

06 CONSTRAINTS AND OPPORTUNITIES ANALYSIS





GREEN BELT REVIEW

Introduction

This section of the report examines a number of key technical constraints and opportunities associated with the areas of search, which will, in turn, help form the basis of the land parcels that we consider should be identified as land for development consideration in each of the locations.

The analysis includes:

- Green Belt Review
- Landscape
- Ecology
- Historic Environment
- Noise and Vibration
- Odour
- Flood risk and drainage
- Infrastructure

This section examines the Green Belt issues that relate to each of the areas of search. It covers national and local policy, the Green Belt Review and the key Green Belt issues affecting each of the locations.

Current National and Local policy

The South East Dorset Green Belt was established by the South East Dorset Structure Plan (1980) which determined its general extent. Detailed boundaries were defined in subsequent local plans.

In approving the policy, the Secretary of State modified the Green Belt policy to set out its purposes as being:

- a. To protect the separate physical identity of individual settlements in the area by maintaining wedges and corridors of open land between them
- b. To maintain an area of open land around the conurbation.

The supporting text suggested that the Green Belt would also provide for the development of suitable forms of countryside recreation easily accessible to a large number of people.

Green Belt Review

A Green Belt Review was conducted as part of the South East Dorset Joint Study Area report SED 04 "Development Options". This review identified Corfe Mullen, Wimborne Minster and Ferndown and West Parley as settlements whose separate physical identity is protected by the Green Belt and the key gaps which provide separation from other built up areas.

We now consider the key factors identified in the Green Belt Review that affect each of the areas of search.

Wimborne Minster

Areas of land to the south, east and south west of Wimborne Minster are identified as key gaps which form a strategic element of the South East Dorset Green Belt. These gaps provide separation from Colehill to the east, Merley to the south and Corfe Mullen to the south west.

The new neighbourhood area of search to the north and north west of Wimborne Minster forms part of the setting of the historic town and is part of the wider area of open and unspoiled countryside around the conurbation. However, it does not form part of any of the key strategic gaps separating settlements.

The South East Dorset Joint Study Green Belt Review specifically assessed the impact of Green Belt release at this area of search. It concluded there would be some encroachment of urban presence in to previously open countryside but the setting of the historic town would not be compromised provided mitigation was achieved through design and landscaping of any new development. The form that this mitigation might take will be considered in the masterplan.

The south western limits of the area of search at Wimborne Cuthbury also represented some encroachment into the countryside but, again, it was not considered this would affect the setting of the town. This area is firmly bounded by the river and there is an opportunity for visual enhancement to better define the south west approach to the town.

However, the area of search to the east of Wimborne Minster will fall within an area identified as a "key gap" between the town and Colehill. The edges of these urban areas are also identified as 'key edges' in the report. In relation to the key edges,

the Green Belt Review states that in many places the gaps between settlements are narrow and their ability to perform their function is potentially vulnerable to even minor development. Some gaps, including that between Wimborne Minster and Colehill are under 1km and the prevention of further erosion will be critical. The area of search is, therefore, of key importance to the maintenance of a gap and this must be borne in mind when suggesting any development in this location. It is considered that the setting of Merley will be protected.

Corfe Mullen

The area of search does not form part of a key gap or sensitive urban edge as defined in the Joint Study Green Belt Review

The area of search is part of the open countryside surrounding the conurbation whose protection is one of the purposes of the Green Belt. However, there would remain extensive open countryside to the west still protected by Green Belt. Development in this location would not lead to coalescence of any settlements and would not affect the historic setting of any settlement.

The Green Belt Review, in its consideration of this specific area of search, concluded there would be some encroachment into countryside, including into an area of high landscape value and that views out from Corfe Mullen would be affected. The landscape sensitivity of this area of search is considered in the landscape appraisal in this section and is a key factor in the identification of land for consideration in Section 9. Measures to mitigate any adverse impacts will form part of the masterplan proposals.

Ferndown and West Parley

Areas of land to south and east of the West Parley area of search are identified as key gaps which form a strategic element of the South East Dorset Green Belt. Further, the area immediately south of West Parley, north and south of the River Stour, is identified as a "Key Edge". Such key edges were defined by the Green Belt Review as those places where the width of the key gaps separating settlements areas is 1km or less and where prevention of further erosion of the separating gap will be critical.

The Green Belt Review also identifies that the area of Green Belt around the West Parley Conservation Area has an important role in defining its setting

The westernmost extent of the area of search is close to the village of Longham and development in this area could potentially conflict with the objective of avoiding coalescence and of maintaining the separate identity of settlements.

The Green Belt Review, in its consideration of this specific area of search, acknowledged the concern that the key gap separating and identifying West Parley from Bournemouth (Ensbury) would become less marked but remain intact. It also refers to some encroachment into countryside affecting views across the Stour Valley.

There are, therefore, several important Green Belt issues to consider in the identification of land for possible development at Ferndown and West Parley and these issues are taken into account in Section 9 of this report which identifies specific areas of land for consideration

The objective here is to ensure a clear, though narrow, belt of open land would remain free of development to ensure the strategic purpose of the Green Belt is not compromised

Conclusion

The above analysis details how each of the areas of search were considered by the South East Dorset Green Belt Review. It sets out issues and concerns in relation to Green Belt purpose and function that will influence the identification of potential development areas, the form of the masterplan and the nature of mitigation measures for each new neighbourhood.

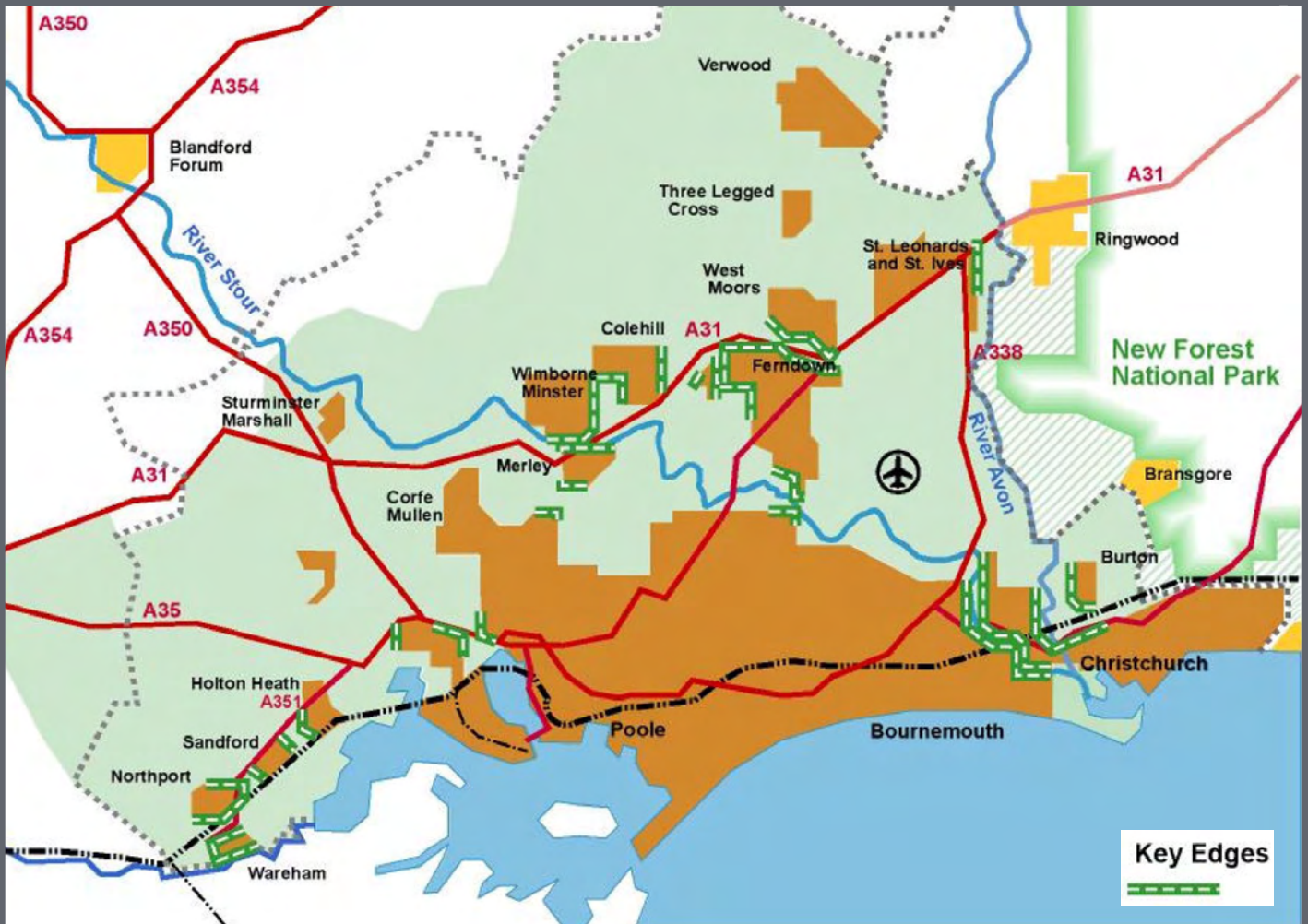
Plans illustrating the areas covered in this section are shown overleaf. These are taken from the South East Dorset SED 04 Development Options Report.



SE Dorset Green Belt



Green Gaps



Key Edges



Historic Setting - (note: Burt's Hill and Brog Street are also conservation areas in free-standing villages)

LANDSCAPE APPRAISAL

Introduction

The focus of the landscape appraisal work here largely concentrates on the areas of land which are least affected by overwhelming environmental constraints which are identified in more detail in this section of the report. Such land includes that within the vicinity of lowland heathland which is protected by European legislation or major flood plains as well as land that is close to existing settlements and, therefore, more sustainable for development. In this respect, the approach also follows the landscape assessments produced by East Dorset District Council (EDDC), which concentrates on certain sites, which lie close to the existing urban areas.

Methodology

The process of landscape appraisal and assessing landscape character has broadly followed the 'Guidelines for Landscape and Visual Impact Assessment', published by the Landscape Institute and Institute of Environmental Management & Assessment, Second Edition 2002; and 'Landscape Character Assessment Guidance for England and Scotland' published by the former Countryside Agency 2002.

This has involved both desk and field studies and specifically the appraisal of land in terms of its capacity for development and its sensitivity to change. A ranking system, based on Countryside Agency guidance has been used to provide a comparative assessment of potential sites in landscape terms.

Desk and Field study

Fortunately, EDDC has carried out a good deal of landscape appraisal work to date. The desk study began with a review

of the client briefs and information packs for each proposed new neighbourhood followed by a review of the existing landscape assessment work produced by EDDC. These have included the following documents;

District wide landscape assessment:

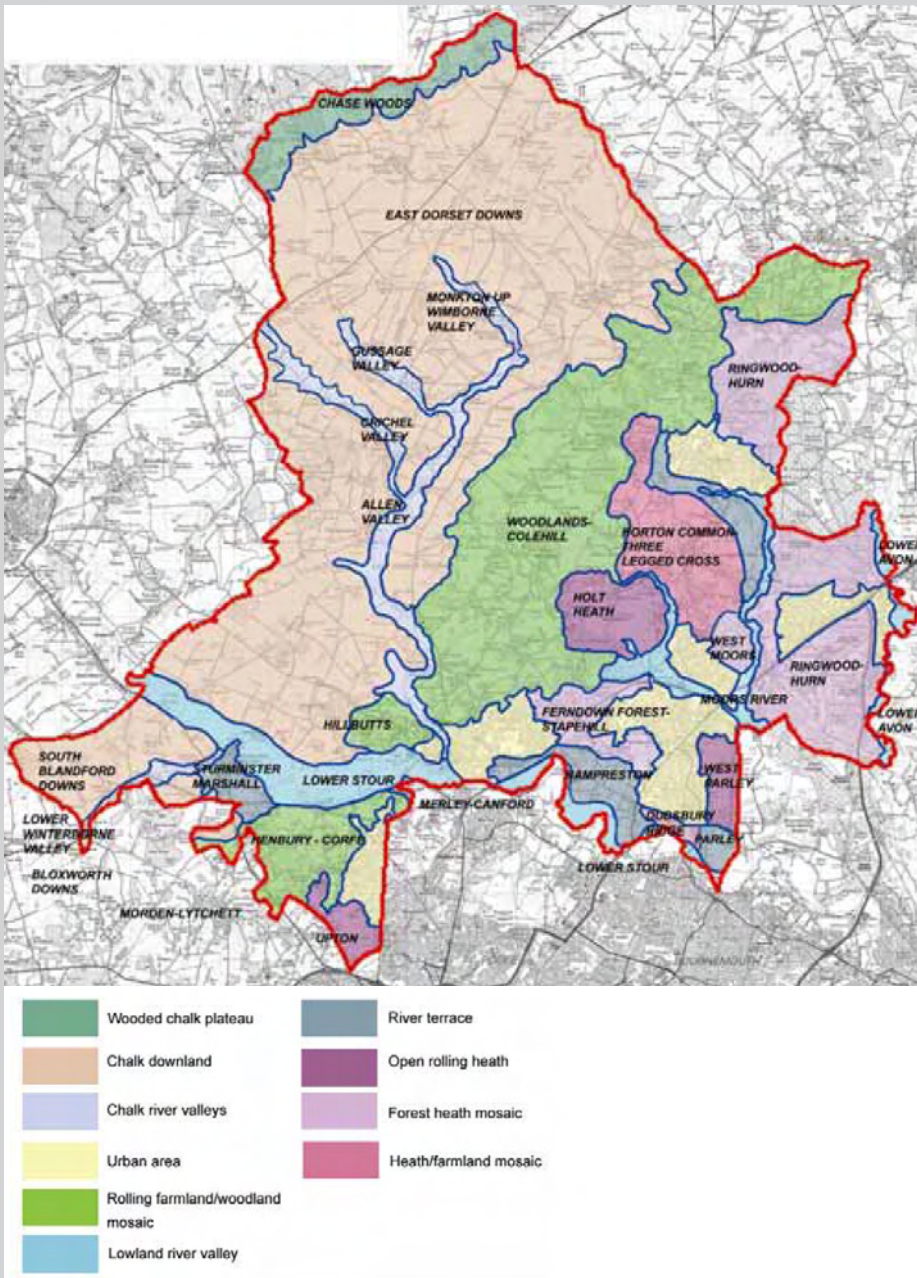
- East Dorset Landscape Character Assessment by East Dorset District Council and approved by Policy and Resources Committee dated 2008

Site based Landscape assessments:

- Land to the north of Wimborne Minster - Landscape Character Assessment dated May 2009
- Cuthbury Allotments, Stone Park & Julians Road – Landscape Character Assessment dated May 2009
- Land to the North and West of Corfe Mullen - Landscape Character Assessment dated June 2009
- Land at Ferndown and West Parley Landscape Character Assessment

It should be noted that the content and mapping in each document varied with some appraisals containing more detailed assessment and mapping than others.

The field study involved an initial visit with the wider project team to gain a broad understanding of the existing settlement / landscape character and the potential sites. This was followed by a period of desk study and further site visits to carry out a detailed landscape assessment of potential development sites.



Source: EDDC Landscape Character Assessment (2008)

Landscape Designations

Much of East Dorset comprises open countryside and is predominantly rural in character. Indeed 45% of the western part of the district is designated as The Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty (AONB) and is nationally protected due to the special qualities of the landscape which include its dramatic landform, attractive views, rich historic built heritage, ecological interest coupled with its remoteness and tranquillity.

The settlements of Wimborne Minster, Ferndown and West Parley and Corfe Mullen fall outside the AONB area, although the River Allen west of Wimborne Minster forms part of the eastern boundary of the AONB.

In addition to this area, four areas of distinct landscape quality designated as Areas of Great Landscape Value (AGLV) are also present within East Dorset. The Corfe Mullen AGLV abuts the western edge of Corfe Mullen and the river valley to the west of Wimborne Minster is in the Stour Valley/Mapperton AGLV.

Agricultural Land

High level mapping (using the Magic website) shows that none of the land within any of the areas of search comprises grade 1 agricultural land (which is the highest rated agricultural land in terms of quality).

Land to the north and west of Wimborne Minster is largely grade 3, with parts falling

within grade 4. The land to the east of Wimborne Minster is largely grade 3. The land to the west of Corfe Mullen is grade 3. The land at Ferndown and West Parley is a mix of grades 2, 3 and 4. This largely comprises grade 2 in the east with 3 to the northwest and 4 to the south.

However, the weight afforded to agricultural land value in Government policy has shifted in recent years. Planning Policy Statement 7 (PPS7) states that the presence of best and most versatile agricultural land (defined as grades 1,2 and 3a) should be taken into account alongside other sustainability considerations which include bio-diversity, amenity value or heritage interest, accessibility to infrastructure, work force and markets etc. It adds that where significant development of agricultural land is unavoidable, local planning authorities should seek to use areas of poorer quality land (grades 3b, 4 and 5) in preference to that of a higher quality, except where this would be inconsistent with other sustainability considerations. It is for the local planning authority to decide if best and most versatile agricultural land can be developed... "having carefully weighed the options in light of competent advice".

Broad Landscape Character

The Character of England mapping previously prepared by the former Countryside Agency and English Nature categorised the East Dorset District into three broad landscape character areas:

- The Dorset Downs & Cranborne Chase (134) - which largely relates to the AONB area
- The Dorset Heaths (135) - which covers the countryside in the vicinity of this study
- The New Forest (131) at the eastern edge of the District

EDDC has also carried out its own landscape character assessment which was published in May 2009. This study has identified nine landscape character types and twenty five landscape character areas. **Landscape Character Types** are landscapes with broadly similar patterns of geology, soils, vegetation, land use, settlement and field patterns. **Landscape Character Areas** are unique areas, and geographically discrete examples of a particular landscape type.

The landscape character areas in the vicinity of the study area are shown on the plan (top left).

The local landscape character associated with each settlement is described in detail over the following pages.

WIMBORNE MINSTER

Wimborne Minster North

Local Landscape Character

The potential areas considered for the new neighbourhoods to the north and west of Wimborne Minster either fall within the urban area; the open countryside within the 'Woodlands-Colehill & Hillbutts Farmland' Character Area or lie adjacent to the 'Lower Stour Valley'.

The Woodlands-Colehill and Hillbutts Character area is only interrupted by the 'Allen Valley' character area to the south.

These character areas are described below. The numbers (in brackets) refer to the landscape character area reference.

Woodlands-Colehill & Hillbutts farmland/ woodland mosaic (8)

The EDDC Landscape Character Assessment describes this area as follows:

'To the east of the Allen valley the landform rises as an undulating ridge to form a clear physical edge to the chalk downland... However one of the most distinctive qualities is the variety of scenic landscapes that occur within such a relatively narrow band. The area is one of contrast, between the enclosure afforded by the undulating landscape and substantial areas of woodland cover and the often long-distance views from its hilltops. The land use is characterised by a mosaic of regular, medium-sized fields for stock grazing and arable. Fields are bounded by continuous,

thick hawthorn hedgerows and hedgerow oaks. There are often substantial individual oaks in the larger fields. Throughout the area oak is predominant and forms woods, copses, hedgerow and roadside trees and individual specimens in abundance'.

Key characteristics

- Undulating landform, punctuated by hilltops
- Heavily influenced by woods, copses and hedgerow trees creating an irregular patchwork
- Absence of major roads
- Irregular road pattern, having an east-west emphasis with short north-south links
- Narrow, winding lanes throughout the area with high, dense hedgerows
- Extensive network of public footpaths and woodland and other tracks
- Farmhouses and other modest rural dwellings, few major historic buildings or churches
- General absence of archaeological remains, except for tumuli on hilltops
- Heavy concentration of Ancient Woodlands
- Quiet, peaceful countryside largely unaffected by modern development'

Allen Valley (3)

The EDDC Landscape Character Assessment describes this area as follows:

'The Allen system extends from the chalk downs to the north and west to its confluence with the River Stour to the south. This narrow zone is associated with a sinuous belt of valley gravel alongside the river...

Flat water meadows lie either side of the river as it meanders throughout its length, contrasting with the adjacent arable fields....Copses and riverside trees trace the course of the river...Throughout its length the valley habitat is of significant conservation interest.

The landscape along the river is much more intimate than that of the surrounding countryside. The best public views of the river can be found where minor roads to the west of the B3078 cross over the river.

Key characteristics

- Shallow sided valley
- Important chalk stream habitat
- Water Meadows
- Riverside Trees
- Sparsely developed with secluded and intimate character '

The Lower Stour Valley (10)

The River Stour and its wide, flat flood plain form an important landscape feature running from west to south east of Wimborne Minster, providing long distance views along the valley floor. The EDDC Landscape Character Assessment describes this area as follows:

'A wide and flat, meandering floodplain. The area comprises the river and the alluvium beds lying immediately on either side. As the river progresses from Shapwick in the west to Parley in the east through the District it is normally bounded on each side by terraces of valley gravel that mark the former floodplain. However in places the valley edge is demarcated by chalk downland in the west and, further to the east, by ridges of clay and gravel....

....At Wimborne the valley has an open, pastoral landscape character influenced by roads and crossings that encroach along its length. The river is pinched between the ridge at Merley on the southern bank and more recent developments in Wimborne to the north.'

Key characteristics of the character area are listed as follows;

- Flat wide flood plain
- Meandering river
- Riverside trees and copses
- Long distance views along the valley

Key features, (of the character areas which are relevant to the potential sites), include the following;

- Road crossings and historic multi-arched bridges eg Julian's Bridge (at Wimborne Minster)
- Views of the church towers atWimborne Minster

Wimborne Minster East

The potential sites to the east of Wimborne Minster fall within the 'Hampreston River Terrace' Character Area. The EDDC Landscape Character Assessment describes this area as follows:

'An area of valley gravel lying to the north of the river, the western part of the area is influenced by the industrial and residential developments at Leigh and Brook Road and by the A31 Wimborne by pass that crosses the river to the south west and the roundabout at Canford Bottom...'

Key Characteristics

- Flat landform
- Mosaic of large fields used for arable and pasture
- Few trees in fields, most trees near river and village

Key Features

- A31 bypass to the west
- A348 at Longham
- Hampreston village and church'

EAST DORSET HOUSING OPTIONS

WIMBORNE MINSTER



Stone Park

Site Appraisal

The sites considered include the following areas:

- West of Wimborne Minster
 - a. Cuthbury allotments
 - b. Stone Park
 - c. Stone Lane Industrial Area
 - d. St Margarets Close
- North of Wimborne Minster
 - a. Land to the east of Cranborne Road
 - b. Land to the west of Cranborne Road.
 - c. Farm buildings adjacent to a and b

Site Appraisal

(West of Wimborne Minster)

The landscape character of the western sites has been largely described within the *Cuthbury Allotments, Stone Park & Julians Road – Landscape Character Assessment* dated May 2009. The following is a summary of the main features from the report, with additional comments on these other site where appropriate.

Topography: The Cuthbury Gardens allotments site (which includes allotments, the separate site fronting Julian's Road and the football ground) is a low lying site, with levels falling from 24m on the northern edge of the playing field to 18m AOD on the river bank edge. The land at Stone Park further west is higher, rising from 26m alongside Cowgrove Road to 40 m AODS at the entrance to Stone Park.

The Stone Lane Industrial Estate lies close to the southern edge of the River Allen, on

sloping land ranging from 30m AOD to 20m AOD at the river's edge, whilst the small compact site at St Margaret's Close lies on gently sloping land at approximately 35m AOD.

Existing vegetation: There are a number of mature trees and hedgerows that form the boundary to the sites. The trees within Stone Park form an important backdrop to views of the site from the west and south. Within the allotments, trees and understorey vegetation on the boundary provide some screening and landscape character. Alongside the river, there is an important group of trees.

On the Stone Lane Industrial Estate, the character is, unsurprisingly, industrial with little on - plot vegetation but there are important riverside and boundary trees which assist in softening the edges of the development.

At St Margaret's Hill, the site is enclosed by mature trees, including a strong line of conifers on the site's northern boundary. A small section of the western part of the site is given over to a small orchard.

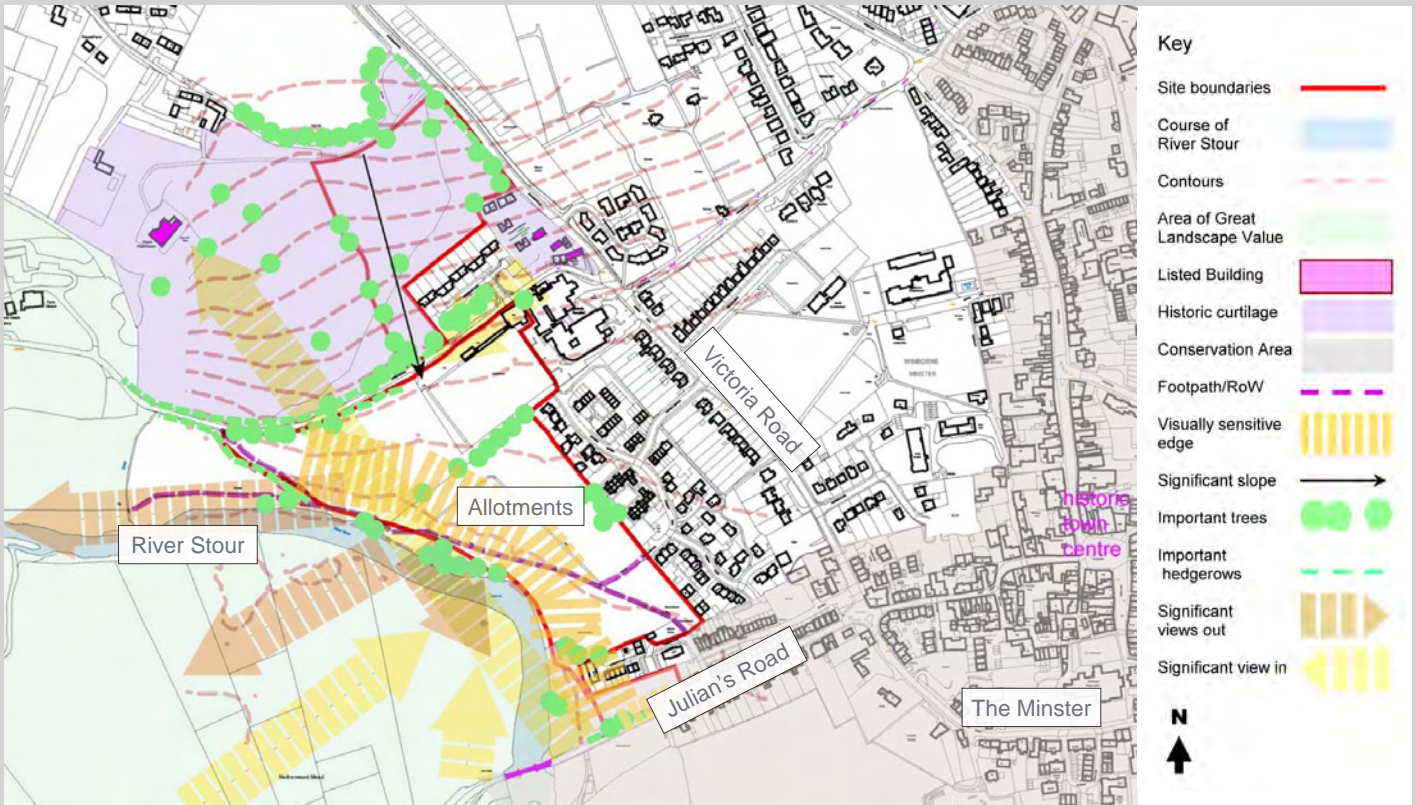
Historic Landscape: The building known as Stone Park is a Grade 2 listed building of 19th Century origin. The regency style house occupies a prominent site overlooking the Stour valley. The parkland area which provides an important setting for the house, is characterised by typical parkland features such as large individual trees. The parkland is probably 19th

Century but is not registered as an historic park and garden. The almshouses that lie immediately to the south of Stone Park are also a feature and are associated with St Margaret's and St Anthony hospital. A number of the almshouses are listed.

Local and Strategic views: Views over the river valley from the Stour Valley Way and the proximity of Wimborne Minster are important and attractive features of the sites alongside the River Stour. Although roadside trees and valley planting provides some screening, there are many views across the Stour valley from the west. The view from B3078 as it approaches the town from the west is a significant view. The three storey development at Cuthbury Close forms a conspicuous and unattractive feature that can be seen at some distance when approaching Wimborne Minster from the west and detracts from the setting and arrival. Views from the allotments southwards extend in a wide panorama and include the wooded ridges of Henbury and Stone Down.

There are important local views of the existing edges of the Stone Lane Industrial Estate which are visible from viewpoints north and west within the River Allen valley and from Stone Lane.

The boundary vegetation at the St Margaret's Hill site helps to screen most views of the site from land to the north and the cemetery to the east, although there are close views from the adjacent properties on St Margaret's Close to the South.



Source: EDDC Landscape Character Assessment (May 2009) for the Cuthbury Allotment, Stone Park and Julian's Road



View of the western edge of the town across the Stour Valley



View looking west of the Stour Valley



View of the Cuthbury Allotments

EAST DORSET HOUSING OPTIONS

WIMBORNE MINSTER



Land to the east of Wimborne

Site Appraisal (North of Wimborne Minster)

The sites either side of the Cranborne Road reflect many of the characteristics identified in the district wide survey and these have been identified within the 'Landscape Character Assessment for the Land to the North of Wimborne', dated May 2009. The following is a summary of the main features from the report augmented with additional comment as appropriate.

