

# Habitats Regulations Assessment

## Screening Report

### Puddletown Neighbourhood Plan

September 2018

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## 1. INTRODUCTION

This note provides an account of the Habitats Regulations Assessment (HRA) Screening Report for the Puddletown Neighbourhood Plan.

The main purpose of this HRA screening exercise is to assess whether the Puddletown Neighbourhood Plan is likely to have a significant negative effect on a European Site<sup>1</sup>, which are designated areas of exceptional ecological importance, and hence whether the subsequent steps of the HRA process (including Appropriate Assessment) are required. If it is concluded that there would be no likely significant effect on a European Site, then further assessment is deemed unnecessary. However, if it is found that project would have a likely significant effect on a European Site then further assessment is required through the subsequent stages of the HRA process.

### LEGISLATIVE BACKGROUND TO HABITATS REGULATIONS ASSESSMENT

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', collectively known as Natura 2000, which are areas of exceptional importance with respect to rare, endangered or vulnerable natural habitats or species. European Sites consist of the following ecological designations:

- 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; and
- Special Areas of Conservation (SACs): Classified under the Habitats Directive, these areas provide rare and vulnerable animals, plants and habitats with increased protection and management.

The National Planning Policy Framework (paragraph 176) states that the following sites should be afforded the same protection as European Sites:

- 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;

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<sup>1</sup> For the purposes of this report, a 'European Site' includes Special Areas of Conservation, Special Protection Areas and Ramsar Sites, (including possible, potential and proposed sites)

- 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;
- 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; and
- Sites identified, or required, as compensatory measures for adverse effects on European sites and Ramsar sites: Sites which are included as compensation in schemes to mitigate adverse impacts upon European and Ramsar sites.

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.

The Habitats Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'). Regulation 61 of the Habitats Regulations implements Article 6(3) of the Habitats Directive by requiring the competent authority 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.

## 2. THE PUDDLETOWN NEIGHBOURHOOD PLAN

The Puddletown Neighbourhood Plan is currently being developed, with evidence being collected and analysed to facilitate the drafting of the plan.

Whilst specific details of the contents of the plan are not known at this stage, early indications are that the Puddletown Neighbourhood Plan will allocate development sites to provide in the region of 120 dwellings in the period up to 2036.

The West Dorset, Weymouth & Portland Local Plan already provides a policy framework which the Puddletown Neighbourhood Plan must conform with. The purpose of the policies in the Puddletown Neighbourhood Plan is to seek to deliver development against the draft vision, principles and objectives specific to the area which are presented in this section.

### DRAFT VISION OF THE PUDDLETOWN NEIGHBOURHOOD PLAN

The Puddletown Neighbourhood Plan has the following draft vision:

“In 2036 Puddletown will be a safe, thriving, well-connected and sustainable village, maintaining its character and sense of community spirit, and encompassing a wide range of age and income groups.”

### DRAFT PRINCIPLES FOR THE PUDDLETOWN NEIGHBOURHOOD PLAN

The draft principles of the Puddletown Neighbourhood Plan are that Puddletown will:

- Be a **well-connected** village, served by a range of bus services, public footpaths, bridleways and cycle way designed to meet the needs of the people of Puddletown.
- Be a **traffic friendly and traffic safe** village, encompassing sufficient public and private car parking to meet its needs and ensuring that traffic speed is maintained at a safe level.
- Continue to **develop its housing stock** at a pace commensurate with the desire to keep the village thriving, but not greater than that undertaken in the period 1997-2017.
- Have a **mixed housing stock**, including the development of significant quantities of affordable housing. New housing developments must be in line with the character of the village, with minimal further infilling, and the avoidance of urban sprawl.
- Seek to encourage **new and existing local businesses** so as to increase the number of local jobs; this will include an increase in the number of shops and services, such as a café.
- Maintain and improve the opportunities for **social interaction** within the village, addressing all age groups.

- Be **environmentally safe and friendly**, providing adequate flood defences, maintaining green spaces and protecting ecological habitats.
- Have an underpinning **infrastructure to meet the needs** at the heart of our community, including but not limited to, schools, doctors, vets, broadband, children play areas and a shop, post office and pub.
- Be a **safe and secure** place to live.

