Boyer
PLANNING

Christchurch and East Dorset Councils
Core Strategy-Local Plan
Examination in Public

MATTERS AND ISSUES 3: STRATEGIC ALLOCATIONS - GENERAL MATTERS

Prepared by Boyer Planning on behalf of Linden Homes Strategic Land
August 2013

REPORT CONTROL

Project: Land to north of Ringwood Road, Verwood

Client: Linden Homes Strategic Land

Job Number: 10.221

File Origin: \\MARTIN\Boyer Planning\Project Folders\10.221 Land North East of Ringwood Road, Verwood\08 Representations\Examination Sept 2013\Hearing Statements\130730 Matters and Issues 3 - Strategic Allocations- General Matters.docxcument2

Document checking

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Issue	Date	Status	Checked for issue
1	21/08/2013	Draft	MN
2	26/08/2013	Draft	MN
3	27/08/2013	Final	MN

Contents

1. INTRODUCTION

1.1 These representations have been prepared by Boyer Planning Limited on behalf of our clients, Linden Homes Strategic Land who control land north of Ringwood Road, Verwood which was proposed for allocation under Policy VTSW5 of the Pre-Submission Core Strategy.

1.2 In respect of the tests of soundness, we consider that, the Core Strategy is unsound in that it is not justified or effective. Our recommended changes are set out in Section Three of this report.

1.3 We set out our response to the questions posed by the Inspector in Section Two of this report. Our comments have regard to national planning policy guidance and other material considerations.

2. MATTERS TO BE EXAMINED

1. Does the CS provide clearly defined boundaries for every strategic allocation?

2.1 The extent of the proposed new neighbourhoods is broadly indicated on the Inset Maps. In addition, all of the proposed strategic allocations are accompanied by illustrative masterplans as part of the policy and supporting text.

2.2 The Inset Maps indicate the broad extent of particular policy designations. However, some of the jpeg images of the Inset Maps available to view on the Councils' website are of a particularly low resolution. For instance, on the Verwood Inset Map, the image is of such a low resolution that the text indicating which policies are relevant is illegible. Although the Council have sent us a higher resolution version via email, it is still not possible to definitively determine the pattern of hatch which covers certain areas, making it difficult to determine which other policy designations are relevant.

2.3 Notwithstanding the above technical concerns we have sought to interpret the information available to determine whether the boundaries for strategic allocations are clearly defined.

2.4 Each of the proposed allocations is accompanied by an illustrative masterplan. The illustrative masterplans, however, are drawn at too large a scale to be able to determine the exact extent of the features they seek to define, such as site boundaries and the issue is further exacerbated by the fact that the masterplans are drawn on aerial photograph bases, rather than on OS maps. The boundaries of the new neighbourhoods are however more clearly defined on the proposals maps, apart from the issues with regards to the resolution of the images, and will form the official designation of the boundaries.

2.5 We have, however, identified in relation to the North Western Verwood New Neighbourhood that there appears to be a discrepancy between the boundary indicated for the SANG on the Verwood inset proposals map and the illustrative masterplan (Map 11.5). The proposals maps and illustrative masterplans should therefore be reviewed to ensure consistency and higher resolution versions prepared to avoid confusion.

2.6 We also have concerns regarding the definition and legibility of new settlement boundaries and revised GB boundaries. These concerns are discussed in our statement for Matters and Issues 2 and therefore are not repeated here. We would however highlight that given the uncertainties regarding the exact form of the individual proposed new neighbourhoods, it is important that the boundaries drawn give sufficient flexibility in the layout of proposals rather than being overly prescriptive on the basis of the illustrative masterplans which may not be entirely reflective of the final proposals.

2. Flood Risk: has every strategic allocation been subjected to a sequential and, if appropriate, exceptions test?

2.7 As previously advised Linden Homes control land which was proposed for allocation under Policy VTSW5 of the Pre-Submission Core Strategy. The site was later deleted as part of the Proposed Changes which were published for consultation in late 2012 as a result of concerns regarding the ability to secure mitigation for the impact of the development on the SPA. Since this time, and as a

result of discussions with East Dorset District Council, Natural England and the Forestry Commission, a strategy has been agreed with all parties that overcome these concerns.

2.8 An outline application (Application Reference: 3/13/0480/OUT) was submitted in May this year on the site for: *"residential development with all matters reserved except for access into the site for vehicles in terms of the positioning and treatment to the access of the site, but excluding accessibility within the site, in terms of positioning and treatment of access and circulation routes".*

2.9 NPPF paragraph 101 states that the aim of the sequential test is to steer new development to areas with the lowest probability of flooding. The technical work undertaken to support the application for residential development addresses the requirement for a sequential test in relation to site VTSW5.

