Habitats Regulations Assessment

by Dorset Council

Blandford + Neighbourhood Plan 2011 - 2033

April 2019

CONTENTS

1. INTRODUCTION

This document provides a Habitats Regulations Assessment (HRA) of the Blandford + Neighbourhood Plan 2011 – 2033.

The main purpose of the HRA is to determine whether the neighbourhood plan is likely to adversely affect the integrity of a European Site[1], which are designated areas of exceptional ecological importance.

The Qualifying Body, Blandford Forum Town Council, is required by the Neighbourhood Planning (General) Regulations (2012) to provide such information as the competent authority may reasonably require to undertake a habitats regulations assessment. Blandford Forum Town Council submitted a report[2] to meet these requirements, and this HRA is based upon the information provided (see report in Appendix A).

This report explains the legal background to HRA and provides details of the Blandford + Neighbourhood Plan 2011 - 2033 before exploring the impacts on the European sites may be affected by the proposed plan.

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:

[1] 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)
[2] "Blandford Neighbourhood Plan Habitats Regulations Assessment" dated January 2019, prepared by AECOM

- 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;
- 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. HRA SCREENING

The first stage of the HRA process is the screening stage, the purpose of which is to determine whether the plan is likely to result in a significant effect upon a European Site.

In order to determine this, there is a requirement to identify those European Sites which may be affected by the Blandford + Neighbourhood Plan 2011 - 2033. The European Sites considered in this HRA are those which may be linked to the neighbourhood plan through a known 'pathway', defined as the method by which a change due to the neighbourhood plan may lead to an effect on a European Site (Figure 3.1).

Figure 3.1: European sites which may be affected by the Blandford + Neighbourhood Plan 2011 - 2033

European site	Designation
Dorset Heathlands	SPA, Ramsar
Dorset Heaths	SAC
Fontmell and Melbury Downs	SAC
Rooksmoor	SAC
Dorset Heaths (Purbeck and Wareham) and Studland Dunes	SAC
Poole Harbour	SPA, Ramsar
Isle of Portland to Studland Cliffs	pSAC

Further details of these European Sites and the pathways (highlighted in red text) which may cause the neighbourhood plan to result in a likely significant effect upon a European Site are shown in Figure 3.2.

Figure 3.2: Characteristics of the European sites which may be affected by the Blandford + Neighbourhood Plan 2011 - 2033 and pathways of impact

Qualifying features	***Conservation Objectives***	***Pathways of impact***
Dorset Heathlands SPA and Ramsar		
Annex II: Breeding: Nightjar *Caprimulgus Europaeus*; Dartford warbler *Sylvia undata*; Woodlark *Lullula Arborea.* Wintering: Hen harrier *Circus Cyaneus*; Merlin *Falco columbarius.* *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*, largest example in Britain of southern Atlantic wet heaths with Dorset heath *Erica ciliaris* and cross-leaved heath *Erica tetralix*. *Ramsar criterion 2:* Supports one nationally rare and 13 nationally scarce wetland plant species, 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. *Species occurring at levels of international importance:* Southern damselfly *Coenagrion mercuriale.*	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 habitat management • Outdoor sports and leisure activities, recreational activities • Grazing • Invasive non-native species • Human induced changes in hydraulic conditions • Biocenotic evolution, succession • Habitat fragmentation • Wild fires/ arson • Acid rain • Pollution (unspecified)
Dorset Heaths SAC		
Annex I: Northern Atlantic wet heaths with *Erica tetralix*. European dry heaths. Depressions on peat substrates of the *Rhynchosporion*. 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 II species:* Southern damselfly 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;	• Inappropriate habitat management • Outdoor sports/leisure activities, recreational activities • Grazing • Invasive non-native species • Human induced changes in hydraulic conditions

	• The populations of qualifying species; and • The distribution of qualifying species within the site.	• Habitat fragmentation • Wild fires/ arson • Air pollution
Poole Harbour SPA and Ramsar		
A wetland of international importance by regularly supporting at least 20,000 waterfowl: Breeding common tern *Sterna hirundo*, sandwich tern *Sterna sandvicensis,* and Mediterranean gull *Larus melanocephalus*; Wintering little egret *Egretta garzetta*, Icelandic population of black-tailed godwit *Limosa limosa*, Eurasian spoonbill *Platalea leucorodia leucorodia*, avocet *Recurvirostra avocetta*, and shelduck *Tadorna tadorna.* Waterbird assemblages 25,176 individuals *Ramsar criterion 1:* Best and largest example of a bar-built estuary with lagoonal characteristics in Britain. *Ramsar criterion 2:* Two species of nationally rare plant, One nationally rare alga, At least three British Red data book invertebrate species. *Ramsar criterion 3:* Mediterranean and thermo Atlantic halophilous scrubs, dominated by shrubby seablite *Suaeda vera*; calcareous fens with great fen sedge *Cladium mariscus*; transitions from saltmarsh through to peatland mires. Nationally important populations of breeding waterfowl including: Common tern, and Mediterranean gull; and Nationally important populations of wintering; Avocet *Ramsar criterion 5:* Internationally important assemblages of waterfowl. 24709 waterfowl (5 year peak mean 1998/99-2002/2003) *Ramsar criterion 6:* Internationally important populations of common shelduck, black tailed godwit, and avocet.	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.	• Water pollution • Air pollution, air-borne pollutants • Fisheries • Coastal squeeze • Outdoor sports and leisure activities, recreational activities • Deer • Eutrophication • Introduction of non-native animal species
Isle of Portland to Studland Cliffs SAC		
Annex I: Vegetated sea cliffs of the Atlantic and Baltic Coasts Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) - Important orchid sites	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:	• Undergrazing • Inappropriate scrub control

Annex II: Early gentian *Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site*: annual vegetation of drift lines	• 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 • Outdoor sports and leisure activities, recreational activities • Water pollution • Habitat fragmentation • Inappropriate management
Dorset Heaths (Purbeck and Wareham) and Studland Dunes SAC		
Annex I: Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammopila arenaira;* Atlantic decalcified fixed dunes (Calluno-Ulicetea) Humid dune slacks; Oligotrophic waters containing very few minerals of sandy plains; *Littorelletalia uniflorae;* Northern Atlantic wet heaths and *Eric tetralix;* Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* European dry heaths; Depressions on peat substrates of the *Rhynchosporion* Bog woodland *Annex I 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 II species:* Great crested newt; Southern damselfly	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.	• Inappropriate habitat management • Outdoor sports and leisure activities, recreational activities • Grazing • Invasive non-native species • Human induced changes in hydraulic conditions • Habitat fragmentation • Wild fires/ arson • Air pollution
Rooksmoor SAC		
Annex I habitat: Molinia meadows on calcareous, peaty or clayey-silt-laden soils *Molinion Caeruleae* *Annex II species*: Marsh fritillary butterfly *Euphydryas 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;	• Inappropriate scrub control • Undergrazing • Inappropriate cutting/ mowing • Air pollution from

	• 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.	atmospheric nitrogen deposition.
Fontmell and Melbury Downs SAC		
Annex I habitat: Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) *Annex II species:* Early gentian *Gentianella anglica.* This inland site supports consistently large populations of early gentian Gentianella anglica, numbering many thousands of plants. The site includes large areas of species-rich chalk grassland and is one of three sites selected in the centre of the main range of the 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; • 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.	• Cultivation • Modification of cultivation practices • Biocenotic evolution, succession • Air pollution, air-borne pollutants

Following the initial screening shown in Figures 3.1 and 3.2, a more detailed assessment of the likely significant effects which may result upon the European Sites was undertaken (see Figure 3.3). This assessment considered the potential impact pathways for each of the fifteen policies in the neighbourhood plan.

Following this assessment, it was shown that some of the potential impact pathways could be discounted as they were not considered realistic linking impact pathways. Thirteen of the fifteen policies are considered to have no likely significant effects. Eleven of these policies (B1, B4, B5, and B8-B15) do not lead to additional development. Policies B6 and B7 support the provision of a village hall at Blandford St Mary and the expansion of existing surgeries respectively. These developments would occur within an urban area and at least 9km from a European Site. Considering the nature of these uses also, these policies are considered to have no likely significant effects. Full details of the reasons for discounting a likely significant effect are provided in Figure 3.3.

However, it was determined that the following two policies may lead to a likely significant effect upon the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC as a result of atmospheric pollution through vehicle exhaust emissions:

- B2 Land North & East of Blandford Forum
- B3 Employment

Therefore, a further more detailed assessment, known as an 'Appropriate Assessment', is necessary to explore whether there would be adverse effects on the integrity of a European Site.

Figure 3.3: A table considering the potential pathways of impact which may result in a likely significant impact upon a European Site

Policy	Reason for assessment of the likely significant effect (LSE)	LSE?
B1 Blandford Forum & Blandford St Mary Settlement Boundary	This policy provides a spatial strategy and defines a settlement boundary, controlling the distribution of new development and prevent development in unsustainable locations. The does not lead to additional development and there are considered no pathways for a likely significant effect upon a European Site, alone or in-combination with other development, to occur.	×
B2 Land North & East of Blandford Forum	This policy allocates land for development to the north and northeast of Blandford Forum. It proposes a mix of residential, commercial, education and allotment uses. The potential pathways for a likely significant effects to occur, both alone and in combination with other development in the surrounding areas, include: • *Recreational pressure and disturbance*: The nearest European Site to the neighbourhood plan area is the Fontmell and Melbury Downs SAC located over 8km north of the Neighbourhood Plan area. Surveys have indicated that the core recreational catchment, defined by the zone within which 75% of visitors derive, is typically 4-6km from the European Site and rarely larger. Therefore, it is considered that due to the distance from the Neighbourhood Plan area, there will not be likely significant effect due to recreational pressure and disturbance, alone or in-combination with other development. • *Air pollution*: Development through this policy may contribute to air pollution and the greater rate of deposition of atmospheric nitrogen to soils largely through higher level of vehicle use and the resulting rise in vehicle exhaust emissions. At the time of the HRA screening, there was a lack of evidence and air quality data to fully investigate this potential impact and determine the likely significant effect of the neighbourhood plan on the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC. Therefore likely significant effects as a result of this pathway could not be discounted at the HRA screening stage. • *Human induced changes in hydraulic conditions*: Changes in the hydraulic condition brought about by this additional housing would be through increased water demand and abstraction from water courses and reservoirs within European sites, resulting in a reduction in water levels and changes in the water table and effects on associated fauna. This policy would provide 400 residential units is considered unlikely to increase demand for water to the extent that would lead to a likely significant effect, alone or in-combination with other development. • *Loss of functionally linked land for non-breeding SPA birds*: The allocated area is characterised by arable land enclosed by field boundaries comprised continuous hedges and hedges/with trees and allotments. These habitats are not considered to be suitable functionally linked land for qualifying species and therefore there will be no likely significant effect. alone or in-combination with other development.	✓

Policy	Reason for assessment of the likely significant effect (LSE)	LSE?
B3 Employment	This policy allocates land for development for B1-B8 employment uses at land at Blandford Heights, land off Shaftesbury Lane, and to the south of Sunrise Business Park The potential pathways for a likely significant effects to occur, both alone and in combination with other development in the surrounding areas, include: • *Recreational pressure and disturbance*: Since the nearest European Site is located over 8km from the Neighbourhood Plan area, it is considered that due to the distance from the Neighbourhood Plan area, there will not be likely significant effect due to recreational pressure and disturbance, alone or in-combination with other development. • *Air pollution*: This development for employment use may contribute to air pollution and the greater rate of deposition of atmospheric nitrogen to soils largely through higher level of vehicle use and the resulting rise in vehicle exhaust emissions. At the time of the HRA screening, the absence of evidence or air quality data to fully investigate this potential impact and determine the likely significant effect of the neighbourhood plan meant that likely significant effects as a result of this pathway upon the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC could not be discounted at the HRA screening stage. • *Human induced changes in hydraulic conditions*: Changes in the hydraulic conditions due to this employment development would be through increased water demand and abstraction from water courses and reservoirs within the European sites, resulting in a reduction in water levels and changes in the water table and effects on associated fauna. This policy would provide between 2-5ha of employment land which is considered unlikely to increase demand for water to the extent that would lead to a likely significant effect, alone or in-combination with other development. • *Loss of functionally linked land for non-breeding SPA birds*: The areas proposed for employment land are three plots of land which comprise arable land surrounded on all sides with hedges at Sunshine Business Park, current in-use industrial estate at Blandford Heights with one small area of fenced rough grassland (grasses, tall ruderal species and scrub); and a large area of rough grassland comprising grasses, tall ruderal species and some scrub/shrub. These habitats are not considered to be suitable functionally linked land for qualifying species and therefore there will be no likely significant effect, alone or in-combination with other development.	✓
B4 Secondary Education **B5** Community Facilities	These policies aim to upgrade the existing school and protect against the loss of community facilities. They dp not lead to additional development and there are considered no pathways for a likely significant effect upon a European Site to occur, alone or in-combination with other development.	×

Policy	Reason for assessment of the likely significant effect (LSE)	LSE?
B6 Blandford St Mary Community Hall	This policy proposes a new community hall in Blandford St Mary. However, the community hall would be within an urban setting, and approximately 11km from the nearest European Site. Furthermore, the use of this facility for a community hall would be unlikely to contribute to a likely significant effect upon a European Site, alone or in-combination with other development, through the pathways outlined in Figure 3.2.	×
B7 Health Provision	This policy supports the expansion of the existing Whitecliff Surgery, Eagle Surgery and Blandford Community Hospital. These healthcare facilities exist within an urban setting at least 9km away from a European Site. The expansion of these facilities is considered unlikely to contribute to a likely significant effect, alone or in-combination with other development, upon a European Site through the pathways outlined in Figure 3.2.	×
B8 Blandford Forum Town Centre	These policies aims to manage commercial and tourism development, the designation of green infrastructure and green spaces, and influence design. They do not result in additional development and therefore there are considered to be no pathways for a likely significant effect, alone or in-combination with other development, upon a European Site to occur.	×
B9 Green Infrastructure Network		
B10 Local Green Spaces		
B11 Managing Design in the Conservation Area: Blandford Forum		
B12 Managing Design in the Conservation Area: Blandford St Mary		
B13 Managing Design in the Conservation Area: Bryanston		
B14 The River Stour Meadows		
B15 Tourism		

3. APPROPRIATE ASSESSMENT

The HRA screening identified a likely significant effect of policies B2 and B3 of the Blandford + Neighbourhood Plan 2011 - 2033 as a result of air pollution due to additional traffic affecting the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC. As a result, an Appropriate Assessment is required to explore the issue further and determine whether the Blandford+ Neighbourhood Plan 2 would result in adverse effects on the integrity of a European Site.

The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO_2).

NOx can have a directly toxic effect upon vegetation. In addition, greater NOx or NH3 concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils causing an increase in soil fertility, which can adversely effect on the quality of seminatural, nitrogen-limited terrestrial habitats.

SO_2 emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil. NH3 emissions are dominated by agriculture. NOx emissions, however, are dominated by the output of vehicle exhausts. Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic with other sources, although relevant, being of minor importance (8%) in comparison.

None of the allocations in the neighbourhood plan are of an industrial nature. The Appropriate Assessment therefore focuses on vehicle exhaust emissions as this is the only potentially significant source of emissions from the type of development allocated in the Local Plan.

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

This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by traffic generated by development under the Plan.

EUROPEAN SITES

FONTMELL AND MELBURY DOWNS SAC

The closest European Site to the plan area is the Fontmell and Melbury Downs SAC is 8km from the neighbourhood plan boundary and therefore 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”.

Fontmell and Melbury Downs SAC is adjacent to the A350 in the Compton Abbas area. The main habitat type within Fontmell and Melbury Downs SAC along the A350 stretch of road is calcareous grassland which is currently classed by Natural England as partly within the ‘Unfavourable- Recovering’ category due to undergrazing.

According to Air Pollution Information System (APIS) the nitrogen critical load for this habitat type (calcareous grassland) is 15-25 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 23.9KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 18.1KgN/ha/yr with an average of 20.KgN/ha/yr. All of which are below the nitrogen critical load for this habitat.

ROOKSMOOR SAC

Rooksmoor SAC is adjacent to A357, The main habitat type within the Rookmoor SAC along the A357 stretch of road is neutral grassland which is currently classed by Natural England as ‘Unfavourable- Recovering’. The reason behind the impact classification for these units is due to scrub growth and required vegetation clearance.

According to APIS the nitrogen critical load for this habitat type (neutral grassland) is 20-30 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 27.3KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 23.5KgN/ha/yr with an average of 23.9KgN/ha/yr.

DORSET HEATHS SAC

Dorset Heath SAC is within 200m of the A350 and the A349 past Canford Heath forms part of Dorset Heaths SAC in Bournemouth.

The main habitat type within the Dorset Heaths SAC along the A350 stretch of road is lowland dwarf shrub heath which is currently classed by Natural England as ‘Unfavourable- Recovering’. The reasons behind the impacts to this site include fires, adverse recreational use, leading to enrichment and disturbance, scrub encroachment and lack of limited grazing.

According to APIS the nitrogen critical load for this habitat type is 10-20 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 16 KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 13.2KgN/ha/yr with an average of 13.2KgN/Ha/yr.

The main habitat type within the Dorset Heaths SAC along the A349 stretch of road (Canford Heath SSSI) is lowland dwarf shrub heath which is currently classed by Natural England as ‘Unfavourable- Recovering’ and ‘Unfavourable- No Change’. The reasons for the ‘Unfavourable- Recovering’ classification include non-native garden escapes, the presence of a colony of Gaultheria which is expanding, scrub encroachment. Although grazing has commenced in this area, the habitat has been

positively affected. The reasons behind the 'Unfavourable- No Change' classification includes fire; freshwater pollution, and water pollution- agricultural runoff.

According to APIS the nitrogen critical load for this habitat type is 10-20 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 15.5 KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 15.3 KgN/ha/yr with an average of 15.5KgN/ha/yr.

IMPACT ASSESSMENT

A Technical Note was produced by AWP (Awcock Ward Partnership) in December 2018 for the Blandford Neighbourhood Plan Group. The technical note modelled the forecast change in annual average daily traffic due to the growth proposed by the neighbourhood plan on the following roads:

- A349 past Canford Heath, which forms part of Dorset Heaths SAC in Bournemouth;
- A350 in the Compton Abbas area within 200m of Fontmell & Melbury Downs SAC
- A357 at Lydlinch within 200m of Rooksmoor SAC; and
- A35 between Upton and Bournemouth which is part of the Dorset Heaths SAC.

The following changes in annual average daily traffic (AADT) due to the additional 400 proposed dwellings were predicted:

- Effectively zero AADT is expected on the A349 past Canford Heath;
- 48 AADT is expected on the A350 in the Compton Abbas area within 200m of Fontmell & Melbury Downs SAC;
- 33 AADT is expected on the A357 at Lydlinch within 200m of Rooksmoor SAC; and
- 188 AADT is expected on the A35 between Upton and Bournemouth which forms part of the Dorset Heaths SAC.

According to AECOM's air quality modelling team, any resulting impacts upon air quality from the changes in annual average daily traffic would be inconsequential both alone and in combination with other projects and plans.

This is partly as the small predicted changes in average flow as a result of the proposed development is comfortably within the normal variation in AADT around the average flow, and will not make a statistically significant difference in the total AADT.

