



Dacorum Borough Council

Local Planning Framework

DACORUM SITE ALLOCATIONS DEVELOPMENT PLAN DOCUMENT

EXAMINATION IN PUBLIC

Statement of Common Ground as agreed between:

Dacorum Borough Council

And

Thames Water

And

Environment Agency

December 2015

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1. Purpose of this statement

1. This statement has been prepared by Dacorum Borough Council to be submitted to the Planning Inspectorate in support of, and to assist, examination of the Council's Site Allocations Development Plan Document ('DPD'). It is intended to inform the Inspector and other parties about the areas of agreement and disagreement between Dacorum Borough Council (DBC), Thames Water and the Environment Agency concerning waste water infrastructure matters in relation to the proposals set out within the Council's Site Allocations Development Plan Document.
2. The Statement of Common Ground is provided without prejudice to other matters of detail that parties may wish to raise during the examination and has been written as concisely as possible to avoid duplication of information already available to the Inspector.
3. The purpose of this statement is to explain how Dacorum Borough Council has co-operated with other bodies on strategic issues, particularly Thames Water and the Environment Agency, in the preparation of the Site Allocations document. Concern over the waste water infrastructure serving parts of Dacorum and the impact this could have on the water environment was initially raised by the Environment Agency in their second response to consultation on the Pre-submission Site Allocations DPD in December 2014. Thames Water also identified potential limitations in respect of waste water infrastructure however; agreement has been reached with Thames Water regarding a pragmatic way forward.
4. Subsequently, as a result of the consultation process and fulfilling the Council's Duty to Co-operate, policies within the Site Allocations DPD have been revised to address these issues raised by Thames Water and the Environment Agency.

2. Background

5. In late 2014 the Council conducted a consultation on the Pre-submission Site Allocations DPD in accordance with Part 5 of the Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended). The consultation was open for a period of six-weeks from 24th September to 5th November 2014.
6. In response to this consultation both Thames Water, as a the statutory sewerage undertaker operating within Dacorum, and the Environment Agency as a statutory consultee submitted representations in respect of, amongst other matters, waste water infrastructure within the Borough and its capacity to accommodate new development at the proposed site allocations. These representations are summarised further in sections 3 and 4 of this statement.
7. The Environment Agency submitted two representations to the Council with the first received on 5th November 2014 finding the proposed DPD sound due to the adequacy of evidence in consideration of flood risk. This first representation omitted any reference to waste water infrastructure issues. The second representation, which was received on 12th December 2014 and therefore after close of the abovementioned consultation period, raised objections to the Pre-submission Site Allocations DPD on the grounds that there is a lack of evidence to demonstrate that the proposed allocations can be served by the waste water network without detriment to the water environment.
8. Whilst recognising the need to identify any requisite infrastructure upgrade works on a site-by-site basis where constraints exist to support the levels of proposed development, Thames Water raised no objection to the Pre-submission Site Allocations DPD. They consider that waste water network and treatment capacity issues can be satisfactorily dealt with through the preparation of a Drainage Strategy and imposition of an appropriate Grampian-style condition (if the matter has not been resolved beforehand) to prevent occupation of any new development until completion of any necessary infrastructure upgrade works.
9. In response to these representations, the Council has continued to engage in discussions with both the Environment Agency and Thames Water on an individual and joint basis in an attempt to resolve the Environment Agency's objection. This has included meetings, email correspondence and phone calls between Officers since completion of the consultation exercise (as highlighted below). However, the Environment Agency maintain their view that further evidence is required in the form of an updated Water Cycle Study (or equivalent further study/evidence proportionate to the scale of the Site Allocations document) to ensure that the Site Allocations DPD is sound, justified, effective and consistent in accordance with the NPPF.

3. Involvement of Thames Water in Preparation of the Site Allocations DPD

(Site Allocation representation number: 777774)

Pre-submission Core Strategy (2011) and Main Modifications (2013)

10. During preparation of the Core Strategy, which sets the proposed levels of growth within Dacorum over the plan period (2006-2031), Thames Water made representations to the Council indicating that they considered the document to be sound and legally compliant. In particular, they expressed support for the Strategic Objectives and place strategies for Hemel Hempstead, Berkhamsted, Tring, Kings Langley, Markyate and the Countryside, all of which indicated at that time the levels of growth anticipated over the plan period.

Pre-submission Site Allocations (2014)

11. Taking the requirements of the Core Strategy forward, the Council continued to progress its Site Allocations document. Thames Water raised no objections to the proposed site allocations but identified specific site proposals (see Table 1 below) where Thames Water would request a Drainage Strategy from the developer to determine the impact of any proposed development on the existing waste water network infrastructure. Such a strategy is expected to identify the level of proposed development, timing of connection to the waste water network and whether any infrastructure upgrades were necessary to accommodate that connection and future demand from new development. It would also set out the delivery route for the infrastructure upgrade.