2.10 The Flood Risk Assessment, Appendix One, confirms that the site is not located within an area considered to be at risk from fluvial or tidal flooding. The site is therefore considered suitable for residential development in terms of flood risk and this matter should not prevent the reintroduction of the VTSW5 allocation.

3. Flood Risk: is every site allocation supported, where necessary, by a site specific flood risk assessment to demonstrate that development will be safe for its lifetime without increasing flood risk elsewhere?

2.11 As set out above, an outline application for the development of site VTSW5 has been submitted to the Council for consideration and to demonstrate the deliverability of the site. The Flood Risk Assessment submitted as part of the application is attached at Appendix One and demonstrates that development at Land at Ringwood Road, Verwood, will be safe for its lifetime without increasing flood risk elsewhere. The site is therefore suitable for reallocation for residential development of up to 65 dwellings.

4. Protection of designated habitats: Are all site allocations for residential development which are required to provide mitigation capable of providing SANG or alternative acceptable mitigation?

2.12 Under the Pre-Submission version of the Core Strategy, sites which were within 5km of the Special Protection Area (SPA) were required to have a Suitable Accessible Natural Greenspace (SANG) strategy. For sites of 50 dwellings or less, Policy ME2 provided for contributions to be made to SANG provision off site (in contrast to Policy ME3 which applied to sites of over 50 dwellings which sought direct provision of SANG as an element of developments).

2.13 Following the consultation, as a result of revised guidance submitted by Natural England following the publication of the Purbeck Core Strategy Inspector's Report, the Councils determined that all new neighbourhoods within 5km of the SPA would need to provide a SANG.

2.14 The Councils were correct in stating that the Purbeck Inspector's report (and associated modifications to the Core Strategy) changed the mitigation requirements for housing development in relation to the provision of SANG. The Council is also correct in stating that these changes were intended to have general applicability across the SE Dorset authorities.

2.15 The major changes were to place more emphasis on the location, design and quality of SANG in assessing how effective it will be in mitigating nature conservation impacts. Purbeck District Council, in conjunction with Natural England (NE) devised a set of guidelines for the provision of

SANG and these are now replicated as an appendix to the Christchurch and East Dorset Core Strategy. This was on the basis of the Purbeck Inspector's recommendation that *"in the interests of soundness, that specific guidance is provided … against which any proposal can be assessed. It is the intention that this guidance, when adopted, will be used by all local planning authorities in south-east Dorset."* These guidelines for the provision of SANG include a number of detailed proposals to ensure that SANG best fulfils its purpose.

2.16 Another major consideration arising from the Purbeck Core Strategy examination was to ensure, as far as possible, that policy for each allocated site had specific mitigation proposals, including how SANG was to be provided in that context.

2.17 NE expressed the view, in the context of Purbeck, that a greater degree of certainty was also required in the delivery of Nature Conservation mitigation through the policy wording. NE provided the following statement to the Purbeck examination:

"……..in order that the competent authority can ascertain that there is no adverse impact on the integrity of the European sites we would advise that further policy restrictions that secure the necessary mitigation in the form of effective SANGs need to be introduced. These need to be specific to the particular housing allocations so they should be part of the area policies in chapter 7, and within the policy rather than the text. The current wording eg 'new open space to mitigate impacts on nearby heathland' is too general."

2.18 The change in the policy for the provision of SANG and nature conservation mitigation, arising from the Purbeck report, was therefore fourfold:

- All new neighbourhoods within 5km of the SPA would need to provide a SANG directly related to the site in question
- New guidance would be applied to define the requirements that each area of SANG would have to address (that was intended to apply across Dorset)
- Each allocation would then have specific SANG and mitigation proposals
- Each allocated site would have wording to provide a more certain policy context for the delivery of SANG

2.19 In relation to site VTSW5 (proposed for allocation in the pre-submission draft of the Core Strategy prior to these new provisions) the site promoters provided a SANG strategy prepared by Tyler Grange on behalf of Linden Homes (the Tyler Grange strategy) to address all of these requirements within 12 days of them being announced by the Council.

2.20 Nevertheless, site VTSW5 was deleted from the Plan by the Council on the basis that the Tyler Grange Strategy could not fully demonstrate delivery of its provisions.

2.21 We have explained in some detail, in our statement for Matter 5, the process that led to the Council's decision to de-allocate the site, despite the submission of the SANG strategy prepared by Tyler Grange. Our statement for Matter 5 sets out why these tests were beyond the legal requirements that apply to establishing the principle of development at the point of allocation, and that they were both unreasonable and unnecessary and why the deletion of the site on this basis raises serious questions about the site selection process, and consistency with the Plan's objectives and evidence base.

