West Dorset District Council

West Dorset Urban Extensions Study Volume 2 - Evidence Base FINAL ISSUE December 2008

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West Dorset District Council

West Dorset Urban Extensions Study Volume 2 - Evidence Base

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1 Introduction

1.1 Introduction

- 1.1.1 Halcrow Group Ltd was commissioned by West Dorset District Council and the South West Regional Assembly to study the deliverability of significant urban extensions in the West Dorset District, which are proposed by the Panel Report on the draft Regional Spatial Strategy (RSS) for the South West and subsequently by the Proposed Changes to the RSS.
- 1.1.2 The Panel Report on the draft RSS proposed significant increases in housing numbers including urban extensions of 3000 dwellings at Dorchester and 700 dwellings on land in West Dorset adjacent to Weymouth.
- 1.1.3 Halcrow Group Ltd has undertaken the study in partnership with the Council, and under the guidance of a steering group comprising representatives of:
 - West Dorset District Council Planning Policy Team
 - South West Regional Assembly
 - Dorset County Council Strategic Planning Team

1.2 Overview of evidence base

- 1.2.1 This document forms Volume 2 (of 2) of the overall study report, providing the evidence base supporting the study work. It should be read in conjunction with the main study report in Volume 1.
- 1.2.2 The evidence base includes details of the data gathering, desk-study, consultation and assessment work undertaken in order to assess the suitability of land within areas of search for urban extension development. This information is presented on a theme by theme basis in Section 2.
- 1.2.3 Details of the planning policy appraisal undertaken to determine appropriate assessment criteria for the study are presented in Section 3.



2 Assessment data by theme

2.1 A - Agriculture and land use

Introduction

2.1.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Agriculture and land use on the suitability of land within the Areas of Search.

Baseline description

2.1.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information listed opposite.

Dorchester

- 2.1.3 Land within the Dorchester AoS is predominantly agricultural land, the majority of which is classified as Grade 3 (moderate to good quality). The Frome floodplain is Grade 4 (poor quality). Limited areas of Grade 2 (very good quality) agricultural land exist to the north of the Frome valley and also to the west of Poundbury. No Grade 1 (excellent quality) land has been identified within the AoS.
- 2.1.4 Other notable land uses within the Dorchester AoS include schools and the Louds Mill sewage treatment works.

- Littlemoor 2.1.5 The Littlemoor AoS is classified as having relatively low quality agricultural
- 2.1.6 The route of the proposed Weymouth Relief Road crosses the western side of the AoS.

land, classified as a mixture of Grade 3b, 3c, 4 and 5.

Chickerell

2.1.7 Classification of land in the Chickerell AoS was incomplete, with approximately half of the area unsurveyed. Moderate quality land (Grade 3b) exists to the

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 1.

Map ref.	Area of Search
A1	Dorchester
A2	Littlemoor
Α3	Chickerell

Reference documents:

Defra 1988 Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading and the quality of agricultural land

Defra 2003 Agricultural Land Classification - Protecting the best and most versatile agricultural land

WDDC 2006 West Dorset District Local Plan Adopted Plan 2006

Stakeholder consultation:

None undertaken.

Other information:

None.



southern extent of the AoS and to the northern side of Chickerell. The remainder of surveyed land was of lower quality.

- 2.1.8 Other notable land uses include:
 - a large electrical substation to the north east of Chickerell
 - Ministry of Defence land (including firing ranges) between Chickerell and the Fleet
 - Several farms and holiday parks positioned along the coastal edge of the AoS

Stakeholder consultation

2.1.9 No stakeholders were consulted with specific reference to agricultural land use, primarily because the AoS were dominated by moderate quality land and did not present any notable areas of high quality land (Grades 1,2 & 3a) that would be considered the 'best and most versatile land' and could otherwise have posed a significant constraint to urban extension development.

Assessment of land parcels

Approach

- 2.1.10 GIS mapping data was collated showing the Agricultural Land Classification within the AoS. The maps were used to identify the classification of each land parcel, and to compare against the classification prevailing in the area.
- 2.1.11 Site visits, desk study and consultation with the district council was undertaken to identify and screen-out other notable land uses that are unlikely to be relocated to enable development. The areas screened-out included:
 - The large electrical substation at Chickerell.
 - The military firing range at Chickerell.
 - The Louds Mill sewage treatment works at Dorchester.

Criteria

- 2.1.12 The land parcels were assessed and rated by applying a five point classification according to the significance of the impact of new development on agricultural land use. Agricultural land use was considered to be unlikely to pose a critical or significant constraint to the development of urban extensions, particularly as only limited areas of higher grade land exist within the AoS. On this basis the 'Critical' and 'Significant' impact classifications were not used.
 - Critical: Not used.
 - Significant: Not used.
 - Notable: Area having improved agricultural grade land in comparison to that prevailing in the area.
 - Neutral: Agricultural land grade equivalent to that prevailing in the
 - Positive: Land parcel incorporating brownfield land with potential for development.



Results

2.1.13 The majority of land parcels within the three AoS were assessed as 'neutral', having an agricultural land grade equivalent to that prevailing in the area. No land parcels were assessed as 'positive' as there are no significant areas of brownfield land within the AoS. Land parcels that were assessed as 'notable' were those that contained a proportion of good quality Grade 2 or 3a land (such as land south of Dorchester) or that contained a very large area of moderate quality grade land (such as land parcels north of Dorchester).



2.2 B - Biodiversity

Introduction

2.2.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Biodiversity on the suitability of land within the Areas of Search.

Baseline description

2.2.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information opposite.

Dorchester

- 2.2.3 The River Cerne to the north-west of Dorchester is classed as a chalk stream, a priority Biodiversity Action Plan (BAP) habitat, which must be protected from the potential direct or indirect impacts of development.
- 2.2.4 Areas of land to the south of Dorchester are known to support important populations of farmland birds, for which mitigation of impacts is likely to be extremely difficult or impossible.
- 2.2.5 Of particular relevance to the south and south east of Dorchester are the potential impacts on internationally protected heathland habitats. It is considered that additional housing units within 5km of these important sites are likely to cause adverse impacts due to increases in recreational pressure.

Littlemoor

2.2.6 There are no statutory or non-statutory sites designated for their nature conservation value within the Littlemoor AoS. However, there are a series of hedgerows and tall grass margins that could have some potential for protected species.

Chickerell

- 2.2.7 Land to the eastern side of the Chickerell AoS is in close proximity to the internationally important and protected Chesil and the Fleet SSSI/SAC.
- 2.2.8 Many of the areas around Chickerell have good barn owl and bat populations.

sup	por	ting	Into	rma	ation:	í

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 1.

<u>map rer.</u>	Area or Search
B1	Dorchester
B2	Littlemoor
В3	Chickerell

Reference documents:

http://www.magic.gov.uk/

http://www.natureonthemap.org.uk/

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

<u>Organisation</u>	<u>Contact</u>
Dorset Wildlife Trust	lmogen Davenport
Natural England	John Stobart
Dorset County Council Ecologist	Phil Sterling
Other information:	

Site visit notes and photographs



Stakeholder consultation

- 2.2.9 Three key stakeholders who have a specific remit for nature conservation issues in Dorset were consulted, as follows:
 - Dorset Wildlife Trust (Imogen Davenport and Sarah Williams)
 - Natural England (John Stobart)
 - Dorset County Council County Ecologist (Phil Sterling)
- 2.2.10 Each stakeholder was asked to complete a standard response pro-forma, to ensure consistency of responses and to ensure the key concerns were identified. The full responses of these consultees are provided in Appendix 2.

Assessment of land parcels

Approach

- 2.2.11 The assessment of the suitability of land parcels (in terms of biodiversity interest) within the Areas of Search was based upon information gathered through the following three phases:
 - A desk based exercise was undertaken using GIS mapping data showing designated sites, such as nationally important SSSIs and site of European interest (SACs, SPAs and Ramsars). In addition internet databases, including Natural England's 'Nature on the Map' and 'MAGIC' were interrogated to identify Biodiversity Action Plan habitats and nonstatutory nature conservation sites such as SNCis.
 - 2. A site visit was undertaken to provide a brief physical overview of the AoS and to confirm and findings of the desk-top study.
 - 3. The three key stakeholders listed above were consulted and were provided with maps of the Areas of Search and a standard response proforma. The assessment of land parcels was guided by the stakeholder's responses, which have been summarised in the matrix assessment table.

Criteria

- 2.2.12 The land parcels were assessed and rated using a five point classification according to the significance of the impact of new development on biodiversity:
 - Critical: Unacceptable impact that cannot be mitigated
 - Significant: Major impact requiring extensive mitigation measures
 - Notable: Minor impacts that can readily be mitigated
 - Neutral: No significant impacts
 - Positive: Major positive benefits
- 2.2.13 Sites that contained or were within statutory protected sites (SSSSIs, SCAs, SPAs and Ramsars) were automatically considered as not appropriate, and were therefore excluded from further consideration. Those sites containing non-



- statutory sites were not excluded but were considered as having a significant potential impact.
- 2.2.14 The potential presence of protected species was not included in the assessment of land parcels, unless specifically referred to by the stakeholders, in which case consideration and significant weight was applied to the land parcels affected. For example, there are a number of sites in the Chickerell area where great-crested newts are known to be an important issue. In these sites, significant mitigation would be required to enable development.

Results

Dorchester

- 2.2.15 For the Dorchester area as a whole, there is notable potential for impacts on the wider surrounding countryside and biodiversity interests, as a result of increasing pressure from recreational use. For example, several areas of heathland and woodland to the south and south-east of Dorchester are important for breeding nightjar, and these areas are potentially at greater risk of fire and erosion with an increasing population.
- 2.2.16 Some of the areas to the south of Dorchester (parcels C and D) are already being considered as mitigation areas for the planned further development of Poundbury. These mitigation areas would be very difficult to replace.
- 2.2.17 Areas to the south-west of Dorchester (parcels K and L) and north and northeast of the town (parcels T and U) are known to be important for farmland birds. Areas to the north-west of Dorchester (G, V and W) have limited conservation value, but are in close proximity to the River Cerne, a chalk stream and therefore a BAP priority habitat that must be protected.
- 2.2.18 Several areas to the east of Dorchester (parcels O, P, Q, R and S) are at least partly within the 5km buffer zone of the internationally protected Dorset Heathlands. Development in these areas could lead to a potential increase in recreational pressure on the heathlands.

Littlemoor

2.2.19 There are few nature conservation constraints within the Littlmoor land parcels. There is, however, the potential for protected species to be identified in 'edge' habitats, e.g. hedgerows, tall grass margins adjacent to arable or intensively grazed pasture.

Chickerell

2.2.20 There are significant concerns regarding potential development in the Chickerell area; the area is a known stronghold for great-crested newts and is also very close to the Chesil and Fleet SSSI/SAC/SPA/Ramsar site. Impacts on this designated site in terms of increased recreational pressure and water quality would be a likely cause for serious concern.

Requirements for development

General

2.2.21 For all land parcels, a full screening opinion exercise would need to be undertaken to determine the requisite level of surveys, and data required. As a first step, all study areas considered should have a Phase 1 vegetation survey



- undertaken, and when screened out further, species surveys should be undertaken to ensure mitigation is considered at an early stage of development.
- 2.2.22 Regardless of the site, it is vital that full advantage be made of the considerable opportunities that exist for enhancement of recreational facilities, through design of green infrastructure into the wider countryside, whilst ensuring that the intrinsic interests are not impacted. New local allotment provision should also be included to cater for increased demand in the population.
- 2.2.23 All future development should ensure well designed sustainable housing, with, for example, grey water recycling and sustainable (urban) drainage systems as standard.

Dorchester

- 2.2.24 Any major developments within the 5km buffer zone of the Dorset Heaths SSSI/SPA/SAC/Ramsar site are likely to require bespoke mitigation measures including the provision of adequate levels of alternative managed green-space and recreation areas.
- 2.2.25 Any future development around Charminster would need to ensure adequate protection and enhancement of the River Cerne is incorporated.
- 2.2.26 Development briefs for the potential Dorchester extensions, should set out to study the effects of recreation on the European designated heathlands and the wider countryside, not just the immediate area. These briefs should make appropriate proposals for mitigation of potential impacts. Urban extension of this scale should also be supported by measures and enhancement proposals for BAP species and habitats.

Chickerell

- 2.2.27 In the Chickerell area, and in particular in those locations of importance of great-crested newt, there would need to be adequate buffers and open space with a network of ponds linked by rough grassland and hedges. Any proposed development in these areas is likely to require an Appropriate Assessment under the Habitat Regulations. Development opportunities in these locations are unlikely to be very severely restricted as a consequence.
- 2.2.28 To mitigate for impacts on Chesil and the Fleet, comprehensive SUDS (Sustainable Urban Drainage Systems) would need to be fully incorporated into future developments, to ensure no impact on this internationally important site. In addition, ways of mitigating for potential increases in recreational pressure would have to be carefully considered.
- 2.2.29 There would be impacts on the Fleet if there is increased access to this internationally important site. Any development in the sensitive Fleet hinterlands would need to ameliorate water quality issues rather then adding to them.



2.3 C - Built and cultural heritage

Introduction

2.3.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Built and cultural heritage on the suitability of land within the Areas of Search.

Baseline description

2.3.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information listed opposite.

Dorchester

- Land to the south of Dorchester is 2.3.3 dominated by Maiden Castle as well as numerous tumuli, many of which are Scheduled Ancient Monuments (SAMs). These form a rich archaeological landscape and form a 'backdrop' for the
- 2.3.4 The remains of the Roman agueduct and Poundbury Hillfort lie to the west and north-west of the town. These features are both SAM designations.
- 2.3.5 To the south-east of Dorchester there are fewer SAMs lying between the town boundary and the ridge line of Conygar Hill, although this ridge is demarcated by the Conygar Tumuli (SAM). To the east of Dorchester the Mount Pleasant Henge major archaeological (SAM) is a designation, which lies to the south of the railway line.
- 2.3.6 The landscape to the north and northeast of Dorchester is characterised less by the prehistoric landscape and contains fewer SAM designations. Nevertheless, much of Stinsford Park is a designated Historic Park and Garden and much of it is within a Conservation Area.
- 2.3.7 Parts of the village of Charminster are covered by a Conservation Area designation, with significant medieval remnants to the south of the village. There are also a number or listed structures and building within the area to the north of Dorchester.

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 1.

Map ref.	Area of Search
C1	Dorchester
C2	Littlemoor
C3	Chickerell

Reference documents:

WDDC 2006 West Dorset District Local Plan Adopted Plan 2006

Dorset County Council Historic Environment Record

Dorset AONB Partnership 2008 Conserving Character - Landscape

Character Assessment & Management Guidance for the Dorset AONB

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

<u>Organisation</u>	<u>Contact</u>
Dorset County Council Archaeology	Steve Wallis
West Dorset District Council Conservation	David Chiplen

Other information:

Site visit notes and photographs



Littlemoor

2.3.8 There are no major archaeological designations within the AoS around Littlemoor. However, there are a number of barrows and Chalbury Hill Fort (SAM) to the east which could potentially be visually affected by development in the area.

Chickerell

2.3.9 There are few major archaeological designations in the AoS around Chickerell, although there are some significant 'findspots' around the settlement of Chickerell. These include a deserted medieval settlement immediately to the east and remains of a cemetery to the south. In the area adjacent to the electricity sub station, there are remains of a lime kiln. In addition there is a Conservation Area designation to the north of the village (including St. Mary's Church) as well as a small number of listed buildings to the west of the village.

Stakeholder consultation

2.3.10 A meeting was held with the County Archaeologist and WDDC Conservation Officer in order to establish the wider significance of the landscape setting and assess where an urban extension would be most appropriately sited in terms of heritage interests. Feedback was sought using a pro forma response form, which requested comment on where development could be considered and what mitigation measures would be appropriate.

Assessment of land parcels

Approach

- 2.3.11 Assessment was carried out using a combination of approaches, key designations such as SAMs, listed Parks & Gardens and Conservation Areas where identified from the WDCC Local Plan and Conservation Area Character Assessments.
- 2.3.12 Advice was sought from the County Archaeologist and Conservation Officer as to how mitigation measures might be applied in order to reduce the impact of development against key features/sites of historic and archaeological interest.
- 2.3.13 Information was obtained from the Historic Environment Record, maintained by Dorset County Council. This gives a record of a range of archaeological information, from SAM sites to individual 'findspots'. This resource provided an indication of the wider significance of the landscape and individual land parcels within the AoS.
- 2.3.14 It was noted that much of the known/recorded archaeological record is incomplete or does not fully reflect the significance of a land parcel or the wider landscape.

Criteria

- 2.3.15 The land parcels were assessed and rated using a five point classification according to the significance of the impact of new development on the archaeological record and landscape:-
 - Critical: Very high frequency of archaeological, built heritage and landscape designations, including Scheduled Ancient Monuments, which form an integral part of the wider archaeological/historic landscape.



