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Hearing Statement

BIDWELLS

Greater Norwich Joint Core Strategy
Development Plan Document
Matter 10 Service Centres for Paul Rogers [8574]

Quality Assurance

Site name: Land South of Wroxham

Client name: Paul Rogers

Type of report: Hearing Statement

Version: 1.0

Date: 14th October 2010

Prepared by: Isabel Lockwood Bsc (Hons) MRTPI

Signed _____

Date 14th October 2010

Reviewed by: John Long BA (Hons) Dip TP MRTPI

Signed _____

Date 14th October 10

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Appendices

1 INTRODUCTION

1.1 This Hearing Statement has been prepared by Bidwells on behalf of Mr Paul Rogers. It relates to representations submitted by Bidwells, on behalf of Mr Paul Rogers, to the pre-submission version of the Greater Norwich Joint Core Strategy **Policy 14:** Key Service Centres (Respondent ID: 8574).

1.2 This Hearing Statement is intended to amplify the representations made by Bidwells at the pre-submission stage of the Joint Core Strategy's production and update those comments in light of new evidence ie the Water Cycle Study Stage 2b.

2 MATTER 10: KEY SERVICE CENTRES (POLICY 14), SERVICES VILLAGES, AND SMALLER RURAL COMMUNITIES

Key Service centres (Policy 14)

A Does the JCS provide sound core strategic guidance for the future planning of theses settlements? Does the evidence demonstrate that the service villages are appropriately listed as such, with no additions/deletions?

B is the scale of the development for the individual villages soundly based?

2.1 .With regards to Policy 14 we agree with the identification of Wroxham as a Key Service Centre. The village has a significant role as a Key Service Centre, servicing a wide rural area.

2.2 We note that North Norfolk District Council has responded to the GNDP that they consider that the growth of Wroxham is consistent with the identification of Hoveton as a secondary settlement in the North Norfolk Core Strategy. Wroxham and Hoveton in effect act as a single settlement, which is a significant centre for boat building and boat hiring and a tourism destination in its own right. Despite a decline in boat hire businesses this sector continues to be critical to the economy of the area. The North Norfolk Core Strategy proposes a 10ha employment allocation as well as a residential allocation at Hoveton. Residents in Wroxham would benefit from additional employment opportunities in Hoveton.

2.3 Wroxham is a sustainable location, well served by public transport via both train and bus to Norwich and other key destinations and this will form an important part of the transport strategy for the proposed new development.

2.4 It is considered that development at Wroxham could provide the opportunity for public open space and community playground facilities to serve new residences and also be accessible to

existing residents. There is currently a shortage of provision in Wroxham, further discussion will be undertaken with the Parish Council to seek their views on these matters.

(B) Scale of Growth

2.5 The level of growth for the Key Service Centres should be appropriate to help maintain their role and function and meet housing need. The housing figures contained in the Joint Core Strategy should not be a ceiling for development and should be a starting point for new development. Spatial planning requires a considered approach to determine suitable locations and quantum's of growth in order to achieve sustainability objectives taking into account cross boundary issues.

2.6 The determining factor of the appropriate level of growth should be based on the ability of the settlement to accommodate growth in terms of landscape and infrastructure capacities, the need to meet local housing and employment requirements and to help support village services and facilities.

2.7 **Policy 14** sets out that Wroxham could support the development of some 100-200 dwellings. Para 6.56 states that this is 'within utilities capacity limitations taking into account the proposed new housing allocations for some 150 dwellings in North Norfolk District Councils Local Development Framework'

2.8 We are confident that **at least 200 units** can be accommodated in Wroxham and have already submitted information regarding these aspects to Broadland District Council in response to their request for Initial Site Concept Forms.(part of the Site Specific Allocations PDP document)

2.9 It is our understanding that there are no overriding utilities capacity limitations which would constrain the development of at least 200 units.

2.10 This is supported by the following:

1. Waste/Sewage/Drainage

GNDP Stage 2b Water Cycle Study Draft Final Report September 2009.

2.11 This document assessed the water issues which would effect development at Wroxham (pages 92&93 - refer to Appendix 1). This assumed a certain level of growth (125 units). Overall there were no volumetric capacity constraints for this scale of growth at Wroxham.

2.12 The principal issue was that of waste water treatment. This states that

' to make use of capacity at local WwTW and to reduce pumping and transmission costs, development in NPA 3- North East Sector (Inside NNDR) will have wastewater treated at the existing WwTW at Belaugh.

No upgrades are required to Belaugh WwTW in terms of meeting sanitary determinands; however it is predicated that P consent limit of 1mg/l will be required to meet WFD standards. Significant growth before AMP6 will therefore not be possible until P stripping is introduced at the WwTW.'

2.13 This same document also assessed the effect of a total of 3,41 new dwellings in the NPA3a- (North East Sector) (pages 69&70 – refer to Appendix 1). This assumed that 65% of the waste waster from this scale of development would go to Belaugh WwTW. This report suggests that there is sufficient capacity to accommodate this level of growth

2.14 This study demonstrates that Belaugh WwTW can cater for more than 200 new dwellings; however the JCS has artificially restricted the amount of dwellings at Wroxham in favour of allowing provision to cater for growth in the NPA3 North East sector (Growth Triangle) We suggest that it is not appropriate to reserve capacity at the Belaugh WwTW to accommodate growth in different locations.

2.15 Further evidence of the volumetric capacity at Belaugh is provided in the **North Norfolk District Councils Site Specific Proposals Draft Plan Water Infrastructure Statement (March 2010).** This also confirmed that there was not a capacity constraint at Belaugh WwTW and no need to restrict the scale of development at Wroxham to less than 200 units. Appendix 1 Table 1 (refer to Appendix 2) indicates that there is **Potential Housing Headroom of 1959 dwellings at the Belaugh WwTW .**

2. Education

2.16 We have consulted Norfolk County Council on the potential infrastructure, service and amenity requirements arising from a proposal of 200 dwellings at Wroxham. At October 2008 they estimated that from a development of 200 dwellings it is expected that there would be 17 nursery children, 51 primary school children and 28 High School Children. It was stated that there was spare places at both the nursery and high school level to accommodate at least this level of growth. The letter from Norfolk County Council indicated that financial contributions could be made to satisfy education provision.

2.17 St Johns Primary and Broadland High School are both in Hoveton. We note the commentary on education provision in Hoveton in the North Norfolk Core Strategy which stated that pupil numbers in the Broadland High School catchment area are declining and there is scope for

expansion of the existing sites, so it should be achievable to accommodate pupils generated from the proposed levels of housing.

3. Flood Risk

2.18 We note that Environment Agency has flagged up that there is significant areas of Wroxham which are subject to flood risk. The area of land controlled by my client is to the south of Wroxham and is outside of the areas at risk of flooding as annotated on the Environment Agency's maps. It is clear that there is sufficient suitable available and deliverable land at Wroxham outside of the areas of flood risk to accommodate at least 200 dwellings

4. Transport/air Quality

2.19 Para 6.56 notes concern about the bridge over the Bure is a significant constraint to internal circulation between Wroxham and Hoveton and there is also concern about air quality issues in the centre of Hoveton. These issues are acknowledged and addressed in the North Norfolk District Council's Site Specific Proposal Plan Response to Inspectors Matter and Issues: Question in Relation to Hoveton (refer to Appendix 3) Para 3.8 notes that air quality monitoring near Wroxham Bridge has identified an air quality hotspot where the national objective for nitrogen dioxide is close to being exceeded. A concern was raised that increased traffic associated with new development will cause air quality to fall below minimum standards and that an air quality management and improvement plan should be required alongside any large developments. North Norfolk District Council has submitted a bid to Defra for 1 years air quality monitoring in Hoveton to obtain more detailed information. The outcome of this will determine what further work is required. This can be addressed during the process of a planning application, if necessary an agreed scheme of mitigation may be necessary at the time of development.

Summary

2.20 The policy specification of 100-200 units at Wroxham is an arbitrary cap which is not justified by robust evidence. A better approach would be the identification of at least 200 units. The approach in Policy 14, reflected in para 6.56 is internally inconsistent with Policy 13. Policy 13 states that inter alia the numbers in the table within Policy 13 indicate a minimum number of dwellings. However Policy 14 and para 6.56 gives no acknowledgement to this approach. It is our view that the Policy is therefore not justified and internally inconsistent.

2.21 The upper limit of growth at Wroxham will be dependent upon the capacity of Wroxham landscape to accept growth, the capacity of the local infrastructure (and its ability to be

expanded) and the availability of suitable, available and deliverable development sites and most importantly housing need.

Suggested Changes to Policy 14

2.22 Policy 14's justification (par 6.56) should be changed to state that:

'...Wroxham could support the development of a 'minimum of 200 dwellings by 2026".

Appendix 1

Extract of GNDP Stage 2b Water Cycle Study Draft Find Report September 2009

Appendix 2

North Norfolk District Council's Site Specific Proposals Draft Plan Water Infrastructure Statement (March 2010)

Appendix 3

North Norfolk District Council's Site Specific Proposals Plan Response to Inspectors Matters and Issues: Questioning Relation to Hoveton

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Appendix 1

Extract of GNDP Stage 2b Water Cycle Study Draft Find Report September 2009

6.5 NPA 3a - North East Sector (Inside NNDR)

Growth Summary

6.5.1 A total of 3,451 new dwellings are proposed for NPA 3a.

Wastewater Treatment

6.5.2 Wastewater generated at NPA3 will be split between nearby Belaugh WwTW to the north east (65%) and a strategic transfer to Whitlingham WwTW (35%).