The experience of AECOM's air quality modelling team is that very small changes in AADT, in the magnitude of tens of AADT, only affect the third decimal place which is not normally reported in air quality modelling to avoid false precision. Anything smaller is simply reported as less than 0.01 (< 0.01), which indicates a change in air quality of probably more than zero but too small to model with precision.

The greatest change in AADT forecast due to the Blandford+ Neighbourhood Plan 2 is 188 AADT on the A35 within the Dorset Heath SAC. This represents a negligible 0.3% change in flows compared to

the base flow of 55,708 AADT. The resulting nitrogen deposition effect from such a change is typically approximately 0.02 kgN/ha/yr at the closest point to the roadside, or a further 2 milligrams of nitrogen per square metre over the course of a year. This is considered to be virtually zero and comfortably within the limits of the normal variation in nitrogen deposition rates.

4. CONCLUSION

The HRA screening exercise concluded that policies B2 and B3 of the Blandford + Neighbourhood Plan 2011 - 2033 would result in a likely significant effect upon the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC as a result of the increased traffic causing greater atmospheric deposition and compromising air quality.

An Appropriate Assessment was undertaken accordingly, and used the predicted changes in the annual average daily traffic as a result of the proposals in the neighbourhood plan to predict the resulting nitrogen deposition. The predicted changes in annual average daily traffic were very small, to the extent that they were confortably within the normal daily variation in traffic and too small to model accurately. The largest ncrease in traffic was 188 additional trips a year on the A35 between Upton and Bournemouth, which forms part of the Dorset Heaths SAC. The resulting nitrogen deposition of 2 milligrams of nitrogen per square metre per year was considered to be virtually zero.

Therefore, it can be concluded that policies B2 and B3 of the Blandford+ Neighbourhood Plan 2011 - 2033 will not have an adverse effect on the integrity of the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC as a result of air pollution.

APPENDIX A: BLANDFORD NEIGHBOURHOOD PLAN HABITATS REGULATIONS ASSESSMENT (DATED JANUARY 2019, PRODUCED BY AECOM)

Blandford Neighbourhood Plan Habitats Regulations Assessment

Blandford Forum Town Council

January 2019

Quality information

Prepared by	Checked by	Verified by	Approved by
Pamela Swallow BSc (Hons) MSc MCIEEM Principal Ecologist	James Riley CEnv MCIEEM Technical Director (Ecology and Habitats Regulations Assessment)		Max Wade CEcol MCIEEM (Technical Director)

Revision History

Revision	Revision date	Details	Authorized	Name	Position
0	15/10/18	Draft screening report	JR	James Riley	Technical Director
1	18/01/19	HRA including appropriate assessment	JR	James Riley	Technical Director

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Blandford Forum Town Council

Prepared by:

Pamela Swallow BSc (Hons) MSc MCIEEM
Principal Ecologist
T: 0151 331 8922
M: 07899665229
E: pamela.swallow@aecom.com

AECOM Infrastructure & Environment UK Limited
Exchange Court
1 Dale Street
Liverpool L2 2PP
United Kingdom

T: +44 151 331 8900
aecom.com

Table of Contents

Tables

1. Introduction

Background to the Project

AECOM has been appointed by Blandford Forum Town Council to assist in undertaking a Habitats Regulations Assessment (HRA) of the potential effects of Blandford+Neighbourhood Plan 2 (B+NP2) on Natura 2000 Network and Ramsar sites. The objectives of the assessment are to:

- identify any aspects of the Plan that would cause a likely significant effect on Natura 2000 sites, otherwise known as European sites or internationally designated site
- undertake appropriate assessment of the plan if any likely significant effects cannot be dismissed

Neighbourhood Plans are required to be in conformity with the relevant Local Plan (North Dorset Local Plan (Part 1). In this case, the HRA is required as the B+NP2 is seeking to allocate a minimum of 400 dwellings additional to the North Dorset Local Plan. The HRA is required to evaluate the Likely Significant Effects (LSE) of the Blandford + Neighbourhood Plan (B+NP2) LSE) on internationally important wildlife sites within the zone of influence, and determine if there is a relevant connecting pathway.

Legislation

The need for HRA is set out within Article 6 of the EC Habitats Directive 1992, and interpreted into British law by the Conservation of Habitats & Species Regulations 2017 (as amended)[1] (**Box 1**). The ultimate aim of the Habitats Directive is to "*maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest*" (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status. European sites (also called Natura 2000 sites) can be defined as actual or proposed/candidate Special Areas of Conservation (SAC) or Special Protection Areas (SPA). It is also Government policy for sites designated under the Convention on Wetlands of International Importance (Ramsar sites) to be treated as having equivalent status to Natura 2000 sites.

The Habitats Regulations applies the precautionary principle to Natura 2000 sites (SAC and SPA). As a matter of UK Government policy, Ramsar sites are given equivalent status. For the purposes of this assessment candidate SACs (cSACs), proposed SPAs (pSPAs) and proposed Ramsar (pRamsar) sites are all treated as fully designated sites. In this report we use the term "European designated sites" to refer collectively to the sites listed in this paragraph

The Habitats Directive applies the precautionary principle to protected areas. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. This is in contrast to the SEA Directive which does not prescribe how plan or programme proponents should respond to the findings of an environmental assessment; merely that the assessment findings (as documented in the 'environmental report') should be 'taken into account' during preparation of the plan or programme. In the case of the Habitats Directive, plans and projects may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

There has also been a recent change (April 13th 2018) as to which stage mitigation can be applied during a Habitats Regulations Assessment. The Court of Justice of the European Union published its ruling in the Case C323/17 (known as 'People Over Wind') with regards to the Habitats Directive. It has been the practice that mitigation measures that were part of the project/plan could be taken into

[1] Amendments to the Regulations were published in late 2018. These do not alter the HRA process but changes made to the Neighbourhood Planning Regulations as part of the amendments do now allow a plan to be made if it requires appropriate assessment

account at the screening stage of a Habitats Regulations Assessment. If such measures are seen as capable of avoiding or reducing the adverse effects of development on a site protected by the Habitats Directive, then a finding of 'no significant effects' could be made at the screening stage, and Appropriate Assessment would not be required. However, the latest judgement states that the Habitats Directive "*must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site*".

All the European sites mentioned in this document are illustrated in **Appendix A, Figure A1.** In order to ascertain whether or not site integrity will be affected, an Appropriate Assessment should be undertaken of the plan or project in question:

Box 1: The legislative basis for Appropriate Assessment

Habitats Directive 1992

"*Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives*."

Article 6 (3)

Conservation of Habitats and Species Regulations 2017

"*A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for a plan or project which -*
a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects) and
b) is not directly connected with or necessary to the management of the that site, must make an appropriate assessment of the implications for the site in view of that sites conservation objectives"

Regulation 63 (1)

Over the years the phrase 'Habitats Regulations Assessment' has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an 'appropriate assessment'. Throughout this report we use the term Habitats Regulations Assessment for the overall process.

Report Layout

Chapter 2 of this report explains the process by which the HRA has been carried out. **Chapter 3** explores the relevant pathways of impact. **Chapter 4** undertakes the Test of Likely Significant Effects of the policies and site allocations of the Plan considered 'alone' and 'in-combination). **Chapters 5 and 6** present the appropriate assessment.

Consultation

North Dorset District Council consulted Natural England on the requirements for an HRA in relation the Blandford+ Neighbourhood Plan 2 (B+NP2) in May 2018. The B+NP2 is seeking to allocate a minimum of 400 dwellings additional to the North Dorset Local Plan.

Natural England's response on this matter included the following comment: *Given the scale of the additional housing I can confirm that it would be prudent to complete an HRA of the NP. Among other things this should consider any increase in traffic and potential associated impacts on air quality in combination with other proposals.*

Given the large scale of the development proposed, and in light of the comments made by Natural England, the District Council considers that an HRA of the Blandford + Neighbourhood Plan (Version 2) is required.

2. Methodology

Introduction

This section sets out the approach and methodology for undertaking the Habitats Regulations Assessment (HRA). HRA itself operates independently from the Planning Policy system, being a legal requirement of a discrete Statutory Instrument. Therefore there is no direct relationship to the National Planning Policy Framework (NPPF) and the 'Tests of Soundness'.

A Proportionate Assessment

Project-related HRA often requires bespoke survey work and novel data generation in order to accurately determine the significance of effects. In other words, to look beyond the risk of an effect to a justified prediction of the actual likely effect and to the development of avoidance or mitigation measures.

However, the draft DCLG guidance[2] (described in greater detail later in this chapter) makes it clear that when implementing HRA of land-use plans, the Appropriate Assessment (AA) should be undertaken at a level of detail that is appropriate and proportional to the level of detail provided within the plan itself:

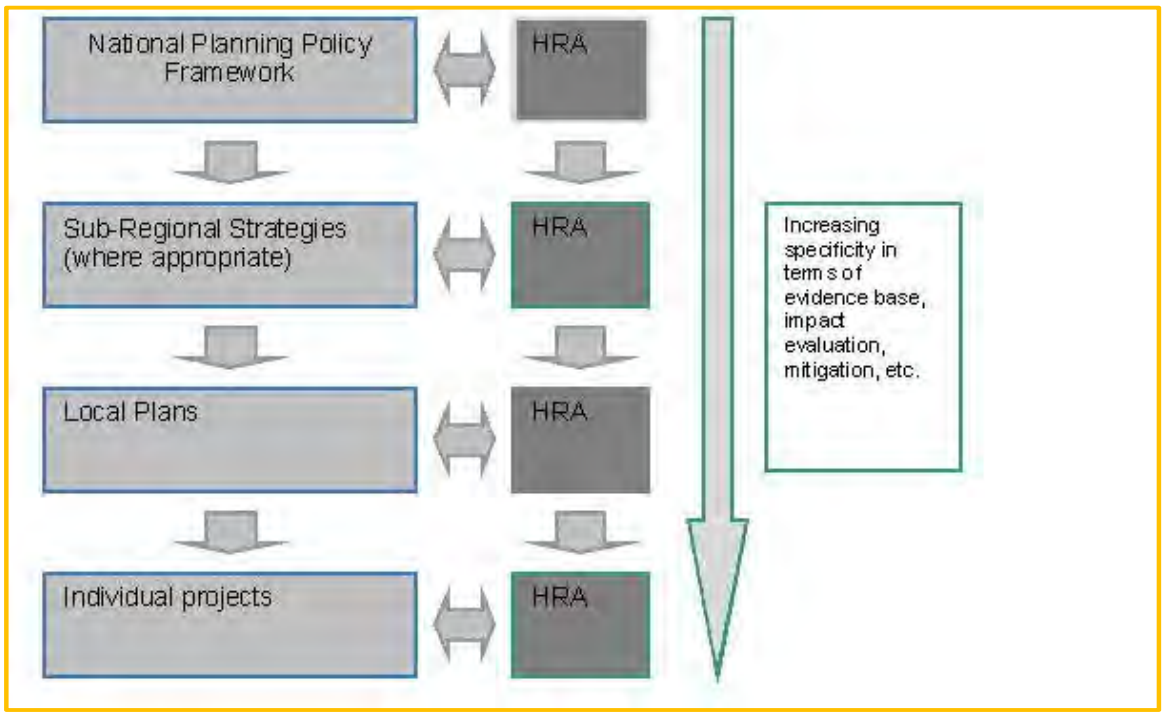
"The comprehensiveness of the [Appropriate] assessment work undertaken should be proportionate to the geographical scope of the option and the nature and extent of any effects identified. An AA need not be done in any more detail, or using more resources, than is useful for its purpose. It would be inappropriate and impracticable to assess the effects [of a strategic land use plan] in the degree of detail that would normally be required for the Environmental Impact Assessment (EIA) of a project."

More recently, the Court of Appeal[3] ruled that providing the Council (competent authority) was duly satisfied that proposed mitigation could be "*achieved in practice"* to satisfy that the proposed development would have no adverse effect, then this would suffice. This ruling has since been applied to a planning permission (rather than a Core Strategy)[4]. In this case the High Court ruled that for "*a multistage process, so long as there is sufficient information at any particular stage to enable the authority to be satisfied that the proposed mitigation can be achieved in practice it is not necessary for all matters concerning mitigation to be fully resolved before a decision maker is able to conclude that a development will satisfy the requirements of reg 61 of the Habitats Regulations"*.

In other words, there is a tacit acceptance that AA can be tiered and that all impacts are not necessarily appropriate for consideration to the same degree of detail at all tiers as illustrated in **Box 2**.

[2] DCLG (2006) Planning for the Protection of European Sites, Consultation Paper
[3] No Adastral New Town Ltd (NANT) v Suffolk Coastal District Council Court of Appeal, 17th February 2015
[4] High Court case of R (Devon Wildlife Trust) v Teignbridge District Council, 28 July 2015

Box 2: Tiering in HRA of Land Use Plans



For a Local Plan the level of detail concerning the developments that will be delivered is usually insufficient to make a highly detailed assessment of significance of effects. For example, precise and full determination of the impacts and significant effects of a new settlement will require extensive details concerning the design of the new housing sites, including layout of greenspace and type of development to be delivered in particular locations, yet these data will not be decided until subsequent stages.

The most robust and defensible approach to the absence of fine grain detail at this level is to make use of the precautionary principle. In other words, the plan is never given the benefit of the doubt (within the limits of reasonableness); it must be assumed that a policy/measure is likely to have an impact leading to a significant adverse effect upon an internationally designated site unless it can be clearly established otherwise.

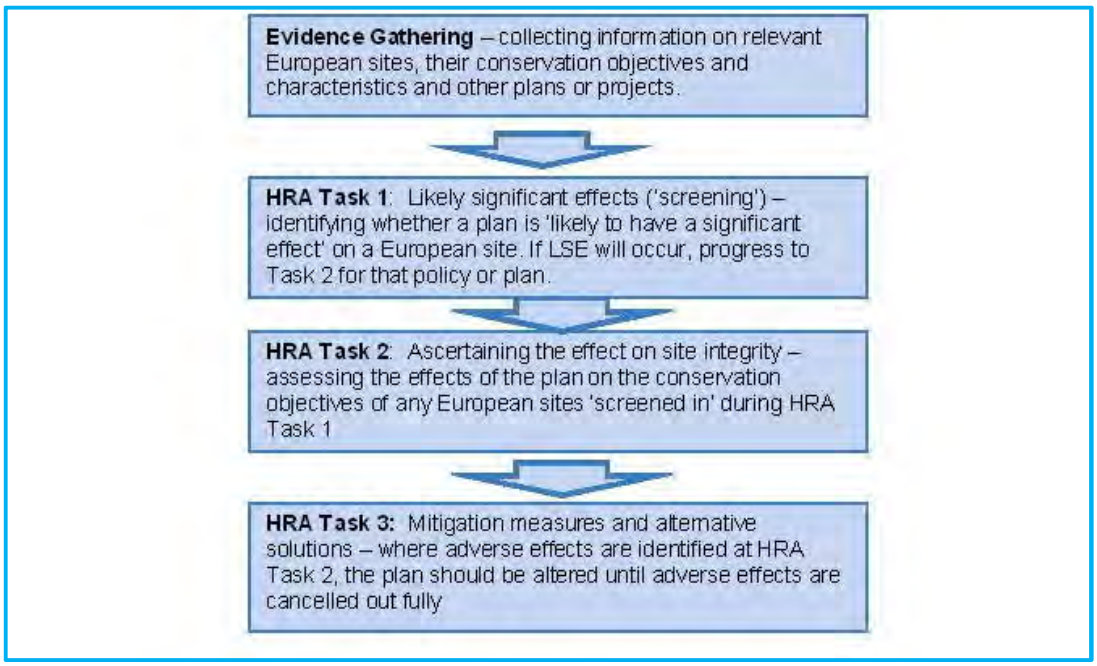
The Process of HRA

The HRA is being carried out in the continuing absence of formal central Government guidance. DCLG released a consultation paper on AA of Plans in 2006[5]. As yet, no further formal guidance has emerged from DCLG. However, Natural England has produced its own informal internal guidance and Natural Resources Wales has produced guidance for Welsh authorities on "*the appraisal of plans under the Habitats Regulations*" as a separate guidance document aimed at complementing and supplementing the guidance/advice provided within Technical Advice Note 5: Nature Conservation and Planning[6]. Additionally DTA Publications have produced The Habitats Regulations Assessment Handbook which reflects available HRA guidance[7]. Although there is no requirement for an HRA to follow any guidance, it has been referred to in producing this HRA.

Box 3 outlines the stages of HRA according to current draft DCLG guidance (which, as government guidance applicable to English authorities is considered to take precedence over other sources of guidance). The stages are essentially iterative, being revisited as necessary in response to more detailed information, recommendations and any relevant changes to the plan until no likely significant effects remain.

[5] DCLG (2006) Planning for the Protection of European Sites, Consultation Paper
[6] Welsh Government. Technical Advice Note 5, Nature Conservation and Planning (2009) http://gov.wales/topics/planning/policy/tans/tan5/?lang=en [accessed 01/12/2016]
[7] DTA Publications (2017). The Habitats Regulations Assessment Handbook

Box 3: Four-Stage Approach to Habitats Regulations Assessment



In practice, this broad outline requires some amendment in order to feed into a developing land use plan such as a Local Plan. The four staged approach shows for simplicity a basic progression from step to step, but it is quite usual for the process to be more iterative and cyclical, with each stage being fed back to the local authority to inform further amendments to the plan which are then re-assessed for implications on internationally designated sites. The following process has been adopted for carrying out the subsequent stages of the HRA.

Task One: Test of Likely Significant Effect

The first stage of any Habitats Regulations Assessment is a Likely Significant Effect test - essentially a high level risk assessment to decide whether the full subsequent stage known as Appropriate Assessment is required. The essential question is:

"*Is the Plan, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon European sites*?"

In evaluating significance, AECOM have relied on professional judgment and experience of working with the other local authorities on similar issues. The level of detail concerning developments that will be permitted under land use plans is rarely sufficient to make a detailed quantification of effects. Therefore, a precautionary approach has been taken (in the absence of more precise data) assuming as the default position that if a likely significant effect (LSE) cannot be confidently ruled out, then the assessment must be taken the next level of assessment Task Two: Appropriate Assessment. This is in line with the April 2018 court ruling relating to 'People Over Wind' where mitigation and avoidance measures are to be included at the next stage of assessment.

Task Two: Appropriate Assessment

European Site(s) which have been 'screened in' during the previous Task will have a detailed assessment undertaken on the effect of the policies on the European Site(s) site integrity. Avoidance and mitigation measures to avoid adverse significant effects will be incorporated where necessary.

As established by case law, 'appropriate assessment' is not a technical term; it simply means whatever further assessment is necessary to confirm whether there would be adverse effects on the integrity of any European sites that have not been dismissed at screening. Since it is not a technical term it has no firmly established methodology except that it essentially involves repeating the analysis for the likely significant effects stage, but to a greater level of detail on a smaller number of policies and sites, this time with a view to determining if there would be adverse effects on integrity. For the air

quality pathway the appropriate assessment is where detailed traffic and air quality modelling is reported.

One of the key considerations during appropriate assessment is whether there is available mitigation that would entirely address the potential effect. In practice, the appropriate assessment takes any policies or allocations that could not be dismissed following the high-level Screening analysis and analyse the potential for an effect in more detail, with a view to concluding whether there would actually be an adverse effect on integrity (in other words, disruption of the coherent structure and function of the European site(s)). Note that this report consists solely of the Likely Significant Effects stage.

