Habitats Regulations Assessment: Screening Report

Dorset Council Local Plan

January 2021

Contents

1 Introduction 1
2 The Habitats Regulations Assessment Process 4
3 European Sites 6
4 Habitats Regulations Assessment Screening 10
4.1. Water Pollution 11
4.2. Air pollution 24
4.3. Public access, disturbance and other human intrusion 30
4.4. Sport, leisure and recreational activities 36
4.5. Urbanisation and industrial activities 43
4.6. Habitat fragmentation 45
4.7. Coastal Squeeze 46
5 Conclusion 48

Appendix: Characteristics of the European Sites 50

1 Introduction

1.0.1 This report presents the Habitats Regulations Assessment (HRA) screening assessment for the Dorset Council Local Plan.

1.0.2 The main purpose of the HRA process is to prevent a plan or project from adversely affecting the integrity of a European Site, which are areas of exceptional importance for rare, endangered or vulnerable natural habitats or species. Extensive areas of Dorset and surrounding areas are occupied by European sites, reflecting the importance of the region for wildlife and habitats.

1.0.3 The HRA process involves several distinct stages of assessment which must be undertaken in order to meet the requirements of the Conservation of Habitats and Species Regulations (2017). This is explained in more detail in Chapter 1.2.

1.0.4 The first of these stages is the HRA screening stage. The main purpose of the HRA screening is to assess whether a plan is likely to have a significant negative effect on a European Site, and hence whether the subsequent steps of the HRA process are required.

1.0.5 If the HRA screening concludes that there would be no likely significant effect on a European Site, then the plan may proceed without further assessment.

1.0.6 However, if it is found that the plan would have a likely significant effect on a European Site then further assessment is required through the subsequent stages of the HRA process, to ensure that the plan does not result in adverse effects upon the integrity of a European site.

1.0.7 The HRA screening report firstly explains the legal basis for HRA and the scope of the Dorset Council Local Plan, before explaining the HRA process (Chapter 2) and providing details of the European sites which may be affected by the Dorset Council Local Plan (Chapter 3). Following this, consideration is given to whether the Dorset Council Local Plan is likely to have a significant effect upon a European site (Chapter 4). A conclusion is provided in Chapter 5.

1.1. LEGISLATIVE BACKGROUND TO HABITATS REGULATIONS ASSESSMENT

1.1.1 The EU Directive (92/43/EEC) on the Conservation of Habitats and of Wild Fauna and Flora ('the Habitats Directive') led to the establishment of a network of 'European sites', which are areas of particular importance for habitats and/or species.

1.1.2 European Sites consist of the following designations:

- **Special Areas of Conservation (SACs):** Classified under the Habitats Directive to provide rare and vulnerable animals, plants and habitats with increased protection and management; and
- **Special Protection Areas (SPAs):** Classified under the EU Directive (79/409/EEC) on the Conservation of Wild Birds ('the Birds Directive'), with the objective of protecting and managing areas which are important for rare and vulnerable birds as they are important grounds for breeding, feeding, wintering or migration.

1.1.3 Paragraph 176 of the revised National Planning Policy Framework (2019) states that the following sites should be afforded the same protection as SACs and SPAs:

- **Potential Special Protection Areas (pSPA):** Potential Special Protection Areas, are sites on which the Government has initiated public consultation on the scientific case for designation as a Special Protection Area
- **Possible Special Areas of Conservation (pSAC):** Possible Special Areas of Conservation are sites on which Government has initiated public consultation on the scientific case for designation as a candidate Special Area of Conservation; and
- **Ramsar sites (and proposed Ramsar sites):** Wetlands of international importance designated under the 1971 Ramsar Convention, and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for a Ramsar site.

1.1.4 The requirement to undertake an assessment of plans or projects that are likely to have an effect upon European sites is given in Article 6(3) of the Habitats Directive.

1.1.5 The Habitats Directive is transposed into UK law through the Conservation of Habitats and Species Regulations (2017).

1.1.6 Regulation 63 of the Habitats Regulations implements Article 6(3) of the Habitats Directive by requiring the competent authority (in this case Dorset Council) to complete an appropriate assessment of the implications of the plan or project for the European site in view of the site's conservation objectives before deciding to undertake a plan or project which is likely to have a significant effect on a European site.

1.1.7 Furthermore, Regulation 105 of the Habitats Regulations specifically applies to spatial development strategies, such as the Dorset Council Local Plan, and sets a legal requirement for the plan-making authority to appropriately assess land use plans in the UK.

1.1.8 Whilst the UK is no longer bound by the EU Habitats and Wild Birds Directives following its exit from the European Union on 31st December 2020, the Conservation of Habitats and Species Regulations (2017) (as amended) remain in place, with only minor amendments by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019. Therefore, the need to complete an appropriate assessment of a plan continues to apply following the UK's exit from the EU.

1.2. THE DORSET COUNCIL LOCAL PLAN

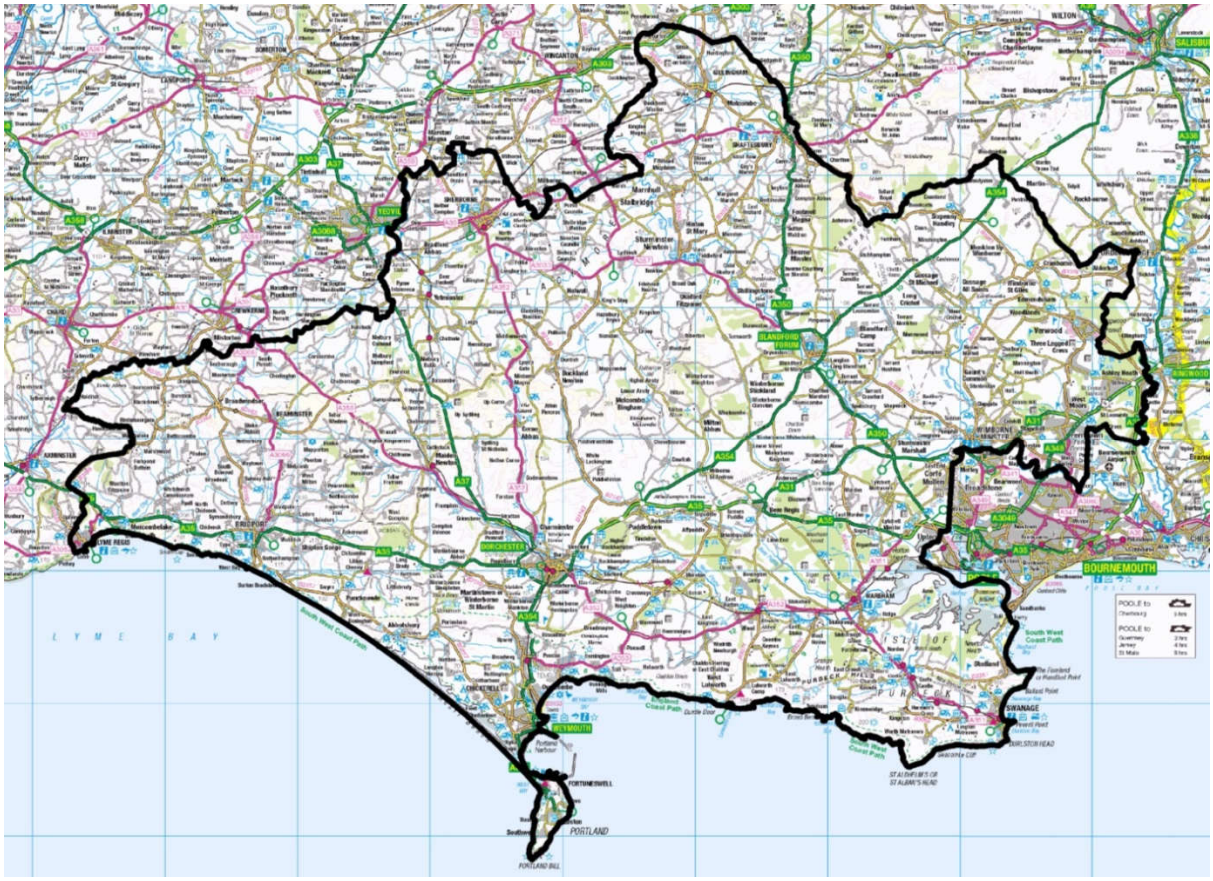
1.2.1 The Dorset Council Local Plan will provide the planning policies that will be used to guide decisions on planning applications and set out the locations for future development across the Dorset Council area.

1.2.2 The Dorset Council Local Plan aims to achieve sustainable development in the Dorset Council area by meeting the housing and employment needs whilst avoiding unacceptable environmental impacts, including impacts upon European sites.

1.2.3 The Dorset Council 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 Council Local Plan area, shown within the black line



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

2 The Habitats Regulations Assessment Process

2.0.1 The UK Government's Planning Practice Guidance on Appropriate Assessment[1] and consultation paper on the Appropriate Assessment of Plans[2] explains that there are several distinct stages of assessment which must be undertaken in order to achieve compliance with the Habitats Regulations.

TASK 1: HRA SCREENING

2.0.2 The HRA screening stage involves consideration of whether the plan or project is likely to have a significant effect on a European Site, either alone and in combination with other plans or projects.

2.0.3 A 'likely significant effect' may be defined as a 'possible significant effect; one whose occurrence cannot be excluded on the basis of objective information'.

2.0.4 The HRA screening stage firstly involves gathering information on the European sites that may be affected, through geographical proximity or a potential impact pathway which links the plan to an effect on a European Site.

2.0.5 Following this, the HRA considers whether the plan is likely to result in a significant effect upon these European sites, either alone or in combination with other projects and plans, through the test of likely significant effect.

2.0.6 Measures which have been specifically added to achieve the purpose of avoiding or reducing the harmful effects of a plan upon a European site, known as mitigation measures, should not be considered at the screening stage[3].

2.0.7 If the HRA screening concludes that there is no likely significant effect on a European site, then further assessment is deemed unnecessary.

2.0.8 However, if it is found that the plan would have a likely significant effect on a European site then the next stage of assessment, known as the Appropriate Assessment stage, is required.

TASK 2: APPROPRIATE ASSESSMENT

2.0.9 If a proposed plan or project is considered likely to have a significant effect on a European Site, either individually or in combination with other plans or projects, then an appropriate assessment of the implications for the site, in view of the site's conservation objectives, must be undertaken.

2.0.10 The scope and content of an appropriate assessment will depend on the nature, location, duration and scale of the proposed plan and the European sites which may be affected.

[1] https://www.gov.uk/guidance/appropriate-assessment
[2] MHCLG (2006) Planning for the Protection of European Sites, Consultation Paper
[3] Following the European Court of Justice ruling: Case C-323/17 People Over Wind & Peter Sweetman v Coillte Teoranta ('People over Wind')

However, the assessment needs to be proportionate and sufficient to support the task of determining whether the plan will adversely affect the integrity of a European site.

TASK 3: MITIGATION

2.0.11 The competent authority may agree to the plan or project only after having ruled out adverse effects on the integrity of the European site.

2.0.12 Where it cannot be concluded that there will be no adverse effects on a site's integrity, there is a need to consider potential mitigation.

2.0.13 Mitigation measures are protective measures forming part of a project and are intended to avoid or reduce any direct adverse effects that may be caused by a plan or project, to ensure that it does not have an adverse effect on the integrity of a European site.

2.0.14 Any measures used to inform the decision about the effects on the integrity need to be sufficiently secured and likely to work in practice.

3 European Sites

3.0.1 In order to determine whether the Dorset Council Local Plan is likely to result in a significant effect upon a European Site, it is first necessary to identify those European Sites which may be affected by the plan. This involves gathering information about the European Sites within the Dorset Council Local Plan area and its vicinity.

3.0.2 The Dorset Council Local Plan area occupies approximately 252,100ha, of which approximately 15,488ha is occupied by European sites. European sites therefore cover approximately 6.1% of the Dorset Council Local Plan area (Figure 3.1).

Figure 3.1: the coverage of European sites within the Dorset Council Local Plan area

Designation	Area (ha)
Special Area of Conservation (SAC)	11,681
Special Protection Area (SPA)	11,022
Ramsar	9,121
Total*	**15,488**

* Excluding overlap between the International designations

Source: Dorset Environmental Records Centre, July 2019

3.0.3 The European Sites within the Dorset Council Local Plan Area and its surroundings, to within approximately 20km of the plan area, are shown in Figures 3.2 and 3.3.

3.0.4 Details of the characteristics of these European Sites, including the qualifying features, conservation objectives and potential threats, pressures and activities with impacts[4], are presented in the Appendix.

Figure 3.2: European sites within the Dorset Council Local Plan area

European Site	Designation
Avon Valley	SPA, Ramsar
Brackets Coppice	SAC
Cerne and Sydling Downs	SAC
Chesil and the Fleet/Chesil Beach and the Fleet	SAC, SPA, Ramsar
Crookhill Brick Pit	SAC
Dorset Heaths/Dorset Heathlands	SAC, SPA, Ramsar
Dorset Heaths (Purbeck and Wareham) and Studland Dunes	SAC
Fontmell and Melbury Downs	SAC
Holnest	SAC

[4] taken from the Government's JNCC website: https://jncc.gov.uk/

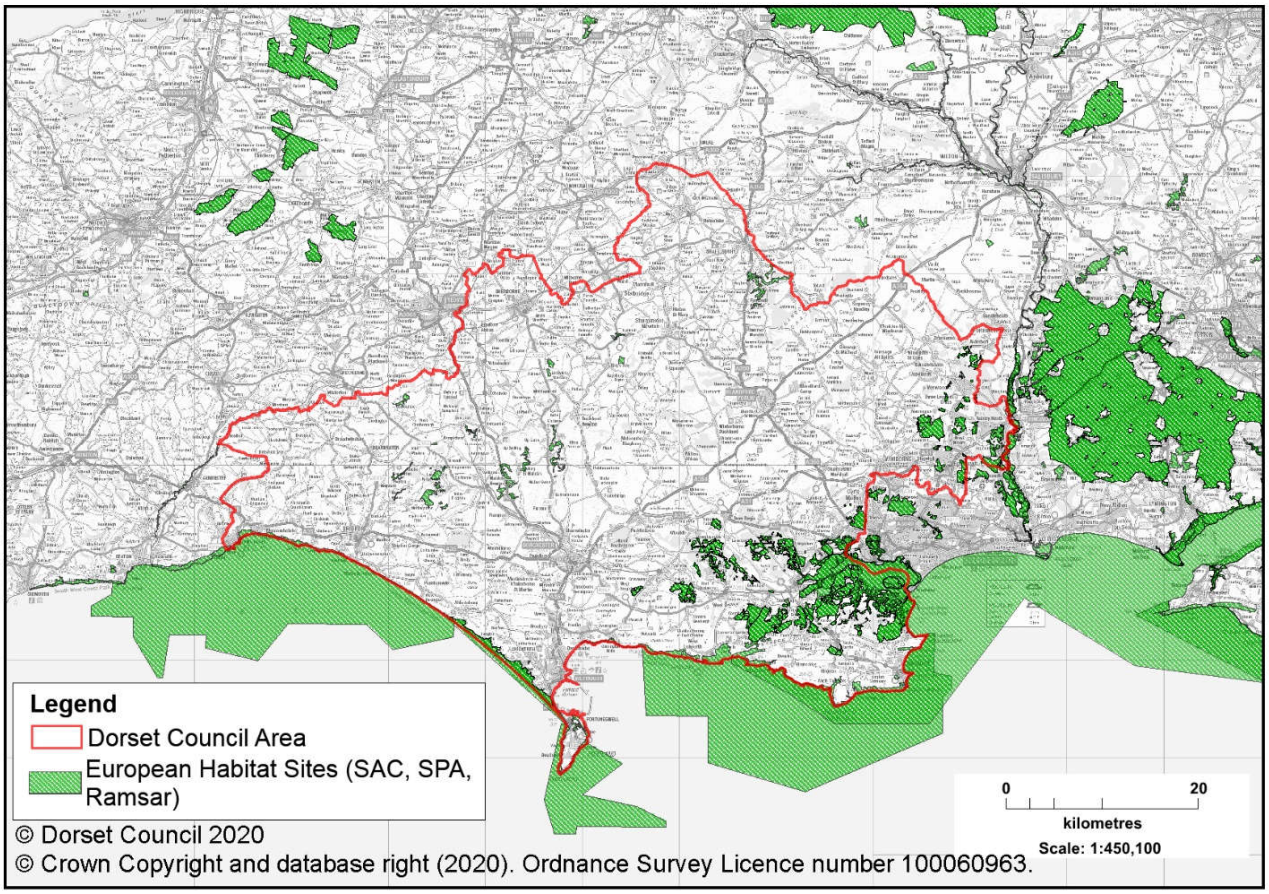
European Site	Designation
Isle of Portland to Studland Cliffs	SAC
Poole Harbour	SPA, Ramsar
River Avon	SAC
River Axe	SAC
Rooksmoor	SAC
Sidmouth to West Bay	SAC
St Albans Head to Durleston Head	SAC
West Dorset Alder Woods	SAC

Figure 3.3: European sites in the areas surrounding the Dorset Council Local Plan area

European Site	Designation	Approx. Distance and orientation from Dorset Council Local Plan area (km)
Prescombe Down	SAC	5km to the north
Great Yews	SAC	8km to the north
Chilmark Quarries	SAC	11km to the north
Somerset Levels and Moors	SPA, Ramsar	12km to the north
Mendip Woodlands	SAC	15km to the north
Salisbury Plain	SAC	16km to the north
Mells Valley	SAC	20km to the north
Quants	SAC	20km to the north
Porton Down	SPA	21km to the northeast
Mottisfont Bats	SAC	21km to the northeast
New Forest	SAC, SPA, Ramsar	3km to the east
Solent Maritime/Solent & Southampton Water	SAC, SPA, Ramsar	17km to the east
Solent and South Dorset	SPA	Adjacent and to the south
Studland to Portland	SAC	Adjacent and to the south
Lyme Bay and Torbay	SAC	Adjacent and to the south
Beer Quarry and Caves	SAC	12km to the west

3.0.5 A map showing the location and extent of the European Sites within the Dorset Council Local Plan area and surroundings area is presented in Figure 3.4.

Figure 3.4: The location and extent of European sites in the Dorset Council Local Plan and surrounding areas



3.0.6 European sites occupy long sections of the Dorset coastline. The Sidmouth to West Bay SAC occupies the western end of the Dorset coastline and is characterised by unstable vegetated sea cliffs, screes and ravines. This gives way to the shingle beach and coastal lagoon at the Chesil Beach and the Fleet SAC, SPA and Ramsar to the east. The detached peninsula of Portland is located at the eastern end of Chesil Beach, and marks the start of the Isle of Portland to Studland Cliffs SAC which together with the St Albans Head to Durlston Head SAC forms a single unit of cliffed coastline some 40 km in length characterised by limestone and chalk cliffs and grassland habitats. The Poole Harbour SPA and Ramsar, a large natural harbour which comprises extensive areas of tidal mudflats, seagrass beds and saltmarsh, together with associated reedbed, freshwater marsh and wet grassland occupies the eastern end of the Dorset Council Local Plan area alongside the Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC.

3.0.7 The marine areas beyond the coast of the Dorset Council Local Plan are also largely designated as European sites. The Lyme Bay to Torbay SAC, characterised by reefs and sea caves, occupies the western end of the coastline before giving way to the Chesil Beach and the Fleet SAC. The Portland to Studland SAC, also characterised by reefs, occupies an extensive area of sea in the central and eastern sections of the coastline in the plan area. The Poole Harbour SPA and Ramsar occupies the marine areas within Poole Harbour. The

marine area outside the harbour, to the west at the Isle of Purbeck, and at the Solent to the east, are occupied by the Solent and Dorset Coast SPA in recognition of its importance as a foraging grounds for terns.

3.0.8 The south eastern part of the Dorset Council Local Plan area is occupied by the remaining fragments of the Dorset Heathlands SAC, SPA and Ramsar which once occupied a single continuous large area of heathland habitat (Figure 4.17).

3.0.9 The chalk grasslands at Cerne and Sydling Downs SAC and Fontmell and Melbury Downs SAC and chalk meadows at the Rooksmoor SAC occupy the central and northern parts of the plan area and reflect the swath of chalk which runs from the northeast to the southwest across Dorset. This band of chalk extends beyond Dorset to the north and provides the grassland habitat at Salisbury Plain and Prescombe Down to the north.

3.0.10 European sites associated with river systems mark the western and eastern boundaries of the plan area, with the River Axe SAC on the western boundary and River Avon SAC and Avon Valley SPA and Ramsar on the eastern boundary.

3.0.11 The European sites within Dorset and its surrounding areas also reflect the importance for species.

3.0.12 The Crookhill Brick Pit SAC in Chickerell, and the Rooksmoor SAC and Holnest SAC both towards the north of the Dorset, support populations of International importance for Great Crested Newts.