Topography: The western site rises from 20 metres in the River Allen valley to a peak of 38m at Walford Hill. This forms a distinctive ridge visible from the northern edge of Wimborne Minster, which is topped by mature trees, forming significant features in the landscape. The ridge extends east of the Cranborne Road, before falling away to a small stream/drainage channel which runs in a north-east to south-west direction towards Walford Close at the foot of Burt's Hill. From the stream the land rises more steeply to Burt's Hill in the east, the stream creating a shallow fold in the landscape. The farm development to the south of the site lies on the edge of the River Allen river valley at approximately 20m AOD.

Existing vegetation: The land is currently used for arable crops or pasture. The field pattern is defined by a framework of hedges. Within the hedgerows are a number of significant mature trees, mainly oak, which feature prominently in views. The area is divided along the north-south axis by a belt of trees known as the Row, which extends from the Pumping Station near the River to the crest of Walford Hill. At the ridge the tree line extends to the west and east.

West of the Cranborne Road, Catley Cope sits just north of the ridgeline. This is an ancient semi-natural woodland of oak and ash. The field south of Catley Cope has been recently planted with trees. The route from the north into Wimborne Minster is marked by well established hedges either side of the road. Within the hedges, are a number of mature oaks that form significant features in the landscape. The eastern site also has a number of significant hedges and hedgerow trees. The upper reaches of the brook within the central part of the sites are marked by a belt of mature trees. The farm buildings area contain limited vegetation apart from a small number of mature trees at the western end.

Local and Strategic Views: The approach to the town from the north has a strong rural setting. It is only after cresting Walford Hill that the town comes into sight. Views to the east are contained by existing vegetation, but although there is a significant hedge, views across the fields to the west are possible, particularly at gate openings or where the hedges are lower. As one approaches the town, a view of the Minster towers over the foreground. Trees on the ridge beyond form a wooded backdrop. This important view corridor is also described with the Wimborne Minster Conservation Area Appraisal SPG. Travelling north from Wimborne Minster, there are clear views into and across the rolling agricultural land of the western site extending to Walford Hill. Individual trees within the fields and on the skyline are significant and important components of the view. The lower part of the western site is much more open as the



Land to the south of Leigh Road

land flattens at the edge of the River Allen valley. Here the views are more expansive and the established development along the Cranborne Road and at Long Close Farm is more apparent. The sites on either side of the Cranborne Road are also overlooked from Stone Lane in the west, which is on higher ground. Views into the eastern site from Cranborne Road are restricted by roadside hedges but there are views from the properties at Long How, Dogdean, parts of Burt's Hill and Deans Grove.

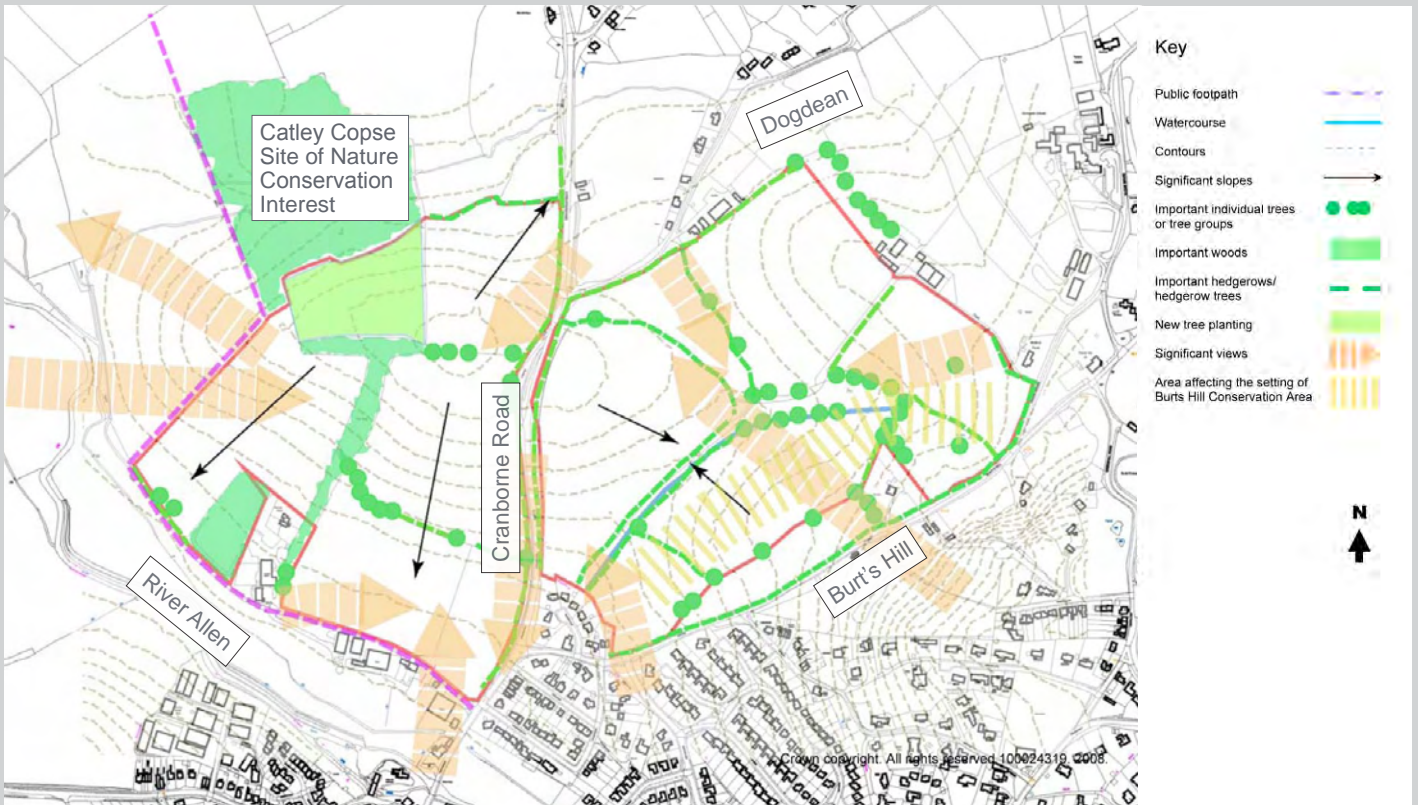
The Burt's Hill Conservation Area abuts the eastern edge of the site. The farm buildings set on the northern edge of the river valley but the site is not overlooked by existing properties.

Site Appraisal (East of Wimborne Minster)

Topography: The land to the north of the A31 fall in a north-south direction. At the lower end and south of the A31, the land is characteristically flat with an open large-scale landscape of mainly arable fields, lying at approximately 15m AOD.

Existing vegetation: Throughout, there are very few trees and this is particularly the case to the south of the A31 although there are some hedgerows, with individual mature trees being very conspicuous in the open landscape.

Local and strategic views: There are wide views across the area. The land contributes to the perceived gap of open land between Colehill and Wimborne.



Source: EDDC Landscape Character Assessment (May 2009) for land to the north of Wimborne Minster



View of the Minster tower from the approach road from the north



View of land to the east of Cranborne Road



View of housing at Dogdean



View of land to the west of Cranborne Road

CORFE MULLEN

Local Landscape Appraisal

The areas both to the north and west of Corfe Mullen fall within one character area, this is described below.

Henbury-Corfe, Morden-Lytchett farmland/woodland mosaic (9).

The EDDC Landscape Character Assessment describes this area as follows;

Referring to Corfe Mullen it states

'...its elevated position commands extensive views across the area to the distant countryside beyond. When viewed from the north, the area's wooded hills provide an important backdrop to the Stour valley.'

The area is divided into a patchwork of small, enclosed fields and paddocks connected by a network of winding lanes. Close to the urban fringe, to the west, lies the extensive wooded landscape of Stoney Down and Henbury. To the west and north beyond Henbury the agricultural landscape becomes more open as the land falls towards Coombe Almer and the Stour Valley.

An extensive part of the area around Henbury is subject to gravel extraction. The extraction site is however relatively well screened by the surrounding woodland.

The western side of the character area is crossed from north to south by an overhead power line which becomes more prominent in the open landscapes to the north and south.

Hilltops afford some panoramic views. Allen Hill, in Stoney Down Plantation, is a particularly good viewpoint, here the middle-distance view to the north is of green pastures, with dense woodland clothing the hillside behind; in the distance lies the Stour valley, with the perimeter woods of Kingston Lacy beyond and beyond this extends even more distant countryside to the horizon...

To the north and west the land slopes to the north and is marked by a mosaic of groups of dwellings, blocks of woodland and fields bounded by hedges and trees. At Sleight a large part is given over to playing fields. This more open area affords views across the Stour Valley.

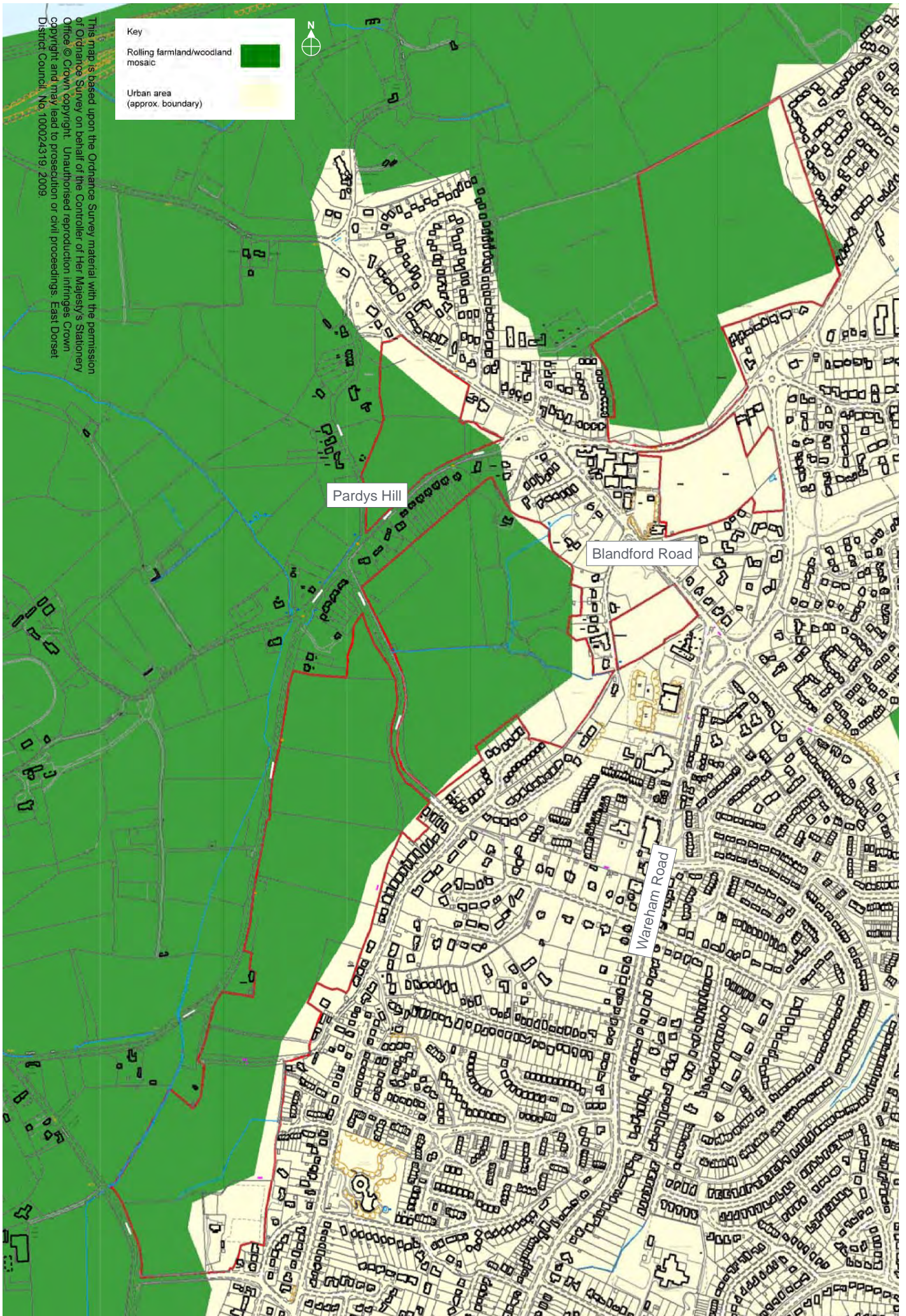
The area is also bisected by the line of the former Somerset and Dorset railway line; groups of trees alongside this route remain to mark its passage through this part of Corfe Mullen.

Key characteristics

- Undulating landform, punctuated by hilltops
- Heavily influenced by woods, copses and hedgerow trees
- Irregular mosaic of pasture, woodland and hedgerows
- Hamlets and narrow lanes

Key features, (which are relevant to the potential sites), include the following;

- Allen Hill / Stoney Down
- Disused railway line
- O/h power lines (adverse impact)



Source: EDDC Landscape Character Assessment (June 2009) for land to the north and east of Corfe Mullen

EAST DORSET HOUSING OPTIONS

CORFE MULLEN



View of land off Blandford Road



View of land east of Haywards Lane

Site Appraisal

The sites considered include the following areas;

- Land north of Wimborne Road, including recreational area, paddocks and allotments
- Lockyers school
 - Land adjacent to cemetery.
 - Land off Blandford Road.
 - Land east and west of Haywards Lane.

The landscape character of these sites has been described within the *Land to the North and West of Corfe Mullen – Landscape Character Assessment* dated June 2009. The following is a summary of the main features from the report, with additional comment as appropriate.

Topography: The sites which are located north and close to the village centre, adjacent to Wimborne Road lie on a relatively flat plateau. To the north of the areas the land falls away towards the A31 and River Stour. In general terms, the sites west of the village centre slope from north-east to south-west, sloping quite steeply at first and then shallowing out towards the west. As a result these sites are less connected with the village centre than they otherwise might appear to be. The area adjacent to the cemetery slopes from around 70m to 60m AOD across its length. The area adjacent to Blandford Road in the north slopes steeply from 60m AOD at

the road edge to 35m AOD at the foot of Pardy's Hill, levelling out in the southern field corner. The levels form a shallow dish as viewed from the Blandford Road. The open areas of the sites east of Hayward's Lane are shallower than this but still reflect the slope of the land from around 50m AOD to 34m AOD. The sites west of Hayward's Lane also slope gently from a typical height of 50m AOD to 34m AOD.

Existing vegetation: The setting of Corfe Mullen is marked by well-established hedgelines and trees, particularly west of the town. There are a number of well established copses, including Joiner's Copse and woodland south of Haywards Lane here, that combine with the hedgerow and hedgerow trees to frame views or provide a backdrop to local views within the areas, all of which contribute significantly to the local landscape character. Trees bordering the cemetery site and trees along Broadmoor Road are also important elements of landscape character. The sites which are located north and close to the village centre are more open in character. Much of the site north of Wimborne Road (see image 1) forms part of the Corfe Mullen Recreation Ground and is ostensibly open fields. South of the recreation ground, there are three rectilinear parcels of land divided by strong hedgerows with hedgerow trees. Two are small fields, the western one which is overlooked from Violet Farm Close has been recently cleared, another which is a small paddock. New tree and shrub planting has been

implemented between the western parcel and the edge of the recreation ground. The third eastern area is laid over to allotments. Trees along Wimborne Road also serve to compartmentalise these areas of land.

Local and Strategic Views: The recreation ground site north of the village centre affords extensive views across the Stour valley taking in the Badbury Rings and Wimborne. The adjacent housing at Stour View Gardens overlooks the recreation grounds from the east.

The sites to the south of Wimborne Road containing the allotments and grazing land are more enclosed. Existing trees on the main site boundaries also enclose the cemetery site off Newtown Lane. The Blandford Road site (see image 4) gives extensive and attractive views across the valley and the wooded hillside around Knoll Clump to the south-west. There are key public viewpoints across the site from the field gate at the top of the site adjacent to Blandford Road and also from the bench at the top of Pardy's Hill. The site east of Haywards Lane (see image 5) is open and visible from the public highway and overlooked by adjacent housing. Public views of the site west of Haywards Lane from the higher ridge are restricted by development which overlooks the sites. Glimpses are possible from Broadmoor Road, west of the sites, where there are gateways into the fields or where the roadside planting thins.



Land to the north of Wimborne Road (Rec ground)



Lockyer School grounds

- Site Boundary
- ➔ Significant view into / out of / across site
- Important Trees
- Important Hedgerow
- Significant Slopes



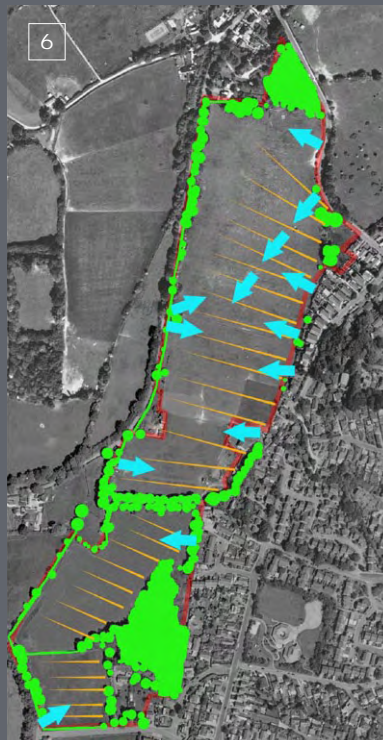
Land adjacent to Cemetery



Land off Blandford Road



Land east of Haywards Lane



Land west of Haywards Lane



Source: EDDC Landscape Character Assessment (June 2009) for land to the north and east of Corfe Mullen

EAST DORSET HOUSING OPTIONS FERNDOWN AND WEST PARLEY

FERNDOWN AND WEST PARLEY

Local Landscape Character

The sites at Ferndown and West Parley lie in the vicinity of a number of different character areas. These include the following;

- Dudsbury Ridge, which includes the sites south of West Parley
- Lower Stour valley, to the south of the sites
- Hampreston River Terrace, to the west of the sites, including the village of Longham
- Parley River Terrace, to the east of the sites, including the area east of Parley Cross

Part of the area of search also lies in the urban area.

The EDDC Landscape Character Assessment describes these areas as follows;

Dudsbury Ridge (14)

'The Bagshot Sands that cover the area between Ferndown and Alderholt extend southwards and, overlaid with a cap of Bracklesham Beds, appear as a ridge of high ground close to the river. The similarity of geology, the Podzol soils and land use prior to the development of the golf course suggest this character area is a remnant of the heath/farm character type identified further to the north. Christchurch Road forms the northern boundary of this character area.

The character area forms a narrow band between the recent urban developments at Ferndown and West Parley to the north and the River Stour. The land slopes steeply to the river and there are extensive views from Christchurch Road and from the Golf course southwards to the Bournemouth conurbation. These views are curtailed to the east by significant woodland planting around Dudsbury Camp which forms a prominent, historic feature alongside the river. The earthworks of Dudsbury Camp are a Scheduled Ancient Monument.

Key Characteristics

- Steep slope to river
- Important woodland
- Extensive views from ridge
- Urban influences

Key Features

- Dudsbury Camp
- Golf Course
- Christchurch Road'

Lower Stour valley (10)

'A wide, flat and meandering floodplain. The area comprises the river and the alluvium beds lying immediately on either side. As the river progresses from Shapwick in the west to Parley in the east through the District it is normally bounded on each side by terraces of valley gravel that mark the former floodplain. However in places the valley edge is demarcated by chalk downland in the west and further to the east by ridges of clay and gravel....'

The character of the river valley is particularly influenced by these ridges. The associated woodland on this higher ground provides a backdrop to views along and across the valley as well as a sense of enclosure....and more recent developments ...further to the east at Parley also form a pinchpoint'

Key characteristics

- Flat wide flood plain
- Meandering river
- Riverside trees and copses
- Long distance views along the valley

Key Features

- Isolated nucleated farmsteads
- Road crossings and historic multi-arched bridges eg White Mill, Julian's, Canford and Longham Bridges'

Hampreston River Terrace (13)

'An area of valley gravel lying to the north of the river, the western part of the area is influenced by industrial and residential developments...To the east the landscape is more agricultural with large regular fields used predominantly for arable or grazing.....The urban influence on the landscape character returns at the village of Hampreston and, at the easternmost point, the developments both commercial and residential at Longham that lie either side of the busy A348.

Key Characteristics

- Flat landform
- Mosaic of large fields used for arable and pasture
- Few trees in fields, most trees near river and village

Key Relevant Features

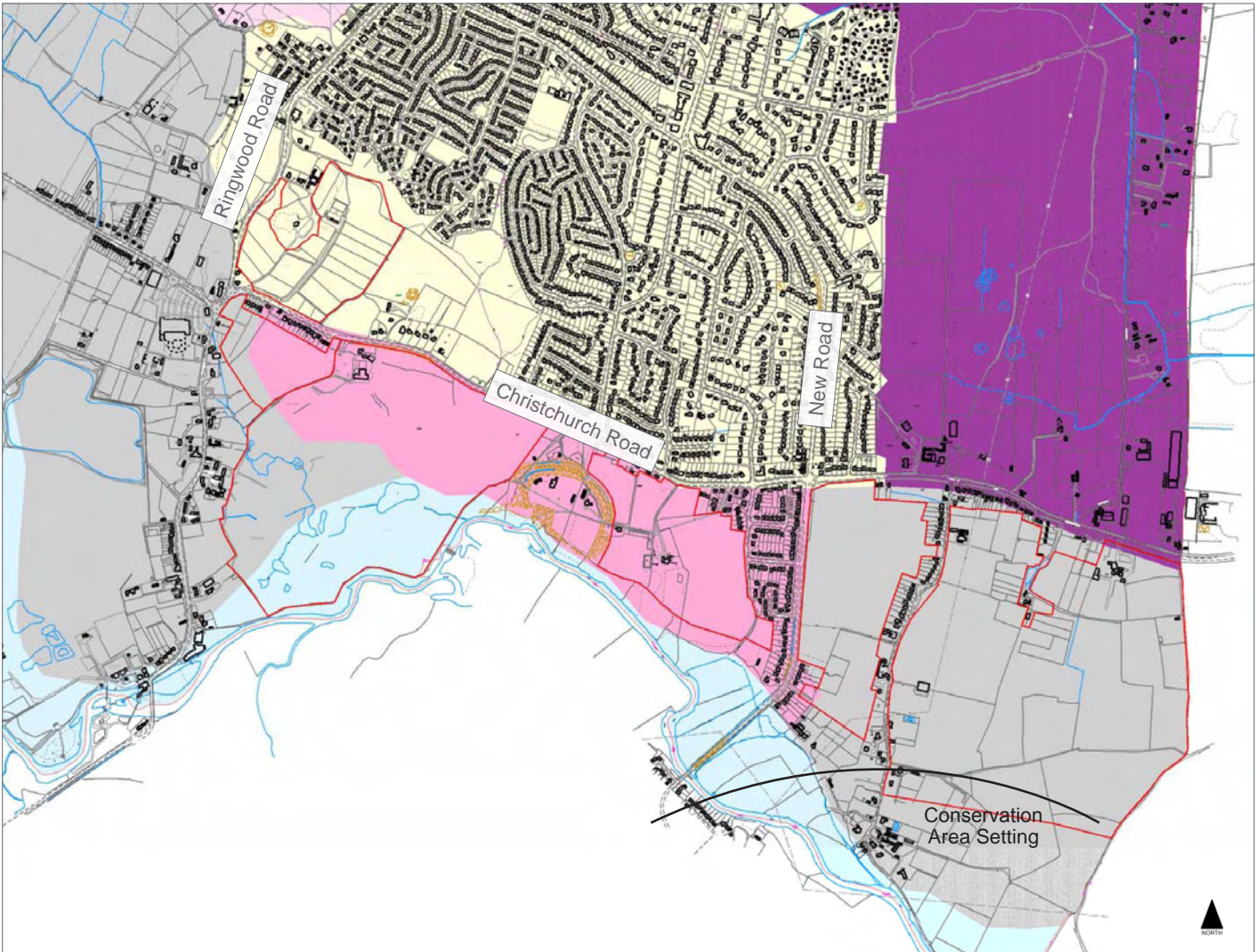
- A348 at Longham'

Parley River Terrace (15)

'An area of valley gravel set alongside the northern edge of the Lower Stour Valley extending eastwards from the West Parley traffic lights to beyond the boundary of the District and include the hamlet of West Parley that lies near to an historic crossing point of the Stour. This character area is broad and largely flat and is mainly used for agriculture. Large irregularly shaped fields occupy this terrace. Tree cover is sparse. There are ribbons of housing and other development such as nurseries and garden centres along the Christchurch Road and housing along Church Lane that impinge upon the rural character of the character area. The rural character is also impacted by the movements of aircraft in and out of the nearby Bournemouth Airport to the east.

Key characteristics

- Gentle slope to river
- Sparse tree cover
- Large flat fields
- Urban influence



Source: EDDC Landscape Character Assessment for land at Ferndown and West Parley

Key relevant features

- O/h power lines (adverse impact)
- Ribbon development alongside Christchurch Road and Church Lane
- West Parley Conservation Area
- Airport flightpath (aircraft noise)

In addition to these areas, the open rolling heath of **West Parley Heath (24)** lies to the east of West Parley. This is set on Valley Gravel and includes Parley Common. It is a remnant of a much more extensive tract of heath that once

extended from the edge of the Stour valley northwards to Alderholt. The area has been subject to urban encroachment but despite this the area has retained its high ecological value and is designated accordingly.

Key

Landscape Character Types
(Names of derived character areas in italics)

Lowland river valley <i>(Lower Stour Valley)</i>	
Urban area	
Forest heath mosaic <i>(Dudsbury Ridge)</i>	
River terrace <i>(Hampreston River Terrace & Parley River Terrace)</i>	
Open rolling heath <i>(West Parley Heath)</i>	
Areas of Interest	

EAST DORSET HOUSING OPTIONS

FERNDOWN AND WEST PARLEY

Site Appraisal

The landscape character of the Ferndown and West Parley sites has been described within the Land at Ferndown and West Parley - Landscape Character Assessment report. The following is a summary of the main features from the report, with additional comment as appropriate.

Topography: The sites west of Parley Cross lie on the slopes overlooking the Stour Valley at between 15m and 30m AOD and the river cliff to the south of Dudsbury Camp forms the river edge at this point. The land at Holmwood House lies on land at approximately 25 AOD as is land to the north of Christchurch Road. In contrast to the east the sites at Parley Cross lie on the relatively flat valley floor around the 12m contour. The river runs just below the 10m contour.

Existing vegetation: Taking each site in turn from west to east, the existing vegetation and land-uses can be described as follows;

Holmwood House. The area surrounding and historically associated with Holmwood House contains parkland, a former walled garden and land that is used as pony paddocks as part of the equestrian centre. The stables for the latter adjoin the old walled garden. The area is bounded by well established hedgerows and hedgerow trees that help to screen the site to views from the roads. The Park is covered by a TPO.

Land north of Christchurch Road. Land here is well screened by roadside hedging and the woodland of Belle Vue Plantation.

Allotments at Longham. The area comprises the allotments and part of the golf course between Ringwood and Christchurch Roads. Trees are confined to edges or groups within the golf course.

The golf course. The area is occupied by the clubhouse, the main car park serving the golf course a driving range and the golf course itself which includes a number of water features and is disconnected from the urban centre of Ferndown and West Parley. Trees and small copses are present throughout the golf course but it has an open character.

West of Ridgeway. This area comprises several distinct blocks of land, the largest area to the east appears to be grazing land, the central area is occupied by a public house, its car park and grounds, to the west of the pub is a large area of parkland garden. The fields to the north are divided into three paddocks. A footpath crosses the site. The Scheduled Ancient Monument has a Girl Guide camp within it, and sits within woodland on the western boundary.

South and East of Parley Crossroads. This is a large open agricultural field adjacent to the crossroads, with a tree belt to the south and a footpath that runs east-west across the field. A number of large oaks, which are covered by a TPO, form a strong line along Christchurch Road.

East of Church Lane. This land is predominantly open and used for arable and grazing. A high voltage electricity line of pylons runs from north to south across the site close to and parallel with Church Lane before turning westwards after Brambles Farm.

Local and Strategic Views

Holmwood House is well contained from public viewpoints. Views both to and from the house and garden are curtailed by the vegetation around the House. The allotments are also contained by housing on Christchurch Road and Ringwood Road.

The footpath that crosses the Dudsbury Ring and circuits the eastern edge of the golf course provides attractive panoramic views across the golf course, which provides a visual break in development between Longham and West Parley.

The open higher land of the site west of the Ridgeway at 25-30m AOD affords long distance views to the south to Bournemouth.



View west across the golf course



View of sites east of Parley Cross Roads, across the A347



View of pasture west of Ridgeway

EAST DORSET HOUSING OPTIONS

Summary and Implications for the Masterplans

The baseline landscape appraisal has concluded that in general terms, whilst the landscape quality of the three settlements is often good and valued, there are varying characteristics of landscape value and sensitivity across the sites.