Table 1: Site Allocation proposals which would require the preparation of a Drainage Strategy to determine level of wastewater infrastructure upgrades.

Site Ref.	Site Name	Proposed Development
LA1	Marchmont Farm, Hemel Hempstead	350 new homes; new traveller site with 5 pitches.
LA2	Old Town, Hemel Hempstead	80 new homes
LA3	Land to the West of Hemel Hempstead	900 new homes; shop; a doctors surgery; new primary school; new traveller site with 7 pitches.
LA4	Land to the r/o Hanburys, Berkhamsted	40 new homes
LA5	Icknield Way, West of Tring	200 new homes; extension to Icknield Way Industrial Estate (0.75ha of B-class uses); new traveller site with 5 pitches.
LA6	Chesham Road/Molyneaux Avenue, Bovingdon	60 new homes
H/2	National Grid, 339-353 London Road, Hemel Hempstead	160 new homes
H/3	Land at Westwick Farm, Pancake Lane, Hemel Hempstead	24 new homes

H/4	Ebberns Road, Hemel Hempstead	30 new homes
H/5	Former Hewden Hire Site, Two Waters Road, Hemel Hempstead	15 new homes
H/6	39-41 Marlowes, Hemel Hempstead	40 new homes
H/8	Land at Turners Hill, Hemel Hempstead	43 new homes
H/9	233 London Road, Apsley, Hemel Hempstead	10 new homes
H/10	Apsley Paper Trail Land, London Road, Apsley	35 new homes
H/11	The Point (Former Petrol Filling Station), Two Waters Road, Hemel Hempstead	25 new homes
H/12	Land to the r/o of St Margarets Way/Datchworth Turn, Hemel Hempstead	32 new homes
H/14	Frogmore Road, Hemel Hempstead	150 new homes
H/17	Corner of High Street/Swing Gate Lane, Hemel Hempstead	15 new homes
MU/1	West Herts College site, Queensway/Marlowes	600 new homes; replacement college; new public sector quarter facility.
MU/2	Hemel Hempstead Hospital site, Hillfield Road	200 new homes; replacement hospital; new 2 form entry primary school.
MU/3	Paradise/Wood Lane, Hemel Hempstead	75 new homes; B1-led business development.
MU/4	Hemel Hempstead Station Gateway, London Road	200 new homes; improved transport interchange; new multi-storey car park.
MU/6	Land at Durrants Lane/Shootersway	58 new homes; improvements to existing school; replacement playing fields; new leisure space.

12. A summary of Thames Water's response to these specific proposed site allocations is as follows:

'We have concerns regarding Wastewater Services in relation to this [these] site. Specifically, the current wastewater network in this area is unlikely to be able to support the demand anticipated from this development.

New or upgraded drainage infrastructure is likely to be required to ensure sufficient capacity is brought forward ahead of the development. In the first instance a drainage strategy would be required from the developer to determine the exact impact on our [Thames Water's] infrastructure and the significance of infrastructure necessary to support the development. It should be noted that in the event of an upgrade to our assets being required, up to three years lead in time will be potentially necessary for the delivery of infrastructure; alternatively the developer may wish to requisition the infrastructure to deliver it sooner. We are also likely to request a Grampian

planning condition to ensure the infrastructure is in place ahead of occupation of the development.'

13. It is agreed that the preparation of any such Drainage Strategy is the responsibility of the developer at the time of formulating site proposals, seeking pre-application advice and/or preparing a planning application for submission to the Local Planning Authority. As such, following meetings on 13th February and 30th March 2015, Thames Water and the Council agreed that, despite the need for completion of an update to the Water Cycle Scoping Study (published in 2010) to assess the impact of future growth, waste water infrastructure upgrades for the levels of growth set out in the Core Strategy (and expounded into the Site Allocations DPD) could be appropriately dealt with by the developer at the planning stage of development. Thames Water agreed that this need not be a reason to prevent proposed development coming forward to meet the immediate needs of the Borough.
14. In response to discussions with Thames Water, the Council has informed landowners connected to the six Local Allocation sites and also prepared an advice note for developers. This note advises prospective developers of the need to liaise with the statutory sewerage undertaker at an early stage in the planning process in order to identify the need for any necessary infrastructure upgrades to accommodate their developments. This pays particular attention to particular proposals and sites set out within the Site Allocations document that Thames Water highlighted within their representation (see Table 1 for list of relevant sites and proposals).

Focused Changes to the Pre-submission Site Allocations (2015)

15. Thames Water did not provide any further comments in response to this subsequent focused changes consultation exercise.