3.0.13 There are also European Sites within the plan area or its surrounding areas which support bat species, including maternity and hibernation roosts, such as Brackets Coppice SAC in Dorset and the Beer Quarry and Caves SAC, Chilmark Quarries SAC and Mells Valley SAC in the surrounding areas.

4 Habitats Regulations Assessment Screening

4.0.1 The function of the screening stage is to determine whether the plan would result in a likely significant effect and therefore whether further assessment is required through the Appropriate Assessment stage.

4.0.2 Having identified the characteristics of the European sites within approximately 20km of the Dorset Council Local Plan boundary in Chapter 3, it is now possible to identify those European Sites which may be linked to the Dorset Council Local Plan through a known 'pathway'.

4.0.3 A 'pathway' may be defined as the means by which a change in activity leads to an effect. In this instance, a pathway may be defined as the means by which a change in activity due to the Dorset Council Local Plan leads to an effect on a European Site.

4.0.4 At the initial stage of the screening, all of the potential pathways were identified by considering the potential threats, pressures and activities to the European Sites provided in the official citation which are relevant given the scope of the Dorset Council Local Plan (see Figure 4.1 for the potential pathways and the Appendix for the citations).

4.0.5 Other scientific evidence and the advice of Natural England was also taken into account in establishing all of the potential pathways at this initial stage.

4.0.6 Those potential threats, pressures and activities that were not considered to be linked to the Dorset Council Local Plan through a pathway were discounted from further consideration.

Figure 4.1: Potential impact pathways identified for the Dorset Council Local Plan

Potential threat, pressure or activity	European Site	
Water pollution	• Avon Valley SPA, Ramsar • River Avon SAC • Chesil and the Fleet SAC, SPA, Ramsar • Dorset Heathlands Ramsar • New Forest Ramsar • Poole Harbour SPA, Ramsar	• River Axe SAC • Sidmouth to West Bay SAC • Solent and Southampton Water SPA • Solent Maritime SAC • Somerset Levels and Moors SPA, Ramsar • West Dorset Alder Woods SAC
Air pollution	• Brackets Coppice SAC • Cerne and Sydling Downs SAC • Chesil Beach and the Fleet SPA and Ramsar • Dorset Heathlands SAC, SPA and Ramsar (including Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC)	• Fontmell and Melbury Downs SAC • Mendip Woodlands SAC • New Forest SPA • Poole Harbour SPA • Porton Down SPA • Prescombe Down SAC • Quants SAC • Rooksmoor SAC

Potential threat, pressure or activity	European Site	
Public access, disturbance and other human intrusion	• Beer Quarry and Caves SAC • Chesil Beach and the Fleet SPA • Dorset Heathlands SPA • Mells Valley SAC	• Mendip Woodlands SAC • Poole Harbour SPA • Sidmouth to West Bay SAC • Solent and Dorset Coast SPA
Sport, leisure and recreational activities	• Cerne and Sydling Downs SAC • Chesil and the Fleet SAC • Chesil Beach and the Fleet Ramsar • Chilmark Quarries SAC • Dorset Heaths SAC • Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC	• Fontmell and Melbury Downs SAC • Isle of Portland to Studland Cliffs SAC • Mells Valley SAC • New Forest SAC • Solent and Southampton Water SPA • Solent Maritime SAC • St Albans Head to Durlston Head SAC
Urbanisation and industrial activities	• Beer Quarry and Caves SAC • Chilmark Quarries SAC	• Sidmouth to West Bay SAC
Habitat fragmentation	• Dorset Heathlands SPA	
Coastal squeeze	• Poole Harbour SPA, Ramsar	

4.0.7 Following the identification of all of the possible pathways, the habitats regulations assessment screening then considered these possible pathways in more detail to determine whether or not they represent a credible or plausible pathway.

4.0.8 This is presented in the following sections of this chapter, which explores each of the potential pathways which have been identified according to the threat, pressure or activity.

4.1. WATER POLLUTION

4.1.1 Water pollution occurs when harmful substances enter a body of water.

4.1.2 This may affect species through toxicity, if the contaminant has a direct poisonous effect on organisms within the ecosystem.

4.1.3 If the contaminant is a nutrient, elevated concentrations in a water system may also result in increased plant growth, algal blooms and an accumulation in organic matter. This may contribute to a decrease in oxygen availability, adverse impacts upon water quality and the degradation or loss of habitat. This effect, known as eutrophication, can result in catastrophic impacts upon habitats and species.

4.1.4 Eutrophication is caused by elevated concentrations of phosphates in freshwater systems and elevated concentrations of nitrates in marine systems.

4.1.5 The principal sources of phosphorus and nitrogen entering hydrological catchments are often treated sewage effluent discharges and runoff from roads or agricultural land, as phosphorus and nitrogen are applied to commercial agricultural crops in the form of inorganic fertiliser and organic manures.

4.1.6 The Dorset Council Local Plan Area includes a number of hydrological catchments associated with European sites which are sensitive to water pollution (Figure 4.2).

4.1.7 These include the freshwater catchments of the Rivers Avon and Axe, on the eastern and western boundaries of the plan area respectively, and the Somerset Levels and Moors on the northern section of the plan area. The marine catchment of Poole Harbour occupies a large proportion of the central and southern parts of the plan area.

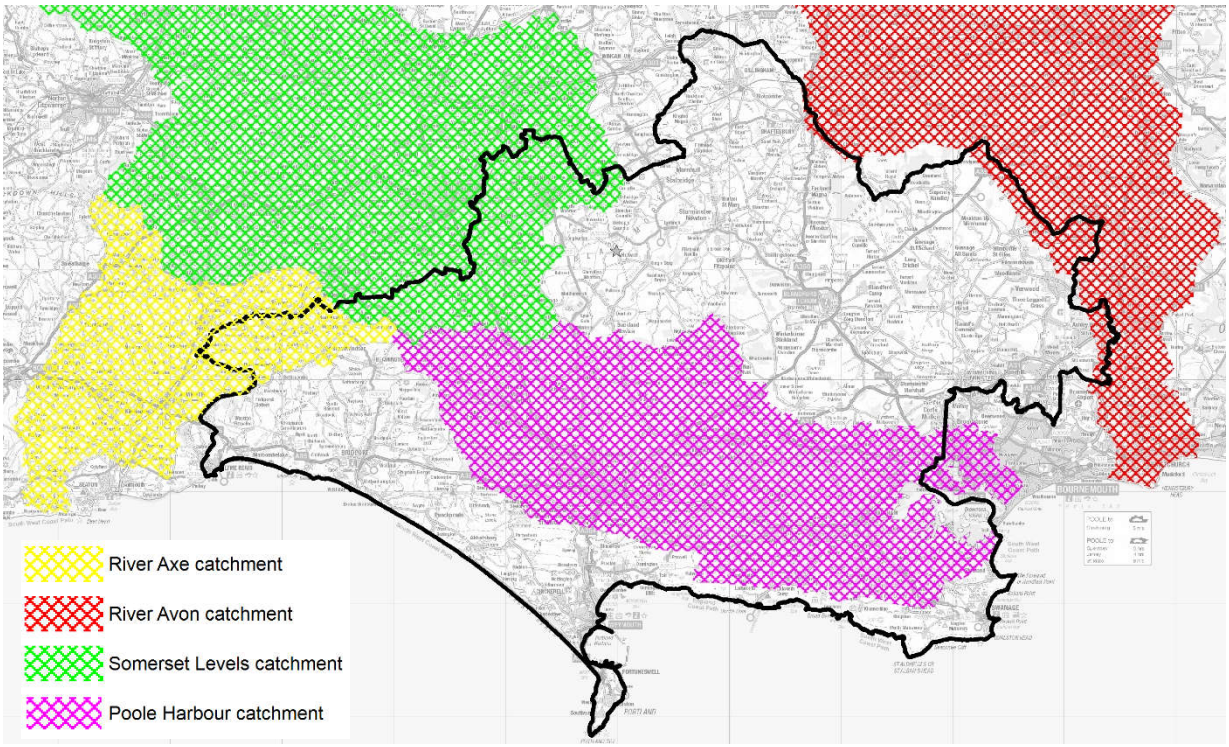
4.1.8 The European Sites which occupy the Solent waters to the east of the plan area are sensitive to the effects of water pollution.

4.1.9 Furthermore, inputs of nutrients into the water systems in the Dorset Heathlands Ramsar and the New Forest Ramsar, both of which are examples of wet heaths and acid mires in lowland Britain, represents a potential threat to these wetlands of international importance.

4.1.10 The other European sites also threatened by water pollution include the coastal lagoon and hydraulically connected shingle beach at the Chesil and the Fleet European Site, the vegetated sea cliffs and landslips at the Sidmouth to West Bay SAC, and the wet woodlands of the West Dorset Alder Woods SAC.

4.1.11 The potential for likely significant impacts upon these European sites as a result of water pollution is considered in the following sections.

Figure 4.2: A map showing the hydrological catchments within the Dorset Council Local Plan Area which are closely associated with European Sites potentially threatened by pollution to groundwater



RIVER AVON SAC, AVON VALLEY SPA AND RAMSAR

4.1.12 The River Avon is a large, lowland river system that includes sections running through chalk and clay (Figure 4.3).

4.1.13 The River Avon SAC is an example of 'Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation', characterised by floating mats of water-crowfoots (*Ranunculus* spp.), which exhibit white-flowers in early to mid-summer. The SAC supports populations of Desmoulin's whorl snail *Vertigo moulinsiana*; Sea lamprey *Petromyzon marinus*; Brook lamprey *Lampetra planeri*; Atlantic salmon *Salmo salar*; and Bullhead *Cottus gobio.*

4.1.14 The lower reaches of the River Avon are within the Avon Valley Special Protection Area (SPA) which is classified due to the population of over wintering Bewick's Swan *Cygnus columbianus bewickii* and Gadwall *Anas strepera*.

4.1.15 In addition the areas of the Avon Valley downstream of Fordingbridge are designated as the Avon Valley Ramsar, a wetland area of international importance.

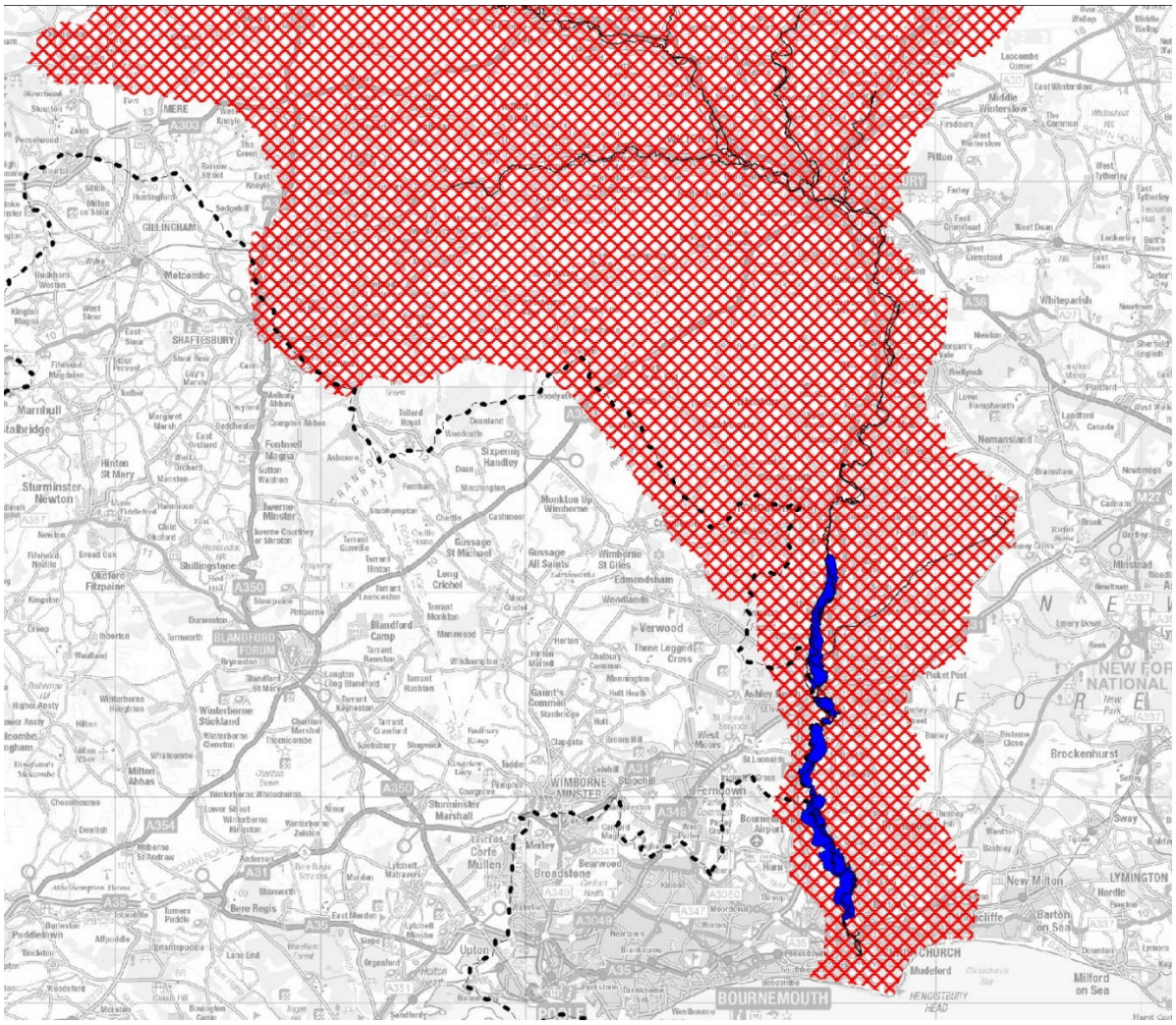
4.1.16 The Hampshire Avon failed to achieve Good Ecological or Groundwater Chemical Status under the Water Framework Directive in 2014 and 2015. This is partly attributed to elevated levels of phosphates, the main sources of which are runoff from fertiliser (from farming activities, fish farms and cress beds), wastewater effluent (from residential properties and industrial development), and a natural contribution from the Upper Greensand underlying geology.

4.1.17 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 into 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.

3.1.57 The River Avon SAC and Avon Valley SPA and Ramsar and its hydrological catchment occupy parts of the eastern area of the Dorset Council Local Plan Area. New development within the River Avon's hydrological catchment may result in additional inputs of phosphate into the River Avon European site, affecting the integrity of the River Avon and Avon Catchment European sites.

4.1.18 Development through the Dorset Council Local Plan is considered unlikely to result in substantial changes to the hydraulic conditions at the River Avon and Avon Valley European site, for example as a result of abstraction and flood control measures, given the small extent area of the catchment within the Dorset Council Local Plan area and the likely nature of development within these areas.

Figure 4.3: A map showing the extent of the River Avon SAC, Avon Valley SPA and Avon Valley Ramsar, and the River Avon hydrological catchment. (River Avon SAC = black line, Avon Valley SPA and Avon Valley Ramsar = blue, River Avon hydrological catchment = red hatching, Dorset Council Local Plan area boundary = dashed line)



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2019. Ordnance Survey Licence number 0100060963. © Crown Copyright. All rights reserved 2019

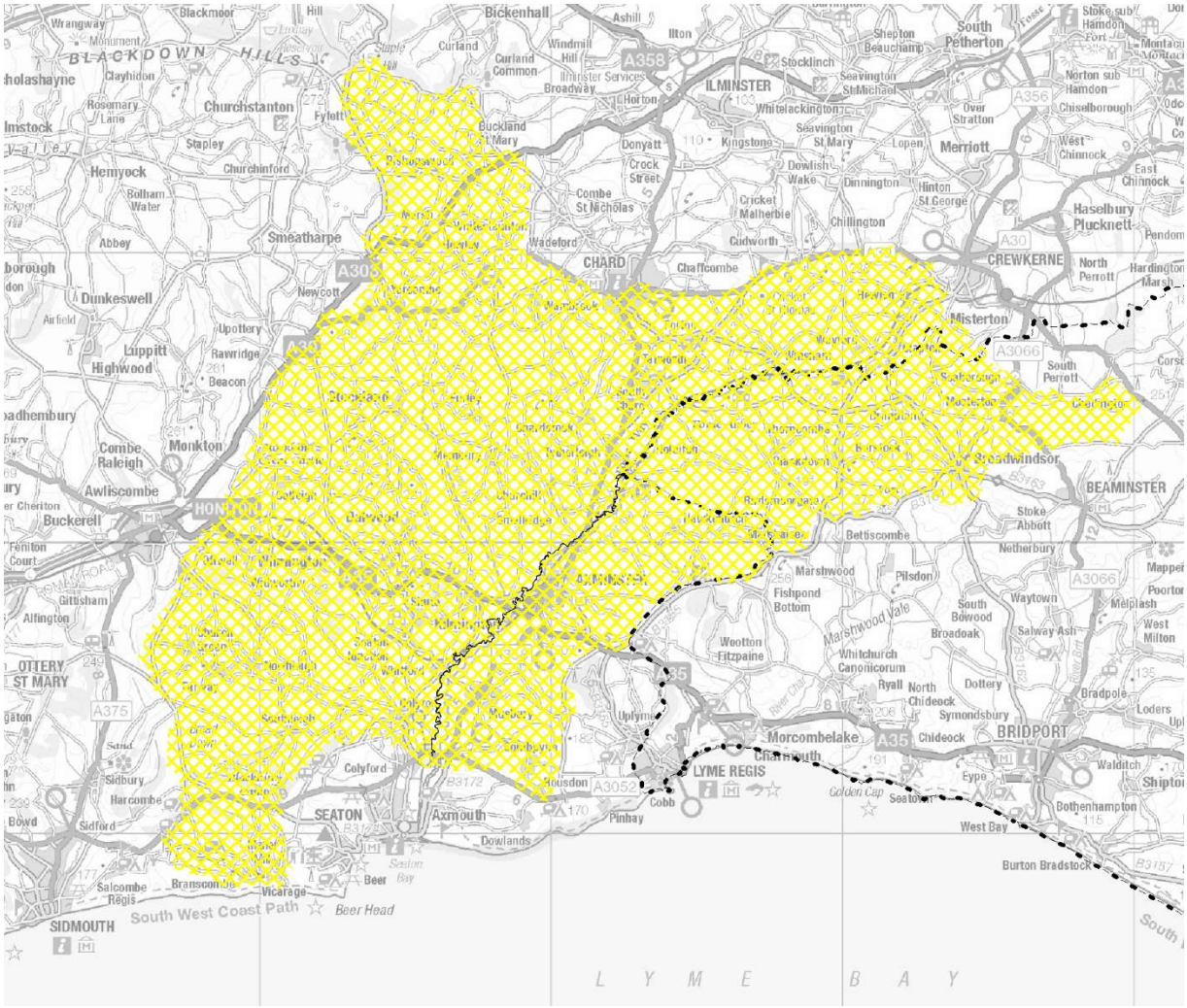
RIVER AXE SAC

4.1.19 The River Axe rises to the north of Beaminster in Dorset, and flows in a westerly direction until it reaches the border with Devon and leaves the Dorset Council Local Plan area. Eventually, the River Axe joins the English Channel in Lyme Bay.

4.1.20 The River Axe SAC designation occupies a length of approximately 14km of the lower River Axe, downstream of the border with Devon as the river flows in a southwesterly direction (Figure 4.4).

4.1.21 The River Axe hydrological catchment drains an area of about 307 km^2 with an overall length, including tributaries, of 59 km.

Figure 4.4: A map showing the extent of the River Axe SAC and its hydrological catchment (River Axe SAC shown as a red line, River Axe catchment in yellow, Dorset Council Local Plan area boundary in a dashed line)



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2019. Ordnance Survey Licence number 0100060963. © Crown Copyright. All rights reserved 2019

4.1.22 The River Axe SAC supports the habitat described as 'water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation'. This habitat type is characterised by the abundance of water-crowfoots (*Ranunculus* spp.), which form floating mats of white-flowered species in early to mid-summer.

4.1.23 The floating mats provide shelter and food for fish and invertebrate animals, which include of note the Sea lamprey *Petromyzon marinus*, Brook lamprey *Lampetra planeri*, and Bullhead *Cottus gobio*.

4.1.24 Monitoring of the condition of the River Axe SSSI by Natural England has indicated that the site is in "Unfavourable Declining" condition. Also, the Water Framework Directive (Cycle 2) classification of the Lower Axe waterbody found it to be in Poor overall condition.

4.1.25 The declining condition of the River Axe has been attributed to a combination of agriculture and rural land management, industrial discharges and wastewater discharges.