The Scope

There is no pre-defined guidance that dictates the physical scope of an HRA of a Local Plan. Therefore, in considering the physical scope of the assessment we were guided primarily by the identified impact pathways rather than by arbitrary "zones", i.e. a source-pathway-receptor approach. Current guidance suggests that the following European sites be included in the scope of assessment:

- All sites within the Neighbourhood Plan area boundary; and
- Other sites shown to be linked to development within the Neighbourhood Plan boundary through a known "pathway" (discussed below).

Briefly defined, pathways are routes by which a change in activity within the Local Plan area can lead to an effect upon a European site. In terms of the second category of European site listed above, DCLG guidance states that the AA should be "*proportionate to the geographical scope of the* [plan policy]" and that "*an AA need not be done in any more detail, or using more resources, than is useful for its purpose*" (CLG, 2006, p.6[8]).

Locations of European designated sites are illustrated in **Appendix A, Figure A1**, and full details of all European designated sites discussed in this document can be found in **Appendix B**. specifying their qualifying features, conservation objectives and threats to integrity. Table 1 below lists all those European designated sites included in the HRA.

Note that the inclusion of a European sites or pathway in the table below does not indicate that an effect is expected but rather than these are pathways for investigation.

Table 1: Physical Scope of the HRA

European Designated Site	Reason for Inclusion (Potential Impact Pathways Present)
Fontmell and Melbury Downs SAC	Air pollution and air-borne pollutants
Dorset Heathlands SPA	Outdoor sports and leisure activities, recreational activities Human induced changes in hydraulic conditions
Isle of Portland to Studland Cliffs SAC	Outdoor sports and leisure activities, recreational activities
Rooksmoor SAC	Air pollution and air-borne pollutants

[8] Now DCLG.

European Designated Site	Reason for Inclusion (Potential Impact Pathways Present)
Dorset Heaths (Purbeck and Wareham and Studland Dunes SAC	Human induced changes in hydraulic conditions
Dorset Heaths SAC	Outdoor sports and leisure activities Invasive non-native species Fire and suppression
Poole Harbour SPA/Ramsar	Outdoor sports and leisure activities Air pollution and air-borne pollutants

The "In Combination" Scope

It is a requirement of the Regulations that the impacts and effects of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European designated site(s) in question. In practice, "in combination assessment" is of greatest importance when a Plan would otherwise be scoped out because the individual contribution is inconsequential.

For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key other plans and projects with potential for in combination likely significant effects are those schemes that have the following impact pathways: recreational pressure, atmospheric pollution, changes in hydraulic conditions and loss of functionally linked land. The following plans have been assessed for their in combination impact to interact with the Blandford Neighbourhood Plan 2:

- North Dorset District Council (2016) North Dorset Local Plan Part 1
- North Dorset District Council (2016) North Dorset Local Plan Part 2
- Wessex Water (2018). Draft Final Water Resources Management Plan and
- Wessex Water (2017) Drought Plan

When undertaking this part of the assessment it is essential to bear in mind the principal intention behind the legislation i.e. to ensure that those projects or plans which in themselves have minor impacts are not simply dismissed on that basis, but are evaluated for any cumulative contribution they may make to an overall significant effect. In practice, in combination assessment is therefore of greatest relevance when the plan would otherwise be screened out because its individual contribution is inconsequential. The overall approach is to exclude the risk of there being unassessed likely significant effects in accordance with the precautionary principle. This was first established in the seminal Waddenzee[9] case.

For the purposes of this assessment, we have determined that, due to the nature of the identified impacts, the key plans and projects that are likely to result in "in-combination" effects with the Plan relate to additional housing and allocations proposed for neighbouring authorities over the lifetime of the Plan (see **Table 2**).

[9] ***Waddenzee*** case (Case C-127/02, [2004] ECR-I 7405)

Table 2: Housing to be delivered within the district of North Dorset under most recent published proposals (housing numbers may be subject to change)

Location	Number of Homes Proposed 2011-2031
Blandford	At least 1,200
Gillingham	At least 2,200
Shaftesbury	At least 1,140
Sturminster Newton	At least 395
Countryside (including Stalbridge and the Villages)	At least 825
Total	**At least 5,700**

Source: *Taken from North Dorset District Council (2016) North Dorset Local Plan Part 1*

It should be noted that, while the broad potential impacts of these other projects and plans will be considered, we do not propose carrying out full HRA on each of these plans – we will however draw upon existing HRA that have been carried out for surrounding regions and plans.

3. Pathways of Impact

The following indirect pathways of impact are considered relevant to the HRA of the Plan:

- Recreational pressure and disturbance
- Atmospheric Pollution
- Loss of functionally linked land outside of the European Site
- Human induced changes in hydraulic conditions

Recreational Pressure and Disturbance

Concern regarding the effects of disturbance on birds stems from the fact that they are expending energy unnecessarily and the time they spend responding to disturbance is time that is not spent feeding (this will apply all year round)[10]. Disturbance therefore risks increasing energetic output while reducing energetic input, which can adversely affect the "condition" and ultimately survival of the birds. In addition, displacement of birds from one feeding site to others can increase the pressure on the resources available within the remaining sites, as they have to sustain a greater number of birds[11]. Moreover, the more time a breeding bird spends disturbed from its nest, the more its eggs are likely to cool and the more vulnerable they, or any nestlings, are to predators.

Research into the effects of urban development on southern lowland heathlands has identified a number of pressures that threaten their habitat condition, arising from a range of factors that have been reviewed by a number of studies. Visitors surveys have revealed how much the open, remote and natural features of lowland heathland are appreciated by the local population and make them attractive for a range of recreational uses, particularly walking and dog walking although horse riding, cycling, jogging, picnicking and bird watching are also identified as regular activities Clarke et al., 2006, Liley et al., 2006, Pincombe & Smallbone, 2009a&b).

The potential for disturbance may be less in winter than in summer, in that there are often a smaller number of recreational users. In addition, the consequences of disturbance at a population level may be reduced because birds are not breeding. However, activity outside of the summer months can still cause important disturbance, especially as birds are particularly vulnerable at this time of year due to food shortages. Disturbance which results in abandonment of suitable feeding areas can have severe consequences for those birds involved and their ability to find alternative feeding areas. Several empirical studies have, through correlative analysis, demonstrated that out-of-season (October-March) recreational activity can result in quantifiable disturbance:

- Tuite et al[12] found that during periods of high recreational activity, bird numbers at Llangorse Lake decreased by 30% as the morning progressed, matching the increase in recreational activity towards midday. During periods of low recreational activity, however, no change in numbers was observed as the morning progressed. In addition, all species were found to spend less time in their 'preferred zones' (the areas of the lake used most in the absence of recreational activity) as recreational intensity increased;
- Underhill et al[13] counted waterfowl and all disturbance events on 54 water bodies within the South West London Water Bodies Special Protection Area and clearly correlated disturbance with a decrease in bird numbers at weekends in smaller sites and with the movement of birds within larger sites from disturbed to less disturbed areas.

[10] Riddington, R. *et al.* 1996. The impact of disturbance on the behaviour and energy budgets of Brent geese. *Bird Study* 43:269-279
[11] Gill, J.A., Sutherland, W.J. & Norris, K. 1998. The consequences of human disturbance for estuarine birds. *RSPB Conservation Review* 12: 67-72
[12] Tuite, C. H., Owen, M. & Paynter, D. 1983. Interaction between wildfowl and recreation at Llangorse Lake and Talybont Reservoir, South Wales. *Wildfowl* 34: 48-63
[13] Underhill, M.C. et al. 1993. Use of Waterbodies in South West London by Waterfowl. An Investigation of the Factors Affecting Distribution, Abundance and Community Structure. Report to Thames Water Utilities Ltd. and English Nature. Wetlands Advisory Service, Slimbridge

Human activity can affect birds either directly (e.g. through causing them to flee) or indirectly (e.g. through damaging their habitat). The most obvious direct effect is that of immediate mortality such as death by shooting, but human activity can also lead to behavioural changes (e.g. alterations in feeding behaviour, avoidance of certain areas *etc.*) and physiological changes (e.g. an increase in heart rate) that, although less noticeable, may ultimately result in major population-level effects by altering the balance between immigration/birth and emigration/death[14].

The degree of impact that varying levels of noise will have on different species of bird is poorly understood except that a number of studies have found that an increase in traffic levels on roads does lead to a reduction in the bird abundance within adjacent hedgerows - Reijnen et al (1995) examined the distribution of 43 passerine species (i.e. 'songbirds'), of which 60% had a lower density closer to the roadside than further away. By controlling vehicle usage they also found that the density generally was lower along busier roads than quieter roads[15].

Other Disturbing activities are on a continuum. The most disturbing activities are likely to be those that involve irregular, infrequent, unpredictable loud noise events, movement or vibration of long duration. Birds are least likely to be disturbed by activities that involve regular, frequent, predictable, quiet patterns of sound or movement or minimal vibration. The further any activity is from the birds, the less likely it is to result in disturbance.

According to Lily (2013) North Dorset Local Plan Habitats Regulations Assessment, across 16 sites in southern England, including the Dorset Heaths, woodlark population density was found to be significantly lower at sites with higher disturbance levels (Mallord et al., 2006, Mallord et al., 2007a). This supported previous findings that density of woodlark territories is significantly reduced on sites with open access compared to those with restricted access (Liley and Clarke, 2002b). This pattern was thought to be due to birds not nesting (but nevertheless still foraging) in the most heavily visited areas. At sites with recreational access, woodlarks were found to be less likely to colonise suitable habitat in areas with greater disturbance; eight disturbance events per hour reduced the probability of colonisation to below 50%. However, the lower woodlark density at more highly disturbed sites resulted in greater breeding success, in terms of more fledged chicks per pair, i.e. high disturbance levels produced a strong density-dependent increase in reproductive output (Mallord et al., 2006, Mallord et al., 2007a). A model has been developed to predict the consequences for the woodlark population of a range of visitor access levels (Mallord et al., 2006). Recreational disturbance is thought to be having a major adverse effect on woodlark populations in Dorset already. Any further population impact is likely to depend on the spatial distribution of visitors as well as overall numbers. Under current access arrangements, a doubling of visitor numbers is predicted to reduce population size by 15%. If visitor levels doubled and visitors spread equally across sites, a 40% population decline is predicted (Mallord et al., 2006, Mallord et al., 2007b). If disturbance at 16 heathland sites were to be removed, it is predicted that the breeding population of woodlarks would increase by 13–48% (Mallord 2005).

Atmospheric pollution

The main pollutants of concern for European sites are oxides of nitrogen (NOx), ammonia (NH3) and sulphur dioxide (SO_2). NOx can have a directly toxic effect upon vegetation. In addition, greater NOx or ammonia concentrations within the atmosphere will lead to greater rates of nitrogen deposition to soils. An increase in the deposition of nitrogen from the atmosphere to soils is generally regarded to lead to an increase in soil fertility, which can have a serious deleterious effect on the quality of semi-natural, nitrogen-limited terrestrial habitats.

[14] Riley, J. 2003. Review of Recreational Disturbance Research on Selected Wildlife in Scotland. Scottish Natural Heritage.
[15] Reijnen, R. et al. 1995. The effects of car traffic on breeding bird populations in woodland. III. Reduction of density in relation to the proximity of main roads. Journal of Applied Ecology 32: 187-202

Table 3: Main sources and effects of air pollutants on habitats and species

Pollutant	Source	Effects on habitats and species
Acid deposition	SO_2, NOx and ammonia all contribute to acid deposition. Although future trends in Sulphur (S) emissions and subsequent deposition to terrestrial and aquatic ecosystems will continue to decline, it is likely that increased Nitrogen (N) emissions may cancel out any gains produced by reduced S levels.	Can affect habitats and species through both wet (acid rain) and dry deposition. Some sites will be more at risk than others depending on soil type, bed rock geology, weathering rate and buffering capacity.
Ammonia (NH_3)	Ammonia is released following decomposition and volatilisation of animal wastes. It is a naturally occurring trace gas, but levels have increased considerably with expansion in numbers of agricultural livestock. Ammonia reacts with acid pollutants such as the products of SO_2 and NO_X emissions to produce fine ammonium (NH_4+) containing aerosol which may be transferred much longer distances (can therefore be a significant trans-boundary issue.)	Adverse effects are as a result of nitrogen deposition leading to eutrophication. As emissions mostly occur at ground level in the rural environment and NH_3 is rapidly deposited, some of the most acute problems of NH_3 deposition are for small relict nature reserves located in intensive agricultural landscapes.
Nitrogen oxides NO_x	Nitrogen oxides are mostly produced in combustion processes. About one quarter of the UK's emissions are from power stations, one-half from motor vehicles, and the rest from other industrial and domestic combustion processes.	Deposition of nitrogen compounds (nitrates (NO_3), nitrogen dioxide (NO_2) and nitric acid (HNO_3)) can lead to both soil and freshwater acidification. In addition, NO_x can cause eutrophication of soils and water. This alters the species composition of plant communities and can eliminate sensitive species.
Nitrogen (N) deposition	The pollutants that contribute to nitrogen deposition derive mainly from NO_X and NH_3 emissions. These pollutants cause acidification (see also acid deposition) as well as eutrophication.	Species-rich plant communities with relatively high proportions of slow-growing perennial species and bryophytes are most at risk from N eutrophication, due to its promotion of competitive and invasive species which can respond readily to elevated levels of N. N deposition can also increase the risk of damage from abiotic factors, e.g. drought and frost.
Ozone (O_3)	A secondary pollutant generated by photochemical reactions from NO_x and volatile organic compounds (VOCs). These are mainly released by the combustion of fossil fuels. The increase in combustion of fossil fuels in the UK has led to a large increase in background ozone concentration. Reducing ozone pollution is believed to require action at international level to reduce levels	Concentrations of O_3 above 40 ppb can be toxic to humans and wildlife, and can affect buildings. Increased ozone concentrations may lead to a reduction in growth of agricultural crops, decreased forest production and altered species composition in semi-natural plant communities.

	of the precursors that form ozone.	
Sulphur Dioxide SO_2	Main sources of SO_2 emissions are electricity generation, industry and domestic fuel combustion. May also arise from shipping and increased atmospheric concentrations in busy ports. Total SO_2 emissions have decreased substantially in the UK since the 1980s.	Wet and dry deposition of SO_2 acidifies soils and freshwater, and alters the species composition of plant and associated animal communities. The significance of impacts depends on levels of deposition and the buffering capacity of soils.

Sulphur dioxide emissions are overwhelmingly influenced by the output of power stations and industrial processes that require the combustion of coal and oil as well as (particularly on a local scale) shipping.

Ammonia emissions are dominated by agriculture, with some chemical processes also making notable contributions. As such, it is unlikely that material increases in SO_2 or NH_3 emissions will be associated with Local Plans. NOx emissions, however, are dominated by the output of vehicle exhausts (more than half of all emissions). Within a 'typical' housing development, by far the largest contribution to NOx (92%) will be made by the associated road traffic. Other sources, although relevant, are of minor importance (8%) in comparison[16]. Emissions of NOx could therefore be reasonably expected to increase as a result of greater vehicle use as an indirect effect of the Local Plan.

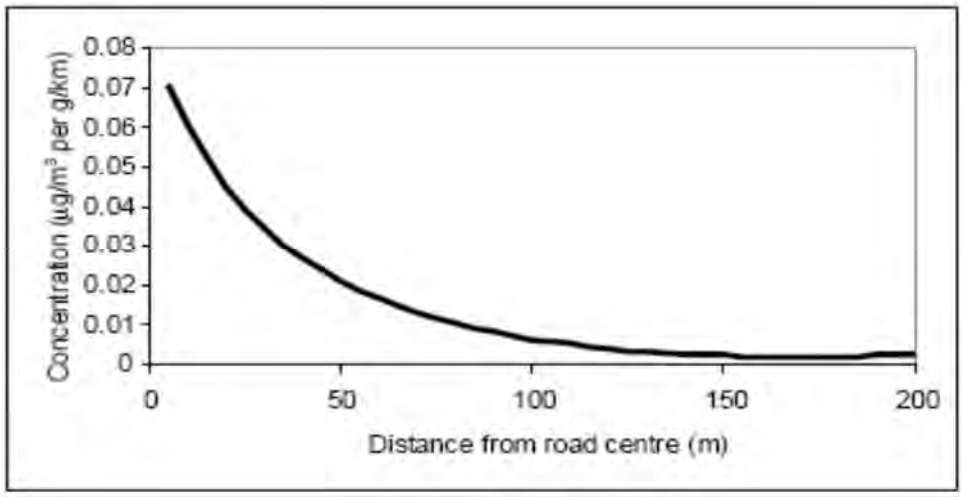
According to the World Health Organisation, the critical NOx concentration (critical threshold) for the protection of vegetation is 30 μgm^{-3}; the threshold for sulphur dioxide is 20 μgm^{-3}. In addition, ecological studies have determined "critical loads"[17] of atmospheric nitrogen deposition (that is, NOx combined with ammonia NH_3). These are bespoke to particular habitats are available on the Air Pollution Information System apis.ac.uk.

None of the allocations in the Blandford Neighbourhood Plan are of an industrial nature. Industrial developments that would constitute significant 'point source' emitters (e.g. pig farms, Energy from Waste facilities, smelting works, power stations etc.) are not allocated via the Local Plan process. Such facilities would need to obtain a permit from the Environment Agency before they were allowed to operate and could not obtain that permit if they posed a risk of an adverse effect on a European site. The Blandford Neighbourhood Plan HRA thus focuses on vehicle exhaust emissions as this is the only potentially significant source of emissions from the type of development allocated in the Local Plan.

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*"[18]. This is because traffic exhausts are situated only a few inches above the ground and are horizontal to it, such that the vast majority of emitted pollutants are never dispersed far and are very quickly deposited. This distance is also related to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases leaving the exhaust.

[16] Proportions calculated based upon data presented in Dore CJ et al. 2005. UK Emissions of Air Pollutants 1970 – 2003. UK National Atmospheric Emissions Inventory. http://www.airquality.co.uk/archive/index.php
[17] The critical load is the rate of deposition beyond which research indicates that adverse effects can reasonably be expected to occur
[18] www.webtag.org.uk/archive/feb04/pdf/feb04-333.pdf

Figure 1: Traffic contribution to concentrations of pollutants at different distances from a road (Source: DfT)



This is therefore the distance that has been used throughout this HRA in order to determine whether European sites are likely to be significantly affected by traffic generated by development under the Plan

Loss of Functionally Linked Land Outside of the European Site Boundary

While most European sites have been geographically defined in order to encompass the key features that are necessary for coherence of their structure and function, this is not the case for all such sites. Due to the highly mobile nature of wildfowl and waterfowl, it is inevitable that areas of habitat of crucial importance to the maintenance of their populations are outside the physical limits of the European site for which they are an interest feature. However, this area will still be essential for maintenance of the structure and function of the interest feature for which the site was designated and land use plans that may affect this land should still therefore be subject to further assessment.

