

## **The Hertfordshire Water Study 2017**

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### **1. Summary**

- 1.1 This report is a companion to the presentation on the findings of the Hertfordshire Water Study to HIPP, to be led by the consultants who have prepared it, Arcadis UK.
- 1.2 That presentation will cover the methodology adopted, the results of the research, overall conclusions and actions that should be undertaken going forward. This report sets out the context to that work, provides a reminder of what the Study was seeking to achieve, and considers the extent to which it has achieved it.

### **2. Background**

- 2.1 There have been regular updates to HIPP on progress on the Water Study since its autumn 2015 inception, and it is not the intention to replicate previous statements.
- 2.2 One point of clarification at this stage is needed. Throughout this report there is the reference to 'water' (the Water Study, water companies, water infrastructure etc). The description 'water' is a term used by the industry itself but is actually (and is used here and in the Study) as a catchall for 'water and sewerage'.
- 2.3 The final point is that at the time of writing the contents of the Study are not yet signed off, although the work is at an advanced stage and the hope if not the expectation is that sign-off will be achieved without significant amendment; on that basis the conclusions discussed here and included in the presentation appear robust.

### **3. Some general considerations around the Water Study**

- 3.1 It is perhaps helpful to point out some important considerations around the Water Study:
  - **it is hugely technical**, tackling as it does advanced hydraulics, a vast and interconnected system of pipework, pumps and treatment works, innovative modelling techniques and a complex governance and regulatory system that has been operating since privatisation. There is no other area of infrastructure planning that is quite so arcane, and most if not all of those who are not part of the industry struggle to obtain a complete picture of it. Presenting the findings in a way a lay audience will understand without detracting from its meaning has been one of the key challenges
  - **the partnership is a complex one**, involving as it does 16 agencies in all, including a mix of private and public sector interests, with each one striving to secure a specific individual outcome to meet its needs without there being any suggestion in the report that the organisation is presented in a less than favourable light in the current long term arrangements for planning water infrastructure; the Study finds no evidence of this and the fact that the partnership has remain intact and has worked well together is testament to all involved

- what cannot be overlooked is that **the Study has suffered delay**, with the original completion date of July 2016 significantly exceeded. The technical complexity of both the research and the partnership noted above has been the principal reason as Arcadis have struggled to agree future development scenarios with local authorities, secure the basis for and completing the detailed modelling work and present technical findings in a way that can be readily understood by all those reading it

#### 4. What the Study Represents

- 4.1 It is perhaps worth setting out what is covered in the Study and what isn't, because this has proved to be one of the hardest things for the individual study partners to appreciate.

What the Study covers	
Area covered	Comment
Long term network resilience	This has never been attempted before – the current industry setup and funding model considers this on essentially a short term basis
The impact of growth on a collectively agreed long term growth strategy	Local authorities were asked to define where they consider growth would most likely to be located over the period 2021 – 51 for the purposes of modelling the impact of that growth
Where there are long term pressures in the system	Based on that long-term strategy, the Study has been able to identify where the water infrastructure network (both connections and treatment works) comes under pressure - and crucially when
Where there is long term capacity	Equally the Study identified where growth <i>could</i> be located to take advantage of spare water infrastructure capacity and reduced long term investment costs (whilst also readily recognising that for other reasons, development in this location might not be appropriate)
Water infrastructure considerations not parochially but across the whole Study Area	Whilst there have been studies exploring wider than district issues in the county (e.g. for Rye Meads) the Study takes this to a whole new level
Infrastructure planning on a sub-catchment basis	Many studies focus on administrative boundaries only; though these are important considerations picked up by the Study, it also considers infrastructure needs in each of Hertfordshire's 15 sub-catchments
Infrastructure needs based on a range of population growth scenarios	One of the critically important aspects of the Study is that it does not look at long term growth one dimensionally but considers the ' <i>what if</i> ' – specifically, it builds in low, medium and high population growth scenarios to enable sensitivity testing

4.2 The Study **does not cover** the following:

<b>What the Study doesn't cover</b>	
<b>Area not covered</b>	<b>Comment</b>
Does not render invalid any current or emerging growth strategy	There was never the intention of the Study to challenge any growth strategy and there are established liaison mechanisms in place between LPAs and water companies on local plan issues. The Study does not suggest any capacity issues that are not capable of being overcome in the plan period without the appropriate level of investment (but see 4.3 below on the value that it adds to the Local Plan process)
It doesn't propose that long term growth should be sited in any one particular location within specific districts in accordance with the assignment of growth that was tested	The growth scenarios that have been tested (a 2021 baseline, and then a 2031 and 2051 assignment of growth) have been discussed and agreed with the districts for the purposes of modelling only. The Study makes it clear that the assignment of long term growth is for this purpose alone and should not be taken as any more than this – there are heavy caveats throughout the report but particularly in any mapping that provides a visual presentation of growth locations
Does not say where development should or shouldn't go	Again, this is not the intention of the report – no constraints on growth will be imposed as a result of Study outcomes, although it is important to note that some locations will require greater technical solutions and incur higher infrastructure costs than others
It doesn't provide costings of infrastructure need	As a high level study of long term growth, the Study was never able to go into detailed costings and after consideration it was decided any 'finger in the air' indicative costings would be would run the risk of being inaccurate and therefore misleading. The opportunity to address such considerations arises in any Stage 2 of the Study as discussed later
Does not suggest that provision of water infrastructure should be the principal determinant of growth	There is a clear recognition that water infrastructure provision is only one of a number of considerations that will determine where future sustainable development should be sited, and, just because growth could take place in one location to take advantage of spare network capacity, it may be inappropriate for a number of other reasons

