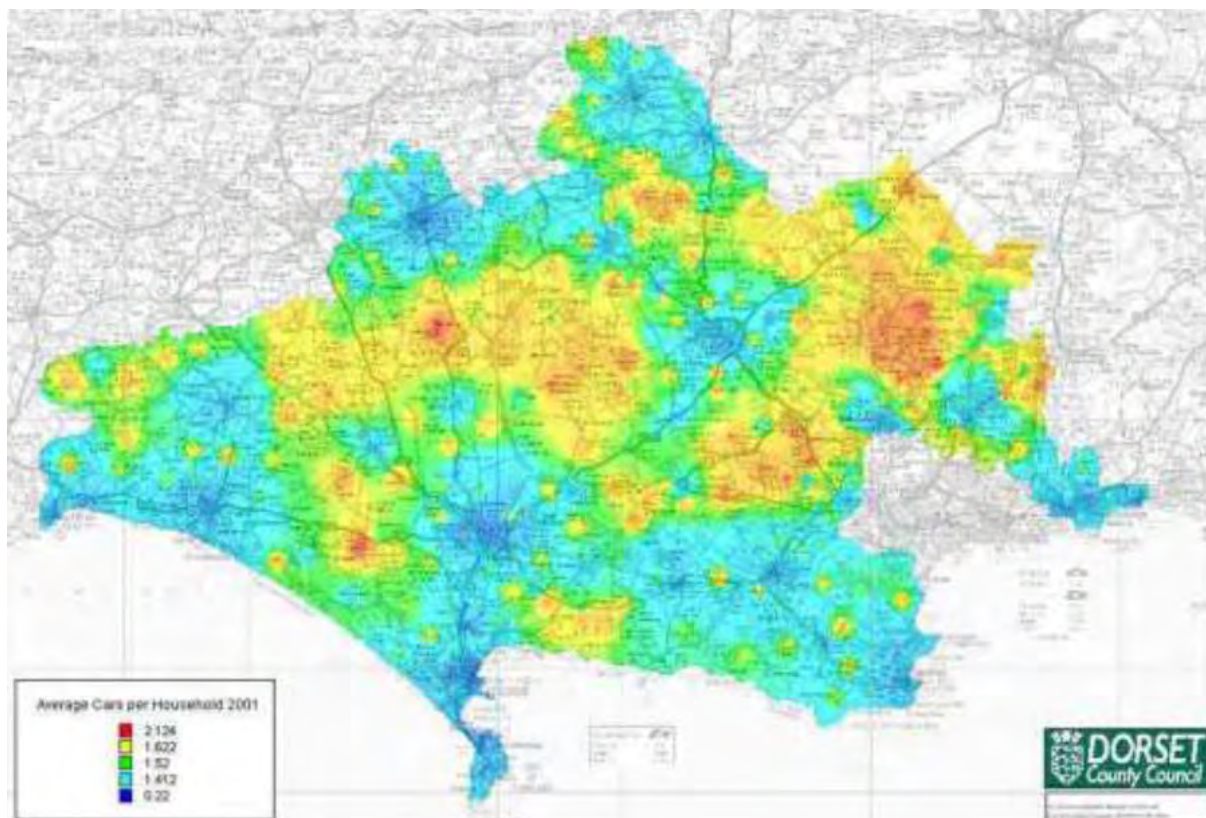
Source: 'Our Communities Topic Report: Economic Overview', Dorset County Council, May 2019

⁴⁴ <https://www.resolutionfoundation.org/media/blog/home-ownership-is-rising-but-the-crisis-is-far-from-over/>

⁴⁵ 'Our Communities Topic Report: Dorset Housing and Infrastructure', Dorset County Council, May 2019