4.1.26 Additional development within the River Axe hydrological catchment through the Dorset Council Local Plan has the potential to contribute to an increase in industrial and wastewater discharges. This would result in additional phosphates entering the River Axe SAC resulting in a likely significant effect upon the River Axe SAC.

SOMERSET LEVELS AND MOORS SPA AND RAMSAR

4.1.27 The Somerset Levels and Moors are characterised by extensive areas of flat land broken up by isolated hills and ridges. The Somerset Levels and Moors provide some of the lowest land in the UK and therefore experience frequent floods, with large areas lying below the level of the highest tides. Water therefore dominates the landscape and a complex network of watercourses provides evidence of the long history of draining the land to reclaim it for productive agricultural land.

4.1.28 The Somerset Levels and Moors contain the largest area of lowland wet grassland in England, contributing to 21% of this habitat type.

4.1.29 The Somerset Levels and Moors SPA and Ramsar occupies an area of approximately 6,400ha, representing approximately 12% of the total floodplain area. The remaining floodplain 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.

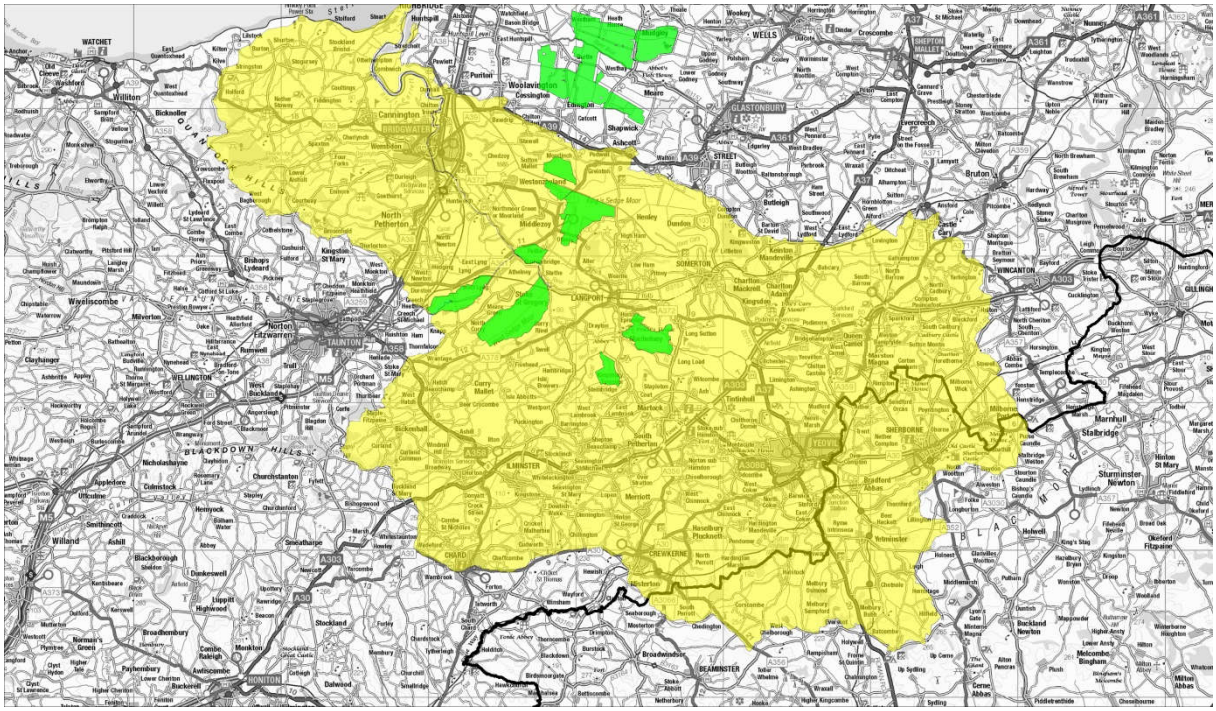
4.1.30 The Somerset Levels and Moors SPA supports huge flocks of migratory waterfowl which arrive in winter, such as Tundra swan *Cygnus columbianus bewickii*, Eurasian teal *Anas crecca*, and Northern lapwing *Vanellus vanellus,* in addition to supporting bird species all year round.

4.1.31 The Somerset Levels and Moors Ramsar recognises the international importance of the site as a wetland feature, in particular acknowledging the diverse range of fauna and rare invertebrate species, 17 of which are British Red Data Book species, which inhabit the ditches within the designation.

4.1.32 The Somerset Levels and Moors SPA and Ramsar is located approximately 12km to the north of the Dorset Plan Area (Figure 4.5).

4.1.33 The uppermost areas of the Somerset Levels hydrological catchment occupies a section of the northern extent of the Dorset Council Local Plan area.

Figure 4.5: The location and extent of the Somerset Levels and Moors SPA and Ramsar (in green) and the Somerset Levels hydrological catchment (in yellow).



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'.

4.1.34 Natural England have advised that they are satisfied that additional nutrients from new development is unlikely to result in a significant effect upon the flocks of migratory waterfowl which spend Winter at the site for which the SPA is designated.

4.1.35 However, Natural England consider the interest features of the Somerset Levels and Moors Ramsar site, which includes plant and invertebrate species, to be at risk from the effects of eutrophication caused by excessive phosphates.

4.1.36 Development through the Dorset Council Local Plan has the potential to result in additional phosphate entering the sewage treatment works and contribute to the issue of eutrophication at the Somerset Levels and Moors Ramsar.

POOLE HARBOUR SPA AND RAMSAR

4.1.37 Poole Harbour is a large natural harbour, which is classified as an estuary but has many of the qualities of a large lagoon as a result of the narrow harbour entrance and small tidal range.

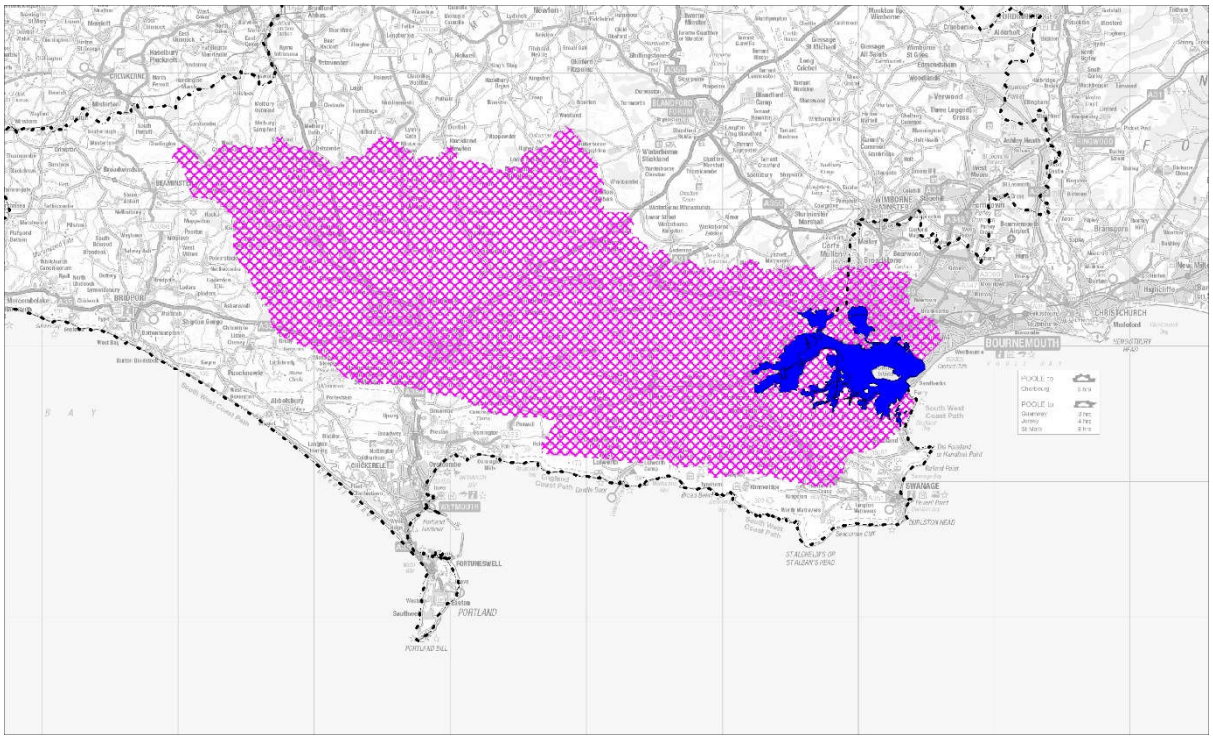
4.1.38 The habitats within Poole Harbour include extensive tidal mudflats, seagrass beds and saltmarsh, together with associated reedbed, freshwater marsh and wet grassland which support bird populations of international importance.

4.1.39 Scientific evidence suggests that high concentrations of nitrogen in Poole harbour are encouraging the growth of wide spread algal mats. 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.

4.1.40 The extent of the algal mats has increased since the 1960s, expanding from Holes Bay to become widespread across the harbour. The algal mats are forming as a result of elevated concentrations of nitrates in the harbour.

4.1.41 The Poole Harbour catchment occupies an area of 820km^2 and comprises the rivers and streams which drain into Poole Harbour, including the Rivers Frome and Piddle (Figure 4.6).

Figure 4.6: The location and extent of the Poole Harbour SPA and Ramsar (in blue) and the Somerset Levels hydrological catchment.



4.1.42 Approximately 85% of the nitrogen entering Poole Harbour is believed to be from agricultural land.

4.1.43 The remaining approximately 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.

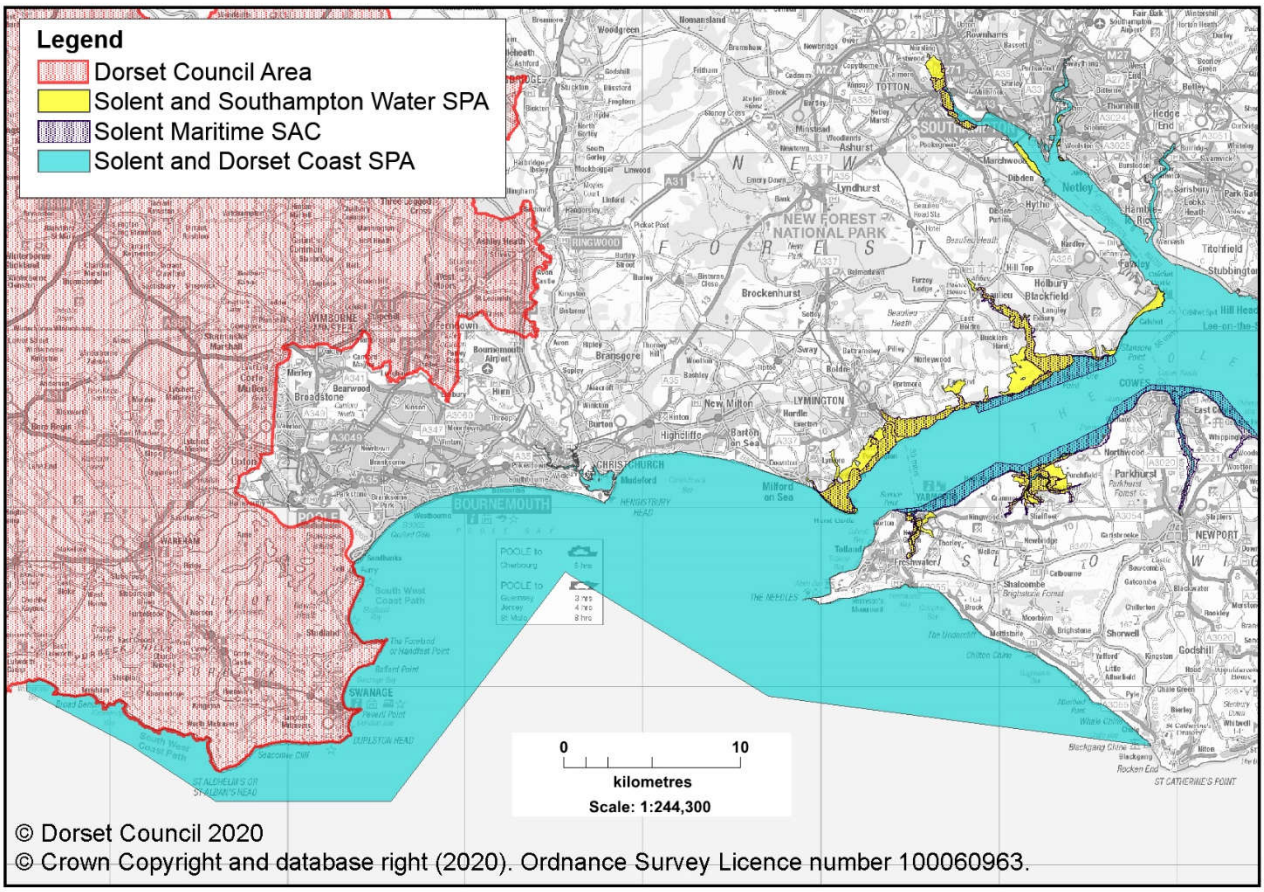
4.1.44 Additional development within the Poole Harbour hydrological catchment through the Dorset Council Local Plan has the potential to result in an increase in human sewage and nitrates entering the Poole Harbour SPA and Ramsar.

SOLENT AND SOUTHAMPTON WATER SPA, SOLENT MARITIME SAC, SOLENT AND DORSET COAST SPA

4.1.45 The Solent Maritime SAC, located approximately 17km to the east of the Dorset Council Local Plan area, is a complex site encompassing a major estuarine system with a range of marine and estuarine habitats including extensive areas of intertidal mudflats, saltmarshes and natural shoreline transitions, such as drift line vegetation (Figure 4.7).

4.1.46 The Solent estuary is designated as the Solent and Southampton Water SPA, also located approximately 17km to the east of the Dorset Council Local Plan area, as it supports nationally and internationally important numbers of migratory and over-wintering waders and waterfowl as well as important breeding gull and tern populations.

Figure 4.7: The location and extent of the Solent and Southampton Water SPA, Solent Maritime SAC, Solent and Dorset Coast SPA



4.1.47 Water pollution affects a range of habitats and bird species at these sites through eutrophication and toxicity.

4.1.48 The sources of water pollution include:

- flood alleviation and storm discharges, as Environment Agency flood event discharge consents allow untreated waters to be discharged;
- diffuse water pollution from agriculture and road runoff;
- historic contamination of marine sediments; and
- spillage from oil transportation by ship.

4.1.49 The hydrological catchments within the Dorset Council Local Plan Area do not discharge into the Solent, which includes the Solent and Southampton Water SPA and Solent Maritime SAC[5]. Therefore, development through the Dorset Council Local Plan is considered unlikely to affect water quality within these European sites.

4.1.50 The Solent and Dorset Coast SPA, designated in January 2020, occupies the coastal and maritime areas on the eastern side of the Dorset Council Local Plan area including the Purbeck coastline and Poole Bay (but not Poole Harbour), and the Solent waters to the east (Figure 4.7).

4.1.51 The Solent and Dorset Coast SPA represents the foraging grounds for the internationally important populations of Common Tern *Sterna hirundo*, Sandwich Tern *Sterna sandvicensis*, and Little Tern *Sternula albifrons,* supporting the colonies of breeding terns in the coastal areas adjacent to the site, at the Poole Harbour SPA, Solent and Southampton Water SPA and Chichester & Langstone Harbours SPA.

4.1.52 The catchments of the Rivers Stour and Avon together occupy large areas of the eastern side of the Dorset Council Local Plan area and both discharge into Christchurch Harbour which is within the Solent and Dorset Coast SPA. Furthermore, whilst Poole Harbour isn't within the Solent and Dorset Coast SPA, the waters immediately outside of Poole Harbour within Poole Bay are within the designation. It is possible therefore that development within the hydrological catchments of the Rivers Stour and Avon and Poole Harbour catchment through the Dorset Council Local Plan may affect water quality within the Solent and Dorset Coast SPA.

CHESIL AND THE FLEET SAC, CHESIL BEACH AND THE FLEET SPA, CHESIL BEACH AND THE FLEET RAMSAR

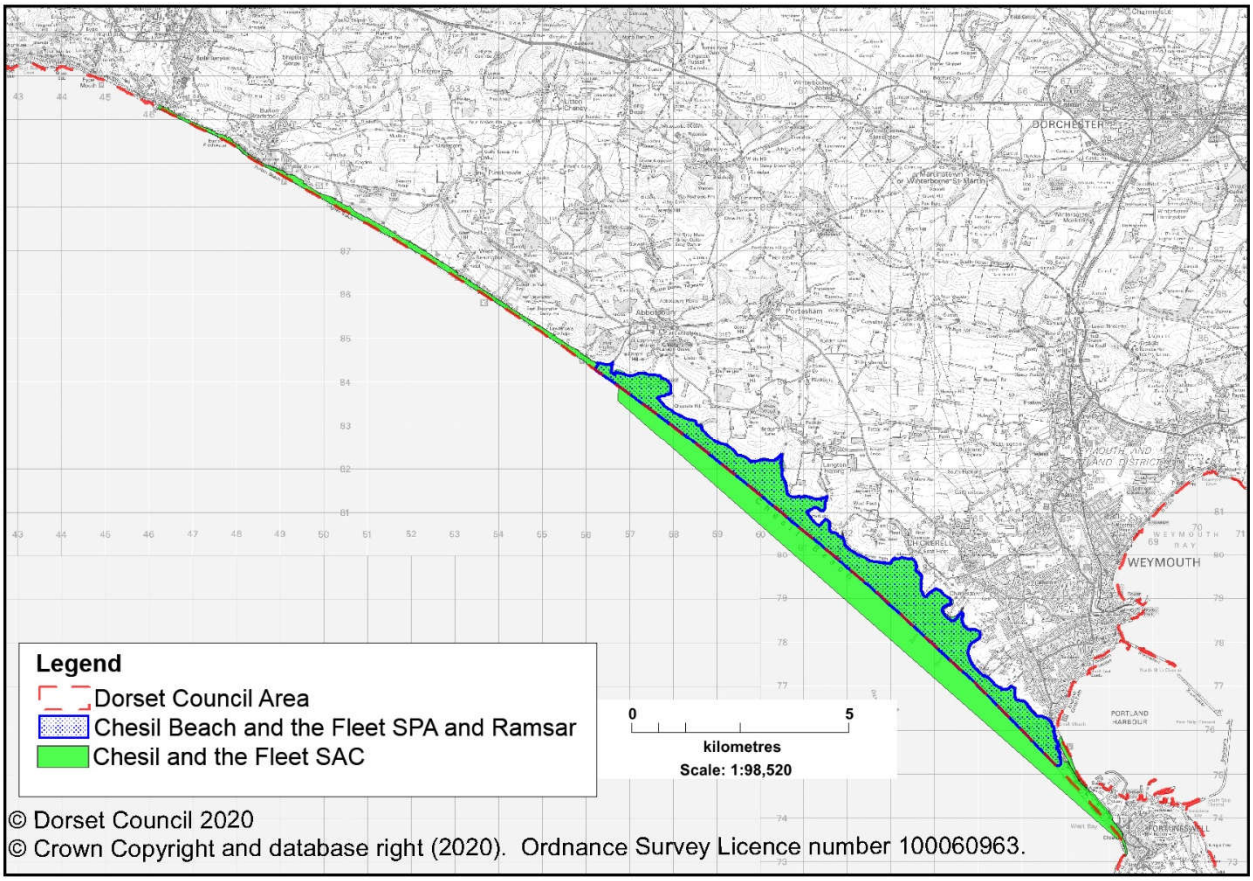
4.1.53 The Chesil Beach and the Fleet European site is characterised by a 29km long shingle storm beach (Figure 4.8).

4.1.54 The shingle beach encloses a brackish lagoon called the Fleet approximately 13km long, which is the largest lagoon in England occupying approximately 495ha.

4.1.55 Due to the salinity gradient, peculiar hydrographic regime, and associated reedbed and intertidal habitats, the Fleet is extraordinarily rich in wildlife with outstanding numbers of aquatic plants and animals present.

[5] According to 'Summary Advice on Achieving Nutrient Neutrality for New Development in the Solent Region' published by Natural England, June 2020.

Figure 4.8: The location and extent of the Chesil and the Fleet European site.



4.1.56 The Chesil Beach and the Fleet SPA occupies the Fleet lagoon and immediate surroundings which support saltmarshes and reedbeds. The SPA supports over wintering bird species such as the Dark Bellied Brent Goose *Branta bernicla*. In Spring and Summer, Chesil Bank is an important breeding ground for the Little Tern *Sterna albifrons* which feed in the shallow waters of the lagoon. The site also provides a habitat for bird species which do not breed at this location, such as Wigeon *Mareca Penelope*.