6.5.3 No upgrades are required to Belaugh WwTW in terms of meeting sanitary determinands; however, it is predicted that a P consent limit of at 1mg/l will be required to meet WFD standards. Significant growth before AMP6 will therefore not be possible until P stripping is introduced at the WwTW. It is recommended that flow is therefore transferred to Whitlingham WwTW first (approx 2,240 dwellings can be transferred according to the wastewater strategy).

6.5.4 Upgrades in terms of additional nitrification capability (ammonia reduction) and reduction of organic load (BOD) will be required at Whitlingham WwTW to treat flow to the required quality under the WFD; however, these improvements can be phased into the works over AMPs 6, 7 and 8 as flow from NPA3a and other NPAs are transferred to the works.

Wastewater Transmission

Strategic Connection

6.5.5 There is a large 'strategic' sewer to the west of NPA3a; however, it would connect to the existing strategic sewer which is likely to accommodate NPA2 and hence is unlikely to have capacity to utilise it unless development in these two NPAs is co-ordinated and phased.

6.5.6 There are no strategic sewers running to Belaugh WwTW although minor sewers are present. Capacity in these sewers would need to be assessed through modelling with AWS; but they are likely to have some capacity for early phasing and before Belaugh requires P stripping to be installed. Development however will most likely be required to be phased to start in the middle of AMP6 to allow enforcements to be made to the network draining to Belaugh and to allow for P stripping to be introduced at the WwTW.

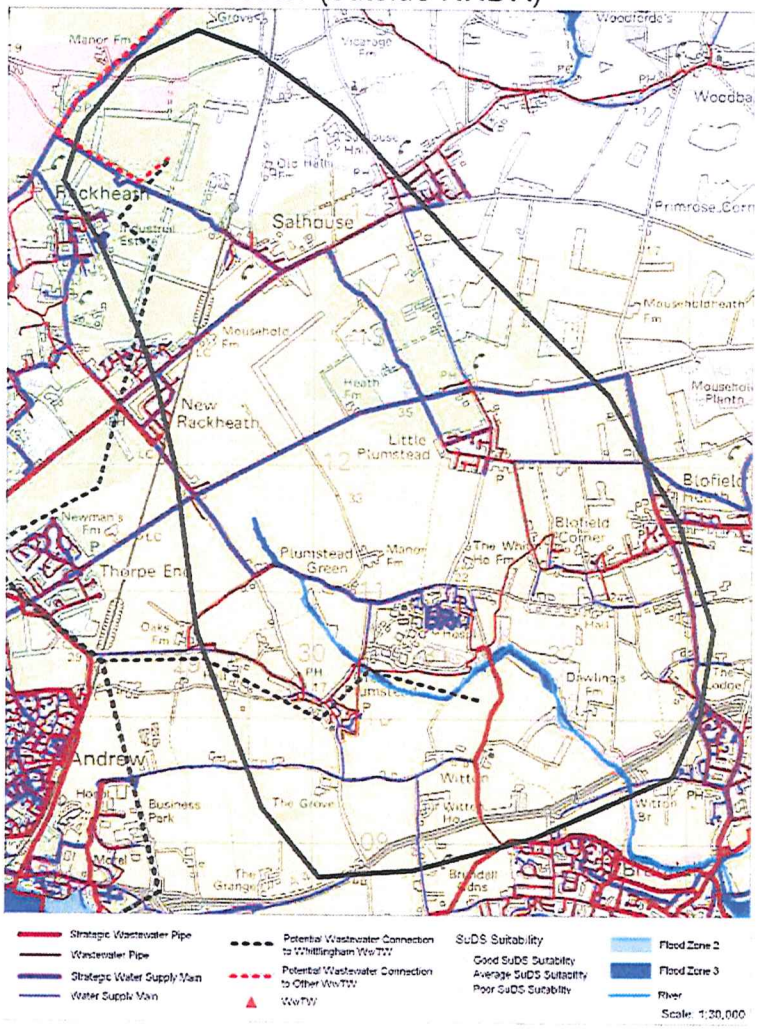
6.5.7 Depending of phasing within this NPA, new strategic mains will therefore likely be required for AMP 6 moving into AMP 7. The options for providing this additional network would be:

- The developer(s) requisitions a wastewater sewer to connect the remaining development direct to Whitlingham for use in AMP7 and to Belaugh for use in AMP6;
- Development here is phased such that the development draining to Whitlingham commences during AMP7 (2020 onwards) to make use of the strategic northern connection proposed as part of the WCS wastewater strategy. This is not preferable in light of the requirement for Belaugh to be upgraded for P stripping up to AMP6

Local Connection

6.5.8 Extensive local connections will be required at developer level for the majority of the NPA other than development in proximity to Salhouse and New Rackheath.

NPA3a - North East Sector (outside NNDR) & NPA3b - East Sector (outside NNDR)



Water Resources

Water Supply Infrastructure

6.5.9 The accompanying figure highlights strategic water supply mains to the centre, north west and central south of the NPA. Connection to these mains should be sufficient for new development, although local pumping stations and connections will be required

Water Neutrality (WN)

6.5.10 Due to limited existing population in the NPA, WN for NPA3a is assessed as part of Norwich City as a whole. WN is potentially feasible if new homes in this NPA achieve code level 5 or 6 under the CfSH and existing homes within Norwich adopt either low flow toilets or showers, or adopt universal metering combined with a range of low water use fittings.

Flood Risk & Management

Flood Risk & the Sequential Test

6.5.11 There are no designated Flood Zones 3 and 2 within this NPA.

SuDS Suitability

6.5.12 The NPA has an average (to the south) and good (to the north) suitability for infiltration SuDS; hence a mixture of surface water storage features and infiltration SuDS will be required. There are no significant SPZs in this NPA, although the presence of a small area of total catchment to the north west will mean that Infiltration SuDS proposed in this area will require some form of water quality control such as oil interceptors if infiltration of runoff (other than clean roof runoff) is proposed.

6.17 RPA 3 – Wroxham

Growth Summary

6.17.1 A total of 125 new dwellings are proposed for Wroxham.

Wastewater Treatment

6.17.2 To make use of capacity at local WwTW and to reduce pumping and transmission costs, development in RPA3 will have wastewater treated at the existing WwTW at Belaugh.

6.17.3 No upgrades are required to Belaugh WwTW in terms of meeting sanitary determinands; however, it is predicted that a P consent limit of at 1mg/l will be required to meet WFD standards. Significant growth before AMP6 will therefore not be possible until P stripping is introduced at the WwTW.

Wastewater Transmission

Strategic Connection

6.17.4 Wroxham has a reasonably well connected wastewater network system with a main sewer feeding Belaugh WwTW. Approximate capacity assessments have determined sufficient capacity (up to 700 dwellings) to meet the requirements of the proposed growth.

Local Connection

6.17.5 Extensive local connections will only be required at developer level if development is proposed at distance from the existing town

Water Resources

Water Supply Infrastructure

6.17.6 The accompanying figure highlights that there is a single water main servicing the area that should be sufficient to supply water to the proposed development. Local connections will be required with potential for some local pumping.

Water Neutrality (WN)

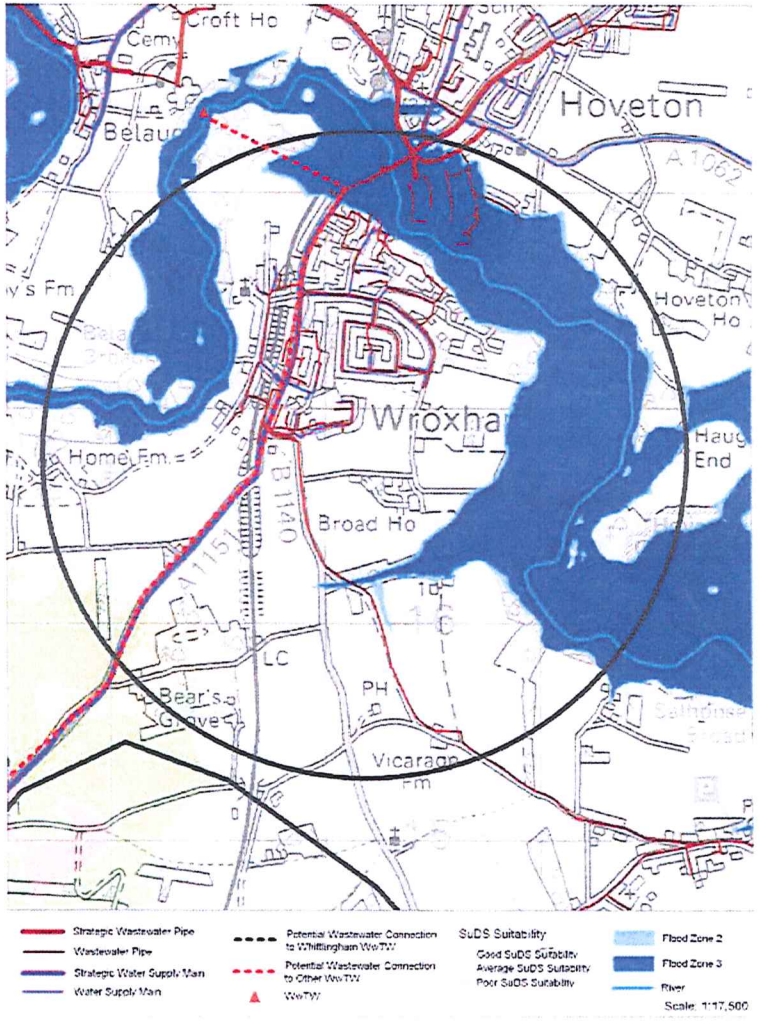
6.17.7 Wroxham has been assessed for WN as a single town. As the amount of proposed growth for the town is fairly small, WN is theoretically feasible for the town even with development at codes 1 & 2 on the CfSH, so long as metering is introduced across the town for existing homes and low use fittings (including toilet flushing) are included for existing homes. Achieving WN for the town as a whole is a definite possibility with retrofitting and even higher achievement of codes 5 & 6 under the CfSH for new homes.