- 11.2.11 In the Dorset Local Plan area, unemployment is lower and employment is higher than in Great Britain. The unemployment rate of economically active people is 3.6% in the Dorset Local Plan area and 4.3% in Great Britain. The employment rate in those aged between 16 and 64 is 77.8% in the Dorset Local Plan area and 75.1% in Great Britain.
- 11.2.12 In terms of the working age population, there were 170,602 usual residents aged between 16 and 64 in the Dorset Local Plan area in 2011. The highest proportion of residents within the Dorset Local Plan area were within the wholesale, retail and repair sector (15.4%), followed by human health and social work activities sector (13.3%) and accommodation and food services sector (11.2%).
- 11.2.13 Dorset's transport system is facing pressures from increased car ownership, reduced funding, and pressures to reduce carbon emissions in a bid to tackle climate change.
- 11.2.14 Car ownership and usage in Dorset is relatively high in the more remote areas of the district, away from the main towns (Figure 11.4). This reflects the dispersed population and the poor provision, or complete lack, of public transport in many parts of the District which results in residents without a car not being able to travel to work, access services or facilities easily or at all.

Figure 11.4: Average number of cars per household in Dorset in 2001



- 11.2.15 In 2011, the percentage of households in the Dorset Local Plan area with no cars or vans was 23.2%, with 29.5% of households with 2 or more cars or vans.
- 11.2.16 There are three main railway lines that travel through the plan area:

- Weymouth to London Waterloo line: provides an important commuter link to London, and also stops at Southampton Airport Parkway in Hampshire, providing access to the airport;
- Weymouth to Bristol line: includes several stations in the plan area including Dorchester West, Maiden Newton, Chetnole, Yetminster and Thornford; and
- Exeter to London Paddington line: important commuter link to London from the South West of England which runs through the north of the Dorset Local Plan area.
- There is also a heritage railway line connecting Swanage to the main line at Wareham.

11.3. SUSTAINABILITY ISSUES

11.3.1 The key environmental issues within the plan area are:

- Providing the appropriate size, type, tenure and range of housing to meet the needs of the community without introducing significant environmental impacts.
- Providing sufficient affordable housing to meet the accommodation needs of local communities and reduce the number of people on the housing registers.
- Providing sufficient employment land of the right type, in the right place and at the right time to support growth and innovation, and build a strong, responsive and competitive economy.
- The loss of skills and maintaining a balanced workforce in terms of age and skills, as more workers reach retirement age and in-migration favours those at or nearing retirement age;
- The cost of housing relative to incomes which is a barrier to recruitment, particularly for younger people, including graduates. The challenge is to provide sufficient housing at affordable prices for younger people and graduates to avoid skills depletion as people retire.
- Support for the sustainable growth and expansion of all types of business and enterprise in rural areas, promoting the development and diversification of agricultural and other land-based rural businesses, and support for sustainable rural tourism and leisure development.
- Improving the infrastructure to enable economic growth. This includes providing faster and more extensive broadband and ICT infrastructure to ensure that knowledge-intensive sectors, such as creative industries, are able to prosper.
- Parts of Dorset are not served well by public transport, which is reflected by the fact that car ownership is higher in the more isolated, rural parts of Dorset than the national average. Residents in these more remote areas are unlikely to be able to access services and facilities by more sustainable transport modes.

12 Sustainability objectives

- 12.0.1 The sustainability appraisal process involves assessing the performance of Local Plan policy against a series of sustainability objectives which are aimed at promoting sustainable development.
- 12.0.2 The sustainability framework consists of eleven sustainability objectives, each with decision-making criteria which provide a basis of assessing sustainability effects, which are set out in Figure 12.1.
- 12.0.3 The sustainability objectives for the Dorset Local Plan were informed by the findings of the review of plans and programmes, the characteristics of the plan area, and the key issues within the plan area, all of which are presented in the preceding Chapters of this Sustainability Appraisal Scoping Report. This ensures that the sustainability framework is relevant and specific to the Local Plan and addresses the key sustainability concerns.

Figure 12.1: The sustainability framework, including the sustainability objectives, decision-making criteria, and sustainability themes.