Dorset Heathlands SPA/Ramsar qualifying features include breeding nightjar, woodlark and Dartford warbler and wintering merlin and hen harrier. Information relating to their habitat requirements is provided below:

- Nightjar show a preference for bare patches or areas of very short or sparse vegetation with widely scattered trees where they are able to see predators approaching. These patches may be on open heath, in patchy scrub and in the interface between heath and woodland, as well as in clearings in woodland or plantations. Nightjars are known to forage several kilometres away from their nesting territory.
- Bare ground is particularly important to Woodlark, especially where adjacent to structurally diverse vegetation and short heather. They may utilise scattered trees or large bushes to act as song-posts. Woodlark will often utilise areas adjacent to heathland for feeding, including areas of short grassland, stubble fields or weedy margins of arable fields, golf courses and bare areas in quarry sites.
- Dartford warbler favour large areas of open terrain, largely free of obstructions, in and around nesting, roosting and feeding areas in lowland heathland with gorse and heather.. They benefit from availability of an unobstructed line of sight within nesting, feeding or roosting to enable birds to detect approaching predators, or to ensure visibility of displaying behaviour. However, they will utilise enclosed features such as clearings in conifer plantations.[19]
- Merlin *Falco columbarius* forage/feed in moorland/heathland habitat.

[19] Natural England (2016)European Site Conservation Objectives: Draft Supplementary Advice on Conserving and Restoring Site FeaturesWealden Heaths [Phase 2] Special Protection Area (SPA)Site code: UK9012132

- Hen harrier *Circus cyaneus* winters in the lowlands, particularly around the coast, on heathland and on farmland. It is one of the most endangered breeding birds of prey in the country; it sometimes feeds on small grouse and fowl (hence its name), bringing it into conflict with gamekeepers and farmers.

Poole Harbour SPA/Ramsar qualifying features include: breeding common tern *Sterna hirundo*, sandwich tern *Sterna sandvicensis*, and Mediterranean gull *Larus melanocephalus*; passage aquatic warbler *Acrocephalus paludicola* and little egret *Egretta garzetta*; and wintering avocet *Recurvirostra avocetta*, and little egret. Also Poole Harbour SPA qualifying features include internationally important wintering populations of: Icelandic population of black-tailed godwit *Limosa limosa*; and the North-western European population of wintering Shelduck *Tadorna tadorna.* Information relating to their habitat requirements is provided below:

- Common tern breed on shingle beaches, rocky islands and inland on the gravelly shores of lakes and rivers. They are noisy in their colonies and, like most terns, will attack intruders threatening their nests. They hover over the water before plunge-diving to catch their fish prey.
- Sandwich tern breeds in colonies on sand and shingle beaches, islands and spits. Sandwich Terns feed on fish, such as sandeels, sprats and whiting, which they catch by diving into the water.
- Mediterranean gull breeds in colonies in large reed beds or marshes, or on islands in lakes; where its population is small, it nests in black-headed gull colonies. It is not a pelagic species, and is rarely seen at sea far from coasts. The Mediterranean gull's feeding habits are much an opportunistic omnivore, eating fish, worms, scraps, insects, offal and carrion.
- Aquatic warbler *Acrocephalus paludicola* are found in coastal reedbeds along the south coast, often feeding near the reedbed in low vegetation.
- Little egret is most common along the south and east coasts of England and in Wales. It is found in the the estuaries of Poole Harbour
- Black-tailed godwit is present in estuaries and coastal lagoons most of the year, though they also visit wetland sites inland.
- Shelduck it is mainly coastal, feeding on small invertebrates that it finds in the mud of estuaries and sandy beaches. It has spread inland, however, as flooded gravel pits with sandy shores and gravel banks provide a perfect feeding ground.

Over the winter Avon Valley SPA supports Bewick swan *Cygnus columbianus bewickii* and gadwall *Anas strepera.* Information relating to their habitat requirements is provided below:

- Bewick's swan in winter is found near the coast and in the vicinity of agricultural fields, which represent a major source of food during the winter months. Usually found in shallow tidal estuarine areas, grassland, brackish and freshwater marshes, shallow lakes, ponds, rivers and flooded pastures. They will often feed on fields during the day, eating crops like leftover potatoes and grain, before heading to roost on open water.
- Gadwall visits gravel pits, lakes, reservoirs and coastal wetlands and estuaries in winter.

Human Induced Changes in Hydrological Conditions

Mires and Bogs are sensitive to changes in hydrology and maintenance of natural regimes, water quality, and avoidance of water table lowering are important factors. Areas that have suffered previous damaging activities require enhancement including re-vegetation of bare peat, increased vegetation diversity in response to past heavy sheep grazing and a reduction of erosion through gullying[20].

[20] https://www.highpeak.gov.uk/media/960/Habitats-regulation-screening-assessment-March-2010/pdf/Habitats_Regulation_Assessment_March_2014.pdf

Changes in hydrological conditions that could affect the SACs habitats brought about by additional housing requirements would be through increased water demand and its potential abstraction from reservoirs within the SPA/SAC. Reduction in water levels/ changes in the water table could affect the following habitats within the SAC: Northern Atlantic wet heaths with *Erica tetralix*; Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix and bog woodland.

4. Test of Likely Significance

Introduction

The initial scoping of European designated sites illustrated in **Table 1** identifies that some of the sites are potentially vulnerable to:

- Recreational pressure
- Loss of functionally linked land
- Human changes in hydraulic conditions; and
- Atmospheric pollution

The full Test of Likely Significant Effects for the Blandford Neighbourhood Plan 2 (B+NP2) policies is presented both alone and in-combination in **Appendix C.** The assessment took into consideration the above potential vulnerabilities of the European sites included in Table 1.

Policies B2 and B3 include reference to site allocations and **Appendix D** contains the detailed assessment for these allocation. Figure A2 provides the location of the site allocations for Policies B2 and B3 and the European Sites

Summary of Results for Test of Likely Significance 'Alone'

Of the fifteen Plan policies, thirteen (B1, B4-B15) have been screened out as having no likely significant effects 'alone' on any European Sites.
Policies B1, B4, B5, B8, B9, B10, B11, B12, B13, B14, and B15 have been screened out as they do not lead to development.

Policy B6 details the development of a community facility within an urban setting and therefore will not therefore lead to or cause likely significant effects in relation to:

- Recreational pressure;
- Loss of functionally linked land;
- Human changes in hydraulic conditions; and
- Atmospheric pollution.

Policy B7 details potential expansion at three healthcare facilities all located within an urban setting. One facility does have some grassland adjacent/ in close proximity, however this grassland is managed amenity grassland used for sports/recreational purposes and is not considered suitable functionally linked land. Therefore, there are no pathways and as per Policy B6, Policy B7 will not lead to or cause likely significant effects in relation to:

- Recreational pressure;
- Loss of functionally linked land;
- Human changes in hydraulic conditions; and
- Atmospheric pollution.

The remaining Plan Policies: B2 and B3, have been screened in as air quality data is required in order to determine the likely significant effect of the B+NP2 on Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC. At this stage the precautionary approach has been taken and it is assume that there will be likely significant effects. Once this air quality information is available it will be assessed at the Appropriate Assessment stage.

Policies B2 and B3 have been screened out from having likely significant effects through the following pathways 'alone':

- Recreational pressure
- Loss of functionally linked land and
- Human changes in hydraulic conditions;

The sections below provide information as to how the pathways above for have been screened out.

Recreational Pressure 'Alone'

Dorset Heathlands SPA/SAC/Ramsar and Dorset Heaths (Purbeck & Studland Dunes) SAC
These sites are located, at the closest distance, 9km from the Neighbourhood Plan area. The distances from the closest Neighbourhood Plan area boundary are over 5km which is the point where mitigation (SANG) is required in relation to recreation pressure and disturbance.

Fontmell and Melbury Downs SAC

This SAC is located over 8km north of the Blandford Neighbourhood Plan area. It is considered that due to the distance from the Neighbourhood Plan area, there will not be likely significant effects due to recreational pressure and disturbance 'alone'. Over the past eight years a series of visitor surveys of terrestrial European sites across England have been undertaken. One remarkably consistent factor is that the core recreational catchment (the zone within which c. 75% of visitors derive before points of visitor origin become much more dispersed) is typically c. 4-6km; rarely larger. Some examples include:

- Thames Basin Heaths SPA – Research established that 100% of visitors on foot, 93% of people arriving by bicycle and 70% of people arriving by car derived from within 5km of the SPA. Beyond 5km visitor origins became notably more dispersed. On this basis, 5km was used as the definition of the core catchment of the site.
- Dorset Heathlands SPA – surveys undertaken by Footprint Ecology[21] indicated that more than 75% of visitors to the SAC lived within 5km of the site.
- North Downs Woodlands SAC – Survey by RMG: Clarity of this small woodland SAC in Kent which lies on the Pilgrims Way and North Downs Way identified that over 70% of visitors (irrespective of transport type) lived within 5km of the SAC.
- Rodborough Common SAC – Survey by Strategic Marketing in 2013 of this large area of common land, designated for its calcareous grassland identified that approximately 73% of visitors to the SAC live within 3km of the site, with over 60% living within 2km of the site (mainly in Stroud town). Beyond 3km, visitor origin becomes dispersed[22].
- Oxford Meadows SAC - a visitor survey undertaken during October 2011 by Oxford City Council to inform the Oxford Sites and Housing DPD. This identified that over 80% of visitors to the SAC live within 5km of the site.
- Lydden and Temple Ewell Downs SAC - Data on Lydden and Temple Ewell Downs SAC collected through a 2010 visitor survey by Aspect Ecology demonstrate that approximately 75% of visitors live within 4km of the site (50% from within 2km and 25% from between 2km and 4km away).
- Dover to Kingsdown Cliffs SAC - Data made available by Dover District Council and The National Trust identifies that approximately 78% of 'local' visitors (as opposed to tourists) live within 5km of the SAC
- Burnham Beeches SAC[23] – Visitor surveys by Footprint Ecology indicate that the vast majority (over 75%) of regular visitors (those visiting at least once a month) lived within 5km of the SAC.
- Ashdown Forest SAC/SPA – Visitor surveys by Footprint Ecology have identified that c. 81% of survey respondents lived within 7km of the SAC/SPA boundary[24].

[21] http://publications.naturalengland.org.uk/publication/62018
[22] URS. December 2013. Stroud Local Plan Habitat Regulations Assessment.
[23] https://www.footprint-ecology.co.uk/reports/Liley%20et%20al.%20-%202014%20-%20Burnham%20Beeches%20Visitor%20Survey.pdf
[24] Liley, D., Panter, C. & Blake, D. (2016). Ashdown Forest Visitor Survey 2016. Footprint Ecology Unpublished report.

- Epping Forest SAC – Surveys undertaken by Footprint Ecology for Epping Forest District Council and the Epping Forest Conservators identified that 75% of visitors to the SAC lived within 6.2km of the site.
- Cannock Chase SAC – surveys undertaken by Footprint Ecology identified that 75% of visitors, excluding mountain bikers, lived within 13km of the site. This site is clearly anomalous when compared with other visitor surveys which may be attributable to its large size and its status as a regional (not to say national) visitor attraction[25].

Poole Harbour SPA/Ramsar

Poole Harbour SPA/Ramsar is located over 13km from the Blandford Neighbourhood Plan area. An assessment of the recreational impacts on this SPA/Ramsar where undertaken in the North Dorset Local Plan HRA Liley (2013). Since a previous HRA (prior to Liley 2013), Poole Borough Council have started collecting money through CIL for mitigation measures relating to Poole Harbour and there has been a detailed study (commissioned by Natural England) looking at disturbance impacts in Poole Harbour (Liley & Fearnley 2012). It found that Poole Harbour is only likely to draw residents from N. Dorset for particular specialist activities, such as birdwatching or water sports, and the distance is probably too great for regular use by a large number of residents. Any increase in use associated with development in North Dorset is therefore likely to be small. The results of the disturbance study highlight dogs in particular as a cause of disturbance. The number of observations relating to water sports was relatively low – no windsurfers, four observations of kite surfers and twenty-eight observations of canoeists. Additional, useful evidence can be drawn from the Solent. The Solent Disturbance and Mitigation Project has been considering the issues of cumulative development on the wintering bird interest of the three SPAs in the Solent. There are many similarities with Poole Harbour, and the evidence-base in the Solent has included detailed visitor work, both on-site and off-site (collected through a postal survey). The results/ of this work have led to Natural England to advise the local authorities of current issues and a likely significant effect of new development – within 5.6km of the SPA boundary. Informal advice from Natural England has suggested that they have few concerns relating to development in North Dorset and recreation in Poole Harbour. Correspondence between Natural England and North Dorset District Council confirms Natural England's view of no likely significant effect in relation to this issue. Therefore as part of the Blandford Neighbourhood Plan area lies within 5.6km of the SPA/Ramsar and the closest part of the Neighbourhood Plan is 13km from the SPA boundary, there will be no Likely Significant Effects.

Isle of Portland to Studland Cliffs SAC

Isle of Portland to Studland Cliffs SAC was assessed in relation to recreational pressure during the Lilly (2013) HRA. This found no likely significant on this SAC stating that "Given the existing visitor infrastructure, the volume of visitors (with high proportion of tourists) and the distance from North Dorset, we consider there to be no adverse effect on the integrity of Portland to Studland Cliffs SACs from additional recreational pressure arising from new development in North Dorset District". Therefore there will be no Likely Significant Effects of the Blandford Neighbourhood Plan 2.

Loss of Loss of functionally linked land 'Alone'

Areas to the north and north-east of Blandford Forum comprise for policy B2 arable land enclosed by field boundaries comprised continuous hedges and hedges/with trees and allotments. The areas proposed for employment land for Policy B3 are three plots of land which comprise: arable land surrounded on all sides with hedges (re Sunshine Business Park) , current in-use industrial estate (Blandford Heights) with one small area of fenced rough grassland (grasses, tall ruderal species and scrub)[26] ; and a large area of rough grassland comprising grasses, tall ruderal species and some scub/shrubs[29]. These habitats are not considered to be suitable functionally linked land for qualifying species (birds) of the Dorset Heathlands SPA/Ramsar, Poole Harbour SPA/Ramsar, or Avon Valley SPA due to the habitat composition and/ or distance from SPAs. Details of species habitat requirements are provided in Section 3 and in Appendix D. Therefore there will be no there Likely Significant Effects.

[25] https://www.lichfielddc.gov.uk/Council/Planning/The-local-plan-and-planning-policy/Resource-centre/Evidence-base/Natural-resources/Downloads/Cannock-Chase/Cannock-Chase-SAC-visitor-survey.pdf
[26] Review of google streetview on 17/10/2018

Human Changes in Hydraulic Conditions 'Alone'
Changes in hydraulic condition brought about by additional housing requirements (policy B2) and additional employment land requirements (Policy B3) would be through increased water demand and the potential abstraction from water courses/reservoirs within Dorset Heath SAC, Isle of Portland to Studland SAC, and River Avon SAC. This increased demand could have likely significant effects on qualifying features through reduction in water levels/ changes in the water table. Equally, a change in these habitats could then cause adverse effects to a number of he associated fauna with the SACs and SPAs.

This Neighbourhood Plan includes for 400 housing (Policy B2) which is considered to be a low number of houses (small scale) and therefore is unlikely this development would cause the requirement for increased demand that would lead to adverse effects on the SACs or associated SPA.

In relation to Policy B3 - this Neighbourhood Plan includes for the provision of at least 2ha and up to 5ha of employment land. This includes a commercial development (B1 use) at BlandfordHeights industrial estate and land off Shaftesbury Lane, and a larger scale commercial development of the Sunrise Business Park (including B1, B2 and B8 uses). This is considered a small provision of employment land and therefore is unlikely this development would cause the requirement for increased water demand that would lead to adverse effects on the SACs or associated SPA.

Summary of Results for Test of Likely Significance 'In combination'

Policies B1, B4, B5, B8, B9, B10, B11, B12, B13, B14, and B15 have been screened out as they do not lead to development and therefore is no pathway for any 'in-combination' effects to arise.

Policy B6 details the development of a community facility within an urban setting and therefore will not lead to or cause likely significant effects 'alone; or 'in-combination with other policies or plans due to the lack of pathways to cause recreational pressure, loss of functionally linked, increased atmospheric pollution or changes in hydraulic conditions.

Policy B7 details potential expansion at three healthcare facilities all located within an urban setting. One facility does have some grassland adjacent/ in close proximity, however this grassland is managed amenity grassland used for sports/recreational purposes and is not suitable functionally linked land. Therefore Policy B7 will not lead to or cause likely significant effects 'alone; or 'in-combination with other policies or plans due to the lack of pathways to cause recreational pressure, loss of functionally linked, increased atmospheric pollution or changes in hydraulic conditions.

In-combination assessments for Polices B2 and B3 have also been carried out for:

- Recreational pressure
- Loss of functionally linked land
- Human changes in hydraulic conditions; and

In relation to recreational pressure, as there were no likely significant effects 'alone' found due to the distance of the Neighbourhood Plan area boundary from the European sites as listed above, there are therefore no pathways where 'in- combination effects can occur. The land allocated for housing and employment land was not considered suitable habitat for any qualifying species to use outside of the European sites and therefore they were not classed as functionally linked land. Again, no in-combination' likely significant effects as there are no pathways present. No likely significant effects for human change in hydraulic conditions 'alone' for Policies B2 and B3 were found due to the scale of the developments. An in-combination assessment was carried out taking into account North Dorset District Plan, *Wessex Water (2017) Wessex Water Drought Plan*), and Wessex Water (2018) Draft Final Water Resources Management Plan. However Wessex Water *(in references to the aforementioned Wessex Waters reports*) take account of European designated sites and protect them. Protection has been carried out by regular abstraction monitoring. At some abstraction sources

concerns have been raised that the existing licences do not adequately protect the environment – in response Wessex Water worked in partnership with the Environment Agency and Natural England to investigate the issues and identify mitigation measures where appropriate.

Wessex Water is aware of the future rise in population within in North Dorset and beyond. The Wessex Water (2018) Draft Final Water Resources Management Plan is a key plan that they can reduce demand whilst ensuring that they can provide a reliable and sustainable supply of water and how they will provide this taking into consideration climate change, population growth and environmental pressures. An HRA of the preferred solution has been carried out assessing the likely significance both alone and in-combination of the preferred option on European sites and was found to have no likely significant effect any European site Natural England was in agreement with the outcome of the HRA (in relation to all European sites relating to this Neighbourhood Plan.)

An in-combination assessment wasn't carried out in relation to atmospheric pollution because Likely Significant Effects were found 'alone' in relation to Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC and therefore both Polices B2 and B3 would need to be taken to the next stage of assessment: Appropriate Assessment where a more detailed assessment would take place including an 'in-combination' assessment.

5. Conclusions of the Test of Significance

An assessment of the Blandford Neighbourhood Plan Preferred was carried out to determine any likely significant effects on European designated sites. The Test of Significance screened for the following potential pathways:

- Recreational pressure;
- Human induced changes in hydraulic conditions;
- Atmospheric pollution; and
- Loss of functionally linked land for SPA birds.

Of fifteen Plan policies eleven (B1, B4-B5, and B8-B15) have been screened out as having no likely significant effects alone or in-combination on any European Sites.

Policies B1, B4, B5, B8, B9, B10, B11, B12, B13, B14, and B15 have been screened out as they do not lead to development. Policy B6 details the development of a community facility within an urban setting and will not therefore lead to or cause likely significant effects in relation to any of the potential pathways highlighted above.

Policy B7 details potential expansion at three healthcare facilities all located within an urban setting. One facility does have some grassland adjacent/ in close proximity, however this grassland is managed amenity grassland used for sports/recreational purposes and is not suitable functionally linked land. Therefore an extension of any of the three facilities lead not to lead to or cause likely significant effects in relation to any of the potential pathways highlighted above.