2.22 However, the key point for the purposes of this statement is that Site VTSW5 clearly demonstrated that it was *"capable of providing SANG or alternative acceptable mitigation".*

2.23 The Tyler Grange strategy for the residential development of the VTSW5 site for approximately 65 dwellings, identified an area of land for the provision of SANG and set out specific proposals as to the nature and extent of this provision and its associated nature conservation mitigation. There is no doubt that the Tyler Grange strategy provided for site VTSW5 met all of the requirements arising from the Purbeck report as set out above.

2.24 The Forestry Commission and the developer have agreed the strategy and the principles of a mechanism to secure its delivery. Natural England has confirmed that this provides confidence that the SANG strategy will be implemented and mitigation secured to the standards required by the Habitats Regulations in relation to a scheme for up to 65 dwellings as is being proposed through the outline application which is currently with the Council for consideration.

2.25 A copy of the Tyler Grange strategy is enclosed as appendices 7 and 8 to Appendix Three of this Statement. The strategy relies upon the enhancement and diversification of habitats to encourage public access and enjoyment of conifer forestry/woodland owned by the Forestry Commission within the adjacent Ringwood Forest. The strategy is summarised as follows:

- To attract dog walkers away from the Dorset Heathlands SPA, a variety of attractive, waymarked circular walks of up to 2,350m linked to the development site would be provided, with leaflets informing new residents of their presence;
- The existing plantation woodland containing the SANG would be made more diverse and hence more attractive to dog-walkers than elsewhere
- New open glades would be created supporting heathland vegetation and it is proposed to restore 13ha of mire habitats that will make the area wetter;
- Paths and surrounding habitats would be maintained, as required;
- To seek to avoid adverse effects to sensitive habitats in Ringwood Forest, signage would state the need to pick up dog litter, and open space in the development site will include dog litter bins and a pond for dogs to use; and
- The SANG features would be secured in perpetuity.

2.26 In relation to the potential impacts on the SPA and Dorset Heaths SAC the Tyler Grange strategy states:

"The SANG strategy necessitates creation of 2 ha of dry heath and 13 ha mire habitat (UK BAP Priority habitats that are characteristic of the local area) that would make the important existing bird and reptile populations more robust to likely increased disturbance of Ringwood Forest (itself a non-statutory SINC), close to the development .In line with national and local policy, and the objectives of the Forestry Commission's Forest Design plan, this quantum of habitat creation would in fact lead to significant biodiversity gain, whilst making Ringwood Forest a more diverse and interesting recreational resource."

2.27 Notwithstanding our concerns regarding the process and approach which led to the de-allocation of the site in the first instance, there can be no doubt that there are full and comprehensive SANG and nature conservation mitigation measures in place to support the principle of the development of the site that was subject to the VTSW5 allocation at the pre-submission stage, and that this is suitable for the approximately 65 dwellings now proposed. The site therefore meets all nature conservation

requirements for its re-allocation. We understand that the Council no longer disputes that the site is capable of providing SANG and appropriate mitigation although it has not been prepared to make a formal statement to this effect as part of the examination process to date.

5. Do all site allocations satisfactorily address biodiversity?

2.28 To support the proposals for residential development of site VTSW5 and the associated planning application for approximately 65 dwellings, Tyler Grange were appointed by Linden Homes on matters relating to ecology and biodiversity. The Ecological Assessment prepared by Tyler Grange which accompanies the planning application is provided at Appendix Three to this statement.

2.29 The Assessment advises that the site is of limited ecological value. The development has been designed to retain the shaded, poor fen habitat of local value. Other habitats, including dwarf gorse of local value, will be affected, but impacts will be more than mitigated through a combination of woodland enhancement strategies, and off-site works. Whilst there will be temporary impacts to two nationally scarce species (tawny cockroach and lesser cockroach), suitable habitat will be recreated and safeguarded. Reptiles will be moved from harm's way to suitable habitat within the development.

2.30 As set out above, a detailed SANG strategy has been prepared to mitigate any impacts of the development on the Dorset Heathlands Special Protection Area and has been agreed with Natural England and the Forestry Commission. In relation to the potential impacts on the SPA and Dorset Heaths SAC, the Tyler Grange report states:

"The potential for adverse effects to the Dorset Heathlands SPA, the most significant ecological issue in respect of future residential development of the site, has been addressed through a SANG strategy that has been agreed with Natural England. The SANG is reliant on Forestry Commission owned land, and the developer and the Forestry Commission have agreed how such work could be secured. …

The SANG strategy necessitates creation of 2ha of dry heath and 13ha mire habitat (UK BAP Priority habitats that are characteristic of the local area) that would make the important existing bird and reptile populations more robust to likely increased disturbance of Ringwood Forest (itself a non-statutory SINC), close to the development. In line with national and local policy, and the objectives of the Forestry Commission's Forest Design plan, this quantum of habitat creation would in fact lead to significant biodiversity gain, whilst making Ringwood Forest a more diverse and interesting recreational resource.