Flood Risk & Management

Flood Risk & the Sequential Test

6.17.8 The extent of Flood Zones 3 and 2 within this area is fairly extensive. Development in the north and east of the town would need to be carefully planned to enable the area to meet the PPS25 Sequential Test and Exception Test and support the proposed development without the need for specific flood risk mitigation

RPA3 - Wroxham



SuDS Suitability

6.17.9 The town's western area is covered by a SPZ 2 and 'total catchment', and is close to a SPZ 1 for an abstraction immediately to the west of the town. This would restrict development type to the west of the town and will require some form of water quality control such as oil interceptors if infiltration of runoff (other than clean roof runoff) is proposed.

6.17.10 Restrictions on the type or use of SuDS in the east of the main town are unlikely to be onerous if the area is suitable for infiltration.

Appendix 2

North Norfolk District Council's Site Specific Proposals Draft Plan Water Infrastructure Statement (March 2010)

LOCAL DEVELOPMENT FRAMEWORK

Site Specific Proposals Draft Plan

Water Infrastructure Statement

March 2010

NORTH NORFOLK DISTRICT COUNCIL

North Norfolk District Council
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All of the LDF Documents can be made available in Braille, audio, large print or in other languages. Please contact 01263 516318 to discuss your requirements.

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NORTH NORFOLK DISTRICT COUNCIL

LOCAL DEVELOPMENT FRAMEWORK
SITE SPECIFIC PROPOSALS DARFT PLAN
SUBMISSION DOCUMENT

WATER INFRASTRUCTURE STATEMENT

1. Purpose of This Document

1.1 This document has been prepared to set out the current position in relation to the capacity of water resources (sewerage networks, waste water treatment works, and receiving water courses) to accommodate the proposed growth in North Norfolk. It has been prepared in response to objections from the Environment Agency and Natural England to the Site Specific Proposals Draft Plan and has involved input from both organisations and Anglian Water Services (AWS). It sets out the background to the Site Specific Proposals document and how available information, notably the Review of Consents process and the Water Framework Directive, has moved on since previous stages of the Local Development Framework (LDF). It presents the latest information from the Environment Agency and Anglian Water Services in terms of the capacity of water resources to accommodate planned growth in North Norfolk.

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2. Overview

2.1 New development has the potential to affect water quality, primarily through increased levels of nutrients being discharged into receiving environments. In North Norfolk two of the receiving water courses, the River Wensum and the Broads system are internationally important wildlife habitats which are subject to specific protection. Discharge of additional treated water and potential future enhanced quality standards arising from the Water Framework Directive are identified as possible constraints on the quantity and timing of development in North Norfolk and need to be investigated further.

2.2 Additional work has been carried out since publication of the Site Specific Proposals (SSP) Draft Plan to further investigate the potential impact of proposed development on water quality. This has shown that whilst the growth proposed in Cromer, Hoveton, North Walsham, Sheringham, Stalham and Wells, together with the villages, is not currently constrained by water quality issues, a proportion of the growth proposed for Fakenham and Holt can not currently be accommodated within the existing Waste Water Treatment Works (WwTW) discharge consents. Alternative waste water treatment / reduction / disposal mechanisms will therefore need to be found if the full level of growth proposed in Fakenham and Holt is to be accommodated.

2.3 The current quality consent limits for all Waste Water Treatment Works will be reviewed, and if necessary tightened, as part of the next review of water company prices. This review, and subsequent consent changes, will come under the requirements of the Water Framework Directive (WFD) to prevent deterioration or achieve ‘good status’ of all watercourses and will apply to all water quality parameters. Consent modifications could be made as early as 2015 and may constrain the operation of WwTWs with regards to further growth. Further information on this issue is unavailable at this time.

3. Background

3.1 Limited capacity in WwTWs is a common issue arising across Norfolk and beyond. This can apply to the current consented volumetric capacity, the process capacity (the physical capabilities of the equipment on site) and / or whether the WwTW is already operating at 'Best Available Technology Not Entailing Excessive Costs (BATNEEC). This issue is complicated by levels and timing of public and private sector investments in foul water infrastructure (developers cannot fund improvements to WwTWs).

3. 2 At the recent examination into the Breckland Core Strategy, where the Environment Agency (EA) had objected to the scale of growth and the ability to dispose of waste water, all parties agreed a 'Statement of common ground on water quality matters'[1]. This recognised that the issue of waste water was challenging and requires work at the boundaries of current technology, but concluded that there was a *reasonable prospect* of wastewater treatment infrastructure being provided within the plan period to deliver the proposed development. Similar issues have arisen through consideration of the Greater Norwich Core Strategy (see www.gndp.org.uk for relevant evidence studies).

Regional Plan

3.3 The East of England Plan requires that at least 8,000 dwellings are delivered in North Norfolk between 2001 and 2021. The Regional Plan was subject to Appropriate Assessment during its preparation, which identified that adequate water resources and infrastructure needed to be in place to accommodate the growth proposed across the region. It specifically identified that Fakenham Sewage Treatment Works (STW) needed to be upgraded but did not identify any specific constraints that would limit this expansion, nor the upgrading of other STWs that discharge to the River Wensum and its tributaries. It also identified that whilst a significant number of dwellings are proposed in the catchment of the Broads SAC there are strategic water initiatives, such as Catchment Abstraction Management Strategies and Catchment Sensitive Farming, which plan to protect the Broads and mitigate against the possible impacts of the planned growth. The Appropriate Assessment of the Regional Plan consequently concluded that the Plan would have no effect on the integrity of the Broads SAC, Broadland SPA or the River Wensum SAC in terms of water management.

3.4 However, since the Appropriate Assessment was finalised in 2007 understanding of water quality issues at the local level has moved on, due in part to the conclusion of the Review of Consents for the River Wensum SAC and Broads SAC/ Broadland SPA and also the introduction of the Water Framework Directive. The Appropriate Assessment did not (and should not have) consider potential impacts on the wider water environment, which is now required by the WFD.

3.5 The information presented in this Foul Water Infrastructure Statement represents the most up-to-date information, presented at the most appropriate scale, and relates to both Habitat Directive and WFD issues.

North Norfolk Local Development Framework

3.6 The North Norfolk **Core Strategy** was adopted in September 2008 and indicates the scale of growth expected in a number of selected settlements across the district to meet the regional housing requirement. Water quality issues were raised in the Appropriate Assessment of the Core Strategy and discussed through the examination, and it was agreed that, on the basis of the best available information at the time, policies[2] requiring

[1] Available at www.breckland.gov.uk or in the North Norfolk Examination Library [E33]
[2] Core Strategy policies SS6 – SS13

development to be phased until it had been demonstrated that there is adequate capacity in sewage treatment works were adequate to ensure no adverse impact.

3.7 It should be noted that the Appropriate Assessment only considered potential impacts on sites designated under the Habitat Directive. The WFD (which considers the wider water environment) was not considered or discussed in any great detail as part of the Core Strategy examination but it is now a key issue when considering the impact of growth on water quality.

3.8 The **Site Specific Proposals (SSP) Draft Plan** was subsequently prepared to identify individual site allocations that would deliver the expected growth. Sites for approximately 3,200 dwellings on newly allocated sites are identified (the rest of the growth is made up of future windfall and development that has already been built / permitted). The Draft Plan was published in June 2009 to seek comments on its soundness prior to submission.

3.9 Concerns about the impact of development on water quality were raised through the SSP Appropriate Assessment which recommended that further assessment of water quality and the capacity of existing discharge consents be carried out in order to fully assess the impacts on the integrity of designated sites. Criteria were therefore included in relevant site allocation policies stating that development would be dependent upon demonstration of adequate capacity in sewage treatment works.

3.10 The Environment Agency, Natural England and the Broads Authority responded to the SSP consultation raising concerns about the allocations in Stalham and Fakenham due to it not being demonstrated whether the proposals could be accommodated within the existing consents for the relevant WwTWs without detriment to water quality in the receiving watercourses, which are designated SACs. They said further investigation was required into the environmental capacity for growth and to investigate the options for sustainable solutions to ensure no detriment to water quality with regard to both the Habitat Directive (HD) and WFD. Alternatively, it would need to be demonstrated that there were alternative receiving environments in the district to meet the housing target without detriment to water quality and designated sites.

3.11 In the period between receipt of these comments and submission of the SSP document the Council has investigated these issues with Anglian Water Services (AWS), the Environment Agency (EA) and Natural England (NE). Meetings have been held to explore the issues and information provided to allow key questions to be answered. In particular the potential impacts of the proposed growth have been modelled in greater detail.