4.3 There are some additional considerations arising out of the two tables above which are as follows:

- it is understandable that local planning authorities would have wished the Study to provide **specific support for growth in the shorter term** (and specifically in providing assistance with emerging local plans). Though that was never the intention, the Study does in fact provide support and several concerns have been ironed out as a result of the close liaison that has taken place between partners during Study progression (for instance the Environment Agency has withdrawn its blanket objection to proposed local plan growth for South West Herts on discharge grounds as it now understands more about the issue through its participation in the Study)
- during the time of the Study several additional points **in respect of local plan progression** have emerged; Thames Water have provided additional liaison and feedback on local plan growth strategies (e.g. St Albans, Chiltern) through contact that has been made in Project Board meetings, and the County Council has offered to prepare a technical evidence paper for local plan examinations and appear with the EA at inquiries to explain the technical evidence provided by the Study. This should demonstrate to Inspectors that the issue of water infrastructure planning is being taken seriously in the Study Area and that the Study outcomes can offer considerable comfort that investment needs are now much better understood
- on a separate issue, the fact that local planning authorities have been uncomfortable about being asked to provide a **profile of potential future growth beyond the current plan period**, on the grounds that this does not represent local authority policy but could easily – although mistakenly – be taken as representing just that. It would have been impossible to undertake modelling the long term consequences of growth and its impact on the water network without these assumptions, so these difficult judgements have had to be made. However, the Study has been at great pains to make it very clear that these assumptions are for testing purposes only and for no other reason
- a final consideration is around **sub-catchment planning**; water infrastructure is no greater respecter of administrative boundaries and in many ways Hertfordshire's 15 sub-catchments (smaller divisions of the country's major river systems) have greater significance for infrastructure planning. What the Study has been able to illustrate is that as sub-catchments are typically spread over 2 or more districts, cross boundary water infrastructure planning is absolutely vital, as siting growth in one district in one part of a sub-catchment will have ramifications for infrastructure capacity terms for the sub-catchment overall, and therefore for other districts

#### 4. Study outcomes

4.1 These are covered within the presentation but the structure (and key actions) are summarised here.

##### Conclusions

4.2 These are summarised in multiple formats:

- Overall general
- Immediate considerations overall to 2021

- Medium Term overall to 2031
- Longer term overall (2031 – 51)
- Specific conclusions (a range of structural/cultural changes in the water infrastructure planning process that should be pursued)
- District conclusions
- Sub-catchment conclusions
- A proposed strategy for Hertfordshire (with the topics of planning, collaboration, vision and investment cross referenced with the key agencies - HCC, districts, water companies, developers and the Environment Agency)

### **Next steps**

- 4.3 There are a number proposed, but specifically there is 5 point Action Plan which is reproduced, with a commentary, in Appendix A

## **5. The Study and its relationship with the move towards longer term growth and infrastructure planning and promoting housing delivery**

- 5.1 The Study outcomes are being published at a time when there is heightened interest in the issue of both longer term planning for growth and infrastructure beyond the timeframe of local plans, and of ensuring that barriers which might prevent the delivery of housing growth are removed.
- 5.2 HIPP has itself recognised the need for this in committing to creating a longer term countywide vision of growth beyond 2031, with a key part of that agenda being around collaborative work on infrastructure planning. In that sense, the Water Study outcomes are the first illustration of what such collaboration might mean since that commitment was entered into in January.
- 5.3 Other areas of infrastructure are (or can be expected to) take a similar view, and the current actions to create a Transport Vision for 2050 in Hertfordshire similarly recognises that to plan for the immediate, one needs to develop an understanding of what the future might look like.
- 5.4 There is also the sense that future timelines for local plans are acknowledging the longer view, with forthcoming reviews by the South West Herts authorities expected to push into the mid to late 2030s, and with several authorities already recognising that an early review of the emerging local plan might be needed to reflect increased housing projections (and, in the case of North Herts, an acknowledgement of the fact that it may be necessary to plan for a new settlement from the mid 2020s).
- 5.5 The long term view provided by the Study feeds into this agenda, as it does into the concerns the government has about barriers that may be preventing housing delivery as set out in February's White Paper "*Fixing our Broken Housing Market*".
- 5.6 The White Paper notes that in December 2014, the Government published *Better Connected*, setting out the process for securing utility provision for developments, providing a shared expectation for utility connections from companies and developers, reaffirming statutory performance measures already in place, and introducing new voluntary standards for water and sewerage (as well as telecoms).
- 5.7 The White Paper provides a commitment to review *Better Connected*, assessing its impact so far, and how existing performance standards and penalties are working to support house building at all scales. The aim is to consider what more could be done to ensure that utilities planning and delivery keeps pace with housebuilding and

supports development across the country: aligning investment in utilities provision with local development plans that set out where and, crucially, when houses will be built is likely to be key in achieving this, speeding up timely connections for new homes.