4.1.57 The Chesil and the Fleet SAC occupies The Fleet coastal lagoon and the following habitats which are the primary reasons for the designation:

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

4.1.58 Chesil and the Fleet is also a designated Ramsar site in recognition of its international importance as a wetland.

4.1.59 The Site of Special Scientific Interest (SSSI) units which overlap with Chesil and the Fleet European Site are 34% in an 'unfavourable' condition, with 15% of these areas declining into an even poorer condition.

4.1.60 A contributing factor to this unfavourable and declining condition may be the adverse impacts of elevated concentrations of nutrients on water quality in the Fleet. The Environment Agency have noted exceedances in nitrogen concentrations in the Fleet, concluding the Fleet is hyper-nutrified[6].

4.1.61 Sewage treatment works are understood to contribute a small percentage (between 1 and 2.5%) of the overall nutrient loading to the Fleet[7], with agriculture providing the most significant source of nutrients.

4.1.62 Whilst the contribution of total nutrient inputs from sewage treatment works is considered minimal, there is the potential for new development through the Dorset Council Local Plan to contribute to the issue of nutrient loading at the Fleet, resulting in a likely significant effect upon the Chesil Beach and the Fleet SPA, Chesil Beach and the Fleet Ramsar.

4.1.63 The features of the SAC may also be affected by the input of nutrients to the Fleet lagoon, as the shingle bar and lagoon are in hydraulic continuity, as evidenced by sea water entering the Fleet lagoon by percolation through Chesil Beach under certain tidal conditions.

SIDMOUTH TO WEST BAY SAC

4.1.64 The Sidmouth to West Bay SAC is an example of a highly unstable soft cliff coastline subject to mudslides and landslips which support a mosaic of woodland, mixed scrub, grassland and pioneer communities which are rich in invertebrates (Figure 4.12).

4.1.65 The sea cliff vegetation may be affected by poor water quality arising from agricultural run off or other human activity landwards of the cliffs, for example due to leaking septic tanks at residential dwellings and slurry lagoons on agricultural land. Motor boats parked on the beach also represent a source of water pollution as they may leak oil and fuel, affecting shingle vegetation[8]

4.1.66 Whilst the Dorset Council Local Plan is unlikely to significantly affect agricultural practices or land management practices, applications for agricultural development will be considered through the Dorset Council Local Plan.

4.1.67 However, the Dorset Council Local Plan has the potential to exacerbate these problems if development occurred in close proximity to the Sidmouth to West Bay SAC, increasing the risk of water quality issues (for example, through leaking septic tanks) and increasing the use of the beach areas for boating.

[6] Environment Agency Datasheet: Nitrate vulnerable zone (NVZ) designation 2017 – Eutrophic Waters (Estuaries and Coastal Waters); June 2016.
[8] Site Improvement Plan Sidmouth to West Bay, Natural England (2014)

DORSET HEATHLANDS RAMSAR

4.1.68 The Dorset Heathlands Ramsar occupies an extensive but fragmented area in the southeast of the Dorset Council Local Plan area (Figure 4.10).

4.1.69 The Dorset Heathlands Ramsar is amongst the best examples of wet heaths and acid mires in lowland Britain, and supports a large assemblage of nationally rare and scarce wetland plant species and invertebrates.

4.1.70 Urban development in close proximity to the Dorset Heathlands may result in:

- Changes in pH, nutrient status, turbidity of water supplies to heathland;
- Enrichment and pollutants from urban run-off;
- Pollutants from mis-connections, storm overflows, spills, accidents;
- Diversion of pre-existing natural water sources away from heathland catchments; and
- Changes in heathland hydrology and leakage in underground pipes and sewers as a result of service infrastructure.

4.1.71 Additional development through the Dorset Council Local Plan may exacerbate these issues, resulting in a likely significant effect upon the Dorset Heathlands.

4.1.72 The issue of pollution to water is intrinsically linked to the other pressures upon the Dorset Heaths caused by development, such as disturbance and recreational pressure, which is considered later in this chapter.

NEW FOREST RAMSAR

4.1.73 The New Forest Ramsar is characterised by wet heath and over 90 valley mires, associated seepages and peatlands situated on acidic and nutrient-poor soils. Pools in the heath-mire matrix contain nutrient-enriched water supporting a species-rich assemblage of plants. The site is important for breeding, feeding and roosting bird's characteristic of the heathland environment and wintering raptors. The Ramsar also supports rare, vulnerable, endangered or nationally scarce invertebrates.

4.1.74 Some properties within the New Forest are not on mains sewerage. Instead, they have domestic treatment units which discharge into ditches and streams that are either within or flow into the Ramsar habitats.

4.1.75 The ditches and streams often have seasonal flow. When the watercourses run following a rainfall event, the nutrients in the water courses are washed downstream, leading to a sharp increase in nutrient levels. This is likely to reduce species richness and diversity.

4.1.76 Development through the Dorset Council Local Plan would occur at least 3km from the New Forest Ramsar (Figure 4.10). These sites are likely to be on mains sewerage, and would not discharge into watercourses and streams which flow into the New Forest Ramsar habitat.

4.1.77 Development through the Dorset Council Local Plan is considered unlikely to result in appreciable changes to the hydraulic conditions at the New Forest Ramsar, for example as

a result of abstraction and changes in runoff, given that the hydraulic catchment falls outside the Dorset Council Local Plan area.

WEST DORSET ALDER WOODS SAC

4.1.78 The West Dorset Alder Woods SAC comprises mixed ash-alder woods found along the winding valleys of West Dorset.

4.1.79 The woods have developed along the headwaters of alkaline streams and seepages having originating from the chalk downland and issuing from the underlying Upper Greensand at its junction with the Gault Clay.

4.1.80 The wetter woods form transitions to drier oak-ash woodland as well as associated further transitions to base-rich fens, reedswamp, fen meadow and acid grassland.

4.1.81 Diffuse pollution from agricultural practices in the areas surrounding the SAC is considered a pressure upon the SAC features. Whilst agricultural practices are at relatively low intensity, water quality issues exist due to intensive dairy units and the threat of nutrient enrichment due to runoff. Of particular concern is the nutrient enrichment of waters supplying the site's wet habitats, which could impact the SAC features[9].

4.1.82 The Dorset Council Local Plan may be used to consider proposals for development which result in the intensification of agricultural practices in those areas surrounding the West Dorset Alder Woods SAC. Therefore, it is possible that the Dorset Council Local Plan will lead to a likely significant effect upon the West Dorset Alder Woods SAC.

4.2. AIR POLLUTION

4.2.1 Air pollution occurs when a harmful substance, possibly in the form of a solid particle or a gas, is emitted into the atmosphere.

4.2.2 Dorset and its surrounding areas include European sites which support habitats and species which are highly sensitive to air quality.

4.2.3 Air pollution may have a direct toxic effect upon species.

4.2.4 Furthermore, the enrichment of soils may occur through the deposition of atmospheric nutrients into the soil. This may particularly affect those habitats which are necessarily naturally low in nutrients, such as heathland, chalk grasslands and meadow.

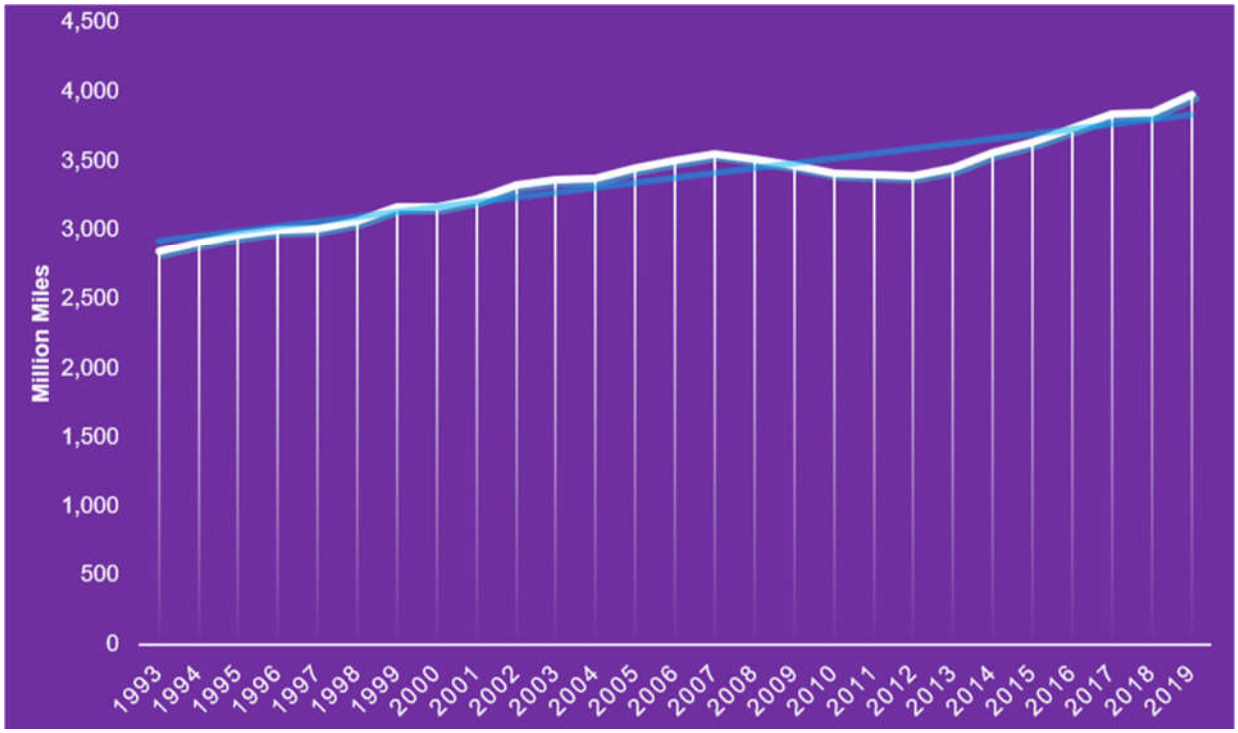
4.2.5 Development through the Dorset Council Local Plan has the potential to affect air quality.

4.2.6 Within a typical housing development, by far the largest contribution to the emission of nitrogen (approximately 92%) is from the associated road traffic.

4.2.7 In Dorset, travel by car has increased over the past decades (Figure 4.9). This trend is projected to continue in future, with development through the Dorset Council Local Plan potentially contributing to the increase in traffic.

[9] Site Improvement Plan West Dorset Alder Woods, Natural England (2014)

Figure 4.9: A figure showing the overall increase in travel by car between 1993 and 2019



Source: Department for Transport (https://www.gov.uk/government/statistical-data-sets/road-traffic-statistics-tra#traffic-by-local-authority-tra89)

4.2.8 The impact of nitrogen from vehicle emission 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".

4.2.9 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 very quickly deposited.

4.2.10 Therefore, those European sites within 200m of a road may be affected by nutrient enrichment as a result of the atmospheric deposition of vehicle emissions.

4.2.11 Other types of development through the Dorset Council Local Plan may also contribute to air quality issues, particularly development for industrial or agricultural purposes, with the potential for effects upon European sites.

4.2.12 The following sections consider the potential for likely significant impacts as a result of the effect of development through the Dorset Council Local Plan upon air quality for each of the European sites which may be affected.

FONTMELL & MELBURY DOWNS SAC, CERNE AND SYDLING DOWNS SAC, AND PRESCOMBE DOWNS SAC

4.2.13 The Fontmell and Melbury Downs SAC, Cerne and Sydling Downs SAC and Prescombe Downs SAC are characterised predominantly by semi-natural dry grassland with some scrub and heathland on the chalk valley slopes (Figure 4.15).

4.2.14 The Cerne and Sydling Downs SAC and Fontmell and Melbury Downs SAC are located towards the north of the Dorset Council Local Plan area, upon the vast swath of chalk which runs from southwest to northwest across Dorset. This chalk geology extends further northwards beyond the plan area into the West Wiltshire Downs where the Prescombe Downs SAC is located.

4.2.15 Chalk grassland habitats are necessarily naturally low in nutrients, and therefore the enrichment of soils through the deposition of atmospheric nitrogen represents a threat to the integrity of these European sites.

4.2.16 The Dorset Council Local Plan may result in an increase in atmospheric nitrogen through additional traffic, particularly as a result of residential development, and emissions from agricultural and industrial development. This may result in a likely significant effect upon the chalk grassland and meadow habitats within the Dorset Council Local Plan area, at Fontmell & Melbury Downs SAC and Cerne and Sydling Downs SAC.

4.2.17 The Prescombe Downs SAC is located approximately 5km to the north of the plan area. The nearest main road to the SAC is the A30, approximately 1.3km from the site. The roads within 200m of the site (the area within which vehicle emissions may be deposited) include the Old Shaftesbury Drove, a public right of way which marks the northern site boundary, and an access track to the east which is not a through road.

4.2.18 Therefore, given the distance of the Prescombe Downs SAC from the site and the nature of the roads in the surrounding areas, emissions to air from increased traffic due to development through the Dorset Council Local Plan is considered unlikely to significantly affect the Prescombe Down SAC.

4.2.19 Furthermore, development for industrial or agricultural purposes through the Dorset Council Local Plan is considered unlikely to affect the Prescombe Downs SAC as a result of changes in air quality given its distance from the site.

BRACKETS COPPICE SAC AND ROOKSMOOR SAC

4.2.20 The Brackets Coppice SAC and Rooksmoor SAC, located in north and north-western Dorset, are characterised by purple moor-grass meadows.

4.2.21 These unimproved grassland meadows are sensitive to the deposition of atmospheric pollutants as this results in the enrichment of soils within habitats which naturally require low nutrient levels.

4.2.22 Development through the Dorset Council Local Plan has the potential to result in a likely significant effect upon the Brackets Coppice SAC and Rooksmoor SAC as a result of effects

upon air quality, for example due to increased emissions as a result of additional traffic and agricultural and industrial development.

MENDIP WOODLANDS SAC, QUANTS SAC AND PORTON DOWN SPA

4.2.23 The Mendip Woodlands SAC is a cluster of three ash-dominated woods on limestone, with a rich variety of other trees and shrubs present also, located 15km to the north of the Dorset Council Local Plan area.

4.2.24 The Quants SAC, approximately 20km to the north of the site, supports a strong population of Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia.*

4.2.25 The Porton Down SPA, approximately 21km to the northeast of the site on Salisbury Plain, supports a breeding populations of Stone Curlew *Burhinus oedicnemus*.

4.2.26 These habitats and the species which they support are sensitive to changes in air quality, for example through vehicle emissions due to an increase in population and other development which may directly result in changes in air quality, such as industrial and agricultural development.

4.2.27 However, given the distance of the Dorset Council Local Plan area from these sites, development through the Dorset Council Local Plan is considered unlikely to result in an appreciable increase in traffic within 200m of the European sites, or the atmospheric deposition of air pollutants from industrial and agricultural development.

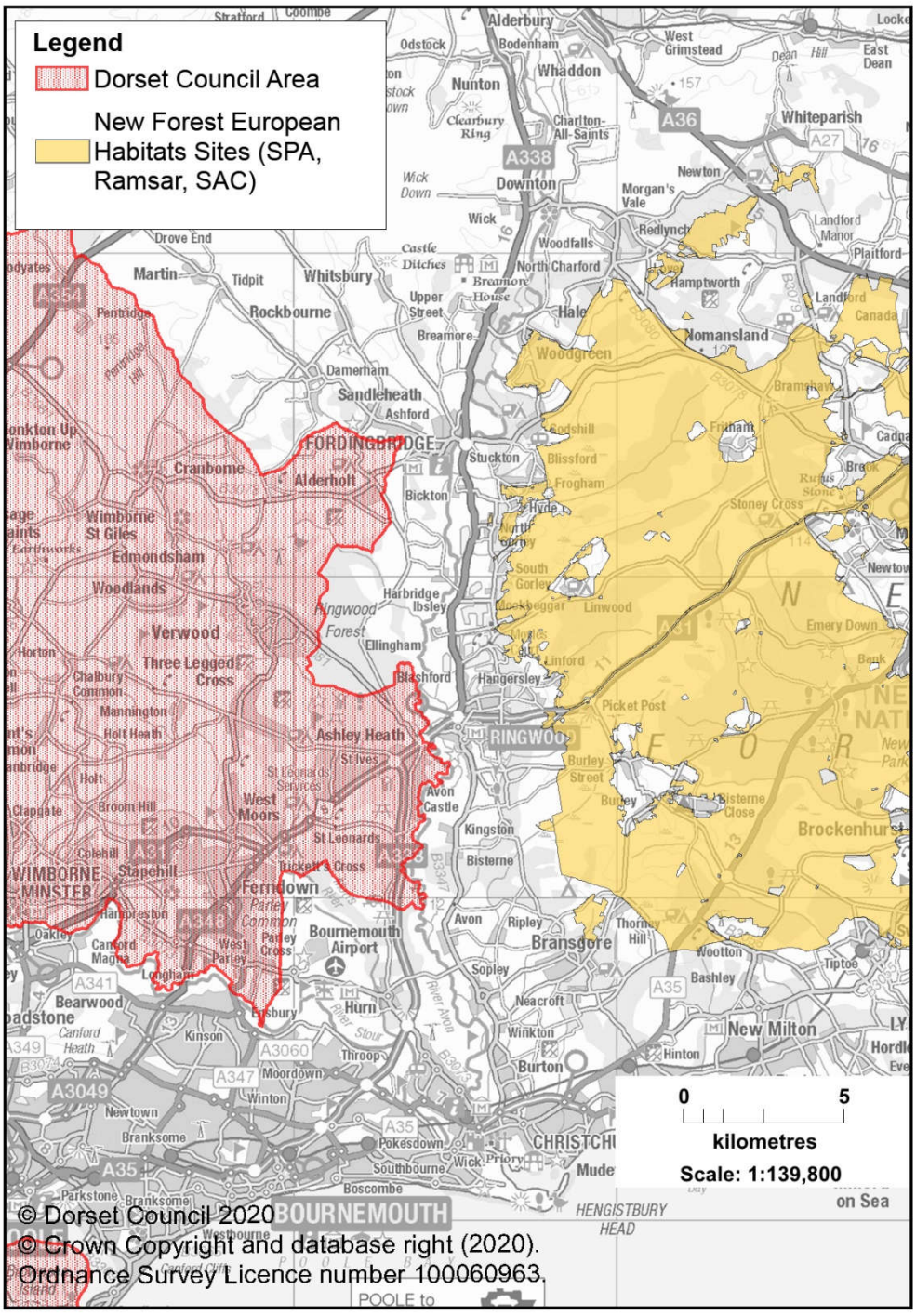
NEW FOREST SPA, SAC AND RAMSAR

4.2.28 The New Forest European site, located approximately 3km to the east of the Dorset Council Local Plan area, supports an extensive and complex mosaic of habitats including wet and dry heaths and associated bogs and mires, wet and dry grasslands, ancient pasture woodlands, ponds and a network of streams and rivers. These habitats support an exceptional variety of flora and fauna (Figure 4.10).

4.2.29 Aerial deposits of nitrogen at the New Forest European site may exceed the limit above which the quality and character of vegetation begins to be altered and adversely affected. This could potentially lead to a loss or change of habitat type which in turn will impact upon the species which are reliant on that habitat, including the populations of breeding and over-wintering birds upon which the SPA is designated.

4.2.30 Development through the Dorset Council Local Plan is unlikely to directly affect air quality at the New Forest European site, for example through industrial and agricultural development, given the distance of the plan area from the New Forest designation. However, it may result in a likely significant effect upon the New Forest European site as a result of nitrogen deposition through an increase in vehicle exhaust emissions caused by development in Dorset.

Figure 4.10: The location and extent of the New Forest European site.



DORSET HEATHLANDS SAC, SPA AND RAMSAR

4.2.31 Nitrogen deposition affects the vegetation of lowland dry heath, wet heath and mire, in particular the lower plant and lichen communities, as well as the functional aspects of the heathland habitat.

4.2.32 The effects of nitrate deposition upon the Dorset Heathlands result in 'in-combination' effects with other existing sources of nutrients such as dog related enrichment and nearby

agriculture or other activities, leading to the enrichment of soils within the heathland habitat.

4.2.33 The increase in available nutrients in the soil leads to an increase in grass dominance and, at the wetter habitats, increases vigorous purple moor grass.

4.2.34 Also, the areas of bare ground and open habitats used by SPA birds and features such as sand scrapes, which are important habitats for sand lizards, become vegetated more rapidly.

4.2.35 Other effects of the accelerated vegetation growth include an increase in fire risk, and pests and non-native invasive species are able to grow and spread more effectively.

4.2.36 Nitrogen deposition to the Dorset heathlands originates from several sources, many of which are beyond the control of the Dorset Council Local Plan, such as deposition from abroad. However, motor vehicles contribute to approximately 8% of total nitrogen deposition at the Dorset Heaths European site.