The requirement of the study needs to consider the variations in sensitivity of different types and areas of landscape, and their potential capacity to accommodate change for housing development without significant adverse effects on their character or the overall character of the surrounding landscape.

The **landscape capacity** study has, therefore, evaluated the respective sites in terms of both landscape sensitivity and landscape value. This study has developed a ranking system, based on Countryside Agency guidance (now Natural England), in order to provide a comparative assessment of potential sites in landscape terms. The methodology of this is described below.

The analysis and ranking system for each settlement is presented on the separate sheets.

Landscape Sensitivity

This may be defined as how robust the existing landscape is in terms of the ability of its components and of the whole to absorb change without loss or change in positive character. A landscape with a character of high sensitivity is one that, once lost, would be difficult to restore, a character that, if valued, must be afforded particular care and consideration in order for it to survive.

In order to make a comparative assessment of the sensitivity of the different sites to development, assumptions

have been made regarding the likely development type and form, which is summarised below.

'This has assumed residential dwellings of around 2 storeys in height on average, of varying densities consistent with the surrounding townscape but an overall average of 30-35 net dwellings per hectare, with occasional 'landmark' buildings. There would be open space provision and a strong landscape framework with tree / woodland planting of appropriate scale, area and design to ensure that the development achieves a good fit in the landscape'.

The landscape sensitivity element of the assessment has taken the following criteria into account. These are derived from Topic Paper 6 of the Countryside Agency's Landscape Character Assessment Guidance;

Natural Factors

- Vegetation Types
- Tree cover type/pattern
- Extent and pattern of semi-natural habitat
- Landform

Cultural Factors

- Land use
- Settlement pattern
- Field boundaries
- Enclosure pattern
- Time depth

Landscape Quality/Condition

- Intactness
- Representation of typical character
- State of repair of individual elements

Aesthetic Factors

- Scale
- Enclosure
- Diversity
- Texture
- Pattern
- Colour
- Form/line
- Balance
- Movement

Visual Sensitivity

- General visibility
- Population with views e.g. numbers and types of residents & numbers and types of visitors
- Mitigation potential i.e. scope for mitigating potential visual impacts

Landscape Value

In addition to sensitivity, landscape value needs to be taken into account. This may be described as the recognised value attached to the landscape or to specific elements in it, either through formal designations, or baseline information combined with professional judgement.

The landscape value element of the assessment has taken the following criteria into account. These are also derived from Topic Paper 6 of the Countryside Agency's Landscape Character Assessment Guidance;

- Landscape designations e.g. national/local
- Other environmental designations with bearing on landscape value e.g. (nature conservation, heritage, amenity, including flood zone)

- Other criteria indicating value: Scenic beauty, tranquillity, wildness.
- Other criteria indicating value: Special cultural / historic associations.
- Other criteria indicating value: Nature conservation interests.

Landscape Capacity

The landscape capacity assessment uses the outcome of the sensitivity study and combines it with the assessment of more subjective, experiential or perceptual aspects of the landscape and the value attached to it, to indicate whether and to what extent change/development would be acceptable.

Each aspect for the sensitivity and landscape value has been assessed using a 5-point scale as follows:

Sensitivity / Value	
01 - 05	Negligible
06 - 10	Slight
11 - 15	Moderate
16 - 20	Substantial
21 - 25	Major

For the purposes of arriving at an overall rating for sensitivity or value, the scores are aggregated.

The results of the landscape sensitivity and landscape value assessment are then combined to give an overall judgement relating to landscape capacity, which can lead to eight rankings of landscape capacity as follows:

- Negligible
- Negligible / Low
- Low
- Low/Medium
- Medium
- Medium / High
- High
- High / Very High
- Very High

		Landscape Value				
		Major	Substantial	Moderate	Slight	Negligible
Landscape Sensitivity	Major	Negligible Capacity	Negligible Capacity	Negligible / Low Capacity	Low Capacity	Low / Medium Capacity
	Substantial	Negligible Capacity	Negligible / Low Capacity	Low Capacity	Low / Medium Capacity	Medium Capacity
	Moderate	Negligible / Low Capacity	Low Capacity	Medium Capacity	Medium / High Capacity	High / Medium Capacity
	Slight	Low Capacity	Low / Medium Capacity	Medium / High Capacity	High Capacity	High / Very High Capacity
	Negligible	Low / Medium Capacity	Medium Capacity	High / Medium Capacity	High / Very High Capacity	Very High Capacity

Each site will, therefore, be attributed a landscape capacity rating, enabling a comparison to be made and to inform judgements made regarding overall site selection.

EAST DORSET HOUSING OPTIONS
WIMBORNE MINSTER

WIMBORNE SITES
LANDSCAPE APPRAISAL

Wimborne Minster Sites

- 1a. Land to West of Cranborne Road
- 1b. Land to East of Cranborne Road
2. Existing Farm Development
3. Stone Lane Industrial Estate
4. St Margarets Close
5. Stone Park
6. Cuthbury Allotments
7. Land to the south of Leigh Road (west)
8. Land to the south of Leigh Road (east)

Landscape Sensitivity																										
Site	Natural Factors eg Vegetation Types, Tree Cover, Semi natural habitat				Cultural Factors eg. Land use Settlement Pattern, Enclosure				Landscape quality eg. intactness, example of typical character, state of repair				Aesthetic Factors eg. scale, diversity, pattern, colour, movement				Visual Sensitivity eg. Visibility, Population, Mitigation potential				Sensitivity					Final Assessment Landscape Sensitivity
	Low - High																01 - 05 Negligible 06 - 10 Slight 11 - 15 Moderate 16 - 20 Substantial 21 - 25 Major									
	5	10	15	20	25																					
1a	L			H	L			H	L			H	L			H	L			H						Substantial
Land to West of Cranborne Road	Strong hedgerows & Individual trees				Strong enclosure pattern				Good example of typical character				Positive scale and enclosure. Ridgeline.				Visible from approach to town /important viewing corridor with scope for mitigation									
1b	L			H	L			H	L			H	L			H	L			H						Moderate
Land to East of Cranborne Road	Some hedgerows & individual trees				Strong enclosure pattern				Good example of typical character				Positive scale and enclosure				Public views restricted but some residential sensitivity									
2	L			H	L			H	L			H	L			H	L			H						Slight
Existing farm development	Existing trees at edge				Existing Cottage				Farm/storage buildings				Low value				Sensitive location edge of river valley									
3	L			H	L			H	L			H	L			H	L			H						Slight
Stone Lane Industrial Estate	Existing trees on site boundaries				Industrial estate				Industrial estate				Industrial estate				Sensitive location edge of river valley									
4	L			H	L			H	L			H	L			H	L			H						Slight
St Margaret's Close	Existing trees on boundary and within site				Low value				Suburban character				Enclosed character				Limited views from existing properties									
5	L			H	L			H	L			H	L			H	L			H						Substantial
Stone Park	Important individual trees				Listed building, parkland setting				Intact historic parkland				Balance and scale				Visible along river valley									
6	L			H	L			H	L			H	L			H	L			H						Slight
Cuthbury Allotments	Limited boundary trees				Active recreational use				Not example of wider character area				Diverse & Colourful				Visible from river valley and town approach									
7	L			H	L			H	L			H	L			H	L			H						Slight
Land to the south of Leigh Road (west)	Limited tree cover				Open agricultural land				Example of wider landscape but repair required				Open scale, not diverse				Visible from adjacent properties									
8	L			H	L			H	L			H	L			H	L			H						Slight
Land to the south of Leigh Road (east)	Limited tree cover				Open agricultural land				Example of wider landscape but repair required				Open scale, not diverse				Visible from adjacent properties									

EAST DORSET HOUSING OPTIONS

WIMBORNE MINSTER

Landscape Value												
Site	Landscape Designation Low - High	Other Designation, (nature conservation, heritage, amenity, including flood zone)	Other 'value criteria' (scenic beauty, tranquillity, wildness)	Other 'value criteria' (Special cultural / historic associations)	Other 'value criteria' (Conservation interests)	Average Value					Final Assessment Landscape Value	
						01 - 05 Negligible	06 - 10 Slight	11 - 15 Moderate	16 - 20 Substantial	21 - 25 Major		
						5	10	15	20	25		
1a	L H	L H	L H	L H	L H						Slight	
Land to West of Cranborne Road	No landscape designation	No other designations	Scenic	Historic enclosure pattern	Hedgerow conservation interest							
1b	L H	L H	L H	L H	L H						Slight	
Land to East of Cranborne Road	No landscape designation	Burt's Hill Conservation Area adjacent	Attractive	Historic enclosure pattern	Hedgerow conservation interest							
2	L H	L H	L H	L H	L H						Slight	
Existing Farm Development	No landscape designation	No designation	Poor visual quality (apart from cottage)	Some historic interest in farm	Little interest							
3	L H	L H	L H	L H	L H						Negligible	
Stone Lane Industrial Estate	No landscape designation	No designation	Industrial Character	No Value	Interest only at Edges							
4	L H	L H	L H	L H	L H						Slight	
St Margaret's Close	No landscape designation	No designation	Attractive paddock area	No Value	Interest only at Edges							
5	L H	L H	L H	L H	L H						Moderate	
Stone Park	No landscape designation	No other designations	Very scenic	Part of Stone Park historic landscape	Limited conservation interest							
6	L H	L H	L H	L H	L H						Slight	
Cuthbury Allotments	No landscape designation	Open Space/ Flood Zone designation only	Riverside aspect is attractive	Allotments cultural value	Limited conservation							
7	L H	L H	L H	L H	L H						Slight	
Land to the south of Leigh Road (west)	No landscape designation	No designation	Some scenic value	No Value	Limited conservation interest							
8	L H	L H	L H	L H	L H						Negligible	
Land to the south of Leigh Road (east)	No landscape designation	No designation	Limited scenic value	No Value	Limited conservation interest							

Summary Landscape Capacity

Site 1a	Substantial Landscape sensitivity /Slight landscape value: Low/Medium capacity
Site 1b	Moderate Landscape sensitivity /Slight landscape value: Medium/ High capacity
Site 2	Slight Landscape sensitivity /Slight landscape value: High capacity
Site 3	Slight Landscape sensitivity /Negligible landscape value: High/Very High capacity
Site 4	Slight Landscape sensitivity / Slight landscape value: High capacity
Site 5	Substantial landscape sensitivity/ slight landscape value: Low/ medium density capacity
Site 6	Slight Landscape sensitivity / Slight landscape value: High capacity
Site 7	Slight Landscape sensitivity / Slight landscape value: High capacity
Site 8	Slight Landscape sensitivity / Negligible landscape value: High/Very High capacity

EAST DORSET HOUSING OPTIONS
CORFE MULLEN

CORFE MULLEN
LANDSCAPE APPRAISAL

Landscape Sensitivity																										
Site	Natural Factors eg Vegetation Types, Tree Cover, Semi natural habitat				Cultural Factors eg. Land use Settlement Pattern, Enclosure				Landscape quality eg. intactness, example of typical character, state of repair				Aesthetic Factors eg. scale, diversity, pattern, colour, movement				Visual Sensitivity eg. Visibility, Population, Mitigation potential				Sensitivity					Final Assessment Landscape Sensitivity
	Low - High																01 - 05 Negligible 06 - 10 Slight 11 - 15 Moderate 16 - 20 Substantial 21 - 25 Major									
	L			H	L			H	L			H	L			H	L			H	5	10	15	20	25	
1.	L			H	L			H	L			H	L			H	L			H						
Land North of Wimborne Road, Including Recreational Area, Paddocks and Allotments	Mostly open land, but hedgerows & planting to paddocks area				Some value as recreational facility / allotments				Low value overall				Low interest overall				Recreational grounds overlooked by Stour View Gardens									Slight
2.	L			H	L			H	L			H	L			H	L			H						
Lockyers School grounds	Limited vegetation to Lockyers Road				Value as playing fields				Low value overall				Low interest overall				Mostly contained, eastern edge viewed by properties on Lockyers Road									Slight
3	L			H	L			H	L			H	L			H	L			H						
Land Adjacent to Cemetery	Significant boundary trees				Enclosure				Low value overall				Enclosed				Mostly contained									Slight
4.	L			H	L			H	L			H	L			H	L			H						
Land off Blandford Road	Significant boundary trees				Enclosure pattern				Very good example of landscape character / Intact				Attractive pattern / Enclosure				Overlooked from properties on neighbouring roads / important views across site									Substantial
5.	L			H	L			H	L			H	L			H	L			H						
Land east of Haywards Lane	Significant boundary / hedgerow trees and Joiner's Copse woodland				Enclosure pattern				Good example but some erosion of character				Moderate value				Overlooked from properties on neighbouring roads/ important views across site									Moderate
6.	L			H	L			H	L			H	L			H	L			H						
Land west of Haywards Lane	Significant boundary / hedgerow trees and woodland				Enclosure pattern				Very good example of landscape character / intact				Attractive open, sloping valley				Overlooked from properties to East on higher ground									Substantial

1. Land north of Wimborne Road, including recreational area, paddocks and allotments
2. Lockyers school grounds
3. Land adjacent to cemetery
4. Land off Blandford Road
5. Land east of Haywards Lane
6. Land west of Haywards Lane

Landscape Value												
Site	Landscape Designation Low - High	Other Designation, (nature conservation, heritage, amenity, including flood zone)	Other 'value criteria' (scenic beauty, tranquillity, wildness)	Other 'value criteria' (Special cultural / historic associations)	Other 'value criteria' (Conservation interests)	Average Value					Final Assessment Landscape Value	
						01 - 05 Negligible	06 - 10 Slight	11 - 15 Moderate	16 - 20 Substantial	21 - 25 Major		
						5	10	15	20	25		
1.	L H	L H	L H	L H	L H							Slight
Land north of Wimborne Road, including recreational area, paddocks and allotments	No landscape designation	No other designations	Scenic value of views at edge of recreational ground	Low value	Limited value of hedges							
2.	L H	L H	L H	L H	L H							Negligible
Lockyers School grounds	No landscape designation	No other designations	Limited value	Low value	Limited value of some existing planting							
3	L H	L H	L H	L H	L H							Slight
Land adjacent to cemetery	No landscape designation	No other designations	Attractive	Low value	Some interest in hedgerows							
4.	L H	L H	L H	L H	L H							Moderate
Land off Blandford Road	No landscape designation	Adjacent Conservation Area	Very attractive views across site	Historic enclosure	Some interest in hedgerows							
5.	L H	L H	L H	L H	L H							Moderate
Land east of Haywards Lane	No landscape designation	No other designations	Attractive	Historic enclosure	Valuable interest in hedgerows/ woodland							
6.	L H	L H	L H	L H	L H							Substantial
Land west of Haywards Lane	AGLV designation	No other designation	Attractive valley	Historic Enclosure	Valuable interest in hedgerows/ woodland							

Summary Landscape Capacity

- Site 1 - Slight Landscape sensitivity / Slight landscape value: High Landscape capacity
- Site 2 - Slight Landscape sensitivity / Negligible landscape value: High / Very High landscape capacity
- Site 3 - Slight Landscape sensitivity / Slight landscape value: High landscape capacity
- Site 4 - Substantial Landscape sensitivity / Moderate landscape value: Low capacity
- Site 5 - Moderate Landscape sensitivity / Moderate landscape value: Medium capacity
- Site 6 - Substantial Landscape sensitivity / Substantial landscape value: Negligible/ Low capacity

1. Holmwood House Grounds
2. Allotments at Longham
3. The Golfcourse
4. West of Ridgeway
5. South and East of Parley Crossroads
6. East of Church Lane
7. Land to the north of Christchurch Road

Landscape Value												
Site	Landscape Designation Low - High	Other Designation, (nature conservation, heritage, amenity, including flood zone)	Other 'value criteria' (scenic beauty, tranquillity, wildness)	Other 'value criteria' (Special cultural / historic associations)	Other 'value criteria' (Conservation interests)	Average Value					Final Assessment Landscape Value	
						01 - 05	06 - 10	11 - 15	16 - 20	21 - 25		
						5	10	15	20	25		
1.	L H	L H	L H	L H	L H						Moderate	
Holmwood House Grounds	No landscape designation/ TPO trees	No other designations	Some scenic value	Historical associations with Holmwood House	Some conservation interest							
2.	L H	L H	L H	L H	L H						Slight	
Allotments at Longham	No landscape designation	Open space designations	Some scenic value	Allotment value	Some conservation interest							
3	L H	L H	L H	L H	L H						Moderate	
The golf course	No landscape designation	Open space/ flood zone designation + primary golf course area	Tranquil and scenic beauty		Some conservation interest in trees and water features							
4.	L H	L H	L H	L H	L H						Slight	
West of Ridgeway	No landscape designation	No other designation	Some scenic value	Proximity to Scheduled Ancient Monument	Some conservation interest in hedgerows							
5.	L H	L H	L H	L H	L H						Negligible	
South and East of Parley Crossroads	No landscape designation	No other designation	Limited scenic value		Proximity to SSSI/SAC north of site							
6.	L H	L H	L H	L H	L H						Negligible	
East of Church Lane	No landscape designation	No other designation	Limited scenic value		Proximity to SSSI/SAC north of site							
7.	L H	L H	L H	L H	L H						Slight	
Land to the north of Christchurch Road	No designation	No other designation	Limited scenic value	No other historic value	SNCI to north							

Summary Landscape Capacity

- Site 1 - Moderate Landscape sensitivity / Moderate Landscape Value : Medium landscape capacity
- Site 2 - Moderate Landscape sensitivity / Slight Landscape Value : Medium/High capacity
- Site 3 - Moderate Landscape sensitivity / Moderate Landscape value : Medium capacity
- Site 4 - Moderate Landscape sensitivity / Slight Landscape Value : Medium/High capacity
- Site 5 - Slight Landscape sensitivity / Negligible Landscape Value: High/Very High capacity
- Site 6 - Slight Landscape sensitivity / Negligible Landscape Value: High/Very High capacity
- Site 7 - Slight Landscape sensitivity / Slight landscape value : High capacity

ECOLOGY

Introduction and Method

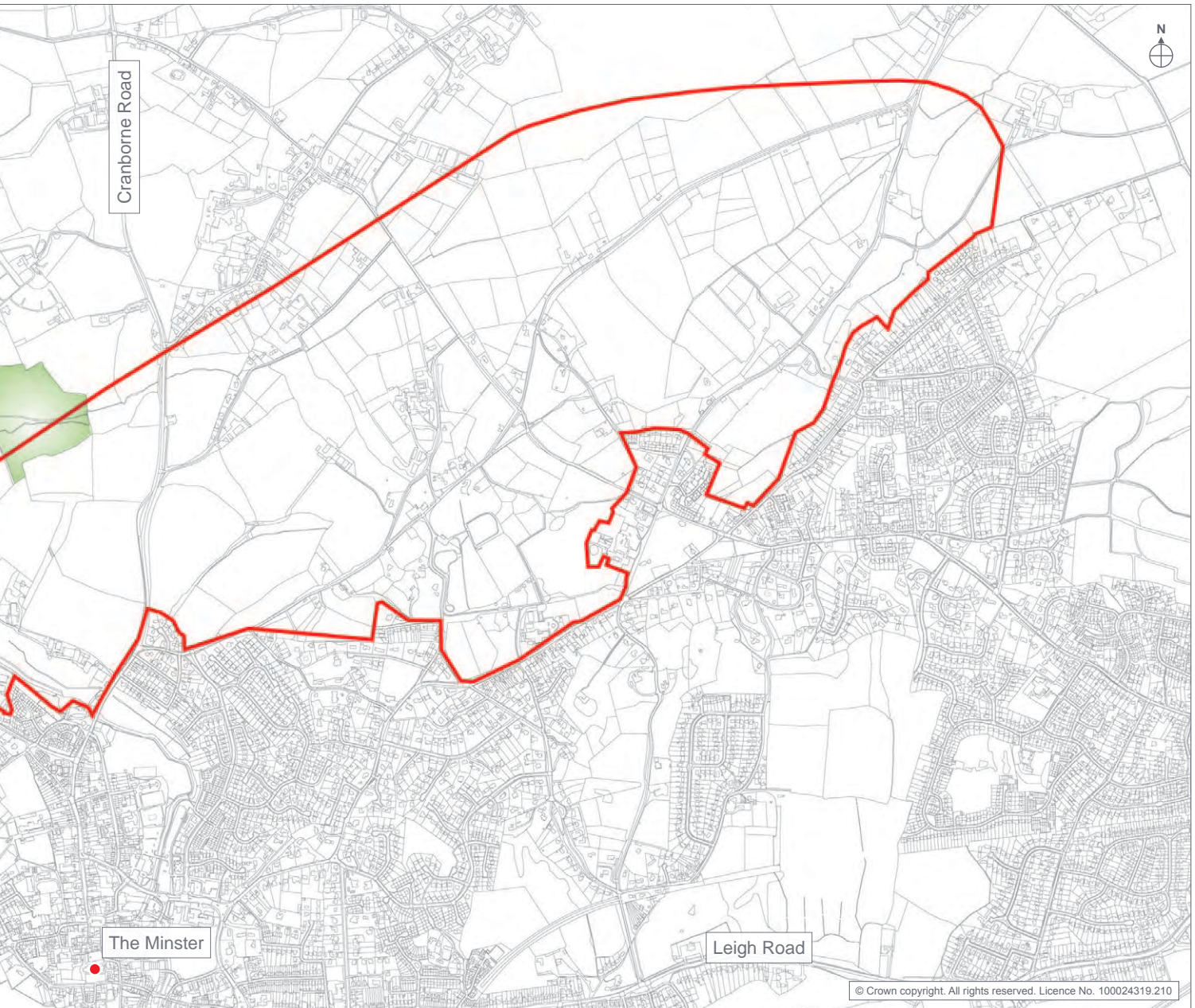
The approach to ecological constraints and opportunities analysis is primarily high level and is based on site visits, a desk study of ecological designations (both statutory and non-statutory), a review of the Dorset Heathlands Interim Planning Framework and the latest position (August 2010) of the emerging Core Strategy Habitats Regulations Assessment work being undertaken by Land Use Consultants with respect to the Dorset Heaths SPA, and a review of other available information concerning the study areas.

On this basis the findings set out in this document should be viewed as preliminary and have aimed to guide development to the most suitable locations with respect to ecology, as well as identify a framework for green infrastructure retention/enhancement and suitable alternative natural green space (SANGs) provision either on-site or off-site (or a combination thereof). This approach will minimise ecological risk in the future. Further ecological baseline assessments will be required in order to inform more detailed designs. At this stage it seems likely that such work will include



Ecological Areas - Wimborne North

Phase I Habitat Surveys, protected species surveys, vegetation, hedgerow and tree surveys, identification of UK and local Biodiversity Action Plan (BAP) priority habitats etc. In order to maximise ecological opportunities, consideration will also need to be given to the Dorset BAP objectives when devising bespoke ecological mitigation strategies for the new neighbourhoods in order to demonstrate biodiversity gain. The delivery of SANGs is likely to be a major contributor in demonstrating bio-diversity gain.



Wimborne Minster - North

Statutory Designations

There are no statutory ecological designations within the Wimborne Minster study area. The various parcels of land that comprise the Dorset Heathlands SPA / SSSI are present in the wider area. The nearest parcel is Holt Heath, approximately 3km to the north-east.

Local Non-Statutory Designations

There is one local non-statutory ecological designation within the Wimborne Minster study area. Catley Copse Site of Nature Conservation Interest (SNCI) is located to the south-west of Furzehill and is designated for its ancient woodland habitat. This woodland is also included in Natural England's Ancient Woodland Inventory.

There are a number of other SNCIs in the wider area, primarily small fragmented woodland sites. Some of these are also on the Ancient Woodland Inventory.

Important Features

There are a number of important ecological features within the study area, including woodland belts (such as Catley Copse), hedgerows (some of which may be legally protected under the Hedgerow Regulations), veteran trees, water features (including the River Allen and River Stour corridors) and areas of scrub and grassland. These features are green links and will be important for the support and movement of rare and protected species. Some of these habitat features will qualify as priority habitats under the UK and local BAPs.

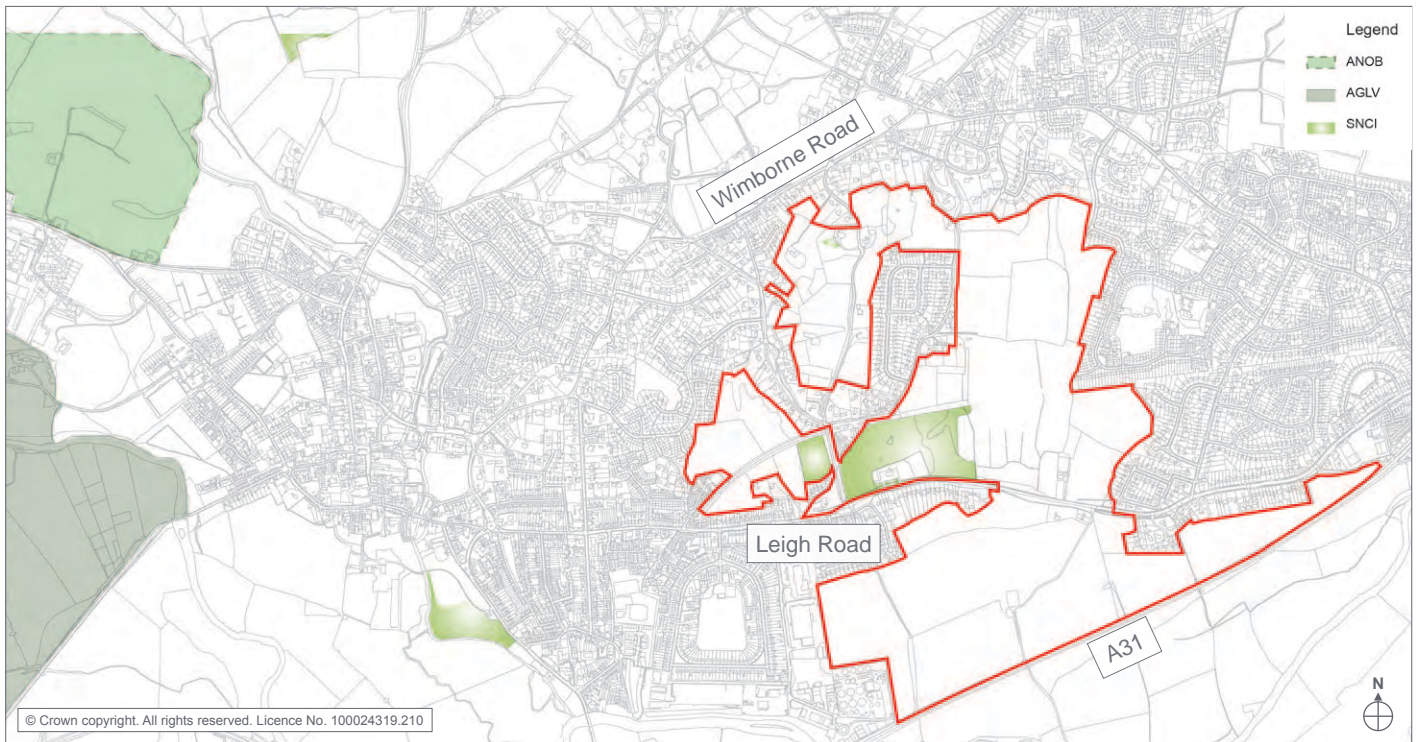
Overall, arable fields (where present) and areas of improved grassland (e.g. pasture) are generally not of significant ecological value although there is the potential for certain protected species to be present that favour such environments – this would

need to be determined through detailed surveys. Nonetheless, it is these less important habitats that development should be focussed on.

Protected Species

The study area contains habitats which are suitable to support a number of protected species in certain locations. Those identified as likely to be present include reptiles, badger, bats and birds. The River Stour and River Allen also have the potential to support protected species, such as otter and kingfisher. Further survey will be required to determine the location and distribution, and where appropriate, population estimates, of protected and rare species. This would be bespoke to the habitats found in specific locations proposed for development.

EAST DORSET HOUSING OPTIONS



Ecological Areas - Wimborne East

Wimborne Minster East

Statutory Designations

There is one statutory ecological designation within the Wimborne Minster East study area. The Leigh Common Local Nature Reserve is located within the centre of the area of search, adjacent and north of Leigh Road.

The various parcels of land that comprise the Dorset Heathlands SPA / Ramsar and Dorset Heaths SAC are present in the wider area; the nearest parcels are at Ferndown Common approximately 2.25km east and Corfe and Borrow Hills, located west of Merley, approximately 2.1km south of the site.

Local Non-Statutory Designations

Leigh Common Local Nature Reserve is also designated as an SNCI. North Leigh House SNCI is present within the northwest of the site, west of Northleigh Lane.

There are a number of other SNCIs in the wider area, primarily small fragmented woodland sites. Some of these are also included in Natural England's Ancient Woodland Inventory.

Important Features

There are a number of important ecological features within the area, including woodland belts, hedgerows (some of which may be protected under the Hedgerow Regulations), potential veteran trees, ponds and ditches, and areas of scrub and grassland. These features provide green links through the landscape and have the potential to support rare and protected species. Some of these habitat features are likely to qualify as priority habitats under the UK and local BAPs.

Overall, arable fields (where present) and areas of improved grassland (e.g. pasture) is generally not considered to be of significant ecological value although there is the potential for certain protected species to be present that favour such habitats. This would need to be determined through detailed surveys.