## DRAFT OBJECTIVES OF THE PUDDLETOWN NEIGHBOURHOOD PLAN

The draft objectives of the Puddletown Neighbourhood Plan are:

### Transport

**Buses:** To have a bus system with sufficient options to meet the needs of the people of Puddletown.

**Public Rights of Way:** To have a series of interconnected public rights of way (public footpaths, bridleways, cycle ways) that provide the people of Puddletown with access to the surrounding countryside and sites of natural and archaeological interest.

### Traffic

**Car Parking:** To have sufficient public and private parking so as to minimise congestion and to maximise safety, particularly along the High Street, alongside the Green, and outside the two schools.

**Speed:** To ensure that traffic speed is reduced through the village by implementing various traffic calming measures.

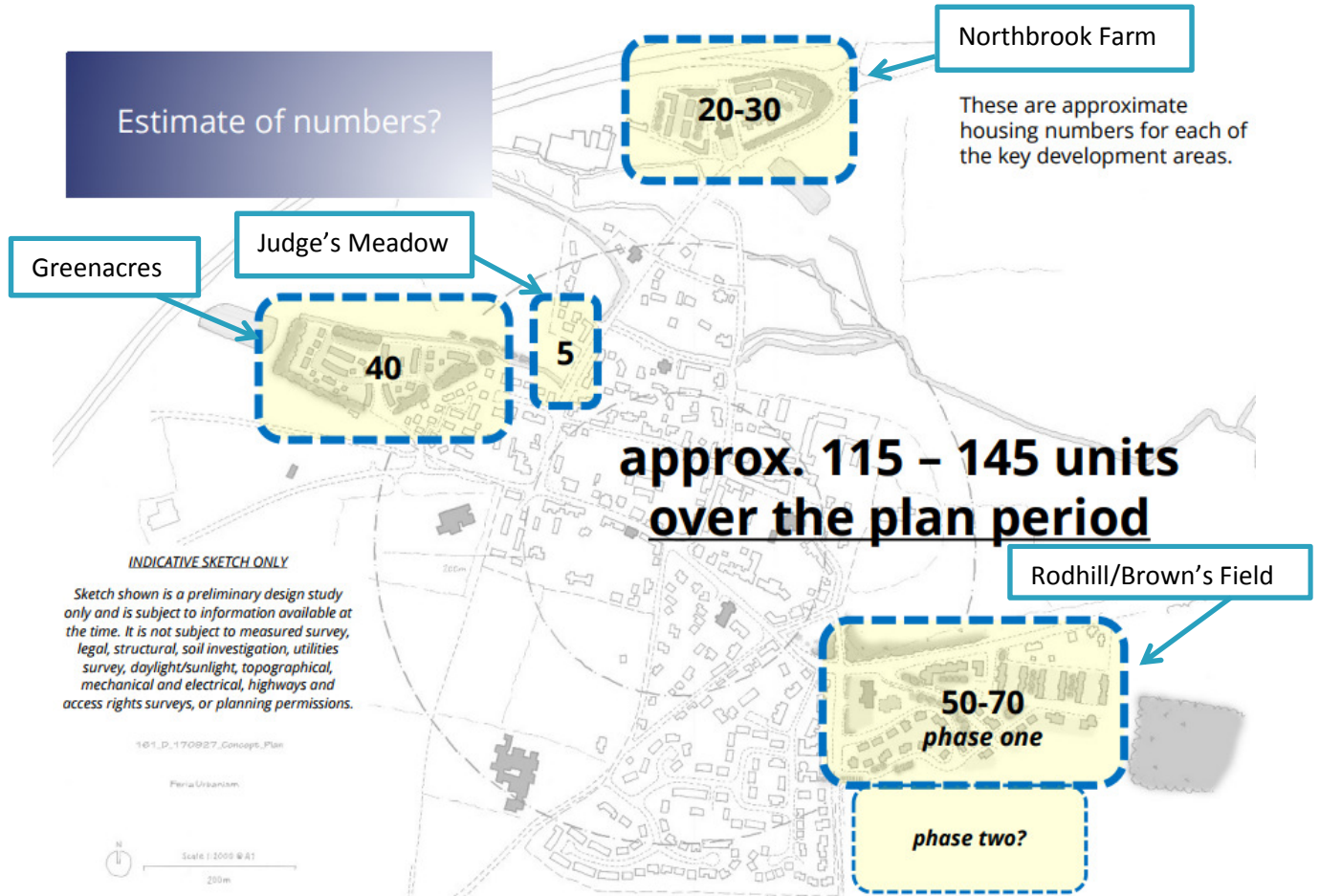
**Pedestrian Crossings:** To construct new pedestrian crossing in order to allow the safe crossing at sites near the shop and the First School.