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4. Key Questions to be Addressed

4.1 The following questions need to be addressed to answer the concerns:

a) **Can the proposed growth be accommodated within the existing <u>volumetric</u> consent of the relevant WwTWs?**
The EA Review of Consents (RoC) considered the potential impact of all existing discharge consents on HD sites. Currently there is no mechanism for the EA to review, and if necessary, tighten existing discharge consents to meet the requirements of the ‘no deterioration’ objective of the WFD. Only when the proposed growth takes the flow of a WwTW above the existing consented volume, would the quality consent limits of the WwTW be reviewed and tightened if

necessary. Consequently, if it can be demonstrated that the proposed growth can be accommodated within the existing volumetric consent of the WwTW, it would not be currently constrained by the requirements of the HD (as this has already been assessed through the EA RoC) or the WFD.

Notwithstanding the above, as the consented volumetric capacity is used up by the planned growth coming on line, there may be a deterioration in current water quality. As the consent has been issued, the potential deterioration is deemed 'planned'. The potential impacts of this on HD sites has already been assessed as part of RoC.

b) Will development have an adverse effect on river <u>quality</u> downstream with regards to the objectives of the Habitats Directive and Water Framework Directive?
It is important that the objectives[3] of the WFD are met in all waters. The indicative water quality consent limits that would need to be applied to the discharge consents to achieve the WFD requirements, and whether they are within 'Best Available Technology', is a key consideration for the EA.

c) Can existing and possible future limitations be overcome to enable the proposed growth?
Understanding this is important to provide the evidence required to assess whether the proposed development is deliverable. There is a need to understand the limitations i.e. whether the limitation is purely achieving water quality standards and/ or whether the process capacity of the WwTW and sewerage infrastructure capacity also presents limitations.

4.2 Since the Core Strategy was examined, further information has become available to investigate the issue of water quality, particularly the implementation of the WFD (the River Basin Plan was published December 2009) and the results of the Review of Consents process (the River Wensum SAC water quality outcomes were finalised and provided March 2009, the majority of the Broads SAC/ Broadland SPA water quality outcomes were provided March 2009 and all confirmed November 2009).

4.3 This Water Infrastructure Statement seeks to answer the key questions posed above and summarises the most up-to-date information available. In addition, two further points are considered:

- Is there adequate capacity in the foul sewerage network; and
- Is there adequate water supply to accommodate planned growth.

Key Question A: Can the proposed growth be accommodated within the existing <u>volumetric</u> consent of the relevant WwTWs?

4.4 A certain volume of treated water is consented to be discharged from each WwTW. Generally the consents provide for the discharge of a greater volume of treated water than is actually discharged and the consent holder (AWS) maintains a ten percent safety margin to allow for unpredictable seasonal flows that may otherwise lead to breach of the consent. There is currently some capacity, not including the ten percent margin, at all WwTWs in the District. This capacity, or headroom, can be used to service the needs of

[3] To ensure there is 'no deterioration' in current classified water quality and 'Good Status' is achieved for all water quality parameters (ammonia, BOD and phosphorus)

new development without the need for new discharge consents. AWS has provided a summary of the current and projected flows for the main settlements, now and taking account of the planned growth (allocations and future windfall). This shows where there is sufficient headroom to accommodate the future growth and is set out in Table 1 (see Appendix).

4.5 This indicates that **there is sufficient headroom within existing consents to accommodate the full growth proposed in all main settlements except for Fakenham and Holt**. Furthermore in all locations there are no changes to existing consents required as a result of the recently completed water quality Review of Consents. Consequently, where there is capacity in the existing consent for the proposed growth then this can be accommodated within the plan period.

4.6 The levels of growth proposed in the **villages** can be accommodated. Whilst AWS has indicated there is limited process capacity to serve the villages of Corpusty, Blakeney, Roughton and Walsingham, the scale of growth (maximum of 26 dwellings to be allocated, 30 at Roughton) would not require a modification to the discharge consent and these WwTW's could sustain this level of growth.

4.7 Villages often feed into WwTWs at neighbouring towns and where relevant this growth has been included in AWS's calculations. Fakenham and Holt do not receive flow from any service villages, and towns which do receive flow from villages are well within the existing WwTW consent.

4.8 The proposed growth at **Hoveton** will feed into **Belaugh WwTW** which will also need to serve development proposed within Broadland District Council. The Greater Norwich Water Cycle Study (published alongside the Greater Norwich Joint Core Strategy in September 2009) looked at the impact of the growth in combination and confirms that not all of the proposed growth for the Belaugh WwTW catchment can be accommodated at Belaugh WwTW. It quantifies the number of dwellings whose waste water flows would need to be routed to the larger Whitlingham WwTW for treatment. The GNDPWCS goes on to demonstrate that Whitlingham WwTW can accommodate the additional flows from Belaugh and elsewhere within existing consent limits (equivalent to 28,178 dwellings), however it is understood that this would leave a very small amount of headroom.

4.9 The 184 dwellings proposed for Hoveton represents a small proportion of the total growth proposed in the Belaugh WwTW catchment, and less than 1% of the total proposed growth that may need to be routed to Whitlingham WwTW.

4.10 In addition, approximately 5,000 dwellings are proposed at a new EcoCommunity in Rackheath. The concept statement in respect of the EcoCommunity[4] notes that wastewater treatment for the surrounding community is provided by Rackheath WwTW which is recognised as being at capacity. It therefore proposes to either provide a new WwTW or upgrade the existing one (Para 16.28). The concept statement also suggests that much less wastewater will be produced, through water efficiency measures and grey water recycling.

Summary: The evidence indicates that at this point in time, in terms of volumetric flows, all but 50 of the dwellings proposed at Holt and 221 at Fakenham can be accommodated without the need for new discharge consents.

[4] Available at www.rackheatheco-community.com or in North Norfolk Examination Library [E11]

Key question B: Will development have an adverse effect on river quality downstream with regards to the objectives of the Habitats Directive and Water Framework Directive?

4.11 The current water quality status of various river stretches is set out in Table 2, alongside the water quality standards that must be achieved for the river stretch to achieve 'Good' status, both in terms of the current consent and the quality consent limits required for projected future growth.

4.12 As set out above, it has been demonstrated that the proposed growth for Fakenham and Holt cannot be accommodated within the existing consent for the local WwTWs. To accommodate the full level of growth the volumetric consent for the WwTWs would need to be increased and the quality consent limits adjusted accordingly to ensure no deterioration in water quality.

4.13 Using the projected flows provided by AWS (table 1) alongside current river quality (table 2) and WwTW current discharge quality, the Environment Agency River Quality Planning tool has been used to assess what WwTW consent limits would be required to meet the requirements of the Water Framework and Habitats Directives. Indicative consent limits have been calculated for both the current flow consent, and the future flow consent that would be required to accommodate all of the proposed development growth (where appropriate) and this is also presented in Table 2.

4.14 If the volumetric consents for **Fakenham and Holt** were to be increased to accommodate all of the proposed growth the water quality consent limits for phosphorus would need to be tightened beyond what is currently regarded as 'Best Available Technology Not Entailing Excessive Costs' (BATNEEC) in order to meet the objectives of the WFD and HD. Current understanding is that the feasibility, cost effectiveness and cost-benefits of operating a WwTW beyond 'BATNEEC' is limiting to the proposed growth. Consequently, the proposed development growth in Fakenham and Holt is currently considered to be constrained by the requirements of the WFD and/ or HD. Further information on this issue is unavailable at this time, and it is likely that further certainty on this issue will not be available until more work is undertaken by the EA and the Water Company in preparation for the next Water Company Price Review (2014). This issue is discussed in more detail in the next section.

4.15 Further consideration has been given to the discharge consents for **Corpusty, Blakeney** (Cley WwTW), **Roughton and Walsingham** (Great Walsingham WwTW), the outcomes of the EA RoC and the current WFD status of the downstream waters. Based on this, the EA considers it unlikely that even with a small increase in the consented volume of the discharges to accommodate the proposed growth (which AWS has confirmed is not required), the objectives of the WFD and/or HD could be met through tightening the quality consent limits within what is currently regarded at 'Best Available Technology Not Exceeding Excessive Cost'. Consequently, the proposed development growth in Corpusty, Blakeney, Roughton or Walsingham is not currently considered to be constrained by the requirements of the WFD and/ or HD.

4.16 While there remains uncertainty over precisely whether the proposed growth in **Hoveton** can be accommodated at **Belaugh WwTW**, a solution for dealing with 'excess' waste water flows in the catchment has been identified through the GNDPWCS (i.e. using Whitlingham WwTW). Consequently, the proposed development growth in Hoveton is not currently considered to be constrained by the requirements of the WFD and/ or HD, but it

is recognised that further discussion is required between neighbouring Planning Authorities to agree the way forward.

Planned Deterioration

4.17 In addition to the above it is important to highlight that at all locations there may be deterioration in current water quality as the proposed growth proceeds and as the consented volumetric capacity at the WwTW is used up. However, as the consent has been issued, the potential deterioration is deemed 'planned'. The potential impacts of this on HD sites have already been assessed as part of RoC.

4.18 The quality consent limits for these WwTW will be reviewed, and if appropriate tightened, as part of the next review of water company prices. This review and consent changes will come under the requirements of the WFD to prevent deterioration or achieve 'good status' (including achieving the objectives for 'protected areas') and will apply to all water quality parameters. Consent modifications could be made as early as 2015 and may require the WwTW to operate beyond what is currently regarded as 'Best Available Technology Not Entailing Excessive Costs', which could have implications for the long term deliverability of the proposed growth. It may be that the feasibility, cost effectiveness and cost-benefits of providing the infrastructure to support the proposed housing will become limiting to the housing that can be delivered.