4.2.37 Additional traffic as a result of development through the Dorset Council Local Plan may contribute to additional nitrogen loading at the Dorset Heathlands.

4.2.38 Furthermore, development for other purposes, such as agriculture, may also increase nitrogen loading upon the Dorset Heathlands European site.

POOLE HARBOUR SPA AND RAMSAR

4.2.39 The aerial deposition of nitrogen contributes to the overall issue of elevated nitrogen concentrations in the Poole Harbour SPA and Ramsar which has been explored in the water quality chapter of this HRA screening report.

4.2.40 The vast majority of nitrogen deposition comes from agriculture, from much the same agricultural activities that lead to water pollution[10].

4.2.41 The atmospheric nitrogen is deposited in the Poole Harbour catchment and then conveyed to the Poole Harbour European site by water through surface drainage or via groundwater into rivers that finally flow into the harbour.

4.2.42 In addition, nitrogen deposition can have direct local effects in altering the vegetation structure of roosting and breeding sites.

4.2.43 The Dorset Council Local Plan has the potential to result in a likely significant effect as a result of an increase in nitrogen deposition across the wider catchment, for example through industrial and agricultural development, in addition to the more direct effects upon roosting and breeding sites through increased emissions more local to Poole Harbour.

CHESIL AND THE FLEET SPA AND RAMSAR

[10] Site Improvement Plan Poole Harbour, Natural England, 2014

4.2.44 The Chesil Beach and the Fleet SPA and Ramsar occupies the Fleet lagoon and immediate surroundings, which are characterised by saltmarshes and reedbeds (Figure 4.8).

4.2.45 The Site of Special Scientific Interest (SSSI) units which overlap with Chesil and the Fleet European Site is 34% in an 'unfavourable' condition, with 15% of these areas declining into an even poorer condition.

4.2.46 The unfavourable and declining condition of the designation is partly due to elevated concentrations of nutrients at the Fleet lagoon, which the Environment Agency has described as hyper-nutrified[11].

4.2.47 Natural England have noted that nitrogen deposition from air exceeds the site-relevant critical load for ecosystem protection and that air pollution could be a contributing factor to poor water quality at the Fleet.

4.2.48 Development through the Dorset Council Local Plan could contribute to additional nitrogen loading, through increase in traffic and additional agricultural and industrial development, leading to a likely significant effect upon the Chesil and the Fleet European site.

4.3. PUBLIC ACCESS, DISTURBANCE AND OTHER HUMAN INTRUSION

4.3.1 Access to the natural environment helps to reconnect people with nature, and enables public enjoyment and appreciation of the natural environment to support healthy lifestyles and the economy.

4.3.2 Although public access to European sites can occur without adverse effects upon habitats and species, there are instances where public access and the resulting human intrusion may result in disturbance to a European site.

4.3.3 Disturbance occurs where human activity influences a habitat or the population of species which it supports.

4.3.4 Disturbance can result in a physical effect upon a habitat, for example by causing damage through erosion or trampling, or indirect effects through changes in management due to human intrusion.

4.3.5 In terms of the effects upon species, disturbance may affect an animal's behaviour, affecting its distribution, breeding success and health, and ultimately its survival.

4.3.6 The conflict between public access and the conservation of a European site is complex and understanding the potential issues is challenging.

4.3.7 The issue of public access and disturbance is intrinsically linked to the pressures upon European sites from sport, leisure and recreational activities which are considered later in this chapter.

[11] Environment Agency Datasheet: Nitrate vulnerable zone (NVZ) designation 2017 – Eutrophic Waters (Estuaries and Coastal Waters); June 2016.

4.3.8 The European sites which are sensitive to disturbance as a result of public access include the Poole Harbour SPA, Chesil and the Fleet SPA, Solent and Dorset Coast SPA, and Dorset Heathlands SPA, which support internationally important populations of bird species, and the Mells Valley SAC and Beer Quarry and Caves SAC which support bats.

4.3.9 Public access and disturbance also poses a potential threat to the coastal habitat at the Sidmouth to West Bay SAC, the woodland habitat at Mendip Woodlands SAC and the marine habitat at the Studland to Portland SAC.

POOLE HARBOUR SPA

4.3.10 The Poole Harbour SPA supports internationally important overwintering populations of shelduck *Tadorna tadorna*, pied avocet *Recurvirostra avosetta*, Icelandic-race black-tailed godwit *Limosa limosa islandica* and an overwintering assemblage of waterbirds. It was also classified for its internationally important breeding populations of Mediterranean gull *Larus melanocephalus*, common tern *Sterna hirundo* and Sandwich tern *Sterna sandvicensis.*

4.3.11 Studies show that public access in and around the harbour, and various forms of recreational activities, including sailing, walking, dogs and bait digging along the shoreline, can disturb the SPA birds in the harbour.

4.3.12 Disturbance can result in:

- a reduction in the time spent feeding due to repeated flushing/increased vigilance;
- increased energetic costs;
- avoidance of areas of otherwise suitable habitat, potentially using poorer quality feeding/roosting sites instead;
- increased stress; and
- reduced fitness and breeding success.

4.3.13 Visitor surveys have been undertaken to determine where people visiting the Poole harbour SPA are likely to travel from.

4.3.14 Studies show a link between proximity of peoples' homes to the harbour and the frequency of visits, with people who live closer to the harbour visiting it more frequently to participate in recreational activities.

4.3.15 However, there are also a proportion of visitors from other parts of Dorset, as well as other parts of the UK and internationally, because of the natural attractiveness of the harbour.

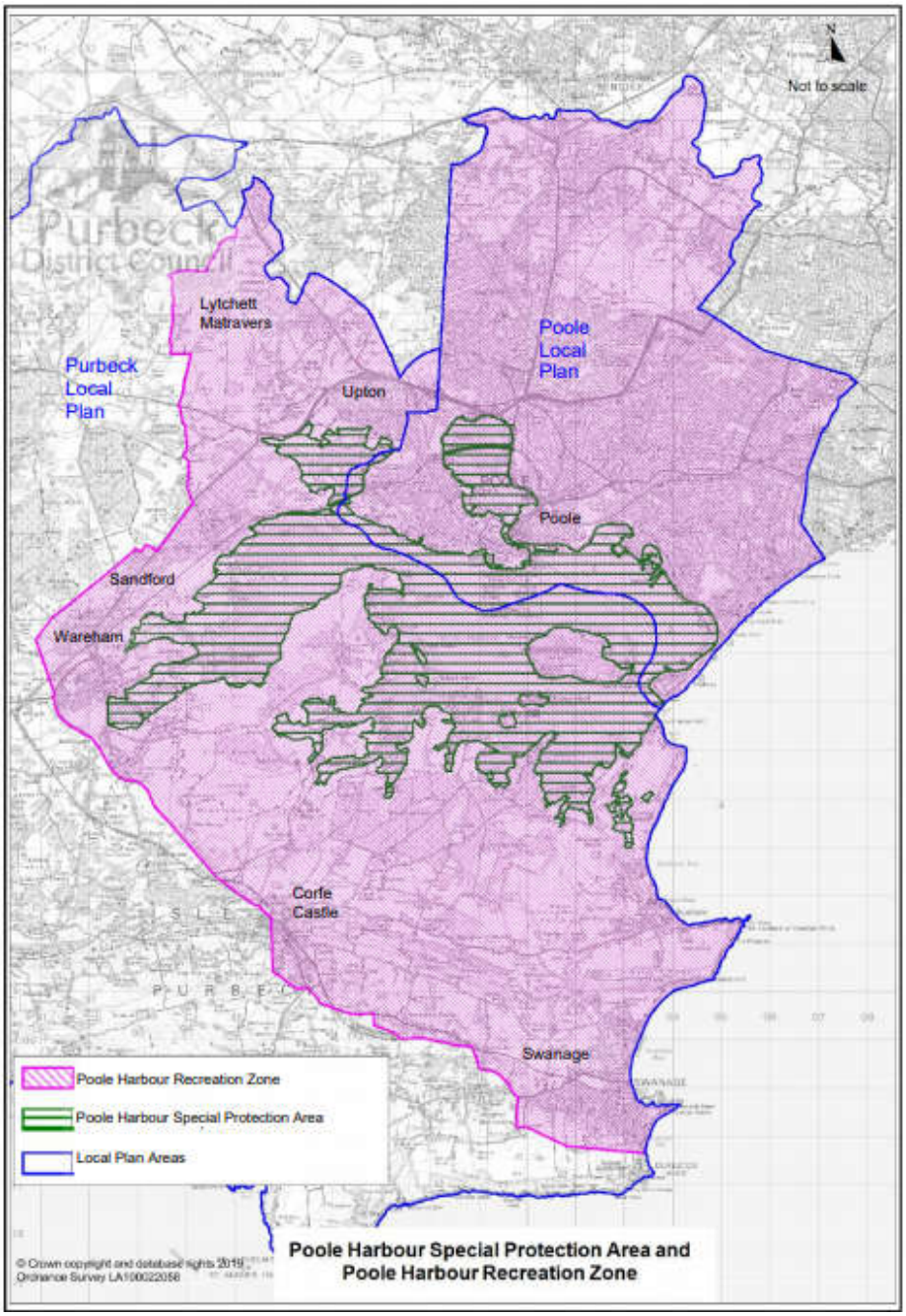
4.3.16 This draw is probably due to the uniqueness of the features in the harbour close to their homes and the lack of a comparable area in south east Dorset for certain recreational activities such as watersports.

4.3.17 Within the Dorset Council Local Plan, 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, including Swanage, Corfe Castle, Stoborough, Wareham, Lytchett Matravers and Upton.

4.3.18 The Supplementary Planning Document (SPD) titled Poole Harbour Recreation 2019-2024 sets out a strategy for mitigating the impact of new housing upon Poole the Harbour SPA.

4.3.19 The report establishes the Poole Harbour Recreation Zone (Figure 4.11) where, based on the visitor survey information, new residential and tourist development will have a likely significant effect upon the SPA.

Figure 4.11: The location and extent of Poole Harbour Recreation zone



4.3.20 On the basis of the evidence, further residential development in those areas surrounding the harbour has the potential to result in an increase in population around the harbour and tourism development would increase the number of visitors.

4.3.21 This will cause greater disturbance to the birds and their habitat and result in a likely significant effect on the Poole Harbour SPA.

CHESIL BEACH AND THE FLEET SPA AND RAMSAR

4.3.22 The Supplementary Advice for Conservation Objectives (SACO) for the Chesil Beach and the Fleet SPA, published by Natural England in 2019[12], identified significant concerns regarding recreational pressures upon the SPA (and Ramsar) bird species, in particular Little Tern.

4.3.23 Disturbance to breeding Little Terns and wintering Wigeon (SPA) is associated with walkers, dogs, anglers, wildlife watchers, joggers, kayaking, low flying aircraft and recreational watercraft users.

4.3.24 Further residential development through the Dorset Council Local Plan in those areas surrounding the Chesil and the Fleet SPA would result in an increase in local population, and may lead to an increase in disturbance to birds. This is likely to result in a significant effect on the Chesil and the Fleet SPA.

4.3.25 The issue of disturbance to SPA bird species is intrinsically linked to the wider issue of recreational pressure at the Chesil and the Fleet European site which is considered in the section titled 'outdoor sports and leisure activities, recreational activities' later in this chapter.

SOLENT AND DORSET COAST SPA

4.3.26 The purpose of the Solent and Dorset Coast SPA (Figure 4.7) is to protect important foraging areas at sea used by colonies of common tern, Sandwich tern and little tern within adjacent SPAs. This includes the Poole Harbour SPA, which supports common tern and Sandwich tern, and the Solent and Southampton Water SPA, which supports common, Sandwich and little tern.

4.3.27 Many human activities may cause disturbance to birds. In the Solent, which occupies the majority of the SAC, disturbance results from activities including walking; bird watching; boating; kayaking; kite surfing; hang gliding; paramotors; jet skis; wildfowling; model helicopters/aircraft; boat mooring, and Hovercraft have been shown to cause disturbance to birds[13].

4.3.28 Development through the Dorset Council Local Plan has the potential to result in an increase in activities which may result in disturbance to foraging terns and a likely significant effect upon the Solent and Dorset Coast European site.

DORSET HEATHLANDS SPA

4.3.29 The Dorset Heathlands SPA supports populations of Dartford Warbler *Sylvia undata*, Nightjar *Caprimulgus europaeus* and Woodlark *Lullula arborea* during the breeding season and Hen Harrier *Circus cyaneus* and Merlin *Falco columbarius* over winter.

[12] SACO for Chesil and the Fleet may be viewed here, at the time of writing: https://designatedsites.naturalengland.org.uk/Marine/SupAdvice.aspx?SiteCode=UK9010091&SiteName=&SiteNameDisplay=Chesil+Beach+and+The+Fleet+SPA&countyCode=&responsiblePerson=&SeaArea=&IFCAArea=&NumMarineSeasonality=2

[13] Site Improvement Plan Solent, Natural England (2014)

4.3.30 Public access and disturbance to breeding SPA birds, mostly by dogs, can affect their breeding success. This may have implications upon the populations of nightjar and woodlark in particular.

4.3.31 Other effects as a result of access and disturbance include predation by domestic cats and urban foxes and the illicit use of heaths for motorcycle scrambling. However motorcycle use on heathlands has generally declined relative to previous levels in response to site wardening and alternative facilities being made available.

4.3.32 Further residential development through the Dorset Council Local Plan in those areas surrounding the Dorset Heaths would result in an increase in population, leading to an increase in disturbance to birds. This is likely to result in a significant effect on the Dorset Heaths SPA.

4.3.33 The issue of public access and disturbance is intrinsically linked to that of recreational pressure upon the Dorset Heaths which is considered in the section titled 'outdoor sports and leisure activities, recreational activities' later in this chapter.

SIDMOUTH TO WEST BAY SAC

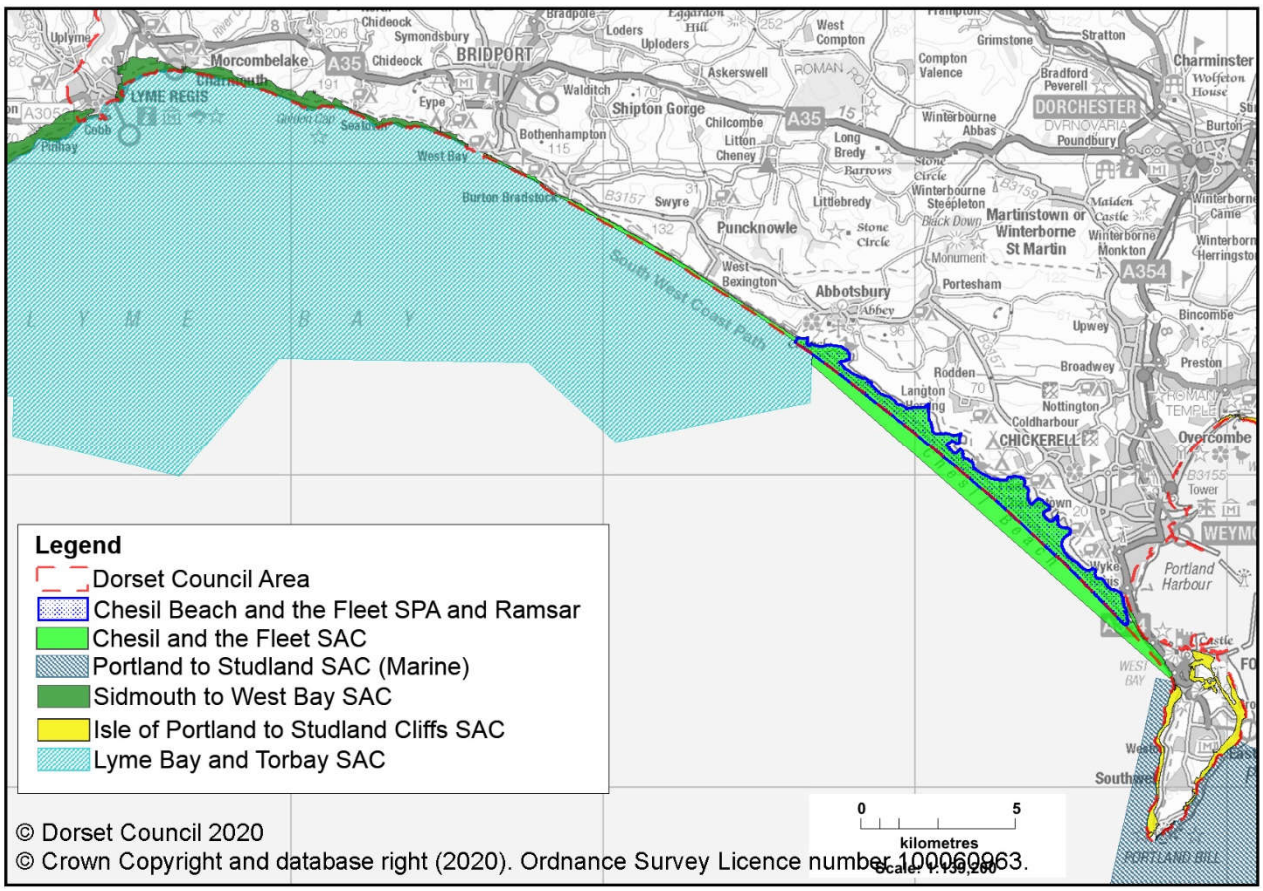
4.3.34 The Sidmouth to West Bay SAC, located in the coastal areas on the western side of the plan area, is represented by highly unstable soft cliff coastline which support a mosaic of woodland, mixed scrub, grassland and pioneer communities (Figure 4.12).

4.3.35 The vegetation communities for which the Sidmouth to West Bay SAC is designated occur on unstable soft cliffs and landslips.

4.3.36 Disturbance is considered unlikely to result in a likely significant effect upon the Sidmouth to West Bay SAC as the interest features relate to vegetation on the unstable soft cliffs and landslips, where access is very difficult.

4.3.37 Furthermore, given the dynamic nature of these habitats, a degree of additional trampling as a result of an increase in footfall from new development is considered unlikely to result in a likely significant effect upon the qualifying features.

Figure 4.12: The location and extent of the European sites in coastal areas towards the west of the plan area.



BEER QUARRY AND CAVES SAC

4.3.38 The Beer Quarry and Caves SAC, located approximately 12km to the west of the Dorset Council Local Plan area, is divided by a road, with a working quarry to the north and a disused quarry and cave system to the south. This site supports important populations of hibernating bats, including the Bechstein's bat *Myotis bechsteinii* which is the primary reason for its designation as an SAC.

4.3.39 The disused quarry and cave system to the south of the road are open to the public as a tourist attraction. Whilst it is possible that the caves will attract some local visitors, tourists are likely to be the main source of visitors.

4.3.40 Whilst the areas to the north of the road are largely secure, with controlled access, there have been incidences of unauthorised access due to lack of suitable barriers at the cave entrances. Large parties and raves have been known to occur at the site. Improved barriers and fencing are required to address the issues with trespassing. Given the distance of the plan area from the site, it is considered unlikely that development through the Dorset Council Local Plan will result in a significant increase in incidences of unauthorised access leading to distance.

MELLS VALLEY SAC

4.3.41 The Mells Valley SAC lies at the eastern end of the Mendip Hills in Somerset, approximately 20km to the north of the Dorset Council Local Plan area.

4.3.42 The primary interest of the site is the maternity roost of Greater Horseshoe Bats *Rhinolophus ferrumequinum* located in the Old Ironstone Works. The bats also inhabit the caves, which are used as a hibernation site by some of the bats from the maternity roost. There is also an area of limestone grassland at the site.

4.3.43 The Old Ironstone Works is regularly accessed by the public, resulting in disturbance to the bat species. The caves are not open to the public, but unauthorised access and trespass vandalism (including arson) may result in disturbance.

4.3.44 Given the distance of the plan area from the site, it is considered unlikely that new development through the Dorset Council Local Plan would result in an appreciable increase in the number of people visiting the site. Therefore it is considered unlikely that additional disturbance would result from the Dorset Council Local Plan.

MENDIP WOODLANDS SAC

4.3.45 The Mendip Woodlands SAC comprises four individual woods located on the southern slope of the Mendip Hills in Somerset, approximately 15km to the north of the Dorset Council Local Plan area.

4.3.46 One of these woods is Asham Wood, which lies in the east of Mendip. Asham Wood is dominated by Ash and is characterised by limestones gorges and permanent streams.

4.3.47 Asham wood has a history of trespass by off road vehicles. This has resulted in serious damage to parts of the woodland.

4.3.48 In light of the distance of the Dorset Council Local Plan area from the woods, it is considered unlikely that development through the Dorset Council Local Plan will result in an appreciable increase in the number of people illicitly using the site for leisure and recreation. Therefore, it is considered unlikely that further harm to the woodland SAC will result from the Dorset Council Local Plan.