- Significant: High frequency of built heritage, archaeological and landscape designations, including listed buildings, Conservation Areas and parkland.
- Notable: Isolated build heritage and archaeological designations which have a wider landscape significance.
- Neutral: Little or no archaeological, built heritage or landscape designations with few barriers to integration with wider landscape and townscape.
- Positive: Identification that urban extension could benefit/mend urban fringe.
- 2.3.16 Scheduled Ancient Monuments are a national designation requiring the highest form of protection and were therefore assigned the greatest significance.
- 2.3.17 Conservation Areas and parkland designations form an integral part of the historic environment and contribute significantly to the landscape in which they are situated.

Results

Dorchester

- 2.3.18 Dorchester has significantly more recorded archaeology then Chickerell or Littlemoor, including various Scheduled Ancient Monuments. The proximity of Maiden Castle and a number of other SAMs suggests that large-scale development to the south-west of the A35 bypass would be unacceptable (including land parcels K and L). The setting of the Coneygar barrows would have a notable impact on development in the western end of land parcel O and the visual setting of these features should be preserved.
- 2.3.19 Poundbury Camp and the Roman aqueduct to the north-west of the town present a significant constraint to development in adjacent land (parcels B and I1). Similarly Mount Pleasant henge affects much of the area to the east of Dorchester (particularly parcels Q and P).
- 2.3.20 The historic park of Kingston Maurward poses a significant constraint to much of the land to the north-east of Dorchester (parcels R1 and S). Medieval settlement earthworks and a Scheduled Medieval farmstead present a significant constraint to land to the north of Dorchester, east of Charminster village (parcels G and V1).

Chickerell

2.3.21 There are various archaeological sites and findspots scattered across the Chickerell AoS. The only location where the records suggest that development would be unacceptable is in the historic settlement of Fleet. Given the limited existing record it is possible that further archaeological assessment and evaluation may well identify more specific constraints.



Littlemoor

2.3.22 Limited records currently exist for the Littlemoor AoS, although there are lots of barrows on the Ridgeway to the north and strip lynchets on many of the hillsides. The results of future archaeological work on the Weymouth Relief Road will help to further inform the archaeological assessment.

Requirements for development

2.3.23 The assessment described above provides a broad evaluation of the influence of built and cultural heritage on the suitability of land within the Areas of Search. It is important that further 'desktop' and (where necessary) intrusive modes of recording the cultural heritage should be carried out in the advance of any proposed development of sites for the reasons outlined below:

General

- 2.3.24 SAMs or the landscape that is integral to SAMs, should not be adversely affected and where development is proposed, should have a high level of mitigation.
- 2.3.25 Development in proximity to Conservation Areas and parkland designations should be well designed and should preserve and enhance the character of the built or natural form in which they are situated.

Dorchester

2.3.26 Although there are few recorded archaeological finds or features to the north of Dorchester, this may not truly represent the archaeology of the areas, since there are a number of Bronze Age barrows as well as extensive prehistoric and medieval field systems. A landscape of this nature may suggest that the prehistoric archaeology of this area may well be comparable to certain parts of Cranborne Chase.

Littlemoor

2.3.27 There are no recorded archaeological finds or features in the area of search around Littlemoor. However, there are a number of Bronze Age barrows as well as prehistoric and medieval systems as well Charlobury Iron Age Hillfort to the east. As a result, further surveys may be required in advance of development, in order to establish the true extent of the archaeology and cultural heritage of the area.



2.4 D - Flood risk and drainage

Introduction

2.4.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Flood risk and drainage on the suitability of land within the Areas of Search.

Baseline description

2.4.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information listed opposite.

Dorchester

- 2.4.3 The primary sources of fluvial flood risk in the Dorchester area are the River Frome and its tributary the River Cerne.
- 2.4.4 The upper catchment of the Frome is the largest catchment in the West Dorset District. The river channel splits several kilometres upstream of Dorchester and flows to the north of the town in a wide braided floodplain. The River Cerne flows in a southerly direction through Charminster and joins the Frome immediately downstream of the village. The South Winterbourne River flows eastwards on the southern side of the AoS, joining the Frome downstream of Dorchester at West Stafford.
- 2.4.5 Although the majority of the Dorchester AoS is within the low risk flood zone (Zone 1), higher risk zones 2 and 3 form a broad stretch along the valley of the River Frome to the north of Dorchester and along the River Cerne through Charminster. Zones 2 and 3 of the South Winterbourne River skim along the southern edge of the AoS.
- 2.4.6 The most notable recent records of flooding are:
 - In Autumn 2000 the Environment Agency issued a severe flood warning for the River Frome through Dorchester and the major incident plan was invoked. The A37 bypass around Dorchester was

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 2.1.

Map ref.	Area of Search
D1	Dorchester
D2	Littlemoor
D3	Chickerell

Reference documents:

Halcrow Group Ltd 2008 Draft issue: Strategic Flood Risk Assessment for West Dorset District Council

CIRIA 2004 Report C609 - Sustainable Drainage Systems. Hydraulic, Structural and water quality advice

CIRIA 2007 Report C697 - The SUDS manual

Environment Agency 2008 Frome and Piddle Catchment Flood Management Plan - Summary of draft plan

Environment Agency 2008a West Dorset Catchment Flood Management Plan - Summary of draft plan

High-Point Rendel 1996 Castle Park Dorchester - Flooding Study

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.2.

<u>Organisation</u>	<u>Contact</u>
Environment Agency	Katherine Burt

Other information:

Site visit notes



- temporarily closed due to flooding.
- In January 1994, low laying parts of the Castle Park housing estate on the southern edge of Dorchester flooded following a long period of wet weather, swamping the foul sewage system and causing polluted flooding for several weeks. Similar but less severe problems occurred again in February 1995.
- 2.4.7 West Dorset District Council commissioned a study in 1996 to investigate the cause of the Castle Park area flooding and to identify alleviation measures. The study identified the existence of an underground ephemeral stream system underlying the existing built environment.
- 2.4.8 Minor flood defences exist on the River Frome at Dorchester and are owned and maintained by the Environment Agency.
- 2.4.9 The Environment Agency operates a Flood Warning System for the River Frome at Dorchester. In the event of a severe flood warning the Major Incident Plan (MIP) is implemented. The MIP forms part of the County Councils Emergency Plan and details the flood response requirement of organisations including the emergency services.

Littlemoor

- 2.4.10 The Littlemoor AoS is located entirely within the Flood Zone 1 (low risk). A single Ordinary Watercourse flows through the Littlemoor AoS, forming a tributary stream to the River Wey to the south.
- 2.4.11 A privately-owned flood storage area (created by embankments on the tributary stream) is located within the footprint of the proposed Weymouth Relief Road. The proposals for the road indicate that the flood storage area will be incorporated into the highway drainage system of balancing ponds and soakaways.

Chickerell

- 2.4.12 Although there are no main rivers in the Chickerell AoS, there are several Ordinary Watercourses present. The Majority of the AoS has a low risk of flooding (Zone 1). Flood risk is greater along the coastline of the Fleet, which falls within Flood Zones 2 and 3.
- 2.4.13 The West Dorset SFRA report records a total of just under 40 incidents of surface water flooding in Chickerell. In addition, Wessex Water's DG5 register indicates a total of 24 existing properties at risk of foul sewage flooding.
- 2.4.14 Minor flood defences exist at Chesil Beach and are owned and maintained by the Environment Agency.

Geology

- 2.4.15 The chalk-dominated catchments within the AoS are characterised by a slower response to rainfall; chalk being relatively porous generates low run-off rates, and baseflows are sustained at a higher level for a longer duration.
- 2.4.16 The potential for groundwater flooding and for infiltration drainage is dictated by the geological and hydrogeological setting. Infiltration characteristics are also strongly controlled by the soils overlying bedrock; soil type dictates the



capacity of a soil to freely drain so allowing infiltration to reach the groundwater table.

Stakeholder consultation

- 2.4.17 The key stakeholder relating to flood risk and drainage is the Environment Agency (EA), which has an important role in providing flood risk warning and in reducing the likelihood of flooding from rivers and the sea. EA Planning Liaison Officers have provided a written response to the urban extensions proposals and this has informed the assessment of land parcels.
- 2.4.18 Wessex Water Service Ltd (WW) is the provider of sewerage throughout the AoS of this study. WW has a statutory obligation to keep a register of properties and areas at risk of flooding from public sewer systems. Wessex Water have an extensive programme of works underway that should eliminate the majority of foul sewerage flooding incidents by 2010.

Assessment of land parcels

Approach

- 2.4.19 The assessment of the suitability of land parcels (in terms of flood risk and drainage interests) within the Areas of Search was based upon information gathered through the following three phases:
 - A desk-based exercise was undertaken using GIS mapping data showing extents of Environment Agency Flood Risk Zones. In addition the draft issue of the West Dorset Strategic Flood Risk Assessment was reviewed and pertinent data extracted.
 - 2. A site visit was undertaken to provide a brief physical overview of the AoS and to confirm and refine the finding of the desk-top study.
 - 3. The key stakeholders identified above were consulted and were provided with maps of the Areas of Search and a standard response prforma. The assessment of land parcels was guided by the Environment Agency's response.

Screening

2.4.20 Screening was undertaken to exclude areas of land that have a medium or high risk of flooding i.e. Flood Zones 2 and 3 (land having an annual probability of flooding of 0.1% or greater). The screening exercise reflects the objectives of PPS25 planning policy, which aims to locate new development primarily in low risk flood areas (Zone 1).

Criteria

- 2.4.21 The land parcels were assessed and rated using a five point classification according to the significance of the impact of new development on flood risk and drainage:
 - Critical: Unacceptable flood risk impact that cannot be mitigated. Unfeasible to provide sustainable drainage.
 - Significant: Major impact on flood risk requiring extensive mitigation measures. Low feasibility of sustainable drainage provision.



- Notable: Minor impacts that can be readily mitigated. Provision of sustainable drainage considered feasible.
- Neutral: No significant impacts.
- Positive: Opportunity to reduce flood risk through improved drainage/and management.
- 2.4.22 The feasibility of sustainable surface water drainage was assessed in conjunction with the findings of the water resources assessment criteria (Section G), which identified the constraints to drainage posed by water quality standards for receiving waters and by source protection zones for groundwater reserves.

Results

2.4.23 In general the land parcels throughout the AoS have a relatively low level of flood risk. Those that share a boundary with the higher risk flood zones of the Rivers Frome and Cerne and of the Fleet will potentially become more vulnerable to flood risk in the future, as climate change is expected to increase the extent and frequency of river and coastal flooding.

Dorchester

- 2.4.24 Land parcels C and D have been assessed as having a higher flood risk due to being located near to the Castle Park area of Dorchester, which has historically suffered flooding from ground and surface water flooding. The presence of a buried ephemeral stream system combined with an existing concentration of infiltration drainage could make it difficult to achieve effective drainage for new development.
- 2.4.25 Of the land parcels adjacent to the Frome and Cerne Flood Zones 2 and 3, some are likely to have a limited amount of developable space available once an appropriate flood 'buffer zone' is applied these include parcels E, G1, H1, H2, R2, V2.
- 2.4.26 Most of the land parcels in the Dorchester AoS appear to have a position and topography that would enable sustainable drainage by infiltration to the ground, attenuation and discharge to water course, or a combination of both. The areas that have been identified as being more constrained in drainage terms are those that:
 - Are within the inner zone of a groundwater source protection zone (SPZ1) and/or;
 - Have a low feasibility of discharge to watercourse due to the distance from a water course and/or limited space and topography suitable for attenuation of flows.
- 2.4.27 The land parcels where sustainable drainage will be more challenging to provide are B to the north of the Poundbury development and T2, U1 and U2 to the north of the Frome floodplain.
- 2.4.28 Any drainage discharge to the River Frome catchment will require adequate pollution control measures in order to ensure no negative impact on the water quality on the SSSI-designated watercourse.



Littlemoor

2.4.29 The Littlemoor AoS has a low level of flood risk and appears to have a position and topography that would enable sustainable drainage by infiltration to ground, attenuation and discharge to ordinary water course, or a combination of both. Pollution prevention measures would needed in order to ensure no negative impact on the water quality of the ordinary watercourse and surrounding water environment.

Chickerell

2.4.30 Flood risk is generally at a low level in the Chickerell AoS. The land to the north and east of Chickerell appears to have a position and topography that would enable sustainable drainage by infiltration to ground, attenuation and discharge to ordinary water course, or a combination of both. Sustainable drainage would be more challenging for the areas to the west of Chickerell and Charlestown, where the land naturally drains towards the Chesil and the Fleet SSSI/SAC/SPA/Ramsar. Pollution prevention measures would need to be very significant in order to ensure no negative impact on the water quality of the internationally important and protected sites in the vicinity of Chickerell.

Requirements for development

2.4.31 Future development in Flood Zone 1 should realise opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development. The vulnerability from other sources of flooding should be considered as well as the effect of the new development on surface water runoff.

Flood risk management

- 2.4.32 All the land parcels within the AoS are large enough that they would be classified as 'Major Development' under PPS25. The Environment Agency would require a Flood Risk Assessment in support of planning consultation in order to address surface water management issues.
- 2.4.33 Flood risk is expected to increase in the future; guidance from Defra indicates that climate change could increase river flows by 20 percent by 2100. The Environment Agency recommends 'that a distinct and significant boundary be defined between the edge of development and the edge of the areas of higher flood risk (Zones 2 and 3)'. The required scale of such 'buffer zones' would need to be agreed in further consultation with the Environment Agency and with consideration of the elevation and topography specific to a site. The need for flood risk buffer zones presents the opportunity to use that land for recreation, amenity and green infrastructure, providing an effective means of flood risk management as well as providing connected green spaces with consequent social and environmental benefits.
- 2.4.34 The Dorchester Major Incident Plan should be reviewed and updated to assess the impact of urban extension development, which should be planned in consultation with the Emergency Planning Officer and the Emergency Services in order to ensure flood response is considered e.g. evacuation plans.

Drainage

2.4.35 Drainage solutions need to be designed to avoid any negative impact of groundwater flooding or on groundwater quality. Typically, a Drainage Impact



- Assessment will be required in support of planning consultation to demonstrate that runoff from a site is minimised, thereby reducing surface water flood risk.
- 2.4.36 New development will require the use of Sustainable Drainage Systems (SuDS) in order to meet the above requirements. Ground investigation and infiltration tests should be undertaken in order to assess the local geological and groundwater conditions. The investigation findings will enable a designer to determine what types of SuDS techniques would be practicable and assess the potential of drainage techniques to increase the risk of groundwater pollution or flooding.
- 2.4.37 The Environment Agency recommends the use of SuDS. In areas of high groundwater sensitivity the drainage techniques should be designed with reference to CIRIA guidance to maximise pollutant removal and groundwater protection. In these locations, the Environment Agency would require a risk assessment to demonstrate that the drainage pollution control measures provide an acceptable level of risk to groundwater and/or watercourse quality.
- 2.4.38 In order to reduce flows into watercourses, infiltration systems should be the preferred means of surface water disposal, provided ground conditions and groundwater source protection requirements are appropriate. The post development runoff volumes and peak flow rates should be attenuated to the Greenfield (pre-development) condition. Attenuation should be provided to meet 1 in 100 year flows, taking into account climate change. Above ground attenuation, such as balancing ponds, should be considered in preference to below ground attenuation, due to the water quality and biodiversity benefits they offer.



2.5 E - Landscape

Introduction

2.5.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Landscape on the suitability of land within the Areas of Search.

Baseline description

2.5.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information listed opposite.

Dorchester

- 2.5.3 The land parcels within the Dorchester Area of Search range from areas of open agricultural land at 80-100m AOD to the north of the town, to smaller areas on the edge of the built-up area. The River Frome forms a natural boundary to the northern edge of the town. Land beyond the River forms a green backdrop in views north out of Dorchester. The landscape to the south west of the town is dominated by Maiden Castle Scheduled Ancient Monument; a very significant feature of the landscape and archaeological setting.
- 2.5.4 Stinsford Park, to the north-east of Dorchester is a designated Historic Park and Garden and much of it is within a Conservation Area. Parts of the village of Charminster are also covered by a Conservation Area designation.

Littlemoor

2.5.5 The two land parcels at Littlemoor are within the Dorset Area of Outstanding Natural Beauty (AONB), at the foot of a chalk escarpment.

Chickerell

2.5.6 Land parcels at Chickerell are located to both the north and south of the centre of Chickerell and Charlestown. The parcels to the south are elevated and overlook Chesil Beach. Those to the north are adjacent to the built up areas of

Chickerell and Charlestown. The existing greenspace between the two

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 2.1.

Map ref.	Area of Search
E1	Dorchester
E2	Littlemoor
E3	Chickerell

Reference documents:

Dorset AONB 2008 Conserving Character - Landscape Character Assessment and Management Guidance

Dorset AONB 2004 Management Plan 2004 - 2009 A Framework for the Future of Dorset AONB

WDDC 2008 West Dorset District Council Landscape Character assessment (Non-AONB areas), Consultation Draft

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.2.