Sustainability objective	Decision making criteria	Main Sustainability Themes
1. Provide net gains for biodiversity	<ul style="list-style-type: none"> Conserve, restore or enhance priority habitats and irreplaceable habitats and promote the protection and recovery of priority species. Maintain or restore the favourable conservation status of European and national sites, and avoid significant adverse effects upon local wildlife designations. Establish coherent ecological networks where possible, with wildlife corridors which connect designated sites of importance for wildlife to prevent habitat fragmentation. Pursue opportunities for securing net gains for biodiversity. 	Biodiversity, flora, fauna
2. Protect soil quality and conserve geological conservation interests	<ul style="list-style-type: none"> Protect the most productive agricultural land (grades 1 and 2) to provide food security and achieve sustainable agriculture. Remediate or mitigate the potential impacts of degraded, derelict, contaminated and unstable land where possible, to protect human health, property and the environment. Minimise harm to geological conservation interests, and where possible achieve the enhancement of the geological resource. 	Soil, Human Health

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Sustainability objective	Decision making criteria	Main Sustainability Themes
3. Maintain or improve water quality	<ul style="list-style-type: none"> Protect and improve the ecological and chemical status of freshwater, transitional waters and coastal waters, particularly those with 'poor' or 'bad' status. Ensure that development does not contribute to groundwater quality issues particularly within Groundwater Source Protection Zones. Ensure that development does not contribute to the groundwater inundation of the foul drainage network. 	Water
4. Maintain or improve air quality	<ul style="list-style-type: none"> Maintain or improve air quality. Ensure that development does not contribute to air quality issues particularly within Air Quality Management Areas and where exceedances in the concentration of airborne contaminants have been recorded. 	Air, Human Health
5. Limit climate change and improve resilience to future climate change	<ul style="list-style-type: none"> Mitigate climate change by contributing to cutting the emission of greenhouse gases. Adapt to future climate change by ensuring that new development is resilient to future climatic conditions. Increase the use of renewable energy. 	Climatic Factors, Air
6. Limit the effects of flooding and coastal change	<ul style="list-style-type: none"> Ensure that development does not expose people and property to risk of flooding. Manage coastal change to ensure that environmental designations and local communities are protected. 	Climatic Factors, Water, Population
7. Protect and enhance valued landscapes	<ul style="list-style-type: none"> Protect and where possible enhance valued landscapes. Conserve and where possible enhance the Dorset Area of Outstanding Natural Beauty and the Cranborne Chase AONB and the character and quality of its distinctive landscapes and associated features. Conserve and enhance the Dorset and East Devon Coast World Heritage Site's outstanding universal value and its setting. Ensure that development is not harmful to the purposes of the Green Belt. 	Landscape
8. Conserve and enhance heritage assets and the historic environment	<ul style="list-style-type: none"> Safeguard, protect, and where appropriate enhance the significance of heritage assets and their setting. Ensure that new development is sympathetic to local character and history. 	Cultural Heritage

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Sustainability objective	Decision making criteria	Main Sustainability Themes
9. Promote wellbeing and healthy communities for all	<ul style="list-style-type: none"> • Enable healthy lifestyles and promote wellbeing through the provision of high quality accessible natural spaces, green infrastructure, allotments and sports facilities. • Encourage social interaction by providing mixed use development, strong neighbourhood centres and improved local accessibility and connectivity, to encourage a more inclusive society and prevent rural isolation. • Provide safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. 	Human Health, population
10. Deliver a wide choice of high quality homes and infrastructure	<ul style="list-style-type: none"> • Supply the housing required to meet the needs of present and future generations, including affordable housing, in sustainable locations. • Provide community facilities such as health, education and cultural infrastructure in sustainable locations. 	Material Assets, Population
11. Build a strong, responsive, and competitive economy	<ul style="list-style-type: none"> • Provide sufficient land to support growth, innovation and productivity for all businesses, including those in rural areas. • Provide the transport and telecommunications infrastructure to meet business needs. 	Material Assets, Population

12.0.4 These sustainability objectives will be used to assess the policies of the Dorset Local Plan throughout each stage of its development to ensure that the Dorset Local Plan achieves sustainable development.