Summary: The information contained in tables 1 and 2 has enabled the EA to comment on the acceptability of the proposed development growth in terms of water quality. This is set out in Table 3 and says that:

The full development growth proposed for Fakenham and Holt must be avoided unless alternative waste water reduction/ disposal mechanisms can be found. Development growth in other locations is not currently constrained by the requirements of the Water Framework Directive or Habitats Directive, although it should be noted that the phosphorus consent limit at Stalham could be reviewed and tightened beyond BATNEEC as part of the next review of water company prices.

4.19 At all locations there is a risk of deterioration in current water quality as the proposed growth proceeds. To address this, and to strive to achieve 'good status' under the WFD, the quality consent limits for all WwTW will be reviewed and, if appropriate, tightened as part of the next review of water company prices (in 2014). The consent modifications may require the WwTW to operate beyond what is currently regarded as BATNEEC which could have implications for the long term deliverability of the proposed growth.

4.20 Additional work needs to be carried out to investigate options for accommodating the full level of growth in Fakenham and Holt. The potential scope of this work is set out in the rest of this paper.

Key Question C: Can limitations be overcome to enable the proposed growth?

4.21 It has been demonstrated that the full development growth proposed for Fakenham and Holt must be avoided unless alternative waste water reduction / disposal mechanisms can be found. The EA suggest that the full development growth in both locations could proceed if technologically advanced techniques were employed to reduce / treat the waste water, the WwTW discharge points could be moved to an alternative receiving environment or other sewage works in the catchment were improved to compensate for the increased loads from Fakenham. They also comment that it is

considered unlikely that any of these options offer a technically feasible/ sustainable/ economically viable solution, but that there may be some merit in exploring further the possibility of discharging a proportion of the flows from the proposed development growth in Fakenham to the River Stiffkey rather than the River Wensum.

4.22 The Council considers that the above, along with a number of other possible options, could be explored. The possible options for addressing the restricted capacity of WwTWs in Fakenham and Holt include:

a) Reducing water consumption / discharge per dwelling
b) Treating waste water to a higher standard
c) On-site treatment of waste water
d) Reducing surface water entering foul sewers
e) Routing waste water to alternative treatment works that discharge to a different catchment
f) Controlling the type of employment uses on allocations to restrict heavy water users
g) Reducing the amount of water received at WwTWs by separating existing surface water and sewerage
h) Reducing the amount of growth proposed in Holt and Fakenham

4.23 It should be noted that these are only options and have not been appraised for deliverability in terms of sustainability, feasibility and whether there is funding available. Further investigation as to their deliverability will therefore be required.

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5. Possible Mitigation Measures

a) Reducing water consumption / discharge per dwelling

5.1 A number of assumptions are made by Anglian Water when calculating projected flows, which are set out at the end of table 3 (e.g. a per capita consumption of 150 litres of water a day and an infiltration rate of 10% of domestic or employment flows). These are based on current figures and are considered by NNDC to provide a 'worst case' scenario as a number of practical measures could be used to reduce waste water flows, for example, through the Code for Sustainable Homes (CSH).

5.2 Core Strategy policy EN6 requires that by 2010 all new dwellings in the district achieve at least a three star CSH rating, rising to 4 star by 2013. Compliance with this standard would equate to water consumption of 105 litres per person per day. Even without this, the proposed Building Regulations for new housing limit consumption to 125l per person per day (equivalent to code 3). In addition, installation of water meters is mandatory in new homes, and Anglian Water has aspirations to increase the coverage of water meters in existing homes, which could reduce future water consumption in existing development.

5.4 Reducing the amount of water consumed per person reduces the flow sent to relevant WwTWs which will free up volumetric capacity. A reduction from 150 litres to 105 litres represents a 30% reduction, which would theoretically enable the full amount of growth to be accommodated. This needs further investigation however as there would still be the same quantity of phosphorous to be removed, so it would be more concentrated. In addition AWS comment that the reduction cannot be guaranteed and that as the new

housing is only a small proportion of all development it would have limited effect on the overall volume received at the WwTWs.

b) Treating the waste to a higher standard.
5.5 The Environment Agency have advised that the WFD is likely to require a tightening of consent limits which may require works to operate beyond what is currently understood to be BATNEEC, which raises uncertainty as to the deliverability of these improvements. The WFD applies to existing consent limits and will be difficult to achieve irrespective of future growth. As well as these technical limitations, there are also funding limitations to work. Improvements to WwTWs cannot currently be funded by developers, and need to be funded by Anglian Water. No improvements to Fakenham, Holt or Stalham WwTWs are included in the current AW funding cycle, and the next possible one is beyond 2016. It is possible that new technology (beyond current BATNEEC) will have been developed by then, however this is uncertain.

5.6 An alternative option may be to use on-site technology to treat wastewater prior to it being transferred to the WwTW. This would potentially reduce the treatment required at the WwTW as the water received would be partially cleaned, which may make standards more achievable. The viability and practicality of this would need to be explored and Anglian Water comment that it may have limited effect.

c) On-site treatment of waste water.
5.7 There are also options around complete on-site treatment of wastewater, such as septic tanks (on a small scale) or reed-bed systems or package treatment plants (on a larger scale). These have successfully been used in other developments, and are one of the options being discussed at Rackheath, and are a possible option in Fakenham and Holt. There would need to be an assessment of any combined impact if any discharge from an on-site STW discharged to the same receiving waters as a main STW

d) Reducing surface water entering foul sewers.
5.8 The Anglian Water calculations of predicted future flow include an assumption of 15 litres of surface water per person per day being discharged to the WwTW (10% of domestic flow). Core Strategy policies require sustainable drainage systems (SuDS) in new development which should reduce this. Also, it is mandatory at all CSH levels to ensure that the peak rate of run-off into watercourses is no greater for the developed site than it was for the pre-development site. It is also mandatory at all CSH levels to ensure that the additional predicted volume of rainwater discharge caused by the new development should be reduced using infiltration and/or made available for use in the dwelling as a replacement for potable water in WC flushing or operating a washing machine.

5.9 These measures should reduce the amount of surface water being received at WwTWs and measures could also be encouraged in existing development to reduce the amount of surface water being received by WwTWs, thus freeing up capacity (see also point g below)

e) Routing waste water to alternative treatment works that discharge to a different catchment.
5.10 Whilst the Fakenham WwTW cannot accommodate the full growth proposed at Fakenham, the Little Snoring WwTW (located just a few miles to the north) does have capacity and discharges to the River Stiffkey rather than the Wensum. The possibility of diverting waste water to this works could therefore be investigated. This is not without its own issues, however, as the River Stiffkey is a chalk river which are identified as priority

UK BAP habitats. The feasibility and cost-benefit of pumping flows to this works would also need to be considered.

5.11 There is also a WWTW at Sculthorpe that discharges to the River Tat. This is also part of the River Wensum SAC, but importantly upstream of the Fakenham WwTW discharge. The capacity at this works to take some of the flows from the proposed growth at Fakenham could be explored; however the costs of laying a pipeline and pumping the flows to Sculthorpe may not be feasible.

f) Controlling the type of employment uses on the allocations in Holt and Fakenham

5.12 Anglian Water has assumed an average employment flow rate of 0.75 litres per second per hectare. Criteria in the site allocations policies and conditions on planning permissions could be used to limit heavy water users from locating on the employment land in Fakenham, Holt and Stalham. This would reduce the amount of flow that could potentially be received at the relevant WwTWs, therefore freeing up some capacity.

g) Reducing the amount of water received at WwTWs by separating existing surface water and sewerage

5.13 Currently much of the sewage network in North Norfolk uses combined sewers where foul water is mixed with surface water. This means that surface water is treated at WwTWs to the same standard as foul water, often un-necessarily. If the two could be separated this would reduce the volume of flow received for treatment at a WwTW, therefore freeing up capacity. Opportunities to achieve this are likely to emerge during the plan period through redevelopment of Brownfield sites, however it is recognised that this is unlikely to be viable across a whole settlement.

h) Reducing the amount of growth proposed in Holt and Fakenham

5.14 The work carried out to inform this paper has concluded that all of the proposed growth in the majority of the settlements can be accommodated within existing consents, and that 82% and 91% of growth can be accommodated within the existing consents for Fakenham and Holt respectively. If no other options were suitable then the Habitat Regulations would require the growth to be reduced in order that development in these towns did not compromise the water quality requirements of the Water Framework Directive and/ or Habitats Directive. While this would result in under-delivery of housing in these locations there is capacity elsewhere in the district for this growth to be re-distributed to other settlements. The implications of this on the overall spatial strategy would need to be considered and it may not be desirable to simply re-allocate growth elsewhere for other reasons.

Summary: There are a number of possible options that may result in sufficient capacity being freed up to accommodate all the proposed growth in Fakenham and Holt. These options all require further investigation as to their deliverability and agents for the major allocations in these settlements have been instructed to investigate these options further.