Impacts to Dorset Heaths SAC would be avoided by appropriate drainage design, as well as mire restoration work in Ringwood Forest."

2.31 As such it is considered that the work undertaken clearly demonstrates that the reallocation of site VTSW5 would satisfactorily address biodiversity. The principle of residential development of the site is supported by the Council's evidence base and as demonstrated above there are no overriding constraints which would prevent the site coming forward for the increased scale of development, of up to 65 dwellings, as now proposed.

3. RECOMMENDED CHANGES

3.1 In summary we recommend that the following changes be made to the Core Strategy:

- Amend the Illustrative Masterplans and Proposals Maps to clearly define the extent of the site allocations;
- Land north of Ringwood Road, Verwood, previously allocated under draft Policy VTSW5, should be reinstated as a proposed residential allocation for up to 65 dwellings.

APPENDIX ONE – FLOOD RISK ASSESSMENT

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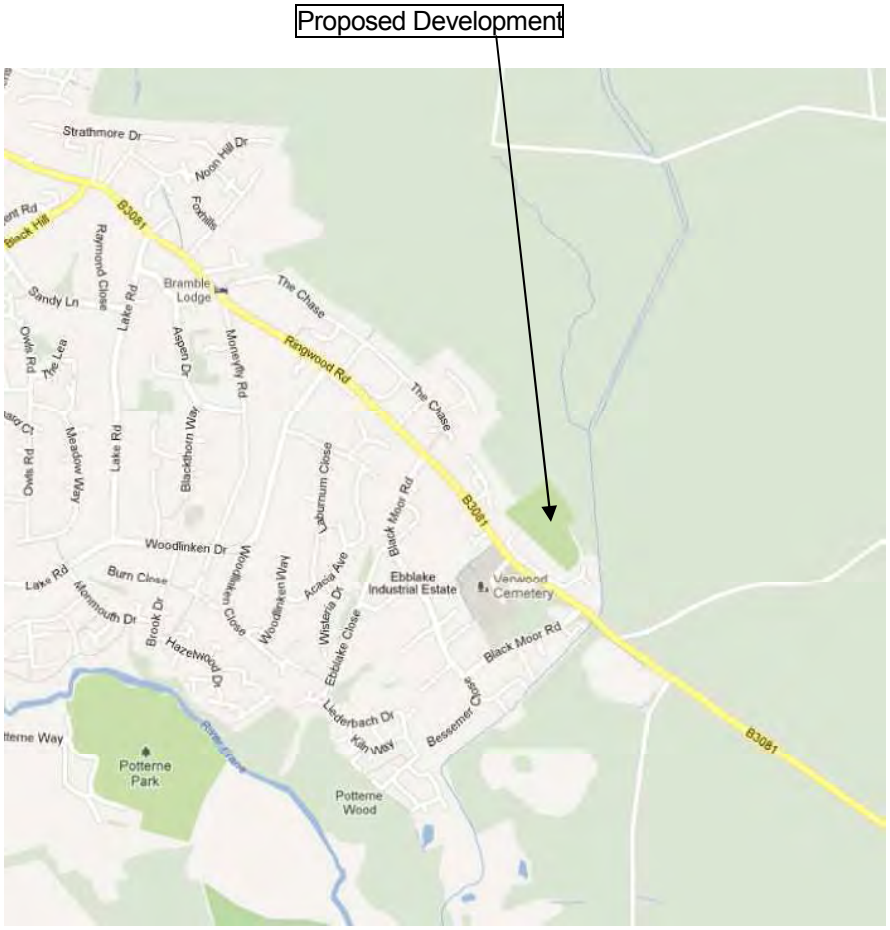
FLOOD RISK ASSESSMENT

PROPOSED DEVELOPMENT,
Land at rear of 217-241 Ringwood Road, Verwood, Dorset, BH31 7AG

1. INTRODUCTION

In January 2013, AMA Ltd were commissioned by Linden Homes Strategic Land to undertake a Flood Risk Assessment to meet the requirements of the National Planning Policy Framework for the Proposed Development at the rear of 217-241 Ringwood Road, Verwood, Dorset, BH31 7AG (Figure 1).