4. Involvement of the Environment Agency in Preparation of the Site Allocations DPD

(Site Allocation representation numbers: 865181 and 871902)

Pre-submission Core Strategy (2011) and Main Modifications (2013)

16. In response to the Council's consultation on its pre-submission version of the Core Strategy, the Environment Agency expressed support for policies CS29, CS31 and CS32 as well as specific paragraphs contained within the Core Strategy document. They also indicated that they considered the plan to be sound and legally compliant and omitted any reference to waste water infrastructure capacity and any implications this may have on the water environment.

Pre-submission Site Allocations (2014)

17. The Environment Agency submitted two representations in response to the Council's consultation on the Pre-submission Site Allocations DPD, the second of which was submitted after the close of the six-week consultation period.
18. The initial response received on 5th November 2014 (within the Council's six-week consultation period) considered the Site Allocations DPD to be sound '*...as there is an adequate evidence base and consideration of flood risk to support the policies and sites.*' There was no reference in this response to waste water infrastructure.
19. The second response was received on 12th December 2014 (over 5 weeks after the close of the consultation period) and specifically addressed water quality issues in response to the Pre-submission Site Allocations DPD. In reference to the Water Cycle Scoping Study (2010)¹, the Environment Agency highlighted that the conclusions of the study indicated that extensive upgrades to the sewerage network are required and that this could be a major constraint to development in Dacorum. In particular they state that growth at Hemel Hempstead and Kings Langley would impact upon the sewerage network capacity, the receiving Sewage Treatment Works (STW), sewer flooding and the water environment. This would represent a major constraint to development and require extensive infrastructure improvements to enable development to proceed.
20. To overcome their objections, the Environment Agency state that further evidence needs to be provided to demonstrate that the growth set out within the Site Allocations DPD is deliverable and that appropriate infrastructure can be implemented without harm to the water environment. It is recommended that the scope of such evidence should include further modelling (to be completed by

¹ The Water Cycle Scoping Study (2010) was completed for the Council by Hyder Consulting (UK) Limited in 2010 alongside four other commissioning local planning authorities, including St Albans City & District Council, Three Rivers District Council, Watford Borough Council and Welwyn Hatfield Borough Council.

Thames Water) to assess the extent of network upgrades required, with particular reference to the trunk sewer that serves Maple Lodge STW; an assessment of the possibility of trunk main flooding further down the catchment arising from development at northeast and northwest Hemel Hempstead; and extent of sewer network and STW upgrades required to accommodate growth in Tring, Berkhamsted and Markyate. They advise that such evidence should come in the form of an updated Water Cycle Study or further study/evidence that is proportionate to the scale of the Site Allocations document.

21. Following receipt of these representations, the Council met with the Environment Agency on 23rd February and 30th March 2015 to discuss their concerns and to consider how the Council can progress with the Site Allocations DPD. The former meeting was arranged, and also attended, by Officers from Watford Borough Council who had also received similar objections from the Environment Agency in response to consultation on their Local Plan Part 2. The second meeting was also attended by Thames Water to discuss what level of evidence would be appropriate to overcome objections and whether approaches taken by other local planning authorities would be appropriate in this case.
22. At the meeting on 30th March 2015, the following actions were agreed:
 - a) The Environment Agency would consider the adequacy of a 'stop-gap' piece of work akin to that undertaken by Basingstoke and Deane Borough Council² and advise the Council whether this would overcome their objections;
 - b) In collaboration with Thames Water and the Environment Agency, Dacorum Borough Council would prepare a Statement of Common Ground setting out a commitment to undertake an appropriate assessment in preparation of the new Local Plan to ensure appropriate infrastructure provisions are in place ahead of future development. This would be submitted to the Planning Inspectorate ahead of examination of the Site Allocations DPD; and
 - c) Thames Water and the Environment Agency would meet separately to discuss future Discharge Consent levels at Maple Lodge STW which would inform future upgrades necessary at the STW.
23. In response to the above actions, the Environment Agency has provided a response in respect of (a) by email, which is appended to this statement (Appendix A). In summary the Environment Agency confirmed they were unable to replicate the approach taken with Basingstoke and Deane Bough Council due to a lack of resources within their local and national teams which would be required to undertake water quality modelling work for the Council. This modelling work would have improved consideration of the implications of proposed growth against Discharge Consent Levels at Maple Lodge STW and whether there would be any resultant problems over the plan period.

² Thames Water identified a similar scenario at Chineham STW where Basingstoke and Deane Borough Council completed a Water Quality Modelling Summary in response to the Environment Agency's objection in order to demonstrate that the sewerage works had capacity to accommodate growth.

24. Action (b) is being satisfied by the preparation of this statement.
25. In terms of action (c), the Council have been advised that Thames Water is now aware of the Discharge Consent requirements for Maple Lodge STW.. The Environment Agency has also confirmed that discharge consent modelling will also be factored into the ongoing county-wide 'Water Project for Hertfordshire'.