Policies B2 and B3 have been screened out both ‘alone’ and ‘in-combination’ in relation to recreational pressure; human induced changes in hydraulic conditions, and loss of functionally linked land.

Polices B2 and B3 have been screened in ‘alone’ with regards to atmospheric pollution in relation to Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC. No air quality data is available at this stage required in order to determine the likely significant effect of the B+NP2 on Fontmell and Melbury Downs so the precautionary approach has been taken and it is assumes that there will be likely significant effects.

Traffic data were therefore required to determine any significant effects from Polices B2 and B3. Following completion of the screening (likely significant effects) stage of this report a Technical Note was therefore produced by AWP (Awcock Ward Partnership) in December 2018 for the Blandford Neighbourhood Plan Group (refer to Appendix E for the Technical Note).

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6. Appropriate Assessment

Introduction

This chapter presents a detailed assessment of the European designated sites, and the impact pathway associated with those policies screened in during the Test of Likely Significant Effects. This section determines any adverse effects that the Local Plan would have on the integrity of the European sites when considered 'alone' i.e. without considering the cumulative effects in combination with other plans and projects.

European Designated Sites

The following European Designated Sites have been brought forward to Appropriate Assessment as it was previously identified that the Fontmell and Melbury Downs SAC, Rooksmoor SAC and Dorset Heath SAC are potentially vulnerable to atmospheric pollution.

Fontmell and Melbury Downs SAC is designated for the following Annex II species and habitats:

- Early gentian;
- Semi natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia); and
- Important orchid sites.

Rooksmoor SAC is designated for the following:

Annex II

- Marsh fritillary butterfly (*Eurodryas, Hypodryas aurinia*)

Annex I 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*)

Dorset Heaths SAC for the following

Annex I

- Northern Atlantic wet heaths with *Erica tetralix*.
- European dry heaths.
- Depressions on peat substrates of the Rhynchosporion.

Annex II

- Southern damselfly (*Coenagrion mercurial*).

Annex I 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* (Priority feature)
- Alkaline fens
- Old acidophilous oak woods with *Quercus robur* on sandy plains

Annex II habitats present as a qualifying feature, but not a primary reason for selection of this site

- Great Crested Newt (*Triturus cristatus*)

Atmospheric Pollution

The following Plan policies have potential to result in atmospheric pollution through vehicle exhaust emissions:

- B1 Blandford Forum & Blandford St. Mary Settlement Boundary
- B2 Land North & East of Blandford Forum

Fontmell and Melbury Downs SAC is 8km (and the closest European Designated site) from the Neighbourhood Plan boundary and therefore according to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant". This is because traffic exhausts are situated only a few inches above the ground and are horizontal to it, such that the vast majority of emitted pollutants are never dispersed far and are very quickly deposited. This distance is also related to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases leaving the exhaust. However, journeys to work routes are not taken into consideration in the example of 200m.

Fontmell and Melbury Downs SAC is adjacent to the A350 (in the Compton Abbas area), Rooksmoor SAC is adjacent to A357, Dorset Heath SAC is within 200m of the A350 and A349 past Canford Heath (which forms part of Dorset Heaths SAC (Canford Heath SSSI) in Bournemouth.

The main habitat type within Fontmell and Melbury Downs SAC along the A350 stretch of road (Fontmell & Melbury Downs SSSI) is calcareous grassland which is currently classed (by Natural England with reference all to the following Upton Heath SSSI units: 10, 11, and 22)[27] as 'Favourable' (units 11 and 22) and 'Unfavourable- Recovering' (unit 10). The reason behind the impact classification for unit 10 is due to undergrazing. According to Air Pollution Information System (APIS)[28] the nitrogen critical load for this habitat type (calcareous grassland) is 15-25 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 23.9KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 18.1KgN/ha/yr with an average of 20.KgN/ha/. All of which are below the nitrogen critical load for this habitat. The main habitat type within the Rookmoor SAC along the A357 stretch of road (Blackmore Vale Commons And Moors SSSI) is neutral grassland which is currently classed (by Natural England with reference all to the following SSSI units: 22, 23, and 24)[29] as 'Unfavourable- Recovering'. The reason behind the impact classification for these units is due to scrub growth and required vegetation clearance. According to Air Pollution Information System (APIS)[30] the nitrogen critical load for this habitat type (neutral grassland) is 20-30 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 27.3KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 23.5KgN/ha/yr with an average of 23.9KgN/ha/yr.

The main habitat type within the Dorset Heaths SAC along the A35 stretch of road (Upton Heath SSSI) is lowland dwarf shrub heath which is currently classed (by Natural England with reference all to the following Upton Heath SSSI units: 13, 14, 16, 17, and 20)[31] as 'Unfavourable- Recovering'.

[27] https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1001003&SiteName=&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [visited 15/01/2019]

[28] http://www.apis.ac.uk/srcl/select-a-feature?site=1003472&SiteType=SSSI&submit=Next

[29] https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1003472&SiteName=fontmell&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [visited on 15/01/2019]

[30] http://www.apis.ac.uk/srcl/select-a-feature?site=2000702&SiteType=SSSI&submit=Next [visited on 15/01/2019]

[31] https://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=S1000913&SiteName=canford%20heath&countyCode=&responsiblePerson=&SeaArea=&IFCAArea= [visited 15/01/2019]

https://designatedsites.naturalengland.org.uk/sitedetail.aspx?SiteCode=S1001003&SiteName=&countyCode=&responsiblePerson=&unitId=1005810&SeaArea=&IFCAArea= [visited on 15/01/2019]

The reasons behind the impacts to this site include: fires; adverse recreational use, leading to enrichment and disturbance; scrub encroachment and lack of /limited grazing. These impacts reflect the 'threat codes' in the Dorset Heath SAC citation and referred to Table B1 in Appendix B. Lowland dwarf heath is the main habitat type which runs the length of the A35 in question. According to Air Pollution Information System (APIS)[32] the nitrogen critical load for this habitat type is 10-20 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 16 KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 13.2KgN/ha/yr with an average of 13.2KgN/Ha/. The main habitat type within the Dorset Heaths SAC along the A349 stretch of road (Canford Heath SSSI) is lowland dwarf shrub heath which is currently classed (by Natural England with reference all to the following Canford Heath SSSI units: 1, 2, 3, 4, 5 and 6)[33] as 'Unfavourable-Recovering' (units 1-3), and Unfavourable- No Change' (units 4-6) Lowland dwarf heath is the main habitat type which runs the length of the A349 in question. The reasons behind the classification for units 1-3 include: non-native garden escapes, the presence of a colony of Gaultheria which is expanding, scrub encroachment and although grazing has commenced the habitat has been positively affected. The reasons behind the classification for units 4-6 include: fire; freshwater pollution, and water pollution- agricultural runoff. According to Air Pollution Information System (APIS)[34] the nitrogen critical load for this habitat type is 10-20 KgN/ha/yr and the maximum nitrogen deposition calculated for this habitat at this site is 15.5 KgN/ha/yr and the minimum nitrogen deposition calculated for this habitat at this site is 15.3 KgN/ha/yr with an average of 15.5KgN/ha/yr.

Impact assessment

A Technical Note was produced by AWP (Awcock Ward Partnership) in December 2018 for the Blandford Neighbourhood Plan Group (refer to Appendix E for the Technical Note). This Technical Note was to provide estimated traffic increases on selected points in the wider local road network from the construction of 400 dwellings on Land North East of Blandford Forum to inform an assessment of air quality impacts. To establish the traffic generation that would be expected to occur in connection with the proposed allocation of 400 dwellings the industry standard TRICS database was used.

The technical note modelled the forecast change in Annual Average Daily Traffic due to the Neighbourhood Plan growth on the following links within 200m of air quality sensitive sites:

- A349 past Canford Heath (which forms part of Dorset Heaths SAC (Canford Heath SSSI) in Bournemouth;
- A350 in the Compton Abbas area within 200m of Fontmell & Melbury Downs SAC (specifically Fontmell and Melbury Downs SSSI);
- A357 at Lydlinch within 200m of Rooksmoor SAC(specifically Blackmore Vale and Commons SSSI) ; and
- A35 between Upton and Bournemouth (as this runs alongside Upton Heath SSSI (part of the Dorset Heaths SAC).

[32] http://www.apis.ac.uk/srcl/select-a-feature?site=1001003&SiteType=SSSI [visited 15/01/2019]
[33] https://designatedsites.naturalengland.org.uk/sitelist.aspx?SiteCode=S1000913&SiteName=canford%20heath&countyCode=&responsiblePerson=&unitId=1005398&SeaArea=&IFCAArea= [visited 15/01/2019]
[34] http://www.apis.ac.uk/srcl/select-a-feature?site=1000913&SiteType=SSSI&submit=Next [visited 15/01/2019]

The Technical Note identified that no development traffic is expected to travel along the A349 past Canford Heath as there is no desire line along this link from the development. Therefore no further analysis was undertaken for this link.

Table 4 below shows the distribution on the three remaining road links identified for investigation.

Table 4: Traffic distribution over the remaining three road links

Direction	A350 (North)		A350 South to Poole
	A357	A350	
% Distribution	2%	4%	11%

Source: AWP (2018) Land North East of Blandford Forum Neighbourhood Plan Traffic Generation

The remainder of the development trips distribution would be distributed over the wider road network to destinations such as Bournemouth via the A31, Dorchester via the A35 and to other destinations within the Dorset area.

As Table 4 shows, the larger proportion of traffic from the development is expected to travel south towards Poole, with only a small proportion of the development traffic travelling north on the A350 and A357. Table 5 below shows the number of vehicles that would be distributed over the local road network (Annual Average Daily Travel (AADT) given the trip generation set out above.

Table 5: Annual Average Daily Travel (AADT)

Direction	A350 (North)		A350 South to Poole
	A357	A350	
% Distribution	33	48	188

Source: AWP (2018) Land North East of Blandford Forum Neighbourhood Plan Traffic Generation

The following summarises the changes in AADT due to the additional 400 proposed dwellings along the four road links:

1. A change of effectively zero AADT is expected on the A349 past Canford Heath.
2. A change of 48 AADT is expected on the A350 in the Compton Abbas area (within 200m of Fontmell & Melbury Downs SAC and specifically Fontmell and Melbury Downs SSSI).
3. A change of 33 AADT is expected on the A357 at Lydlinch within 200m of Rooksmoor SAC and specifically Blackmore Vale and Commons SSSI.
4. A change of 188 AADT is expected on the A35 between Upton and Bournemouth as this runs alongside Upton Heath SSSI (part of the Dorset Heaths SAC).

It is considered that any resulting air quality changes from the changes in AADT for these links would be inconsequential even in combination with other projects and plans for the following reasons:

- Daily traffic flows are not fixed numerals but fluctuate from day to day. The AADT for a given road is an annual average (specifically, the total volume of traffic for a year, divided by 365 days). It is this average number that is used in air quality modelling, but the 'true' flows on a given day will vary around this average figure. Small changes in average flow will lie well within the normal variation (known as the standard deviation or variance) and would not make a statistically significant difference in the total AADT; and
- When converted into NOx concentrations, ammonia concentrations or nitrogen deposition rates, the experience of AECOM's air quality modelling team is that very small changes in AADT (tens of AADT) would only affect the third decimal place. The third decimal place is not normally reported in air quality modelling to avoid false precision. For this reason, pollution is generally not reported to more than 2 decimal places (0.01). Anything smaller is simply

reported as less than 0.01 (< 0.01) i.e. probably more than zero but too small to model with precision.

Even the greatest change in AADT forecast due to the Local Plan (188 AADT on the A35) represents a negligible 0.3% change in flows compared to the base flow of 55,708 AADT. AECOM has considerable experience of undertaking air quality modelling of this kind for HRAs and have found previously that the resulting nitrogen deposition effect from such a change is likely to be virtually zero; typically c. 0.02 kgN/ha/yr at the closest point to the roadside, or a further 2 milligrams of nitrogen per square metre over the course of a year[35] and well within the limits of normal variation in nitrogen deposition rates.

Therefore it is considered that there would be no adverse effect on the integrity of the Dorset Heaths SAC (A35 and A349), Fontmell & Melbury Downs SAC (A350) and Rooksmoor SAC (A357).

[35] For ease of comparison, a teaspoon of salt typically weighs 5000-6000 milligrams and a pinch of salt (c. 1/16th of a teaspoon) weighs roughly 300 milligrams

7. References

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Appendix A Figures

FONTMELL & MELBURY DOWNS

ROOKSMOOR

DORSET HEATHLANDS

POOLE HARBOUR

DORSET HEATHS

DORSET HEATHS (PURBECK & WAREHAM) & STUDLAND DUNES

ISLE OF PORTLAND TO STUDLAND CLIFFS

POOLE to Cherbourg 5 hrs

POOLE to Guernsey 3 hrs, Jersey 4 hrs, St Malo 8 hrs

0 5 10 15 20 25 Kilometres

N

AECOM House
179 Moss Lane
Altrincham, WA15 8FH
T +44-161-927-8200
www.aecom.com

Project Title:

BLANDFORD NEIGHBOURHOOD DEVELOPMENT PLAN 2 (B+NP2) HABITATS REGULATIONS ASSESSMENT

Client:

NORTH DORSET DISTRICT COUNCIL

LEGEND

- NEIGHBOURHOOD PLAN AREA
- SPECIAL PROTECTION AREA
- SPECIAL AREA OF CONSERVATION
- RAMSAR SITE

AECOM Internal Project No:

60571087 - NP & CRB 2018 - 2022

Drawing Title:

EUROPEAN DESIGNATED SITES

Scale at A3: 1:250,000

Drawing No:	Rev:
FIGURE A1	001

Drawn:	Chk'd:	App'd:	Date:
JF	AR	PS	19/10/18

Filename: \\eu.aecomnet.com\euprojectvol\UK\MCR11-IE\Proposal\35121\Blandford NP HRA\GIS\02_Maps\20181019_A1_EURO_DESIGNATED_SITES_JF_V1.mxd

INSET A: 1:30,000

B3
B2
B3
B3
B2

FONTMELL & MELBURY DOWNS

ROOKSMOOR

B3
B3
B3
B2
B2

DORSET HEATHLANDS

POOLE HARBOUR

DORSET HEATHS

DORSET HEATHS (PURBECK & WAREHAM) & STUDLAND DUNES

ISLE OF PORTLAND TO STUDLAND CLIFFS

POOLE to Cherbourg 5 hrs

POOLE to Guernsey 3 hrs, Jersey 4 hrs, St Malo 8 hrs

0 5 10 15 20 25 Kilometres

N

Filename: \\eu.aecomnet.com\euprojectvol\UK\MCR1-IE\Proposal\35123\Blandford NP HRA\GIS\02_Maps\20181019_A2_SITE_ALLOCATIONS_JF_V1.mxd

AECOM House
179 Moss Lane
Altrincham, WA15 8FH
T +44-161-927-8200
www.aecom.com

Project Title:
BLANDFORD NEIGHBOURHOOD DEVELOPMENT PLAN 2 (B+NP2) HABITATS REGULATIONS ASSESSMENT

Client:
NORTH DORSET DISTRICT COUNCIL

LEGEND

- NEIGHBOURHOOD PLAN AREA
- SPECIAL PROTECTION AREA
- SPECIAL AREA OF CONSERVATION
- RAMSAR SITE
- SITE ALLOCATION

AECOM Internal Project No:
60571087 - NP & CRB 2018 - 2022

Drawing Title:
SITE ALLOCATIONS AND EUROPEAN DESIGNATED SITES

Scale at A3: 1:250,000

Drawing No:	Rev:
FIGURE A2	001

Drawn:	Chk'd:	App'd:	Date:
JF	AR	PS	19/10/18

Appendix B European Designated Sites

Table B.1 Interest Features, Conservation Objectives and Site Vulnerabilities/Threats to Site Integrity

Site Name	Approx. distance Blandford Neighbourhood Area boundary.	Qualifying Features	Conservation Objectives[36]	Potential Threats to Site Integrity/Vulnerabilities[37]
Fontmell and Melbury Downs SAC	8.3km to the north	***Annex I*** • None ***Annex II*** • Early gentian • Semi natural dry grasslands and scrubland facies: on calcareous substrates *(Festuco-Brometalia*) • Important orchid sites.	• 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, • The distribution of qualifying species within the site.	• Cultivation • modification of cultivation practises • Biocenotic evolution, succession. • Air pollution and air-borne pollutants
Dorset Heathlands SPA	9 km to the south east	***Annex II*** Breeding: • Nightjar (Caprimulgus Europaeus), • Dartford warbler (Sylvia undata), • woodlark (Lullula Arborea) Wintering : • hen harrier (Circus Cyaneus), • merlin (Falco columbarius)	• 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.	• Grazing • Outdoor sports and leisure activities, recreational activities • Invasive non-native species • Human induced changes in hydraulic conditions • Biocenotic evolution, succession
Isle of Portland to Studland Cliffs SAC	9.4 km to the south west	***Annex I*** • Vegetated sea cliffs of the Atlantic and Baltic Coasts • Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) • Important orchid sites ***Annex II*** • Early gentian ***Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site*** • Annual vegetation of drift lines	• 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, • The distribution of qualifying species within the site.	• Cultivation • Grazing • Outdoor sports and leisure activities, recreational activities • Invasive non-native species • Abiotic (slow) natural processes
Rooksmoor SAC	11.7 km to the north west	***Annex I*** • None • ***Annex II*** • Marsh fritillary butterfly (Eurodryas, Hypodryas aurinia*)* ***Annex I 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)	• 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, • The distribution of qualifying species within the site.	• Mowing / cutting of grassland • Grazing • Biocenotic evolution, succession • Air pollution, air-borne pollutants

[36] Taken from Natural England's Access to Evidence site [http://publications.naturalengland.org.uk/category/6490068894089216]
[37] Taken from Natura 2000- Standard Data Forms [http://jncc.defra.gov.uk/protectedsites/]

Dorset Heaths (Purbeck and Wareham and Studland Dunes SAC	12 km to the south east	***Annex I*** • Embryonic shifting dunes • Shifting dunes along the shoreline with Ammopila arenaira • Atlantic decalcified fixed dunes (Calluno-Ulicetea) • Humid dune slacks • Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) • Northern Atlantic wet heaths and Eric tetralix • Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix • European dry heaths • Depressions on peat substrates of the Rhynchosporion • Bog woodland ***Annex II*** • Southern damselfly ***Annex I 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 * Priority feature • Alkaline fens • Old acidophilous oak woods with Quercus robur on sandy plains ***Annex II habitats present as a qualifying feature, but not a primary reason for selection of this site*** • Great crested newt	• 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, • The distribution of qualifying species within the site.	• Human induced changes in hydraulic conditions • Outdoor sports and leisure activities, recreational activities • Invasive non-native species • Grazing • Biocenotic evolution, succession
Poole Harbour SPA	13 km to the south east	A wetland of international importance by regularly supporting at least 20,000 waterfowl: • Breeding common tern (Sterna hirundo), sandwich tern (Sterna sandvicensis), and Mediterranean gull (Larus melanocephalus). • Passage aquatic warbler (Acrocephalus paludicola) and little egret (Egretta garzetta). • Wintering avocet (Recurvirostra avocetta), little egret. Internationally important wintering populations of: • Icelandic population of black-tailed godwit • (Limosa limosa) and • The North-western European population of wintering Shelduck (Tadorna tadorna).	• .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.	• Grazing • Exploration and extraction of oil or gas • Shipping lanes, ports, marine constructions • Urbanised areas, human habitation • Discharges • Fishing and harvesting aquatic resources • Outdoor sports and leisure activities, recreational activities • Other human intrusions and disturbances • Pollution to surface waters (limnic & terrestrial, marine & brackish) • Pollution to groundwater (point sources and diffuse sources) • Air pollution, air-borne pollutants

Dorset Heaths SAC	14.5 km to the east 13.3 km to the south and 10.3 km to the south west	***Annex I*** • Northern Atlantic wet heaths with Erica tetralix. • European dry heaths. • Depressions on peat substrates of the Rhynchosporion. • ***Annex II*** • Southern damselfly (Coenagrion mercurial). Annex I 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 • (Priority feature) • Alkaline fens • Old acidophilous oak woods with Quercus robur on sandy plains Annex II habitats 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, and, • The distribution of qualifying species within the site.	• Grazing • Outdoor sports and leisure activities • Invasive non-native species • Fire and suppression • Abiotic (slow) natural processes
Poole Harbour Ramsar	15.3km to the south east	Ramsar criterion 1: • Best and largest example of a bar-built estuary with lagoonal characteristics in Britain. Ramsar criterion 2: • Two species of nationally rare plant, • 1 nationally rare alga, and at least, • 3 British Red data book invertebrate species. Ramsar criterion 3: • Mediterranean and thermo Atlantic halophilous scrubs, dominated by shrubby seablite (Suaeda vera); calcareous fens with great fen sedge (Cladium mariscus); transitions from saltmarsh through to peatland mires. Nationally important populations of breeding waterfowl including: • Common tern, and Mediterranean gull Nationally important populations of wintering; • Avocet Ramsar criterion 5: • Internationally important assemblages of waterfowl. Ramsar criterion 6: • Internationally important populations of common Shelduck.	• Management plan in preparation.	• Eutrophication • Introduction of non- native animal species

Dorset Heathlands Ramsar	16.9 km to the south	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, 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: • High species richness and ecological diversity of wetland habitat types and transitions; lies in one of the most biologically-rich wetland areas of lowland Britain. Species occurring at levels of national importance for breeding: • Dartford Warbler Species occurring at levels of national important for wintering: • Hen harrier (*Circus cyaneus*) • Merlin (*Falco columarius*).	• Management plan in preparation	• Acid rain • Pollution (unspecified)

Appendix C Screening Assessment of the Plan Policies.