<u>Organisation</u>	<u>Contact</u>
Dorset AONB	D Harman
West Dorset District Council	J Witherden &
Landscape	J Clarke
Dorset County Council Landscape	T Harris
Weymouth & Portland B.C	K Evans
Other information:	
Site visit notes and photographs	

Rev 2 Date: December 2008



settlements is managed by the Woodland Trust as a nature and landscape resource.

Stakeholder consultation

2.5.7 Opinions were sought from the District and County Council's Landscape Officers and the Landscape Officer for the Dorset AONB.

Assessment of land parcels

Approach

- 2.5.8 Land parcels were initially assessed by means of a desk top study to determine the likely constraints and opportunities associated with the development of the parcel. This was followed by a site survey to confirm and refine the results. Consultation responses were used to further refine the assessment.
- 2.5.9 The assessment took into account landform, land use, rivers and watercourses, vegetation and woodland cover and important views both from and to the parcel. In addition, the built environment was also assessed in terms of the size, dominant building material and character of settlements, the effect of roads, railways and power lines on the landscape.
- 2.5.10 The objective of the approach was to arrive at a broad division of the parcels, ranging from those which were able to accommodate proposed development with minimum landscape impact, to those which were not able to accommodate development and where the impact of any proposals would be too great to mitigate.
- 2.5.11 The landscape assessment work was undertaken independently of any existing landscape designations (including AONB) in order that each land parcel was assessed purely on the basis of the physical characteristics observed.

Criteria

- 2.5.12 The landscape criteria used for assessing the suitability each land parcel for proposed development were:-
 - The parcel or part of it forms a green foreground or background which is important to the character of a settlement.
 - The parcel or part of it helps to preserve the most typical views of a town centre/village and the best views of the countryside.
 - The parcel or part of it provides green 'fingers' which penetrate into the built up area.
 - The parcel or part of it forms the green gap between two or more settlements which are close to each other and are in danger or losing their separate identities.
 - The parcel or part of it protects undeveloped areas within settlements which by their open or wooded nature contribute to its character and visual setting.



- 2.5.13 Some of the original land parcels identified were assessed as unsuitable for development on several of the above criteria.
- 2.5.14 Others were subdivided into smaller parcels when it was apparent that the landscape characteristics of the parcel were not uniform throughout its area.
- 2.5.15 The parcels were then rated on a five point classification according to the impact which development would have:-
 - Critical: Unacceptable impact that cannot be mitigated
 - Significant: Major impact requiring extensive mitigation measures
 - Notable: Minor impacts that can readily be mitigated
 - Neutral: No significant impacts
 - Positive: Major positive benefits

Results

An outline of the assessment results is summarised below.

Dorchester

- 2.5.16 The landscape impact on some of the more open and exposed parcels to the north of Dorchester was assessed as unacceptable in terms of the effect on landscape character and of the setting of Dorchester and Charminster.
- 2.5.17 The impact on the parcels to the south-west of Dorchester was also assessed as being unacceptable on the landscape setting of Maiden Castle and the chalk ridge to the south.
- 2.5.18 Other landscape parcels were assessed as being able to accommodate development in parts without major landscape impacts, although the detail of this would need to be refined after further survey work.

Littlemoor

2.5.19 The potential development of land parcels at Littlemoor was assessed as not having a major landscape impact; appropriate design of proposed development could be achieved without disrupting the setting of the chalk ridge and escarpment.

Chickerell

- 2.5.20 The landscape impact of development of the land parcels adjacent to The Fleet and Chesil Beach was assessed as unacceptable.
- 2.5.21 Parts of other parcels, to the north-east of Chickerell were assessed as being able to accommodate development without major landscape impact. The detail of this would need to be refined after further survey work.



Requirements for development

- 2.5.22 The landscape assessment undertaken provides a broad evaluation of the impact of urban extension development on the landscape and thus the suitability of land within the Areas of Search.
- 2.5.23 Further, more detailed surveys of the more suitable land parcels would be required in order to assess in detail the landscape impact of development and the relationship between open space, green infrastructure and proposed development.
- 2.5.24 Comprehensive surveys and consultation with stakeholders would be necessary in order to detail appropriate development proposals and mitigation measures where required.
- 2.5.25 Halcrow have assumed that all land parcels would require as a minimum further survey work including archaeological scoping and a standard provision of screening and green infrastructure incorporated within any development proposals. In the absence of detailed site information, broad cost estimates are proportionately based on the relative size of the land parcels.
- 2.5.26 Land parcels where the landscape impact of development is likely to be more significant may require a reduced density of dwellings in order to provide adequate screening and green infrastructure.



2.6 F - Road networks

Introduction

2.6.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Road networks on the suitability of land within the Areas of Search. Data relating to travel by non-car modes is set out in a separate theme in Section 2.9.

Baseline description - Dorchester

- 2.6.2 A series of radial roads converge at Dorchester, including, amongst others, the A35 from Bridport and Bere Regis, the A354 from Weymouth and the A37 from Yeovil. A bypass to the south and west to remove through traffic opened in 1988; however, today, traffic congestion is again an issue in the town, and at junctions on the bypass [Highways Agency 2008, Scott Wilson 2005].
- 2.6.3 The A35 Trunk Road is part of the Highways Agency's Strategic Road network (SRN); all other roads are the responsibility of Dorset County Council as local highway authority.
- 2.6.4 Highways Agency strategic modelling indicates that part of the trunk road south of Dorchester including the Avenue Stadium Roundabout is operating at capacity under existing conditions, leading to delays at peak and other times [Highways Agency 2008]. The section of A35 from Dorchester to Long Bredy is described as being a section of the SRN within the SW with high daily stress levels [Highways Agency 2008a].
- 2.6.5 The Agency adds that a greater extent of the A35 will be affected by operational problems by 2026 [ibid] (without taking

into account elevated levels of housing proposed in the district). They note that further sections of the A35 (including those immediately to the east of the town, from the Stinsford Roundabout and Cuckoo Lane junctions) will be more highly stressed by 2016 [Highways Agency 2008a]. By 2026, the A35 at Higher Bockhampton (presumed to be the section at Cuckoo Lane) 'would start to register prolonged busy periods' [ibid: 57].

2.6.6 Schemes to improve the Stinsford and Avenue Stadium Roundabouts have received regional funding allocations and are programmed to be completed by

Supporting information:

Reference documents:

Buro Happold 2008 West Dorset Transport Study Current Conditions Report

Buro Happold 2008 Weymouth and Portland Transport Study Inception Meeting

Highways Agency (lan Parsons) Letter to WDDC in response to Strategic Housing Land Availability Assessment dated 7th July 2008.

Highways Agency 2008 Regional Network Report for South West 2008

Scott Wilson 2005 Dorchester Transport and Environment Plan-Final Report

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.2.

<u>Organisation</u>	<u>Contact</u>
Dorset County	Matthew Piles &
Council	Stephen Hardy
Highways Agency	Ian Parsons & Steve Hellier
Buro Happold	Helen Richardson
Other information:	
None.	



2012¹. Monies from the Poundbury development will see a similar improvement being undertaken to the Monkey's Jump Roundabout [WDDC 2006 and 2006a]. An upgrade is also envisaged for the Weirs Roundabout, with contributions from the Poundbury development (A37, B3147) [ibid]. Such improvements are planned in order to address existing capacity issues and do not allow for the additional urban extension proposed dwellings. Elsewhere on the A35 bypass, safety has been raised as a concern at the junction with the A352 (Max gate Junction), the only at-grade junction on the bypass.

- 2.6.7 Several streets in Dorchester itself are heavily congested, including High East and High West Streets, where 18% of traffic is through traffic [Scott Wilson 2005]. The majority of traffic travelling within the town is required to pass through one or more of four key junctions Top o' Town Roundabout, Fiveways, Maumbury Cross and Great Western Cross. Each of these is heavily congested at peak times [ibid] and contributions from the Poundbury development will be used to improve these [WDDC 2006 and 2006a]. The existing congestion, the imperative to provide improved pedestrian and cycling facilities and the heritage constraints in providing additional roadspace for many parts of the town's highway network strictly limit the ability to accommodate additional traffic.
- 2.6.8 The strategy to deal with the town centre's transport (and allied environmental) issues [ibid], the Dorchester Transport & Environment Plan, has yet to have full funding agreed. Due to road traffic, levels of air particulates in High East and High West Streets may soon breach EU thresholds. Defra have recommended that the District Council declare an Air Quality Management Area (AQMA), which it is now considering. If and when an AQMA is designated, there will be a statutory obligation to take steps to improve the air quality. This may, in turn, heighten the requirement for significant elements of the DTEP (such as full or partial pedestrianisation of parts of High East and High West Streets) to be fast-tracked.
- 2.6.9 In comparison to national averages:
 - The level of car ownership in West Dorset is significantly higher.
 - The proportion of travel-to-work by private car in Dorchester is lower.
 - A particularly high level of trips to work are on foot.
 - The use of public transport is significantly lower.
- 2.6.10 The majority of trips to work are to areas within Dorchester, and those that work outside of Dorchester gravitate east towards the Bournemouth/ Poole area or south to Weymouth.

Baseline description - Weymouth

2.6.11 The Weymouth Relief Road (Mount Pleasant Roundabout to Ridgeway section) forms a key part of proposed transport improvements for Weymouth. Planning permission was granted on 16th April 2007 [DCC 2008b] with the intention being

¹ Completion of an improvement scheme to reduce traffic congestion at Avenue Stadium Roundabout is a condition of the planning permission granted for the Weymouth Relief Road [DCC 2008b], without which the Relief Road may not be opened.



that the route opens prior to the Olympic events being held in Portland Harbour. Prior to works commencing a programme of works must be agreed for improving road capacity between Weymouth and Portland and an integrated strategy for the area. Upon completion, a park and ride will open at Mount Pleasant [ibid].

Littlemoor

- 2.6.12 The Littlemoor AoS is situated a short distance to the east of the current A354 Dorchester Road, a Regionally Significant Road Route.
- 2.6.13 The A354 experiences significant congestion which results in inappropriate use of the surrounding minor road network. The vast majority of travel-to-work trips (and travel for other purposes) from this AoS are likely to be via the A354 to Weymouth or Dorchester or parallel minor roads, particularly the Coombe Valley Road Culliford Tree Came Down Herringston Road route to Dorchester.
- 2.6.14 Due to the distance of Littlemoor from Dorchester and Weymouth town centre, it is unlikely that there will be an opportunity to achieve a significant mode shift towards walking and cycling.
- 2.6.15 The proposed Weymouth Relief Road passes through the Littlemoor AoS and includes a roundabout junction to connect with Littlemoor Road. Its opening is anticipated to reduce the inappropriate use of the minor road network. It is likely to be an attractive and popular route for those wishing to access the Dorchester and Weymouth areas.

Chickerell

2.6.16 Although Chickerell has a separate identity as a village, the travel patterns associated with the existing settlement are considered to be similar to those of Weymouth, with a large proportion of travel-to-work trips via the A354 to Weymouth town centre or Dorchester. Vehicular commuting trips to Dorchester also use a series of minor roads to the west of A354 (including the Radipole Lane, Coldharbour - Nottington, and Portesham routes.

Stakeholder consultation

2.6.17 Discussions have been held with representatives of the Highways Agency (HA) to consider the impacts of urban extension development on the strategic road network (SRN), and also with representatives of the local highway authority, Dorset County Council (DCC). The comments of the HA and DCC representatives have informed the assessment of land parcels. The HA have advised that their recent letter to WDDC in response to the Strategic Housing Land Availability Assessment (SHLAA) should be referred to as an indicator of the HA's comments on the impacts of development on the Strategic Road Network.



Assessment of land parcels

Approach

- 2.6.18 The assessment of the Dorchester road networks has been approached by dividing the AoS into quartiles, based upon the key highway routes:
 - The north-to-south division follows the route of the B3150/B3144 (Middle Farm Way / Bridport Road / Damer's Road / Great Western Road / Prince of Wales Road / Alington Road / Alington Avenue); and
 - The east-to-west divide follows the B3147 (Weymouth Road / Maumbury Road / Cornwall Road / The Grove / New Road
- 2.6.19 The travel characteristics of the potential population within each quartile have then been determined based upon the characteristics of the existing town and findings of the recent West Dorset Transport Study Current Conditions Report [Buro Happold 2008]. The assumed characteristics are summarised in Table F1 overleaf.

Results - Dorchester

- 2.6.20 The existing A35 route and associated junctions are at capacity at peak times. As a result of this, and according to consultation responses, the Agency is 'likely to resist any future major development proposals that would result in a significant increase in vehicular movements on the A35' [WDDC 2007a:6]. For development to be considered acceptable, and to ensure the function of the SRN remains unaffected by development, there will be a requirement for the impacts of private motor vehicle journeys on the A35 to be mitigated through substantial improvement of the vehicular capacity of the road and its junctions. The Highways Agency notes that it would expect these improvements to be funded by developers or other sources such as the Regional (transport) Funding Allocations rather than themselves, as 'the Agency is unable to secure funding in such circumstances' [WDDC 2007a: 7, Highways Agency 2008].
- 2.6.21 Any proposals for additional at-grade crossings of the A35, either for vehicular traffic, or non-motorised travellers, are likely to be resisted by the Highways Agency due to the reduction in vehicular capacity which would result.
- 2.6.22 Areas of proposed development should consider the distance to destinations in order to minimise the use of the private motor vehicle. All areas of potential development will need to improve the provision of public transport in and around Dorchester and provide quality cycle and walking facilities to maintain or improve on the existing level of travel by these modes.
- 2.6.23 The expected impacts and road network improvements required to support urban extension development in each of the AoS quartiles are listed in Table F2 below.



Table F1: Travel characteristics assumed for assessment of Dorchester AoS

Area	Type of travel			
	Travel to Work (TTW)	Non-work Related-Travel (NWRT)		
General	Majority of car journeys outside of Dorchester gravitate primarily towards Bournemouth/Poole and secondarily to Weymouth. Travel to destinations within Dorchester by foot and cycle at a frequency above national average. Use of public transport below national average.	Majority of car trips within inter- peak traffic periods.		
North West Quartile	Car travel to areas outside of Dorchester will primarily utilise the following routes: i) A37, Monkey's Jump Roundabout, A35, Stadium Junction, Stinsford Junction and east towards Bournemouth/ Poole. ii) A37, Monkey's Jump Roundabout, A35, Stadium Roundabout and south to Weymouth via the A354. Car travel to areas within Dorchester will predominantly utilise the following routes: i) A37 into Dorchester town centre and then a suitable route to the east or south dependent upon destination. ii) B3150 Middle Farm Way/Bridport Road			
South West Quartile	Car travel to areas outside of Dorchester will primarily utilise the following routes: i) A35, Stadium Roundabout, Stinsford Roundabout and east towards Bournemouth/ Poole. ii) A35, Stadium Roundabout and south to Weymouth via the A354. Car travel to areas within Dorchester will predominantly utilise the following routes: i) A35, Stadium Roundabout, B3147 ii) B3150 Middle Farm Way/Bridport Road			
South East Quartile	Car travel to areas outside of Dorchester will primarily utilise the following routes: i) Stadium Roundabout, A35, Stinsford Roundabout and east towards Bournemouth/ Poole. ii) A352, Max Gate Junction, Stinsford Roundabout, A35 and east towards Bournemouth/ Poole. iii) A352, Max Gate Junction, A35, Stadium Roundabout and south to Weymouth			



	via the A354.
	iv) Stadium Roundabout and south to Weymouth via the A354.
	Car travel to areas within Dorchester will predominantly utilise the following routes:
	i) A352, B3144 into Dorchester town centre.
	ii) Stadium Roundabout, B3147 into town centre.
	Car travel to areas outside of Dorchester will primarily utilise the following routes:
North East	i) Stinsford Roundabout and A35 east towards Bournemouth/ Poole.
Quartile	ii) Stinsford Roundabout, A35, Stadium Roundabout and south to Weymouth via the A354.
	Depending on the road network created in and around development in the northeast quartile, car travel to areas within Dorchester will predominantly utilise the B3143/B3150 over Grey's Bridge or C12/B3147 via The Grove.

Table F2: Road network impacts and requirements within Dorchester AoS

Area	Highway network impacts and requirements
North West Quartile	Requirement to construct east west link road from A37 to A35, with a grade-separated junction at the A35. Major improvement to Monkey's Jump Roundabout. Dualling of the existing stretch of single carriage A35 between the junction of the new link road and Yellowham Hill.
South West Quartile	Major improvement to Stadium Roundabout. Improvement to Stinsford Roundabout. Improvement to A35 links. Dualling of the existing stretch of single carriage A35 between Stinsford and Yellowham Hill. Requirement to provide cycle and pedestrian links into town centre.
South East Quartile	Major improvement to Max Gate junction. Need to link Weymouth Road with A352 to reduce impact of development on A35. Dualling of the existing stretch of single carriage A35 between Stinsford and Yellowham Hill. Requirement to provide cycle and pedestrian links into town centre.