**Noise Abatement:** To construct various measures to minimise the traffic noise from the bypass.

### Housing

**Development Rate:** To continue housing development at a pace commensurate with the desire to keep the village thriving, but not greater than that undertaken in the period 1997-2017. It is proposed that the total number of dwellings to be included in the Puddletown Neighbourhood Plan should be between approximately 120 over the planning period 2018 – 2036. This number is in line with the rate of development of dwellings seen in Puddletown over the past 10 years. Housing development should take place throughout the planning period allowing sustained, steady growth.

**Development Areas:** Substantial development (developments greater than 2 dwellings, including the conversion of existing buildings) should only take place in identified areas; these will be defined in the Neighbourhood Plan. The following possible development areas have been proposed by developers / landowners:



None of these development sites have yet been prioritised / selected by the Neighbourhood Plan. Any new developments must be linked into the village, with good pedestrian, bicycle and road routes.

- **Social Investment:** To ensure that companies leading future housing development also contribute to the social [infrastructure] development of the entire village.
- **Lower cost housing for local needs:** 50% of housing development should be available to people with a local connection. A significant proportion of this housing should be of an inter-generational design serving both young (starter homes) and older generations (including down-sizing). The inter-generational starter homes to be built at a cost of £115k.
- **Housing Quality:** To ensure that all new housing developments meet a set of design criteria that will maintain the character of the village.

- **Infilling and Sprawl:** To minimise the rate of infilling in future housing development, and to ensure that any future housing development maintains the integrity of the village and does not result in sprawl.
- **Services:** To ensure that any future development does not put undue pressure on the current Puddletown services (especially the schools and the surgery), and that any significant developments contribute to developing those services to meet the additional needs.
- **Private Parking:** To ensure that all future housing developments have sufficient private car parking, with at least two car parking spaces per new dwelling [and additional parking for visitors.]

### Business

- **New Businesses:** To encourage new businesses into Puddletown in order to improve the sustainability of the village, to improve local job opportunities and also to improve the social opportunities for villagers (this could include a café, a dentist and a bakery).
- **Dedicated Business Area:** To identify and allocate a dedicated business area to encourage and house new businesses.
- **Tourism:** To maximise the benefit to the village from locally located tourist opportunities, including archaeological sites, architectural buildings of interest and the links to Thomas Hardy.

### Society

- **Social Opportunities:** To increase the number of, and to make better use of existing facilities that offer social interaction within the village. This should target all age groups, and should encourage inter-age community.
- **Groups and Classes:** To increase the number of groups and classes which address all age groups.
- **Community:** To maintain the sense of community and vibrancy to be found in the village.

### Environment

- **Flood Risk:** To protect the people and buildings of Puddletown from the flooding of the Rivers Piddle and Frome.
- **Environmental Protection:** To ensure that the environment and ecological habitats within the Puddletown and area parish are properly protected and enhanced.



- **Green Spaces:** To ensure that the green spaces within the village of Puddletown are retained and properly maintained to the benefit of the people of Puddletown.
- **Renewable Energy:** To encourage the use of local, small scale renewable energy schemes within Puddletown parish.

#### Infrastructure

- **Current Infrastructure:** To ensure that better use is made of current infrastructures, and that all infrastructure use is maximised for the benefit of the people of Puddletown.
- **Public Car Park:** To build a public car park(s) in Puddletown to alleviate road congestion and parking chaos.
- **Public Toilets:** To build a set of public toilets to serve Puddletown and its visitors.
- **Rubbish Bins:** To increase the number of rubbish bins within the village of Puddletown.
- **Street Maintenance:** To improve street maintenance and road markings in order to improve road safety.
- **Public Space:** To create a public space to serve the people of Puddletown (for example a set of allotments or a public orchard).
- **Broadband:** To ensure that the broadband supplied to Puddletown is technologically current and the best available.

#### Safety

- **Puddletown Forest:** To improve public safety in the environs of Puddletown Forest, with particular reference to theft and molestation.
- **Unlit Lanes:** To improve lighting in the unlit lanes of Puddletown.