4.4. SPORT, LEISURE AND RECREATIONAL ACTIVITIES

4.4.1 Many of the European Sites within Dorset and its surrounding areas offer an attractive natural environment for sport, leisure and recreation.

4.4.2 Hiking, dog walking, and cycling are popular pastimes, particularly on the European sites which occupy the Dorset coastline, Dorset Heathlands and the New Forest. The coastal and marine areas also provide an environment for climbing and water sports.

4.4.3 Visitor numbers to the countryside in England are increasing[14]. This may be due to the rising population, increase in amount of available leisure time as a result in the change is

[14] Monitor of Engagement with the Natural Environment Survey (MENE) (Natural England, 2015)

social conditions (such as greater leave entitlement) and greater accessibility as a result of more private vehicle ownership and improved transport infrastructure.

4.4.4 A wide variety of activities may generate a pressure or threat to a European site. For example, walking, running or cycling may lead to soil compaction, trampling and erosion and lead to the harassment and disturbance to species such as bird or bats. Dog walking and fouling may result in soil enrichment, with adverse effects upon habitats which naturally require low nutrient levels. Water sports, such as kayaking and jet skiing, may cause disturbance to bird species.

4.4.5 The pressures upon European sites for sport, leisure and recreation and the issue of public access and disturbance, considered earlier in this chapter, are intrinsically linked.

4.4.6 The European sites which are at threat from sports, leisure and recreation include the coastal SAC within the plan area and coastal and marine areas at the Solent to the east.

4.4.7 Sports, leisure and recreational activities may also affect the New Forest SAC, Dorset Heathlands SAC and the chalk grasslands to the north of the plan area at the Cerne and Sydling Downs SAC and Fontmell and Melbury Downs SAC, in addition to the Mells Valley SAC and Chilmark Quarries SAC which support bats.

ISLE OF PORTLAND TO STUDLAND CLIFFS SAC AND ST ALBANS HEAD TO DURLSTON HEAD SAC

4.4.8 The Isle of Portland to Studland Cliffs SAC and St Albans Head to Durlston Head SAC together form a single unit of cliffed coastline some 40 km in length, including the detached peninsula of Portland at its western end and Durlston Head towards its eastern boundary (Figure 4.13).

4.4.9 The cliffs are formed of hard limestones, and also chalk at the eastern end of the designation, interspersed with slumped sections of soft cliff comprising sand and clays.

4.4.10 The cliffs support species-rich calcareous grassland with species that are rare in the UK. The site also includes semi-natural dry grassland both inland and in coastal situations on both chalk and Jurassic limestone.

4.4.11 The use of the coast path for recreational activities, such as walking and jogging, may result in trampling and erosion of the SAC habitat.

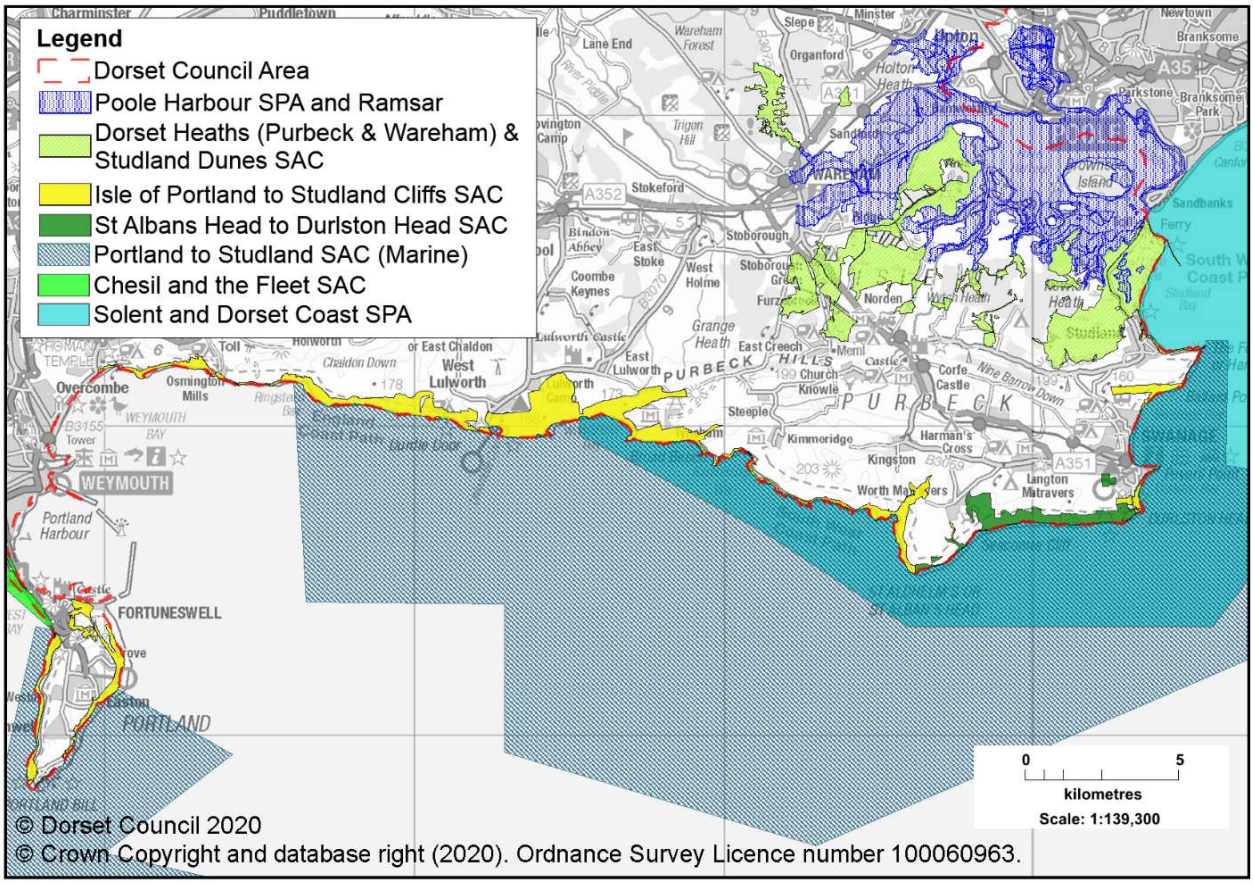
4.4.12 Furthermore, marine-based activities such as coasteering and climbing may be a threat to cliff, cave and beach habitats.

4.4.13 Another localised problem may be nutrient enrichment where paths and tracks are heavily used by walkers and dogs. Evidence suggests a shift from calcareous to neutral grassland in some locations where the calcareous grassland with early spider orchid and the endemic early gentian *Gentianella anglica* are present[15].

[15] Site Improvement Plan Portland-Studland & St Albans-Durlston, Natural England (2014)

4.4.14 Development through the Dorset Council Local Plan may result in an increase in the number of visitors to these coastal SAC, resulting in likely significant effect.

Figure 4.13: The location and extent of the European sites in coastal areas towards the east of the plan area.



CHESIL AND THE FLEET SAC AND CHESIL BEACH AND THE FLEET RAMSAR

4.4.15 Evidence suggests that there is an unacceptable level of existing recreational pressure at Chesil Beach and the Fleet which is likely to be compromising the integrity of the SAC site features[16].

4.4.16 These pressures include trampling of shingle vegetation and salt marsh areas by walkers and anglers as well as illegal quad bike and 4WD vehicle access.

4.4.17 Further residential development through the Dorset Council Local Plan in those areas surrounding the Chesil and the Fleet SAC would result in an increase in local population, causing an increase in recreational pressure and a likely significant effect upon the Chesil and the Fleet SAC and Ramsar.

[16] 'Chesil Beach 2019 Recreational Activity Strategy', Footprint Ecology (2019) (ref: 549)

SOLENT AND SOUTHAMPTON WATER SPA AND SOLENT MARITIME SAC

4.4.18 The Solent Maritime SAC and Solent and Southampton Water SPA, both located approximately 17km to the east of the Dorset Council Local Plan area, is a major estuarine system with a range of marine and estuarine habitats present which support nationally and internationally important numbers of migratory and over-wintering waders and waterfowl and breeding gull and tern populations (Figure 4.7).

4.4.19 Many human activities in the area can disturb the SPA bird species. Such activities include walking; dog walking; bird watching; boating; kayaking; kite surfing; hang gliding; paramotors; jet skis; wildfowling; model helicopters and aircraft; boat mooring, and Hovercraft.

4.4.20 Recreational activities can also affect the SAC habitat, including the annual vegetation of drift lines.

4.4.21 Given the distance of the Solent and Southampton Water SPA and Solent Maritime SAC from the Dorset Council Local Plan area, and the presence of coastal areas suitable for recreational activities that are more accessible from the Dorset Council Local Plan, it is considered unlikely that the plan will result in a significant effect upon these European sites.

NEW FOREST SPA, SAC AND RAMSAR

4.4.22 The New Forest SAC, SPA and Ramsar supports an extensive and complex mosaic of habitats including wet and dry heaths and associated bogs and mires, wet and dry grasslands, ancient pasture woodlands, frequent permanent and temporary ponds and a network of streams and rivers.

4.4.23 These habitats support an exceptional variety of flora and fauna including internationally important populations of breeding and over-wintering birds and other notable species such as southern damselfly, stag beetle and great crested newt.

4.4.24 As one of the largest remaining relatively wild areas in the South of England, the New Forest attracts high numbers of visitors annually.

4.4.25 Studies indicate that nightjar, woodlark and Dartford warbler densities are notably low and potentially declining further, and suggest that damage is occurring to the SAC features[17].

4.4.26 It is believed that the high footfall may be affecting the breeding success of SPA birds and resulting in adverse effects upon the SAC and Ramsar habitats through impacts including[18]:

- Disturbance to birds: leading to avoidance of breeding habitat, physiological impacts, and reduced breeding success;

[17] Site Improvement Plan New Forest, Natural England (2014)
[18] Recreation Use of the New Forest SAC/SPA/Ramsar: Impacts of Recreation and Potential Mitigation Approaches (Ref: 499); Footprint Ecology (2019).

- Fire: resulting in direct mortality, removal of breeding habitat, and long term changes to vegetation structure;
- Contamination: litter; nutrient enrichment through dog fouling; pollution from dogs entering water courses; greywater from campervans; and
- Trampling/wear: soil compaction, erosion, direct damage to breeding or wintering sites, expansion of path networks, churning up sediment in water bodies.

4.4.27 Development through the Dorset Council Local Plan would occur at least 3km from the New Forest European Site (Figure 4.10).

4.4.28 There is the potential for development through the Dorset Council Local Plan to contribute to additional recreational pressure upon the New Forest European Site which would lead to a likely significant effect.

DORSET HEATHS SAC AND DORSET HEATHS (PURBECK AND WAREHAM) AND STUDLAND DUNES SAC

4.4.29 Evidence shows that the Dorset Heaths are under significant pressure from an increasing number of people living nearby. As population grows, the impacts from human pressures and damage caused by domestic pets have the potential to cause adverse effects upon the protected habitats and species.

4.4.30 The main effects upon the Dorset Heaths as a result of development in close proximity to the Dorset Heaths include the following:

- Loss of supporting habitats: decrease in the semi-natural habitat adjoining heaths which provide functional support;
- Predation: Fox, cat/rat predation on ground nesting birds and reptiles;
- Enrichment: results in vegetation changes particularly alongside paths due to dog excrement and from rubbish and garden waste dumping by roads and from gardens. Also as a result of vehicles in transport corridor;
- Roads: Increased fire risk from car thrown cigarettes, roads forming barriers to species mobility, road kills increasing mortality rates, and noise and light pollution from traffic;
- Service infrastructures, both over and under heathland, causing disturbance and providing poles which act as look-out posts for bird predators;
- Disturbance: May cause changes in breeding bird and animal distributions within and across sites, reduction in breeding success of birds/animals, and delayed breeding in SPA birds;
- Trampling: Results in changes to vegetation, creation of bare areas and subsequent soil erosion, damage to bare ground reptile and invertebrate habitats and populations, increases in path and track networks;
- Fire: May increase frequency of fires particularly in spring and summer, causing long term vegetation changes, increased mortality of heathland animals/birds, fragmentation/reduction of habitat on heaths; and

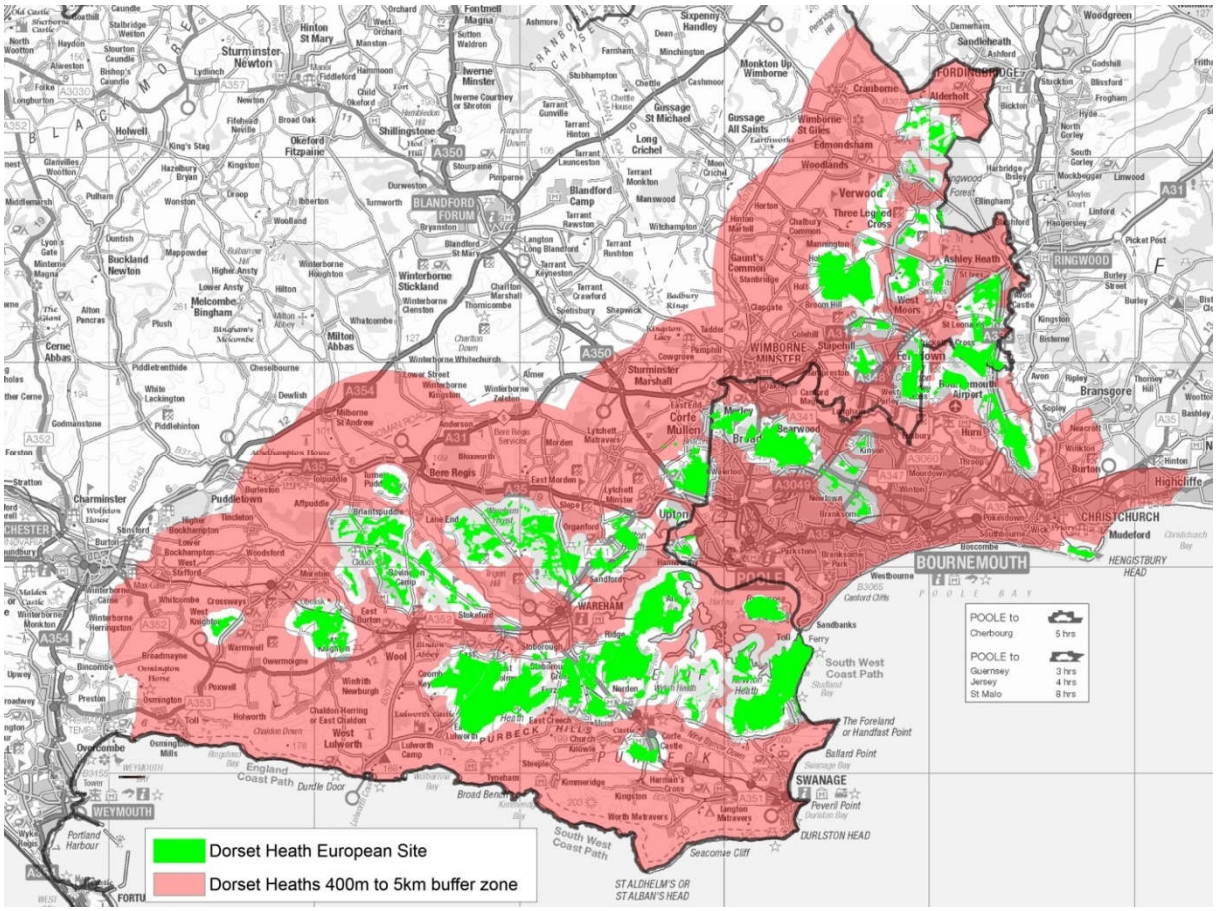
- Difficulties in heathland management: vandalism of signs and fences, opposition to management techniques such as tree felling, fencing and grazing, increased cost of heathland management.

4.4.31 The Dorset Heathlands Planning Framework 2020-25, which sets out a strategy for the avoidance and mitigation of impacts of new residential development upon the Dorset Heathlands, shows that these impacts are most marked for developments within 400m of heathland sites. Any residential development in this area would result in a negative effect upon the Dorset designated site (Figure 4.14).

4.4.32 In the area between 400m and up to 5km from a heathland site ("5km buffer zone"), the effect of development is less marked but still likely to be significant if mitigation is not delivered.

4.4.33 Given this evidence, development through the Dorset Council Local Plan in those areas surrounding the Dorset Heaths would result in an increase in population. This is likely to lead to an increase in recreational pressure upon the heath, resulting in a likely significant effect.

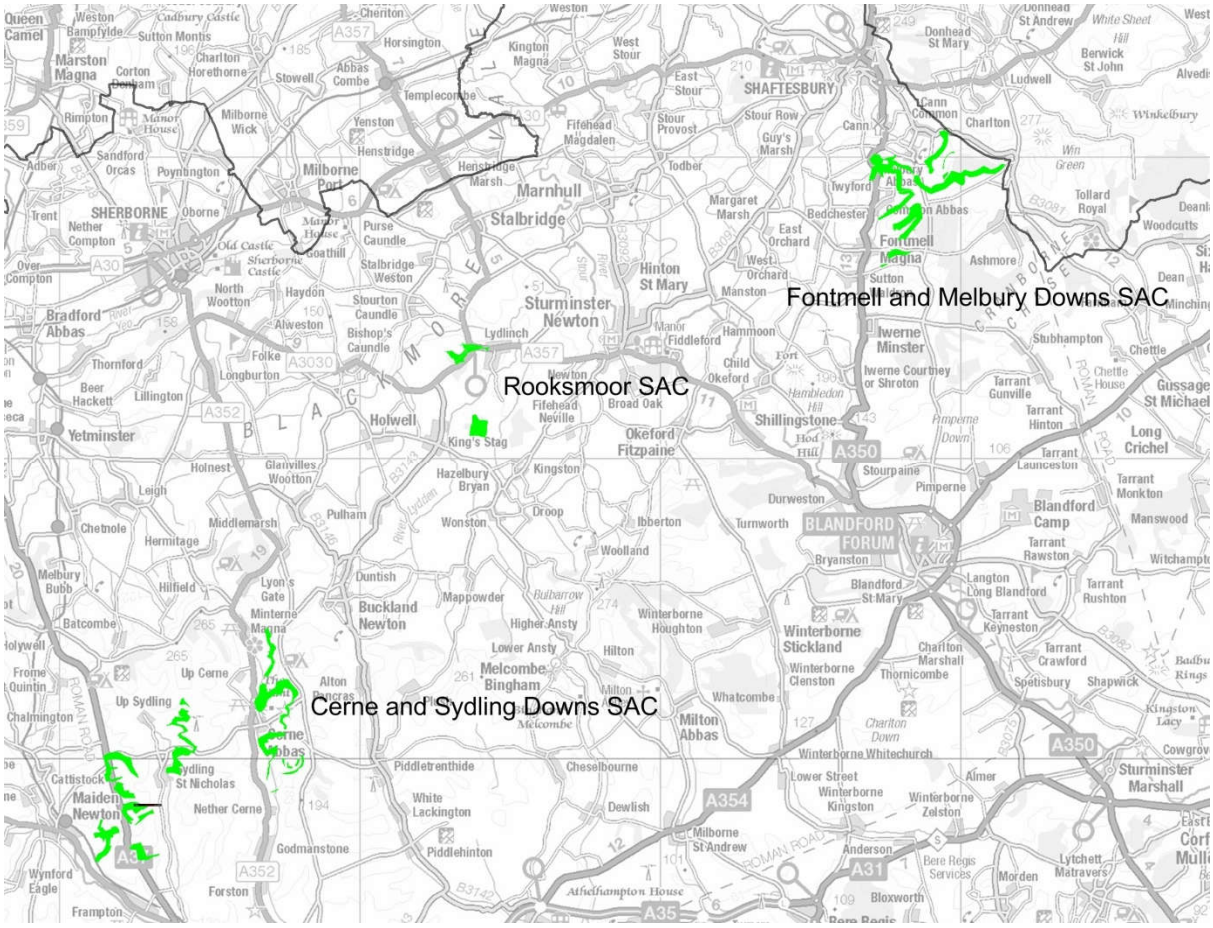
Figure 4.14: The location and extent of the Dorset Heaths buffer zones.



FONTMELL & MELBURY DOWNS SAC AND CERNE AND SYDLING DOWNS SAC.

4.4.34 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 4.15).

Figure 4.15: The location and extent of the Fontmell & Melbury Downs SAC, Cerne and Sydling Downs SAC, and Rooksmoor SAC.



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2019. Ordnance Survey Licence number 0100060963.