Figure 1: Site Location Plan



1.1 Background

The site covers an area of approximately 3.50ha and is mostly open farmland in the western part of the site, but with a significant wooded area along the eastern boundary covering an area of

approximately 1.30ha. The site is being promoted for the development of the site for residential occupancy, with 65 units being proposed.
As statutory consultees the Land Drainage Authority, Environment Agency and Wessex Water will comment on the proposals.

1.1.1 Ground Conditions

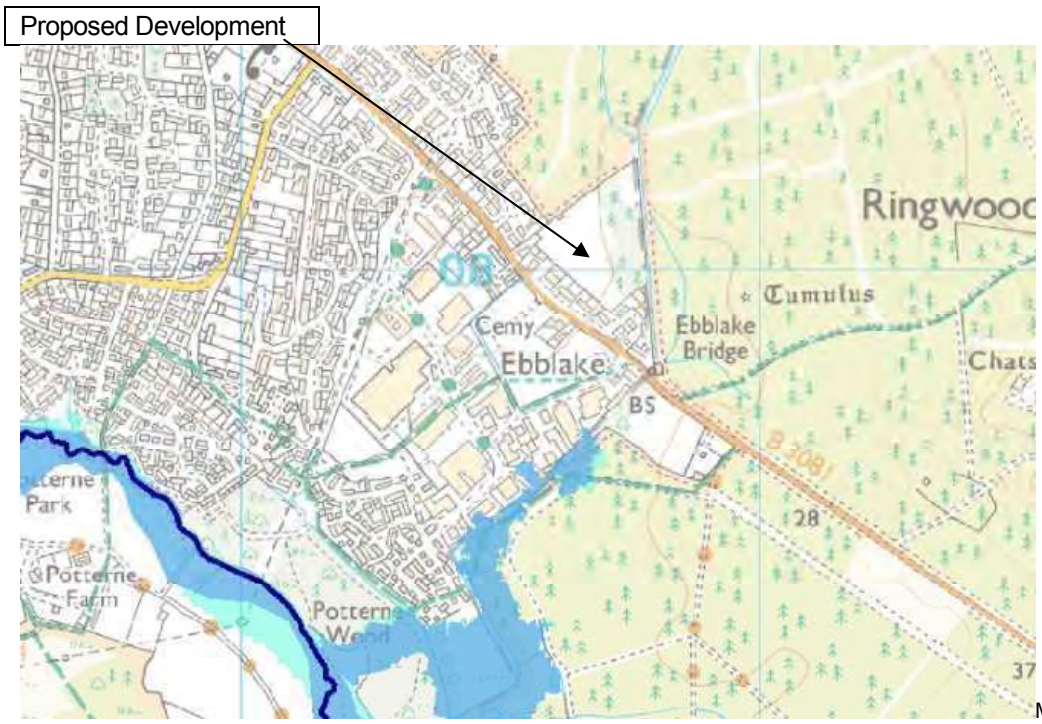
A Site Investigation was carried out in May 2012 after a particularly wet period. This confirmed that ground conditions generally comprised sand of the Parkstone Sand Member - Poole Formation. Groundwater was present at varying depths up to within 1.0m below existing ground levels. Soakage tests were carried out as part of the investigation with achieved good infiltration rates of 1.4E-05 m/sec above the groundwater level, but no results at greater depths could be obtained because of the presence of running sand.

1.1.2 Flood History

The site is bounded to the west and south by existing residential development and to the north and east by woodland forming part of the Ringwood Forest. The site levels fall from the north west corner to the south east corner, with gentle gradients on the open farmland averaging 1in80, but with steeper gradients in the woodland area averaging 1in30.

The flood risk map indicates that the site is not located within an Environment Agency fluvial/tidal flood risk zone (Figure 2). However, the likelihood of this has been investigated and is discussed in this report. In addition to this, issues of local site scale flooding and site runoff volumes have been addressed. This document is designed to fulfil these requirements in line with the National Planning Policy Framework.

Figure 2: Environment Agency Flood Map



Map Courtesy of Environment Agency

1.1.3 Hydrology

Existing ditches and watercourses run along the northern and eastern boundaries of the site. The ditch on the northern boundary is fairly shallow and does not exceed 0.5m in depth. It intercepts run-off from the woodland to the north of the site and overflows into the woodland area within the site. Within the woodland area adjacent to the eastern boundary there is an area of low lying

wetland that acts as a natural infiltration basin for these overland flows and groundwater ingress from the site.

On the eastern boundary of the site runs the Ebblake Stream. There is no direct connection between the natural infiltration basin and the stream as a bund separates the two features. However, in the event of an exceptionally wet period the infiltration basin could fill and overflow into the stream. The lowest level of the bund is approximately 24.50m AOD and therefore no development should be permitted below this level, with Finished Floor Levels of any proposed building being kept to a minimum of 25.00m AOD.