### 3. EUROPEAN SITES

This HRA screening considered the potential impacts of the proposed neighbourhood plan upon the European Sites within 20km of the plan area, which are listed in Figure 3.1.

*Figure 3.1: European sites within 20km of the Puddletown Neighbourhood Plan area*

European site	Designation	Approx distance from Puddletown NP area
Dorset Heathlands	SPA, Ramsar	3km to the south
Dorset Heaths	SAC	3km to the south
Cerne and Sydling Downs	SAC	5km to the northwest
Isle of Portland to Studland Cliffs	SAC	8km to the south
Rooksmoor	SAC	13km to the north
Holnest	SAC	13km to the north
West Dorset Alder Woods	SAC	14km to the west
Crookhill Brick Pit	SAC	14km to the southwest
Chesil and the Fleet	SAC, SPA, Ramsar	14km to the southwest
Poole Harbour	SPA, Ramsar	15km to the east
Lyme Bay and Torbay	SAC	17km to the southwest

## 4. POTENTIAL EFFECTS OF THE PUDDLETOWN NEIGHBOURHOOD PLAN

The majority of the European sites considered in this HRA screening report (Figure 3.1) were discounted following consideration of the relationship between the key conditions required to support the integrity of the European Site and the possible impacts arising from the neighbourhood plan. The likelihood for significant effects were excluded for these sites as there are no pathways that could lead to such effects, largely due to the distance between the European sites and neighbourhood plan area and the scale of the proposals. However, it was necessary to give further consideration to the potential impacts upon the following European Sites:

- Dorset Heathlands SPA and Ramsar/ Dorset Heaths SAC;
- Cerne and Sydling Downs SAC; and
- Poole Harbour SPA and Ramsar.

The potential impacts of the Puddletown Neighbourhood Plan upon the integrity of these protected sites, in light of its qualifying features, conservation objectives and the key environmental conditions required to support site integrity, are considered in Figure 4.1.

Figure 4.1: A table showing the potential impacts of the Puddletown Neighbourhood Plan

Protected Site	Qualifying features (in bold)	Key environmental conditions to support site integrity	Possible impacts arising from the plan	Is there a risk of significant impacts?	Is there a risk of significant in-combination effects?
<p>Dorset Heathlands/Heaths</p> <p>SAC, SPA and Ramsar</p>	<p><b>4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></b></p> <p>The site transitions between <b>4030 European dry heaths</b> and wet lowland heathland and mires, as well as other habitats such as woodland, grassland, pools, saltmarsh and reedswamp. The common characteristics of the M16 <i>Erica tetralix</i> – Sphagnum compactum wet heaths are the dominance of cross-leaved heath <i>Erica tetralix</i>, heather <i>Calluna vulgaris</i> and purple moor-grass <i>Molinia caerulea</i>, and the presence of a diverse group of rare species. Typical mosses of the wet heath include <i>Sphagnum compactum</i>, <i>S. pulchrum</i> and <i>S. tenellum</i>. These sites are a stronghold for invertebrates, particularly dragonflies, damselflies, butterflies and spiders, including the <b>1044 Southern damselfly <i>Coenagrion mercuriale</i></b>.</p> <p><b>4030 European dry heaths</b></p> <p>This site transitions between <b>4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></b>, dry heaths and other habitats. The area of heathland has been reduced and fragmented, with about 86% lost since the mid-18th century. However, the Dorset heaths represent some of the biggest and finest remaining areas of lowland heathland in the UK. The dry heath occurs on very infertile soils and is not very diverse botanically, but occasionally some nationally scarce plants occur. In places, where heather <i>Calluna vulgaris</i> occurs in mature stands, lichens of the genus <i>Cladonia</i> are very abundant. Uncommon features of the south-eastern heathlands are the localised presence of bilberry <i>Vaccinium myrtillus</i> and the co-existence in some areas of western gorse <i>Ulex galii</i> and dwarf gorse <i>U. minor</i>. The dry heaths support populations of European importance of several species, including rare butterflies, grasshoppers and spiders. Among birds, the dry heath is very important for woodlark <i>Lullula arborea</i>, European nightjar <i>Caprimulgus europaeus</i>, Dartford warbler <i>Sylvia undata</i> and some migrants such as hen harrier</p>	<p>The Dorset heathlands have become a fragmented heathland area through extensive losses to agriculture, forestry and urban development. In recent years these land-use changes have been almost halted through changes in national and local policy. However, the scale of previous fragmentation and development has left a number of adverse pressures and many heaths in or near urban areas suffer recreational pressure and a high incidence of wildfires, and are sometimes also disturbed by infrastructure works.</p> <p>The heaths are affected by several old mineral extraction permissions, some still active. These will require review under the Habitats Regulations to ensure no adverse effect on integrity and agreement has already been reached on drawing back the possible working of some permissions.</p>	<p>The proposed development may result in additional recreational pressure due to the increase in population from the 120 new dwellings from the Puddletown Neighbourhood Plan within 5km of the Dorset Heathlands European Site.</p>	<p>Yes</p>	<p>Yes</p>
		<p>The sites identified under the Puddletown Neighbourhood Plan are not subject to an existing mineral extraction permission. The Puddletown Neighbourhood Plan is not a mineral development plan, and therefore does not identify further land for mineral extraction.</p>		<p>No</p>	<p>No</p>