In addition to the capacity of WwTWs to accommodate growth, two further points are considered below:

6. Capacity of the foul sewerage network

6.1 In addition to limited capacity in WwTWs, Anglian Water has commented that the foul sewerage network in several settlements also has limited or no capacity. This is often because the sewers are combined (i.e. contain foul and surface water). Once planning permission has been granted developers have a right to connect to a public sewer and an undertaker cannot deny connection even if additional discharges will overload the system. Recent cases[5] confirm that the only way of achieving a deferral of a developers right to connect, and therefore give the undertaker a reasonable opportunity to ensure that the sewer will accommodate the increased loading, is through the planning process. Consequently, LPAs must ensure that there is no development until the existing sewerage system can accommodate it, and this can be exercised through the use of Grampian planning conditions.

6.2 It is proposed to emphasise this constraint in the relevant settlement sections of the SSP in order that the issue is properly considered and dealt with at the planning application stage, and a minor modification to this effect is included in the Schedule of Minor Modifications (ref MM74 a-m).

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7. Adequacy of water resources to serve new development

7.1 Increased levels of development are likely to increase demand for water unless existing demand can be reduced by positive demand management. Anglian Water's final Water Resources Management Plan (WRMP) http://www.anglianwater.co.uk/environment/water-resources/resource-management/ sets out the company's plan to manage water supplies over the next 25 years and has forecast housing growth to be in line with the East of England Plan. Anglian Water plans to implement options for resource development and demand management to meet this level of growth and ensure that supplies are maintained. This process will comply with the Habitats Regulations which ensures protection for European sites.

7.2 If in the future there was not sufficient headroom then Anglian Water would have to apply to increase their licensed abstraction. This is a statutory process under the Water Resources Act 1992 (amended by the Water Act 2003) and it also has to comply with the Habitats Regulations. If it is not possible to increase abstraction from existing sources it will be necessary for the Water Company to identify and develop other sources where resources are available and which will not result in detriment to European Sites.

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8. Conclusion

8.1 This paper sets out the current situation in relation to the capacity of water infrastructure to accommodate the planned growth in North Norfolk. The latest available evidence shows that the proposed growth can currently be accommodated within existing consents in the majority of settlements (accepting planned deterioration). However there are known constraints relating to a proportion of the proposed development at Fakenham and Holt and further work is needed to investigate the situation. Discussions are ongoing with all relevant parties, and agents have been instructed to look into the specific issues raised into this report.

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[5] Planning Magazine, 22 January 2010, Legal Report, page 9.

8.2 The options set out in section 5 will be investigated to determine if a solution can be found that enables the full growth in Fakenham and Holt to be accommodated. In the meantime, however, it has been demonstrated that the majority of the growth can be accommodated, accepting a level of planned deterioration, under the current Discharge Consents standards. Core Strategy and SSP policies require that development will not occur until it has been demonstrated that there is adequate capacity in sewage treatment works, thus ensuring protection for water quality. Section 4.2 of the Core Strategy states that there is a need to phase development in order that the supporting infrastructure is available, and the Housing Trajectory takes account of the constraints when predicting when development may occur.

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9. NNDC Comments

9.1 North Norfolk District Council notes the issues raised in this paper and is committed to investigating possible solutions.

9.2 A number of **minor modifications** are proposed to the SSP Draft Plan to reflect the up to date information. These are included in the Schedule of Minor Modifications (refs MM74 a –m) and include reference to limited capacity in the foul sewerage network and an emphasis on the constraints facing Fakenham and Holt.

9.3 Agents for the major allocations in Fakenham, Holt and Stalham have been instructed to investigate the options contained in section 5 and the Council is committed to joint working with the Environment Agency, Anglian Water Services, and neighbouring authorities to continue to increase understanding and work towards possible solutions.

9.4 The Council recognises that the full extent of development proposed at Fakenham, Holt, and potentially Stalham, may prove difficult to accommodate. There is nevertheless capacity at all three locations to accommodate much of the planned growth, and the Council considers that there is a reasonable prospect that future changes to technology will mean that one, or a combination, of the options outlined in this paper will result in the ability to accommodate the full growth in the future.

9.5 The distribution of development set out in the Core Strategy was based on a range of evidence including the role and function of the various towns, their needs and their capacity for growth. Holt and Fakenham were considered two of the more ‘self-contained’ settlements that offer a range of jobs and services and were therefore identified for a particular scale of growth. It would be difficult, and inappropriate, to re-distribute this growth to other settlements in North Norfolk which have other constraints to growth such as limited capacity in social infrastructure such as schools and employment and / or landscape concerns due to the presence of sensitive nationally designated landscapes.

9.6 The Council considers that the approach taken in the Site Specific Proposals Development Plan is sound. It gives high priority to habitat protection by including policies which delay development until environmental capacity is available.

Appendix 1

Table 1: Summary of current and projected flows provided by the water company by email on 27 January 2010 (see spreadsheet attached to email for complete set of figures). See below for the assumptions used for these calculations.

Settlement/ WwTW*/ Receiving Watercourse (WFD waterbody ID)	**Current Consented Dry Weather Flow (DWF) (m3/day)**	**Current Measured Dry Weather Flow (DWF) (m3/day)**	**Available Flow in Current DWF Consent (m3/day) (with 10% seasonal variation allowance)**	**Potential Housing Headroom (assuming no employment growth)**	**Proposed number of new dwellings**	**Proposed Employment Growth (ha)**	**Projected Dry Weather Flow (from proposed housing & employment growth) (m3/day)**	**Volumetric Capacity for Growth (housing & employment)?**	**Projected Future Dry Weather Flow (DWF) (m3/day)**
Fakenham/ Fakenham/ Wensum (GB105034055881)	3300	2631	339	**1030**	1251	7.0	911	**No**	3872
Holt/ Holt/ Glaven (GB105034055780)	1090	813	168	**510**	562	3.5	434	**No**	1356
Hoveton/ Belaugh/ Bure (GB105034050930)	2273	1401	645	1959	184	0.0	61	Yes	N/a
Stalham & Happisburgh/ Stalham/ Ant (GB105034051330)	2600	1305	1035	3144	367	3.5	366	Yes	N/a
Cromer & Sheringham/ Cromer/ Norfolk East (GB650503520003)	6106	4803	692	2103	1275	0.0	279	Yes	N/a
N. Walsham/ Mundesley/ Norfolk East (GB650503520003)	4386	1719	2228	6770	918	5.0		Yes	N/a
Wells/ Wells/ Stiffkey-Glaven (GB520503403600)	1125	469	544	1651	231	0.0	76	Yes	N/a

Table 2: Indicative quality consent limits to ensure compliance with the Water Framework Directive and Habitats Directive. See below for the assumptions used for these calculations.

				Quality Consent Limits Required for Current Fully Consented Flow Scenario						Quality Consent Limits Required for Projected Flows/ **Growth Scenario**						
Settlement/ WwTW*/ Receiving Watercourse (WFD waterbody ID)	**Existing Consent Standards**			**To meet WFD 'No Deterioration' Objectives**			**To meet WFD 'Good Status' Objectives**			**To meet WFD 'No Deterioration' Objectives**			**To meet WFD 'Good Status' Objectives**			**To meet HD standards**
	BOD (mg/l) (95%ile)	Ammonia (mg/l) (95%ile)	Phosphorus (mg/l) (50%ile)	BOD (mg/l) (95%ile)	Ammonia (mg/l) (95%ile)	WFD Phosphorus (mg/l) (50%ile)	BOD (mg/l) (95%ile)	Ammonia (mg/l) (95%ile)	WFD Phosphorus (mg/l) (50%ile)	BOD (mg/l) (95%ile)	Ammonia (mg/l) (95%ile)	WFD Phosphorus (mg/l) (50%ile)	BOD (mg/l) (95%ile)	Ammonia (mg/l) (95%ile)	WFD Phosphorus (mg/l) (50%ile)	HD Phosphorus (mg/l) (50%ile)
Fakenham/ Fakenham/ Wensum (GB105034055881)	25	5	1	25	4	**0.7**	25	4	**0.7**	21#	3.2	**0.6**	21#	6.7	**0.6**	**0.4**
Holt/ Holt/ Glaven (GB105034055780)	40	20	-	21	1.3	**0.09**	28	2.7	**0.43**	18	1.1	**0.08**	24	2.4	**0.37**	
Hoveton/ Belaugh/ Bure (GB105034050930)	30	10	1	30#	10#	1#	30#	10#	1#	N/a	N/a	N/a	N/a	N/a	N/a	
Stalham & Happisburgh/ Stalham/ Ant (GB105034051330)	15	11	1	15#	8	**0.17**	15#	11#	1#	N/a	N/a	N/a	N/a	N/a	N/a	
	Consent Standards more stringent than what is currently regarded as 'Best Available Technology, Not Entailing Excessive Costs' (BATNEEC)															
#	**Indicative consent limit based on maintenance of current fully consented load - i.e. 'no deterioration' in total load.**															