Protected Species

The site contains habitats that are suitable for a number of protected species in certain locations. Those identified as likely to be present include reptiles, amphibians, badger, bats and birds. Further survey will be required to determine the location and distribution, and where appropriate, population estimates, of protected and rare species. This would be bespoke to the habitats found in specific locations proposed for development.

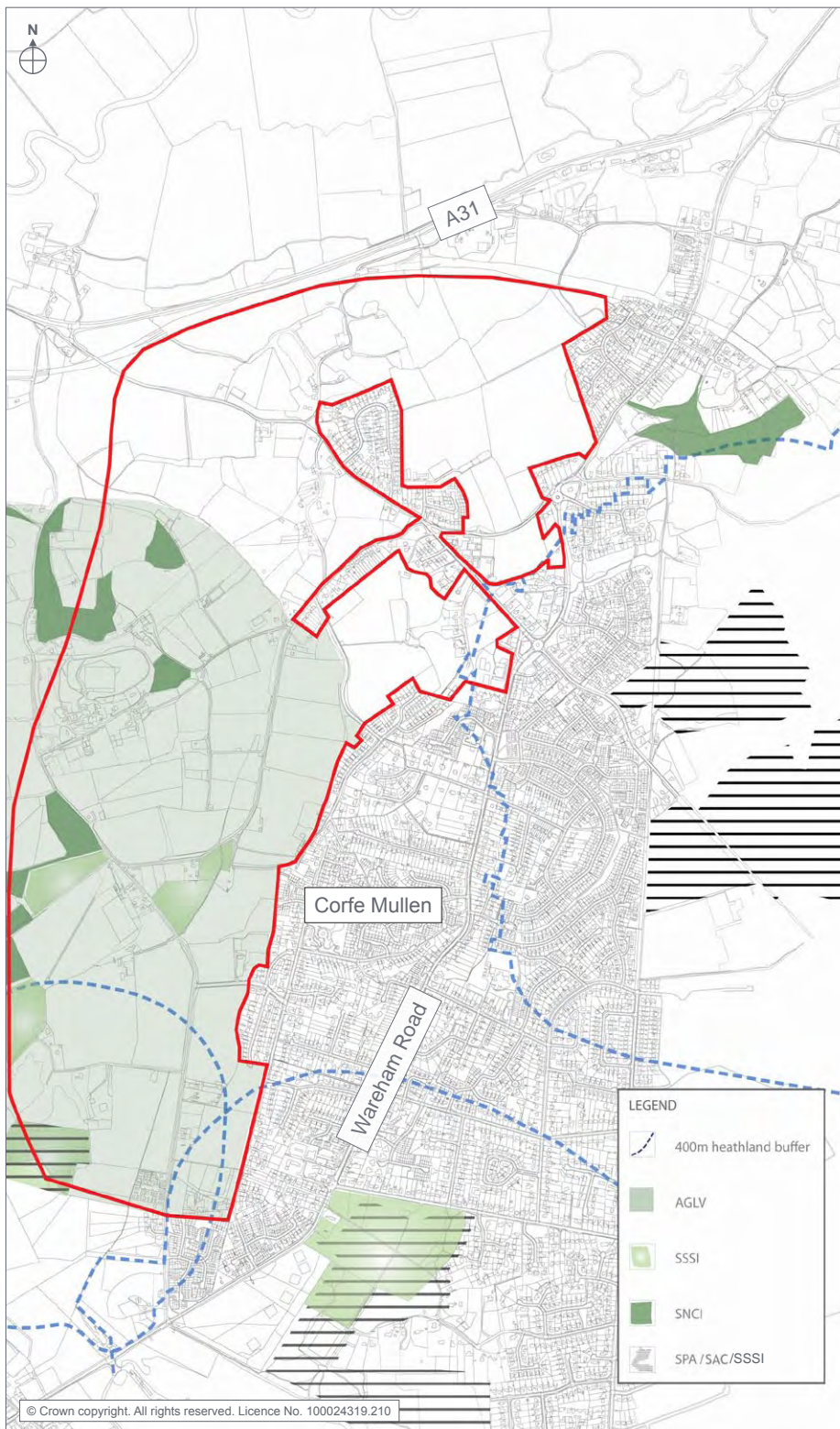


River Allen close to Stone Lane Industrial Estate, Wimborne Minster



Leigh Wood, Colehill

EAST DORSET HOUSING OPTIONS



Corfe Mullen

Statutory Designations

Statutory ecological designations within the Corfe Mullen area of search include the Corfe Mullen Pastures Site of Special Scientific Interest (SSSI), located within the southern part of the area of search. There

is also a small parcel of Dorset Heaths Special Area of Conservation (SAC) in the far south.

The various parcels of land that comprise the Dorset Heathlands Special Protection Area (SPA)/SSSI are present in the wider area, the nearest parcels are at Upton

Heath which is within 400m of the south-east boundary of the area of search and at Barrow Hill, again within 400m of the area of search. These designations are shown on the plan to the left. Due to the close proximity of these heathland areas, there are small parts of the west and south west of the area of search that fall within the 400m heathland buffer zone under the Dorset Heaths Interim Planning Framework.

Local Non-Statutory Designations

There are a number of pockets of land that are designated SNCIs within the study area, these are predominantly in the south and west of the area of search (see plan - left) and are predominately small fragmented woodland sites. None of these woods are on the Ancient Woodland Inventory. There are a number of other SNCIs in the wider area, also primarily small fragmented woodland sites.

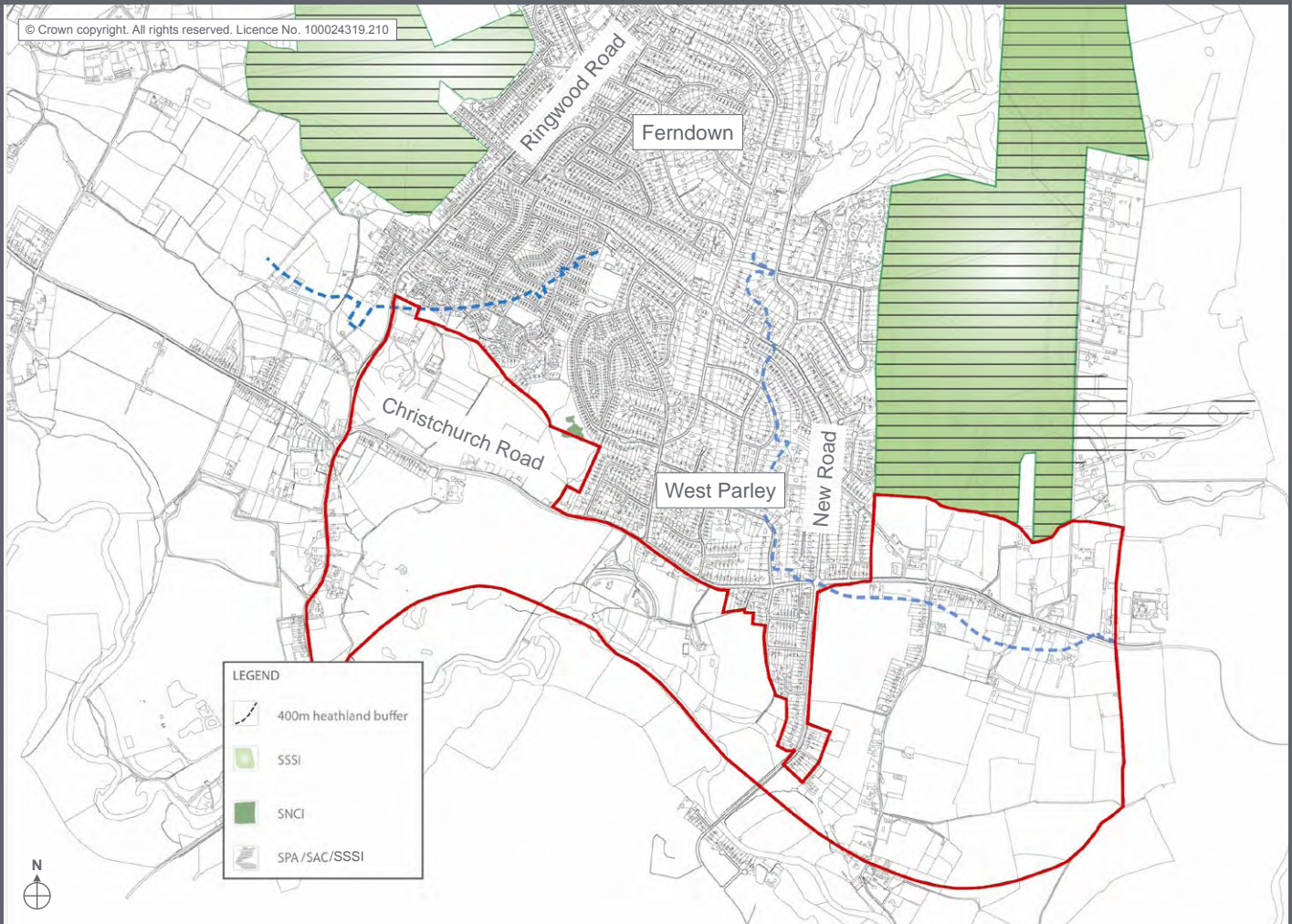
Important Features

There are a number of important ecological features within the study area, including woodland belts (most of these are designated SNCIs), hedgerows (some of which may be protected under the Hedgerow Regulations), potentially veteran trees, water bodies, allotments and areas of grassland, scrub and heathland. These features provide green links through the landscape and will have the potential to be important for the rare and protected species. Some of these habitat features are likely to qualify as priority habitats under the UK and local BAPs.

Overall, arable fields (where present) and areas of improved grassland (e.g. pasture) is generally not considered to be of significant ecological value although there is the potential for certain protected species to be present that favour such habitats. This would need to be determined through detailed surveys.

Protected Species

The study area contains habitats which are suitable for a number of protected species in certain locations. Based on habitat in the study area it is considered likely that badger, bats, birds, amphibians and reptiles will be present, and potentially dormice in native woodland. Further survey will be required to determine the location and distribution, and where appropriate, population estimates, of protected and rare species – this would be bespoke to the habitats found in specific locations proposed for development.



Ferndown and West Parley

Statutory Designations

There are no statutory ecological designations within the Ferndown and West Parley area of search. The various parcels of land that comprise the Dorset Heathlands SPA / SSSI are present in the wider area with the nearest parcel being located at Parley Common, adjacent to the north-east of the area of search and at Pompey's corner (land adjacent to the south of the King George V playing fields) approximately 300m to the north-west. Due to the close proximity of these heathland areas, a large part of the north-east and a small part of the north-west of the area of search fall within the 400m heathland buffer zone under the Dorset Heaths Interim Planning Framework.

Local Non-Statutory Designations

There is one local non-statutory ecological designation within the Ferndown and West Parley area of search. Part of the Belle

Vue Plantation is designated a SNCI and is located on the northern area of search boundary near Holmwood Park (see plan, above). There are no Ancient Woodland Inventory sites within the study area.

Important Features

There are a number of important ecological features within the study area, including woodland belts (such as around Dudsbury Camp and the Belle Vue plantation), hedgerows (some of which may be legally protected under the Hedgerow Regulations), potential veteran trees, water bodies (including the River Stour corridor) and areas of grassland, scrub and heathland. These features are green links and will be important for the support and movement of rare and protected species. Some of these habitat features will qualify as priority habitats under the UK and local BAPs.

Overall, arable fields (where present) and areas of improved grassland (e.g. pasture) is generally not considered to be of significant ecological value although there is the potential for certain protected species to be present that favour such environments. This would need to be determined through detailed surveys.

Protected Species

The study area contains habitats which are suitable for a number of protected species in certain locations. Based on habitat in the study area it is considered likely that reptiles, amphibians, badger, bats and birds will be present, and potentially dormice in native woodland. The River Stour will also likely support a number of protected species, such as otter and kingfisher. Further survey will be required to determine the location and distribution, and where appropriate, population estimates, of protected and rare species – this would be bespoke to the habitats found in specific locations proposed for development.

EAST DORSET HOUSING OPTIONS

Summary and implication for the masterplans

Dorset Heaths SPA and SAC: legal protection

Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) are statutory designations and are of European importance (called 'European sites'). Their protection stems from the Birds Directive and Habitats Directive, implemented in the UK under the Conservation of Habitats and Species Regulations 2010, which has replaced the 1994 Conservation (Natural Habitats & C) Regulations (as amended). The "Habitat Regulations 2010" make it clear that where development is likely to significantly affect the integrity of a SPA or SAC, development may only be permitted if each of the following three tests can be met:

- There are no suitable alternatives
- There are reasons of overriding public interest, including those of a social or economic nature
- That the conservation status of the sites can be maintained.

This means that there may be a requirement for development to deliver 'avoidance measures' in order to satisfy the requirements of the Habitat Regulations 2010.

The Dorset Heaths are designated for their ground nesting birds, which are vulnerable to impacts typically associated with urban encroachment on heaths: recreational pressure, dog walking, cat predation and fires. Because of the potential effects of development on nearby heathlands together with the dependence of some heathland species on habitats outside the designated sites and the rigorous statutory tests of the Habitat Regulations, the Dorset heathlands (amongst other factors) constitute a significant constraint to the outward spread of the conurbation. A series of public inquiry decisions, in which housing development proposals of various scales have been rejected because of its proximity to heathlands, has re-enforced the significance of this issue.

In the case of the Dorset heathlands, measures considered suitable to manage potential effects as set out in the Dorset Heathlands IPF include:

- Provision for long term financial support to address urban pressures
- Policies and financial support for the provision of alternative green infrastructure for development up to 5km from the heathland sites
- Policies to direct housing development (including infill) away from key areas adjacent to heathland sites (i.e. within 400m).

Dorset Heaths SPA and SAC: 400m Development Buffer

Research, which has informed the Dorset Heathlands IPF, has shown that certain elements of the heathland ecosystem are vulnerable to the effects that result from urban development in the vicinity; the greater the extent of urbanisation around the periphery of the Dorset Heaths, the greater the likely impact. This has been exacerbated in recent years as a result of the open access afforded to the heathlands under the Countryside and Rights of Way Act (CRoW, 2000).

The 400m heathland buffer relates to the importance for protecting the peripheries of the Dorset Heaths from potential threats, such as recreational pressure where the heaths are the nearest area of green space and few desirable alternatives are available; the lighting of fires; and importantly ground-nesting cat bird predation associated with the hunting range of domestic cats from residential properties (Use Class C3). Dogs are also a major problem as they affect the ground nesting birds.

C3 uses should not be promoted within the 400m buffer. If deemed necessary, alternative land uses can be located within the 400m buffer, such as commercial, industrial, open space, Suitable Alternative Natural Greenspace (SANGs) etc.

Like for like replacement of C3 uses (urban regeneration) within the 400m buffer may be acceptable but will require consultation with Natural England.

Where residential development is proposed as near as permitted to the Dorset Heaths (i.e. up to the 400m buffer), careful consideration must be given to the location and quality of SANGs, such that it offers a genuine attractive alternative to the nearby area of the Dorset Heaths. SANGs requirements are discussed further below.

Dorset Heaths SPA and SAC: SANGs

Although none of the study areas are located on any designated parts of the Dorset Heaths (with the exception of a small area in the south of the Corfe Mullen study area), it will need to be demonstrated that adverse impacts to European designated sites can be avoided in accordance with the Habitats Regulations 2010. Habitats Regulations Assessment of the Christchurch & East Dorset Core Strategy is being undertaken by Land Use Consultants, and it is likely that specific policies will be written in the Core Strategy aimed at impact avoidance and mitigation. The Core Strategy HRA, in tandem with the emerging South East Dorset Green Infrastructure Study, is also likely to identify enhancements to and new sources of natural greenspace and will build upon mitigation mechanisms established under the Dorset Heathlands Interim Planning Framework and the emerging Heathlands DPD. The recommendations will be crucial to the SANGs strategy for the East Dorset Masterplans, because these areas of development will make up a considerable proportion of the development in the district. These implications, such as on-site requirements for SANGs, will need to be understood and factored into the evolving masterplans at a later stage. The Land Use Consultants work will make it clearer whether SANGs are needed (a) within the study areas, or (b) whether SANGs will be created off-site through some of the open space enhancements coming forward listed in the Dorset Heathlands Interim Planning Framework. Each new neighbourhood will be responsible for demonstrating no effect on the Dorset Heaths. The primary means of achieving this is careful choice of geographical location of development relative to the Dorset Heaths and the layout of development e.g. with respect to the 400m buffer for Class C3 uses. Beyond this, for development within 5km of the Dorset Heaths, impact avoidance may be achieved through (a) and/or (b) above, although (a) is likely to constitute a major part of the impact avoidance package for each new neighbourhood. As stated in the Interim Planning Framework, "Natural England will provide advice concerning larger developments or locations where residential intensification is considered significant alone and will be expected to provide appropriate mitigation either on or off site in advance of the development. Where this is the case such schemes will be considered individually and may be exempt from the approach set out in this document."



Upton Heath

To guarantee the delivery of (b), financial contributions as part of S106 or similar agreements are likely to be entered into, in accordance with the requirements of the Interim Planning Framework.

It is recommended that the SANGs analysis for the East Dorset Masterplans is steered by the emerging Heathlands Development Plan Document (DPD) and the Core Strategy HRA work.

The masterplanning approach to this issue will, therefore, need to be mobile and cannot be fixed at this time. Likewise, developers need to be given the flexibility to develop their own SANGs strategies, which would be integral to achieving planning permission. Notwithstanding this on-going work, the following is relevant with respect to SANGs.

In terms of mitigation, the principle delivery mechanism recommended by Natural England is the provision of SANGs for residential developments and/or improvements to existing sites to increase their visitor capacity and manage/avoid potential negative effects.

With respect to the accessible natural green space guidance, Natural England advocates that local communities should have access to an appropriate mix of green-spaces providing for a range of

recreational needs, of at least 2 hectares of accessible natural green-space per 1,000 population. This can be broken down as follows:

- No person should live more than 300 metres from their nearest area of natural green-space;
- At least one hectare of Local Nature Reserve should be provided per 1,000 population;
- There should be at least one accessible 20 hectare site within 2 kilometres;
- There should be one accessible 100 hectare site within 5 kilometres; and
- There should be one accessible 500 hectare site within 10 kilometres.

However, where sites are particularly susceptible to recreational impact, such as that which may be caused by development in the vicinity of the Dorset Heaths and the Thames Basin Heaths, Natural England guidance stipulates that SANGs provision should aim to provide at least 8 hectares per 1,000 population. Consultation with Natural England has confirmed that up to 16 hectares may actually be required for the Dorset Heaths given their bespoke requirements. However, this is not an adopted policy at this stage, and it is recognised that 16ha per 1,000 population

was originally sought by Natural England on the Thames Basin Heaths, before an eventual formal agreement was reached for 8ha per 1,000 population. Therefore at this interim stage it can be concluded that **between 8-16ha of SANGs will be needed per 1,000 population.**

Natural England has provided guidance towards the characteristics that SANGs should have (it relates to the Thames Basin Heaths and we understand the guidance is currently under review). The Guidance provides some important pointers on the location of SANGs, the facilities that are needed and the type of visitor that should be catered for.

Key considerations include;

- Ensure provision of adequate car parking and signpost it;
- Where large populations are close to a European site, the provision of SANGs should be attractive to visitors on foot;
- Sites should be capable of providing routes of 2.5 to 5 kilometres, people may require longer routes;
- Where long routes cannot be accommodated within individual SANGs it may be possible to provide them through a network of sites, provided the connecting areas are rural in nature;
- Paths do not have to be of any particular width, and both vehicular-sized tracks and narrow Public Rights of Way (PRoW) type paths are acceptable to visitors;
- Safety is one of the primary concerns of female visitors. Paths should be routed so that they are perceived as safe by the users, with some routes being through relatively open (visible) terrain (with no trees or scrub, or well spaced mature trees, or wide rides with vegetation back from the path), especially those routes which are 1-3 km long;
- The routing of tracks along hill tops and ridges where there are views is valued by the majority of visitors;
- A substantial number of visitors like to have surfaced but not tarmac paths, particularly where these blend in well with the landscape. This is not necessary for all paths but there should be some more visitor-friendly routes built into the structure of a SANGs, particularly those routes which are 1-3 km long;

EAST DORSET HOUSING OPTIONS

- People value the naturalness of sites and artificial infrastructure should be avoided where possible;
- However, SANGs would be expected to have adequate car parking with good information about the site and the routes available. Some subtle waymarking would also be expected for those visitors not acquainted with the layout of the site;
- Other infrastructure would not be expected and should generally be restricted to the vicinity of car parking areas where good information and signs of welcome should be the norm, though discretely placed benches or information boards along some routes would be acceptable;
- Hills do not put people off visiting a site, particularly where these are associated with good views, but steep hills are not appreciated. An undulating landscape is preferred to a flat one;
- Water features, particularly ponds and lakes, act as a focus for visitors for their visit, but are not essential;
- It is imperative that SANGs allows for pet owners to let dogs run freely over a significant part of the walk. Access on SANGs should be largely unrestricted, with both people and their pets being able to freely roam along the majority of routes. This means that sites where freely roaming dogs will cause a nuisance or where they might be in danger (from traffic or such like) should not be considered for SANGs.
- Dog bins should be provided to attract dog walkers

The guidance also provides comments on the enhancement of existing sites, including ensuring that candidate sites do not have any competing uses that would make them unsuitable as SANGs.

The Green Flag Award is the national standard for parks and green spaces in England and Wales. The award scheme began in 1996 as a means of recognising and rewarding the best green spaces in the country. It was also seen as a way of

encouraging others to achieve the same high environmental standards, creating a benchmark of excellence in recreational green areas. The Green Flag Award could be another way of ensuring that high quality sites are provided (see <http://www.greenflagaward.org.uk/award/>).

Only with the above measures in place can it be reasonably concluded that there will be no likely net significant effect on the Dorset Heaths sites arising from development within the study areas.

Further advice will be contained in the Core Strategy HRA which will include local requirements identified under the Dorset Heaths Interim Planning Framework and Heathlands DPD. Further advice should also be sought from Natural England as the masterplan progresses and as the evidence base concerning SANGs and ground nesting birds evolves.

Statutory and Non-Statutory Sites

It is recommended that no development should take place on any statutory or non-statutory ecological sites. Where possible, development directly adjacent to such sites and fragmentation of existing ecological links between such sites should also be avoided to reduce the potential for indirect effects.

Important Features

Important ecological features such as woodland belts, hedgerows, veteran trees, water features and areas of heath and grassland comprise a network of vital green corridors or links. Some of these habitat features will qualify as priority habitats under the UK and local BAPs. An opportunity for the masterplans should be to retain and enhance such features, and where they are to be lost they should be compensated at a ratio of 1:2 through habitat creation, in order to assist in demonstrating biodiversity gain as part of the development (required under Planning Policy Statement 9) and to ensure the successful retention of any notable or protected species which may be found to be present on the site.. There are a number of isolated and fragmented

habitats within each study area and the opportunity to enhance green links between these features should be a principle aim of the masterplans, especially in view of some of these features carrying designations of statutory or non-statutory ecological importance.

The masterplans should integrate ecological opportunities such as creating new green corridors and enhancing existing green links formed by such features as woodland, hedgerows and water corridors. The requirement for SANGs provision will also directly contribute to green infrastructure, new and enhanced ecological corridors and in demonstrating biodiversity gain.

River and watercourse corridors should be buffered from development with natural vegetation strips of at least 8m from top of bank. The Environment Agency may request up to 15m if otters are known to be present. The flood plain associated with watercourses is likely to quarantine much of this area from development in any event. Sensitive drainage designs that integrate pollution prevention measures such as sustainable drainage systems (SUDS) and pollution interceptors will also be required. Where appropriate, SUDS solutions that promote habitat creation (e.g. balancing ponds, swales) should be promoted in preference to alternatives such as oversized sewers, underground storage tanks etc.

If loss of important ecological features cannot be avoided, compensatory habitat should be provided at a ratio of 1:2 where possible, in order to assist in demonstrating biodiversity gain as part of the development (required under Planning Policy Statement 9) and to ensure the successful retention of any notable or protected species which may be found to be present on the site. In order to maximise ecological opportunities, consideration will also need to be given to the Dorset BAP objectives when devising bespoke ecological mitigation strategies for the new neighbourhoods in order to demonstrate biodiversity gain.

Legally Protected Species and Habitats

Species protected under National and European Legislation are subject to special protection in accordance with the relevant legislation (primarily the Habitat Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended)), which generally seeks to safeguard the conservation status of these species and may involve special protection of individual animals or their habitats. All legally protected species are a material consideration in the planning process.

UK BAP and Local BAP species and Habitats

BAPs in the UK have no statutory status, but provide a framework for implementing conservation requirements. Furthermore, species and habitats listed as Priority species in the UK BAP are afforded a degree of protection under the NERC Act (2006), because the presence of, or potential presence of UK BAP and Dorset BAP habitats and species is a material consideration in the planning process and the Local Authority has a duty to conserve biodiversity and to further the conservation of species and habitats listed under the UK and Local BAP.

Consideration of Species and Habitats within the Planning Process

Legally Protected species and Priority habitats and species (e.g. UK BAP and Dorset BAP priority habitats and species) are material planning considerations that will need further consideration. The implications for the masterplans, should protected or BAP species be found present, will depend largely on which species are found and how they are currently using the sites. Further work, including with respect to Phase I Habitat Surveys, protected species surveys and specific habitat surveys (for example botanical surveys or hedgerow surveys) will be required in order to inform more detailed designs. The findings of such surveys would be submitted in support of any planning applications for land within the study areas. This will ensure that appropriate ecological mitigation informs the scheme designs and is conditioned to any development consent.



Aerial image of Parley Common

HISTORIC ENVIRONMENT

Introduction and Method

The approach to archaeological and cultural heritage constraints and opportunities analysis is primarily high level and is based on consultation with the County Historic Environment Officer, a desk study of relevant designations and archaeological and cultural heritage information, including the listed buildings information provided by EDDC, and a review of other available information concerning the study areas.

On this basis the findings set out in this document should be viewed as preliminary and have aimed to guide development to the most suitable locations with respect to known archaeology and cultural heritage. This approach will minimise planning risk in the future, although it is important to note that the area is high in archaeological potential, due to the presence of Scheduled Ancient Monuments, and unknown resources of significance may yet be discovered. Further more detailed desk based and survey work will be required in order to inform more detailed designs at later stages and in order to satisfy the requirements of Planning Policy Statement 5 (PPS5) at later planning stages.

All the study areas are known to contain significant quantities of archaeological assets which will influence what development may take place.

Wimborne Minster North

Conservation Areas

There are two conservation areas in close proximity to the area of search: Burts Hill/ Merrifield and Wimborne Minster. These are shown on the plan opposite.

Burts Hill - The Burts Hill Conservation Area is located on the north-facing slopes of Colehill, bordered by the built up area of Colehill on the top of the hill and flat open farmland below. It sits almost entirely within the area of search.

The area is different from many other conservation areas insofar that its appearance and character are formed by buildings of a similar form, material and character all sharing a distinctive and historic landscape setting. Most of the buildings date from the 18th century and comprise humble cottages of cob and thatch.

Wimborne Minster - Wimborne Minster was designated a Conservation Area in 1970. It lies adjacent to the area of search and comprises the whole of the central area of the town and extends northwards along West Borough as far as Walford Bridge. The area also includes the grounds of Deans Court and adjacent watermeadows to the south, from Canford Bridge to Julians Bridge. The Minster itself acts as a focal point from within the town and is the most important building, both intrinsically and

in terms of townscape interest. The area also has a number of Georgian buildings in streets and squares, with the occasional older vernacular building in between.

Any development within or adjacent to these areas should seek to preserve and enhance those aspects of character and appearance that define the conservation area's special character.