Screening Assessment of the Plan Policies

Policies identified in **green** in the "Likely Significant Effect- LSE (alone) plus reasoning" column do not provide for impact pathways that could link to a European designated site. Policies identified in **green** in the "Likely Significant Effect- LSE (In-combination) plus reasoning" column do not provide for impact pathways that could link to a European designated site in-combination with any other policies, Plans or Projects.

Policies identified in **orange** in the "Likely Significant Effect- LSE (alone) plus reasoning" column have potential to provide for impact pathways that could link to a European designated site. Policies identified in **orange** in the "Likely Significant Effect- LSE (In-combination) plus reasoning" column have potential to provide for impact pathways that could link to a European designated site 'in-combination' with any other policies, Plans or Projects. In both cases the policy/policies is/are taken forward to the next stage of assessment – Appropriate Assessment and discussed within this document.

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
B1	Blandford Forum & Blandford St. Mary Settlement Boundary	The Neighbourhood Plan defines the Settlement Boundary of Blandford Forum and Blandford St Mary, as shown on the Policies Map, to manage development proposals in accordance with strategic policies for settlements and the countryside.	This policy relates to spatial development and does not lead to development therefore there will be no Likely Significant Effects to European Sites.	No Likely Significant Effects as there are no pathways present
B2	Land North & East of Blandford Forum	The Neighbourhood Plan allocates land to the North and North East of Blandford Forum, as shown on the Policies Map, for a mix of residential, education, community and allotment uses. Development proposals for the land will be supported, provided: i. The residential scheme comprises approximately 400 dwellings including a mix of open market, affordable and self-build and custom homes, primarily located on land to the north-east of Blandford Forum; ii. The education scheme comprises a new two form entry primary school with integrated early years provision; iii. The education scheme shall be confined to land to the north of Blandford of about 3 hectares and of a regular form to enable school expansion to three form entry and in a convenient position to facilitate the use of the existing A350 pedestrian bridge; iv. The community hub scheme comprises a new health and wellbeing facility, a community centre and convenience shop to serve the locality; and v. The Lamperd's Field Allotments are relocated to a single location to the west of their current position and comprise land of approximately 2.5 hectares and ancillary facilities that meet or exceed the standards of the existing site; vi. The highways scheme comprises measures to satisfactorily manage its traffic effects on the road network and to encourage and enable safe and convenient walking and cycling to community facilities (including the new community hub and new school, the Blandford School, the recreation ground at Larksmead and Pimperne Brook/Black Lane) and employment areas (including the town centre, Sunrise Business Park, Glenmore Industrial Estate, and Blandford Heights Industrial Estate); vii. The highways scheme includes proposals for the improvement to the existing bus services to serve the proposals and connecting to the town centre, Blandford School, the Sunrise Business Park, Glenmore Industrial Estate and Blandford Heights Industrial Estate;	This policy allocates land to the north and north-east of Blandford Forum for mixed use development for housing primary education and local amenities. . Appendix D provides the assessment of the areas of land to the north and north-east of Blandford Forum Potential impact pathways include: • Recreation • Loss of functionally linked land for non-breeding SPA birds • Air pollution associated with traffic movements Human induced changes in hydraulic conditions Likely Significant Effects 'Alone'	Likely Significant Effects–In-combination due to : Other mixed use developments/increased housing/growth, in neighbouring districts. Potential impact pathways include: • Recreation • Loss of functionally linked land for non-breeding SPA birds • Air pollution associated with traffic movements • Human induced changes in hydraulic conditions Whether LSE will actually arise depends on the actual site allocations. This is therefore explored further in the site allocations analysis in the following table.

[38] Source: Blandford+Neighbourhood Plan 2011-2033Submission Plan January 2019

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
		viii. A design and landscape scheme comprises measures to satisfactorily mitigate any adverse impacts upon the AONB and minimise harm to the Grade II listed Longbourne House by way of the details of the design, layout, landscape treatment, materials and typical details of appearance and elevation of buildings and of minimising light spill into the AONB; ix. The green infrastructure scheme comprises an ecology, sustainable drainage and boundary treatment strategy that demonstrates how existing environmental assets will be protected and enhanced comprising: • A biodiversity strategy to deliver, where possible, a net gain in biodiversity value on site; and, how biodiversity assets will be connected into the wider green infrastructure network; and • •A public open space strategy to integrate the built environment and connected into the wider green infrastructure network, including the delivery of public open space proposals on both the land to the North and North East including informal open spaces and natural and equipped children's play space; x. A flood risk assessment and sustainable drainage strategy to demonstrate how the scheme will not increase surface water or fluvial flood risk on any adjoining land. Proposals should be made in the form of a comprehensive outline planning application for the whole of the site and should include: • an illustrative masterplan that defines the land uses and key development principles for access, layout, design and the principles of phasing and implementation and demonstrates that the proposals would not adversely impact on the operation of a waste management centre on adjoining land; • design features that improve energy efficiency and reduces carbon dioxide emissions; and, • a planning obligation to secure the release of all land necessary for the supporting infrastructure, the 2/3FE primary school and other community facilities following outline planning consent for the phase 1 scheme within the Blandford + Neighbourhood area and prior to the commencement of that scheme, with no dependency of the land release for the Phase 1 Scheme on the Phase 2 scheme which lies outside the neighbourhood plan boundary within the adjacent parish of Pimperne.		
Policy B3	**Employment**	(a) Blandford Heights Industrial Estate Development proposals to enhance the operational effectiveness and appearance of existing employment sites and facilities or to redevelop sites to provide modern commercial premises and flexible workspace opportunities on Blandford Heights Industrial Estate, as shown on the Policies Map, will be supported. (b) Land off Shaftesbury Lane Proposals for the change of use of allocated or established B1-B8 employment land off Shaftesbury Lane, as shown on the Policies Map, will be resisted, unless it can be demonstrated that there will be no demand for that use of the land within the plan period. Proposals for new B1-B8 employment uses on the land will be supported, provided they include measures to satisfactorily mitigate any adverse impacts upon the AONB by way of the details of the design, layout, landscape treatment, materials and typical details of appearance and elevation of buildings and of minimising light spill into the AONB. (c) Sunrise Business Park Development proposals for an extension of Sunrise Business Park, as shown on the Policies Map, for business (B1 – B8) uses will be supported, provided:	This policy leads to development on three plots of land: • Arable land (south of Sunshine Business Park); • Current industrial estate (Blandford Heights); and • An area of rough grassland with tall ruderal species (Land off Shaftesbury Lane.) Potential impact pathways include: • Loss of functionally linked land for non-breeding SPA birds • Air pollution associated with traffic movement • Human induced changes in hydraulic conditions A detailed assessment of the policy is provided in Appendix D	Likely Significant Effects 'In-combination' due to : Increased employment areas leading to increased numbers of people in the area and in neighbouring districts with the increase in employment availability. Potential impact pathways include: • Loss of functionally linked land for non-breeding SPA birds • Air pollution associated with traffic movements • Human induced changes in hydraulic conditions Whether LSE will actually arise depends on the actual site allocation. This is therefore explored further in the site allocations analysis in Appendix D.

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
		i. they are made in the form of a comprehensive outline planning application that sets out the key land use components and the residual land available once the needs of the household waste facility (excluded development) are finalised and demonstrate that the proposed uses would not adversely impact on the operation of a waste management centre on adjoining land; ii. employment uses will be compatible with educational or residential uses on adjacent land; iii. any buildings are of a similar scale and height to the existing buildings in the Business Park and of a design to reduce their impact on the skyline and to reduce their visual footprint; iv. along the northern boundary, employment uses will be compatible with the open landscape and AONB and structural landscaping forms a transitional edge; v. they include measures to minimise light spill into the AONB; vi. a positive frontage is created with the A350 which enhances its function as a gateway to the town and minimises the loss of existing hedgerow and any unavoidable loss is made good through new hedgerow planting; and vii. unencumbered access is provided through the allocated waste site to serve employment land to the rear of the site. Development proposals that will result in the loss of employment floorspace will be resisted, unless it can be demonstrated that either there will be an increase in jobs as a result of the proposals enabling a higher employment density to be achieved or the use is no longer viable.		
Policy B4	**Secondary Education**	Proposals to upgrade or expand the Blandford School will be supported provided: • safe access by public transport, enhanced pedestrian and cycling infrastructure to contribute to the school's travel planning objectives can be delivered; • a safe drop-off and pick-up is available; • conflict with the adjoining Leisure Centre and Youth Services uses are avoided; and they sustain and enhance the character and appearance of the Blandford Forum Conservation Area.	This policy does not lead to development, This policy refers to the requirements for any proposals to upgrade and /or expand the Blandford School in order to be supported. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present .
Policy B5	**Community facilities**	The Neighbourhood Plan defines the following properties as community facilities: I. The Corn Exchange, The Market Place, Blandford Forum, DT11 7AF II. The Leisure Centre, Milldown Road, Blandford Forum, DT11 7DB III. Woodhouse Gardens and Pavilion, The Tabernacle, Blandford Forum, IV. DT11 7UN V. The Bowling Club, Milldown Road, Blandford Forum, DT11 7DD VI. The Football Pavilion, Milldown Road, Blandford Forum, DT11 7DD VII. The Cricket Pavilion, Milldown Road, Blandford Forum, DT11 7DD VIII. Larksmead Pavilion, Larksmead, Blandford Forum DT11 7LU IX. The Victorian Garden, Blandford Museum, Blandford Forum, DT11 7HQ X. Blandford Forum Parish Centre, Blandford Forum, DT11 0YU	This does not lead to development, it serves to safeguard community facilities and to support of development of new community facilities. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
		XI. The Skate Park, Stour Park, Blandford St Mary, DT11 9LQ Bryanston Estate Club, Hillside, Blandford Forum, Dorset DT11 0PR Proposals that will result in either the loss of or cause significant harm to a defined facility will be resisted, unless it can be clearly demonstrated that the operation of the facility, or the on-going delivery of the community value of the facility, is no longer financially viable. Development proposals to sustain or extend the viable use of existing community facilities, and the development of new facilities, will be supported.		
Policy B6	Blandford St Mary Community Hall	Proposals for a new community hall in Blandford St Mary will be supported provided: i. the location is within the St Mary's Hill development boundary and is convenient for access by foot or bicycle; ii. the scheme provides the community with a meeting place for informal socialising and refreshment and indoor recreational activities; iii. sufficient off-road car parking spaces are provided; iv. is sympathetic to the character and scale of the surrounding buildings and landscape; and v. the scheme design incorporates features that improve energy efficiency and reduces carbon dioxide emissions.. .	The policy is looking to include a new community hall at Blandford St Mary. The hall would be situated within the urban setting of this Town which is over 11km to the nearest European designated site. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present
B7	**Health Provision**	Proposals to meet increasing demand by expanding the existing Whitecliff Surgery, the Eagle Surgery and the Blandford Community Hospital, as shown on the Policies Map, will be supported. All new residential development proposals will only be permitted where they provide or improve the delivery of essential health and/or wellbeing facilities and services required to serve the scale of development proposed. Development proposals which would have a detrimental effect on, or result in the loss of essential GP facilities and services that meet community needs and support well-being will only be permitted where it can be clearly demonstrated that: i. The service or facility is no longer needed; or ii. It is demonstrated that it is no longer practical, desirable or viable to retain them; or iii. The proposals will provide sufficient community benefit to outweigh the loss of the existing facility or service.	This Policy relates to the retention of health care provision and the expansion of it. The settings of the Whitecliff Surgery and the Eagle Surgery are located with urban areas. Expansion of the these surgeries will not cause Likely Significant Effects 'Alone' due to their urban location and distance from the closest European Site (over 9km - Fontmell and Melbury Downs SAC). The Blandford Community Hospital is also located within an urban area, and is in close proximity to the aforementioned surgeries. This site is located over 9km - Fontmell and Melbury Downs SAC (the closest European Site) and over 14km from the closest SPA (Dorset Heathlands) The Community Hospital is surrounded by regularly managed sports/recreation amenity grassland. Any expansion within this habitat would not cause any Likely Significant Effects 'Alone'.	No Likely Significant Effects 'in-combination' as there are no pathways present
Policy B8:	**Blandford Forum Town Centre**	The Neighbourhood Plan defines the Town Centre Area and the Primary Shopping Area, as shown on the Policies Map, for the purposes of managing proposals for retail, leisure and other commercial developments in accordance with the development plan. Proposals for new A1 Retail floorspace in Primary Shopping Area will be supported. The loss of existing retail (A1) premises and frontages in the Primary Shopping Area will be resisted. Business (B1) and Residential (C3) uses that contribute to the vitality of the town centre on upper floors will be supported. The following uses will be supported outside of the Primary Shopping Area, within the Town Centre	This policy relates to town centre retail and shop frontages, Primary Shopping Areas and Town Centre Area, and car parking requirements and does lead to development. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
		Area: • Shops and retail outlets (A1); • Professional services (A2); • Food and drink (A3); • Drinking establishments (A4); • Hot food and takeaways (A5); • Health and Public Services (D1); • Entertainment and leisure (D2);and • Business (B1) and Residential (C3)) uses on upper floors. Proposals that will result in the net loss of public car parking spaces in the Town Centre Area will be refused unless the community benefit outweighs the net loss of public car parking spaces.		
Policy B9	**Green Infrastructure Network**	The Neighbourhood Plan designates a Green Infrastructure Network, as shown on the Green Infrastructure Plan , for the purpose of promoting sustainable movement and ecological connectivity through the town and neighbouring parishes. The Network comprises Local Green Spaces, informal open spaces, allotments, playing fields, off-street footpaths/cycleways, children's play areas, woodland and land of biodiversity value. Development proposals that lie within or adjoining the Network are required to have full regard maintaining and improving the Network, including delivering a net gain to general biodiversity assets, where possible. In the design of their layouts, landscaping schemes and public open space provisions. Proposals that will lead to the loss of land lying within the Network and that will undermine its integrity will be resisted. Development proposals that will lead to the extension of the Network will be supported, provided they are consistent with all other relevant policies of the development plan.	This policy relates to the protection and management of the current green infrastructure network. This policy does not lead to development. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present
Policy B10:	**Local Green Spaces**	The Neighbourhood Plan designates Local Green Spaces in the locations shown on the Green Infrastructure Plan. Proposals for development in a Local Green Space that will undermine its essential open character will be resisted, unless they can demonstrate exceptional circumstances. Blandford Forum 1. Diamond Way Amenity Area 2. Westbury Way 3. Davies Gardens 4. Badbury Heights Open Spaces 5. Land adjacent the Leisure Centre 6. The Trailway 7. Overton Walk Blandford St Mary 8. Coppice and Badger Sett 9. Bryanston Hills	This policy is allocating 11 areas of currently used , valuable green space as Local Green Spaces in the Neighbourhood Plan. There is no change of use for these areas. No Likely Significant Effects 'Alone'	No Likely Significant Effects 'in-combination' as there are no pathways present

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
		Bryanston 10. Between the Cliff and Forum View at the entrance of the village, locally known as the Island 11. The Telephone Box and surrounding area at The Cliff		
Policy B11	Managing Design in the Conservation Area: Blandford Forum	Proposals within or affecting the setting of the conservation area, as shown on the Policies Map, should preserve or enhance the character or appearance of the area and should demonstrate: i. consistently high standard of design and detailing reflecting the scale and character or appearance of the area, including the layout of the streets, development patterns, burgage plots, building lines and building form; ii. the use of building materials and finishes which are sympathetic to the area, in particular the use of red brick in facades; iii. no harmful impact on the townscape and roofscape of the Conservation Area; iv. the retention and protection of trees, gardens, spaces between buildings, and other open areas which contribute to the character or appearance of the area, and the use of permeable surfaces to reduce surface water flooding; v. where appropriate, the removal of unsightly and inappropriate features or details; and vi. the retention and, where appropriate, the reinstatement of original features such as chimneys, chimney pots, gates, railings and shop fronts and small scale architectural details such as mouldings which individually or cumulatively contribute to the character or appearance of the area. All planning applications within the Conservation Area must demonstrate how the design of proposals has sought to preserve and enhance the significance of the heritage assets and their setting in line with the recommendations of the Character Area Appraisal. Proposals including proposed changes of use that are likely to have an adverse impact on the character or appearance of the Conservation Area will not be supported.	This policy relates to protection of Conservation Area(s) and does not lead to development therefore there will be no Likely Significant Effects to European Sites 'Alone'.	No Likely Significant Effects as there are no pathways present
Policy B12	**Managing Design in the Conservation Area:Blandford St. Mary**	Proposals including infill within or affecting the setting of the Conservation Area, as shown on the Policies Map, must sustain and enhance its character or appearance and should demonstrate: • a consistently high standard of design and detailing reflecting itsscale and; • ensure that where flats may be proposed, their scale, massing, detailing and landscaping is domestic in form and their appearance harmonises with the housing types of the area; • the use of building materials and finishes which are sympathetic to the area; • the retention and protection of trees, front gardens, boundary hedges and other open areas which contribute to its character and appearance; • the use of permeable surfaces to reduce surface water flooding; and • where appropriate, the removal of unsightly and inappropriate features or details. Proposals including proposed changes of use that are likely to have an adverse impact on the character or appearance of the conservation area will not be supported.	This policy relates to design of new development to ensure it is in keeping with the current character and landscape of the area. This policy does not lead to development therefore there will be no Likely Significant Effects to European Sites 'Alone'.	No Likely Significant Effects as there are no pathways present