4.4.35 These chalk grassland habitats are sensitive to recreational pressure. This may result from trampling and erosion by walking or cycling, especially in those parts that are steep and with thin soils and those areas near to access points, where pressures are more concentrated, are particularly vulnerable. The addition of nutrients from dog faeces is also a threat, as this results in an input of nutrients into the soil and chalk grassland habitats are necessarily naturally low in nutrients.

4.4.36 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.

4.4.37 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.

4.4.38 Further residential development through the Dorset Council Local Plan, in those areas surrounding these grassland habitats, have the potential to result in an increase in population and a resulting increase in recreational pressure. This may cause a likely significant effect upon the Fontmell & Melbury Downs SAC and Cerne and Sydling Downs SAC.

THE MELLS VALLEY SAC

4.4.39 The primary interest of the Mells Valley SAC, approximately 20km to the north of the Dorset Council Local Plan area, is the maternity roost of Greater Horseshoe Bats *Rhinolophus Ferrumequinum.* The SAC also includes an area of limestone grassland on the St Dunstan's Well Catchment site.

4.4.40 As mentioned in the public access, disturbance and other human intrusion section, the Old Ironstone Works and caves are regularly accessed by the public, resulting in disturbance to the bat species.

4.4.41 In addition, the limestone grassland may be sensitive to recreational pressure, for example due to trampling and erosion by walking or cycling and the addition of nutrients from dog faeces.

4.4.42 Given the distance of the plan area from the Mells Valley SAC, it is considered unlikely that development through the Dorset Council Local Plan will result in an appreciable increase in the number of people visiting the site. Therefore, it is considered unlikely that a significant increase in recreational pressure would result at the Mells Valley SAC from the Dorset Council Local Plan.

CHILMARK QUARRIES SAC

4.4.43 The Chilmark Quarries SAC is a complex of abandoned mines approximately 11km to the north of the Plan Area which is a hibernation site for a range of bat species.

4.4.44 Unprotected mine entrances on the site and damage to or the removal of bat grilles on entrances to follies at Fonthill Grottoes are enabling unauthorised access which has the potential to cause direct and indirect harm to bats.

4.4.45 Considering the distance of this site from the Dorset plan area, it is unlikely that development through the Dorset Council Local Plan will result in a substantial increase in visitors to the quarries.

4.5. URBANISATION AND INDUSTRIAL ACTIVITIES

CHILMARK QUARRIES SAC AND BEER QUARRY AND CAVES SAC

4.5.1 The Chilmark Quarries SAC and Beer Quarry and Caves SAC, approximately 11km to the north and 12km to the west of the Dorset Council Local Plan area respectively, are both characterised by a complex of abandoned mines with a long history of usage by bat species. These SAC support a nationally important assemblage of bats and are regularly used as a hibernation site.

4.5.2 Urbanisation has the potential to result in the loss of habitat for the foraging and commuting of bats.

4.5.3 The Government's guidance on bat surveys and mitigation for development projects which may affect bats refers to the Bat Conservation Trust's guidance[19], which defines Core Sustenance Zones (CSZ) for each bat species. The CSZ is the area surrounding a bat roost within which habitat availability and quality will have a significant influence on the conservation status of the colony. Development within the CSZ may impact upon the commuting and foraging habitats of the bats within the roost. The guidance recommends that development should result in no net reduction in the quality and availability of foraging habitat for the colony.

4.5.4 The CSZ for the species which are the qualifying features for the Chilmark Quarries SAC and Beer Quarry and Caves SAC are presented in Figure 4.16.

Figure 4.16: A table showing the Core Sustenance Zones (CSZ) for bat species found at the Chilmark Quarries SAC and Beer Quarry and Caves SAC

Bat species	CSZ radius (km)
Greater horseshoe bats *Rhinolophus ferrumequinum*	3
Barbastelle *Barbastella barbastellus**	6
Bechstein's bat *Myotis bechsteinii*	3
Lesser horseshoe bat *Rhinolophus hipposideros*	3

* Species found at the Chilmark Quarries SAC only

4.5.5 Urbanisation through the Dorset Council Local Plan would occur at least 11km from the Chilmark Quarries SAC and at least 12km from Beer Quarry and Caves SA, significantly outside the CSZ of the roosts. It is therefore considered unlikely that the Dorset Council Local Plan will adversely affect the Chilmark Quarries SAC and Beer Quarry and Caves SAC through the effects of urbanisation.

SIDMOUTH TO WEST BAY SAC

4.5.6 The Sidmouth to West Bay SAC is represented by highly unstable soft cliff coastline which support a mosaic of woodland, mixed scrub, grassland and pioneer communities (Figure 4.12).

4.5.7 Natural England have identified problems surrounding existing development, such as caravan parks, chalets and beach huts, which lead to the interruption of the natural cliff movement processes[20]. These natural processes are required to support the qualifying features of the European site.

[19] 'Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition', Bat Conservation Trust, 2015

[20] Site Improvement Plan Sidmouth to West Bay, Natural England, 2015

4.5.8 Urbanisation through the Dorset Council Local Plan has the potential to interfere with natural cliff processes and affect the integrity of the Sidmouth to West Bay SAC.

4.6. HABITAT FRAGMENTATION

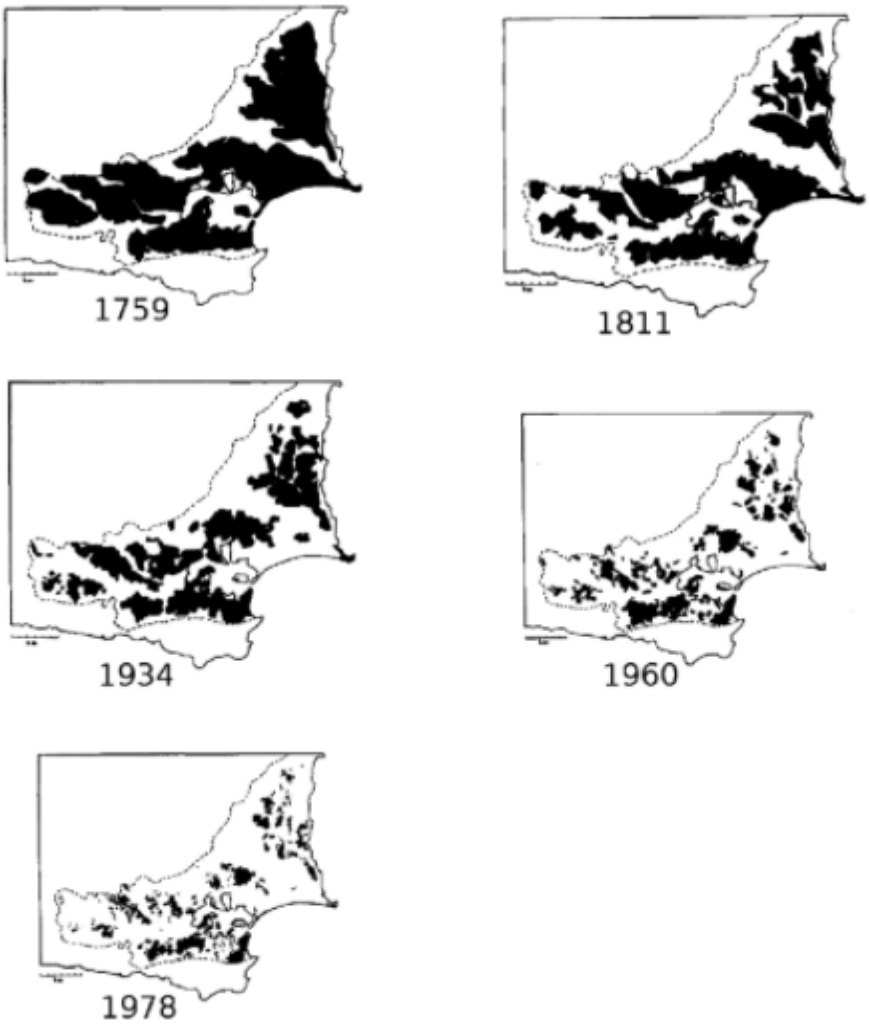
4.6.1 Habitat fragmentation occurs when a large area of habitat is split into smaller areas, resulting in populations becoming isolated and the overall area of the habitat being reduced.

4.6.2 Habitat fragmentation may occur as a result of development, for example housing or infrastructure such as roads, dividing a habitat into smaller parcels of land in addition to resulting in habitat loss.

4.6.3 In the mid-18th century, the Dorset Heathlands occupied an area of approximately 36,000ha in Southeast Dorset.

4.6.4 Over time the extent of the Dorset Heathlands reduced, largely as a result of agriculture, forestry and urban development (Figure 4.17).

Figure 4.17: A map showing the habitat loss and fragmentation of the Dorset Heathlands between 1759 and 1979 (taken from Webb and Haskins (1980))



4.6.5 In 1996, the coverage of the Dorset Heathlands had dramatically reduced to approximately 7,373ha (Webb and others, 2000).

4.6.6 By 2019, the coverage of the Dorset Heathlands had dramatically reduced to approximately 6,199ha[21], representing a loss of around 83% of heathland habitat.

4.6.7 In addition to the loss of habitat, the Dorset Heathlands has become fragmented. In 1979, the Dorset Heathland existed in 768 separate parcels, 88% of which were less than 10ha (Webb & Haskins 1980).

4.6.8 Fragmentation of the Dorset Heathlands may reduce the suitability of the remaining habitat and cause them to be more susceptible to recreational pressure and the effects of wildfires and arson.

4.6.9 Studies have recorded negative responses to fragmentation (isolation and area of a heath) for the species including the Dartford Warbler *Sylvia undata*, a qualifying feature for the Dorset Heathlands SPA[22].

4.6.10 Bullock and Webb (1995) also suggested that Dartford warblers avoid smaller and more isolated heath patches.

4.6.11 In recent years, the loss and fragmentation of the Dorset Heaths has almost halted through changes in national and local policy.

4.6.12 However, there is the potential for development through the Dorset Council Local Plan to contribute to the issue of habitat fragmentation and result in a likely significant effect upon the Dorset Heathlands SPA. This pathway will therefore be explored further through the Appropriate Assessment stage.

4.7. COASTAL SQUEEZE

4.7.1 Coastal squeeze occurs when sea level rise causes coastal habitats to move landwards towards a static boundary, such as a settlement or coastal defences, resulting in the habitat becoming squeezed into an increasingly small area.

4.7.2 Poole Harbour is a large natural harbour comprising extensive tidal mudflats, seagrass beds and saltmarsh, together with associated reedbed, freshwater marsh and wet grassland habitats.

4.7.3 The extensive intertidal mudflats provide an important feeding habitat for overwintering waterbirds, while the saltmarsh and reedbed habitats which fringe landward side of the designation provide roosting areas and feeding habitat for a variety of bird species.

[21] According to data provided by the Dorset Environmental Records Centre

[22] "Territory selection by the Dartford Warbler (Sylvia undata) in Dorset, England: the role of vegetation type, habitat fragmentation and population size", Biological Conservation 101(2):217-228, October 2001.

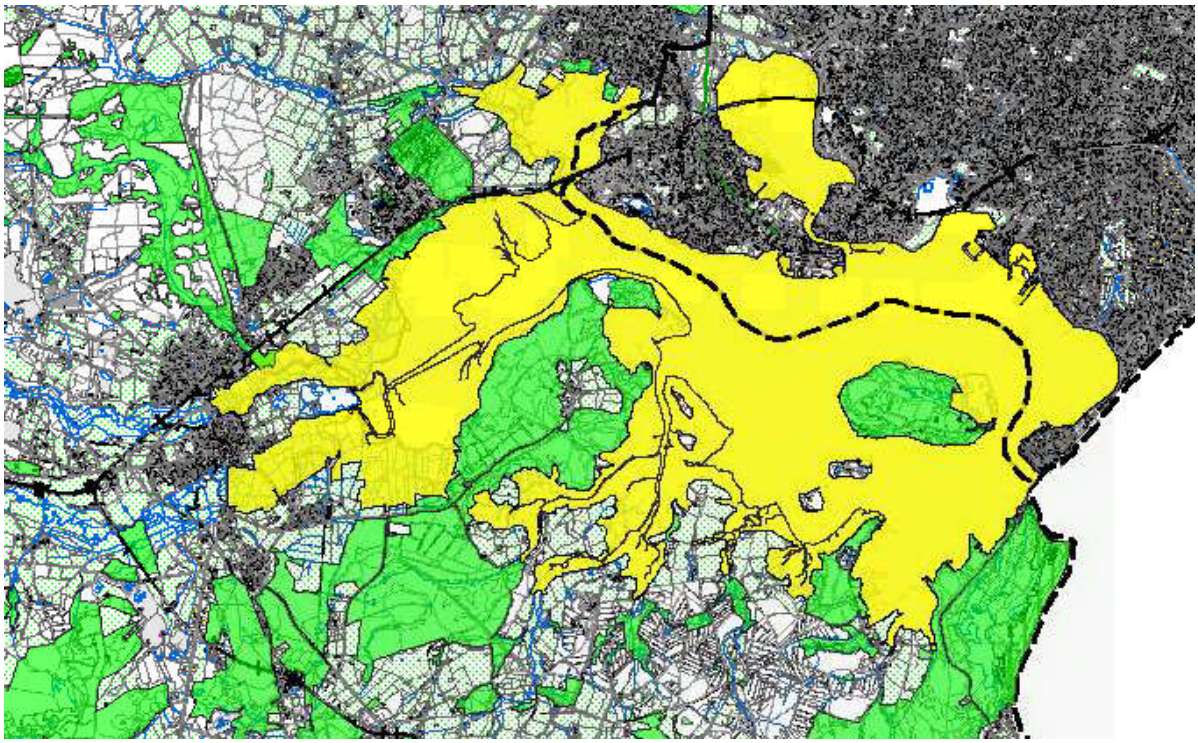
4.7.4 Sea level rise may cause these habitats to move in a landward direction, resulting in coastal squeeze.

4.7.5 The northern side of the Poole Harbour European site is largely urbanised through the growth of Poole and falls outside the Dorset Council Local Plan Area (Figure 4.18).

4.7.6 In those areas to the west of the harbour, the European site encompasses the lower reaches of the River Frome as far as the settlement of Wareham, including areas of wet grassland and saltmarsh either side of the river channels which are particularly important for wintering waterfowl.

4.7.7 A large extent of the land adjacent to the Poole Harbour SPA and Ramsar, particularly to the south at Studland and the Arne Peninsula, is designated as Dorset Heathlands SPA, SAC and Ramsar.

Figure 4.18: A map showing the extent of the Poole Harbour SPA and Ramsar (shown in yellow) and Dorset Heathlands European site (shown in green) with the Dorset Council Local Plan Area (border in Black hatched outline).



4.7.8 The Dorset Council Local Plan will determine the extent of new development in those areas adjacent to the Poole Harbour European site. Development on the Dorset Heaths is prohibited and therefore coastal squeeze in these areas is unlikely. However, there is the potential for development in the remaining areas adjacent to the Poole Harbour SPA and Ramsar, which includes the settlements of Wareham and Sandford, to exacerbate the issue of coastal squeeze and result in a likely significant effect upon the Poole Harbour SPA and Ramsar. This will be explored further through the Appropriate Assessment stage.

5 Conclusion

5.0.1 The HRA screening has concluded that the Dorset Council Local Plan would result in likely significant effect upon European sites (Figure 5.1).

5.0.2 The following likely significant effects were identified, as a result of the Dorset Council Local Plan causing:

- Water pollution affecting the River Avon SAC and Avon Valley SPA and Ramsar, River Axe SAC, Somerset Levels Ramsar, Chesil and the Fleet SAC, SPA and Ramsar, Poole Harbour SPA and Ramsar, Sidmouth to West Bay SAC, Solent and Dorset Coast SPA and West Dorset Alder Woods (Chapter 4.1);
- Air pollution affecting the Brackets Coppice SAC, Cerne and Sydling Downs SAC, Chesil Beach and the Fleet SPA, Dorset Heaths SAC, SPA and Ramsar, Fontmell to Melbury Downs SAC, and New Forest SAC, SPA and Ramsar, Poole Harbour SPA and Ramsar and Rooksmoor SAC (Chapter 4.2);
- Disturbance and/or recreational pressure affecting the Cerne and Sydling Downs SAC, Chesil and the Fleet SAC, SPA and Ramsar, Dorset Heaths SAC, SPA and Ramsar, Fontmell to Melbury Downs SAC, Isle of Portland to Studland Cliffs SAC, New Forest SAC, SPA and Ramsar, Poole Harbour SPA and Ramsar, Solent and Dorset Coast SPA and St Albans Head to Durlston Head SAC (Chapters 4.3 and 4.4);
- Urbanisation affecting the Sidmouth to West Bay SAC (Chapter 4.5);
- Habitat fragmentation affecting the Dorset Heaths SPA (Chapter 4.6); and
- Coastal squeeze affecting the Poole Harbour SPA and Ramsar (Chapter 4.7).

5.0.3 A precautionary approach was applied during the HRA screening, and therefore in those instances where there was a risk or doubt about whether an affect may be significant, it was concluded that a likely significant effect existed. Applying this low threshold, or 'catch all' approach will ensure that every potential impact upon a European site will be fully addressed.

5.0.4 Given that the HRA screening has identified likely significant effects upon European Sites, an Appropriate Assessment of the Dorset Council Local Plan will be undertaken to address the potential issues and determine whether or not the plan will adversely affect the integrity of a European site.

5.0.5 The HRA process is iterative, in that the stages of the HRA occur alongside the development of the Dorset Council Local Plan, feeding into the plan through each stage in its development. This HRA screening provides an early identification of the potential effects of the Dorset Council Local Plan upon European sites, and will ensure that these issues are considered fully during the preparation of the Dorset Council Local Plan.

Figure 5.1: A table showing the likely significant effects of the Dorset Council Local Plan (red box indicates a likely significant effect).

Potential threat, pressure or activity	European site																									
	Avon Valley SPA	Avon Valley Ramsar	Brackets Coppice SAC	Cerne and Sydling Downs SAC	Chesil Beach and the Fleet SPA	Chesil Beach and the Fleet Ramsar	Chesil and the Fleet SAC	Chilmark Quarries SAC	Dorset Heaths SAC	Dorset Heathlands Ramsar	Dorset Heathlands SPA	Dorset Heaths (Purbeck & Wareham) and Studland Dunes SAC	Fontmell and Melbury Downs SAC	Isle of Portland to Studland Cliffs SAC	New Forest SAC	New Forest SPA	New Forest Ramsar	Poole Harbour SPA	Poole Harbour Ramsar	River Avon SAC	River Axe SAC	Rooksmoor SAC	Sidmouth to West Bay SAC	Solent and Dorset Coast SPA	Somerset Levels and Moors Ramsar	St Albans Head to Durlston Head SAC	West Dorset Alder Woods SAC
Water pollution	■	■			■	■	■			■								■	■	■	■		■	■	■		■
Air pollution			■	■	■				■	■	■	■	■		■	■	■	■	■			■					
Public access, disturbance and other human intrusion					■	■					■							■	■					■			
Sport, leisure and recreational activities				■		■	■		■	■	■	■	■	■	■	■	■									■	
Urbanisation and industrial activities																							■				
Habitat fragmentation											■																
Coastal squeeze																		■	■								

Appendix: Characteristics of the European Sites

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
Avon Valley Ramsar	**Ramsar criterion 1:** The site shows a greater range of habitats than any other chalk river in Britain, including fen, mire, lowland wet grassland and small areas of woodland. **Ramsar criterion 2:** The site supports a diverse assemblage of wetland flora and fauna including several nationally-rare species. **Ramsar criterion 6** – species/populations occurring at levels of international importance. **Qualifying Species/populations (as identified at designation):** Species with peak counts in winter: Gadwall , Anas *strepera strepera*, NW Europe 537 individuals, representing an average of 3.1% of the GB population (5 year peak mean 1998/9-2002/3)	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	Human induced changes in hydraulic conditions; Pollution to groundwater (point sources and diffuse sources); Changes in biotic conditions
Avon Valley SPA	Over winter: Bewick's Swan *Cygnus columbianus bewickii* Gadwall *Anas strepera* (migratory)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features	Human induced changes in hydraulic conditions; Pollution to groundwater (point sources and diffuse sources); Changes in biotic conditions

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	
Beer Quarry and Caves SAC	**Annex 2 species:** Bechstein's bat *Myotis bechsteinii* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Lesser horseshoe bat *Rhinolophus hipposideros;* Greater horseshoe bat *Rhinolophus ferrumequinum*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Other human intrusions and disturbances; Other urbanisation, industrial and similar activities; Biocenotic evolution, succession; Other ecosystem modifications
Brackets Coppice SAC	**Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation	Grazing; Problematic native species;

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) **Annex 2 species:** Bechstein's bat *Myotis bechsteinii*	Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Air pollution, air-borne pollutants
Cerne and Sydling Downs SAC	**Annex 1 habitats:** Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	Grazing; Fertilisation; Interspecific floral relations; Other ecosystem modifications

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	• The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Chesil and the Fleet SAC	**Annex 1 habitats:** Coastal lagoons; Annual vegetation of drift lines; Perennial vegetation of stony banks; Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi) **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):**	Subject to natural change, maintain the **lagoon** in favourable condition, in particular: • Seagrass bed communities • Tide-swept communities • Subtidal coarse sediment (gravel, cobbles, pebbles) communities • Intertidal sediment communities • Shingle spring line communities	Fishing and harvesting aquatic resources; Outdoor sports and leisure activities, recreational activities; Invasive non-native species; Pollution to groundwater (point

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Subject to natural change, maintain the **Annual vegetation of drift lines** in favourable condition, in particular: • Beta vulgaris maritima (sea beet) - Atriplex (orache) communities • Honkenya peploides (sea sandwort) - Cakile maritima (sea rocket) communities Subject to natural change, maintain the **Mediterranean and thermo-Atlantic halophilous scrub** in favourable condition, in particular: • Shrubby sea-blite (Suaeda vera) communities	sources and diffuse sources); Changes in biotic conditions
Chesil Beach and the Fleet Ramsar	The information sheet on the Ramsar Wetland lists the following criterion as justification of the designation: ***Ramsar criterion 1-*** The Fleet is an outstanding example of rare lagoon habitat and is the largest of its kind in the UK. In Europe lagoons are classified as a priority habitat by the EC Habitats and Species Directive. The site also supports rare saltmarsh habitats. ***Ramsar criterion 2-*** The Fleet supports 15 specialist lagoonal species and five nationally scarce wetland plants as well as ten nationally scarce wetland animals. Chesil Bank is one of the	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	No adverse factor categories identified.