Area	Highway network impacts and requirements		
North East Quartile Requireme Requireme Dualling of	ovement to Monkey's Jump Roundabout. Int to construct east west link road from A37 to A35, with a grade- junction at the A35. Int to construct cycle and pedestrian links into town centre. The existing stretch of single carriage A35 between junction with new and Yellowham Hill.		

Results - Littlemoor

- 2.6.24 Due to this site's position at the northern edge of Weymouth's urban area and the employment opportunities available in the town of Dorchester and/or Bournemouth/Poole/Yeovil, it is highly likely that there will be an impact on the trunk road network at the A35/A354 Stadium Roundabout junction.
- 2.6.25 There will be a requirement to substantially improve public transport links between the site and Dorchester and Weymouth's employment areas to minimise the impact on the highway network.

Results - Chickerell

- 2.6.26 Development at Chickerell is likely to have an impact on the strategic road network due to the employment opportunities available in the town of Dorchester and the areas beyond, although, since it is located closer to a range of other employment sites, this impact is anticipated to be less than that at Littlemoor.
- 2.6.27 Development will have a more significant impact on local junctions under the control of Dorset County Council. The mostly likely significant impact will be upon:
 - Wessex roundabout (Radipole Lane/Granby Way)
 - Chafey's roundabout (Weymouth Way/ Granby Way/ Goldcroft Road/Field Barn Drive)





2.7 G - Water resources

Introduction

2.7.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Water resources on the suitability of land within the Areas of Search.

Baseline description

2.7.2 The existing conditions within the Areas of Search are summarised below, with reference to the supporting information listed opposite.

Catchment characteristics

- 2.7.3 The Dorchester AoS is located within the Frome, Piddle and Purbeck catchment. The River Cerne flows through Charminster before joining the Frome iust upstream of Dorchester. Both watercourses are classified as Biodiversity Action Plan chalk stream priority habitat and the catchment features historic water meadow systems. The stretch of the Frome river downstream Dorchester is designated as riverine SSSI and has been identified as a target for the restoration of floodplain grazing marshes.
- 2.7.4 The Frome catchment is underlain throughout by Chalk - a major aquifer which readily absorbs and transmits rainwater and river water. The depletion of chalk springs due to Public Water Supply abstraction is a concern within the catchment and subject to investigation by Wessex Water. Public Water Supply is the largest abstractor by consumptive Within the Frome Water volume. Resource Management Unit (WRMU), approximately 63% of the consumptive abstraction is from groundwater resources.
- 2.7.5 The Littlemoor and Chickerell AoS fall within the West Dorset Streams CAMS area, which adjoins the Frome CAMS area along its southern boundary and shares very similar characteristics. Public Water Supply accounts for 93% of consumptive

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 1.

Map ref.	Area of Search
G1	Dorchester
G2	Littlemoor
G3	Chickerell

Reference documents:

Environment Agency 2007

Groundwater Protection: Policy and Practice, Part 4: Legislation and Policies - public consultation draft

Wessex Water 2008 Water Resources Management Plan - Draft for consultation

Wessex Water 2008a The Development of a more integrated water supply network

Environment Agency 2007a The Frome, Piddle and Purbeck Catchment Abstraction Management Strategy

Environment Agency 2007b The West Dorset Streams Catchment Abstraction Management Strategy

Stakeholder consultation:

Other information:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

<u>Organisation</u>	<u>Contact</u>
Environment Agency	Katherine Burt
Wessex Water	Dr Amy Sayer



abstractions, of which 96% are abstracted from groundwater.

Security of supply

- 2.7.6 The Frome WRMU has a low flow resource availability status of 'water available', which means that water is likely to be available at all flows. However due to the riverine SSSI and other biodiversity designations, restrictions are likely to apply to any future abstraction licences in order to protect river flows and designated sites.
- 2.7.7 The Litton Cheney Chalk and the Portesham Chalk groundwater management units (GWMUs) span across the two CAMS areas. Both of these GWMUs are classified as having no water available for further abstraction licensing at low flows.
- 2.7.8 The AoS fall entirely within Wessex Water's Southern Resource Zone. The company's Water Resources Management Plan has forecasted water demand up to the year 2035, generally based upon population and property growth rates of 0.8% and 1.0% per annum respectively. These rates are believed to be above historic trends, but slightly below the draft RSS figures. The key points raised in the Management Plan and at the associated consultation meeting were:
 - The Southern Resource Zone has a significant surplus water yield, a status which is not expected to decline in the future.
 - Wessex Water proposes to improve the security of water supply in all four Resource Zones by developing a more integrated supply grid of strategic water mains.
 - The integrated supply grid will enable surplus yield in the Southern Resource Zone to be distributed to areas of deficit in the north and east zones. Implementation of the grid is subject to cash-flow, but is expected to be operational in 2018, requiring approximately 3 years of planning and design and 3 years of construction.
 - Costs associated with the integrated supply grid have been estimated but could not be published before the release of the company's Business Plan later in 2008.

Water quality

- 2.7.9 The River Frome is a high quality river but does experience elevated levels of phosphate, predominately from sewage effluent inputs. Following EA recommendations, OFWAT granted approval for phosphate reduction measure at the Bradford Peverell, Wool and Dorchester (Loud's Mill) sewage treatment works as part of the AMP4 framework.
- 2.7.10 Ground water in the chalk aquifer is naturally high quality but areas have elevated nitrate levels linked to agricultural activities particularly the application of nitrogen fertilisers and manure spreading. Approximately 90% of the Frome CAMS area is classified as a Nitrate Vulnerable Zone.

Groundwater source protection zones

2.7.11 The Environment Agency regulates the use of groundwater and protects against pollution through the designation of Groundwater source protection zones (SPZs). Groundwater protection policy affords the highest protection to area of chalk that support drinking water supply. The risk to potable supply is greatest



- in the 'inner Zone' (SPZ1) and thus areas with this designation are subject to some restrictions to land use and activities that could pose a hazard to groundwater quality.
- 2.7.12 Parts of the Dorchester AoS are within SPZ1 of the Dorchester Hospital, Bridport Road and Eagle Lodge Source Protection Zones. The Chickerell and Littlemoor AoS are not within Source Protection Zones. The location and extent of the SPZs are shown on the appended constraints maps.

Stakeholder consultation

- 2.7.13 The key stakeholders relating to water resources were the Environment Agency and Wessex Water Services Ltd.
- 2.7.14 The Environment Agency (EA) is responsible for the protection and enhancement of water resources, and regulates the use of water resources through a framework of legislation and licensing. The EA's Catchment Abstraction Management Strategies (CAMS) set out the availability of water in each catchment and the strategy for the managing the resource into the future. Reference document i) summarises the EA's legislation and polices for the management and protection of groundwater, and although currently in draft status it provides the basis of the EA's response to development proposals.
- 2.7.15 EA Planning liaisons Officers have provided written responses to the urban extensions proposals, which have informed the assessment of land parcels.
- 2.7.16 Wessex Water Services Ltd (WW) is the provider of water supply and sewerage throughout the AoS of this study. The primary consultation with WW has been through attendance at a consultation workshop held by the company to launch the first draft of its water resources management plan in May 2008, setting out proposals for the sustainable delivery of water supply for the next 25 years from 2010 to 2035.

Assessment of land parcels

Approach

- 2.7.17 Having established through consultation with Wessex Water that security of water supply is not expected to become an issue anywhere in the AoS in the next 25 years, the availability of water supply (yield) was not included in the water resources assessment criteria. (The *distribution* of water supply has been considered within the utility supply assessment see section H).
- 2.7.18 The water resources assessment of land parcels has focussed on the presence of groundwater source protection zones (SPZs) and the constraints that these pose to development.

Criteria

- 2.7.19 The land parcels were assessed and rated using a five point classification according to the significance of the impact of new development on water resources:
 - Critical: Majority of land parcel is in the Inner Source Protection Zone (SPZ1) and drainage is dependent upon discharge to ground (discharge to watercourse not feasible).



- Significant: Part of land parcel is in the Inner Source Protection Zone (SPZ1). Low feasibility of drainage to ground outside of the SPZ1 and/or to watercourse.
- Notable: Land parcel partly or entirely within Outer or Catchment Protection Zones (SPZ2 or 3). Drainage by discharge to ground feasible provided that adequate protection measures included.
- Neutral: Land parcel unaffected by Source Protection Zones. Drainage by discharge to ground feasible provided that adequate protection measures included.
- Positive: Land parcel unaffected by Source Protection Zones plus good potential for groundwater recharge through drainage discharge to ground.
- 2.7.20 The assessment criteria adopted above reflects the EA's policies for groundwater protection, which severely restrict the discharge of surface water drainage to ground (by infiltration) within SPZ1. Thus land was assessed as 'critical' if it is dependent on infiltration of drainage <u>and</u> is located in SPZ1.

Results

2.7.21 The Environment Agency has stated in their consultation response that:

'We would not automatically be against housing in any of the extension areas with regard to groundwater protection and contaminated land issues. However, if a potentially contaminative activity is proposed in an area of sensitive groundwater/controlled waters then we would require the absence of risk to these receptors to be demonstrated through risk assessment'.

Dorchester

2.7.22 The land parcels that fall within Zone 1 of the groundwater SPZs - and thus have been assessed as having a more significant constraint to development - are the majority of those to the north of the Frome floodplain (E, F, G1, G2, U1, U2, V1, V2 and W) and parcel C on the south-west edge of the town.

Littlemoor

2.7.23 The Littlemoor AoS does not fall within groundwater Source Protection Zones, nor does it drain to any SSSI designated receiving waters or other protected areas that would require above standard pollution control measures.

Chickerell

2.7.24 There are no groundwater Source Protection Zones within the Chickerell AoS, although a small part of the AoS overlies the principal aquifer. The western land parcels (D, F, G, H, I) naturally drain towards the Chesil and the Fleet SSSSI/SAC/SPA/Ramsar, thus these land parcels are assessed as potentially having a more significant negative impact on water quality.

Requirements for development

2.7.25 The Environment Agency would require an assessment of the foul and surface water drainage infrastructure in the area of proposed development. This would need to include an assessment of the capacity of the sewage treatment works



- in order to determine whether the quality of treatment will be affected by increased flows.
- 2.7.26 The Environment Agency made a response to the draft RSS (titled 'The Environment Agency's Observations on housing growth and waste water treatment', dated May 2008), which advised that 'it may be problematic to continue to meet effluent quality standards as flows to the Dorchester sewage treatment works increase. We consider that this very marked relative increase in the scale of development at Dorchester will require a specific study by the water company to review the headroom available and identify investment necessary to maintain environmental quality in the River Frome'.
- 2.7.27 The Environment Agency have indicated that they are currently undertaking an assessment of the potential impact on the water quality of the River Frome as a result of potential increased sewage flows from future development. The assessment work will determine if the housing targets proposed in the RSS are likely to have an impact on the River Frome.
- 2.7.28 In areas of high groundwater and or water environment sensitivity the Environment Agency recommends that drainage techniques should be designed with reference to CIRIA guidance to maximise pollutant removal and groundwater protection. In these locations, the Environment Agency would require a risk assessment to demonstrate that the drainage pollution control measures provide an acceptable level of risk to groundwater and/or watercourse quality.





2.8 H - Utility supply

Introduction

2.8.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of utility supply on the suitability of land within the Areas of Search.

Baseline description

General

- 2.8.2 Service records have been obtained showing the extent of the existing strategic and distribution utility networks within and surrounding the Areas of Search.
- 2.8.3 In general there are very limited numbers of existing utility services crossing the Areas of Search, due to the Greenfield nature of the sites. However, utility networks are well-developed throughout the adjacent towns and settlements, such that land parcels are typically no more than 1 to 2km from existing utility networks.
- 2.8.4 National Grid owns and operates the high pressure gas and the high voltage electricity national transmission networks throughout England and Wales.
- 2.8.5 The following National Grid high voltage electricity overhead transmission lines exist within the AoS:
 - 4VN line (400,000-volt) routed from Chickerell substation to the Mannington substation in East Dorset.
 - 4YA line (400,000-volt) routed from Chickerell substation to the Axeminster substation in East Devon.
- 2.8.6 National Grid owns and operates the Chickerell substation, which is an essential part of the electricity transmission network serving the Dorset area.

Supporting information:

Constraint maps:

The map figures listed below indicate the constraints within the areas of search - see Appendix 1.

Map ref.	Area of Search
H1	Dorchester
Map ref. H1 H2 H3	Littlemoor
Н3	Chickerell

Reference documents:

Wessex Water 2008 Securing Water Supplies - the development of a more integrated water supply network

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

Contact

Wessex water	Dave Cherret
Scottish & Southern Energy	Area representative
Southern Gas Networks	Area representative
National Grid	Rosalind Eyre

Other information:

Organisation

Service record maps:

- National Grid electricity & gas
- Scottish & Southern electricity
- Southern Gas Networks gas
- Wessex Water waste water
- Wessex Water water supply
- BT Telecommunications



- 2.8.7 Local electricity supply distribution networks within the AoS are operated by Scottish & Southern Energy (SSE).
- 2.8.8 There are no National Grid-operated high pressure gas transmission networks within the AoS. Local gas supply distribution networks within the majority of the AoS are operated by Southern Gas Networks.
- 2.8.9 Wessex Water Services Ltd (WW) is the provider of water supply and sewerage throughout the AoS of this study. The security of water supply yield is considered in the Water Resources assessment presented in Section 2.7.
- 2.8.10 BT Openreach are the primary provider of telecommunications within the Areas of Search. Although some other providers operate in the area, only BT service records have been obtained for the purposes of this study.

Dorchester

- 2.8.11 The water supply network is concentrated within the existing urban area of Dorchester, with a limited number of distribution mains extending beyond the town limits. A large distribution main crosses the land north of the Frome floodplain, following the alignment of Slyers Lane. The supply network of Charminster village is connected to the Dorchester town network via a pumping station at Frome Whitfield. A distribution main extends westwards through the Poundbury development and beyond.
- 2.8.12 Wastewater sewers at Charminster village are currently unconnected to Dorchester and are pumped via rising main to the Bradford Peverell treatment works to the west of Dorchester. Other than at Charminster, there are no other public sewer networks within the northern sector of the AoS. Dorchester's sewer network drains eastwards to the Louds Mill treatment works on the River Frome, east of the town. The majority of the southern sector of the AoS does not feature any existing public sewers. The town's foul sewer network has extended westwards towards Monkey's Jump roundabout in order to serve the growing Poundbury development. A rising main connection exists between Monkeys Jump junction and the village of Martins Town to the south west.
- 2.8.13 The main electricity supply cables serving Dorchester are arranged as spokes around the central hub of the existing built up area. A 33kV supply connects to the town from the north, crossing the Frome floodplain. A second 33kV supply runs northwest along the A37 road corridor. An 11kV supply crosses the land to the north of the town, parallel with the floodplain and linking an electrical substation in Charminster with the Stinsford settlement.
- 2.8.14 There are no 33kV supply cables to the south of the town, however an 11 kV supply runs westwards extending out beyond the boundary of the AoS. Another 11kV cable runs southwards following the alignment of Weymouth Road.
- 2.8.15 Other than these significant power cables, the low voltage supply network within the AoS is relatively sparse and is limited to single supply spurs to small holdings and individual dwellings.
- 2.8.16 Records of the existing gas supply network provided by Southern Gas Networks have been reviewed. The network is extensive throughout the existing settlements of Dorchester and Charminster. A high pressure distribution main crosses the northern edge of the AoS from east to west, with a high pressure spur running south across the flood plain to the town. Several medium pressure supplies exist around the southern edge of the town with spurs running south



- along Weymouth Road and West out of Poundbury. A further medium pressure crosses the south east quadrant of the AoS.
- 2.8.17 BT Openreach has an extensive telecommunications network throughout the existing built-up areas of Dorchester, Charminster and other smaller settlements. However a limited amount of infrastructure extends into the rural surroundings.

Littlemoor

- 2.8.18 There are no existing water distribution mains crossing the Littlemoor AoS, nor to the immediate north or east of the land. The nearest network infrastructure exists at the adjacent settlements of Upwey to the west and Littlemoor along the southern boundary.
- 2.8.19 Existing wastewater services are predominantly located immediately to the south of the AoS at Littlemoor, the majority of which drains west towards Broadwey. No public sewer networks exist within the AoS, nor to the immediate north or east.
- 2.8.20 High voltage (11kV) electricity cables exist along the periphery of the Littlemoor AoS, including cabling running along Littlemoor Road to the south, with supply spurs extending northwards to Bincombe. An electrical substation is located at Redlands on the south west side of the railway line, approximately 2km from the AoS.
- 2.8.21 Records of the existing gas supply network provided by Southern Gas Networks have been reviewed. The network is extensive throughout the existing settlements of Upwey and Littlemoor. A high pressure distribution main crosses the eastern edge of the AoS, from north to south. A medium pressure distribution main runs along Littlemoor Road on the southern edge of the AoS.
- 2.8.22 Although BT Openreach has an existing telecommunications network within and connecting the adjacent settlements, a very limited amount of infrastructure extends across the AoS and into the rural surroundings.