These surface water features are highlighted on the site survey (see Appendix 1).

The Ebblake Stream is a tributary of the River Crane which is located approximately 1000m to the south east. The Environment Agency Flood Map indicates that downstream of the site there are areas at risk of flooding. Post development, no additional discharge should therefore be permitted to the Ebblake Stream, as this may increase the risk of flooding in these areas.

Groundwater was encountered at shallow depths during the site investigation, up to 1.0m below existing ground levels. These levels were recorded after a particularly wet period. The sandy sub-grade has a high Hydraulic Conductivity, which means that ground water levels could vary considerably, but that ground water flows will quickly travel underground to the lower levels during wet periods, rather than cause above ground flooding. This suggests that flooding from high groundwater levels will not be a risk above the 24.50m level already discussed.

1.1.4 Groundwater Protection

The area is not included in a Groundwater Source Protection Zone, however it is understood that East Dorset DC and Natural England are concerned that the quality of water in the Ebblake Stream is not compromised by any surface water run-off from the site.

1.1.5 Objectives

The principle aims of the FRA are:
1. To assess the risk associated with all potential flood sources;
2. To investigate the interaction between potential flood sources and the redevelopment proposals;
3. To discuss management of storm water runoff related to the potential development.

2. SITE DESCRIPTION

2.1 Location

The site is bounded to the west and south by existing residential development fronting the B3081 Ringwood Road and to the north and east by woodland forming part of the Ringwood Forest.

2.2 Site Appearance

The site covers an area of approximately 3.50ha and is mostly open farmland in the western part of the site, but with a significant wooded area along the eastern boundary covering an area of approximately 1.30ha. The site is currently accessed from a service road which runs parallel with the B3081 Ringwood Road to the west of the site. The site levels fall from the north west corner to the south east corner, with gentle gradients on the open farmland averaging 1in80, but with steeper gradients in the woodland area averaging 1in30, as indicated on the site survey (Appendix 1).

2.2.1 Site Drainage

As already discussed there are existing ditches and watercourses that run along the northern and eastern boundaries of the site. The ditch on the northern boundary is fairly shallow and does not exceed 0.5m in depth. It intercepts run-off from the woodland to the north of the site and overflows into the woodland area within the site. Within the woodland area adjacent to the eastern boundary

there is an area of low lying wetland that acts as a natural infiltration basin for these overland flows and groundwater ingress from the site.

An assessment of the existing peak discharge rates from the site is not relevant as all surface water run-off is disposed of by infiltration.

2.3 Surrounding Area

The site is bounded to the west and south by existing residential development fronting the B3081 Ringwood Road and to the north and east by woodland forming part of the Ringwood Forest.

The surrounding areas are generally flat with levels falling westwards from the site towards the River Crane. Only in those areas within approximately 200m of the Ebblake Stream, including the site itself, do levels tend to fall eastwards.

Wessex Water have provided their sewer records (see Appendix 2). These indicate that there are no surface water sewers in the vicinity of the site except for Parklands Close immediately to the south of the site, together with a 225mm dia. Highway Drain in Ringwood Road. Both of which discharge into the Ebblake Stream to the South of the site.

There is an existing 150mm dia. foul sewer in the driveway serving no`s 219,221&223 Ringwood Road, which terminates on the western boundary of the site. This sewer is a branch of the existing 150mm dia. foul sewer in Ringwood Road which discharges to the Ebblake Pumping Station located approximately 100m to the south of the site.

2.4 Description Of Redevelopment

The site will be developed for residential occupancy, with 65 units being proposed. These units will be located on the existing open field and a part of the wooded area. An area of the open field will also be retained as Public Open Space. The site will be accessed from Ringwood Road with a new junction being formed and the existing driveway serving no`s 219,221&223 Ringwood Road being reconstructed.

An indicative site layout has been prepared as indicated on the Drainage Strategy Drawing.no.LIND37-sk1 (Appendix 3). The gross developable area (not including POS) will be 2.20ha, of which approximately 1.10ha will be impermeable.

3. EXTERNAL FLOOD SOURCES

Current guidance recommends that a FRA must investigate all potential sources of flood risk that may affect each particular site. A number of site-specific mechanisms exist: however, many of these are not relevant to this site. Table 2 summarises the range of potential flood sources, pathways and the possibility of relevance to the site itself and immediately surrounding area.