Focused Changes to the Pre-submission Site Allocations (2015)

26. The Environment Agency provided further comments in response to the Focused Changes consultation on the Pre-submission Site Allocations document. In doing so they welcomed the proposed changes in respect of requiring developers to liaise with Thames Water at an early stage but reiterated concerns regarding the lack of evidence to demonstrate that the proposed allocations can be served by the waste water network without detriment to water quality.
27. The following wording has been incorporated into the revised Site Allocations document in respect of proposals MU/1, MU/2, MU/3, MU/4, MU6; Local Allocations LA1, LA2, LA3, LA4, LA5 and LA6; and Housing Allocations H/2, H/3, H/4, H/5, H/7, H/8, H/9, H/10, H/11, H/13 and H/14:

'Early liaison required with Thames Water to develop a Drainage Strategy to identify any infrastructure upgrades required in order to ensure that sufficient sewerage and sewerage treatment capacity is available to support the timely delivery of this site.'

5. Dacorum Borough Council's Response

28. Dacorum Borough Council understands the need to deliver adequate infrastructure as a strategic priority, including provisions required to collect and treat waste water, within the plan-making process in order to support development. The proposed development levels set out within the Pre-submission Site Allocations DPD reflect those accepted in principle following adoption of the Core Strategy (September 2013), which was subject to independent examination. During preparation of the Core Strategy, the Council assessed infrastructure requirements to ensure that the suggested growth could be accommodated through the preparation of the Hertfordshire Infrastructure Investment Strategy (2009), Water Cycle Scoping Study (2010), Dacorum Strategic Infrastructure Study (2011), including an Infrastructure Delivery Plan, and annual updates to the Infrastructure Delivery Plan thereafter (dated June 2012, January 2014 and June 2015).
29. During consultation on the Pre-submission version of the Core Strategy in 2011 (in addition to consultation on the Main Modifications in 2013), neither the Environment Agency nor Thames Water raised any objections to the proposed levels of growth. At this stage the Core Strategy specifically included the need to provide 10,750 new homes over the plan period up to 2031 (i.e. 430 dwelling per annum) and identified two strategic housing sites and six local allocation sites with a view to providing a total of 1,550 homes to meet the Borough's needs. The Core Strategy also included a Settlement Hierarchy which indicated the locations within the Borough where development would be focused (i.e. within the towns of Hemel Hempstead, Tring and Berkhamsted followed by development within the larger villages). The Place Strategies within the Core Strategy also identified requirements for the Borough's towns and large villages, including local objectives to deliver additional homes, schools, social and community facilities, leisure space, employment, healthcare provisions and transport infrastructure. The Council were therefore clear at this stage about the level and locations of growth proposed and envisaged within the Borough over the plan period from 2006 to 2031.
30. The Council has also recently updated its Infrastructure Delivery Plan ('InDP'), which was scheduled to take account of issues raised through the consultation on the Pre-submission Site Allocations DPD. The process of updating the InDP includes liaison with infrastructure providers and, in respect of waste water infrastructure, the Council consulted Thames Water. In doing so, Thames Water were provided details of up-to-date development levels within Dacorum, including:
- a) Number of dwellings planned for, completed and outstanding in respect of the Core Strategy growth targets;
 - b) Level of business (B1, B2 & B8-classes), retail (A1-class) and leisure (D2-class) space completed and required as per the Core Strategy requirements (square metres);
 - c) Number of dwellings to be provided at both strategic sites (SS1 and SS2) and six local allocations (LA1-LA6) – including identification of where there has either been an uplift or reduction in number of homes to be provided

- from what was stated in the Core Strategy to that proposed within the Pre-submission Site Allocations DPD; and
- d) A copy of the previous years InDP as a basis to compile an update.

31. The Council sought to ascertain what infrastructure upgrades had been planned by Thames Water within their asset management planning process and whether any infrastructure upgrades need to be identified as a result of proposed development levels in Dacorum. The response to the request for information confirmed that neither Maple Lodge Sewage Treatment Works (STW) nor Blackbirds STW (the main two STWs serving Dacorum) will require significant growth upgrades as a result of future development levels within the current asset management period (AMP6: 2015-2020). This was based on Thames Water's own modelling and analysis work. They did indicate that upgrades may be necessary within the next AMP period (2020-2025) but have not identified any 'show-stoppers' to Dacorum's proposed level of growth and site allocations. A position statement regarding these two STWs has subsequently been issued to the Council by Thames Water confirming that upgrades to these facilities may be necessary in AMP7 (2020-2025) (see Appendix B).
32. In terms of the specific Site Allocations proposals, Thames Water advised that in some circumstances where network constraints have been identified via a desk top analysis and the proposed site allocation would increase the risk of sewer flooding it will be necessary for developers to carry out appropriate studies (i.e. a Drainage Strategy). This study should ascertain whether sufficient capacity exists within the waste water network to accommodate proposed development. Such a strategy would identify the level of proposed development, timing of connection to the waste water network and whether any infrastructure upgrades were necessary to accommodate that connection and future demand from the new development. It would also set out the delivery route for the infrastructure upgrade.
33. It is considered that there are evidently no immediate short-term issues relating to waste water infrastructure and that it is appropriate for waste water network capacity (and identification of any infrastructure upgrades) to be assessed at the time development comes forward. The onus for completing this assessment is placed on the developers rather than the local planning authority.
34. Nevertheless, the need to update the Water Cycle Scoping Study completed in 2010 is recognised by the Council. Specifically the Council acknowledges that this study, although based on Regional Spatial Strategy growth projections, highlights the potential for STWs and sewerage network capacity, flood risk and water environment to be constraints to development, particularly in Hemel Hempstead.
35. This study needs to be updated to assess the waste water network and treatment infrastructure requirements for future growth within Dacorum. This is necessary to inform the Council's new Local Plan. As such, the Council now forms part of the project board for Hertfordshire County Council's project looking at the state of the water environment in Hertfordshire. This project is intended to