Policy Reference	Policy Title	Policy Detail[38]	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect- LSE (In-combination) plus reasoning
B13	**Managing Design in the Conservation Area:Bryanston**	Proposals including infill within or affecting the setting of the Conservation Area, as shown on the Policies Map, must sustain and enhance its character and appearance and should demonstrate: i. consistently high standard of design and detailing reflecting the scale and character or appearance of the village; ii. the use of red brick and slate roofs and finishes which are sympathetic to the area and to the original Portman style of houses; iii. the retention of flint and brick walls, protection of trees, front gardens and grass verges and other open areas which contribute to its character and appearance; iv. sympathetic on plot parking and the use permeable surfaces to reduce surface water flooding; and v. the removal of unsightly and inappropriate features or details where appropriate. Proposals including proposed changes of use that are likely to have an adverse impact on the character or appearance of the Conservation Area or views towards or from The Cliff will not be supported.	This policy relates to design of new development to ensure it is in keeping with the current character and landscape of the area. This policy does not lead to development therefore there will be no Likely Significant Effects to European Sites 'Alone'.	No Likely Significant Effects as there are no pathways present
B14	**The River Stour Meadows**	The River Stour Meadows represents an area of predominantly open land within the Blandford Forum Conservation Area that plays an important role in defining the historic setting of Blandford Forum and 'The Cliff' within the wider landscape. Within the land defined on the Policies Map, development proposals will only be supported where it can be demonstrated that they will sustain and enhance the character and appearance of the River Stour Meadow and they will secure an opportunity for public access and enjoyment to the River Stour Meadows or where they are intended to replace a detrimental feature. Proposals including proposed changes of use that are likely to have an adverse impact on the character or appearance of the meadows or harm views towards or from Blandford Forum or 'The Cliff' will not be supported.	This policy relates to design of new development to ensure it is in keeping with the current character and landscape of the area. This policy does not lead to development therefore there will be no Likely Significant Effects to European Sites 'Alone'.	No Likely Significant Effects as there are no pathways present
5	**Tourism**	Proposals for the development of, or change of use to, a C1 bed and breakfast, hotel or hostel use within the defined settlement boundaries of Blandford Forum and Blandford St Mary, or within the observed built up area of Bryanston village will be supported, provided the scheme has sufficient off street car parking spaces and has regard to the amenities of adjoining residential properties. Proposals that will result in the loss of an existing tourist use will be resisted, unless it can be demonstrated that its continued use is no longer viable. Proposals to expand an existing tourist use will be supported, providing they are located in or adjoin the defined Town Centre Area and any impact on local amenity can be satisfactorily mitigated.	This policy doesn't lead to development. This policy refers to the requirements for the development of, or change of use to, a C1 bed and breakfast hotel, hotel, or hostel use within the defined settlement boundaries/ built up areas of Bryanston village, in order for the them to be supported. Proposal to expand tourist use will only be supported, providing they are located in or adjoin the Town Centre Area. .	No Likely Significant Effects as no pathways present

Appendix D Screening Assessment of the Plan Site Allocations

Screening Assessment of the Plan Site Allocations

Policies identified in **green** in the "Likely Significant Effect- LSE (alone) plus reasoning" column do not provide for impact pathways that could link to a European designated site. Policies identified in **green** in the "Likely Significant Effect- LSE (In-combination) plus reasoning" column do not provide for impact pathways that could link to a European designated site in-combination with any other policies, Plans or Projects.

Policies identified in **orange** in the "Likely Significant Effect- LSE (alone) plus reasoning" column have potential to provide for impact pathways that could link to a European designated site. Policies identified in **orange** in the "Likely Significant Effect- LSE (In-combination) plus reasoning" column have potential to provide for impact pathways that could link to a European designated site 'in-combination' with any other policies, Plans or Projects. In both cases the policy/policies is/are would need to be taken forward to the next stage of assessment – Appropriate Assessment.

Policy Reference	Distance from closest European Site	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect LSE (in-combination)
Policies B2, and B3	B2 plots :over 8.km from Fontmell and Melbury Downs SAC B3 plots over 8.1kmfrom Fontmell and Melbury Downs SAC	**Recreational Pressure and Disturbance 'Alone'** Dorset Heathlands SPA/SAC/Ramsar and Dorset Heaths (Purbeck & Studland Dunes) SAC (are located, at the closest distance, 9km from the Neighbourhood Plan area.) The distances from the closest Neighbourhood Plan area boundary are over 5km which is the point where mitigation (SANG) is required in relation to recreation pressure and disturbance Fontmell and Melbury Downs SAC is located over 8km north of the Blandford Neighbourhood Plan area. It is considered that due to the distance from the Neighbourhood Plan area, there will not be likely significant effects due to recreational pressure and disturbance 'alone'. Over the past eight years a series of visitor surveys of inland European sites across England have been undertaken. One remarkably consistent factor is that the core recreational catchment (the zone within which c. 75% of visitors derive before points of visitor origin become much more dispersed) is typically c. 4-6km; rarely larger: • Thames Basin Heaths SPA – Research established that 100% of visitors on foot, 93% of people arriving by bicycle and 70% of people arriving by car derived from within 5km of the SPA. Beyond 5km visitor origins became notably more dispersed. On this basis, 5km was used as the definition of the core catchment of the site. • Dorset Heathlands SPA – surveys undertaken by Footprint Ecology[39] indicated that more than 75% of visitors to the SAC lived within 5km of the site. • North Downs Woodlands SAC – Survey by RMG: Clarity of this small woodland SAC in Kent which lies on the Pilgrims Way and North Downs Way identified that over 70% of visitors (irrespective of transport type) lived within 5km of the SAC. • Rodborough Common SAC – Survey by Strategic Marketing in 2013 of this large area of common land, designated for its calcareous grassland identified that approximately 73% of visitors to the SAC live within 3km of the site, with over 60% living within 2km of the site (mainly in Stroud town). Beyond 3km, visitor origin becomes dispersed[40] • Oxford Meadows SAC - a visitor survey undertaken during October 2011 by Oxford City Council to inform the Oxford Sites and Housing DPD. This identified that over 80% of visitors to the SAC live within 5km of the site. • Lydden and Temple Ewell Downs SAC – Data on Lydden and Temple Ewell Downs SAC collected through a 2010 visitor survey by Aspect Ecology demonstrate that approximately 75% of visitors live within 4km of the site (50% from within 2km and 25% from between 2km and 4km away). • Dover to Kingsdown Cliffs SAC – Data made available by Dover District Council and The National Trust identifies that approximately 78% of 'local' visitors (as opposed to tourists) live within 5km of the SAC • Burnham Beeches SAC – Visitor surveys by Footprint Ecology[41] indicate that the vast majority (over 75%) of regular visitors (those visiting at least once a month) lived within 5km of the SAC. • Ashdown Forest SAC/SPA – Visitor surveys by Footprint Ecology have identified that c. 81% of survey respondents lived within 7km of the SAC/SPA boundary[42]. • Epping Forest SAC – Surveys undertaken by Footprint Ecology for Epping Forest District Council and the Epping Forest Conservators identified that 75% of visitors to the SAC lived within 6.2km of the site. • Cannock Chase SAC – surveys undertaken by Footprint Ecology[43] identified that 75% of visitors, excluding mountain bikers, lived within 13km of the site. This site is clearly anomalous when compared with other visitor surveys which may be attributable to its	**Recreational Pressure and Disturbance 'In-combination'** No likely significant effect to Dorset Heathlands SPA/SAC/Ramsar in combination as there is no pathway No likely significant effect to Fontmell and Melbury Downs SAC in-combination as there is no pathway

[39] http://publications.naturalengland.org.uk/publication/62018
[40] URS. December 2013. Stroud Local Plan Habitat Regulations Assessment.
[41] https://www.footprint-ecology.co.uk/reports/Liley%20et%20al.%20-%202014%20-%20Burnham%20Beeches%20Visitor%20Survey.pdf
[42] Liley, D., Panter, C. & Blake, D. (2016). Ashdown Forest Visitor Survey 2016. Footprint Ecology Unpublished report.

Policy Reference	Distance from closest European Site	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect LSE (in-combination)
		large size and its status as a regional (not to say national) visitor attraction. Poole Harbour SPA/Ramsar is located over 13km from the Blandford Neighbourhood Plan area. An assessment of the recreational impacts on this SPA/Ramsar where undertaken in the North Dorset Local Plan HRA Liley (2013). Since a previous HRA (prior to Liley 2013), Poole Borough Council have started collecting money through CIL for mitigation measures relating to Poole Harbour and there has been a detailed study (commissioned by Natural England) looking at disturbance impacts in Poole Harbour (Liley & Fearnley 2012). It found that Poole Harbour is only likely to draw residents from N. Dorset for particular specialist activities, such as birdwatching or water sports, and the distance is probably too great for regular use by a large number of residents. Any increase in use associated with development in North Dorset is therefore likely to be small. The results of the disturbance study highlight that dogs in particular as a cause of disturbance. The number of observations relating to water sports was relatively low – no windsurfers, four observations of kite surfers and twenty-eight observations of canoeists. Additional, useful evidence can be drawn from the Solent. The Solent Disturbance and Mitigation Project has been considering the issues of cumulative development on the wintering bird interest of the three SPAs in the Solent. There are many similarities with Poole Harbour, and the evidence-base in the Solent has included detailed visitor work, both on-site and off-site (collected through a postal survey). The results/ of this work have led to Natural England to advise the local authorities of current issues and a likely significant effect of new development – within 5.6km of the SPA boundary. Informal advice from Natural England has suggested that they have few concerns relating to development in North Dorset and recreation in Poole Harbour. Correspondence between Natural England and North Dorset District Council confirms Natural England's view of no likely significant effect in relation to this issue. Therefore as part of the Blandford Neighbourhood Plan area lies within 5.6km of the SPA/Ramsar and the closest part of the Neighbourhood Plan is 13km from the SPA boundary, there will be no Likely Significant Effects. Isle of Portland to Studland Cliffs SAC was assessed in relation to recreational pressure during the Lilly (2013) HRA. This found no likely significant on this SAC stating that "Given the existing visitor infrastructure, the volume of visitors (with high proportion of tourists) and the distance from North Dorset, we consider there to be no adverse effect on the integrity of Portland to Studland Cliffs SACs from additional recreational pressure arising from new development in North Dorset District". Therefore there will be no Likely Significant Effects of the Blandford Neighbourhood Plan 2.	No likely significant effect to Poole Harbour SPA/Ramsar in combination as there is no pathway No likely significant effect to the Isle of Portland to Studland Cliffs SAC in combination as there is no pathway as the Lily (2013) HRA incudes the combination of tourists and additional residents.

[43] https://www.lichfielddc.gov.uk/Council/Planning/The-local-plan-and-planning-policy/Resource-centre/Evidence-base/Natural-resources/Downloads/Cannock-Chase/Cannock-Chase-SAC-visitor-survey.pdf

Policy Reference	Distance from closest European Site	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect LSE (in-combination)
		Loss of Functionally Linked Land for SPA bird species 'Alone' Areas to the north and north-east of Blandford Forum (comprises arable land enclosed by field boundaries comprised continuous hedges and hedges/with trees. One section of this proposed area comprises allotments. This habitat is not considered to be suitable functionally linked land for qualifying features (birds) (see list below) of the Dorset Heathlands SPA/Ramsar, Poole Harbour SPA/Ramsar, or Avon Valley SPA due to the habitat composition and/ or distance from SPAs: No likely significant effect 'Alone' Dorset Heathlands SPA/Ramsar qualifying features include breeding nightjar, woodlark and Dartford warbler and wintering merlin and hen harrier. Information relating to their habitat requirements is provided below: • Nightjar show a preference for bare patches or areas of very short or sparse vegetation with widely scattered trees where they are able to see predators approaching. These patches may be on open heath, in patchy scrub and in the interface between heath and woodland, as well as in clearings in woodland or plantations. Nightjars are known to forage several kilometres away from their nesting territory. • Bare ground is particularly important to Woodlark, especially where adjacent to structurally diverse vegetation and short heather. They may utilise scattered trees or large bushes to act as song-posts. Woodlark will often utilise areas adjacent to heathland for feeding, including areas of short grassland, stubble fields or weedy margins of arable fields, golf courses and bare areas in quarry sites. • Dartford warbler favour large areas of open terrain, largely free of obstructions, in and around nesting, roosting and feeding areas in lowland heathland with gorse and heather.. They benefit from availability of an unobstructed line of sight within nesting, feeding or roosting to enable birds to detect approaching predators, or to ensure visibility of displaying behaviour. However, they will utilise enclosed features such as clearings in conifer plantations. • Merlins forage/feed in moorland/heathland habitat. • Hen harrier winters in the lowlands, particularly around the coast, on heathland and on farmland. It is one of the most endangered breeding birds of prey in the country; it sometimes feeds on small grouse and fowl (hence its name), bringing it into conflict with gamekeepers and farmers. Poole Harbour SPA/Ramsar qualifying features include: breeding common tern, sandwich tern, and Mediterranean gull; passage aquatic warbler and little egret; and wintering avocet, and little egret. Also Poole Harbour SPA qualifying features include internationally important wintering populations of: Icelandic population of black-tailed godwit; and the North-western European population of wintering Shelduck Information relating to their habitat requirements is provided below: • Common tern breed on shingle beaches, rocky islands and inland on the gravelly shores of lakes and rivers. They are noisy in their colonies and, like most terns, will attack intruders threatening their nests. They hover over the water before plunge-diving to catch their fish prey. • Sandwich tern breeds in colonies on sand and shingle beaches, islands and spits. Sandwich Terns feed on fish, such as sandeels, sprats and whiting, which they catch by diving into the water. • Mediterranean gull breeds in colonies in large reed beds or marshes, or on islands in lakes; where its population is small, it nests in black-headed gull colonies. It is not a pelagic species, and is rarely seen at sea far from coasts. The Mediterranean gull's feeding habits are much an opportunistic omnivore, eating fish, worms, scraps, insects, offal and carrion. • Aquatic warbler are found in coastal reedbeds along the south coast, often feeding near the reedbed in low vegetation. • Little egret is most common along the south and east coasts of England and in Wales. It is found in the the estuaries of Poole Harbour • Black-tailed godwit is present in estuaries and coastal lagoons most of the year, though they also visit wetland sites inland. • Shelduck it is mainly coastal, feeding on small invertebrates that it finds in the mud of estuaries and sandy beaches. It has spread inland, however, as flooded gravel pits with sandy shores and gravel banks provide a perfect feeding ground. Over the winter Avon Valley SPA supports Bewick swan and gadwall. Information relating to their habitat requirements is provided below: • Bewick's swan in winter is found near the coast and in the vicinity of agricultural fields, which represent a major source of food during the winter months. Usually found in shallow tidal estuarine areas, grassland, brackish and freshwater marshes, shallow lakes, ponds, rivers and flooded pastures. They will often feed on fields during the day, eating crops like leftover potatoes and grain, before heading to roost on open	**Loss of Functionally Linked Land for SPA bird species 'In-combination'** No likely significant effect 'In-combination' as there are no pathways.

Policy Reference	Distance from closest European Site	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect LSE (in-combination)
		water. • Gadwall visits gravel pits, lakes, reservoirs and coastal wetlands and estuaries in winter	
		Atmospheric Pollution 'Alone' According to the Department of Transport's Transport Analysis Guidance, "Beyond 200m, the contribution of vehicle emissions from the roadside to local pollution levels is not significant". This is because traffic exhausts are situated only a few inches above the ground and are horizontal to it, such that the vast majority of emitted pollutants are never dispersed far and are very quickly deposited. This distance is also related to the mix of the exhaust gases, the small dimension of the exhausts and the velocity of the exhaust gases leaving the exhaust. There are no European sites within 200m or less of any of the new development options. The closet SAC is Fontmell and Melbury Downs SAC which is 8km from the Neighbourhood Plan boundary. However, this doesn't take into consideration any significant journeys to work. Taking into consideration any significant journey to work routes within 200m any SAC, the Fontmell and Melbury Downs SAC, the Rooksmoor SAC and the Dorset Heath SAC are adjacent to A roads (A350 , A357 and A350 respectively and within 200m). The North Dorset Local Plan Part 1 HRA (Lily 2013) states that their assessment found that the general level of nitrogen deposition at both Fontmell and Melbury Downs SAC and Rooksmoor SAC already exceeds the minimum critical load,. Both sites are therefore vulnerable to increased air pollution arising from traffic which could occur as a result of new growth. Dorset Heath SAC exceeds the nitrogen disposition for a number of habitats. The HRA (Lily 2013) does not include a modelling assessment for the North Dorset Local and so there current and expected levels cannot be compared. Due to lack of information at this stage, the precautionary approach must be taken and therefore there will be Likely Significant Effects 'Alone; on European sites through air pollution relating to traffic emissions.	**Atmospheric Pollution 'In-combination'** N/A going to Appropriate Assessment where this allocation will be assessed in-combination
		Human induced changes in hydraulic conditions Changes brought about by additional housing requirements would be through increased water demand and its potential abstraction from water courses/reservoirs within Dorset Heath SAC, Isle of Portland to Studland SAC, and River Avon SAC. Reduction in water levels/ changes in the water table could have a likely significant effect on the following habitats within the Dorset Heath SAC: blanket bogs (* if active bog); Northern Atlantic wet heaths with *Erica tetralix;* an Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* and bog woodland. Reduction in water levels within the River Avon cause likely significant effects on the qualifying features including water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. Equally, a change in these habitats could then cause adverse effects to a number of he associated fauna with the SACs and SPAs. This Neighbourhood Plan includes for 400 housing and whilst alone, this is a low number of houses (small scale) and therefore is unlikely this development would cause the requirement for increased demand that would lead to adverse effects on the SACs or associated SPA. No Likely Significant Effects 'Alone'	***Human induced changes in hydraulic conditions*** The minimum total of houses included in the north Dorset Local Plan is at least 5,700 which in combination with the additional 400 houses from the Neighbourhood Plan itself could cause Likely Significant Effects into European Sites due to water abstraction. However Wessex Water (Wessex Water (2018). Wessex Water Draft Final Water Resources Management Plan and Wessex Water (2017) Wessex Water Drought Plan) take account of European designated sites and protect them. Protection has been carried out by regular abstraction monitoring. At some abstraction sources concerns have been raised that the existing licences do not adequately protect the environment – in response Wessex Water worked in partnership with the Environment Agency and Natural England to investigate the issues and identify mitigation measures where appropriate. Wessex Water is aware of the future rise in population within in North Dorset and beyond. The Wessex Water (2018) Draft Final Water Resources Management Plan is a key plan that they can reduce demand whilst ensuring that they can provide a reliable and sustainable supply of water and how they will provide this taking into consideration climate change, population growth and environmental pressures. An HRA of the preferred solution has been carried out assessing the likely significance both alone and in-combination of the preferred option on European sites and was found to have no likely significant effect any European site Natural England was in agreement with the outcome of the HRA (in relation to all European sites relating to this Neighbourhood Plan). No Likely Significant Effects 'In combination'
Policy B3	The northern-most plot of employment land is :over 8100m from Fontmell and Melbury Downs SAC	**Recreational Pressure and Disturbance 'Alone'** Please refer to the Recreational Pressure and Disturbance assessment as per Policy B2 No likely significant effect 'Alone' **Loss of Functionally Linked Land for SPA bird species 'Alone'** This policy leads to development on three plots of land which comprise: • Arable land surrounded on all sides with hedges (re Sunshine Business Park) • Current in-use industrial estate (Blandford Heights) with one small area of fenced rough grassland (grasses, tall ruderal species and	**Recreational Pressure and Disturbance 'In-combination'** Please refer to the Recreational Pressure and Disturbance assessment as per Policy B2 No likely significant effect 'Alone' **Loss of Functionally Linked Land for SPA bird species 'In- combination''** No likely significant effect 'In-combination' as there are no pathways.