Sustainability Appraisal Scoping Report

Dorset Local Plan

Appendix A: Consultation Responses

Oliver Rendle

From: Torkildsen, Rohan [REDACTED]
Sent: 21 October 2019 17:40
To: Oliver Rendle
Subject: Dorset LP Sustainability Appraisal Scoping Report

Dear Oliver,
thank you for providing an opportunity to consider the Dorset LP SA Scoping report.

Could I please refer you to the Historic England Advice Note no.8 on the preparation of SEA/SA.
<https://historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/>

With regard to the Scoping stage, the guidance provides advice in relation to relevant plans, programs and policies; baseline information; identifying sustainability issues and problems; developing the SA/SEA framework; decision-making criteria; indicators and monitoring. I hope you find this of use.

Section 9

You may also wish to revisit your section 9.2 and mention Historic Parks and Gardens, and Battlefields.

Section 12

Sustainability objective

Preserve and enhance the historic environment

Decision making criteria

Preserve the historic environment and its setting, including Scheduled Monuments, archaeological features, Listed Buildings and Conservation Areas.

Ensure that new development is sympathetic to local character and history.

Could I respectfully suggest the following alternative Objective and Criteria is considered to align with UK national policy and legislation.

Sustainability objective

Preserve Conserve and enhance the historic environment, heritage assets and their settings

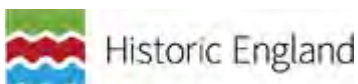
Decision making criteria

Is development likely to safeguard, protect, and where appropriate enhance the significance of any affected heritage asset, historic townscape or landscape.

Sincere regards

Rohan Torkildsen BaHons DipUD MRTPI
Partnerships Team Leader South West
Historic Environment Planning Adviser South West
Regional Delivery
Historic England

[REDACTED]
www.historicengland.org.uk



Date: 24 October 2019
Our ref: 294471



Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ



Dear Oliver Rendle

Thank you for Consulting Natural England on the SA scoping report for the Dorset Local Plan. Please find our comments below for your consideration.

1 Comments on the SA Objectives and Criteria

Natural England broadly agree with the contents of the SA/SEA scoping report with the following comments to the Sustainability Objective number 1;

- The decision making criteria does not reflect national policy on providing gains for the environment and biodiversity, nor are the criteria representative of the title of the objective.
- The report accurately lays out the policy requirements for biodiversity and environmental net gain that is ingrained within the National Planning Policy Framework although the criteria for assessing the policies of the new plan within the SA are under ambitious, very specific in nature and are unlikely to assess accurately if the plan policies are compliant with policy and legislation.
- Following the existing policy requirements, the Biodiversity Net Gain consultation and the impending mandatory net gain requirement, Natural England advise that a criteria is set to assess if the policies will result in a net gain for the environment and biodiversity. This should include the specifics such as the protection and enhancement of ecological corridors and networks amongst many other considerations.

2 Minor Technical Comments

Section 2.2.4 excludes reference to the Marine Conservation Zone designations under Marine and Coastal Access Act (2009) within the plan area.

Section 2.3.5 should include the following likely pressures that are likely to arise upon assessing the Local Plan;

- recreational impacts to Chesil and the Fleet designated sites
- nutrient additions from northern former West Dorset to Somerset levels designated sites

If you have any queries relating to the advice in this letter please contact me on 02082257423.