assess potable water supply and waste water treatment infrastructure across the relevant catchment areas within Hertfordshire.

36. Overall, the 'Water Project for Hertfordshire' intends to identify how existing local water supply and waste water treatment infrastructure could affect future growth levels for Hertfordshire; what infrastructure is required to support the scale of growth envisaged across the county; scope out the environmental impact of these infrastructure developments; and provide a range of options to meet strategic and local infrastructure needs, and an indication of the scale of investment required. Specifically, the project aims are as follows:
- To model planned growth at the county scale and sub-catchment scale and interpret results;
 - Assess reasonable infrastructure options for water supply and waste water treatment across the County and beyond;
 - Provide a descriptive and critical assessment of the infrastructure planning and investment process;
 - Complete subsequent modelling at a finer level of detail, including the local level;
 - Complete smaller specific sub-area based studies; and
 - Explore a wide range of options for strategic packages of interventions for each growth scenario modelled.
37. Whilst the project is yet to be completed, it will supply the evidence required to provide an update to the 2010 Water Cycle Scoping Study. It will consider, or provide the data to consider, what infrastructure upgrades are required within Dacorum in order to ensure the deliverability of planned development within the Borough to meet identified needs.

6. Agreed Matters

The areas of agreement between the Council, Thames Water and the Environment Agency are summarised as follows:

Need for Water Resources and Infrastructure

38. All parties understand and acknowledge the need to ensure there are sufficient water resources and adequate waste water infrastructure within Dacorum to ensure future planned growth is deliverable and sustainable. It is therefore agreed that further assessment of waste water infrastructure within Borough will be necessary to inform future growth levels within the new Local Plan. Such an assessment could either be completed through Phase 2 of the Hertfordshire County Council led Water Project for Hertfordshire or as an update to the Water Cycle Scoping Study completed in 2010.

Cross-boundary Co-operation

39. Given the strategic nature of waste water infrastructure and the need for cross-boundary co-operation, Dacorum Borough Council are committed to being

engaged in and assisting Hertfordshire County Council with the completion of the county-wide project referred to above ('Water Project for Hertfordshire') in order to identify constraints to potable water supply and waste water infrastructure requirements across the county and at the local level (i.e. within Dacorum).

40. It is accepted by Dacorum Borough Council, the Environment Agency and Thames Water that this county-wide study is preferable to any local-level Water Cycle Study update. The former will inevitably address the matter more strategically and therefore take account of the relevant water catchment areas which pay no regard to administrative boundaries. As such, based upon various growth scenarios, the project will seek to identify water supply and waste water treatment requirements throughout the entire network and not just in regard to singular developments or localised areas.
41. All three STWs that treat waste water from development within Dacorum are located outside the Borough (Maple Lodge STW is located in Three Rivers District, Blackbirds STW is located in the Borough of Hertsmere and Chesham STW is located in Chiltern District). Therefore, this is not a matter which can be dealt with by Dacorum Borough Council alone and it is acknowledged that there is a need for liaison with statutory undertakers (i.e. Thames Water) and other local planning authorities within Hertfordshire or outside the county where appropriate (i.e. Chiltern District Council).
42. In considering future levels of growth planned within Dacorum, the Council will ensure that any future significant expansion of Hemel Hempstead is factored-in in terms of the need for any new STW within the vicinity of the town (as recommended within the 2010 Water Cycle Scoping Study). This consideration will include consultation with the statutory sewerage undertaker and infrastructure provider, Thames Water.

Submission of Representations to the Pre-submission Site Allocations DPD

43. It is a matter of fact that the Environment Agency's first response considered the Site Allocations document to be sound. Their second response, which raises the above-discussed concerns over the capacity of waste water infrastructure, was submitted to the Council over five weeks after closure of the consultation period. The Council are therefore not statutorily obliged to take account of this representation. However, as evidenced by the contents of this statement, the Council do take the Environment Agency's concerns regarding waste water infrastructure seriously and are keen to address them as part of the work to inform the new Local Plan.