Table 3: Detailed Water Quality Comments, by Waste Water Treatment Works

Settlement/ WwTW*/ Receiving Water (WFD ID)	Environment Agency Interpretation	Comments	Possible further work
Fakenham/ Fakenham/ Wensum (GB105034055881) And Holt/ Holt/ Glaven (GB105034055780)	The water company figures have confirmed that the full extent of the proposed development growth at Fakenham and Holt can not be accommodated within the existing volumetric flow consents for the respective Waste Water Treatment Works (WwTW) (Table 2). Based on the water company figures, 1030 houses and 510 houses could be accommodated within the existing volumetric consents for the WwTW at Fakenham and Holt respectively (based on there being no employment growth) (Table 2). This represents 82% and 91% of the proposed housing figures for Fakenham and Holt respectively. At Fakenham and Holt, under both the current flow and future projected flow scenarios, both the 'no deterioration' and 'good status' objectives of the Water Framework Directive (WFD) can be met for both ammonia and BOD within what is currently regarded as Best Available Technology Not Entailing Excessive Costs (BATNEEC) (Table 3). However, in both locations, the consent limit for phosphorus would need to be tighter than what is currently regarded as BATNEEC under both the current flow and future projected flow scenario to meet the requirements of the Water Framework and Habitats Directives (Table 3).	**The full development growth proposed for Fakenham and Holt must be avoided unless alternative waste water reduction/ disposal mechanisms can be found.** The full proposed development growth for Fakenham and Holt is constrained by the objectives of the WFD and (at Fakenham) the requirements of the Habitats Directive. 1030 houses at Fakenham and 510 houses at Holt could be accommodated within the existing volumetric consents of the WwTW and therefore within the current constraints of water quality (if there was no employment growth). The full development growth in both Fakenham and Holt could proceed if technologically advanced techniques were employed to reduce/ treat the waste water, the WwTW discharge points could be moved to an alternative receiving environment or other sewage works in the catchment were improved to compensate for the increased loads from Fakenham. It is considered unlikely that any of these options offer a technically feasible/ sustainable/ economically viable solution. Notwithstanding this, there may be merit in exploring further the possibility of discharging a proportion of the flows from the proposed development growth in Fakenham to the River Stiffkey rather than the River Wensum. If the proposed dwelling figures for Fakenham and Holt were revised so that the total projected flows could be accommodated within the existing consent, the development growth would not be immediately constrained by the 'no deterioration' requirements of the WFD. However, it should be borne in mind that the phosphorus consent limits could be reviewed and tightened beyond BATNEEC as part of the next review of water company prices. This review and any consent changes will come under the requirements of the Water Framework Directive to prevent deterioration or achieve 'good status' and will apply to all parameters. Consent modifications could be made as early as 2015 and due to the potential costs involved, could have implications for the long term deliverability of the proposed growth. Further information on this issue is unavailable at this time.	It may be appropriate to consider alternative disposal options for the waste water arising from the proposed growth at Fakenham, e.g. discharge of part of the projected flows to the River Stiffkey rather than River Wensum. It would also be helpful to know how many houses could be accommodated at Fakenham and Holt in combination with the proposed employment growth.
Hoveton/ Belaugh/ Bure (GB105034050930) Stalham & Happisburgh/ Stalham/ Ant (GB105034051330)	The water company figures confirm that the full extent of the proposed development growth at these locations can be accommodated within the existing volumetric consents for the respective WwTWs (Table 2). At Belaugh, the quality consent limits for ammonia, BOD and phosphorus would not need to be tightened beyond what is currently regarded at BATNEEC to meet the requirements of the WFD (Table 3). At Stalham, the consent limit for phosphorus would need to be tighter than what is currently regarded as BATNEEC to meet the 'no deterioration' requirements of the Water Framework and Habitats Directives (Table 3), i.e. to maintain 'High' Status.	**Development growth in these locations is not currently constrained by the requirements of the Water Framework Directive or Habitats Directive.** It should be borne in mind, however, that the phosphorus consent limit at Stalham could be reviewed and tightened beyond BATNEEC as part of the next review of water company prices. This review and any consent changes will come under the requirements of the Water Framework Directive to prevent deterioration. Consent modifications could be made as early as 2015 and due to the potential costs involved, could have implications for the long term deliverability of the proposed growth. Further information on this issue is unavailable at this time. The implications for Belaugh waste water treatment works have been assessed based on the North Norfolk growth strategy only. The Greater Norwich growth strategy also incorporates projected flows for the Belaugh works. The deliverability of both growth strategies should be considered in combination.	In combination consideration should be given to the North Norfolk and GNDP and growth strategies that influence the Belaugh works.

Settlement/ WwTW*/ Receiving Water (WFD ID)	Environment Agency Interpretation	Comments	Possible further work
Cromer & Sheringham/ Cromer/ Norfolk East (GB650503520003) N. Walsham/ Mundesley/ Norfolk East (GB650503520003) Wells/ Wells/ Stiffkey-Glaven (GB520503403600)	The water company figures have confirmed that the full extent of the proposed development growth at these locations can be accommodated within the existing volumetric flow consents for the respective Waste Water Treatment Works (WwTW) (Table 2).	**Development growth in these locations is not currently constrained by the requirements of the Water Framework Directive or Habitats Directive.** Indicative consent standards have not been determined for these discharges as it currently remains unclear the extent to which the Environment Agency policy on discharges to coastal waters will need to change in light of the requirements of the Water Framework Directive. It is not anticipated however that any review and potential changes to these consents would present difficulties to the deliverability of the proposed growth. Further information on this issue is unavailable at this time. Coastal discharges also need to be assessed in terms of potential implications for designated bathing waters and shellfish waters. As the proposed development growth is within the existing consents, it is not considered that further consideration needs to be given to this at this time, however this may need to be reviewed in the future.	
All Settlements and Associated WwTW, including those specifically discussed above and the 'Service Villages'		It should be borne in mind that in all locations, as the flow 'headroom' in the consents for the WwTW is taken up by the proposed growth coming on line, there is a risk that there will be deterioration in the downstream water quality. These consents will be reviewed, and if necessary the quality consent limits will be tightened under the next water company Price Review. This review and any consent changes will be driven by the requirement to meet the objectives of the Water Framework Directive. Consent modifications could be made as early as 2015 and due to the potentially large costs involved, could have implications for the long term deliverability of the proposed growth. Further information on this issue is unavailable at this time.	

Assumptions

- Per capita consumption 150litres per head per day (made up of 130 litres per head household and 20 litres per head non-household domestic (ie schools, pubs, offices etc)
- Occupancy rate 2.1 persons per house
- Infiltration 10% of flows (from domestic or employment)
- Employment Flow Rate 0.75 litres per second per hectare
- Domestic Flow rate 95% of per capita consumption (142.5litres per head per day)
- Current WFD Class Current WFD Class at 95% confidence (not necessarily the same as that presented in the River Basin Plan).

Appendix 3

North Norfolk District Council's Site Specific Proposals Plan Response to Inspectors Matters and Issues: Questioning Relation to Hoveton

Author	**NNDC**
Subject matter	**SSP: HOVETON**
Session details	Day 6: 29 July 2010
Library No	

North Norfolk District Council's Response to Inspector's Matters and Issues: Questions (ix)-(xvii) in Relation to Hoveton

References in square bold brackets **[xx]** refer to Examination Library document numbers.

1. Introductory Remarks

1.1 This paper is prepared by North Norfolk District Council in response to the Matters and Issues identified by the Inspector and will provide the basis of the Council's position at the Hearing session.

1.2 The Council considers that the Site Specific Proposals Draft Plan **[A1.1]** is sound as submitted, however, it has suggested a number of minor modifications to the submission document which can be considered by the Inspector. These changes are designed to improve the clarity and consistency of the Plan and are listed in two schedules of possible changes. The Schedule of Minor Modifications **[A1.4]** includes minor editorial corrections, points of clarification, or are changes responding to points made by representors. The Council considers that none of these minor modifications, either individually or cumulatively, affect the overall thrust of the Plan's policies and therefore further consultation or Sustainability Appraisal is not required. A small number of minor modifications are proposed in Hoveton.

1.3 In addition the Council has asked the Inspector to consider a Schedule of Key Changes **[A1.3]**. These changes are more substantial in nature and have therefore been subject to further consultation and Sustainability Appraisal. The Council considers that the Draft Plan is sound as submitted and that the suggested changes would go some way to addressing representations made about the Plan. No Key Changes are requested in Hoveton.

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2. Context for allocations in Hoveton

2.1 The introductory text to the Hoveton section of the Draft Plan **[A1.1]** sets out the strategic context within which the proposed allocations are made. The Core Strategy identifies Hoveton as a secondary settlement and indicates that new residential allocations of between 100 and 150 dwellings, on sites well related to the built up area, should be made. The Site Specific Proposals Draft Plan therefore proposes to allocate a greenfield site adjacent to the doctors surgery on Stalham Road for approximately 120 dwellings and at least 2 hectares of public open space (site HV03).

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3. Response to Inspector's specific questions

ix) Are the individual housing allocations available, suitable, and achievable (i.e. "deliverable"), in the terms of PPS 3, such as to deliver a 5 year land supply?

x) Is there a reasonable prospect of the remaining allocations being developed within 15 years?

3.1 PPS3 requires that Local Planning Authorities (LPAs) identify sufficient specific *deliverable* sites to deliver housing in the first five years. LPAs also need to identify a further supply of specific, *developable* sites for years 6-10 and, where possible, for years 11-15. To be considered deliverable sites should be available, suitable and achievable. To be considered developable sites should be in a suitable location for housing development and there should be a reasonable prospect that the site is available and could be developed at the point envisaged.