Chickerell

- 2.8.23 Water supply networks exist throughout the settlements of Chickerell and Charlestown, adjacent to the eastern boundary of the AoS. A limited number of distribution spurs penetrate westwards into the AoS, servicing small settlements and individual dwellings at East Fleet.
- 2.8.24 Wastewater requirements are served by a network of foul and combined sewers throughout Chickerell and Charlestown, generally draining eastwards towards Weymouth. A single foul sewer crosses land north of the AoS from Coldharbour towards Weymouth. There are no public sewer services evident to the south west of Chickerell. A separate sewer network exists in the south east of the AoS at Pebble Bank. Some of the sewers drain to sewage works at Wyke Regis which operates a sea outfall for effluent disposal.
- 2.8.25 Located within the AoS, Chickerell substation is connected to the national electricity grid and provides a major strategic distribution node (see 2.8.5). High voltage distribution cables (33kV and 11kV) connect through the substation. A smaller substation exists beyond the AoS in Weymouth to the south. The supply network is established throughout the existing settlements of Chickerell and Charlestown, with some high voltage supply spurs extending



west and south into the AoS. A 33kV supply runs south through the rifle range and across the tented camp site towards the Pebble Bank area.

- 2.8.26 Records of the existing gas supply network provided by Southern Gas Networks have been reviewed. The network is extensive throughout the existing settlements of Chickerell and Charlestown. A high pressure distribution main crosses the northen section of the AoS, running north to south and connecting to Chickerell power station. A medium pressure distribution main runs west to east between Chickerell and Wessex Stadium continuing to Granby Way. Few gas distribution networks exist west of Chickerell Road.
- 2.8.27 BT Openreach has an extensive telecommunications network throughout the existing built-up areas of Chickerell and Charlestown. However a limited amount of infrastructure extends into the rural surroundings to the south and west. Anecdotal evidence indicates that some areas of Chickerell currently experience difficulties with broadband access due to the limited capacity of the existing network. Urban extension development could potentially enable this network to be upgraded and broadband services improved.

Stakeholder consultation

- 2.8.28 In addition to obtaining utility service records, consultation has been undertaken where possible with the service providers in order to establish the status and capacity of the existing utility networks and identify potential utility constraints to urban extensions development.
- 2.8.29 National Grid has provided comments regarding the proposed urban extensions to Dorset County Council's Obligations Manager, and these have subsequently been included in this study. National Grid state that:
 - 'the proposed new housing growth should not have a significant effect upon National Grid in terms of infrastructure requirements. It is unlikely that any extra growth will create capacity issues for National Grid given the scale of both gas and electricity transmission networks.'
- 2.8.30 Consultation with Wessex Water has included attendance at a consultation workshop held by the company to launch the first draft of its water resources management plan in May 2008, setting out proposals for the sustainable delivery of water supply for the next 25 years from 2010 to 2035 summary details are presented in the Water Resources assessment in Section 2.7 of this report.
- 2.8.31 Wessex Water Development Engineers have indicated that upgrades have been made to the Dorchester water supply network and the storage reservoir near Maiden Castle in response to development at Poundbury. However these improvements do not hold spare capacity and therefore almost any additional housing will require some reinforcement of the existing infrastructure. The associated costs are expected to rise in proportion to the distance of a site from the storage reservoir at the western side of Dorchester. WW indicated that AoS at Weymouth suffer from a similar lack of capacity, and reinforcement will be required to support any development.
- 2.8.32 Wessex Water are currently undertaking a scheme to intercept sewage flows from Charminster and re-direct eastwards via pumping station to the Loud's Mill STW on the eastern edge of Dorchester, in order that Bradford Peverell STW is then abandoned. These measures are part of catchment improvements



- to infrastructure sewers and Louds Mill STW in Dorchester required to satisfy infill and planned growth.
- 2.8.33 Wessex Water indicated that once planned improvements are completed, Louds Mill sewage treatment works will have only a limited amount of spare capacity and not enough to support the total proposed number of dwellings. The costs associated with upgrading the sewage treatment works (STW) and the drainage network would be passed to the developer and would increase in proportion to the distance of a site from the STW.
- 2.8.34 In the Weymouth areas of search, WW indicated that the existing STW has spare capacity that would serve expansion at both Chickerell and Littlemoor. However the associated drainage network is at capacity and therefore any additional housing will lead to a requirement for reinforcement of the network at the cost of the developer.
- 2.8.35 Scottish and Southern Energy (SSE) representatives have indicated that the electricity supply network at Dorchester is operating at capacity, such that significant upgrades would be required to accommodate new housing development. Improvements would be likely to include the extension and reinforcement of the 33kV network and a new major substation.
- 2.8.36 In the Weymouth area, SSE have indicated that there are a number of planned improvements that are due to complete in the next few years. These network improvements are expected to be able to supply the proposed housing development. The Littlemoor and Chickerell Areas of Search benefit from the proximity of the existing 400kV substation at Chickerell.
- 2.8.37 Representatives of Southern Gas Networks (SGN) have indicated that the costs of distribution network improvements would be subject to economic test by the gas network operator, who may provide full funding if the development is close to existing networks or if the cost of upgrade is small relative to the economic benefit of providing the supply. Otherwise, network improvement costs would need to be provided by the developer.
- 2.8.38 BT Openreach has a policy of not providing advice on new connections on a strategic or site-specific scale unless detailed development layouts are provided. Therefore comment on the impact of proposed urban extensions upon the existing telecommunications network has not been obtained.

Assessment of land parcels

- 2.8.39 The land parcels were assessed and rated using a five point classification according to the significance of the impact of new development on water resources:
 - Critical: Not used; it was considered that utilities constraints can generally be overcome given adequate infrastructure investment.
 - Significant: Existing utility infrastructure remote from land parcel and/or of inadequate capacity. Significant issues identified with providing one or more utility supplies.
 - Notable: Existing utility infrastructure remote from land parcel and/or of inadequate capacity. Minor issues identified with providing one or more utility supplies.



- Neutral: Existing utility networks near to land parcel and of adequate capacity. Infrastructure requirements limited to new local networks within land parcel.
- Positive: Good potential for making use of existing and planned utility infrastructure. Opportunity to help deliver wider infrastructure benefits.

Requirements for development

2.8.40 The strategic utility requirements for urban extension development are summarised in Table H1 below.

Table H1: Strategic utility infrastructure required to accommodate urban extension development

Utility	Location of urban extension			
	Dorchester	Weymouth		
National Grid	No requirements	No requirements		
Water	Reinforcement of existing infrastructure (very limited existing spare capacity). In addition, development to north of Dorchester likely to require extensive upgrading and storage/service reservoir.	Reinforcement of existing infrastructure (limited existing spare capacity). Note: - Demand from Chickerell extension expected to be met by current improvements at Goulds Hill reservoir. - Large scale development at Littlemoor could potentially require new service reservoir or on-site booster facility.		
Wastewater	Threshold capacity of Dorchester STW - see section 2.8.41 - moderate to major investment required for > 3000 dwellings. New sewer connections either to existing network (combined with network improvements) or direct to STW.	Connection to and upgrading of existing sewers.		
Electricity	Significant upgrade of existing network including the extension and reinforcement of the 33kV network and a new major substation.	No significant requirements given improvements already planned and proximity of Chickerell 400kV substation.		
Gas	None specified - requirements subject to economic appraisal by Southern Gas Networks.	None specified - requirements subject to economic appraisal by Southern Gas Networks.		
Notes:				

Utility requirements estimated based upon advice received from utility suppliers and a broad assessment of the overall development constraints.

Full scoping of utility requirements should be undertaken by utility providers - including detailed appraisal and network modelling - in order to confirm infrastructure requirements and costs.



- 2.8.41 The consultation with utility providers has generally indicated that most supply networks are operating at or very close to capacity, such than any substantial housing development will require network improvement and reinforcement. The works required are expected to be proportional to the proposed scale of development (i.e. will not create spare capacity). This lack of existing capacity has meant that a series of development 'thresholds' have not been identified.
- 2.8.42 The only threshold information that has been made available is for Dorchester Sewage Treatment Works at Loud's Mill. Wessex Water have provided the following high-level assessment as guidance only:
 - Existing capacity could accommodate an extra circa 3000 additional dwellings (above existing)
 - A moderate level of investment could accommodate an extra circa 8000 additional dwellings (including the 3000 above)
 - Any further additional capacity would require a major investment programme
- 2.8.43 Wessex Water stated that detailed engineering appraisal and network modelling would be required in order to confirm the extent and costs of network improvements. The following were given as general requirements for any large scale development:
 - On-site sewers to be provided by develop and adopted by Wessex Water through S104 arrangements.
 - On-site water supply mains provided through S41 requisition arrangements with Wessex Water.
 - Off-site connecting sewers and reinforcement for water supply can be requisitioned from Wessex Water using \$41 and \$98 procedures.
 - Contributions to downstream improvements may be required for upgrades to pumping stations, attenuation measures etc. where necessary.
 - Surface water discharges to be made to land drainage systems at Greenfield run-off rates to avoid increasing flood risk to properties.
 - Pumped flows may be required where gravity sewer options are not feasible.
 - Where development land is allocated in phases, development will occur in sequence to allow infrastructure provision. Where there are constraints to this arrangement - interim arrangements may be required at additional cost.





2.9 I - Access to employment and services

Introduction

2.9.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Access to employment and services on the suitability of land within the Areas of Search.

Dorchester

- 2.9.2 Dorchester has higher than average levels of walking to work 25% of the working population, compared to 10% in England (excluding London) in the 2001 Census. 4% of the working population cycle to work, compared to 3% in England (excluding London).
- 2.9.3 Most of the town is both within 1km of the town centre and the other major employment areas (the County Hospital and the industrial estates off Poundbury Road and The Grove) and a series of radial routes link the suburbs to the centre. Poundbury is between 1km and 2km of the town centre and eastern residential areas are between 1km and 2km of the other employment areas. The AoS land mainly falls within 1km and 4km of the town centre and the other employment areas.
- 2.9.4 Walking and cycling routes from the AoS to the town centre and town facilities are limited by the number of road crossing points of the bypass, River Frome and the railway lines within the town. These three linear features cause severance and hinder non-car movement. Several of the

town's major junctions - Maumbury Cross, Great Western Cross and Top o' Town Roundabout for example - are intimidating to cyclists. However, the town itself has a series of radial roads which connect the suburbs to the town centre.

2.9.5 Two National Cycle Network routes are planned to meet in Dorchester town centre and several approaches to the town are already in place and signed (eg West Stafford Bypass, Sun Inn cycleway, Martinstown to Maiden Castle Road), although the town centre links are not yet in place. Measures to reduce through traffic and increase pedestrian and cyclist accessibility in the historic town centre are set out in the Dorchester Transport & Environment Plan (DTEP) [Scott Wilson 2005] but have not yet secured funding. Adopted Local Plan policies EA26 and EA29 set out requirements for pedestrian and cycle links

Supporting information:

Reference documents:

Buro Happold 2008 West Dorset Transport Study Current Conditions Report

Buro Happold 2008a Weymouth and Portland Transport Study Inception Meeting

DEC 2008 Weymouth and Portland Venue Transport Plan Cycling Strategy Feasibility Study Report

Scott Wilson 2005 Dorchester Transport and Environmental Plan Final Report

WDDC 2006a Supplementary Planning Document - Poundbury Design Brief December 2006

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

<u>Organisation</u>	Contact
DCC Transport Planning	Stephen Hardy
Buro Happold	Helen Richardson
DCC Planning Obligations	Richard Dodson



- between Poundbury and the rest of the town and for a town perimeter walkway.
- 2.9.6 The proportion of Dorchester residents commuting to work by train or bus is significantly lower than the England (excluding London) averages (2.2% compared to 9.7%) but slightly higher than the district-wide levels.
- 2.9.7 Much of Dorchester itself is within an 800m catchment of either of the railway stations, but several of the outer suburbs are not and nor are any of the land parcels assessed. Hourly or better bus services radiate from the town centre to Weymouth, Bridport (via Martinstown) and Charlton Down via Charminster. Much of the town falls within 400m of these routes, as do land parcels which border the radial routes to the west, north and south of the town. The Poundbury Development Brief intends that a 30 minute or better frequency bus service will be provided to link Poundbury to the town centre [WDDC 2006a].

Littlemoor

2.9.8 The south-western part of the Littlemoor AoS falls within the 800m catchment of Upwey Station and a significant proportion of the AoS falls within 400m of an hourly or better bus route, both those serving Dorchester or Littlemoor Roads. The proportion of travel to work by bus is low in neighbouring wards (1%) but commuting by bus is higher than the England (excluding London) average (10.3% compared to 6.9%) - and similar to the Weymouth & Portland borough average of 8.2%. Neighbouring wards to the Littlemoor AoS have low levels of walking to work (4.8%) and cycling levels (2.4%) similar to those in England (excluding London) and West Dorset.

Chickerell

- 2.9.9 Whilst the Chickerell AoS is distant from Weymouth Rail station (and has very low levels of rail commuting, at 0.6%) much of the AoS is within 400m of hourly or better services which connect Chickerell, Southill, Lanehouse and Wyke Regis to Weymouth Town Centre and the rail station. Bus commuting levels are similar to the England (excluding London) average (6.5% compared to 6.8%).
- 2.9.10 At 4.9%, Chickerell has higher levels of cycling to work than West Dorset, Weymouth & Portland or England (excluding London) and walking levels similar to the England (excluding London) proportions (10.4% compared to 10.3%).
- 2.9.11 The integrated transport strategy for Weymouth includes a network of new or upgraded routes across Weymouth, Portland and adjoining parts of West Dorset [DEC 2008], including:
 - Wessex Route (Chickerell to town centre via Chickerell Link Road and Radipole Lake)
 - Dorchester Route (linking Dorchester and Weymouth town centres adjacent to and constructed as part of the Relief Road)
 - Marsh Route (Budmouth School to town centre via The Marsh)

Assessment of land parcels

Accessibility

2.9.12 Frequent (hourly or better) bus routes and rail station locations were digitised on MapInfo and, in line with guidance documents on acceptable walking



- distances to public transport, catchment distances areas added (800m for rail stations and 400m for bus routes).
- 2.9.13 A similar approach was undertaken for access to Dorchester and Weymouth town centres or local shops (Chickerell, Southill and Littlemoor) and other major employment areas (the County Hospital and industrial estates to the north-west of the Dorchester town centre or Granby Industrial Estate at Chickerell). Various statutory and non-statutory planning and transport planning documents were examined to ascertain the state of the current walking and cycling network and future plans.

Mode share

2.9.14 Ward level travel to work data from the 2001 Census was used to compare journey patterns in the 3 AoS. For the Dorchester AoS, data was combined for the 4 town wards (Dorchester East, West, North and South). For Littlemoor AoS, data was combined for the two neighbouring wards in Weymouth & Portland borough (Littlemoor and Upwey) as development in the south-western portion of Bincombe parish is assumed to bear strong similarities to travel patterns in adjacent urban areas. For Chickerell, data for Chickerell, Westham west and Westham North wards was combined for similar reasons. These statistics were compared against district-wide data for West Dorset and Weymouth & Portland or England as appropriate. The England-wide data excluded London due to the unique transport arrangements there.





2.10 J - Community infrastructure

Introduction

2.10.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Community infrastructure on the suitability of land within the Areas of Search.

Health services

- 2.10.2 Dorchester has a series of GP surgeries, many of which are clustered close to the town centre. Two surgeries relocated to a combined building at Poundbury in 2007 and a third practice will relocate to a purpose-built centre as part of the Brewery redevelopment in 2009. Fordington surgery has reported problems in terms of facilities and capacity and wishes to expand. Charminster does not have a GP surgery.
- 2.10.3 Dorset Primary Care Trust (PCT) notes the Panel Report dwelling requirements will require an additional 9.4 full time equivalent GPs (or other appropriate health practitioners) and 6.48 full time equivalent dentists in the Dorchester area. It has been assumed by Halcrow that this will result in at least two new GP and dentist's surgeries within the urban extension with any remaining requirements met with expansion of existing facilities.
- 2.10.4 Many of Weymouth's suburbs have GP surgeries, including Preston Littlemoor, surrounding the Littlemoor AoS. Abbotsbury Road surgery, in west Weymouth, operates a branch surgery in Chickerell, but the PCT have identified that this practice wishes to extend their capacity and facilities there. The PCT adds that re-siting the existing branch or main surgery to meet the demands of the growing Chickerell population should be seen as a priority. There are dental practices in Chickerell and Littlemoor, although neither of these are currently

Supporting information:

Reference documents:

DCC et al 2003 Future of Waste - A Municipal Waste Strategy for Dorset

DCC et al 2003 Future of Waste -Supplementary Report 6 Facilities

DCC 2008 Education: Calculation of School Costs Attributable to Developments

DCC 2008a Dorchester Library possible relocation to the Charles St Development

Dorset Primary Care Trust 2008
Report to Dorset County Council in
response to the Draft Regional Spatial
StrategyWDDC 2000 The Sporting
Challenge A Strategy for sport in
West Dorset 2000 - 2010

WDDC 2006 West Dorset District Local Plan Adopted Plan 2006

WDDC 2006a Supplementary Planning Document - Poundbury Design Brief December 2006

WDDC 2007 Annual Monitoring Report 2006 - 2007 December 2007

Stakeholder consultation:

The organisations listed below were consulted. Formal responses (where given) are enclosed in Appendix 2.