7. Outstanding Matters

44. The key area of disagreement between the parties relates to the timing and use of technical work to inform future development within Dacorum.
45. The Council are committed to conducting an early partial review of the Core Strategy and will therefore utilise the conclusions of the County Council led 'Water Project for Hertfordshire', or any other update to the Water Cycle Scoping Study Scoping Report (2010), to inform a new Local Plan. This new Local Plan will inevitably identify revised development needs for the Borough and the broad locations for such development over the period up to 2036. It is anticipated that the new Local Plan will be adopted by the end of 2017/18. With regard to delivery of growth identified within the Core Strategy, the Council consider that the proposed Site Allocations can be delivered to meet identified needs through the preparation of a Drainage Strategy at the pre-application stage (where there is greater certainty regarding timing, phasing and delivery of developments) and the use of Grampian-style planning conditions.
46. Conversely, the Environment Agency consider that such a study should be used to inform the current proposals set out within the Site Allocations DPD based upon the conclusions of the Water Cycle Scoping Study Scoping Report published in 2010. They consider that there is insufficient evidence to demonstrate that these site allocations can be delivered without detriment to the water environment.

8. Conclusion

47. This statement provides an overview of how the Council has engaged both Thames Water and the Environment Agency during preparation of the Site Allocations DPD. In particular it summarises the concerns raised by the Environment Agency about waste water infrastructure capacity and the impact planned growth might have on the water environment; and how the Council have considered, and responded to, representations from both consultees.
48. It is considered that the statement provides sufficient evidence to enable the Inspector to make a judgement upon whether proposals set out within the Site Allocations DPD can be delivered through the mechanism suggested by Thames Water; or whether there is a need for further evidence to be produced to demonstrate that planned growth can be delivered without detriment to the water environment.

AGREEMENT

Signed by: James Doe, Assistant Director, Planning, Development and Regeneration, Dacorum Borough Council

Signature: 

For and on behalf of Dacorum Borough Council

Dated: 18/12/2015

Signed by: Mark Mathews, Town Planning Manager, Thames Water

Signature: 

For and on behalf of Thames Water

Dated: 04/12/2015

Signed by: Natasha Smith, Planning Advisor, Sustainable Places, Environment Agency – Hertfordshire and North London.

Signature: 

For and on behalf of the Environment Agency

Dated: 09/12/2015

Appendix A:

Email from the Environment Agency dated 21st April 2015

From: SPHatfield <SPHatfield@environment-agency.gov.uk>
Sent: 21 April 2015 12:58
To: Chloe Thomson; 'Mark Mathews'; Laura Wood; 'Catriona Ramsay'; 'vicky.owen@watford.gov.uk'; Mark Dickinson
Cc: Gordon, Clark P; Smith, Natasha L
Subject: RE: Waste Water Infrastructure

Hi Chloe and Laura

Thank you for meeting with us back on Monday 30th March and sending round the meeting minutes. Also thanks to Mark for sending the Water Quality Modeling Summary for Basingstoke (Chineham) Sewage Treatment Works.

Our action from the meeting was to consider the Modeling Summary and advise whether this could be a mechanism for Dacorum and Watford to progress their Site Allocations DPD and Local Plan Part 2. Having found out more about the reasons we took this action for Basingstoke and Deane and also consulting with our technical experts we would be unable to do this. Basingstoke and Deane have got an original Water Cycle Study (WCS) Phase 1 produced in 2007 followed by a second detailed phase in 2009 which looked at 3 growth scenarios. The WCS showed that development could be accommodated, although the consents for the Sewerage Treatment Works (STW) may need to be tightened as phosphates were already high in the River Loddon. Because the Local Plan housing numbers being proposed were less than considered in the WCS we considered the WCS outputs remained valid and no further work would be required. However, local residents, councillors and MPs raised this as an issue for concern because the WCS and Local Plan time periods and growth figures were different. As Basingstoke and Deane Council were working to tight timescales we agreed as a favour to do some additional modeling work to determine whether there would be any problems over the plan period. The vast majority of the development is focussed in Basingstoke which is served by Chineham STW which discharges into the River Loddon so it was relatively straightforward for us to model this. When Basingstoke and Deane asked us if we could model other housing number scenarios and other catchments in their borough we had to say no because we didn't have the resource to continue and advised they could employ a consultant if they wanted to do this. Neither our local team here or our National team would have the resource to undertake this type of water quality modeling for individual Councils and our expectation is that where further WCS work needs to be undertaken this should be via a suitably qualified consultant.