Scheduled Ancient Monuments

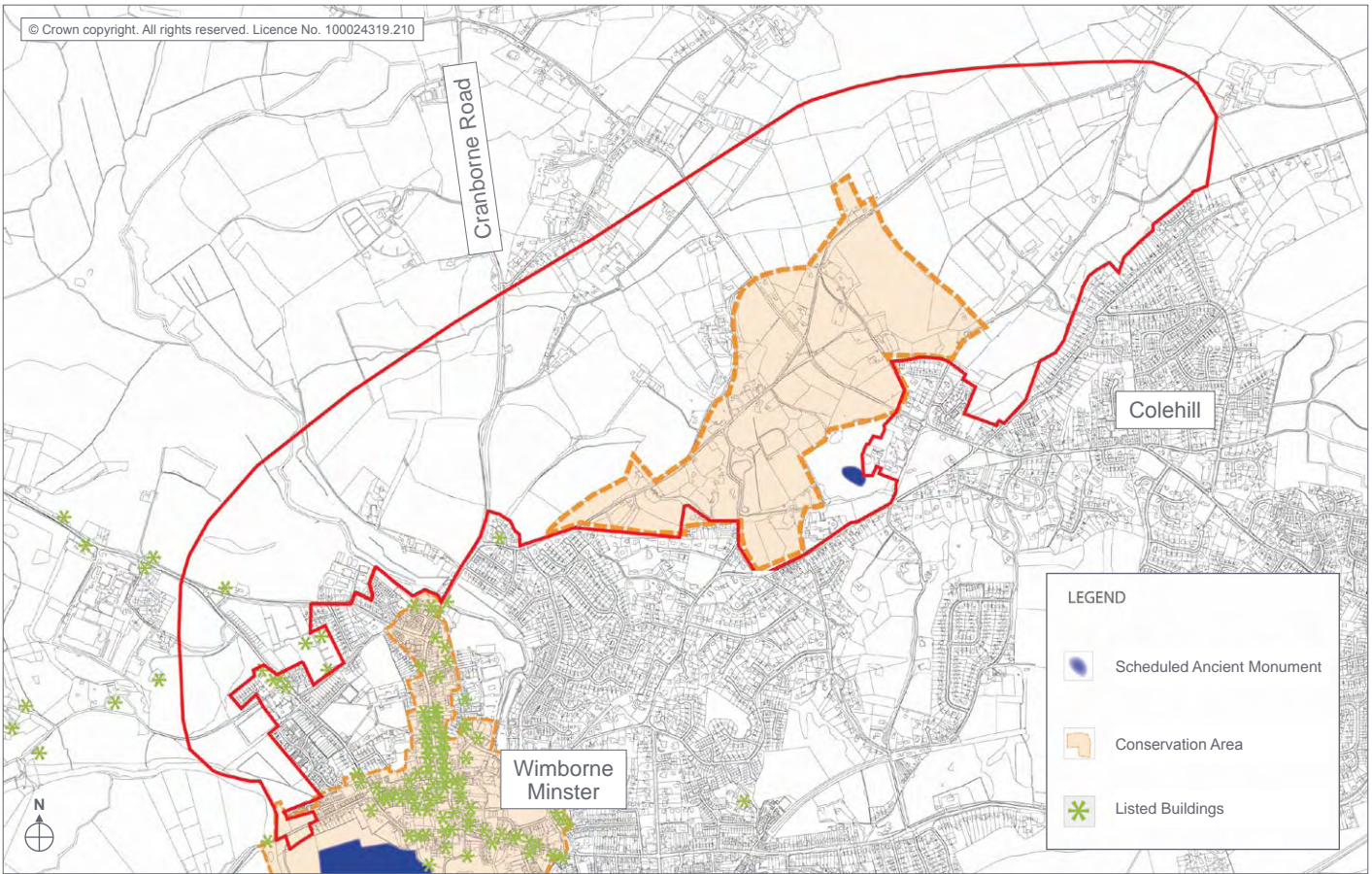
There is one scheduled Ancient Monument within the study area - a bell barrow and a bowl barrow at St Michaels Middle School, 60m west of the school buildings. The leaze medieval site and a nearby barrow are located near to the southern boundary of the study area, south of Julian's Road adjacent to the south of the old town centre and adjacent to the River Stour.

Listed Buildings

There are a large number of listed buildings in Wimborne Minster and these are shown on the plan opposite.

Historic Parks and Gardens

To the west of the River Allen, large areas of land are part of the National Trust's Kingston Lacy Estate (part of the Estate land is within the western extremities of the area of search). Part of the Kingston Lacy Estate is also a Registered Park and Garden, located within approximately 1km of the western extent of the area of search. Visual impacts are, therefore, possible.



A summary of known archaeological assets is shown below:

	Statutory Designations	Buried Features	Spot Finds	Surface Features
Palaeolithic				
Mesolithic			✓	
Neolithic				
Bronze Age	✓	✓		✓
Iron Age				
Roman		✓	✓	✓
Post-Roman				
Saxon				
Medieval	✓	✓		✓
Post-Medieval	✓	✓		✓
Modern	✓			

EAST DORSET HOUSING OPTIONS

Wimborne Minster East

Conservation Areas

The Rowlands Hill / St. John's Hill Conservation Area lies in close proximity to the west of the area of search. It was designated as a conservation area in March 1981 and largely comprises the former Victorian suburbs of Rowlands Hill, St John's Hill and Avenue Road.

The area originates from the introduction of the railway line to the town in the 1840s and much of its character reflects the strong Victorian building legacy. Whilst the densities, house types and patterns differ, the area shares a number of common themes relating to the red-orange brickwork, Welsh slate roofs and Victorian architectural details.

Scheduled Ancient Monuments

There is one Scheduled Ancient Monument located within the study area; this is located within the south east of the study area and is a section of Roman Road 150m south of Park Farm cottages.

There are several Scheduled Ancient Monuments within the wider area, a bell barrow and a bowl barrow at St Michael's middle school approximately 250m to the north of the study area. The Leaze medieval site and a nearby barrow are located to the south of Julian's Road, approximately 1.1km to the west of the study area. There are no other Scheduled Ancient Monuments in the immediate vicinity of the study area boundary.

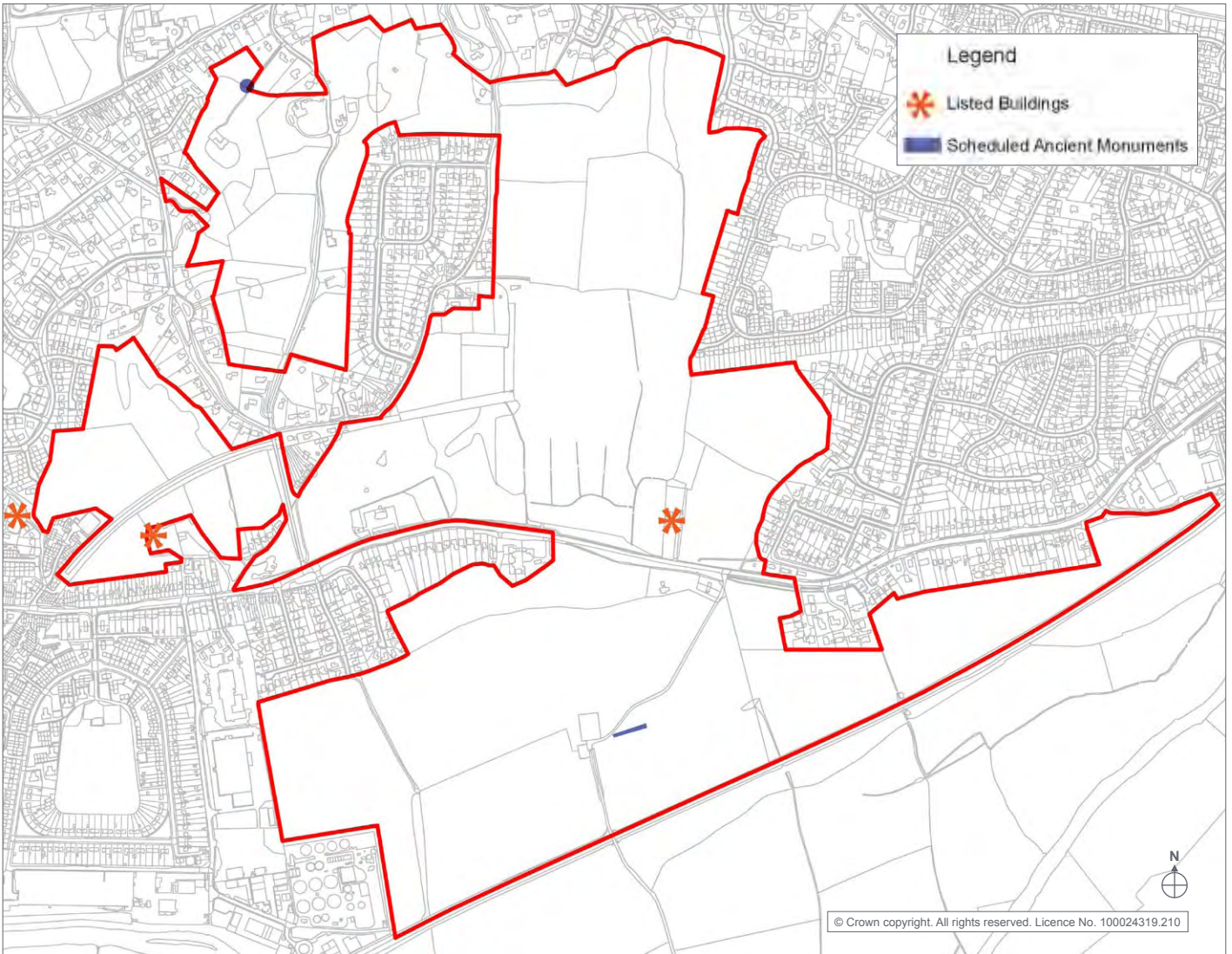
Listed Buildings

There are several Listed Buildings in Wimborne Minster and they are shown on the plan opposite.

Historic Parks and Gardens

Part of the Kingston Lacy Estate, that lies to the west of the town, is a Registered Park and Garden, The Kingston Lacy Estate is also part of the National Trust.

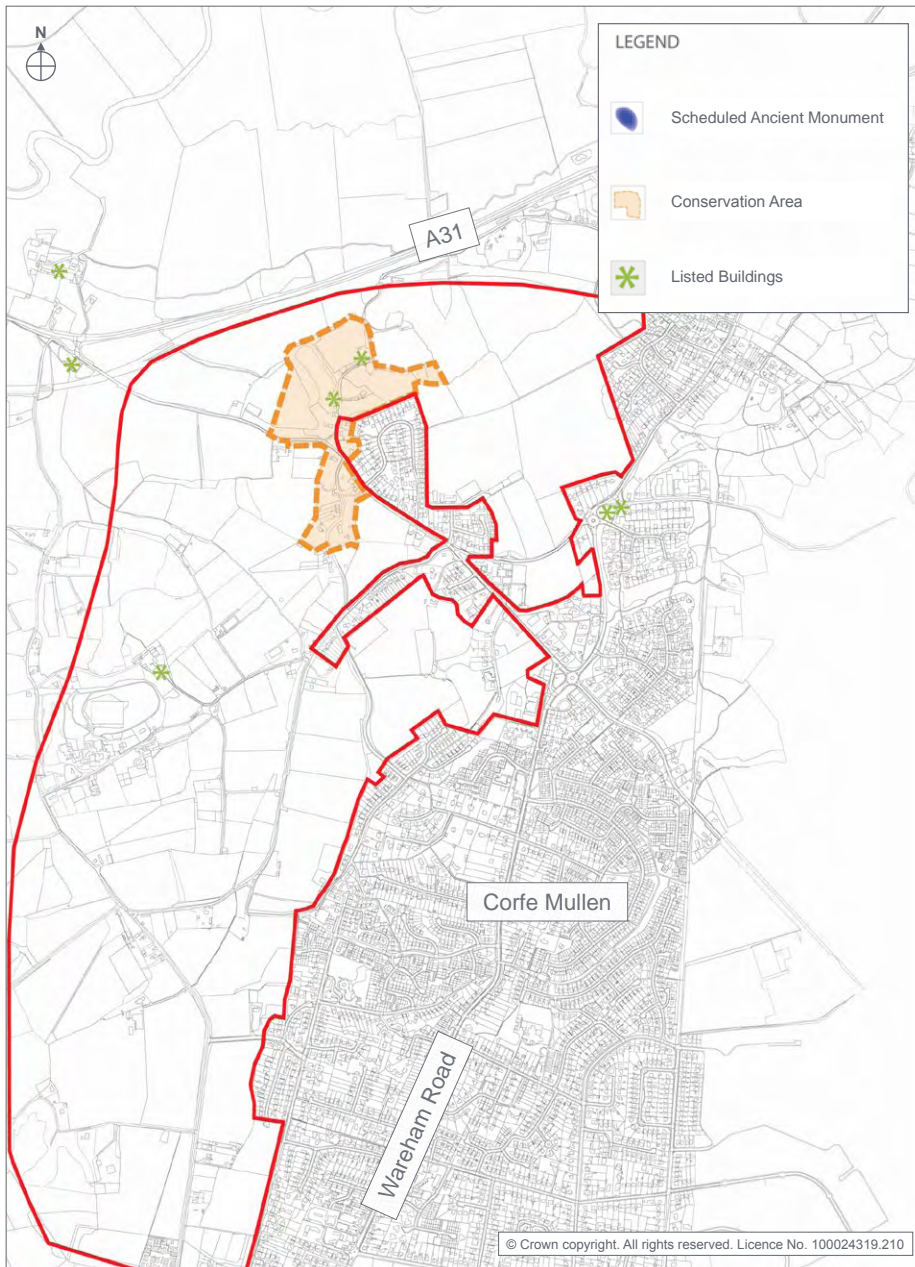
A summary of known archaeological and cultural heritage assets within the study area is shown on the table (right). These include a Roman Road, a former railway and the site of a former dairy. A medieval deer park is also likely present within the study area, in the region of the site of Park Farm, located on the track south of Brookside Manor and north of the A31. Further investigations were unable to find a more accurate location for the deer park.



A summary of known archaeological and cultural heritage assets is shown below:

	Statutory Designations	Buried Features	Spot Finds	Surface Features
Palaeolithic				
Mesolithic				
Neolithic				
Bronze Age				
Iron Age				
Roman		✓		✓
Post-Roman				
Saxon				
Medieval		✓		
Post-Medieval		✓		
Modern		✓		

**EAST DORSET
HOUSING OPTIONS**



Corfe Mullen

Conservation Areas

There is one conservation area within the area of search known as **Brog Street/ Slight Lane** and this is shown on the plan, left. The conservation area lies on the north-western edge of Corfe Mullen. Despite its proximity to the extensive areas of post-war development that now characterise the settlement, Brog Street and Slight Lane remain untouched and are rural in character.

The conservation area is represented by a wide range of buildings in terms of age, type and materials and it is this mixture of styles and materials (which have mellowed over time) that contribute towards its character. Cob, thatch, slate, tiles, brick and stucco are intermixed. It contains vernacular cottages, a Georgian mansion, Victorian villas and small country houses, together with an old barn and coachhouse.

Any development within or adjacent to these areas should seek to preserve and enhance those aspects of character and appearance that define the conservation area's special character.

Scheduled Ancient Monuments

There are no scheduled ancient monuments within the area of search, the nearest is a deserted settlement at Mountain Clump, approximately 300m west of the area of search near Knoll Clump.

Listed Buildings

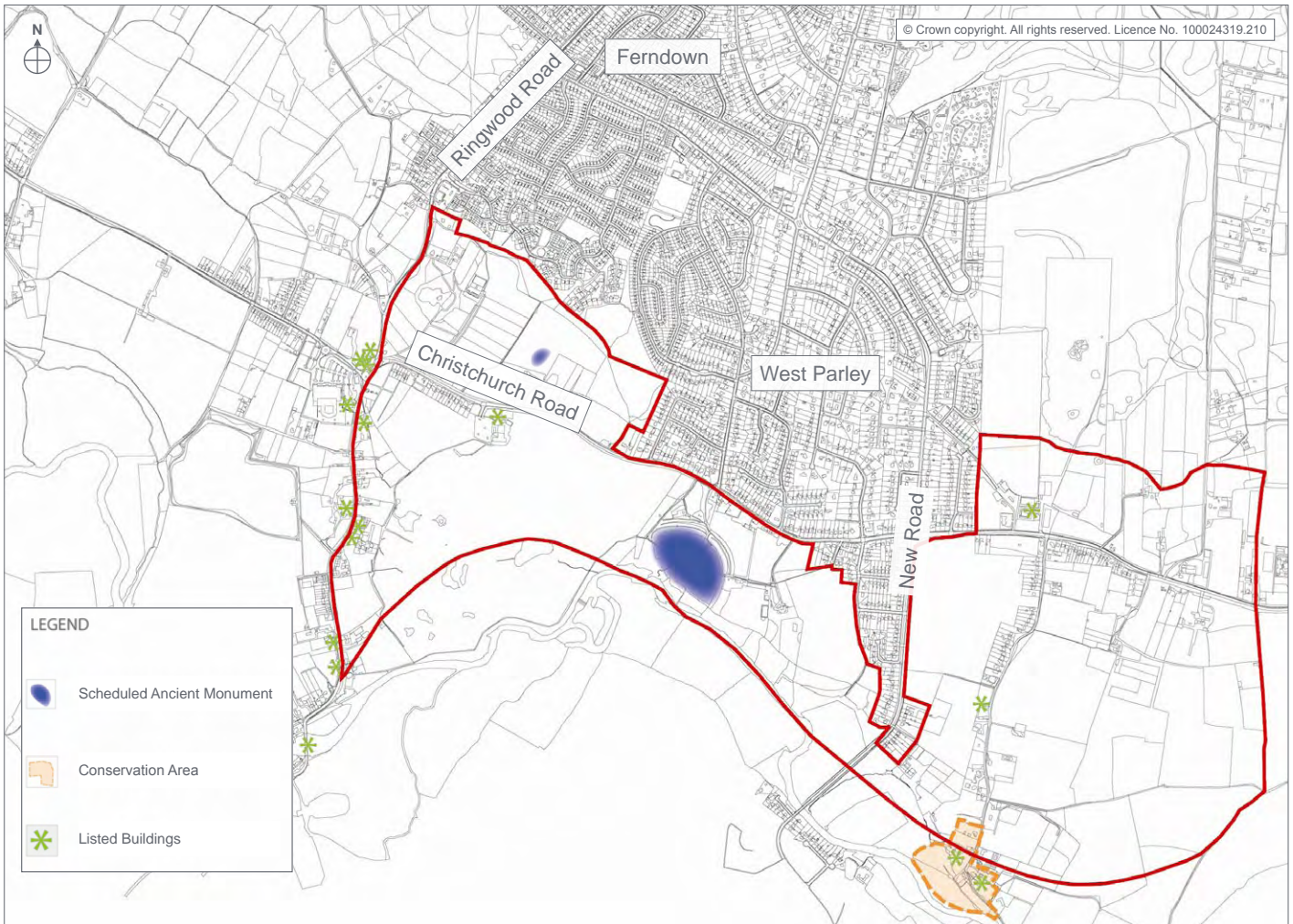
Listed buildings in the vicinity are shown on the plan, left.

Historic Parks and Gardens

There are no historic parks or gardens, or National Trust properties, within the study area.

A summary of known archaeological and cultural assets is shown below:

	Statutory Designations	Buried Features	Spot Finds	Surface Features
General Prehistoric			✓	
Palaeolithic			✓	
Mesolithic			✓	
Neolithic		✓	✓	
Bronze Age	✓	✓	✓	✓
Iron Age		✓	✓	✓
Roman	✓	✓	✓	✓
Post-Roman				
Saxon			✓	
Medieval	✓			✓
Post-Medieval	✓			✓
Modern	✓	✓		✓



Ferndown and West Parley

Conservation Areas

There is one Conservation Area within the area of search known as Ferndown and West Parley and this is shown on the plan, above. West Parley village represents the smallest conservation area in the District, comprising a handful of buildings at the southern end of Church Lane. The conservation area boundary includes the curtilages of All Saints Church, The Old Rectory and Mead Cottage.

At the heart of the conservation area is All Saints Church, which is thought to date from the Saxon period though it was replaced in the 12th century. It is a Listed, Grade II* building.

Any development within or adjacent to these areas should seek to preserve and enhance those aspects of character and appearance that define the conservation area's special character.

Scheduled Ancient Monuments

There are two scheduled ancient monuments within the area of search, Dudsbury Camp, located in the central section and a bell barrow known as Belle Vue Barrow, near Belle Vue Plantation in the north-west of the study area. Both are shown on the plan, above. The setting of Dudsbury Camp will need to be maintained.

Listed Buildings

Listed buildings in the vicinity are shown on the plan, above.

Historic Parks and Gardens

There are no historic parks and gardens within the study area or within close proximity of the study area.

A summary of known archaeological and cultural heritage assets is shown below:

	Statutory Designations	Buried Features	Spot Finds	Surface Features
Prehistoric			✓	
Palaeolithic			✓	
Mesolithic			✓	
Neolithic			✓	
Bronze Age	✓	✓	✓	✓
Iron Age	✓	✓	✓	✓
Roman		✓	✓	✓
Post-Roman				
Saxon				
Medieval	✓			
Post-Medieval	✓	✓		✓
Modern	✓	✓		

EAST DORSET HOUSING OPTIONS

Summary and implication for the masterplans

The areas of search contain examples of Scheduled Ancient Monuments and Listed Buildings which will limit development in their vicinity where their setting may be affected.

In general, the main area of archaeological interest within the study areas is prehistoric activity which is known at a moderate density including earthwork remains (including ritual sites, enclosures etc) and also spot finds.

There would appear to be a propensity for archaeological remains to follow favourable geology (as providing raw materials for stone working etc) and also the route of watercourses (such as the River Stour) which have been shown to attract both seasonal and permanent human activity potentially for the benefit of ready access to a food source and also transport.

The activity in the historic periods is evidenced by both standing structures across all the study areas (including Listed Buildings from the Medieval and Post Medieval periods) and also ancillary remains potentially indicating agricultural activity across the area.

Scheduled Ancient Monuments and listed buildings should not be affected by development, and, consideration should be given to sensitive development to retain or improve the existing setting to archaeological and built heritage assets (i.e. visual impact).

With respect to the Roman Road in the Wimborne Minster East area of search, there is potential for further discoveries along the alignment of the historic road to be found - detailed assessment will be required to establish further constraints in support of any planning application for this part of the study area. Further investigation is required to ascertain a more accurate location for the medieval deer park within the Wimborne Minster East area of search, the approximate location of this is shown on constraints plan.

Development has the potential to destroy any archaeological remains and mitigation of these constraints, where it has been deemed that they cannot be preserved in situ, will be required, for example through recording of finds.

It is important to note that there will be a need for further, more detailed archaeological assessment as the masterplans develop at planning/reserved matters stages in accordance with PPS5.

On this basis the findings set out in this document should be viewed as preliminary and have aimed to guide development to the most suitable locations with respect to archaeology and cultural heritage. This approach will minimise planning risk in the future (particularly with respect to statutorily protected features), although it is important to note that the area is high in archaeological potential and unknown resources of significance may yet be discovered. Further work, including with respect to a full desk based assessment, intrusive investigation, geophysical survey etc. will be required in order to inform more detailed designs where hitherto unknown archaeological resources may be required to be preserved in situ, thereby potentially directly affecting the layout of future development.

NOISE AND VIBRATION

Introduction

This section sets out a summary of the likely noise and vibration constraints associated with the proposed new neighbourhoods.

Method

This section is based on a review of the available plans, reports and internet searches. No site visit has been undertaken or noise/vibration measurements made although guidance has been sought from the local planning authority regarding the application of Planning Policy Guidance 24: - (PPG 24) Planning and Noise, within East Dorset. On this basis, the findings set out in this document should be viewed as preliminary.

Broadly constraints can take two forms:

- Existing sources of noise and vibration that may influence the type and location of uses within the proposed new neighbourhoods
- The effect that the development itself might have on existing noise sensitive uses surrounding each extension.

Planning Policy and Guidance

National Planning Guidance

The Government's policies on noise related planning issues are set out in PPG 24. PPG 24 recommends the use of four Noise Exposure Category (NEC) bands, which are designed to assist local planning authorities in evaluating applications for residential development in noisy areas. The definition of each NEC band depends on the noise source in question. The table below presents the NECs for various noise sources and the associated advice to local authorities.

NEC	Source	Noise Levels		Planning Advice
		Day time 0700-2300 $L_{Aeq,16h}$ dB	Night-time 2300-0700 $L_{Aeq,8h}$ dB	
A	Road traffic / mixed	<55	<45	Noise need not be considered as a determining factor in granting planning permission, although noise at the high end of the category should not be regarded as a desirable level.
	Aircraft	<57	<48	
	Rail	<55	<45	
B	Road traffic / mixed	55 – 63	45 – 57	Noise should be taken into account when determining planning applications and, where appropriate, conditions imposed to ensure an adequate level of protection against noise.
	Aircraft	57 – 66	48 – 57	
	Rail	55 – 66	45 – 59	
C	Road traffic / mixed	63 – 72	57 – 66	Planning permission should not normally be granted. Where it is considered that permission should be given, for example because there are no quieter sites available, conditions should be imposed to ensure a commensurate level of protection against noise.
	Aircraft	66 – 72	57 – 66	
	Rail	66 – 74	59 – 66	
D	Road traffic / mixed	>72	>66	Planning permission should normally be refused.
	Aircraft	>72	>66	
	Rail	>74	>66	

Note: Night-time noise levels (23.00 – 07.00): sites where individual noise events regularly exceed 82 dB L_{Amax} (S time weighting) several times in any hour should be treated as being in NEC C, regardless of the $L_{Aeq,8h}$ (except where the $L_{Aeq,8h}$ already puts the site in NEC D).

EAST DORSET HOUSING OPTIONS

The local planning authority was consulted on 2 October 2009 regarding the local application of guidance contained within PPG 24. Although not ideal, consideration would be given to noise sensitive development located within NEC C provided that there are justifiable reasons why such development is required and subject to a commensurate level of protection against noise being provided. Notwithstanding this guidance (and given there is a general presumption against residential development in NEC C (as stated in PPG 24), it seems prudent to develop the concept plan on the basis that residential (and other noise sensitive) development would only be permitted within NEC A and NEC B.

It should be noted that the noise levels in NEC B and even at the high end of NEC A would not be considered ideal and that development in such areas would still require an appropriate level of protection against noise.

Constraints Affecting the Area

The primary noise source affecting each of the areas is road traffic, although aircraft arriving at and departing from Bournemouth Airport will affect the eastern end of the Ferndown and West Parley area of search. These potential constraints are considered in turn below.

Road Traffic

In order to determine the constraints posed by existing road traffic a number of sources have been referenced to determine the likely volumes of traffic using key (predominantly A and B class) roads running through and past each area.

By undertaking a simple calculation in accordance with the Calculation of Road Traffic Noise (which is the UK method for predicting noise from road traffic) it is possible to determine the approximate distance at which the NEC B/C threshold may be exceeded. The NEC B/C boundary has been selected to identify likely constraints on the basis of the guidance in PPG 24 relating to NEC C where the fundamental advice is that planning permission should not normally be granted.

The calculations necessarily make a number of assumptions which influence the Basic Noise Level as set out below:

- The 24-hour AADT (Annual Average Daily Traffic) flows are indicative of the 18-hour Annual Average Weekday Traffic (AAWT) flows (0600-2400);

- Notional speeds are as follows: 50 mph on the A31 and 40 mph on all other roads;
- All roads have a notional hot rolled asphalt (HRA) surface (with 2 mm texture depth); and
- A notional road gradient of 0% has been universally applied.

In addition, the calculations assume a full view of the road, without screening but with a predominantly absorbent ground cover (in the acoustic sense) between the road and calculation point. On the basis set out above, it is recommended that the indicative set-back distances for noise sensitive development as noted in the table (opposite) are applied during the evolution of the masterplan.

It should be noted that the constraints relate to the NEC B/C boundary. Whilst it is possible that noise sensitive uses could be located closer to the road with appropriate mitigation, noise levels at the NEC B/C boundary should not be considered ideal and indeed some degree of acoustic treatment may still be required at noise sensitive buildings located at the specified set-back distances. Similarly for external areas considered sensitive to noise (e.g. private gardens), it is unlikely that relevant noise limits will be met unless these areas are screened, either by locating them behind buildings or by the inclusion of appropriately designed acoustic fences. It should also be borne in mind that constraints might be greater near junctions where noise from more than one road can combine, resulting in higher noise levels.

It will be necessary to give careful consideration to the design, orientation and location of dwellings within the development areas to ensure that road traffic impacts are minimised and appropriate internal and external levels are met. There are a number of generic options available to control external noise, including:

- The location of buildings on site. The primary control factor is distance – the greater the distance from the source, the lower the noise level. The type of intervening ground cover (acoustically absorbent or reflecting) and the height of the receptor will also influence the received noise level.
- Screening. Barriers or screens can reduce noise on site. They can take the form of an existing feature (for example a cutting), a purpose-

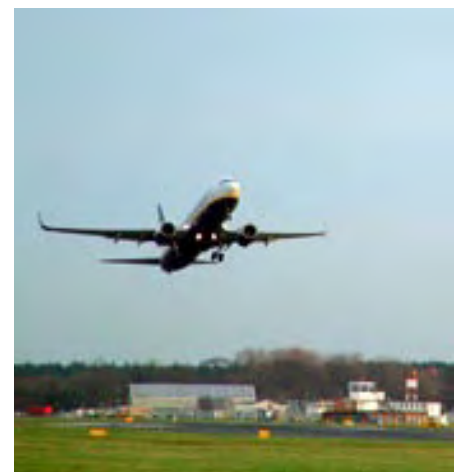
designed feature (for example, a solid boundary fence or an earth mound) or a purpose-designed building (for example, a linear barrier block).

- Building form and orientation. Limiting the view of the source by building orientation can reduce the received noise level. Measures include turning a building through 90° to be perpendicular to the road and staggered terraced housing can be arranged to shield noise-sensitive windows.

Bournemouth Airport

The Bournemouth Airport masterplan, dated May 2007, includes aircraft noise contours relating to 2004 and 2015 (projected). Daytime 16-hour (0700-2300) and night-time 8-hour (2300-0700) are presented. In July 2009 the airport published a draft noise action plan in accordance with the Environmental Noise (England) Regulations 2006. These regulations transposed the EU Environment Noise Directive (2002/49/EC), relating to the assessment and management of environmental noise into our legislation. The draft noise action plan includes aircraft noise contours for 2006. However, given the likely timescales under-pinning the development of the new neighbours, it is considered more appropriate to consider the projected aircraft noise contours for 2015 as presented in the Bournemouth Airport Masterplan.