<p><i>Circus cyaneus</i> and Eurasian hobby <i>Falco subbuteo</i>. All six species of native British reptiles, including the Annex IV species sand lizard <i>Lacerta agilis</i> and smooth snake <i>Coronella austriaca</i>, occur within the Dorset Heaths.</p> <p><b><u>7150 Depressions on peat substrates of the Rhynchosporion</u></b></p> <p>The two Dorset Heaths cSACs, together with the New Forest, support a large proportion of the resource of Depressions on peat substrates of the Rhynchosporion within England. The habitat is widespread on the Dorset Heaths, both in bog pools of valley mires and in flushes. There are numerous valley mires within the Dorset Heaths, and the habitat type is most extensively represented here as part of a habitat mosaic. This location shows extensive representation of brown-beak sedge <i>Rhynchospora fusca</i> and is also important for great sundew <i>Drosera anglica</i> and bog orchid <i>Hammarbya paludosa</i>.</p> <p><b><u>6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)</u></b></p> <p><b><u>7210 Calcareous fens with Cladium mariscus and species of the Caricion davallianae</u></b></p> <p><b><u>7230 Alkaline fens</u></b></p> <p><b><u>9190 Old acidophilous oak woods with Quercus robur on sandy plains</u></b></p> <p><b><u>1044 Southern damselfly (Coenagrion mercuriale)</u></b></p> <p>This site in south-west England, along with Dorset Heaths (Purbeck and Wareham) and Studland Dunes, represents the Dorset stronghold of southern damselfly <i>Coenagrion mercuriale</i>. The large size of the two cSACs, and a long history of records indicating well-established populations, should ensure the future viability of the small populations that occur here.</p> <p>The site supports the following populations of European Importance for the following species:</p> <p>During the breeding season, <b>Common Tern <i>Sterna hirundo</i></b> and <b>Mediterranean Gull <i>Larus melanocephalus</i></b>.</p>	<p>The decline in use for traditional agriculture has resulted in a successional trend to scrub and woodland together with invasion by conifer and introduced scrub species, especially Rhododendron.</p>	<p>The neighbourhood plan is unlikely to influence the agricultural practices at the Dorset Heaths European Site, which is outside the neighbourhood plan area.</p>	<p>No</p>	<p>No</p>
<p>Poole Harbour</p> <p>SPA and Ramsar</p>	<p>Poole Harbour has been impacted by the growth of an urban conurbation along its north shore, together with associated infrastructure, and by</p>	<p>The neighbourhood plan area is 17km from Poole Harbour and is not within the urban conurbation. The proposed development is</p>	<p>No</p>	<p>No</p>