We welcome the acceptance of the need to produce further technical work following on from the Water Cycle Study – Scoping Study undertaken by Hyder Consulting. It's unfortunate that the timescales for the Hertfordshire County Council's Water Project don't assist either Dacorum or Watford in progressing their Local Plans now in particular considering the timescales for Phase 2. We appreciate the concerns raised with single local authority studies and how meaningful that can be when really it should be a wider catchment study. This is particularly resonant when considering the impact of growth across the wider catchment and its impact on the environmental capacity of the receiving Waste Water Treatment Works. Nevertheless Councils have started undertaking their own 'more detailed' individual studies which take

account of the growth figures of the Councils which share the catchment, for example, St Albans and Stevenage, because it has been necessary to ensure that water quality and infrastructure requirements have been appropriately assessed and considered prior to submitting Local Plans.

For Dacorum the Water Cycle Scoping Study (2010) looked at two growth target scenarios based on the previous Regional Spatial Strategy (scenario 1, 9,000 and scenario 2, 17,000). The Core Strategy target for Dacorum is 10,750 dwellings at a rate of 430 dwellings per annum over the period 2006-2031 so just above the scenario 1 figure. Although concerns were raised in the Scoping Study with the consent limits and capacity at the Maple Lodge Waste Water Treatment Works (WwTW), there was also concern with regard to potential growth locations around Hemel Hempstead which may require extensive upgrades to the sewerage network throughout the existing settlement. This is also an issue where potential growth locations are located to the opposite side of the existing settlements with regards to WwTW or trunk sewers. The Scoping Study advised that upgrades could be disruptive, expensive and require three to five years to plan, design and construct. Whilst we appreciate Thames Water's position that the provision of adequate infrastructure is achievable, we don't agree with the approach of leaving this to be considered on a case by case basis at the pre-application or planning application stage with developers potentially carrying out a sewerage capacity study. This could result in sites that are not actually financially viable because the cost of the sewerage infrastructure is prohibitive and subject to delays until the infrastructure can be provided. Also page 67 of the Constraints Matrix does highlight that WwTW and sewerage network capacity is a possible showstopper and a major constraint to growth for Hemel Hempstead. The recommendation from the Scoping Study for Dacorum is that further detailed work be undertaken regarding the provision of sewerage capacity in and around Hemel Hempstead and Kings Langley.

Similarly for Watford there are constraints and possible showstoppers highlighted in the Constraints Matrix e.g. page 75 of the Scoping Study with regards to WwTW and sewerage capacity. The recommendation is that with suitable network models from Thames Water, Watford complete further work to identify the upgrades required to the strategic sewers in the area which ensure that adequate sewerage infrastructure is phased and implemented alongside the developments sites, rather than constructed piecemeal.

We believe that an updated WCS/detailed technical work should be carried out as per the scope you outlined in your email of 3 March 2015. This would ensure that environmental capacity at Maple Lodge WwTW and the infrastructure capacity of the sewerage network were both considered for your Local Plans proposed growth and site allocations and ensure soundness. Alternatively and in view of the tight timescales for Dacorum's Site Allocations DPD we suggest that as a minimum the sewerage capacity is looked at in further detail and modelled for the proposed site allocations by Thames Water. The question to be answered for this work would be 'if new major infrastructure (major pumping mains or sewer mains) are needed, can they be provided in time for the developments, and can they be funded?'

The Statement of Common Ground could then include your commitment to join the Herts CC Water Project strategic and detailed studies to ensure Dacorum's

upcoming new Local Plan is sound on the issue of waste water infrastructure and water quality.

We will be arranging a meeting with Thames Water soon to discuss some of these issues including the issue around consent limits for Waste Water Treatment Works.

Kind regards

Keira

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Appendix B:

Thames Water's Maple Lodge STW and Blackbirds STW Position Statement
(September 2015)

Maple Lodge STW & Blackbirds STW

In relation to planned growth at Maple Lodge STW and Blackbirds STW, the 'Dacorum Borough Council, St Albans City and District Council, Three Rivers District Council, Watford Borough Council, Welwyn Hatfield Borough Council Water Cycle Study (2010)' (WCS), stated that capacity of the treatment plant was likely to become an issue within the development plan timescales.

The summary of information from the WCS is still considered valid. With regards to the required upgrades identified however, there are still some uncertainties that may have to be investigated further once growth in each of the local authority (LA) catchments becomes clearer.

With the growth information previously made available, our modelling and analysis has suggested that neither Maple Lodge STW or Blackbirds STW will require significant growth upgrades in AMP6 (1st April 2015 to 31st March 2020). Upgrades may however be necessary in AMP7 (2020 to 2025). We will continue to review the situation on a regular basis and as confidence grows in the degree and locations of growth, along with the forecast of delivery.