3.2 The Council considers that all allocations in the Plan are available and suitable and can be developed within 15 years. In addition, as stated in the response paper to Days 1 and 2, sufficient allocations are also considered achievable in order to deliver a 5 year supply of land. The Housing Trajectory **[F4 (ii)]** and the Strategic Housing Land Availability report (SHLAA) **[F4 (i)]** indicate which sites the Council expects to deliver housing within the next 5 years, and this is summarised in the site update tables attached to the Council's response papers. The allocation in Hoveton is available, suitable and achievable and expected to be delivered in the next five years, as summarised below:

- **Available** - The landowner of the site has indicated support for development and advised that it is immediately available. This is referenced in the Draft Plan under the Deliverability section of the supporting text (paragraphs 7.1.6 and 7.1.7) and is evidenced by SHLAA return forms from 2009 and 2010.

- **Suitable** - the site's suitability for development has been tested by a process of Sustainability Appraisal, Appropriate Assessment and stakeholder and public participation and the Council considers that it represents the most suitable site for allocation in the settlement. There are no major constraints facing the site and it is in a suitable location for housing development – being well related to existing development and close to the doctors surgery and the high school. Further details are contained in the Draft Plan and in response to the questions below.

- **Achievable** - Agents are promoting the site and a housebuilder has an option to purchase the site. Pre-application discussions have been held and agents have indicated that, should the site be allocated, housing will be delivered on the site within 5 years. Further information / evidence is contained in the Draft Plan **[A1.1]**, SHLAA, Housing Trajectory, 5 Year Land Supply Statement **[**also **F4 (ii)]** and the attached table.

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xi) Are the other allocations (employment, retail and other) appropriate and deliverable, and consistent with PPS 4? If not, why not, and does that make the DPD "unsound"?

3.3 There are no other allocations proposed for Hoveton.

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xii) (With reference to Sustainability Appraisal) Are the allocations "sustainable"?

3.4 The Sustainability Appraisal (SA) process looked at a range of sustainability issues covering environmental, social and economic factors. The criteria favoured sites that have been previously developed, are well integrated, have minimal environmental

impact and provide a safe and suitable location for new housing. Results are contained in part 2 of the SA report **[A1.6]**

3.5 Site HV03 is considered to offer a sustainable location for new development. It is well located for local employment and facilities, particularly the school and doctors surgery, and has good pedestrian links to bus stops and the railway station, enabling access to local and further afield jobs and services by means other than the car. It is expected to have a relatively low impact on biodiversity and has no major environmental constraints.

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xiii) Are any of the allocations subject to any demonstrable and overriding infrastructure constraints (esp. water/sewerage/drainage; education; highways) which cannot be overcome by planning conditions and/or obligations?

3.6 The evidence indicates that the site is not subject to any overriding infrastructure constraints that cannot be overcome:

- **Water / sewage / drainage**: Work associated with the Water Infrastructure Statement **[A1.11]** found that the full extent of the proposed development at Hoveton can be accommodated within the existing volumetric consent at the WwTW. See Appendix 1 of the Water Infrastructure Statement for details.

- **Education**: The Education Authority have indicated that pupil numbers in the area are declining and there is scope to expand on existing school sites, so it should be possible to accommodate pupils generated from the proposed housing (see paragraph 14.0.28 of Draft Plan **[A1.1]**).

- **Highways:** There is no objection from the Highway Authority (see SA results sheet in SA report part 2 **[A1.6]**).

3.7 The Constraints section of the Draft Plan (paragraphs 7.1.5) highlights specific constraints that were identified through the site investigation process, however these can be addressed through the normal planning process.

3.8 **Air quality:** A minor modification has been suggested (**MM13** in document **[A1.4]**) to reference that air quality monitoring near Wroxham Bridge has identified an air quality hotspot where the national objective for nitrogen dioxide is close to being exceeded. A concern was raised that increased traffic associated with new development will cause air quality to fall below minimum standards and that an air quality management and improvement plan should be required alongside any large developments. The Council has submitted a bid to Defra for 1 years air quality monitoring in Hoveton to obtain more detailed information. The outcome of this will determine what further work is required. A second minor modification (**MM14**) is proposed requiring contribution towards further air quality monitoring and an agreed scheme of mitigation measures if deemed necessary at the time of development. The Council will continue to investigate this issue.

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xiv) Are any of the allocations unsuitable by reason of any environmental or residential amenity issues/objections?

3.9 The Council is satisfied that development on all allocations can meet residential amenity standards for existing and future residents, and that any environmental considerations have been addressed through the policy criteria and / or will be addressed through the

normal planning process. Several representations raise environmental or residential amenity issues (see the Summary of Main Issues report **[A1.2])**. The Council is satisfied that these have, or can be, overcome as follows:

3.10 **Scale and form of development:** The housing numbers were debated through the Core Strategy examination, and were found 'sound' and appropriate for Hoveton. Hoveton, and its neighbour Wroxham, offer a range of services and employment opportunities and a rail line also serves the village, providing sustainable means of accessing jobs and other facilities. The Council liaises with neighbouring authorities and has involved a wide range of organisations and service providers in plan preparation to ensure that activities can be co-ordinated (see paragraphs 2.1.12 and 2.1.13 of the Draft Plan). Highways are satisfied that the scale of growth identified for Hoveton can be accommodated without fundamental changes to the local transport networks and the Water Infrastructure Statement **[A1.11]** considers the cumulative impact of growth on waste water treatment works (see paras 4.8 to 4.10). Approximately 5,000 new dwellings are proposed at a new Eco-Community in Rackheath which will require significant appraisal through the planning application process. The PPS for Eco-Towns says that at least 50% of trips originating in Eco-Towns should be made by non-car means, and the Eco-Community Concept statement **[E11]** sets out a range of measures to encourage people to use appropriate modes of travel (see paragraphs 9.3 to 9.58). For example, bus and rail services will be improved along the route that serves Norwich, North Walsham and Hoveton, which could make these modes more attractive for existing and new residents, therefore potentially reducing existing congestion. New employment will be provided on the Eco-Community site and it is expected that most external employment journeys will be to Norwich rather than though Wroxham / Hoveton (para 9.4). Further detailed traffic modelling will identify any required improvements to the existing road network required as a result of development.

3.11 Site HV03 can accommodate the proposed number of dwellings, and at least 2 hectares of new public open space, at a density appropriate for the area. The shape of the allocation leaves areas of undeveloped land along Stalham Road and adjacent to the public footpath to the south of the site to retain open views. In addition the policy requires provision of landscaping along the Stalham Road frontage and a significant landscaped buffer along the public footpath.

3.12 **Transportation impact of development:** Stalham Road is a main 'A' road and the Highway Authority has no objection to the scale or location of development proposed (see SA results sheet in SA report part 2 **[A1.6]**. An initial Transport Analysis Report **[I27]** concludes that the transport implications of the proposed development are acceptable but that a comprehensive traffic calming scheme on Stalham Road is desirable. Agents have had pre-application discussions with the Highways Authority and agreed that the development can be served by a single point of access, by means of a roundabout which will be designed to the current 40mph speed limit **[I27i]**. This can also provide traffic calming benefits through a reduction in traffic speed.

3.13 Comments about existing congestion in Wroxham and Hoveton are also noted, however the allocation is unlikely to have a significant impact on the existing highway network. As stated above, the overall scale and distribution of growth has been examined and agreed through the Core Strategy and allocations in the Draft Plan deliver the expected scale of growth.

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xv) Are there any other good reasons, including the availability and deliverability of clearly preferable alternative sites (which have themselves been subject to sustainability

appraisal and public consultation), why the draft allocations might be considered "unsound"?

3.14 The Council has appraised a range of alternative sites in Hoveton and considers that the allocation site is the most suitable site and that the Plan is sound. Other sites were discounted for reasons such as location / remoteness from facilities, poor highways access or visual impact. Evidence of the appraisal of alternative sites is contained in the SA report **[A1.5 & A1.6]**.

3.15 Representations have been made that the allocation in Hoveton should be split, with some development located on site HV02. The Council does not agree that site HV02 is a suitable site for development. Tunstead Road is a lesser graded road, and the Highway Authority comment that traffic from the site would be likely to use St Peters Lane to the north, which is narrow, has a lack of passing provision, suffers from poor junction alignment, and is not able to cater for additional traffic (summary of Highways comments are contained in the Sustainability Appraisal report **[A1.6]**). In addition the site is beyond the natural village boundary and the Council considers that development would have an adverse landscape impact.

***xvii) Is any "unsoundness" in the allocations and proposals overcome by the Council's schedules of Key Changes and Minor Modifications*?**

3.16 The Council has suggested some minor modifications to the submission document to address some of the expressed concerns about air quality, possible future expansion of the medical centre and landscaping around the site (see **MM13 - MM17** in document **[A1.4]**). The Council considers that the Site Specific Proposals document is sound as submitted, and that the minor changes suggested do not alter the thrust of the draft plan which was subject to consultation, undermine its soundness, or result in a need for further consultation or Sustainability Appraisal.

Author	**NNDC**
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Table 1

Sites Update: Hoveton

Site	Is the Site Suitable?	Is the Site Available?	Deliverable / Developable			Current Position
			Dev expected	Major Infrastructure constraints	Agent	
HV03	Well integrated Greenfield site	Yes, as indicated in SHLAA.	Within 5 years	None	Boyer Planning / option agreement with Persimmon Homes	Pre-application discussions held March 2010. Concept masterplan and several evidence reports prepared (see exam library documents **I24 to I28**) Agent has advised that preliminary discussions have been held with Flagship Housing Association who have agreed in principle to take the affordable units when the site comes forward. Persimmon Homes have carried out viability and market research and have advised that the site is viable and deliverable with immediate effect (SHLAA return).

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