<u>Organisation</u>	<u>Contact</u>
Dorset County Hospital Foundation Trust	Patrick Rimmer
Dorset NHS PCT	Rebecca Kendall
DCC Education	Phil Farmer
DCC Planning Obligations Officer	Richard Dodson
DCC Waste Management	Steve Burdis



- accepting new NHS patients.
- 2.10.5 The PCT states that the urban extension to Weymouth will require an additional 2.39 GPs and 1.64 dentists. Halcrow have assumed that, excepting the proposed new facility at Chickerell, this requirement will be met by the expansion of existing facilities.
- 2.10.6 Recently constructed GP surgeries in Dorset have cost in the region of £1,500 to £1,600 per m² and the Dorset County Hospital Foundation Trust (DCHFT) advises that similar costs for dental practices would not be unreasonable [West Dorset Heath Design Practice 2008]. They also advised that recent surgeries were in the region of 620m², giving total construction costs of £1m [ibid]. In recent years the PCT has endeavoured to build in flexibility to newly constructed health facilities to ensure that there is sufficient space for future growth. To this end, the new surgery in Bridport included space which the PCT are leasing until such time as it is needed for GP services [ibid].
- 2.10.7 Dorchester is home to Dorset County Hospital, a district general hospital providing acute hospital services to 210,000 people, including all of those in the study area [West Dorset General Hospitals NHS Trust 2007]. Whilst Weymouth has a community hospital (catering for minor and day surgery, respite care, rehabilitation services, outpatient clinics and inpatient beds) Dorchester lacks this kind of facility within the town and local patients make use of community hospitals elsewhere in the area, including Bridport, Blandford, Wareham and Weymouth. The PCT would like this absence to be rectified and are looking at purchasing bedspace in nursing homes or developing a separate facility.

Education

2.10.8 Dorchester operates a three-tier school system comprising of first, middle and upper schools. In relation to the AoS there are five first schools, four in Dorchester (of which one is Catholic) and one in Charminster, two middle schools and one upper school with sixth form centre. Table J1 sets out the 2007 - 2008 school roll and capacity of the relevant schools.

Table J1: Numbers on roll and capacity at schools in Dorchester AoS

School Type	School Name	Numbers on Roll 2007-2008	Capacity 2007-2008	Spare capacity
	Charminster St Mary's	192	205	13
	Damer's	367	375	8
First	Manor Park	355	375	20
	St Mary's Catholic	147	120	-27
	The Prince of Wales	151	150	-1
Middle	Dorchester	615	602	-13
	St Osmund's	622	601	-21
Upper	Thomas Hardye	2193	2432	239



- 2.10.9 Table J1 above illustrates that most of the first schools are close to capacity and both middle school are oversubscribed. The Local Education Authority states that by the start of the next decade, and without taking account of the RSS proposals, the forecast first school intake is expected to significantly exceed provision. Any increased demand for middle school places will also require additional places to be provided.
- 2.10.10 The Poundbury Development Brief outlines a programme to provide 75 additional first school places within Dorchester. This would be achieved through 150 new places at an expanded Prince of Wales School and a replacement for Damer's School to be located within Poundbury Phase 3. This replacement would initially cater for 300 pupils (rather than 375 as is currently the case) but would allow for expansion to cater for 450 pupils (the maximum size of first schools); thus the overall balance is 75 additional first school places within the town.
- 2.10.11 Weymouth operates a two-tier school system comprising primary and secondary schools and the catchment tends to encompass most of the population living south of the Ridgeway. Table J2 sets out the 2007 2008 school roll and capacity of the relevant schools.

Table J2: Numbers on roll and capacity at schools adjacent to Littlemoor AoS

School Type	School Name	Numbers on Roll 2007-2008	Capacity 2007-2008	Spare capacity
	Bincombe Valley	244	336	92
Primary	St Andrew's	386	370	-16
	St Nicholas & St Laurence	240	262	22
Secondary	Wey Valley	1036	1350	314

Table J3: Numbers on roll and capacity at schools adjacent to Chickerell AoS

School Type	School Name	Numbers on Roll 2007-2008	Capacity 2007-2008	Spare capacity
Primary	Beechcroft St Paul's	207	210	3
	Chickerell	331	336	5
	Conifers	367	420	53
	Radipole	423	420	-3
	St Augustine's Catholic	212	210	-2
	Southill	209	204	-5
	Wyke Regis Infants	215	297	82



School Type	School Name	Numbers on Roll 2007-2008	Capacity 2007-2008	Spare capacity
	Wyke Regis Junior	370	343	-27
	All Saints	915	947	32
Secondary	Budmouth Technology College	1530	1700	170
	Wey Valley	1036	1350	314

- 2.10.12 Tables J2 and J3 show that whilst only a selected number of the primary schools have significant spare capacity space places are currently available at the relevant secondary schools. However, the Local Education Authority state that, following a period of declining pupil numbers on roll, pupil numbers are forecast to rise again and the RSS allocations will require expansion to accommodate this.
- 2.10.13 The LEA has calculated the predicted number of pupils per year group per new dwelling for each district in the county based on 2001 census data. The figures for the Dorchester and Weymouth areas and the resultant are given below in Tables J4 and J5 and predicted pupil numbers for each tier of education is also given.

Table J4: Predicted number of new pupils in Dorchester

			ers of pupils fron ellings in RSS Pa			
School Type	Pupils per dwelling	Dorchester				
	factor	Urban Extension (3000-5000 dwellings)	Urban area (4000 dwellings)	Settlement as whole (UE+UA)		
Per school year group	0.025					
First (5 years)	0.125	375-625	500	875-1125		
Middle (4 years)	0.100	300-500	400	700-900		
Upper Excluding VI Form (3 years)	0.075	225-375	300	525-675		
VI Form (2 years)	0.050	150-250	200	350-450		
Totals	0.350	1050-1750	1400	2450-3150		



Table J5: Predicted number of new pupils in Weymouth

School Type	Predicted pupils per dwelling		Implied numbers of pupils from Proposed Numbers of Dwellings in RSS Panel Report Weymouth			
School Type	West Dorset (UE)	Weymouth & Portland (UA)	Urban Extension (700 dwellings)	Urban Area (5000 dwellings)	Settleme nt as whole (UE+UA)	
Per school year group	0.025	0.028				
Primary school (7 years)	0.175	0.196	123	980	1103	
Secondary school Excluding VI Form (4 years)	0.125	0.14	88	700	788	
VI Form (2 years)	0.05	0.056	35	280	315	
Totals	0.350	0.420	246	1960	2206	

2.10.14 Taking into account current numbers on roll, statutory requirements² and standard number of form entries, the maximum school capacities appropriate to Dorchester and Weymouth have been assumed and these are set out in **Table J6** below.

Table J6: Estimated school capacities

School Type	Max No.s on roll	Assumptions		
First	450	5 year groups, each with 3-form entry of 30 pupils		
Primary	420	7 year groups, each with 2-form entry of 30 pupils		
Middle l	600-720	4 year groups, each with 5- or 6-form entry of 30 pupils		
Secondary	750	5 year groups, each with 5-form entry of 30 pupils apiece		
Upper	-	Average upper school size in Dorset is 1200 pupils		

² The School Standards and Framework Act states that no Key Stage 1 class (Years 1 and 2 for 5 to 7 year-olds) should exceed 30 pupils



- 2.10.15 In general terms, the predicted pupil numbers of the urban extension alone in Dorchester equate to two new first schools, one new middle school and a significant extension to the existing upper school (or, due to the very large size of The Thomas Hardye School, a reconsideration of how the third tier of education is provided in the town). In Weymouth, the scale of expansion necessary for the urban extension appears likely to be accommodated through extensions of existing schools, although, when coupled with the proposed growth within the urban area itself, two or three new primary schools may be required.
- 2.10.16 The DCFS publish quarterly figures outlining the costs per pupil of providing new school places and these are weighted to account for circumstances in each local education authority (LEA) area. Costs in Dorset are given a 0.97 weighting. Table J7 shows the costs of pupil places per dwelling and the total costs for the urban extensions as a whole.



Table J7: Costs of pupil places per dwelling

	Dorset weighted cost per dwelling (£)				
School Type	West Dorset				
	3 tier (Dorchester UE)	2 tier (Weymouth UE)			
First school	1532.13				
Primary school		2080.63			
Middle school	1846.90				
Secondary school		2239.37			
Upper School	1385.18				
VI Form	971.46	971.46			
Total cost per new dwelling	5735.67	5291.46			
Total cost per urban extension	£17.2m (3000 dwellings)	£3.7m (700 dwellings)			

Adult services

- 2.10.17 The PCT notes that the greatest population increase in the district will be within the 'over 65 years' age range. As a result, consideration will need to be given to housing which meets the needs of the elderly, in terms of accessibility, environments which promote good mental health and joint health and social care facilities to improve integration between these functions.
- 2.10.18 Dorset County Council provide adult services within the county and note that accommodation is needed for 63 adults requiring care and a new site (600m²) for the town's Adult Education Centre (whose tenancy will expire).

Libraries and archives

- 2.10.19 The County Council, as library authority, is obliged by law to provide a comprehensive and efficient library service for those who live, work and study in its authority area. Dorchester and Weymouth have central lending and reference libraries and there are branch libraries close to the Bincombe AoS at Littlemoor and close to the Chickerell AoS in Chickerell itself and at Wyke Regis.
- 2.10.20 Dorchester library (currently adjacent to County Hall) is considered to be poorly placed to serve the town centre. Discussions have taken place with WDDC and the developer of the Charles Street redevelopment site to consider relocation. The proposals envisage a larger public area (either 1350 or 1450m²). This takes account of population growth at Poundbury [DCC 2008a], but would



not be constructed independently of the wider redevelopment of the Charles Street site.

2.10.21 Whilst floorspace standards according to the size of the catchment population served have not been proscribed by central government, other organisations have done so (the International Federation of Library Authorities, the Museums, Libraries & Archives Council (MLA) and MLA South East amongst others). The MLA recommends that 30m² per 1,000 population is adopted by local planning authorities for the purposes of planning obligations [MLA 2008]. Table J8 compares the existing library sizes with these standards.

Table J8: Library sizes and standards

Library	Floorspace of	Catchment	Appropriate floorspace (m²) extrapolated from standards		
location	Public Area (m²)	Population (2001)	IFLA (23m²)	SEMLAC (30m²)	
Dorchester	703 (1350-1450)	38500	856	1155	
Weymouth	1049	71700	1649	2151	
Chickerell	50	5280	121	159	
Littlemoor	100	7300	168	219	
Wyke Regis	69	5460	126	165	

Notes:

- 1) Catchments for Dorchester & Weymouth taken from retail catchment population given in Dorset Data Book 2007.
- 2) Catchment for Chickerell and Wyke Regis reflect the ward population only
- 3) Catchment for Littlemoor reflects Littlemoor and Broadwey & Upwey ward population combined
- Projected floorspace of planned Dorchester library at Charles Street in brackets
- 2.10.22 The MLA calculated a regional construction and fit out cost of £2,835 per square metres (applying the Royal Institution of Chartered Surveyors (RICS) Building Cost Information Service data, and a regional building cost factor for the South West of 0.95). This gives a cost of £85,000 per 1,000 population, or £85 per person and the MLA states that local planning authorities should consider applying this charge to all developments of one or more dwellings and updating costs annually [ibid].
- 2.10.23 Local government and other archival records relating to Dorset are kept at the Dorset History Centre in Dorchester. This is funded through agreement by the County Council with contributions from the unitary authorities of Bournemouth and Poole. Based on national surveys of existing facilities and well-advanced proposed schemes, the MLA has proposed a benchmark of 6m² of new or



refurbished archive space per 1,000 population, with a construction and initial equipment cost of £3,420 per square metre³ [MLA 2008].

2.10.24 The standards and costs applicable to the proposed numbers of urban extension dwellings are set out in Table J9 below.

Table J9: Library and archive requirements

Urban Extension	Proposed No. of Dwellings	Population	Library floorspace (m²)	Library cost (£)	Archive floorspace (m²)	Archive cost (£)
Dorchester	3000- 5000	5970 - 9950	179 - 239	500,000 - 680,000	36 - 60	123,000 - 205,000
Weymouth	700	1393	42	120,000	8	27,000

Notes:

- 1) Population calculated as 1.99 persons per dwelling.
- 2) Library floorspace calculated as 30m² per 1000 population.
- 3) Library costs calculated as £2,835 per square metre.
- 4) Archive floorspace calculated as 6m² per 1000 population.
- 5) Archive costs calculated as £3,420 per square metre.

Affordable Housing

2.10.25 There has been a general trend of increasing numbers of affordable dwellings being completed district-wide between 2002/03 and 2006/07 [WDDC 2007]. Annual completions in Dorchester were still significantly below target 2006/07 (28 units compared with a target of 60) but completions were almost on target in Chickerell. Adopted Local Plan Policy HS3 states that, in the district's towns, the authority will negotiate to secure in the region of 35% of all new dwellings as affordable to meet identified local needs [WDDC 2006]. Table J10 below sets out the anticipated number of affordable dwellings.

Table J10: Affordable dwellings

Urban Extension	Proposed Numbers of Dwellings	Of which 35% affordable homes
Dorchester	3000-5000	1050-1750
Weymouth	700	245

2.10.26 It will be important to ensure that some of the affordable housing is in the form of 'lifetime homes', suitable for older people or those with disabilities, and

-

³ regional weighting applied



which allows these people to maintain or re-establish lives independent of care facilities.

Waste and recycling

- 2.10.27 According to Dorset County Council, households in the county produce on average 1.3 tonnes of waste per annum. Annual volumes of waste have increased only slightly over the last 6 years and the County Council is assuming an annual increase of 1% for forward planning purposes. The County Council has stated that the area has sufficient capacity for disposing of waste through landfill (waste for landfill from West Dorset and Weymouth & Portland is taken to sites in the east of the county, including Wareham). Steps are being taken to further introduce other waste management infrastructure (non-disposal methods) in the county such as Mechanical Biological Treatment or composting (which already exist in the county).
- 2.10.28 Kerbside recycling collections take place in both towns and a series of bring sites exist in several locations. The county and district councils intend in partnership to continue enhancing the kerbside collections which may reduce the need for bring sites.
- 2.10.29 Dorchester and Weymouth both have Household Recycling Centres (HRCs), at Loud's Mill and Lodmoor respectively (another site is situated at Portland Tophill). Approximately 30% of the county's household waste is collected at the network of HRCs. The Dorchester site has unsuitable vehicular access through residential areas (a new road to overcome this is identified in WDLP Policy EA28) but it is additionally of insufficient size and 'struggles to provide an adequate service for the Dorchester area' [Christchurch BC et al 2003a]. A new site has yet to be finalised although potential sites at Poundbury have previously been identified. However, these sites have met with local resistance and, to date, have not been progressed.
- 2.10.30 The additional dwellings proposed by the RSS and Panel Report will heighten the need for a larger facility. Should a site not be identified at Poundbury then a site within the proposed urban extension will therefore be necessary. It is estimated that a replacement facility may cost in the region of £2.5m, including land acquisition costs. The proportion of these costs which may be attributable to new dwellings has yet to be confirmed, since the urban extension may exacerbate the current situation such that a replacement facility becomes an urgent pre-requisite of the additional development.