<p>On passage, <b>Aquatic Warbler</b> <i>Acrocephalus paludicola</i> and <b>Little Egret</b> <i>Egretta garzetta</i>.</p> <p>Over winter, <b>Avocet</b> <i>Recurvirostra avosetta</i> and <b>Little Egret</b> <i>Egretta garzetta</i>.</p> <p>This site also supports populations of European importance of the following migratory species over winter: <b>Black-tailed Godwit</b> <i>Limosa limosa islandica</i> and <b>Shelduck</b> <i>Tadorna tadorna</i>.</p> <p>The area also regularly supporting at least 20,000 waterfowl including: Redshank <i>Tringa totanus</i>, Curlew <i>Numenius arquata</i>, Dunlin <i>Calidris alpina alpina</i>, Lapwing <i>Vanellus vanellus</i>, Red-breasted Merganser <i>Mergus serrator</i>, Goldeneye <i>Bucephala clangula</i>, Pochard <i>Aythya ferina</i>, Shoveler <i>Anas clypeata</i>, Dark-bellied Brent Goose <i>Branta bernicla bernicla</i>, Cormorant <i>Phalacrocorax carbo</i>, Black-tailed Godwit <i>Limosa limosa islandica</i>, Shelduck <i>Tadorna tadorna</i>, Avocet <i>Recurvirostra avosetta</i>, Little Egret <i>Egretta garzetta</i></p>	<p>development of a commercial port, marinas and moorings. Therefore, recreation pressures are considered a significant threat to the integrity of the site</p>	<p>therefore unlikely to result in a significant increase in recreational pressure.</p>		
	<p>Dredging to provide navigation may impact on intertidal habitat.</p>	<p>The neighbourhood plan will not influence dredging operations.</p>	<p>No</p>	<p>No</p>
	<p>Several sewage treatment plants discharge into the Harbour which effects water quality.</p>	<p>The neighbourhood plan intends to bring forward approximately 120 new dwellings. Development within the hydrological catchment of Poole Harbour may result in an increase in the discharge of nitrogen into the harbour as a result of increased sewage emissions.</p>	<p>Yes</p>	<p>Yes</p>
	<p>Whilst Wytch Farm oilfield operates in accordance with agreed method statements to minimise the risk from oil spills, in addition to having in place oil spill contingency plans, the possible threat from an oil spill incident remains.</p>	<p>The neighbourhood plan is unlikely to influence practices at the Wytch Farm oilfield or affect the likelihood of an oil spill.</p>	<p>No</p>	<p>No</p>
	<p>Recent studies have addressed the effects of bait digging in the Harbour which has local impacts.</p>	<p>The neighbourhood plan is unlikely to result in a significant increase in the incidence of bait digging given the distance from the site.</p>	<p>No</p>	<p>No</p>
	<p>The impact of drainage on grazing marshes is a threat to the Poole Harbour protected area.</p>	<p>The neighbourhood plan is unlikely to influence drainage on the grazing</p>	<p>No</p>	<p>No</p>

<p>Cerne and Sydling Downs SAC</p>	<p><b>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)</b> (* important orchid sites) This site consists of a large area of semi-natural dry grassland on the west Dorset chalk. Dry valley slopes with a variety of aspects support extensive examples of CG2 Festuca ovina – Avenula pratensis grassland in the south-west of its UK range. A particular feature of this site is the presence of the Succisa pratensis – Leucanthemum vulgare sub-community, especially on south- and west-facing slopes. This type of calcareous grassland is almost entirely restricted to parts of Wiltshire and Dorset. On south-west-facing slopes, the nationally scarce dwarf sedge Carex humilis can be abundant in this sub-community.</p> <p><b>1065 Marsh fritillary butterfly Euphydryas (Eurodryas, Hypodryas) aurinia</b> This site supports a large marsh fritillary Euphydryas aurinia metapopulation composed of two large and one smaller sub-populations which regularly expand into other nearby areas in favourable years. These colonies occupy calcareous downland situations and complement the wet grassland habitats of the other Dorset strongholds</p>	<p>The site is vulnerable to the impacts from the passage of walkers or cyclists. The chalk downlands are open to public access and there are footpaths and bridleways, some linking back to access points, and some with small-scale car parking available. Those parts of the site that are steep and with thin soils, especially near access points where pressures are more concentrated, are particularly vulnerable. Plant communities are under environmental stress from factors such as summer drought, thin soils and natural sub-aerial erosion. Such stresses from natural causes can be exacerbated by these human pressures.</p>	<p>marshes in the Poole Harbour area due to the characteristics of the proposed development and distance from the marshes. The main focus for car parking and access to the site is in the villages of Cerne Abbas and Sydling St Nicholas. From these places, the more vulnerable steep downland slopes are relatively distant (approx. 250-500m along roads and pathways) and access from here is to the foot of the downs. There are limited parking opportunities to access other parts of the SAC, each accommodating only a few cars which are distant from the main downland slopes. The main viewpoint for the chief feature of the site, the Cerne Giant chalk figure, is separated from the downland slopes by agricultural land and is alongside the A352 road. The site therefore has relatively low access provision. Considering also the extent of the proposed development which is likely to come forward through</p>	<p>No</p>	<p>No</p>
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			<p>the Puddletown Neighbourhood Plan (approx. 120 new dwellings) and the distance from the site, a significant increase in recreational pressure as a result of the Puddletown Neighbourhood Plan is unlikely.</p>		
<p>Low nutrient sites, typical of many semi-natural habitats including chalk grassland, are especially susceptible to the addition of fertiliser, whether from atmospheric deposition (mainly nitrogen) or dog faeces and urine (phosphorus and nitrogen).</p>	<p>The site has relatively low access provision, and the increase in the recreational use of the site is unlikely to be significant given the extent of the development which is likely to come forward and the distance between the site and neighbourhood plan area.</p>	<p>No</p>	<p>No</p>		