Agreed PE Profiles (hd)	2009	2011	2016	2021	2026	2031
Overall PE Profile	493,000	497,179	510,259	520,122	528,874	537,215

We are continually updating our models and have recently been reviewing the Drainage Area Plans for some of the larger STW catchments such as Maple Lodge. Such tools do consider longer term growth and capacity, however we would have less confidence in the accuracy of the model outputs, the further we look into the future.

Although it is useful to know high level forecasts (e.g. 10,000 dwellings between from 2011- 2031), it would be very difficult to assess the impact without further details regarding location, timing and phasing of development. As development plans span 15-20 years, it is sometimes unclear whether the catchment developments are front-end loaded, back-end loaded or evenly spread. Development proposals can also vary due to a variety of reasons, most notably the economic life cycle.

Thames Water use LA housing and employment growth figures and census data to help project likely increases in sewage flows to its STWs. We also take into consideration a range of other factors, including data on wastewater flows entering the STW. Using this information, we seek to ensure that the STWs have sufficient capacity to cater for the growth being proposed. Where capacity constraints at STWs are predicted, we aim to invest at the appropriate time to ensure our treatment consents continue to be met.

As our sewerage network and the STWs are impacted by development in several other LA areas, we also need to assess the cumulative impacts of these areas. It is

important to understand that new dwellings do not create sewage; people do, so understanding population migration and occupancy rates in the catchment will be an important consideration as well as further changes to industrial and business discharges. The impact of changes to weather patterns also needs to be acknowledged.

We therefore seek confidence in the delivery and timing of developments, to know where to base our assessments. Sites being adopted in Local Plans can provide a good degree of confidence for us

As part of our five year business plan, Thames Water advise Ofwat on the funding required to accommodate growth to ensure the STWs can continue to meet the standard required by the treatment consents.

Where there are infrastructure constraints, the usual period to ensure the provision of extra capacity to drain new development sites is an 18-month to three-year lead time from certainty that the development is being built. If any large scale engineering works are needed for wastewater treatment, the lead time could be up to five years. and the construction of a major treatment works extension or new treatment works could take up to ten years.

Maple Lodge STW

Maple Lodge STW currently treats a population equivalent (PE) of approximately 505,000. This is residential population plus the trade and business discharges converted to a residential equivalent.

As stated above, recent modelling assessments indicated that with the growth forecasts to date, we do not require significant growth upgrades at Maple Lodge STW in AMP6.

The WCS states that, *'current flows are approaching the current process and hydraulic capacity at the WwTW. Creation of additional capacity would require the construction of new assets, which would require changing the layout of the existing site... TWU are investigating diverting additional flows to Blackbirds WwTW in the future'* (pg41). At present, we do not need to alter the flow arrangement, however, the viability of this option will need to be investigated as we receive more accurate growth data and understand potential future changes in water quality consent limits..

Blackbirds STW

Blackbirds STW currently treats a PE of approximately 95,000.

Blackbirds STW is a sub-catchment of Maple Lodge catchment, serving approximately 16% of the population and Maple Lodge STW treating the remaining 84%. It is fed almost exclusively by Drop Lane SPS which draws off a portion of the sewage that runs down the C-line sewer towards Maple Lodge STW. Currently,

under normal conditions, the flows to Blackbirds STW from Drop Lane SPS are pumped at set rates. Therefore, as growth occurs upstream, the volume of flow may remain constant but the organic load requiring treatment will increase. We are assessing how this growth will potentially impact on both STWs and thus what upgrades / alterations may be required for us to comply with our consents.

In future, we may be able to alter the flow split or the volumes treated by the STWs, in order to accommodate growth more efficiently in future AMPs. This may require significant investment at one or both sites, and discussions with the Environment Agency.

Conclusion

We confirm that upgrades will be required at Maple Lodge STW and / or Blackbirds STW as a result of the development planned in the catchments. This investment will be necessary within the period to 2031. Significant upgrades are not required in AMP6, however the longer term plan for capacity at both STWs will be appraised and developed as details of the proposed scale and phasing of development sites, together with potential tighter consents from the EA through the NEP becomes clearer.

To obtain this better picture, we will continue to work with and support the local planning authorities as their Local Plans are formalised and adopted and with the EA in the progress of the NEP.

Thames Water continue to monitor incoming flows, their chemical make-up, the PE of the incoming loads, the performance of the plant, the cost of operating the plant and the daily volumetric effluent flows discharged to the river. As such there are many early warning signs available to enable us to react according to the need.

Thames Water will continue to work with the Environment Agency to understand what future water quality consents changes may be necessary for Water Framework Directive compliance. These may be in respect of volumetric discharges and / or the final effluent discharge standards e.g. Ammonia, Phosphorous. Should such changes be required these would need to be agreed with the water company via the EA's National Environmental Programme (NEP), to ensure any solutions to meet these consents are deliverable with best available technology and affordable. The NEP would also establish realistic time-frames to implement the STW improvements (up to 5-years in some cases).