Table 2: Summary of potential flood sources

Flood Type	Source	Pathway	Consider Further
Fluvial	Ebblake Stream	None	No - Stream located at low end of site.
Tidal	None	None	No
Overland Flow	Ringwood Forest	Surface Water Run-off in exceptional storm events.	Yes
Drainage	Public Sewer	Blockage/overwhelmed capacity	Yes
Groundwater	Sandy Sub-Strata	Rising Water Table	Yes

3.1 Overland Flow

The wooded area to the north of the site forms part of the Ringwood Forest and surface water run-off from this area generally moves southwards with the lie of the land. An existing ditch along the

northern boundary of the site intercepts this run-off, which in turn discharges into the woodland area of the site and travels to the natural infiltration basin on the eastern boundary.

Provided that the ditch and overland path to the natural infiltration basin are maintained, surface water run-off will bypass the developed area, and the overland flows will not affect the site.

3.2 Drainage

Wessex Water maintains a database that records reported incidents of sewer flooding. There have been no recorded instances of flooding the site as a result of their sewers being overwhelmed.

3.3 Groundwater

Groundwater was encountered at shallow depths during the site investigation, up to 1.0m below existing ground levels. These levels were recorded after a particularly wet period. The sandy sub-grade has a high Hydraulic Conductivity, which means that ground water levels could vary considerably, but that ground water flows will quickly travel underground to the lower levels during wet periods, rather than cause above ground flooding. This suggests that flooding from high groundwater levels will not be a risk above the 24.50m level already discussed.

4. FLOOD MITIGATION AND MANAGEMENT

The assessment undertaken in Section 3 identified overland flow, off-site drainage and groundwater as a potential source of flood risk to the proposed development. However, it was demonstrated that there is no risk of flooding from these sources, provided that the measures recommended are implemented.

5. SITE GENERATED FLOOD RISK

5.1 Drainage Strategy

5.1.1 Surface Water Drainage

In accordance with the National Planning Policy Framework and the Suds Manual (CIRIA 2007), the proposed surface water drainage scheme should simulate the existing greenfield conditions. As all surface water run-off from the site prior to development discharged by infiltration, a drainage strategy has been prepared on the same basis - Drawing.no.LIND37-sk1 (Appendix 3). As already discussed in this report and to ensure that there will be no risk of flooding as a consequence of redeveloping the site, the strategy takes into account the following issues:

1). Because of the high ground water levels, a Suds scheme should be developed using shallow trench/cellular soakaways and porous paving. These infiltration features should be designed to cater for a 1in100yr storm +30% allowance for climate change in accordance with the National Planning Policy Framework and the code for sustainable homes. This method of surface water run-off disposal, ensures that the proposed drainage system replicates as near as possible the existing green field run-off, so that there will be no discharge to the Ebblake Stream. Consequently there will be no affect on the quality of water in the stream, as any pollutants in the form of debris and sediments washed from hard surfaces on the proposed development will be discharged to the infiltration features already described.

2). Overland flows from off-site and on-site sources will discharge to the lowest point on the eastern boundary of the site. The natural infiltration basin located at this point will be maintained, and no development should be permitted below the 24.50m level, as this is the overflow level separating the site from the Ebblake Stream. A minimum Finished Floor Level of 25.00m AOD should be adopted to ensure there is no risk of flooding to any proposed houses.

3). The use of porous paving is often promoted as a Suds solution, even for sites where it is evidently not suitable because of ground conditions or the topography. In this instance the site is relatively flat and the ground conditions provide adequate soakage potential at shallow depths, so the proposed development lends itself to the use of porous paving wherever possible. However, its

use is not recommended on those carriageways that are more heavily trafficked and these should be of a more traditional blacktop construction, with shallow soakaways used for the disposal of surface water run-off.

5.1.2 Foul Water Drainage

The drainage strategy dwg.no.LIND37-sk1 (see Appendix 3) indicates that the foul drainage generated from the proposed development will discharge to the existing foul drain in Ringwood Road which then discharges to the Ebblake Pumping Station. Some of the site is located at a level, such that a positive outfall to the sewer in Ringwood Road cannot be achieved, and therefore a new pumping station on site will be required, unless a connection through third party land to the sewer in Parklands Close can be negotiated.

Wessex Water have confirmed that their sewers and pumping station have sufficient capacity to cater for the proposed development of 65 units.

6. CONCLUSIONS AND RECOMMENDATIONS.

The following conclusions and recommendations can be made:

- The site is not located within an area considered to be at risk from fluvial or tidal flooding.

- Overland flow from off-site and on-site sources were identified as a potential flood risk to the proposed development. However, provided the existing ditch on the northern boundary, the overland path and the existing natural infiltration basin on the eastern boundary are maintained, overland flow will not be a potential flood risk.