Yours sincerely



Jack Potter
Dorset, Hampshire and Isle of Wight

Appendix B: Response to Consultation Comments

Sustainability Appraisal Scoping Report

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Comment	Response
Historic England	
<p>Could I please refer you to the Historic England Advice Note no.8 on the preparation of SEA/SA⁴⁶. With regard to the Scoping stage, the guidance provides advice in relation to relevant plans, programs and policies; baseline information; identifying sustainability issues and problems; developing the SA/SEA framework; decision making criteria; indicators and monitoring. I hope you find this of use.</p>	<p>Thank you for providing Historic England Advice Note no.8, which gives useful guidance for the Sustainability Appraisal Scoping Stage. In accordance with this advice note, the key messages from the Ancient Monuments and Archaeological Areas Act (1979) have been included in the Scoping Report (see Paragraph 9.1.4).</p>
<p>Section 9</p> <p>You may also wish to revisit your section 9.2 and mention Historic Parks and Gardens, and Battlefields.</p>	<p>Historic Parks and Gardens have been included in the list of heritage designations (see Paragraph 9.2.1). There are no registered battlefields in the plan area.</p>
<p>Section 12</p> <p>Could I respectfully suggest the following alternative Objective and Criteria is considered to align with UK national policy and legislation.</p> <p>Sustainability objective</p> <p>PreserveConserve and enhance the historic environment, <u>heritage assets and their settings</u></p> <p>Decision making criteria</p> <p><u>Is development likely to safeguard, protect, and where appropriate enhance the significance of any affected heritage asset, historic townscape or landscape.</u></p>	<p>Thank you for your suggested changes to the sustainability objective on historic assets. This sustainability objective has been amended taking into account your comments, with some minor changes to ensure compliance with the NPPF and the sustainability appraisal methodology. The following sustainability objective on cultural heritage will be applied:</p> <p><u>Sustainability objective:</u></p> <p>Conserve and enhance the historic environment and heritage assets.</p> <p><u>Decision making criteria:</u></p> <ul style="list-style-type: none"> • Safeguard, protect, and where appropriate enhance the significance of heritage assets and their setting; and

⁴⁶ <https://historicengland.org.uk/images-books/publications/sustainability-appraisal-and-strategic-environmental-assessment-advice-note-8/>

Comment	Response
	<ul style="list-style-type: none"> Ensure that new development is sympathetic to local character and history.
Natural England	
<p>Natural England broadly agree with the contents of the SA/SEA scoping report with the following comments to the Sustainability Objective number 1;</p> <ul style="list-style-type: none"> The decision making criteria does not reflect national policy on providing gains for the environment and biodiversity, nor are the criteria representative of the title of the objective. The report accurately lays out the policy requirements for biodiversity and environmental net gain that is ingrained within the National Planning Policy Framework although the criteria for assessing the policies of the new plan within the SA are under ambitious, very specific in nature and are unlikely to assess accurately if the plan policies are compliant with policy and legislation. Following the existing policy requirements, the Biodiversity Net Gain consultation and the impending mandatory net gain requirement, Natural England advise that a criteria is set to assess if the policies will result in a net gain for the environment and biodiversity. This should include the specifics such as the protection and enhancement of ecological corridors and networks amongst many other considerations. 	<p>The decision making criteria reflect national policy as they are taken directly from Paragraphs 174 and 175 of the NPPF. However, in order to strengthen the requirement for a net gain in biodiversity, the following decision making criteria has been added:</p> <ul style="list-style-type: none"> Pursue opportunities for securing net gains for biodiversity. <p>The existing decision making criteria already includes the consideration of whether the policy establishes ecological networks and wildlife corridors to prevent habitat fragmentation.</p>
<p>Section 2.2.4 excludes reference to the Marine Conservation Zone designations under Marine and Coastal Access Act (2009) within the plan area.</p>	<p>Paragraph 2.2.4 provides details of the area of coverage of European and National wildlife designations within the Dorset Local Plan area. Since Marine Conservation Zones occupy marine areas only and the Dorset Local Plan area</p>

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Comment	Response
	occupies land areas only, the coverage of Marine Conservation Zones is 0ha. However, it is appreciated that the Dorset Local Plan has the potential to impact upon marine areas, and the locations of offshore European Wildlife Sites are shown in Figure 2.3 accordingly.
<p>Section 2.3.5 should include the following likely pressures that are likely to arise upon assessing the Local Plan;</p> <ul style="list-style-type: none">• recreational impacts to Chesil and the Fleet designated sites.• nutrient additions from northern former West Dorset to Somerset levels designated sites.	A discussion of these issues have been added to section 2.3.5 of the report.