Policy Reference	Distance from closest European Site	Likely Significant Effect- LSE (alone) plus reasoning	Likely Significant Effect LSE (in-combination)
		scrub)[44] ; and • A large area of rough grassland comprising grasses, tall ruderal species and some scub/shrubs[29] , Please refer to the Loss of Functionally Linked Land assessment as per Policy B2. The plots of land for the employment land are not suitable for the qualifying species as detailed in the Policy B2 assessment and therefore not classed as functionally linked land. No likely significant effect 'Alone'	
		Atmospheric Pollution 'Alone' Refer to Atmospheric pollution section in Policy B2 above Likely Significant Effects 'Alone' to European sites through atmospheric pollution relating to traffic emissions.	**Atmospheric Pollution 'In Combination'** N/A going to Appropriate Assessment where this allocation will be assessed in-combination
		Human induced changes in hydraulic conditions Changes brought about by additional employment land allocations – -would be through increased water demand and its potential abstraction from water courses/reservoirs within Dorset Heath SAC, Isle of Portland to Studland SAC, and River Avon SAC. Reduction in water levels/ changes in the water table could have a likely significant effect on the following habitats within the Dorset Heath SAC: blanket bogs (* if active bog); Northern Atlantic wet heaths with *Erica tetralix;* an Temperate Atlantic wet heaths with *Erica ciliaris* and *Erica tetralix* and bog woodland. Reduction in water levels within the River Avon cause likely significant effects on the qualifying features including water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation. Equally, a change in these habitats could then cause adverse effects to a number of he associated fauna with the SACs and SPAs. This Neighbourhood Plan includes for the provision of at least 2ha and up to 5ha of employment land. This includes a commercial development (B1 use) at Blandford Heights industrial estate and a larger scale commercial development of the Sunrise Business Park (including B1, B2 and B8 uses). This is considered a small provision of employment land and therefore is unlikely this development would cause the requirement for increased demand that would lead to adverse effects on the SACs or associated SPA. No Likely Significant Effects 'Alone'	***Human induced changes in hydraulic conditions*** The North Dorset Local Plan states that the need for employment land is 26.2 ha (including the requirement of Blandford (up to 5ha))). Therefore the minimum 21ha in combination with the 5ha of employment land for Blandford could cause Likely Significant Effects into European Sites due to water abstraction. However Wessex Water (Wessex Water (2018). Wessex Water Draft Final Water Resources Management Plan and Wessex Water (2017) Wessex Water Drought Plan) take account of European designated sites and protect them. Protection has been carried out by regular abstraction monitoring. At some abstraction sources concerns have been raised that the existing licences do not adequately protect the environment – in response Wessex Water worked in partnership with the Environment Agency and Natural England to investigate the issues and identify mitigation measures where appropriate. Wessex Water is aware of the future rise in population within in North Dorset and beyond. The Wessex Water (2018) Draft Final Water Resources Management Plan is a key plan that they can reduce demand whilst ensuring that they can provide a reliable and sustainable supply of water and how they will provide this taking into consideration climate change, population growth and environmental pressures. An HRA of the preferred solution has been carried out assessing the likely significance both alone and in-combination of the preferred option on European sites and was found to have no likely significant effect any European site Natural England was in agreement with the outcome of the HRA (in relation to all European sites relating to this Neighbourhood Plan.). No Likely Significant Effects In combination'

[44] Review of google streetview on 17/10/2018

Appendix E : AWP Technical Note: Land North East of Blandford Forum Neighbourhood Plan Traffic Generation

Kensington Court
Woodwater Park
Pynes Hill
Exeter
EX2 5TY
Tel: 01392 409007
www.awpexeter.com

technical note

Land North East of Blandford Forum

Neighbourhood Plan Traffic Generation

Project No.	0728
Revision	B
Date	12th December 2018
Client	Wyatt Homes
Prepared	S Davenport
Checked	A Wozniczko
Authorised	I Awcock
File Ref.	P:\0728 Ne Blandford\C Documents\Reports\0728 - Neighbourhood Plan - Traffic Flows - TN.docx

1 Introduction

1.1 This Technical Note provides information on the estimated traffic increases on selected points in the wider local road network from the construction of 400 dwellings on Land North East of Blandford Forum.

1.2 The results presented within this Technical Note are for four specific links as requested by Blandford Neighbourhood Plan Group to inform an assessment of air quality impacts.

2 Traffic Generation and Distribution

Traffic Generation

2.1 The industry standard TRICS database has been used to establish the traffic generation that would be expected to occur in connection with the proposed allocation of 400 dwellings.

2.2 It has been assumed that the level of affordable housing within the development would be 30%. Typically, affordable housing generates a lower number of trips, and therefore a separate trip rate has been obtained for the affordable housing provision. Full TRICS reports are contained within Appendix A of this technical note.

2.3 Table 2.1 below shows the trip rates and estimated traffic generation from the proposed allocation of 400 dwellings:

Table 2.1: Daily Vehicle Trip Rates & Vehicle Trip Generation

	Total Daily Trips Rate (per dwelling)	Daily Trip Generation
Open Market 280dw	4.255	1191
Affordable 120dw	3.991	479
Total	-	1670

2.4 Table 2.1 shows the total daily trip rate for the development would be approx. 1700 vehicles.

Distribution

2.5 In order to define the distribution of development traffic across the road network reference has been made to the 2011 Census. Data from '*WU03EW – Location of usual residence and place of work by method of travel to work*' has been taken for the MOSA North Dorset 007 which the site lies within. These results have been assessed to identify existing journey to work patterns across the network given the routes available and likely desire lines.

2.6 Table 2.2 below shows the distribution over three of the road links identified by the Neighbourhood Plan group. The link '*A349 past Canford Heath*' has not been included as analysis of desire lines suggests that no trips from the site would be likely to travel along this link.

Table 2.2: Traffic Distribution

Direction	A350 (North)		A350 South
	A357	A350 (North)	To Poole
% Distribution	2%	3%	11%

2.7 The remainder of the development trips distribution would be distributed over the wider road network to destinations such as Bournemouth via the A31, Dorchester via the A35 and to other destinations within the Dorset area.

2.8 As table 2.2 shows, the larger proportion of traffic from the development is expected to travel south towards Poole, with only a small proportion of the development traffic travelling north on the A350 and A357. Table 2.3 below shows the number of vehicles that would be distributed over the local road network given the trip generation set out above:

Table 2.3: Daily Traffic Assignment

Direction	A350 (North)		A350 South
	A357	A350 (North)	To Poole
% Distribution	33	48	188

2.9 As shown in Table 2.3 a greater level of traffic is expected to travel south towards Poole on the A350 when compared with destinations to the north of Blandford.

3 Traffic Impact Appraisal

3.1 The Neighbourhood Plan Group have identified four locations on the wider road network for consideration of air quality impacts. These four locations are:

- *A35 between Upton and Bournemouth;*
- *A349 past Canford Heath in Bournemouth;*
- *A357 at Lydlinch;*
- *A350 in the Compton Abbas area.*

3.2 As was mentioned previously, no development traffic is expected to travel along the A349 past Canford Heath as there is no desire line along this link from the development. Therefore no further analysis has been undertaken for this link as the change in traffic would be negligible.

3.3 The change in traffic over the three remaining links has been calculated for the submission year of the Neighbourhood Plan, 2019, and for 2033, the final year of the Neighbourhood Plan.

3.4 In order to calculate the change in link flow, data from the Department for Transport permanent traffic count locations has been used to provide a baseline traffic flow for the links in question. The baseline 2017 flows have a TEMPro growth factor applied to them to enable the future years to be tested.

3.5 Baseline data is available for two locations. These are:

- *The A357 at Lydlinch – Count no. 56969*
- *The A35 at Upton – Count no. 27894*

3.6 There is no DfT count present on the A350 between Shaftsbury and Blandford Forum, so no baseline traffic flows were available for this link.

3.7 Table 3.1 below shows the percentage increase on the two links from the development traffic. A full break down of the calculations is contained within Appendix B.

Table 3.1: Link Flow Percentage Increase

Link	Percentage Increase	
	2019	2033
A35 between Upton and Bournemouth;	0.337%	0.294%
A357 at Lydlinch	0.455%	0.396%

3.8 As table 3.1 shows, the increase over all the links was under 0.5%. This is considered to represent a negligible change in daily traffic flow.

3.9 The traffic increase over the link '*A350 in the Compton Abbas area'* is expected to be 48 vehicles over the entire day. This would also represent a negligible change, with an addition vehicle every 22 minutes on average over an 18 hour day.

A35 at Upton

3.10 Additional information has been requested relating to the A35 Upton link flows, it has been included within this Revision B Technical Note. Table 3.2 below, sets out the break down of the traffic flows in various scenarios

Table 3.2: Link Flow Percentage Increase

Scenario	Flow
2019 Baseline	55708
2033 Do Nothing	63970
2033 Do Something	64158
Approx. % HGV mix	2.5%

3.11 No speed survey data was available for this specific link but the link is subject to the national speed limit, therefore, for this section of dual carriageway road the speed limit would be 70mph.

4 Conclusion

4.1 This Technical Note has been prepared to provide an estimate of the change in vehicle flows as a result of the allocation and subsequent construction of 400 dwellings on Land North East of Blandford Forum.

4.2 The change in traffic volume has been estimated by calculating the trip generation for 400 dwellings using the industry standard TRICS database. Census data for the MSOA 007 has informed an estimate of the potential distribution over the road network.

4.3 Traffic counts from the DfT for two of the links identified by the Neighbourhood Plan Group have been used to establish the percentage increase of traffic flow as a result of the allocation. The link 'A349 past Canford Heath in Bournemouth' is not expected to experience development traffic flows, therefore it was excluded from all calculations.

4.4 The percentage increase expected to result from the development traffic is under 0.5% on both of the links where DfT data was available. On the 'A350 in the Compton Abbas area' the increase in traffic as a result of the development is expected to be in the order of 48 vehicles over the entire day and this is considered to be negligible.

AWP

Appendix A TRICS Reports

Appendix A TRICS Reports

Appendix B Traffic Impact Appraisal Calculations

Calculation Reference: AUDIT-753701-180620-0616

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
04	EAST ANGLIA		
	SF	SUFFOLK	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	1 days
	WK	WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	3 days
09	NORTH		
	DH	DURHAM	1 days
10	WALES		
	PS	POWYS	1 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 17 to 151 (units:)
Range Selected by User: 5 to 4334 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 27/11/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	2 days
Wednesday	2 days
Thursday	3 days
Friday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	9
Village	2
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	13 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	2 days
1,001 to 5,000	7 days
5,001 to 10,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	7 days
25,001 to 50,000	6 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	9 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	12 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	13 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 AN-03-A-07 SEMI DETACHED/TERRACED HOUSING ANTRIM
CASTLE WAY

ANTRIM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 55
Survey date: TUESDAY *20/12/11* *Survey Type: MANUAL*

2 AN-03-A-09 DETACHED & SEMI-DETACHED ANTRIM
SLOEFIELD DRIVE

CARRICKFERGUS
Edge of Town
No Sub Category
Total Number of dwellings: 151
Survey date: WEDNESDAY *12/10/16* *Survey Type: MANUAL*

3 DH-03-A-02 MIXED HOUSES DURHAM
LEAZES LANE
ST HELEN AUCKLAND
BISHOP AUCKLAND
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total Number of dwellings: 125
Survey date: MONDAY *27/03/17* *Survey Type: MANUAL*

4 ES-03-A-04 MIXED HOUSES & FLATS EAST SUSSEX
NEW LYDD ROAD

CAMBER
Edge of Town
Residential Zone
Total Number of dwellings: 134
Survey date: FRIDAY *15/07/16* *Survey Type: MANUAL*

5 HC-03-A-19 HOUSES & FLATS HAMPSHIRE
CANADA WAY

LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: MONDAY *27/11/17* *Survey Type: MANUAL*

6 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY *14/10/11* *Survey Type: MANUAL*

7 NY-03-A-07 DETACHED & SEMI DET. NORTH YORKSHIRE
CRAVEN WAY

BOROUGHBRIDGE
Edge of Town
No Sub Category
Total Number of dwellings: 23
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

8 NY-03-A-11 PRIVATE HOUSING NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Edge of Town
Residential Zone
Total Number of dwellings: 23
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	PS-03-A-02 GUNROG ROAD WELSHPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings:	DETACHED/SEMI-DETACHED 28	POWYS
	Survey date: MONDAY	*11/05/15*	*Survey Type: MANUAL*
10	SF-03-A-06 BURY ROAD KENTFORD Neighbourhood Centre (PPS6 Local Centre) Village Total Number of dwellings:	DETACHED & SEMI-DETACHED 38	SUFFOLK
	Survey date: FRIDAY	*22/09/17*	*Survey Type: MANUAL*
11	SH-03-A-05 SANDCROFT SUTTON HILL TELFORD Edge of Town Residential Zone Total Number of dwellings:	SEMI-DETACHED/TERRACED 54	SHROPSHIRE
	Survey date: THURSDAY	*24/10/13*	*Survey Type: MANUAL*
12	WK-03-A-02 NARBERTH WAY POTTERS GREEN COVENTRY Edge of Town Residential Zone Total Number of dwellings:	BUNGALOWS 17	WARWICKSHIRE
	Survey date: THURSDAY	*17/10/13*	*Survey Type: MANUAL*
13	WS-03-A-07 EMMS LANE BROOKS GREEN NEAR HORSHAM Neighbourhood Centre (PPS6 Local Centre) Village Total Number of dwellings:	BUNGALOWS 57	WEST SUSSEX
	Survey date: THURSDAY	*19/10/17*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	13	68	0.068	13	68	0.192	13	68	0.260
08:00 - 09:00	13	68	0.130	13	68	0.344	13	68	0.474
09:00 - 10:00	13	68	0.147	13	68	0.183	13	68	0.330
10:00 - 11:00	13	68	0.160	13	68	0.171	13	68	0.331
11:00 - 12:00	13	68	0.146	13	68	0.176	13	68	0.322
12:00 - 13:00	13	68	0.159	13	68	0.146	13	68	0.305
13:00 - 14:00	13	68	0.163	13	68	0.169	13	68	0.332
14:00 - 15:00	13	68	0.162	13	68	0.177	13	68	0.339
15:00 - 16:00	13	68	0.220	13	68	0.155	13	68	0.375
16:00 - 17:00	13	68	0.263	13	68	0.156	13	68	0.419
17:00 - 18:00	13	68	0.281	13	68	0.152	13	68	0.433
18:00 - 19:00	13	68	0.211	13	68	0.124	13	68	0.335
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.110			2.145			4.255

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	17 - 151 (units:)
Survey date date range:	01/01/10 - 27/11/17
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-753701-180418-0428

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
VEHICLES

Selected regions and areas:

06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	2 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	NB	NORTHUMBERLAND	1 days
11	SCOTLAND		
	DU	DUNDEE CITY	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	51	0.081	7	51	0.136	7	51	0.217
08:00 - 09:00	7	51	0.153	7	51	0.269	7	51	0.422
09:00 - 10:00	7	51	0.164	7	51	0.219	7	51	0.383
10:00 - 11:00	7	51	0.144	7	51	0.164	7	51	0.308
11:00 - 12:00	7	51	0.144	7	51	0.136	7	51	0.280
12:00 - 13:00	7	51	0.183	7	51	0.150	7	51	0.333
13:00 - 14:00	7	51	0.150	7	51	0.147	7	51	0.297
14:00 - 15:00	7	51	0.192	7	51	0.183	7	51	0.375
15:00 - 16:00	7	51	0.175	7	51	0.167	7	51	0.342
16:00 - 17:00	7	51	0.239	7	51	0.136	7	51	0.375
17:00 - 18:00	7	51	0.219	7	51	0.167	7	51	0.386
18:00 - 19:00	7	51	0.156	7	51	0.117	7	51	0.273
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.000			1.991			3.991

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	16 - 97 (units:)
Survey date date range:	01/01/10 - 13/09/17
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix B Traffic Impact Appraisal Calculations

AADF Year	CP	Estimation Method Detailed	Local Authority	Road	Easting	Northing	Start Junction	End Junction	Link Length km	All Motor Vehicles
2000	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	44416
2001	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	41349
2002	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	42409
2003	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43534
2004	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43173
2005	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43473
2006	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43852
2007	27894	Estimated using previous year's AADF on this link	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	45008
2008	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43376
2009	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43880
2010	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	42806
2011	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	43733
2012	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	41942
2013	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	46192
2014	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	45562
2015	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	46885
2016	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	51363
2017	27894	Manual count	Dorset	A35	398100	93690	A350 Blandford Road (roundabout)	A350 Creekmoor Junction	1.4	54157

AADF Year	CP	Estimation Method Detailed	Local Authority	Road	Easting	Northing	Start Junction	End Junction	Link Length km	All Motor Vehicles
2000	56969	Manual count	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	5982
2001	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6297
2002	56969	Manual count	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6004
2003	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6513
2004	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6296
2005	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6278
2006	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6315
2007	56969	Estimated using previous year's AADF on this link	Dorset	A357	374596	113715	A3030	B3092 Town Bridge	4.9	5374
2008	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6657
2009	56969	Manual count	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6263
2010	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6219
2011	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6407
2012	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6029
2013	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6459
2014	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6515
2015	56969	Manual count	Dorset	A357	374596	113715	A3030	B3092 Town Bridge	4.9	5315
2016	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6367
2017	56969	Estimated using previous year's AADF on this link	Dorset	A357	375000	113750	A3030	B3092 Town Bridge	4.9	6963

	A350 SOUTH	A350 NORTH	
	A350	A357	A350 North
Distribution	11%	2%	3%
Development Traffic	188	33	48

Total Daily Flow	
Daily Flow Open	1191
Daily Flow Affordable	479
Total	1670

2019 - AADT Data

Link:	A35 at Upton
AADT Flow	55708
Development Traffic	188
% Change	0.337%

2033 - AADT Data

Link:	A35 at Upton
AADT Flow	63970
Development Traffic	188
% Change	0.294%

TEMPro
2017-2019
1.03
2017-2033
1.18

Link:	A357 at Lydlinch
AADT Flow	7162
Development Traffic	33
% Change	0.455%

Link:	A357 at Lydlinch
AADT Flow	8225
Development Traffic	33
% Change	0.396%