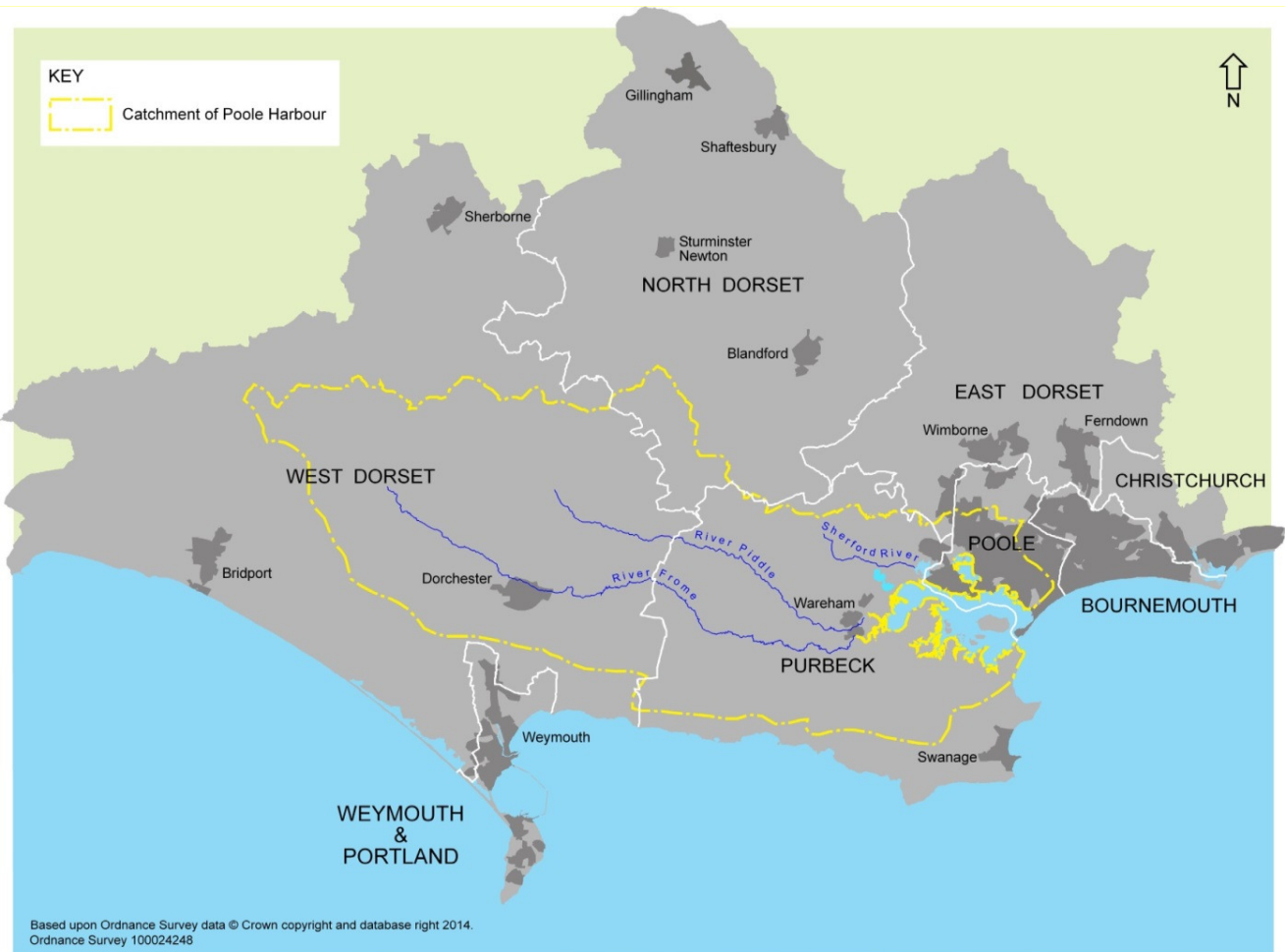
POTENTIAL IMPACTS UPON THE POOLE HARBOUR EUROPEAN SITE

A potential adverse impact upon the Poole Harbour European site has been identified as a result of an additional 120 dwellings which would occur within Puddletown, which is located within the hydrological catchment of Poole Harbour, through the Neighbourhood Plan. The increase in population as a result of the development is likely to cause an increase in the discharge of sewage into the harbour, causing increased levels of nitrogen in the sea water within the harbour.

Scientific evidence suggests that high concentrations of nitrogen in the harbour is encouraging the growth of wide spread algal mats through the process of eutrophication. These mats restrict the availability of invertebrates, which provide food to wading birds, and affect other important features and processes within the harbour. The extent of the algal mats has increased since the 1960s, expanding from Holes Bay to become widespread across the harbour.

The majority (~85%) of nitrogen entering Poole Harbour from land sources is generated by agriculture within the Poole Harbour catchment, which occupies an area of 820km<sup>2</sup> and comprise the rivers and streams which drain into Poole Harbour, as shown Figure 3.3. However, a proportion (~15%) of the nitrogen entering Poole Harbour is from human sewage discharged within the Poole Harbour catchment, since the Sewage Treatment Works remove only part of the nitrogen from human waste.

Figure 4.2: A map showing the extent of Poole Harbour catchment



The Nutrient Reduction in Poole Harbour Supplementary Planning Document (SPD) provides a means of calculating the additional nitrogen which would enter Poole Harbour as a result of the additional housing.

The SPD assumes a household occupancy rate of 2.42 new residents per dwelling. The proposed Puddletown Neighbourhood Plan would introduce 120 new dwellings, resulting in an additional 278 to 351 new residents.

The SPD states that each person, on average, produces sewage containing 3.5kg nitrogen per year. Wessex Water are required to remove at least 75% of nitrogen from waste water in their sewage treatment works, in order to comply with the Urban Waste Water Directive. Assuming Wessex Water meet this minimum requirement, the remaining 25% of the nitrogen, which represents 0.875kg of nitrogen per person per year, may enter Poole Harbour.