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	most important UK sites for shingle habitats and species. ***Ramsar criterion 3*** **-** The site is the largest barrier-built saline lagoon in the UK and has the greatest diversity of habitats and of biota. ***Ramsar criterion 4*** **-** The site is important for a number of species at a critical stage in their life cycle including post-larval and juvenile bass *Dicentrarchus labrax*. ***Ramsar criterion 6*** **-** Species/populations occurring at levels of international importance including Mute Swan *Cygnus olor* and Dark-bellied brent goose, *Branta bernicla* ***Ramsar criterion 8*** **-** The site is important as a nursery for bass *Dicentrarchus labrax*.		
Chesil Beach and the Fleet SPA	Little tern *Sternula albifrons* (Breeding) ; Wigeon *Mareca penelope* (Non-breeding); Dark-bellied Brent Goose *Branta bernicla bernicla.*	Subject to natural change, to maintain in favourable condition the habitats for the internationally important populations of the regularly occurring Annex 1 bird species, under the Birds Directive, with particular reference to: • Lagoon waters Subject to natural change, to maintain in favourable condition the habitats for the internationally important populations of regularly occurring migratory bird species, under the Birds Directive, with particular reference to: • Intertidal sediment communities • Seagrass bed communities	Water pollution; Changes in species distribution; Public access/disturbance; Fisheries: commercial marine and estuarine; Invasive species; Natural changes to site conditions;

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
			Air pollution (atmospheric nitrogen deposition); Inappropriate coastal management.
Chilmark Quarries SAC	**Annex 2 species:** greater horseshoe bat *Rhinolophus ferrumequinum;* Barbastelle *Barbastella barbastellus;* Bechstein's bat *Myotis bechsteinii.* **Annex 2 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Lesser horseshoe bat *Rhinolophus hipposideros*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Air pollution, air-borne pollutants; Changes in biotic conditions; Outdoor sports and leisure activities, recreational activities; Other urbanisation, industrial and similar activities; Abiotic (slow) natural processes.
Crookhill Brick Pit SAC	**Annex 2 species:** Great crested newt *Triturus cristatus*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	Biocenotic evolution, succession

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Dorset Heathlands Ramsar	**Ramsar criterion 1:** Contains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath *Erica tetralix* and (ii) acid mire with Rhynchosporion. **Ramsar criterion 2:** Supports 1 nationally rare and 13 nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species. **Ramsar criterion 3:** Has a high species richness and high ecological diversity of wetland habitat types and transitions, and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest.	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	Acid rain; pollution.

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
Dorset Heathlands SPA	**During the breeding season;** Dartford Warbler *Sylvia undata*; Nightjar *Caprimulgus europaeus;* Woodlark *Lullula arborea* **Over winter;** Hen Harrier *Circus cyaneus* Merlin *Falco columbarius*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	Inappropriate scrub control; Public access/disturbance; Undergrazing; Forestry and woodland management ; Drainage; Water pollution; Invasive species; Habitat fragmentation; Wildfire/arson; Air pollution (atmospheric deposition); Deer
Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC	**Annex 1 habitats:** Embryonic shifting dunes; Shifting dunes along the shoreline with Ammophila arenaria (white dunes); Atlantic decalcified fixed dunes (Calluno-Ulicetea); Humid dune slacks; Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae);* Northern Atlantic wet heaths with *Erica tetralix*;	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats of qualifying species;	Human induced changes in hydraulic conditions; Outdoor sports and leisure activities, recreational activities; Biocenotic evolution, succession; Invasive non-native species; Grazing

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix*; European dry heaths; Depressions on peat substrates of the Rhynchosporion; Bog woodland. **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae); Calcareous fens with Cladium mariscus and species of the Caricion davallianae; Alkaline fens; Old acidophilous oak woods with Quercus robur on sandy plains; **Annex 2 species:** Southern damselfly *Coenagrion mercuriale* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Great crested newt Triturus cristatus	• The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site.	
Dorset Heaths SAC	**Annex 1 habitats:** Northern Atlantic wet heaths with *Erica tetralix* European Dry Heaths; Depressions on peat substrates of the Rhynchosporion	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	Grazing; Invasive non-native species; Outdoor sports and leisure activities,

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site): Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*); Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae; Alkaline fens; Old acidophilous oak woods with *Quercus robur* on sandy plains **Annex 2 species:** Southern damselfly *Coenagrion mercuriale* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Great crested Newt *Triturus Cristatus*	• The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species • The distribution of qualifying species within the site	recreational activities Bionetic evolution; succession; Human induced changes in hydraulic conditions.
Fontmell and Melbury Downs SAC	**Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) **Annex 2 species:** Early gentian *Gentianella anglica*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species	Cultivation; Modification of cultivation practices; Air pollution; Biocenotic evolution, succession

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Great Yews SAC	**Annex 1 habitats**: *Taxus baccata* woods of the British Isles	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats • The structure and function (including typical species) of qualifying natural habitats, and • The supporting processes on which qualifying natural habitats rely	Problematic native species

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
Holnest SAC	**Annex 2 species:** Great crested newt *Triturus cristatus*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	None given
Isle of Portland to Studland Cliffs SAC	**Annex 1 habitats:** Vegetated sea cliffs of the Atlantic and Baltic Coasts; Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Annual vegetation of drift lines **Annex 2 species:**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species	Cultivation; Undergrazing; Invasive non-native species; Outdoor sports and leisure activities, recreational activities; Bionetic evolution, succession

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Early gentian *Gentianella anglica*.	• The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species • The distribution of qualifying species within the site.	
Lyme Bay and Torbay SAC	**Annex 1 habitats:** Reefs; Submerged or partially submerged sea caves.	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats • The structure and function (including typical species) of qualifying natural habitats, and • The supporting processes on which the qualifying natural habitats rely	Fishing and harvesting aquatic resources

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
Mells Valley SAC	**Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*); Caves not open to the public **Annex 2 species:** Greater horseshoe bat *Rhinolophus ferrumequinum*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Grazing; Outdoor sports and leisure activities, recreational activities; Other human intrusions and disturbances.
Mendip Woodlands SAC	**Annex 1 habitats:** Tilio-Acerion forests of slopes, screes and ravines	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation	Other human intrusions and disturbances; Air pollution, air-borne pollutants;

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats • The structure and function (including typical species) of qualifying natural habitats, and • The supporting processes on which qualifying natural habitats rely	Problematic native species; Interspecific floral relations
Mottisfont Bats SAC	**Annex 2 species:** Barbastelle *Barbastella barbastellus*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of the habitats of qualifying species • The structure and function of the habitats of qualifying species • The supporting processes on which the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Changes in biotic conditions; Forest and Plantation management & use

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
New Forest Ramsar	**Ramsar criterion 1: C**ontains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath *Erica tetralix* and (ii) acid mire with Rhynchosporion. Contains largest example in Britain of southern Atlantic wet heaths with Dorset heath *Erica ciliaris* and cross-leaved heath *Erica tetralix*. **Ramsar criterion 2**: Supports 1 nationally rare and 13 nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species. **Ramsar criterion 3**: Has a high species richness and high ecological diversity of wetland habitat types and transitions, and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest.	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	Acid Rain; pollution
New Forest SAC	**Annex 1 habitats:** Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae); Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea; Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths; Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae);	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species	Outdoor sports and leisure activities, recreational activities; Biocenotic evolution, succession; Human induced changes in hydraulic conditions; Problematic native species; Forest and Plantation

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Depressions on peat substrates of the Rhynchosporion; Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion); Asperulo-Fagetum beech forests; Old acidophilous oak woods with *Quercus robur* on sandy plains; Bog woodland; Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae). **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Transition mires and quaking bogs; Alkaline fens **Annex 2 species:** Southern damselfly *Coenagrion mercuriale*; Stag beetle *Lucanus cervus* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Great crested newt *Triturus cristatus*	• The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	management & use.
New Forest SPA	During the breeding season: Dartford Warbler *Sylvia undata;* Honey Buzzard *Pernis apivorus;* Nightjar *Caprimulgus europaeus;* Woodlark *Lullula arborea.*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;	Air pollution, air-borne pollutants; Fishing and harvesting aquatic resources;

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Over winter: Hen Harrier *Circus cyaneus*	• The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	Biocenotic evolution, succession; Human induced changes in hydraulic conditions.
Poole Harbour Ramsar	**Ramsar criterion 1:** The site is the best and largest example of a bar-built estuary with lagoonal characteristics (a natural harbour) in Britain. **Ramsar criterion 2**: The site supports two species of nationally rare plant and one nationally rare alga. There are at least three British Red data book invertebrate species. **Ramsar criterion 3:** The site includes examples of natural habitat types of community interest - Mediterranean and thermos Atlantic halophilous scrubs, in this case dominated by Suaeda vera, as well as calcareous fens with *Cladium mariscus*. Transitions from saltmarsh through to peatland	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	Eutrophication; Introduction/invasion of non-native animal species

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	mires are of exceptional conservation importance as few such examples remain in Britain. The site supports nationally important populations of breeding waterfowl including Common tern *Sterna hirundo* and Mediterranean gull *Larus melanocephalus*. Over winter the site also supports a nationally important population of Avocet *Recurvirostra avosetta.* **Ramsar criterion 5:** Assemblages of international importance: Species with peak counts in winter: 24709 waterfowl (5 year peak mean 1998/99-2002/2003) **Ramsar criterion 6** – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter: Common shelduck *Tadorna tadorna*, NW Europe 2120 individuals, representing an average of 2.7% of the GB population (5 year peak mean 1998/9-2002/3) Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe 1724 individuals, representing an average of 4.9% of the population (5 year peak mean 1998/9-2002/3)		
Poole Harbour SPA	During the breeding season: Common Tern *Sterna hirundo*; Sandwich tern	The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving	Water Pollution; Air Pollution: impact of atmospheric nitrogen

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Sterna sandvicensis; Mediterranean Gull *Larus melanocephalus*; On passage: Aquatic Warbler *Acrocephalus paludicola*; Little Egret *Egretta garzetta* Over winter: Avocet *Recurvirostra avosetta*; Little Egret *Egretta garzetta*, Eurasian spoonbill *Platalea leucorodia* Migratory species: Over winter: Black-tailed Godwit *Limosa limosa islandica*; Shelduck *Tadorna tadorna*; Assemblage qualification: A wetland of international importance. The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl	the aims of the Wild Birds Directive, by maintaining or restoring: • the extent and distribution of the habitats of the qualifying features • the structure and function of the habitats of the qualifying features • the supporting processes on which the habitats of the qualifying features rely • the populations of each of the qualifying features • the distribution of qualifying features within the site	deposition; Fisheries: Commercial marine and estuarine; Coastal squeeze; Public Access/Disturbance; Deer
Porton Down SPA	Stone Curlew *Burhinus oedicnemus*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features	Changes in biotic conditions; Air pollution, air-borne pollutants

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	
Prescombe Down SAC	**Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) **Annex 2 species:** Early gentian *Gentianella anglica* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and habitats of qualifying species rely • The populations of qualifying species, and,	Air pollution, air-borne pollutants; Changes in biotic conditions

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The distribution of qualifying species within the site.	
Quants SAC	**Annex 2 species:** Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of the habitats of qualifying species; • The structure and function of the habitats of qualifying species; • The supporting processes on which the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site.	Air pollution, air-borne pollutants; Changes in biotic conditions
River Avon SAC	**Annex 1 habitats:** Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation **Annex 2 species:** Desmoulin's whorl snail *Vertigo moulinsiana;* Sea lamprey *Petromyzon marinus;* Brook lamprey *Lampetra planeri;*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;	Pollution to groundwater (point sources and diffuse sources); Human induced changes in hydraulic conditions; Changes in biotic conditions

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Atlantic salmon *Salmo salar;* Bullhead *Cottus gobio*	• The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
River Axe SAC	**Annex 1 habitats**: Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation **Annex 2 Species (present as a qualifying feature but not a primary reason for selection of this site):** Sea lamprey *Petromyzon marinus;* Brook lamprey *Lampetra planeri;* Bullhead *Cottus gobio*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species;	Pollution to groundwater (point sources and diffuse sources); Human induced changes in hydraulic conditions; and Invasive non-native species.

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site.	
Rooksmoor SAC	**Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) **Annex 2 species:** Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats	Mowing / cutting of grassland; Grazing; Air pollution; Biocenotic evolution, succession

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Salisbury Plain SAC	**Annex 1 habitats:** Juniperus communis formations on heaths or calcareous grasslands; Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) **Annex 2 species:** Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species	Changes in biotic conditions; interspecific floral relations; grazing.

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Sidmouth to West Bay SAC	**Annex 1 habitats:** Vegetated sea cliffs of the Atlantic and Baltic Coasts Tilio-Acerion forests of slopes, screes and ravines **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Annual vegetation of drift lines	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats • The structure and function (including typical species) of qualifying natural habitats, and • The supporting processes on which qualifying natural habitats rely	Invasive non-native species Pollution to groundwater (point sources and diffuse sources) Other human intrusions and disturbances; Interspecific floral relations Other urbanisation, industrial and similar activities
Solent and Dorset Coast SPA	Sandwich tern *Sterna sandvicensis* (Breeding); Common tern *Sterna hirundo* (Breeding); and Little tern *Sternula albifrons* (Breeding)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;	Water pollution; disturbance; Outdoor sports and leisure

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
		• The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	activities, recreational activities;
Solent and Southampton Water Ramsar	**Ramsar criterion 1** The site is one of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow and has long periods of slack water at high and low tide. It includes many wetland habitats characteristic of the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs. **Ramsar criterion 2:** The site supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight	For Ramsar sites, a decision has been made by Defra and Natural England not to produce Conservation Advice packages, instead focussing on the production of High Level Conservation Objectives. As the provisions on the Habitats Regulations relating to Habitat Regulations Assessments (HRAs) extend to Ramsar sites, Natural England considers the Conservation Advice packages for the overlapping European Marine Site designations to be, in most cases, sufficient to support the management of the Ramsar interests. If there are Ramsar qualifying features not covered by overlapping European Marine Sites, we will consider the best approach on addressing these (e.g. to produce advice on a feature basis) if there is an operational risk. For information regarding	Erosion

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	British Red Data Book plants are represented on site. **Ramsar criterion 5:** Assemblages of international importance: Species with peak counts in winter: 51343 waterfowl (5 year peak mean 1998/99-2002/2003) **Ramsar criterion 6** – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in spring/autumn: Ringed plover , *Charadrius hiaticula*, Europe/Northwest Africa 397 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3) Species with peak counts in winter: Dark-bellied brent goose, *Branta bernicla bernicla*, 6456 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3) Eurasian teal *Anas crecca* NW Europe 5514 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3) Black-tailed godwit , *Limosa limosa islandica*,	timelines for publication of Conservation Advice packages please contact the relevant local area team.	

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Iceland/W Europe 1240 individuals, representing an average of 3.5% of the population (5 year peak mean 1998/9-2002/3)		
Solent and Southampton Water SPA	**During the breeding season:** Mediterranean Gull *Larus melanocephalus* Little Tern *Sterna albifrons* Roseate Tern *Sterna dougallii* Common Tern *Sterna hirundo* Sandwich Tern *Sterna sandvicensis* **Over Winter:** Eurasian Teal *Anas crecca* Brent Goose *Branta bernicla bernicla* Common Ringed Plover *Charadrius hiaticula* Black-Tailed Godwit *Limosa limosa islandica*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	Pollution to groundwater (point sources and diffuse sources); Fishing and harvesting aquatic resources; Changes in abiotic conditions; Changes in biotic conditions; Outdoor sports and leisure activities, recreational activities.
Solent Maritime SAC	**Annex 1 habitats:** Estuaries; Spartina swards (*Spartinion maritimae*) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):**	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species;	Pollution to groundwater (point sources and diffuse sources); Changes in abiotic conditions; Fishing and harvesting aquatic resources;

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Sandbanks which are slightly covered by sea water all the time; Mudflats and sandflats not covered by seawater at low tide; Coastal lagoons; Annual vegetation of drift lines; Perennial vegetation of stony banks; Salicornia and other annuals colonizing mud and sand; Shifting dunes along the shoreline with Ammophila arenaria (white dunes) **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Desmoulin's whorl snail *Vertigo moulinsiana*	• The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and, • The distribution of qualifying species within the site.	Changes in biotic conditions; Outdoor sports and leisure activities, recreational activities
Somerset Levels and Moors Ramsar	**Ramsar criterion 2:** Supports 17 species of British Red Data Book invertebrates. **Ramsar criterion 5:** Assemblages of international importance: Species with peak counts in winter: 97155 waterfowl (5 year peak mean 1998/99-2002/2003) **Ramsar criterion 6** – species/populations occurring at levels of international importance. Qualifying Species/populations (as identified at designation): Species with peak counts in winter: Tundra swan *Cygnus columbianus bewickii*,	Natural England considers the Conservation Advice packages for the overlapping European Sites to be sufficient to support the management of the Ramsar interests at this site.	None reported

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Eurasian teal *Anas crecca*, Northern lapwing *Vanellus vanellus*.		
Somerset Levels and Moors SPA	Bewick's Swan *Cygnus columbianus bewickii* (non-breeding) European Golden Plover *Pluvialis apricaria* (non-breeding); Eurasian Teal *Anas crecca* (non-breeding); Northern Lapwing *Vanellus vanellus* (non-breeding); Waterbird Assemblage.	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.	Cultivation; Modification of cultivation practices; Human induced changes in hydraulic conditions
St Albans Head to Durlston Head SAC	**Annex 1 habitats:** Vegetated sea cliffs of the Atlantic and Baltic Coasts; Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (*important orchid site) **Annex 2 species:** Early gentian *Gentianella anglica*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species	Biocenotic evolution, succession; Grazing; Cultivation; Invasive non-native species; Outdoor sports and leisure activities, recreational activities.

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
	Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site): Greater horseshoe bat *Rhinolophus ferrumequinum*	• The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	
Studland to Portland SAC	**Annex 1 habitats:** Reefs	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which the qualifying natural habitats rely	Other human intrusions and disturbances; Fishing and harvesting aquatic resources

European Site	Qualifying Features	Conservation Objectives	Potential threats, pressures and activities with impacts
West Dorset Alder Woods SAC	**Annex 1 habitats:** Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae) **Annex 1 habitats (present as a qualifying feature but not a primary reason for selection of this site):** Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) Old acidophilous oak woods with Quercus robur on sandy plains **Annex 2 species:** Marsh fritillary butterfly *Euphydryas (Eurodryas, Hypodryas) aurinia* **Annex 2 species (present as a qualifying feature but not a primary reason for selection of this site):** Great crested newt *Triturus cristatus*	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; • The extent and distribution of qualifying natural habitats and habitats of qualifying species • The structure and function (including typical species) of qualifying natural habitats • The structure and function of the habitats of qualifying species • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely • The populations of qualifying species, and, • The distribution of qualifying species within the site.	Invasive non-native species; Problematic native species; Pollution to groundwater (point sources and diffuse sources); Grazing; Forest and Plantation management & use.