Leisure and recreation

- 2.10.31 There are several public open spaces in Dorchester, including, but not limited to, the formal Borough Gardens, Salisbury Fields, Maumbury Rings, Poundbury Hillfort, Weymouth Avenue Recreation Ground and the sports fields of the local schools. Land south of Holmead Walk at Poundbury is available for recreation uses and land between Mansel Square and Poundbury Cemetery is being landscaped as a large park (to be known as The Great Field). Nearby Maiden Castle hillfort is designated as open access land. The Adopted Local Plan Policies EA17, EA18 and EA21 allocate land between the bypass, Poundbury and Castle Park for public amenity open space.
- 2.10.32 By virtue of their size, recreation facilities are more limited in the Littlemoor and Chickerell areas. Adopted Local Plan Policy EA6 reserves land north of the



- Chickerell Link Road and east of Putton Lane for recreation, including formal sports provision.
- 2.10.33 The district's Sports Strategy (entitled The Sporting Challenge) found that there was a need for improvements in the quantity, quality and accessibility of sports facilities across the district. In particular it highlighted a requirement for a concentration of facilities (such as additional sports pitches and multi-use games areas) in the larger areas of population (which it termed Sports Action Zones) and additional water space in Dorchester [WDDC 2006].
- 2.10.34 Policy IN4 of the Adopted Local Plan states that recreational space provision, or contributions towards that provision will be sought from all new housing developments which generate a need for such space unless adequate and sufficiently maintained facilities are already available within reasonable distance of the development. Draft District SPG on the subject (prepared prior to the adoption of the Local Plan) sought a contribution per dwelling of £1025 per dwelling (2004 prices). It was expected that the Poundbury development, at the time described as being of a 'scale...unlikely to occur elsewhere in the district' and unique 'in terms of the demand it will generate for community infrastructure', would provide a higher contribution per dwelling due to its scale and impact on existing community facilities. It would reasonable to suggest that a higher contribution would be expected from the urban extensions for similar reasons.
- 2.10.35 Built leisure facilities in Dorchester include the Thomas Hardye Leisure Centre (which includes a swimming pool) adjacent to the upper school, the St Osmund's Community Sports Centre and Sandringham Bowls Club. A replacement leisure centre for Dorchester is planned 'as the present centre has insufficient capacity to meet the needs of the catchment area and the general condition and age of the buildings is not appropriate for a modern leisure service' [WDDC 2006:54]. A site at Poundbury is one possible location and as a result land is reserved there.
- 2.10.36 Littlemoor and Chickerell are served by built leisure facilities in Weymouth including those at the secondary schools (Budmouth Community Sports Centre and at Wey Valley Sports College) and at Weymouth Sports Centre.

Other facilities

2.10.37 Dorchester's three cemeteries have spare capacity, with in particular space at the new Poundbury Cemetery, but also at Fordington and Weymouth Avenue. Weymouth's municipal cemeteries (Melcombe Regis, Weymouth & Wyke Regis) are all located to the west of the town and have spare capacity. The crematorium for the area is in Weymouth.

Assessment of land parcels

2.10.38 Provision of community facilities should be commensurate with the size of intended population in any new development (and thus the requirements for them broadly increase with the size of land parcel being developed. Whilst some types of facility will be solely for residents of the new development, other types serve settlements as a whole and so additional inhabitants lead to a requirement for facilities to increase in size.



Criteria for assessment

- 2.10.39 The land parcels were assessed and rated using a five point classification according to the significance of the impact of development on existing community infrastructure:
 - Critical: Not used.
 - Significant: Existing community facilities insufficient to accommodate demands of population growth, but significant investment can accommodate these needs.
 - Notable: Existing community facilities insufficient to accommodate demands of population growth, but modest changes can accommodate these needs.
 - Neutral: Existing community facilities broadly adequate to accommodate demands of population growth.
 - Positive: Opportunity to deliver wider community infrastructure benefits.

Requirements for development

2.10.40 The baseline information collected on community facilities indicates that there are in some places already deficiencies or capacity problems and that additional new development will require significant investment, particularly in health and education facilities. The estimated requirements and costs for these infrastructure are summarised in Table J11 overleaf. There will also be a need to contribute towards recreation facilities, waste and recycling facilities and affordable housing, amongst others.



Table J11: Summary of key community infrastructure requirements

Community	Urban extension					
infrastructure type	Dorchester (300	0 dwellings)	Weymouth (700 dwellings)			
	Item Cost		Item	Cost		
Health services	2 GP Surgeries 2 Dental Surgeries Community hospital facilities	£8m	Expansion of existing GP and dental surgeries	£1m		
Education	2 First schools 1 Middle school Extension to upper school	Total = £17.2m	Extension of existing schools (Potentially 2 or 3 primary schools in Weymouth as a whole)	Total = £3.7m		
Library & archive	Additional facilities	£0.6m	Additional facilities	£0.15m		
Waste and recycling	New Household Recycling Centre	£2.5m	-	-		
recreation		£15m Contribution	-	-		

Costs are indicative estimates based upon guidance from stakeholders and recent examples of similar infrastructure construction schemes.





2.11 K - Social cohesion

Introduction

2.11.1 This chapter describes the data gathering, desk-study, consultation and assessment work undertaken in order to assess the influence of Social cohesion on the suitability of land within the Areas of Search.

Dorchester

- 2.11.2 Dorchester has a population of 17,680 (2007 mid year estimates) and has expanded out to the south, west and east of the town centre, largely since the 1870s. It is fairly compact and, whilst undulating, the topography is mostly gentle. Dorchester's compactness, retention of views to the countryside from the town and vice versa are some of the town's key features.
- 2.11.3 As well as being designated one of the South-West's 21 Strategically Significant Cities and Towns (SSCTs) in the RSS4, the Local Plan notes that Dorchester has 'the largest population and range of facilities in the District and is the most sustainable location for future growth' [WDDC 2006: 72]. As a result it is ranked first in the plan's settlement hierarchy.
- 2.11.4 Charminster is a separate settlement with a population of 2,450 and limited community facilities. It relies upon Dorchester for middle and upper school education, healthcare and most shopping and employment requirements.
- 2.11.5 Planning policy on housing in villages (be it national, regional or sub-regional) tends to allow only for limited numbers of new dwellings where it will, for instance, help sustain community facilities, reduce unsustainable commuting patterns or help meet local housing need. As a result, land parcels in the AoS which surround Charminster but particularly those to the west and north of the village are unlikely to accord with these policies and guidance by virtue of the proposed number of dwellings.
- 2.11.6 The bypass encompasses the town and forms a significant boundary and barrier to development (by virtue of the major cuttings and embankments for parts of its length and the limited number of crossing points). As a result, additional

Reference documents:

BBC, DCC and PBC 2006 Implications of the 2003 revised household projections Sections 4(4) Advice December 2006

DCC 2008b Decision notice for planning application number 07/00033/DCC3

DCC 2007 Dorset Data Book

DCLG 2008 Planning Policy Statement 12: Local Spatial Planning

WDDC 2006 West Dorset District Local Plan Adopted Plan 2006

SWRA 2006 The Draft Regional Spatial Strategy for the South West 2006 - 2026

SWRA 2007 Regional Spatial for the South West: Examination in Public April - July 2007: Report of the Panel December 2007 Section 1: Main Report

WDDC 1987 Alternative Development Strategies for Dorchester and the surrounding area

WDDC 2002 West Dorset 2000 -Survey of the Built and Natural Environment

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Supporting information:

⁴ Both Draft RSS and Panel Report



- development within the bypass is likely to be easier to assimilate into the existing settlement than that outside it.
- 2.11.7 Whilst land to the north of the watermeadows is close to the town centre, it is largely inaccessible from the town and this would reduce its social cohesion with the rest of the town. If development was placed here then a balance would need to be found which provided facilities commensurate with the scale of new development to serve the residents but which did not detract from he primacy of facilities south of the watermeadows.
- 2.11.8 The proposed number of new dwellings for Dorchester represents a very significant increase in the size of the town and the number of residents. The dwelling numbers and implied numbers of residents are set out in Table K1 below.

2.11.9 In summary:

- The submission draft RSS proposals are projected to result in an 45% increase in the town's population;
- The Proposed Changes proposals are projected to result in a 79% increase in the town's population; and

Table K1: Dorchester's current population and implications of RSS projected dwellings

	Dwellings			Population	
	Totals	As % of existing	Annual Completion Target	Totals	As % of existing
Current	8,191		230	17,680	
dRSS	4,000	49%	200	7,972	45%
Current + dRSS	12,191	149%		25,652	145%
Proposed Changes	7,000	85%	350	13,951	79%
Current + Proposed Changes	15,191	185%		31,631	179%

Notes

- 1) Current number of dwellings refers to 2006 totals in Dorset Data Book 2007
- 2) Current population refers to 2007 mid year estimates
- 3) Draft RSS completion target taken from 2006/07 AMR. Other targets assume an even completion rate throughout the 20 year plan period to meet the relevant RSS dwelling allocation
- 2.11.10 It has taken approximately 100 years to double Dorchester's population to its present level and thus and doubling again within the 20 year RSS plan period and doubling the rate of housing completions in the town represents a significant change.



Weymouth

- 2.11.11 Weymouth is less compact and the location of 20th century development has been determined by several factors. Ribbon development in the 1930s spread northwards to the Ridgeway, leading to some coalescence with Broadwey and Upwey. Parts of Weymouth are separated by areas of countryside or important wetland areas. Conversely, unlike in Dorchester, roads do not currently form significant barriers to movement and/or social cohesion.
- 2.11.12 It has been mentioned elsewhere that development (residential and other land uses, including employment) within the West Dorset parishes of Bincombe and Chickerell are adjacent to the urban areas of Weymouth within the neighbouring borough council boundary.
- 2.11.13 Many of the parcels within the AoS at Chickerell and Littlemoor would be adjacent to existing built-up areas of Weymouth, helping the new development to be a success part of the wider community. In terms of sites around Chickerell, prevention of coalescence with Weymouth itself should be a factor in determining the acceptability of land parcels for development (or partial development). Land Parcel Littlemoor B, following the construction of the Weymouth Relief Road, may be poorly related to the neighbouring urban areas, although it has been assumed Littlemoor Road need not lead to development here being segregated or isolated; rather it could be viewed as an opportunity to help improve the social balance and community facilities available in the area.
- 2.11.14 The town of Chickerell (a status granted in 2001) is noted in the adopted local plan as having the characteristics of a small dormitory town and, in the plan's settlement hierarchy, comes below Dorchester, Sherborne and Bridport. According to the plan's settlement strategy, future development should reflect the town's position within the hierarchy and be influenced by its economic strengths and weaknesses.

Assessment of land parcels

- 2.11.15 Land parcels have been assessed qualitatively on the degree to which it is perceived that dwellings placed there would form a successful, integrated and connected part of the settlement to which they belong. In general terms, this is assumed to be most easily achieved when the development is adjacent to the existing urban area and has good links to it. By virtue of the proposed dwelling numbers, land parcels adjacent to or surrounding Charminster are assumed to not be commensurate with the current role and function of the settlement as a small rural service centre.
- 2.11.16 Land parcels within Chickerell parish will need to be carefully chosen to ensure they are well related either as by being contiguous with existing suburban areas of Weymouth (e.g. Wyke Regis, Lanehouse, Southill) or with Chickerell itself. An urban extension option which reduces or closes the strategic gap between Chickerell town and the district boundary is anticipated to be difficult to achieve satisfactorily. It could blur the distinction of Chickerell as a separate settlement with particular functions and identity.
- 2.11.17 It should be noted that, whilst an urban extension to Chickerell of 700 dwellings is deemed likely to be acceptable in terms of assimilation into the



community, much larger numbers may not be commensurate with Chickerell's role and function.



3 Policy appraisal

3.1 Overview

3.1.1 The framework for assessing the suitability of areas for urban extensions was based upon the appraisal of planning policy presented in Tables 3.1 to 3.5 below.



Table 3.1: General aims of planning policy

Theme	Relevant Document	Policy	Source
		At the heart of sustainable development is the simple idea of ensuring a better quality of life for everyone, now and future generations. A widely used definition was drawn up by the World Commission on Environment and Development [informally known as the Brundtland Commission] in 1987: "Development which meets the needs of the present without compromising the ability of future generations to meet their own needs"	Para 3
		Plan policies and planning decisions should be based on:	
		- up-to-date information on the environmental characteristics of the area;	
		 the potential impacts of development on the environment, positive as well as negative; and Recognition of the limits of the environment to accept further development without irreversible damage 	Para 19
Sustainable Development	PPS1	LPAs should ensure plans do not focus on the short term or ignore longer term impacts. They should consider whether policies have short term benefits which may have long term benefits or whether short term detriments may be offset by long term benefits.	Para 26
		LPAs should have regard to the resources likely to be available for implementation and the costs likely to be incurred and be realistic about what can be implemented over the period of the plan	Para 26
		LPAs should ensure plans and policies are properly based on analysis and evidence. Where the outcome of that analysis and evidence remains uncertain, policy makers should exercise and demonstrate soundly based judgement. Where justifiable on the basis of the evidence available, a precautionary approach to proposals may be necessary.	Para 26
		LPAs should demonstrate how their plans are integrating various elements of sustainable development and should seek to achieve outcomes which enable social, environmental and economic objectives to be achieved together	Para 28
Housing	PPS1	The aim should be to ensure that everyone has the opportunity of a decent home, in locations that reduce the need to travel	Para 23
	PPS3	Government's policy is to make effective use of land, existing infrastructure and available public and private investment	Para 36



Theme	Relevant Document	Policy	Source
		Using land efficiently is a key consideration in planning for housing	Para 44
	PPS1	LPAs should seek to promote the more efficient use of land through higher density, mixed use development	Para 27
Rural Areas	PPS7	The government's overall aim is to protect the countryside for the sake of its intrinsic character and beauty, the diversity of its landscapes, heritage and wildlife, the wealth of its natural resources and so it may be enjoyed by all	Para 1
	PPS1	LPAs should seek to enhance as well as protect biodiversity, natural habitats, the historic environment and landscape and townscape character	Para 27
Natural & Urban Environments	PPS9	The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests	Para 1
	PPG15	The objective of planning processes should be to reconcile the need for economic growth with the need to protect the natural and historic environment	Para 1.2
	PPS12	LPAs should ensure that the delivery of housing is not compromised by unrealistic expectations about the future availability of infrastructure, transportation and resources	Para 4.9
Evidence Base		A development plan document will be sound if it <i>inter alia</i> has strategies, policies or allocations which represent the most appropriate in all the circumstances, has considered the relevant alternatives and is founded on robust and credible evidence base.	Para 4.24
Transport	PPG13	A key planning objective is to ensure that jobs, shopping, leisure facilities and services are accessible by public transport, walking and cycling	Para 19



Table 3.2: Planning policies relating to locating development in general

Relevant Document	Relevant policy	Source
	Government's policy is to ensure that housing is developed in suitable locations which offer a range of community facilities and with good access to jobs, key services and infrastructure	Para 36
PPS3	 LPAs should, working with stakeholders, set out the criteria to be used for identifying broad locations and specific sites for new housing, taking into account: contribution to cutting carbon emissions from focusing new development in locations with good public transport accessibility and/or means other than the private car and where it can readily and viably draw its energy supply from decentralised energy supply systems based on renewable or low carbon forms of energy supply any risks associated with broad locations (physical, environmental, land-use, investment constraints) any risks associated with specific sites (physical access restrictions, contamination, stability, flood risk, need to protect natural resources eg water and complex land ownership issues) accessibility to existing local community facilities, infrastructure and services, including public transport locations which can facilitate the creation of communities of sufficient size and mix to justify the development of, and sustain, community facilities, infrastructure and services 	Para 38
PPS7	Good quality, carefully-sited accessible development within existing towns and villages should be allowed where it benefits the local economy and/or community, maintains or enhances the local environment; and does not conflict with other planning policies Away from larger urban areas LPAs should focus most new development in or near to local service centres where employment, housing, services and other facilities can be provided close together. This should help ensure facilities are served by public transport and provide improved access by walking and cycling	Paras 1 & 3
PPS9	The aim of planning decisions should be to prevent harm to biodiversity and geological conservation interests	Para 1
	In assessing the suitability of sites for housing development LPAs should, amongst other things, consider their locations and accessibility to jobs, shops and services by modes other than the car and the potential for improving such accessibility	Para 14
PPG13	LPAs should identify sites to locate land uses where they will offer realistic, safe and easy access by a range of transport modes and not exclusively by car	
	LPAs should actively manage the pattern of urban growth and the location of major travel generating development to make the fullest use of public transport and locate day to day facilities which need to be near their clients in local service centres, including primary schools, health centres, convenience shops and branch libraries.	Para 20
PPG14	Coastal authorities may wish to consider the introduction of a presumption against built development in areas of coastal landslides or rapid coastal erosion. LPAs should be satisfied by the developer that any instability has been taken into account.	Para 29 & 31



Table 3.3: Planning policies relating to designated sites

Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
Agricultural Land	Grades 1, 2, 3	PPS7	National	Where significant development of agricultural land is unavoidable, LPAs 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	Para 28
Biodiversity		PPS9		'The most important sites for biodiversity are those identified through international conventions and European Directives'	Para 6
	Special Protection Area (SPA)	Birds Directive 1979 and Conservation (Natural Habitats etc) Regulations 1994	European	A competent authority, before deciding togive permission fora plan or project which a) is likely to have a significant effect on a European site (either alone or in combination with other plans or projects),	Regulatio
Co	Special Area of Conservation (SAC) and Candidate SACs (cSACs)	AC) Conservation (Natural Habitate	European	and b) is not directly connected with or necessary to the management of the site, shall make an appropriate assessment of the implications for the site in view of the site's conservation objectives	n 48 (1)
		PPS9		'The most important sites for biodiversity are those identified through international conventions and European Directives'	Para 6
		1971 Convention on Wetlands of International Importance		Article 3(1) of the Ramsar Convention requires the contracting parties [including the UK government] to 'formulate and implement their planning so as to promote	Article 3 (1)
	Ramsar Sites	ODPM Circular 06/2005 / Defra Circular 01/2005	International	the conservation of the wetlands included in the List, and, as far as possible, the wise use of wetlands in their territory'	p19
		PPS9		'The most important sites for biodiversity are those identified through international conventions and European	Para 6