- High groundwater levels were identified as a potential flood risk to the proposed development. Groundwater was encountered at shallow depths during the site investigation, up to 1.0m below existing ground levels. These levels were recorded after a particularly wet period. The sandy sub-grade has a high Hydraulic Conductivity, which means that ground water levels could vary considerably, but that the ground water will also travel quickly underground to lower levels during wet periods, rather than cause above ground flooding. This suggests that flooding from high groundwater levels will not be a potential flood risk.

- To ensure that the natural infiltration basin is maintained, no development below the 24.50m level should be permitted (overflow level into Ebblake Stream). Finished Floor Levels should be kept to minimum of 25.00m AOD,

- Further soakaway tests should be carried out to confirm the soakage potential of the underlying sand sub-grade. The size and depth of soakaways/porous paving should be designed so that they can cater for a 1in100yr storm +30% allowance for climate change.

- Foul drainage from the proposed development will discharge to the existing foul sewer in Ringwood Road via the existing 150dia. sewer located on the western boundary. The existing foul sewer network has sufficient capacity to cater for the proposed development.

Appendix 1

Site Survey

LAND AT RINGWOOD ROAD, VERWOOD
SITE SURVEY

0 10 20 40 70 100.M.

Existing Ditch along Northern Boundary

EBBLAKE STREAM

AREA LOWER THAN 24.50m AOD FORMING NATURAL INFILTRATION BASIN WITH HIGH LEVEL OVERFLOW INTO EBBLAKE STREAM

Appendix 2

Drainage Records

r/o 217-241 Ringwood Rd

Verwood, Dorset

Printed on : 27/04/2012 14:59

WATER MAINS Public Private
Public
Raw Water
Abandoned
Valve Hydrant PRV Meter

SEWERS Public - Section 104 - Private
Foul
Combined
Surface
Abandoned sewers

OTHER WESSEX PIPES
Rising Mains
Effluent Disposal Main
Overflow

NON-WESSEX PIPES
Private Rising Mains
Culverted Water Course
Highway Drain

Information in this plan is provided for identification purposes only. No warranty as to accuracy is given or implied. The precise route of pipe work may not exactly match that shown. Wessex Water does not accept liability for inaccuracies.

Sewers and lateral drains adopted by Wessex Water under the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011 are to be plotted over time and may not yet be shown.

In carrying out any works, you accept liability for the cost of any repairs to Wessex Water apparatus damaged as a result of your works. You are advised to commence excavations using hand tools only. Mechanical digging equipment should not be used until pipe work has been precisely located.

If you are considering any form of building works and pipe work is shown within the boundary of your property or a property to be purchased (or very close by) a surveyor should plot its exact position prior to commencing works or purchase. Building over or near Wessex Water's apparatus is not normally permitted.

Centre:410603.01 , 108016.92

Scale = 1:1500

Metres 20 40 60 80

Appendix 3

Drainage Strategy

SURFACE WATER DRAINAGE NOTES

1). GROUND INVESTIGATION CONFIRMED GROUND WATER LEVELS ARE UP TO 1.0m BELOW EXISTING LEVELS. HOWEVER SOAKAGE TESTS CARRIED OUT AT SHALLOW DEPTHS CONFIRMED GOOD SOAKAGE POTENTIAL.

2). SURFACE WATER RUN-OFF FROM ROOFS TO DISCHARGE TO SHALLOW AQUACELL SOAKAWAYS. IN GENERAL ONE SOAKAWAY WILL BE PROVIDED IN GARDEN FOR EACH UNIT.
TYPICAL SOAKAWAY SIZE WILL BE 2.0x3.0x0.4m (Total Depth = 1.0m)

3). SURFACE WATER RUN-OFF FROM PROPOSED HIGHWAY AND PARKING AREAS TO DISCHARGE TO POROUS PAVING, EXCEPT FOR MAIN ACCESS ROAD WHICH WILL BE CONSTRUCTED IN BLACKTOP, WITH SURFACE WATER RUN-OFF DISCHARGING TO SHALLOW SOAKAWAYS

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C. Amended to accord with revised indicative layout. 24-05-13
B. Redrawn to indicate indicative layout. 12-04-13
A. Redrawn to incorporate site survey & new layout. 14-09-12

Project: LINDEN HOMES
Proposed Residential Development
Land at rear of 217-241 Ringwood Road, Verwood, Dorset. BH31 7AG

Title: DRAINAGE STRATEGY

Date	Scales	Drawn
sept 12	1:500@A1	ajm

Drawing Number	Rev
LIND39-sk1	C

APPENDIX TWO – DAC BEACHCROFT LEGAL ADVICE