By reference to these noise contours (which are reproduced overleaf on daytime and night-time plans) it is possible to determine the NEC B/C boundary. The NEC B/C boundary has been selected to illustrate the likely constraints to noise sensitive development, for the same reason as identified earlier.



Bournemouth Airport

New neighbourhood	Set-back distance	Road links
Ferndown and West Parley	35 metres	A347 New Road and A348 Longham, south of B3073
	30 metres	B3073 East Parley
	25 metres	B3073, between the A347 and A348
	20 metres	A347 New Road and A348 Ringwood Road, north of the B3073 and the B3073 Ham Lane, Canford Bottom
Corfe Mullen	50 metres	A31, east of the B3074
	15 metres	B3074
Wimborne Minster North	25 metres	B3078 Julian's Rd / Bridge
	15 metres	B3082 Badbury Rings, B3078 Victoria Rd, NW of Redcotts Rd, B3078 North Wimborne and B3078 Cranborne Rd, south of Furzehill
	10 metres	D41556 Burts Hill south of Giddy Lake
Wimborne Minster East	25 metres	B3073, Leigh Road, Wimborne
	60 metres	A31, Wimborne Bypass, east of A349

Ferndown and West Parley

A number of busy roads pass through or alongside the proposed new neighbourhood. Indicative set-back distances range from 20-35m.

Corfe Mullen

The A31 poses a significant constraint to development, partly as a result of the assumed high speed (50mph). However, it is noted that the northernmost extent of the proposed new neighbourhood does not extend quite as far as the A31, so it is assumed that this set-back can easily be accommodated.

No traffic flows were available for the B3074 leading north-west from Corfe Mullen to the A31 and so it has been assumed that this is a lightly trafficked road, with an appropriate set-back distance.

Wimborne Minster (north)

The B3078 Julian's Road / Bridge represents the greatest constraint with respect to the proposed Wimborne Minster new neighbourhood. Other roads in the area are likely to offer only moderate constraints.

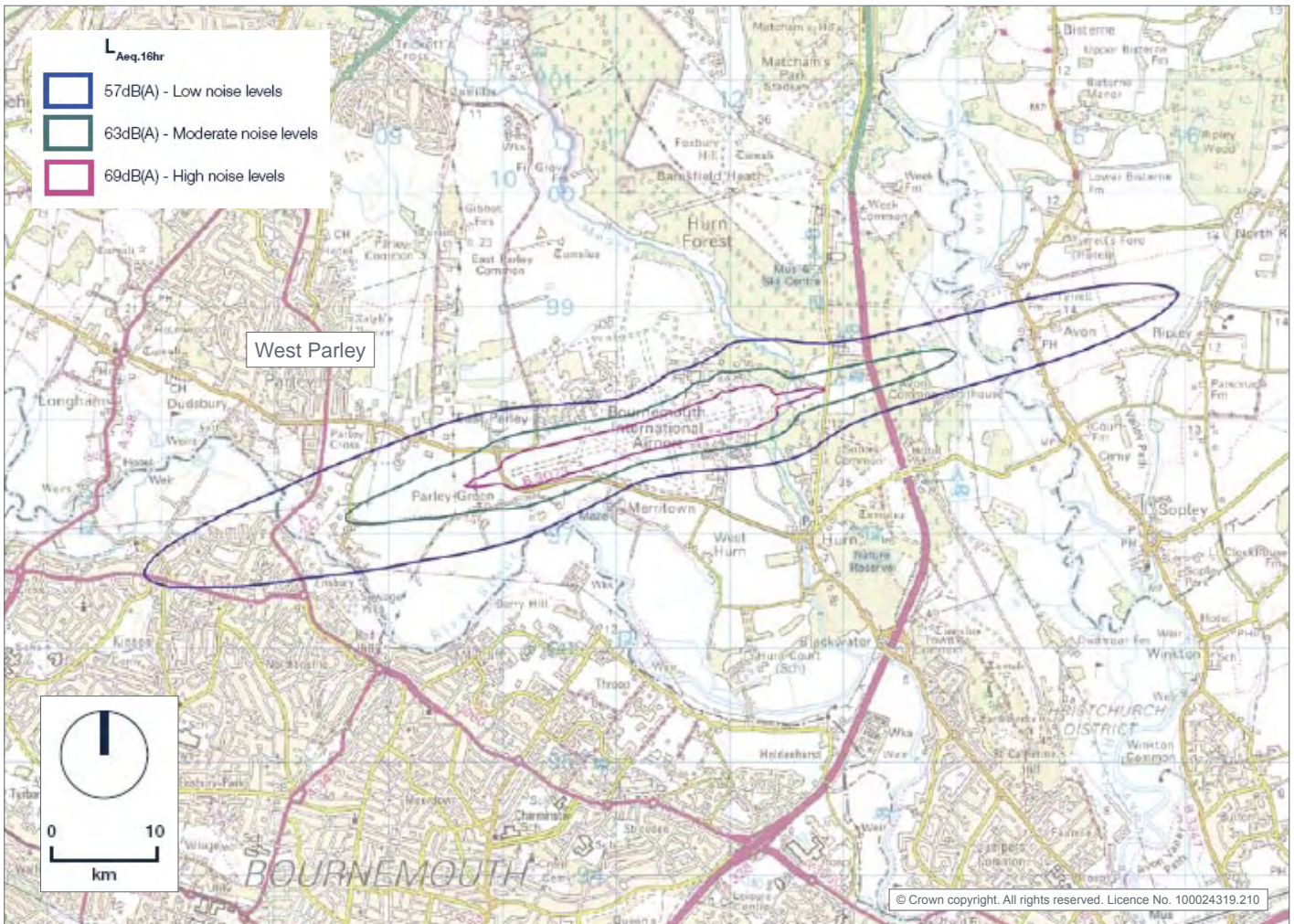
Wimborne Minster (east)

Whilst the A31 poses the most significant constraint to development, the influence of traffic on the B3073 should not be dismissed.

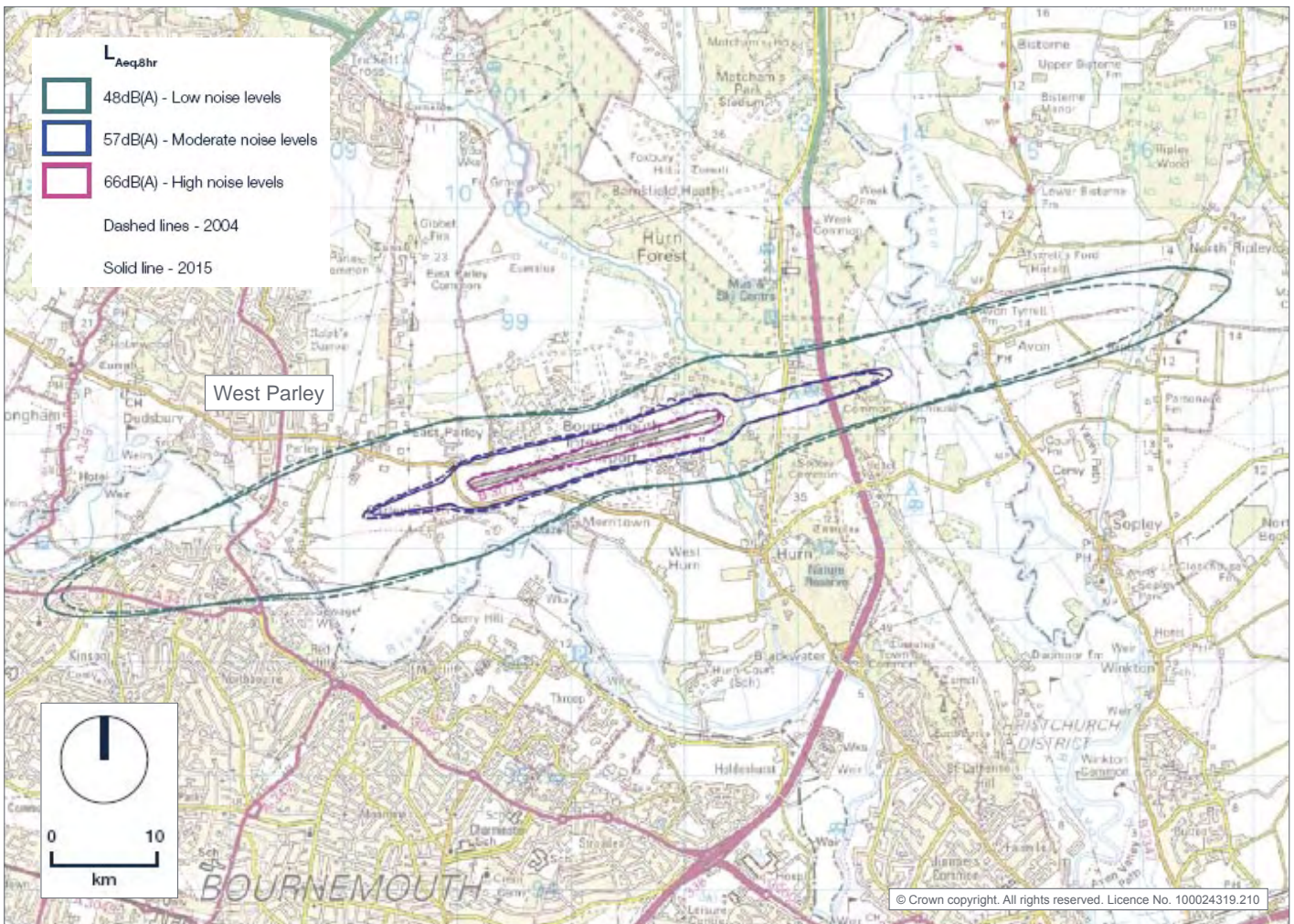
A noise, air quality and odour report has been prepared relating to part of the site (an area bisected by the A31, extending from the B3073 Leigh Road in the north to the River Stour in the south). The noise advice contained within the report is based on the results of a measurement survey (rather than basic predictions, as above) and considers development within NEC C subject to a commensurate level of mitigation. Nonetheless, the

report confirms the significant constraints posed by the A31 and concludes that: *"either a noise bund/barrier alongside the A31, or a buffer zone of at least 12m, will be required between the road and the new development in order to ensure that new dwellings lie outside NEC D". The report notes that with the inclusion of this mitigation, new dwellings closest to the A31 will lie within NEC C, but identifies, correctly, that: "with screening provided by new dwellings, adjacent to the road, and with additional distance attenuation from the road, the majority of the new development would tend to lie within NEC B and A..."*

Comment: It must be borne in mind that the traffic flows utilised in this assessment are only indicative of those which currently use these roads. Consequently, at the appropriate time, more detailed calculations (and/or measurements) should be undertaken to confirm the likely constraints and to ensure that road traffic impacts are minimised and appropriate target values are achieved.



Daytime Aircraft Noise Contours for Bournemouth Airport, 2015



Night-time aircraft noise contours at Bournemouth Airport, 2004 and 2015

EAST DORSET HOUSING OPTIONS

Daytime Aircraft Noise

The 66 dB LAeq,16h contour is not directly marked on the plan (opposite, top left) so it is necessary to interpolate between the 63 dB (green) and 69 dB (pink) contours to identify the area of constraint.

Notwithstanding the advice contained in Annex 1 of PPG 24, Annex 3 (which presents detailed guidance on the assessment of noise from different sources) states the following with respect to noise from aircraft: "...60 Leq dB(A) should be regarded as a desirable upper limit for major new noise sensitive development".

At this stage, therefore, it would seem prudent to follow this more stringent advice. Again, the 60 dB LAeq,16h contour is not directly marked on the plan, so it is necessary to interpolate between the 57 dB (blue) and 63 dB (green) contours to identify the area of constraint. This area is shown on the plan at the below.

Night time Aircraft Noise

The 57 dB LAeq,8h contour is directly marked on the plan (opposite, below) and it can be seen that the constraints are much less significant for the night-time period. This is perhaps understandable given the following comment taken from the Bournemouth Airport Masterplan (section 6.4, page 52): "there are limited scheduled night-time flights (as defined between the hours of 2300 to 0700) from the airport. Existing operations are voluntarily restricted to cargo flights, the occasional late returning charter flights and scheduled flight departures between 0600 and 0700 hrs."

That said, the average night-time noise levels are likely to be less of a constraint than the maximum noise levels generated by arrivals and departures. This is because the energy generated by individual aircraft over-flights tends to be diluted by the relatively longer periods of quiet between each event. Maximum noise levels from aircraft events are a particular concern at night as they can cause sleep disturbance and consequently, to guard against this likelihood, consideration may need to be given to up-rated glazing and the provision of an alternative means of ventilation (other than opening windows) to ensure appropriate internal standards are met.



EAST DORSET HOUSING OPTIONS

Railways

There are no railways passing through or near any of the proposed new neighbourhoods and on this basis, it is concluded that railway noise will not be a major constraint to the development of these new neighbourhoods.

Wimborne Sewage Treatment Works (STW)

The aforementioned acoustic report prepared by AcousticAir relating to land at Leigh Road, Wimborne Minster identifies the presence of the Wessex Water operated Wimborne STW adjacent to the A31 and the area of search to the east of Wimborne Minster. It seems from the noise survey results that whilst water/pump noise is audible at the STW boundary, overall noise levels (away from the A31) are not that high and in any case, the recommended odour buffer zone (see later in the report) would remove any potential noise effects from the STW.

Constraints Posed by the Development

Introduction

The preceding section considered the constraints posed by existing sources of noise and vibration on the proposed development. However, during the evolution of the masterplan due consideration should also be given to the likely impact the proposals might have on nearby sensitive locations. Construction phase and operational impacts should both be addressed.

Construction Phase Noise and Vibration

Whilst the demolition/construction phase impacts are by their very nature temporary, the scale of the new neighbourhoods and their proximity to the neighbouring communities is such that it will be important that these impacts are properly controlled and managed through the generation and implementation of a construction environmental management plan, drawn-up in consultation with the local authority.

Road Traffic Noise

The development of the new neighbourhoods would obviously influence traffic flows on existing roads which travel through and near the new neighbourhood areas. This impact cannot be quantified until much later in the evolution of the scheme.

Nonetheless, consideration can be given at an early stage to how vehicles will access the developments. Access should be designed such that adverse impacts are minimised at existing properties.

As noted earlier, the location of industrial and commercial uses in close proximity to noise sensitive receptors (whether existing or proposed) inevitably introduces the potential for noise (and possibly vibration) disturbance.

Care should be taken when locating noise generating uses, avoiding, wherever possible, placing these in close proximity to adjacent noise sensitive areas whether existing or proposed.

Fixed plant such as that associated with building services would need to adhere to performance criteria (set in line with local authority requirements) to minimise the risk of subsequent complaints from new and existing residents alike.

Power Generation

It is assumed that the new neighbourhoods are likely to include the use of 'green' sources of energy. Some of these, notably biomass boilers, are known to generate noise which can disturb those living nearby. It is imperative, therefore, that the potential for noise disturbance is properly assessed at the relevant time and that appropriate mitigation is included in the scheme design.

Conclusions

This section provides initial advice on the likely noise and vibration constraints associated with the proposed residential developments in East Dorset. These views are based on a review of available plans and internet searches.

It has been noted that potential constraints exist with respect to road traffic and aircraft noise sources (the latter affecting only the West Parley area). An attempt has been made to quantify the extent of these constraints; although, as details are limited at this stage in the process, these findings should only be viewed as preliminary.

Some initial and generic 'good practice' guidance has also been provided with respect to the mitigation of these constraints.



ODOUR

Introduction

This section covers odour issues and primarily relates to the sewage treatment works located at the end of Brook Road close to the Wimborne Minster East area of search.

Method

The advice contained in this section is based on a review of the available site information, consultation and internet searches. No site visit has been undertaken, or odour measurement/assessment made, although guidance has been sought from the local authority regarding odour complaint history for the location. On this basis the findings set out in this document should be viewed as preliminary.

Generally, odour constraints can take two forms:

- Existing sources of odour may influence the type and location of uses within proposed new neighbourhoods; and
- The effect that the development itself might have on existing surrounding odour sensitive uses.

East Dorset District Council (EDDC) was consulted on 12th August 2010 regarding any odour buffer zone that may be in place; history of odour emissions from the Brook Road Sewage Treatment Works (STW); or complaints concerning odours from the STW. Consultation with the relevant Environment Agency (EA) office confirmed that the plant holds water discharge licenses, but the plant does not require regulation under the Environment Protection Regulations and any odour problems would be dealt with the local authority under nuisance provisions of the Environment Protection Act 1990.

Policy

National Planning Guidance

The Government's policies on amenity related planning issues such as odour impacts are set out in Planning Policy

Statement 23 (PPS 23). PPS23 gives guidance to local authorities in England on the use of their planning powers to minimise the adverse effects of airborne pollutants and odour. In particular PPS23:

- Advises that any consideration of potential impacts arising from development, possibly leading to impacts on health, is capable of being a material planning consideration;
- Advises that the planning system plays a key role in ensuring that developments are not, as far as possible, affected by major existing or potential sources of pollution;
- Outlines the considerations to be taken into account when determining planning applications for odour sensitive developments;
- Advises on the use of planning conditions to minimise adverse effects on the amenity of a location (e.g. odour nuisance).

The PPS is mainly concerned about potential impact of pollution on health, rather than amenity. However, reference is made that when taking account of pollution where new housing is proposed close to an existing source of potential pollution and the risk to health or amenity it should be based on normal operation of the process. PPS23 requires that planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced.

Local Planning Policy Guidance

East Dorset District Council has published guidance on the location of development in relation to other land uses. This is set out in Policy DES2 (in paragraph 6.280) of the East Dorset Local Plan. The informatives to this policy (paragraphs 6.278 and 6.279

of the Local Plan) state:

New developments may have a significant impact upon their surroundings through noise, smell, disturbance, lighting or other pollutants. Whether these impacts are acceptable will depend on the nature of the surroundings. For example, development which generates noise may be acceptable in some types of open country, but may not be so where it is close to housing, or where it is an area of landscape value whose character depends partly upon quiet and a sense of remoteness.

In turn, it will be important to avoid siting sensitive development close to other uses which might have similar impacts upon it, or which might lead to restrictions on those uses or costly changes to reduce their effects. Thus, for example, it may be undesirable to allow new housing close to industry, or development close to existing sewage treatment works.

Policy DES2 states: "Developments will not be permitted which will either impose or suffer unacceptable impacts on or from existing or likely future development or land uses in terms of noise, smell, safety, health, lighting, disturbance, traffic or other pollution".

Chapter 12 of the Local Plan includes policies and proposals for Wimborne (and Colehill and Hayes). Policy WIMCO3 relates to land close to the site on Brook Road (south) and the informatives for this policy state (paragraphs 12.27) that:

A major objective, as with the development already completed to the north, would be to provide a greatly improved appearance to Brook Road. Development would not be permitted except as part of a comprehensive scheme and to a high standard of design. Earth mounding and

substantial planting would be required to the Brook Road frontage and screen planting of trees and shrubs on the eastern border of the site where it adjoins open countryside. Development of this site may be affected by offensive odours from the existing sewage treatment works. Prospective developers will therefore be required to demonstrate that the proposed uses can reasonably be expected to co-exist with the sewage treatment works.

While this policy does not directly relate to the site, the proximity of the site to the STW mean that the onus for any development south of Leigh Road within the site would be similar to that stated above for development in Brook Road (south).

Constraints Affecting the Site

Odour Sources

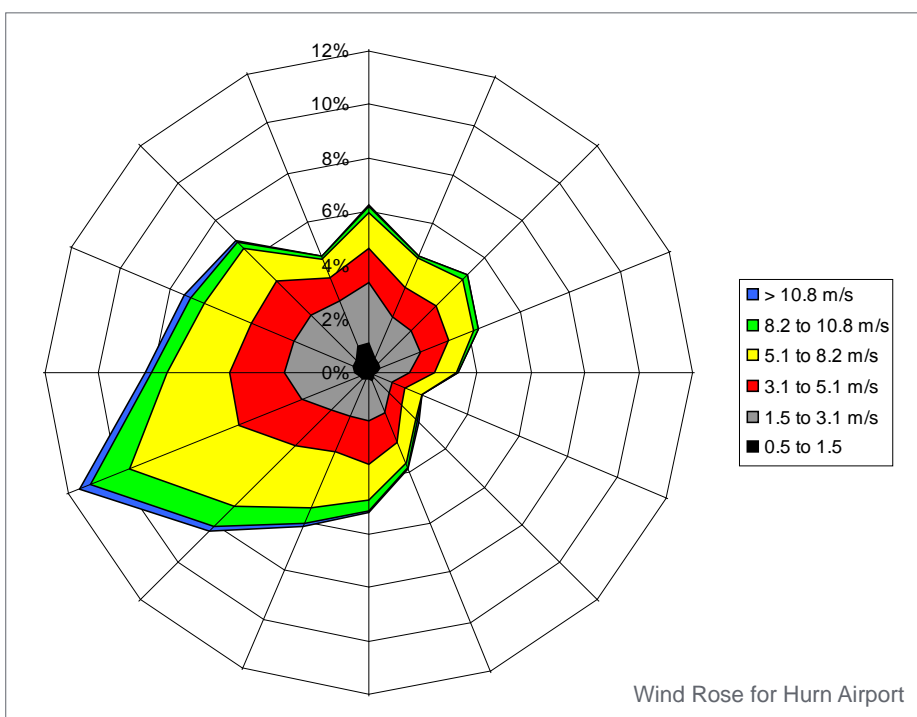
The primary source of odour affecting the site (especially south of Leigh Road) is the Brook Road STW. Should development be proposed in this area, during the evolution of the masterplan, due consideration should be given to the likely impact that odour emissions from the STW might have on sensitive locations within the proposed development.

Consultation with the Environmental Health Department of EDDC revealed that complaints have been received at the Council concerning odours from the STW. The Council advised that approximately 15 complaints from nearby residential dwellings had been received over the past 5 years, but that no formal action had been taken against Wessex Water regarding odour releases. This indicates that odour impacts occur on occasion, but that the situation is not unacceptable (i.e. no nuisance exists or significant loss of amenity) from the Council's point of view.

Investigation of the odour complaints by the Council found that the emissions were generally associated with specific incidents and process upsets which occurred for short periods of time. These incidents were generally dealt with swiftly enough to prevent an on-going nuisance or loss of amenity in the surrounding area. The nearest residential properties are approximately 145m (to garden boundary) to the west/northwest of the STW and complaints have been received from this area, up to a distance of around 250 – 300m from the STW (primarily closest areas of Barnes Crescent and Churchill Road). For odour to affect these residential properties, light winds (which reduce effective dispersion of odours) from the east or south east would be required. Complaints have not been received from any other areas. Commercial and light industrial activities (e.g. Cobham Plc, an auto repair shop and car tyre firm) are situated on properties located adjacent to the STW to the west, south west and south within 145m of the site. No complaints have been documented by EDDC from these locations regarding odours from the STW. This indicates that such land uses are more appropriate with locations closer to the STW than the closest residential properties; although this would depend on the nature of commercial activity proposed as to how sensitive it may be to odour emissions.

Meteorological data (average of 7 years data) from Bournemouth (Hurn) Airport is shown in the figure overleaf. Bournemouth Airport is the nearest Met Office Observing Station to the site and data from this location is considered representative of the site. This data shows that the prevailing wind is from the south westerly quarter.

EAST DORSET HOUSING OPTIONS



Winds from the south southwest, southwest and west southwest occur for approximately 26% for all wind speeds (approximately 14% of the time for light winds, e.g. <3 m/s, where the effective dispersion and dilution of odours would be inhibited). The site is located effectively downwind of the STW and, therefore, the potential exists for the area of search (particularly the south-western part, south of Leigh Road) to be affected by odour emissions from the STW on occasion. This conclusion is supported by the fact that winds from the east/south east, which would carry odours from the STW to the nearest existing residential areas where complaints have been received, occur for only 8% of the time (for all wind speeds).

However, it should be remembered that odour emissions from the STW have been found by EDDC to result from abnormal operating conditions, rather than a result of emission during normal operation. For the site to be affected by odours, process upsets would need to coincide with winds from the south west, therefore, the likelihood of the site being affected by odours would be considerably lower than the 26% frequency of the prevailing wind directions.

Existing complaint data suggests that odours can affect locations up to around 250 – 300m from the site and, therefore, it is reasonable to expect that the area of the proposed development site within this distance of the STW could also be affected on occasion, assuming unfavourable wind

directions and speeds (e.g. lower wind speeds) and abnormal STW operations will coincide at some point.

Previous Odour Assessment

A qualitative odour assessment¹ was previously undertaken in August 2009 to determine the impact of odours from the Brook Road STW on the south-western part of the area of search, on behalf of a house builder promoting this land. The odour assessment utilised a “sniff testing” procedure to determine the potential impacts of odour and the extent of the impacts on a given area. The method of assessment is advocated by the EA, with the procedures for undertaking the sniff tests is set out in EA guidance^{2,3}.

The odour surveys (sniff testing) were undertaken over two days in mid August 2009. The weather conditions were fine during the surveys, with light winds (0.2 – 1.2 m/s) blowing from the west and southwest (i.e. from the STW over the south-western part of the site). These conditions were considered to be representative of conditions that could give rise to odour impacts at the site.

The results of the odour surveys were that some form of buffer zone (or cordon sanitaire) between the STW and new residential dwelling on the proposed development site was advisable because odours were detected downwind of the STW. It was suggested in the report conclusions that, on the basis of the survey findings, a buffer zone of at least 145m should be maintained to ensure nuisance is prevented under normal operating conditions. This distance was based on the location of the closest existing residential properties in Barnes Crescent. However,

the author of the report had been unable to obtain any details of complaint history regarding odours from the STW.

As referred to above, EDDC advised that occasional complaints had been received from properties in areas of Barnes Crescent and Churchill Road located closest to the plant, up to around 250 – 300m from the plant. On the basis of the Council's complaints data and the prevailing wind directions being from the south west quarter, it is recommended that odour sensitive development, such as residential dwellings, are not located any closer than existing residential properties (i.e. 145m) from the STW boundary to protect proposed gardens and dwellings from unacceptable odours. Taking into account the complaints that have been received from 250-300m, it is also suggested that consideration is given to maintaining a 250m separation distance between the STW and residential dwellings, if practicable, to ensure any odour impacts on future occupants are minimised.

With respect to non-residential development on the site, the Council's complaint data indicates that this type of development (or recreational use) maybe appropriate within 145m of the STW; however, careful consideration of the type of commercial or light industrial activities would be required to ensure the sensitivity to odour emissions from the proposed development site is not likely to be any greater than the sensitivity of the existing commercial/industrial sites located in Brook Road adjacent to the STW site.

Summary and implication for the masterplan

This section sets out some initial advice on the likely odour constraints associated with the south western part of the site, south of Leigh Road, adjacent to the Brook Road

STW. These views are based on a review of available information and plans, initial consultation with EDDC and internet searches.

It has been noted that constraints exist with respect to odour sources. There are no specific best practice limits, however Wessex Water have indicated⁴ they would prefer to see a buffer of 300 to 400m, this being a notional cordon sanitaire for medium-sized open STW plant. However, any buffer zones would be determined on a case by case basis as development begins to encroach on a STW site.

Putting to one side Wessex Water's preference, an attempt has been made to quantify the extent of a potential buffer zones based on odour complaint data and findings of previous odour surveys (sniff testing). Complaints have been received from the residential areas closest to the STW, however, these are relatively infrequent, have been found to be associated with abnormal operation and have not required the Council to take action against Wessex Water.

Complaints have been received up to 250 – 300m from the STW and the site is located downwind (prevailing) of the plant; therefore, it is recommended that residential dwellings are not located within 145m of the STW. It is also suggested that consideration be given to maintaining a greater separation distance (250m) between the STW and residential dwellings while developing the masterplan to further ensure odour impacts are minimised.

The lack of odour complaints from the industrial and commercial site located in Brook Road adjacent to the STW suggests that this sort of land use, as well as recreational land uses, may be appropriate on the proposed development

site within 145m of the STW boundary; but due consideration should be given to any proposed industrial or commercial operations on the site to ensure no greater sensitivity than those existing in close proximity to the STW.

It is important to note that there will be need for further, more detailed, odour assessments in order to inform any detailed masterplanning for the south western part of the area of search. This would take the form of further odour surveys (sniff testing) and dispersion modelling of odour emissions at the STW to assess against published odour criteria, if relevant data is available from Wessex Water. Such assessment should be undertaken in support of any planning application(s) submitted for this part of the area of search.

1. Land at Leigh Road Wimborne, East Dorset, Noise, Air Quality and Odour Assessments, prepared by Acoustic Air Ltd on behalf of Gleeson Strategic Lane Ltd, Report Ref: AA615NAQ/R1 (August 2009)
2. Environment Agency, Integrated Pollution Prevention and Control (IPPC) Draft Horizontal Guidance for Odour, Part 1 – Regulation and Permitting. Technical Guidance Note: IPPC H4. Consultation Draft (October 2002).
3. Environment Agency Technical Guidance Note, H4 – Odour management, Consultation DRAFT, version 1.2, Environment Agency (26 June 2009)
4. Land at Leigh Road Wimborne, East Dorset, Noise, Air Quality and Odour Assessments, prepared by Acoustic Air Ltd on behalf of Gleeson Strategic Lane Ltd, Report Ref: AA615NAQ/R1 (August 2009)

FLOOD RISK AND DRAINAGE

Introduction

This section examines flood risk and drainage constraints for the various areas of search.