Directives...Listed Ramsar sites, also as a matter of policy, should receive the same protection as designated SPAs and



Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
				SACs'	
	National Nature Reserves (NNRs)	s35 Wildlife & Countryside Act 1981	National	Where the Nature Conservancy Council are satisfied that any land which— (a) is being managed as a nature reserve under an agreement entered into with the Council; (b) is held by the Council and is being managed by them as a nature reserve; or (c) is held by an approved body and is being managed by that body as a nature reserve, is of national importance, they may declare that land to be a national nature reserve.	S35 of Wildlife & Countrysi de Act 1981
				SSSIs should be given a high degree of protection under the planning system	Para 7
	Site of Special Scientific Interest (SSSI)	PPS9	National	Where a proposed development on land within or outside a SSSI is likely to have an adverse effect on an SSSI planning permission should not normally be granted. An exception should only be granted where the benefits of the development clearly outweigh both the impacts on the special scientific features of the site or any broader impacts on the national network of SSSIs.	Para 8
	All Wild Birds and certain species of animals & plants ('protected species') specified by the EU Habitats Directive or UK Law	Part I of the Wildlife & Countryside Act 1981 as amended and Conservation (Natural Habitats etc) Regulations 1994	National		
		ODPM Circular 06/2005 / Defra Circular 01/2005	The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.	Para 98	
	Priority Habitat Types Priority Species	ss40 & 41 of the Natural Environment &		40 Duty to conserve biodiversity Every public authority must, in exercising its functions, have	s74

Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of



Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
		Rural	National	those functions, to the purpose of conserving biodiversity. (2) In complying with subsection (1), a Minister of the Crown, government department or the National Assembly for Wales must in particular have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992. (3) Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.	
	Communities Act 2006		41 Duty to conserve biodiversity (1)The Secretary of State must, as respects England, publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity. (3)The Secretary of State must— (a) take such steps as appear to the Secretary of State to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or (b) promote the taking by others of such steps.		
		UK Biodiversity Action Plan (BAP) 1994			
		Biodiversity Strategy for England 2002		The aim of the strategy is to ensure a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems	p12
		Local BAPs			
		ODPM Circular 06/2005 / Defra Circular 01/2005		The potential effects of development, on habitats and species listed as priorities in the UK BAP and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy, are capable of being a material consideration in themaking of planning decisions	Para 84
		PPS9		Through policies in plans, local authorities should also conserve other important natural habitat typesand identify opportunities to enhance and add to them	Para 11



Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
				Planning authorities should refuse permission where harm to the [protected] species or their habitats would result unless the need for, and benefits of, the development clearly outweigh them	Para 16
	Regional and Local Sites (In Dorset, Sites of Nature Conservation Interest (SNCIs) and Local Nature Reserves (LNRs))	WDLP Policy SA10	Local	Development that is likely to have an adverse effect on an SNCI or LNR will not be permitted unless the benefits to the community arising from the development clearly outweigh the nature conservation interest of the site.	p31
	Regionally Important Geological & Geomorphological Sites (RIGS)	WDLP Policy SA13	Regional and Local	Development will not be permitted if it would have a detrimental effect on the scientific interest of RIGS unless: i) the benefits to the community of that development outweigh the importance of the site; ii) exposures of comparable geological interest can be created elsewhere on or off the development site (where the interest is in the form of an exposure) or a substitute site of comparable geological or geomorphological interest can be identified, in consultation with the local RIGS group; and iii) physical access to enable teaching and/or research can be safeguarded.	p35
	Ancient Woodland and veteran trees	PPS9	National	LPAs should not grant planning permission for any development that would result in its loss or deterioration unless the need for, and the benefit of, the development outweigh the loss of the woodland habitat. The loss of aged or veteran trees outside ancient woodland should be avoided	Para 10
Cultural Heritage & Built Environ- ment	World Heritage Sites	PPG15	International	No additional statutory controls; its designation is a key material consideration in determining planning applications. LPAs should place great weight on the need to protect them for the benefit of future generations as well as our own generation. Development proposals should always be carefully scrutinised	Para 2.22 and 2.23
		Draft Circular on		Circular aims to further recognise in national policy the need	Para 1



Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
		World Heritage Sites (2008)		to protect World Heritage Sites as sites of outstanding universal value. Will replace relevant sections of PPG15	and 12
				LPAs should aim to protect WHS and its setting from inappropriate development, strike a balance between needs of conservation, access, interests of the local community and sustainable economic growth and protect WHS from effect of changes which are relatively minor but, cumulatively, could have a significant effect	
	Register of Parks and Gardens of Special Historic Interest	PPG15	National	LPAs should protect them in development plans and in determining planning applications. The effect of proposed development on a historic park or garden or its setting is a material consideration in determining planning applications	Para 2.24
	Historic Parks and Gardens of Regional or County Importance	WDLP Policy SA17	Regional and Local	Development that would significantly adversely affect the historic character, appearance or setting of Historic Parks and Gardens of regional and county importance will not be permitted	p38
	Conservation Areas	s72 of the Listed Buildings and Conservation Areas Act 1990	National	LPAs should pay special attention to the desirability of preservation or enhancement of the character and appearance of conservation areas	
	Buildings of Special Architectural or Historic Interest (Listed Buildings)	s66 of Planning (Listed Buildings and Conservation Areas) Act 1990	National	When considering planning applications, LPAs should have special regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses	
	Scheduled Monuments & Ancient Monuments	PPG16	National	Where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by proposed development there should be a presumption in favour of the physical preservation in situ.	Para 8 & 27
				The desirability of preserving an ancient monument (scheduled or unscheduled) and its setting is a material consideration in determining planning applications.	Para 18
				The case for preservation of archaeological remains must however be assessed on the individual merits of each case.	Para 26



Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
				There will no doubt be occasions when LPAs may decide that the significance of the archaeological remains is not sufficient to justify their physical preservation in situ when weighed against other material considerations, including the need for development	Para 28
	Sites of Regional or County Archaeological Significance	WDLP Policy SA24	Regional and Local	Development will not be permitted which would have an adverse effect upon a site of regional or county archaeological importance unless the need for the development clearly outweighs the intrinsic importance of the remains	p47
				LPAs should, in determining planning applications, apply the sequential approach at a site level to minimise risk by directing the most vulnerable development to areas of lowest flood risk, matching vulnerability of land use to flood risk.	Para 8
Flood risk	Flood Zones 3, & 2	PPS25	National	LPAs allocating land for development should apply the sequential test to demonstrate there are no reasonably available sites in areas with a lower probability of flooding that would be appropriate to the type of development or land use proposed. In areas at risk of river or sea flooding, preference should be	Paras 16 & 17
Landscape				given to locating new development in Flood Zone 1. Conservation of natural beauty of landscape and countryside should be given great weight in planning policies and development control decisions.	Para 21
	Areas of Outstanding Natural Beauty	PPS7	National	Major development should not take place in these designated areas, except in exceptional circumstances. Proposals should be demonstrated to be in the public interest before being allowed to proceed. The following should be assessed: - need for development, including national	Para 22 & 23

considerations, and impact of permitting or refusing it on the economy;

- cost of and scope for developing elsewhere outside designated area or meeting need in some other way; detrimental effect on environment, landscape and

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Theme	Designation to avoid	Designated by / Relevant Document	Geographical coverage	Relevant policy	Source
				recreational opportunities and extent to which these could be moderated	
	Heritage Coast	WDLP Policy SA2	Local	Development which would have an adverse effect on the character and/or natural beauty of the Heritage Coast will not be permitted.	p22
	Land of Local Landscape Important (LLI)	WDLP Policy SA3	Local	Development that significantly harms these special features and qualities or substantially detracts from the specific benefits will not be permitted.	p24
	Green Corridors	WDLP Policy SA7	Local	Development will not be permitted if it erodes the distinctive character or integrity of the green corridors	
Transport	Rights of Way	PPS17	N/A	Recreational rights of way are an important recreational facility which LPAs should protect and enhance. LPAs should seek opportunities to provide better facilities for walkers, cyclists and horse-riders, for example by adding links to the existing networks.	Para 32
	Groundwater Source Protection Zones	WDLP Policy SA15	Local	Development will not be permitted which would result in increased risks of pollution to ground water sources	p36
Utilities	Development consultation on zones due to unpleasant emissions from existing sewage handling facilities	WDLP Policy AH9	Local	Development which is sensitive to unpleasant odour emissions will not be permitted in close proximity to sewage handling facilities where it cannot be demonstrated to reasonably coexist.	p62
	Hazardous installations and pipeline consultation zones	WDLP Policy AH11	Local	Development will not be permitted Within the defined consultation zone unless it can be demonstrated that the development and its users will not be subject to an unacceptable risk of an accident from the installation or pipeline	p63



Table 3.4: Planning policies related to providing infrastructure in association with development: Dorchester Area

	WDLP Policy	Relevant text
EA17	Poundbury North Area	Comprehensive mixed use development to include residential and employment uses and: education and community facilities leisure and recreation (including built facilities) public amenity open space pedestrian and cycle links to town centre and areas surrounding Poundbury, including to countryside, including links identified in Policies EA26 and EA29 highway links identified in EA25 and EA27
EA18	EA18 Poundbury South Area Poundbury South Area Comprehensive mixed use development to include residential and employment uses and public or amenity open space pedestrian and cycle links to town centre and areas surrounding Poundbury, including to identified in Policies EA26 and EA29 highway links identified in EA25 and EA27 a landscaped noise buffer land provision for spoil deposit provision of a separate B2 employment site, with a buffer of B1 uses adjacent to any residential and employment uses and public or amenity open space pedestrian and cycle links to town centre and areas surrounding Poundbury, including to identified in Policies EA26 and EA27 a landscaped noise buffer	
EA20	Land for Residential Development: St George's Road	Site to be developed in association with the provision of the extension of Lubbekke Way linking it into St George's Road and should retain the stone buildings on the road frontage
EA21	Land for Amenity Open Space	Land north of the bypass and south of Poundbury and Castle Park is allocated for amenity open space, envisaged largely as informal recreation with walkways and cycleways, although other amenity uses are considered to have potential south of Castle Park, including the creation of biodiverse habitats



	WDLP Policy	Relevant text
EA22	Extensions to Sewage Treatment Works	Wessex Water has indicated that Dorchester STW will require extending to accommodate new development at Poundbury
EA25	District Distributor Road at Poundbury	Replacement for Bridport Road between Mansel Square
EA26	Pedestrian and Cycle Links at Poundbury	Maiden Castle Road to Coburg Road Other links as identified on the Proposals Maps and through the SPG
EA27	Transport improvements associated with development at Poundbury	Contributions should primarily support schemes which will provide accessibility by public transport, walking and cycling to and from residential areas, employment sites and community facilities in Poundbury, and which have been identified as necessary for the development to go ahead, following a full transport assessment. This particularly covers: Top o' Town Roundabout (B3150/B3147) Great Western Cross (B3144/B3147) Maumbury Cross Monkeys Jump (A35/A37/B3150) Avenue Stadium Roundabout (A35/A352/B3147) Weirs Roundabout (A37 / B3147)
EA28	Extension of Lubbekke Way	Development of housing identified in Policy EA20 will include the extension of Lubbekke Way so that it links into St George's Road
EA29	Dorchester Perimeter Walkway	Land is identified for a pedestrian route around the perimeter of Dorchester. Development in areas adjoining the perimeter walkway shall ensue that a safe, convenient and attractive route for walkers is accommodated.



Table 3.5: Planning policies related to providing infrastructure in association with development: Weymouth Area

Policy		Relevant text		
	Putton Lane Area	Comprehensive mixed use development, with residential, employment uses and:		
EA6		retail provision, youth club improvements to other community facilities and services for which there is a demonstrable need		
		public open space to include formal sports provision on land adjoining the DDB south of Green Lane, and children's playspace and informal open space to the north		
		appropriate infrastructure, including highway improvements		
		pedestrian and cycleways linking residential areas and facilities in the town, and linking the site to the Woodland Trust Area, Granby Industrial Estate, Police HQ and adjoining employment site, Charlestown and Budmouth College		
		contributions towards the construction and establishment of new community facilities and B1 office space		
EA6b	Floods Yard	Residential development, with vehicular access from Chickerell Hill and pedestrian/cycle link to Lugger Close		
EA8	Amenity Open Space	Land is allocated north of Chickerell for this purpose		
EA35	A354 Mount Pleasant to Ridgeway	No development prejudicial to the future construction of the road will be permitted		



4 Economic appraisal data

4.1 Introduction

- 4.1.1 This section contains the full numerical data used to undertake the economic appraisal of urban extension development options, assessing the deliverability and viability of each option.
- 4.1.2 The appraisal calculations were performed using spreadsheet models the input and output data extracted from the spreadsheets is presented in table types i-iv in Appendix 3. The assumptions for the economic appraisal are listed in Table 4.1 below.

4.2 Assessment of deliverability

- 4.2.1 The deliverability assessment is based upon the cost and phasing data shown in the strategic infrastructure tables in Section 4.5 of Volume 1.
- 4.2.2 The data was collated using the type-i and type-ii tables below, setting out the distribution of infrastructure expenditure and the completion of dwellings over the period 2008 2026.
- 4.2.3 This data was then cumulated to generate a graphical representation of the results as development threshold graphs in Section 4.5 of Volume 1.

4.3 Assessment of viability

4.3.1 A simplified net present value (npv) model has been established to give an indication of the viability of each development option by evaluating the costs of key strategic infrastructure (table type-i) and the value of the dwellings developed (table type-iii). The two sets of data are then evaluated to give a residual value in table type-iv). The methodology and results of the viability assessment are presented in Section 4.6 of Volume 1.



 Table 4.1: Economic appraisal assumptions

Assumptions		
Costs		
Fees	Professional and legal fees	10%
Contingency		15%
Developers profit		5%
Average build cost per dwelling	At 2006 prices	£72,460
Average property values - assume	ed constant over 15 years (when a	veraged)
Dorchester	Detached	£414,703
	Semi-detached	£347,083
	Terraced	£331,154
	Flats	£195,878
	Average	£322,205
Littlemoor	Detached	£420,725
	Semi-detached	£268,047
	Terraced	£211,497
	Flats	£207,470
	Average	£276,935
Chickerell	Detached	£372,203
	Semi-detached	£278,617
	Terraced	£233,322
	Flats	£148,834
	Average	£258,244
Marketable/Affordable Housing R	atios	
West Dorset District	Marketable housing	65%
	Affordable housing	35%
	Total	100%



Appendix 1 - Constraint maps

Contents:

Map Reference	Title			
Dorchester AoS				
A1	Agricultural land classification			
B1	Biodiversity constraints			
C1	Cultural and built heritage constraints			
D1	Flood risk			
E1	Landscape constraints			
G1	Groundwater Source Protection Zones			
H1	Utility protection zones			
Littlemoor	AoS			
A2	Agricultural land classification			
B2	Biodiversity constraints			
C2	Cultural and built heritage constraints			
D2	Flood risk			
E2	Landscape constraints			
G2	Groundwater Source Protection Zones			
H2	Utility protection zones			
Chickerell AoS				
A3	Agricultural land classification			
В3	Biodiversity constraints			
C3	Cultural and built heritage constraints			
D3	Flood risk			
E3	Landscape constraints			
Н3	Utility protection zones			



Appendix 2 - Consultation responses

Contents:

Ref.	Organisation	Contact	Format of response
1	Dorset Wildlife Trust	Sarah Williams and Imogen Davenport	Consultation response sheet
2	Natural England	John Stobart	Consultation response sheet
			Email dated 1st August 2008
3	Dorset County Council - County Ecologist	Phil Sterling	Email dated 8 th July 2008
	county zeotogist		Comments via email from M. Bodell dated 21 st July 2008
4	Environment Agency	Katherine Burt	Letter dated 4 th July 2008
			Letter dated 5 th September 2008
5	Highways Agency	lan Parsons	Letter to Alison Eldergill (WDDC) dated 7 th July 2008
6	National Grid	Rosalind Eyre	Letter to Richard Dodson (DCC) dated 9 th May 2008
7	Wessex Water	Dave Cherrett	Email dated 25 th July 2008
8	Dorset NHS Primary Care Trust	Carole Lawrence-Parr	Letter and report to Maxine Bodell dated 12 th June 2008
9	Dorset County Hospital Foundation Trust	Patrick Rimmer	File note on Capital Costs of GP Surgeries in the Dorchester Area
10	Dorset County Council - Landscape	Tony Harris	Consultation response sheet
11	Weymouth & Portland Borough Council - Landscape	Kate Evans	Consultation response sheet
12	West Dorset District Council - Landscape	Jennifer Clarke	Consultation response sheet



Appendix 3 - Economic appraisal data

Contents:

Tables type-i to type iv for each development option.