Therefore, the additional 278 to 351 new residents as a result of the Puddletown Neighbourhood Plan would result in an additional 243kg to 307kg of nitrogen per year entering Poole Harbour.

Any additional nitrogen entering Poole Harbour is likely to result in an adverse impact upon the integrity of the Poole Harbour European Site and will require mitigation.

#### POTENTIAL IMPACTS UPON THE DORSET HEATHS/DORSET HEATHLANDS EUROPEAN SITE

Potentially significant adverse impacts were identified with respect to the Dorset Heathlands and Dorset Heaths European Site, approximately 3km to the south of the site.

The fragments of Dorset heathland which remain following extensive losses from land use change over the past century are highly vulnerable to recreational pressure. The intensification of residential development in Dorset and the resultant pressures placed upon the Dorset Heaths by new occupants of these developments living in close proximity to the protected areas has resulted in adverse impacts upon the Dorset Heaths. Various studies have found that public access to lowland heathland, from nearby development, has led to an increase in wild fires, damaging recreational uses, the introduction of incompatible plants and animals, loss of vegetation and soil erosion and disturbance by humans and their pets amongst other factors have an adverse effect on the heathland ecology.

The Puddletown Neighbourhood Plan will result in a local population increase as a result in the additional 120 dwellings, leading to an increase in recreational pressure and potential impacts upon the Dorset Heaths/Dorset Heathlands European Site.

## 5. CONCLUSION

This Habitats Regulations Assessment screening report has identified potential impacts upon the integrity of the Poole Harbour and Dorset Heaths/Dorset Heathlands European sites (Figure 4.1).

In accordance with Regulation 61 of the Habitats Regulations, it is recommended that an Appropriate Assessment is completed to ensure that the nature and magnitude of the impacts upon the European Sites is considered and addressed.