The area is criss-crossed by two main rivers: The River Stour which runs to the south of West Parley and south and west of Wimborne Minster and the River Allen, which flows into the River Stour at Wimborne Minster. Other small streams are found in the area including one running down the Waterloo Valley in Corfe Mullen.

Site assessed in detail

As with the landscape appraisal section, this section has focused on parcels of land within the areas of search that are in the most sustainable locations (see section 9). A flood risk and drainage appraisal across all of the areas of search would be limited in value and provide grossly distorted figures in terms of flood attenuation storage requirements.

Summary

In summary, the Environment Agency Flood maps shown in this section indicate that all but one of the sites are within Flood Zone 1 which means that they are in areas of low risk (return periods greater than 1,000 years) and that all land use types are suitable in these areas. Only one small site lies partly within Flood Zone 2, which relates to areas of medium flood risk (return periods between 100 and 1,000 years) where most land uses are suitable.

The flood risk to each site will need to be assessed as part of the planning process through a full Flood Risk Assessment (FRA). The FRA's will need to consider the flood risk from all sources, especially as most of the sites are located close to preferential overland flow paths. Surface water drainage strategies will need to be based around Sustainable Urban Drainage (SUDS) principles, preferentially using infiltration methods, where feasible.

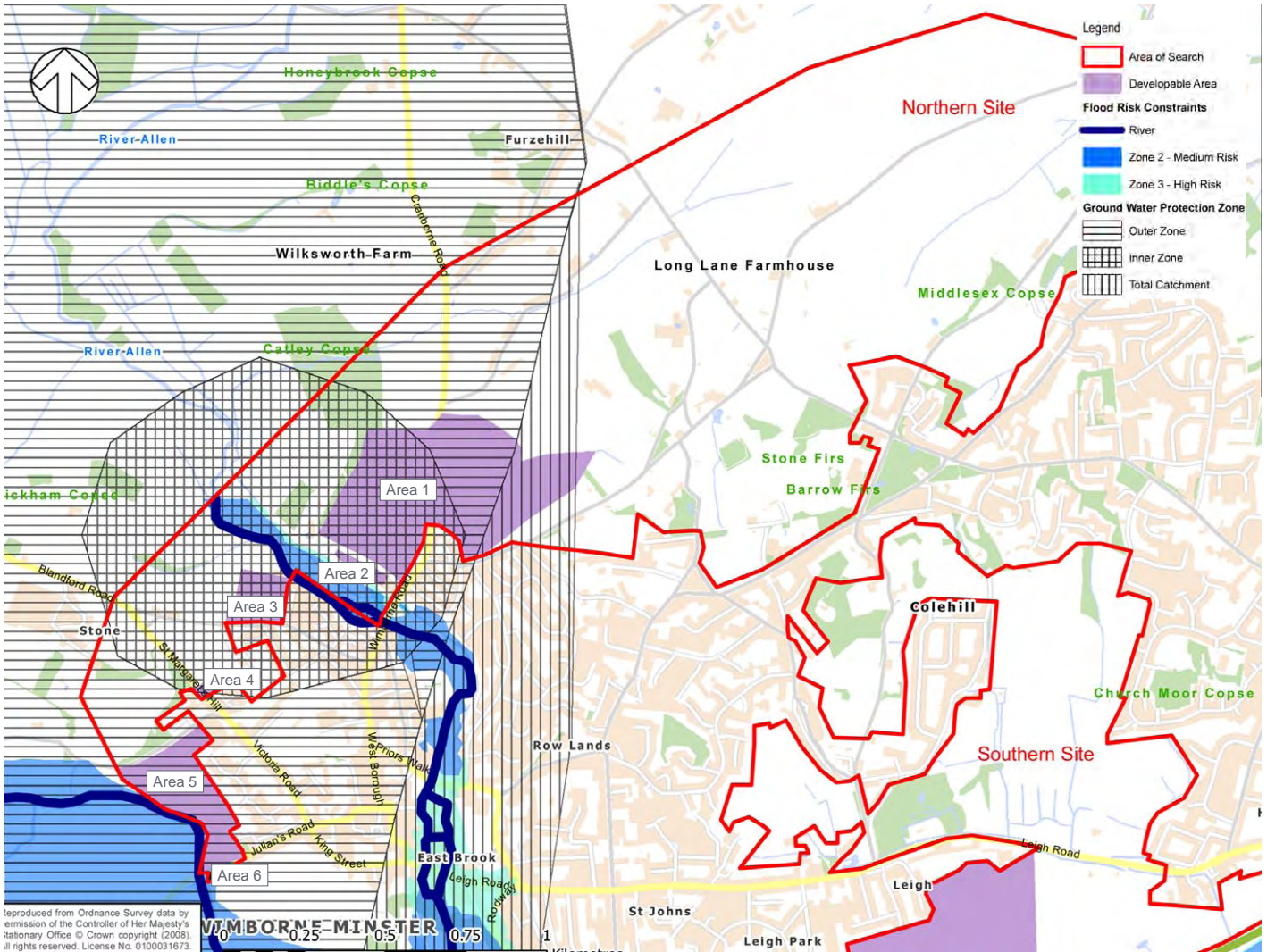
Alternatively lower measures within the SUDS hierarchy could be considered depending on the characteristics of the site.

The Flood Water Management Act (2010) has removed the right of connection to the public sewer infrastructure and thereby increased the importance of implementing an effective SUDS system to manage the surface water across development sites. Approval of the SUDS system will have to be obtained in parallel to the planning process and will be needed prior to any construction work.



View of Cuthbury Allotments with the River Stow in the foreground

WIMBORNE MINSTER NORTH



The Wimborne Minster study area and potential development areas

This section outlines the flood risk to the potential development areas within Wimborne Minster study area and more specifically to the areas considered more sustainable (Areas 1-6, as identified in the plan).

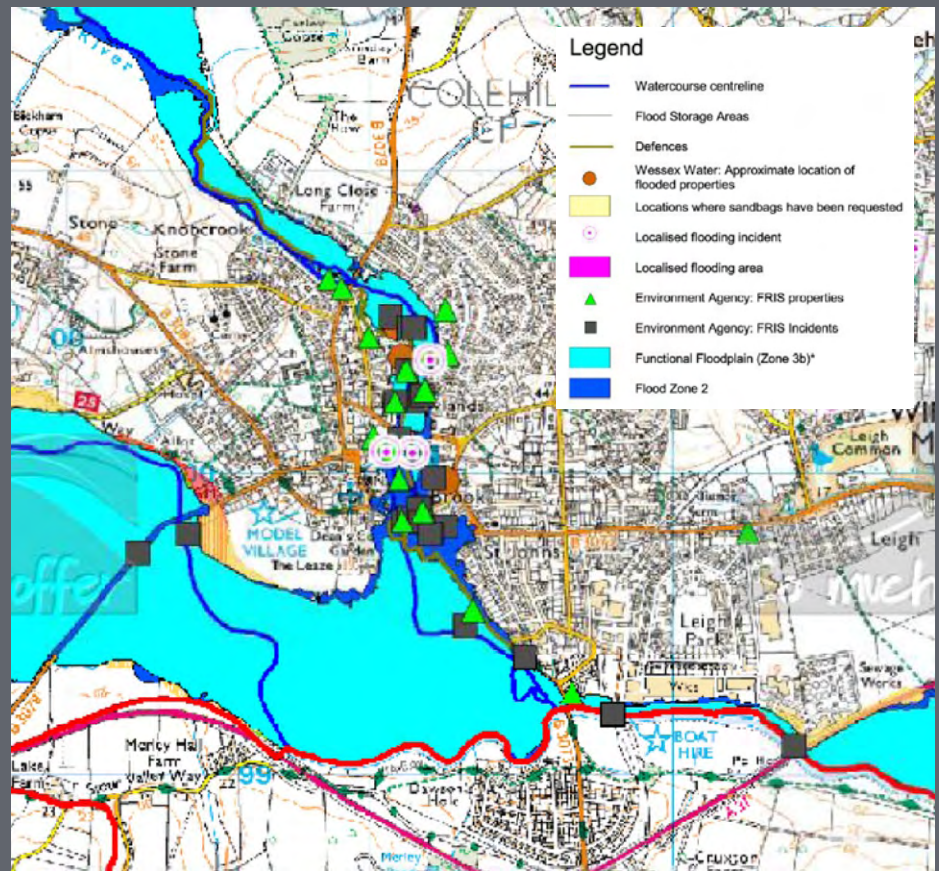
The potential development is likely to change the rainfall runoff patterns which would require attenuation storage to reduce the post development runoff to the existing rates thus preventing an increase in flood risk elsewhere. Therefore the potential attenuation storage volumes are outlined for Areas 1-6.

The Environment Agency's online flood maps and the Bournemouth, Christchurch, East Dorset, North Dorset and Salisbury (ED) Level 1 SFRA indicate that most of the sites are located within Fluvial Flood Zone 1 (areas of low risk, an annual flooding probability of 1 in 1000 years or less). One site (Area 6) has a small area within Fluvial Flood Zone 2 (areas of medium risk, an annual flooding probability of between 1 in 100 years and 1:1000 years), further hydraulic modeling may be required to confirm the flood risk to the site. In addition to fluvial flooding there is a risk of surface water flooding at some of the sites. This

is because they are potentially located in or close to the preferential flow paths that will operate once the capacities of the soils or sewers are exceeded, further analysis will be required to determine the risks. However, these risks can be reduced through the incorporation and design of surface water flow paths.

Where the surface water runoff from the proposed development is to be infiltrated to groundwater there is a risk of groundwater contamination. To minimise the risk, a review of the Environment Agency's Groundwater Protection Maps has been undertaken. These show which areas of groundwater are more sensitive to pollution. These maps indicate that these sites are located across multiple protection zones; in this instance any water that is returning into the natural cycle must undergo effective forms of treatment (SuDS etc), so the existing conditions are either replicated, or bettered.

A desktop soil assessment has concluded that these sites comprises a range of soils, from freely draining (suitable for infiltration), to naturally wet (unsuitable for infiltration). It is assumed that the site (Area 4) on freely draining soils will discharge via infiltration (estimates on the potential size of the soakaways have not been provided), part-freely draining catchments will discharge by a combination of infiltration / attenuated outfalls, whilst all others will be attenuated back to the Greenfield surface water runoff rate prior to discharge into existing watercourses / networks.



Extract of ED Level 1 SFRA - <http://www.dorsetforyou.com/media.jsp?mediaid=129700&filetype=pdf>

The surface water attenuation calculations have been undertaken using the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments' to estimate the required storage volume to attenuate the site back to greenfield runoff rates with the following assumptions:

- 80% of the site will be developed
- The percentage impermeable (PIMP) for all future development is 60%.

Based on the above, a summary of areas for the site is as follows (right):

Site Ref.	Gross Site Area	Developable Site Area	Future Impermeable Site Area	Area Requiring Attenuation
Area 1	26.01 ha	26.01 ha	15.61 ha	12.48 ha
Area 2	1.16 ha	1.16 ha	0.70 ha	0.56 ha
Area 3	1.73 ha	1.73 ha	1.04 ha	0.83 ha
Area 4	0.70 ha	0.70 ha	0.42 ha	0.00 ha
Area 5	7.53 ha	7.53 ha	4.52 ha	3.61 ha
Area 6	0.29 ha	0.29 ha	0.17 ha	0.14 ha
TOTAL	37.42 ha	37.42 ha	22.45 ha	17.63 ha

Schedule of Areas

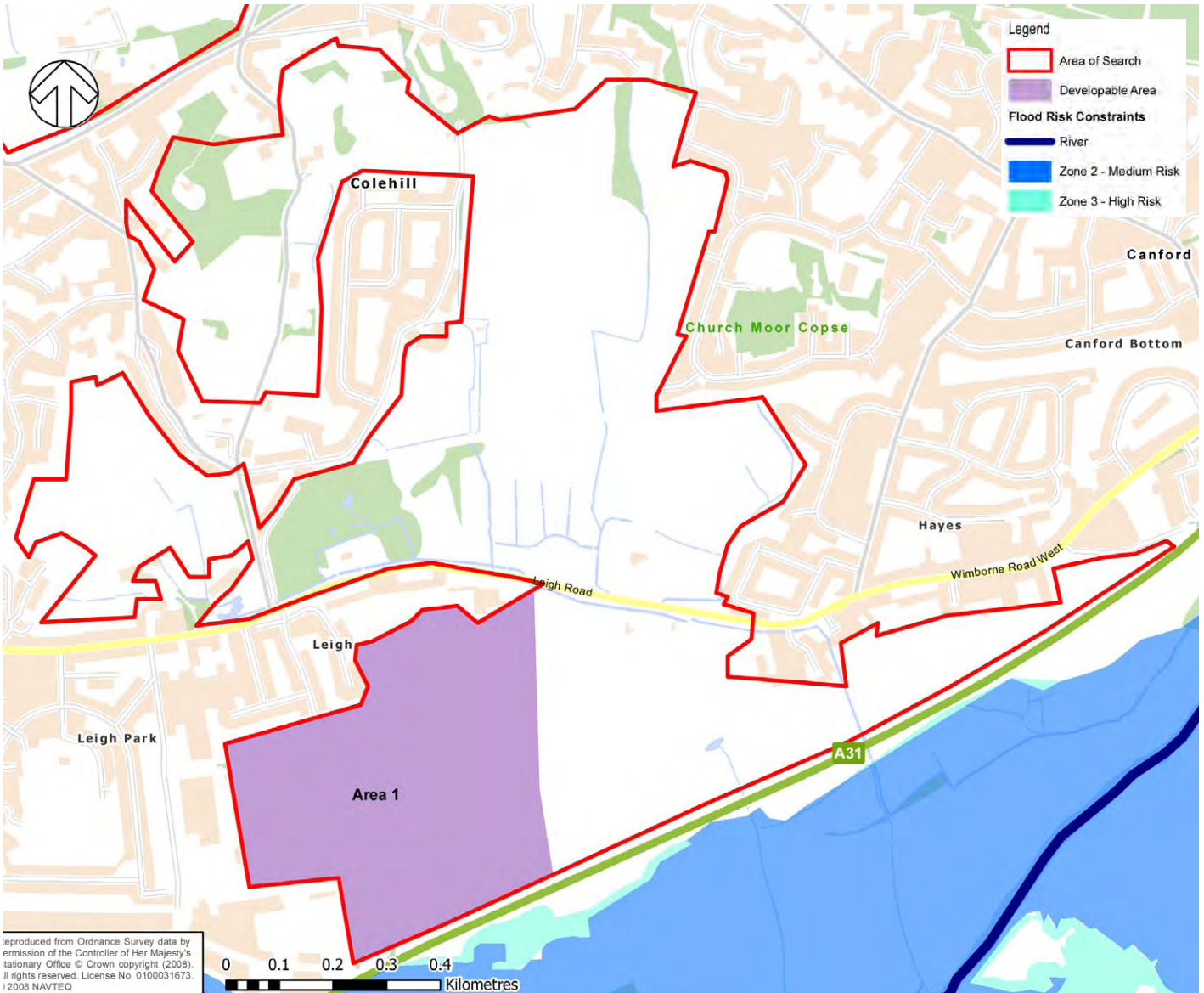
The surface water runoff attenuation volumes are based upon reducing the runoff rates to the Greenfield rates which have been estimated through the use of the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments'. The estimated Greenfield runoff rates are:

- 1yr Runoff 05.42 l/s/ha•
- 30yr Runoff 14.67 l/s/ha•
- 100yr Runoff 20.09 l/s/ha

Site Ref.	100 Year Attenuation (m³)	Long Term Volume (m³)	Treatment Volume (m³)	Total (m³)
Area 1	6496.3	1355.4	2595.8	5113.1
Area 2	290.4	60.3	117.4	46.8
Area 3	432.7	90.0	174.2	163.0
Area 4	0.0	0.0	0.0	0.0
Area 5	1881.2	392.3	752.7	1345.5
Area 6	73.1	15.0	30.6	11.7
TOTAL (m³)	14769.6	3080.1	5909.6	14383.1

Required Attenuation Storage

EAST WIMBORNE



The Wimborne Minster study area and potential development areas

This section outlines the flood risk to the potential development area within East Wimborne study area and more specifically to the area where development is being considered (Area 1, as identified in the plan).

The potential development is likely to change the rainfall runoff patterns which would require attenuation storage to reduce the post development runoff to the existing

rates thus preventing an increase in flood risk elsewhere. Therefore the potential attenuation storage volumes are outlined for Area 1.

The Environment Agency's online flood maps and the Bournemouth, Christchurch, East Dorset, North Dorset and Salisbury (ED) Level 1 SFRA (Figure 4) indicate that the site is located within Fluvial Flood Zone 1 (areas of low risk, an annual flooding

probability of 1 in 1000 years or less). In addition to fluvial flooding there is a risk of surface water flooding. This is because the site is potentially located in or close to the preferential flow paths that will operate once the capacities of the soils or sewers are exceeded, further analysis will be required to determine the risks. However, these risks can be reduced through the incorporation and design of surface water flow paths.

Where the surface water runoff from the proposed development is to be infiltrated to groundwater there is a risk of groundwater contamination. To minimise the risk a review of the Environment Agency's Groundwater Protection Maps has been undertaken, these show which areas of groundwater are more sensitive to pollution. These maps indicate that the site is located not located within a protection zone. In this instance there are less restrictions on the quality of any water that is returning into the natural cycle.

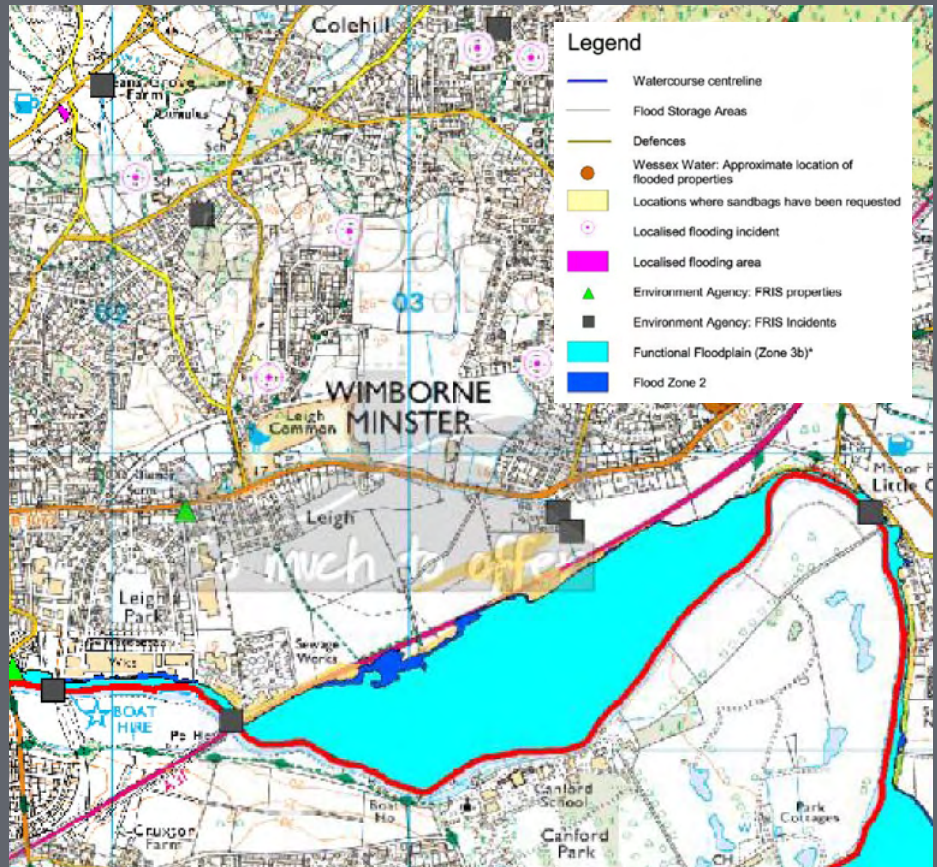
A desktop soil assessment has concluded that this site overlies naturally wet soils which are unsuitable for infiltration. It is assumed that the site will require attenuation back to the Greenfield surface water runoff rate prior to discharge into existing watercourses / networks.

The surface water attenuation calculations have been undertaken using the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments' to estimate the required storage volume to attenuate the site back to greenfield runoff rates with the following assumptions:

- 80% of the site will be developed
- The percentage impermeable (PIMP) for all future development is 60%.

The surface water runoff attenuation volumes are based upon reducing the runoff rates to the Greenfield rates which have been estimated through the use of the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments'. The estimated Greenfield runoff rates are:

- 1yr Runoff 05.42 l/s/ha•
- 30yr Runoff 14.67 l/s/ha•
- 100yr Runoff 20.09 l/s/ha



Extract of ED Level 1 SFRA - <http://www.dorsetforyou.com/media.jsp?mediaid=129700&filetype=pdf>

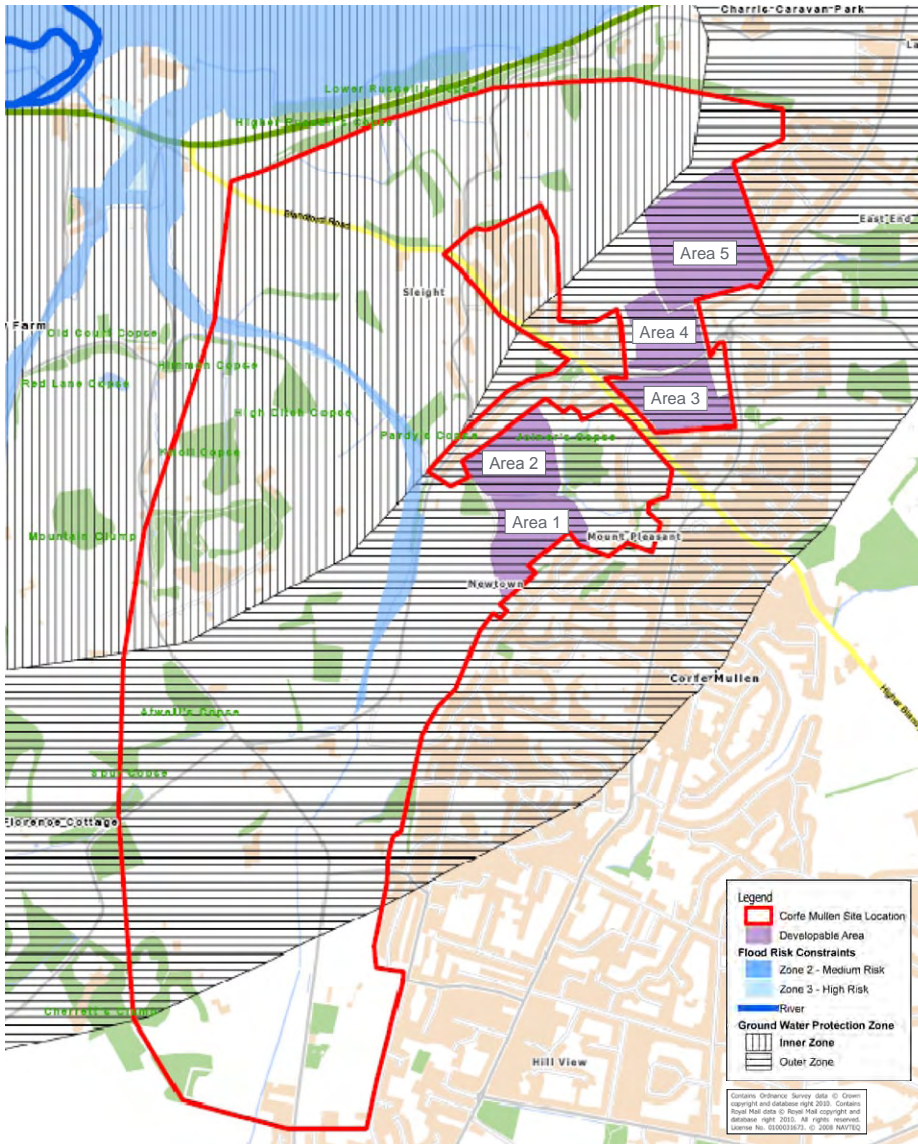
Site Ref.	Gross Site Area	Developable Site Area	Future Impermeable Site Area	Area Requiring Attenuation
Area 1	27.45ha	27.45ha	16.47ha	13.18ha

Schedule of Areas

Site Ref.	100 Year Attenuation (m³)	Long Term Volume (m³)	Treatment Volume (m³)	Total (m³)
Area 1	6855.9	1430.4	2739.4	17298.3

Required Attenuation Storage

CORFE MULLEN



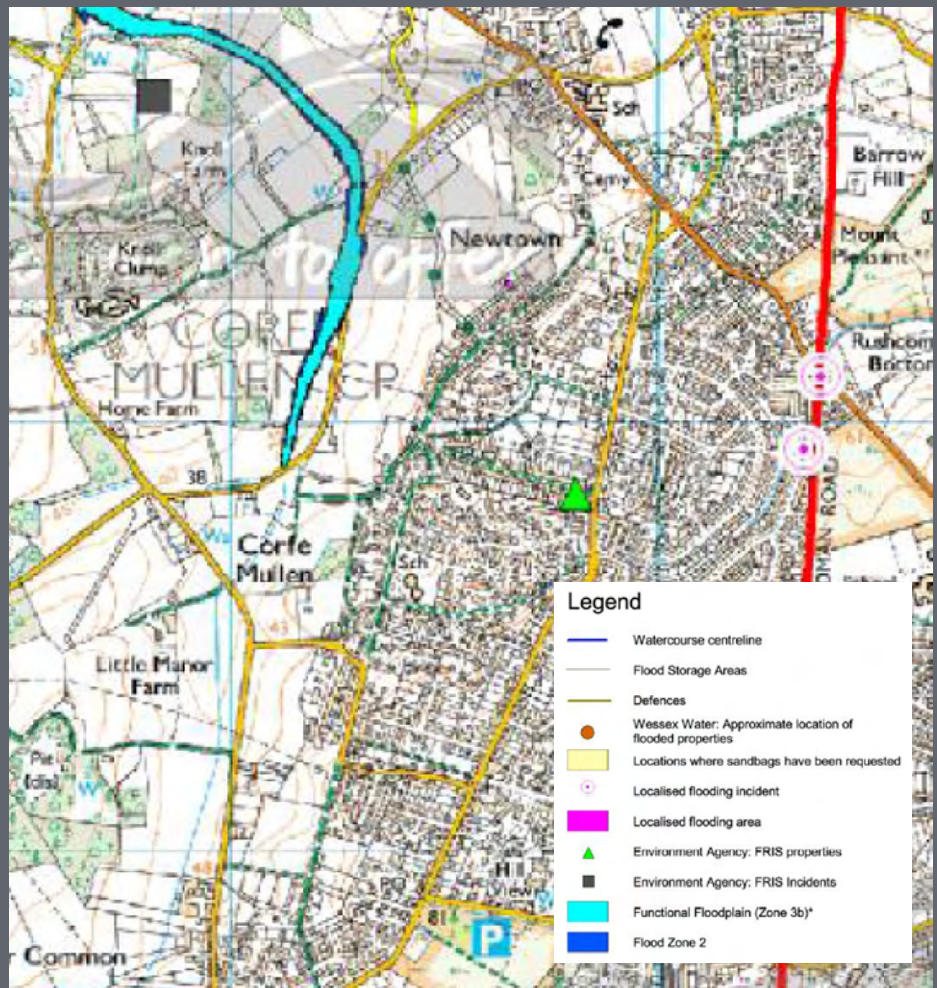
The Corfe Mullen study area and potential development areas

This section outlines the flood risk to the potential development area within the Corfe Mullen study area and more specifically to the area where development is being considered (Areas 1-5). The potential development is likely to change the rainfall runoff patterns which would require attenuation storage to reduce the post development runoff to the existing rates thus preventing an increase in flood risk elsewhere. Therefore the potential attenuation storage volumes are outlined for Areas 1-5.

The Environment Agency's online flood maps and the Bournemouth, Christchurch, East Dorset, North Dorset and Salisbury (ED) Level 1 SFRA (Figure 8) indicate that Areas 1-5 are located within Fluvial Flood Zone 1 (areas of low risk, an annual flooding probability of 1 in 1000 years or less). In addition to fluvial flooding there is a risk of surface water flooding. This is because the development areas are potentially located in or close to the preferential flow paths that could operate once the capacities of the soils or sewers are exceeded, further analysis will be required to determine the risks. However, these risks can be reduced through the incorporation and design of surface water flow paths.

Where the surface water runoff from the proposed development is to be infiltrated to groundwater there is a risk of groundwater contamination. To minimise the risk a review of the Environment Agency's Groundwater Protection Maps has been undertaken, these show which areas of groundwater are more sensitive to pollution. These maps indicate that the site is located across multiple protection zones; in this instance any water that is returning into the natural cycle must undergo effective forms of treatment (SuDS etc), so the existing conditions are either replicated, or bettered.

A desktop soil assessment has concluded that these sites comprises a range of soils, from freely draining (suitable for infiltration), to naturally wet (unsuitable for infiltration). It is assumed that the sites (Area 3-5) on freely draining soils will discharge via infiltration (estimates on the potential size of the soakaways have not been provided), part-freely draining catchments will discharge by a combination of infiltration / attenuated outfalls, whilst all others will be attenuated back to the Greenfield surface water runoff rate prior to discharge into existing watercourses / networks.



Extract of the ED SFRA - <http://www.dorsetforyou.com/media.jsp?mediaid=129700&filetype=pdf>

The surface water attenuation calculations have been undertaken using the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments' to estimate the required storage volume to attenuate the site back to greenfield runoff rates with the following assumptions:

- 80% of the site will be developed
- The percentage impermeable (PIMP) for all future development is 60%.

Based on the above, a summary of areas for the site is as follows (right):

Site Ref.	Gross Site Area	Developable Site Area	Future Impermeable Site Area	Area Requiring Attenuation
Area 1	4.10 ha	4.10 ha	2.46 ha	2.46 ha
Area 2	4.10 ha	4.10 ha	2.46 ha	2.46 ha
Area 3	3.50 ha	3.50 ha	2.10 ha	0.00 ha
Area 4	3.50 ha	3.50 ha	2.10 ha	0.00 ha
Area 5	8.40 ha	8.40 ha	5.04 ha	0.00 ha
TOTAL	23.60 ha	23.60 ha	14.16 ha	4.92 ha

Schedule of Areas

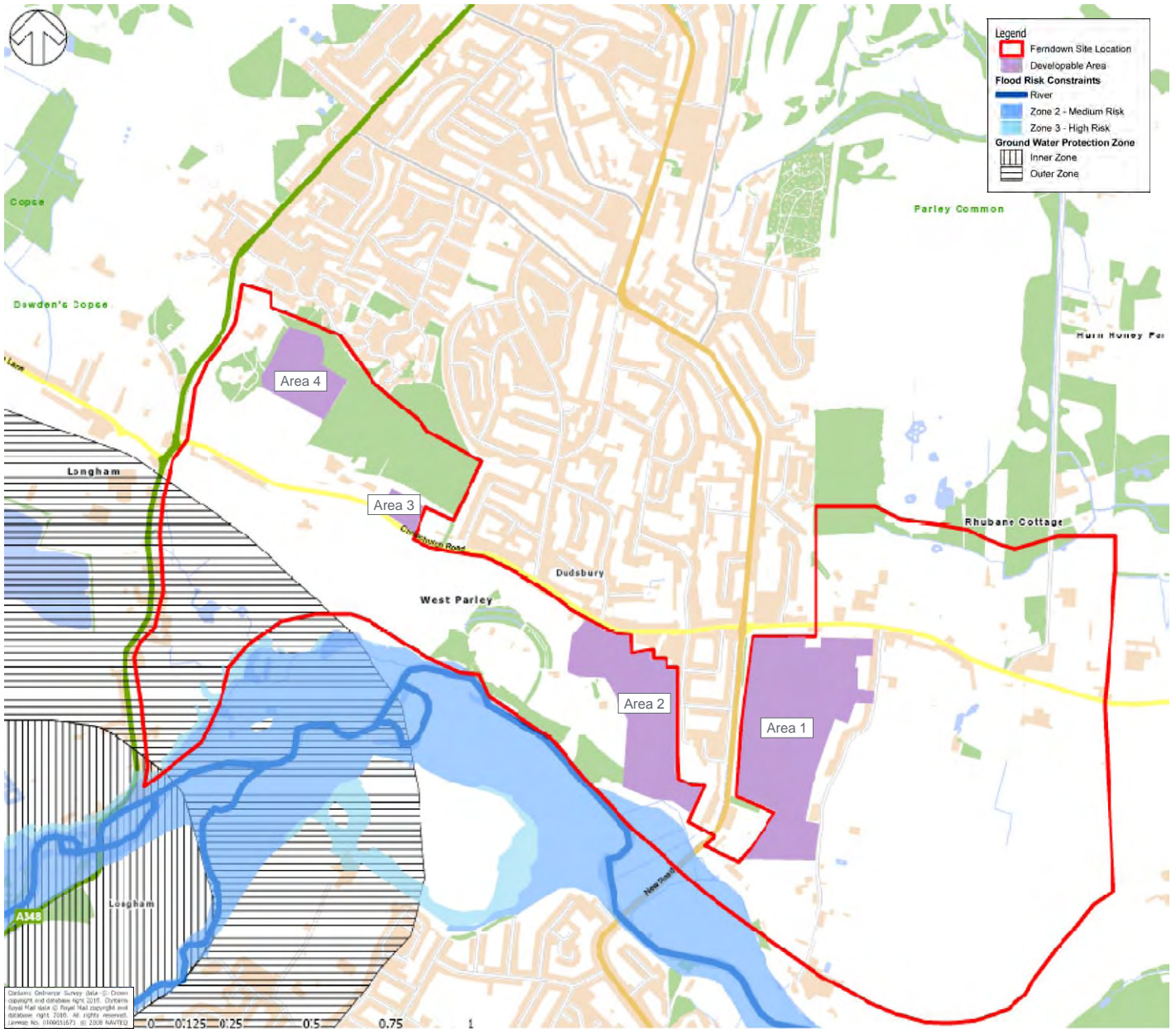
The surface water runoff attenuation volumes are based upon reducing the runoff rates to the Greenfield rates which have been estimated through the use of the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments'. The estimated Greenfield runoff rates are:

- 1yr Runoff 05.42 l/s/ha•
- 30yr Runoff 14.67 l/s/ha•
- 100yr Runoff 20.09 l/s/ha

Site Ref.	100 Year Attenuation (m³)	Long Term Volume (m³)	Treatment Volume (m³)	Total (m³)
Area 1	1280	267	512	2059
Area 2	1280	267	512	2059
Area 3	0	0	0	0
Area 4	0	0	0	0
Area 5	0	0	0	0
TOTAL (m³)	2,560 m³	534 m³	1,024 m³	4,118 m³

Required Attenuation Storage

FERNDOWN AND WEST PARLEY



The Ferndown and West Parley study area and potential development areas

This section outlines the flood risk to the potential development area within the Ferndown and West Parley study area and more specifically to the area where development is being considered (Areas 1-4).

The potential development is likely to change the rainfall runoff patterns which would require attenuation storage to reduce the post development runoff to the existing rates thus preventing an increase in flood

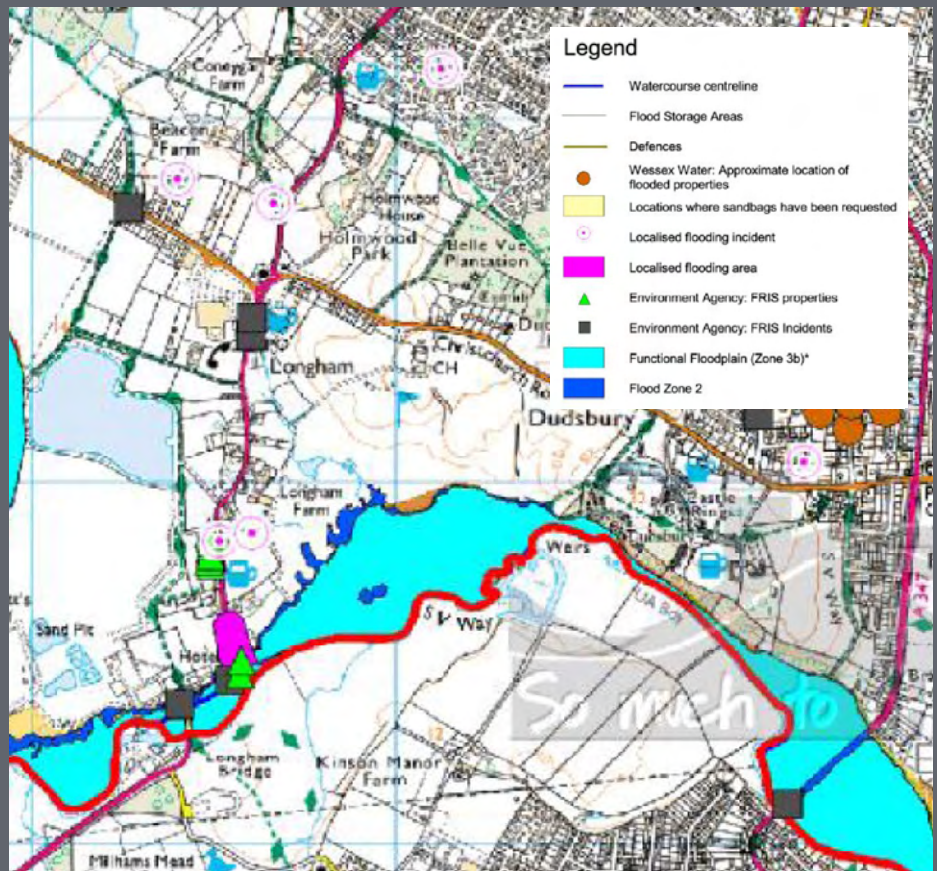
risk elsewhere. Therefore the potential attenuation storage volumes are outlined for Areas 1-4.

The Environment Agency's online flood maps and the Bournemouth, Christchurch, East Dorset, North Dorset and Salisbury (ED) Level 1 SFRA (Figure 6) indicate that Areas 1-4 are located within Fluvial Flood Zone 1 (areas of low risk, an annual flooding probability of 1 in 1000 years or less). In addition to fluvial flooding

there is a risk of surface water flooding. This is because the development areas are potentially located in or close to the preferential flow paths that could operate once the capacities of the soils or sewers are exceeded, further analysis will be required to determine the risks. However, these risks can be reduced through the incorporation and design of surface water flow paths.

Where the surface water runoff from the proposed development is to be infiltrated to groundwater there is a risk of groundwater contamination. To minimise the risk a review of the Environment Agency's Groundwater Protection Maps has been undertaken, these show which areas of groundwater are more sensitive to pollution. These maps indicate that these sites are not located within a protection zones. In this instance there are less restrictions on the quality of any water that is returning into the natural cycle.

A desktop soil assessment has concluded that these sites comprises a range of soils, from freely draining (suitable for infiltration), to naturally wet (unsuitable for infiltration). It is assumed that the site part-freely draining catchments will discharge by a combination of infiltration / attenuated outfalls, whilst all others will be attenuated back to the Greenfield surface water runoff rate prior to discharge into existing watercourses / networks.



Extract of the ED SFRA - <http://www.dorsetforyou.com/media.jsp?mediaid=129700&filetype=pdf>

The surface water attenuation calculations have been undertaken using the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments' to estimate the required storage volume to attenuate the site back to greenfield runoff rates with the following assumptions:

- 80% of the site will be developed
- The percentage impermeable (PIMP) for all future development is 60%.

Based on the above, a summary of areas for the site is as follows (right):

Site Ref.	Gross Site Area	Developable Site Area	Future Impermeable Site Area	Area Requiring Attenuation
Area 1	4.21 ha	4.21 ha	2.53 ha	2.02 ha
Area 2	2.21 ha	2.21 ha	1.33 ha	1.06 ha
Area 3	18.86 ha	18.86 ha	11.32 ha	9.05 ha
Area 4	10.54 ha	10.54 ha	6.32 ha	5.06 ha
TOTAL	35.82	35.82	21.492	17.19

Schedule of Areas

The surface water runoff attenuation volumes are based upon reducing the runoff rates to the Greenfield rates which have been estimated through the use of the DEFRA/EA guidance W5-074 - 'Preliminary Rainfall Runoff Management for Developments'. The estimated Greenfield runoff rates are:

- 1yr Runoff 05.42 l/s/ha•
- 30yr Runoff 14.67 l/s/ha•
- 100yr Runoff 20.09 l/s/ha

Site Ref.	100 Year Attenuation (m³)	Long Term Volume (m³)	Treatment Volume (m³)	Total (m³)
Area 1	1559.3	424.2	400.4	2382.7
Area 2	818.7	222.5	210.4	1251.6
Area 3	6983.7	1901.2	1791.7	10667.8
Area 4	3903.1	1062.4	1001.6	5962.5
TOTAL (m³)	13264.8	3610.2	3404.2	20264.6

Required Attenuation Storage

INFRASTRUCTURE

Introduction

Initial data searches and liaison with infrastructure providers has been undertaken to establish the presence of primary utilities infrastructure within the areas of search.

The location and size of primary infrastructure has been identified where it affects the area of search and initial confirmation of availability of infrastructure to service the prospective development demands has been obtained where necessary.

The de-regulation of the utilities market provides greater flexibility than before in planning for development as the potential infrastructure investment costs must be weighed against the potential supply income for a utility.

COMMON MASTERPLAN IMPLICATIONS

Gas

Gas supplies to a development area will typically be provided by a gas shipper or infrastructure provider with a network extension to the nearest point of capacity. Those linkages are typically provided along the public highway network both off-site and through a development masterplan area.

There may be small land requirements (say 3mx3m) for on-site gas governor plant where changes in pressure are required on-site.

High pressure gas mains are operated on a grid around the country and have large exclusion zones within which development is strictly controlled. There are **NO** high pressure gas transmission mains within any of the study areas.

Local gas supplies will be forthcoming for all the development areas from the local gas network in the usual commercial way.

Electricity

Electricity supplies to a development area will typically be provided by an energy provider with a network extension to the nearest point of capacity. Those linkages are typically provided underground along the public highway network both off-site and through a development masterplan area.

Overhead power lines carry a variety of voltages with varying implications on masterplans. All overhead cables can potentially be relocated but those carrying voltages above 11Kv can incur significant abnormal costs unless covered by a landowners "lift and shift" arrangement.

Lower voltage overhead cables (below 11KV) are typically routed through a development with no implications on the masterplan apart from a requirement for sub-stations through the masterplan. These are typically 3mx3m blocks and are usually accommodated with no major implications.

Water

Water utilities have an obligation to provide potable water to planned development.

Asset management plans implemented by water companies support this obligation.

In East Dorset the majority of the potable water is taken by abstraction and there is no capacity constraint on abstraction.

Water supplies are available to all the new neighbourhood areas though some reinforcement may be necessary to local water networks.

Telephone

Telecoms infrastructure takes the form of small wire networks either overhead or underground and primary fibre optic networks in public highway.

Diversions of low grade overhead cables in development areas are usually accommodated into the development masterplan as part of the new infrastructure provision.

Where required diversions of fibre optic cables can be very costly with long lead in times.

Mobile

Mobile telecommunications base stations are now part of the infrastructure network and network providers have rights following granting of a license and planning permission for a base station. The health issues previously thought to be associated with mobile phone mast have now been technically resolved although there remains some negative public perception regarding this.

Foul Drainage

Drainage undertakers have an obligation to provide a sewerage system to planned development. Asset management plans implemented by sewerage undertakers support this obligation.

Development areas have a right to connect whilst the costs associated with required network reinforcement can be re-charged to development although the revenue benefits to the undertaker are also taken into account.

Existing sewerage infrastructure on a masterplan area is typically designed into the masterplan and utilised to serve the proposed development area.

CORFE MULLEN

Gas

There is no on site high pressure gas which would require development exclusion zones. Any intermediate pressure or low pressure networks across the new neighbourhood area would be accommodated within emerging masterplans as part of a new supply network.

There is a comprehensive local gas supply network around Corfe Mullen which will be able to provide supply to the anticipated new neighbourhood area. It is possible that some localised diversion of low pressure mains may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost.

Electricity

The high voltage supply network forms the western boundary of the most southerly part of the area of search. At this point the network steps down from 132kv to 33kv and so is not anticipated to form a constraint to development.

The existing low voltage (<33kv) overhead and underground cable network extends throughout Corfe Mullen, and any associated apparatus within the area of search would be diverted into the supply network for the new development. It is possible that some localised diversion of low voltage cables may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost.

A network of sub-stations would be required for development to boost supplies as required although the land take implications (around 3mx3m each) is not normally significant.

Water

There are water supply networks around the area of search and it is anticipated that potable water supply will be available. Some reinforcement of off site mains may be necessary and would be undertaken phased with delivery of development.

Telephone

Strategic networks may include fibre optic supplies and these are normally located in public highway and so would only be affected by development masterplans where significant highway works are proposed.

Any existing overhead supplies associated with the local telecoms networks present in the area of search can be diverted within the supply infrastructure required for the masterplan:

Mobile

Ofcom records indicate there are no mobile telecommunications base stations in or around the area of search with signals in the locality being obtained from masts to the north on the A31 or in Corfe Mullen village.

Foul Drainage

It is expected that parts of the network are likely to require infrastructure improvement and the potential to offset increases in foul effluent flows from development by separation of existing surface water flows into the system should be explored with Wessex Water.

Currently all flows from this area are treated at Corfe Mullen Sewage Treatment Works. However, the Sewage Treatment Works would have inadequate capacity to accommodate the flows from the additional development. Constraints on the site will impede potential expansion. An option would be to pump the flows over the hill into the Broadstone sewerage network which drains into the Poole Sewage Treatment Works catchment.

Northern Area

There is a ridge that runs across the northern area which will influence gravity drainage. The area to the east of the ridge would gravitate towards Corfe Mullen Sewage Treatment Works. The ridge is circa 40 metres higher than the Sewage Treatment Works location. West of the ridge would drain into the southern area and Pardys Hill Sewage Pumping Station.

Southern Area

This area would drain to Pardys Hill Sewage Pumping Station.

Upsizing of Pardys Hill Sewage Pumping Station and pumping main will be required with increased storage.

Both areas can be served by a combination of gravity sewers and pumping. There may be areas of the development that require additional pumping stations.

An optioneering process will need to be completed to identify appropriate options to service these sites. Significant off site costs are to be expected.

Some extra foul flows can be accommodated in the existing system. This would need to be investigated and tied in with the phasing of the development to agree trigger points for capacity improvements.

Potential points of connection subject to the comments above:

- Northern area - MH3406 Rear of Stour View Gardens
- Southern area - Pardys Hill Sewage Pumping Station, Pardys Hill

WIMBORNE MINSTER

Gas

Scotia Gas Networks Group is the Gas Transporter for the majority of Wimborne Minster and has provided infrastructure plans for the area. Although gas infrastructure has been identified within the existing road network, one element has been identified that would require exclusion zones. This comprises an Intermediate Pressure Main within the Wimborne Minster East area running north to south from Leigh Road. The development exclusion zone around this is to be confirmed.

There is a comprehensive local gas supply network around Wimborne Minster which will be able to provide supply to the anticipated new neighbourhood area. It is possible that some localised diversion of low pressure mains may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost.

Electricity

There are no high voltage electricity supply cables across the area of search. The existing low voltage (<33kv) overhead and underground cable network extends throughout Wimborne Minster, and any associated apparatus within the area of search would be diverted into the supply network for the new development. It is possible that some localised diversion of low voltage cables may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost.

The sites where power lines (11kv) are shown to be present are within the Stone Lane Industrial Estate and along the northern edge of the land to the south of Julian's Road, close to the Cuthbury allotments.

In the Wimborne Minster East area a 33 kV line runs from the north-west to the south east and a 11 kv line runs in a southerly direction in the area close to the STW. However, discussions with Scottish and Southern Energy have demonstrated that burying the 33kv line will incur more costs than the 11kv line, but these costs are not considered to be abnormal. An exclusion zone of 10m on either side would be required if the line was left over ground.

A network of sub-stations would be required for development to boost supplies as required although the land take implications (around 3mx3m each) is not normally significant.

Water

There are water supply networks around the areas of search and it is anticipated that potable water supply will be available. Some reinforcement of off-site mains may be necessary and would be undertaken phased with delivery of development.

Telephone

Strategic networks may include fibre optic supplies and these are normally located in public highway and so would only be affected by development masterplans where significant highway works are proposed. Any existing overhead supplies associated with the local telecoms networks present in the area of search can be diverted within the supply infrastructure required for the masterplan.

Mobile

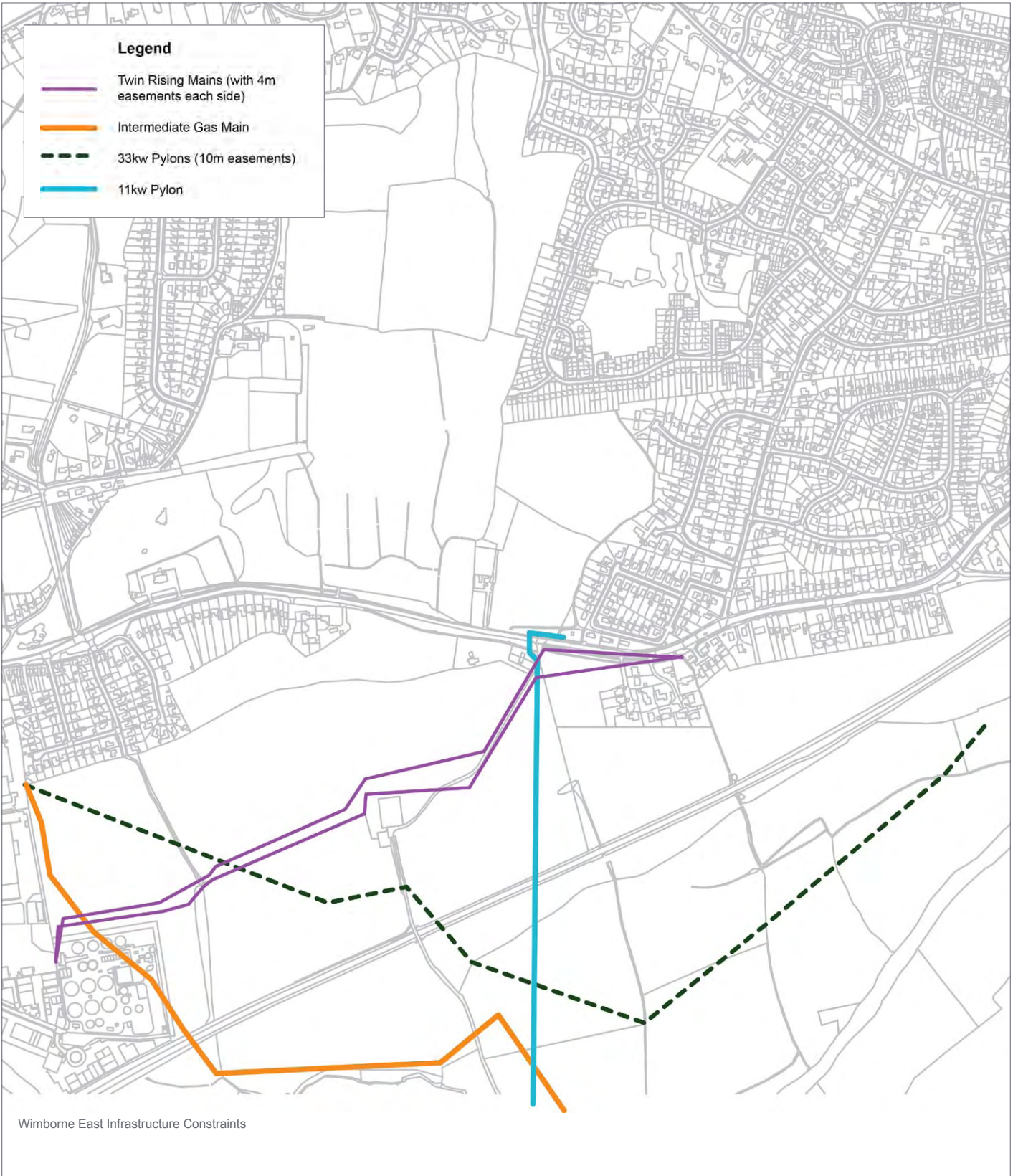
Ofcom records indicate that there is one mobile communications base station within the area of search, located close to the Long Close Farm near the southern search boundary. This infrastructure could be accommodated during the masterplanning process and it is not expected to form a significant constraint to development.

Foul Drainage

The area of land around the Wimborne Sewage Treatment Works (STW), has a building exclusion zone. This buffer zone is intended to protect against environmental nuisance (particularly odour) where development is proposed in close proximity to the sewage treatment works. Wessex Water has a duty not to cause a statutory nuisance and would normally advise the local planning authority against permitting development close to the STW.

Additionally there are twin Rising Mains crossing the site, the exclusion zone for construction adjacent to the existing rising mains is 4m either side of the main. In reality with the two rising mains running generally parallel to each other it would mean 4m either side of the outside of both mains.

The Wimborne Sewage Treatment Works is running at limited capacity and there are plans to provide improvement works during 2010- 2015 to absorb additional development flows. Additionally reinforcement and capacity improvements of the existing public sewer network will be required to support additional development. Although the potential to offset increases in foul effluent flows from development by separation of existing surface water flows into the system should be explored with Wessex Water. The development sites could be served by a combination of gravity sewers and pumping stations. Additional pumping stations will be required for some development within the search area, especially as part of the network is pumped with a foul sewage pumping station located near the Cuthbury allotments site. It is understood that this pumping station is already running at full capacity and would require infrastructure improvement to be able to accept development flows.



FERNDOWN AND WEST PARLEY

Gas

Scotia Gas Networks Group is the Gas Transporter for the majority of Ferndown and West Parley and has provided infrastructure plans for the area. However, within this area some of the more recent developments are served by other Gas Transporters.

We understand that there are no on-site high pressure gas mains which would require development exclusion zones. However, although gas infrastructure has been identified within the existing road network, one element of this infrastructure has been identified within the area and would require a small exclusion zone (possibly around 3m). This infrastructure comprises a medium pressure gas main which is located within the north east corner of the land to the east of New Road close to Parley Cross.

There is a comprehensive local gas supply network around West Parley which it is anticipated would be able to provide supply to the anticipated new neighbourhood area. It is possible that some localised diversion of low pressure mains may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost.

Electricity

The existing low voltage (33kv) overhead and underground cable network extends throughout Ferndown and West Parley, with a 11 kv line along side New Road in the vicinity of the area of search and any associated apparatus within the area of search would be diverted into the supply network for the new development. It is possible that some localised diversion of lower voltage cables may be required to facilitate access to the site, but the scope of such works would be unlikely to generate an abnormal development cost. A network of sub-stations would be required for development to boost supplies as required although the land take implications (around 3mx3m each) is not normally significant.

A 132kv high voltage supply network passes through the eastern part of the area of search. This cable is carried on high steel pylons. The exact exclusion zone will need to be determined by detailed survey and should allow for at least 6.6m clearance

between habitable rooms and typical cable catenary and sway. This area would be suitable for occupation by non habitable rooms or public open space and may lend itself to use for SUDs features. It may also be possible to underground this route through the development although cost may prove prohibitive.

Water

There are water supply networks around the area of search and it is anticipated that potable water supply will be available. Some reinforcement of off site mains may be necessary and would be undertaken phased with delivery of development.

Telephone

Strategic networks may include fibre optic supplies and these are normally located in public highway and so would only be affected by development masterplans where significant highway works are proposed.

Any existing overhead supplies associated with the local telecoms networks present in the area of search can be diverted within the supply infrastructure required for the masterplan.

Mobile

Ofcom records indicate there is a mobile telecommunications base station located at Parley Cross. This is not expected to form a constraint to development.

Foul Drainage

Some of Ferndown and West Parley is covered by Sewage Pumping Stations that are subject to a S104 agreement and, therefore, any discharge of additional flows will need to be agreed with the developers that own the sewers and Sewage Pumping Stations.

Existing Sewage Treatment Works capacity is limited. There are no plans for improvement works during 2010-2015. A strategic appraisal will be undertaken during this period to determine future improvements required for the next 20 year design horizon.

Looking in more detail, the land around Holmwood House contains existing unadopted S104 sewers (foul and surface water) which bisect the area and further investigation will be required to determine

the constraints and the potential for incorporating these sewers to the public adopted network. It is considered that the area would drain via the S104 sewers to Kinson STW via 2 adoptable Sewage Pumping Stations (SPS's). However, the available foul capacity in the S104 sewers and SPS's would need to be checked as Wessex Water has completed a S101A scheme to serve the village of Longham and all foul flows from this scheme are discharged into the S104 system.

Any surface water flows from development will need to be attenuated on site and flow controlled before discharging to the S104 surface water sewer.

Land to the north of Christchurch Road neighbours the Christchurch Road SPS (which is located in the south eastern corner of the site). There should be no building within 15 metres of the site boundary to protect against noise and odour nuisance. The local sewers are small bore, further appraisal will be required to consider the nature and extent of off-site reinforcement.

Land to the east of New Road contains large diameter foul sewers (500mm and 375mm) that run down the eastern boundary of the site with one sewer crossing part of the site. These sewers have limited capacity to accommodate the additional flows from the proposed development. These sewers drain to the Church Lane Terminal SPS which pumps forward flows to Kinson STW, the capacity which potentially could be available within the sewers, SPS and STW will require further assessment.

There are public surface water sewers available in New Road to the west of the site. Although any surface water flows from development will need to be attenuated on site and flow controlled before discharging to the public surface water sewer.

Land to the west of Ridgeway would drain to Kinson Sewage Treatment Works via Church Lane Sewage Pumping Station. The existing public foul sewerage system will not be able to support the additional flows from the new development areas. This can be served by a combination of new/improved gravity sewers and the upgrading of Church Lane Sewage Pumping Station.