- 5.8 As part of this review, and depending on progress made by the sector, the government will closely monitor performance to ensure house building is not being delayed and, if necessary, will consider obligating utility companies to take account of proposed development. In that sense, the Study plays perfectly into this agenda.

## **6. A possible Stage 2**

- 6.1 As a possible follow up to the Study, consideration will be given to a Stage 2 commission which has already be identified. This would be aimed at taking the strategic conclusions from the report and turning it into detail (in terms of precise requirements of infrastructure need and their cost) on a district by district basis.
- 6.2 The County Council has agreed to draw up a generic brief but it will be for individual districts to decide (possibly in partnership with others) whether or not to take this forward.

## **7. Conclusions**

- 7.1 Ultimately the Study represents a both wide ranging and significant body of work which defines the key issues associated with water planning in the county, and specifically in the time period after the early 2030s - when the current round of emerging local plans will be coming to the end of their natural life – through to the year 2051.
- 7.2 What it has been able to achieve is a collective knowledge of the many considerations there are associated with this issue – as well as shared intelligence – for all those involved at the issue within the Study area. There is much that can be built on as a result of this work and also much that can be done with sharing the findings on a wider scale, including potentially the ongoing national debate about how to secure appropriate and timely development related infrastructure to support and maintain growth.

## **Recommendations:**

That HIPP notes;

1. The findings of the Water Study, and the considerable value that it adds to the longer term understanding of future water infrastructure need and the planning that needs to go into secure it
2. That notwithstanding the fact that the purpose of the Study was not to examine in detail short term needs, the Study outcomes are of considerable value to the local plan process in that they show that, subject to appropriate future investment, no critical issues which would undermine local plan growth strategies have been uncovered, and that the fact that local authorities are taking a longer term holistic view of water infrastructure will earn them considerable credit at local plan examination

3. That in support of point 2 above, the County Council (and, it is understood, the Environment Agency) has indicated its willingness to prepare a technical paper and appear at local plan examinations to explain the detail underpinning the Study's conclusions
4. The government's concerns around utility planning and infrastructure rollout being a potential source of delay in relation to housing delivery, and the potential template the Study identifies for multiple agency working on this issue

That HIPP agrees to;

5. Feed the Study outcomes into the 'Planning for Hertfordshire beyond 2031' visioning work that it has agree to promote
6. Receive in due course a report specifically around the recommendations for long term actions including a consideration of:
  - a water infrastructure partnership
  - the identification of a single point of contact across Hertfordshire to act as liaison between water companies and local planning authorities on the strategic aspects of water infrastructure planning
7. Receiving and considering a brief for Stage 2 individually tailored piece of work for each of the districts to explore specific long term water infrastructure needs and costs
8. A joint HIPP/Water Companies session on water infrastructure planning and the Study outcomes

## Appendix A - The Water Study's 5-point Action Plan

Action Point	Summary of potential implications
A Water and Sewerage Infrastructure Delivery Partnership	A proposed public/private partnership formed from the current Study Partners and bringing in others (both other local authorities and other private stakeholders) to build on the collaborative work that has been at the heart of the Study. The partnership would have the overarching responsibility of taking forward the remainder of the Study's recommendations. Evidence from elsewhere (e.g. the GLA's role in London's water infrastructure planning) suggests that this would improve Hertfordshire's collective standing in such matters
An Integrated Planning Portal and a Single Point of Contact	<p>One of the current weaknesses identified from the Study are the limited arrangements to share technical data (on proposed development locations, water and sewerage infrastructure, groundwater conditions etc) and this hinders both the process of planning for growth and the understanding of the implications of that growth in water and sewerage infrastructure terms. The key to taking up this recommendation would however be who would be prepared to host the portal</p> <p>Another consideration is the potential establishment of a single point of contact within Hertfordshire's authorities to act as liaison between them, the water company, the Environment Agency and other relevant bodies</p>
Growth Risk Profile	Profiling would help emerging local plan growth strategies to be assessed for their risk in terms of impact on the existing water and sewerage network. This would allow water companies to co-ordinate investment against the growth strategy, which would improve the profiling of such investment in future Asset Management Plan periods (which operate in 5 year tranches), or alternatively, challenge that growth strategy were the company to form the view that an alternative profile might be more cost effective or easier to implement
Exploration of Long Term Funding Opportunities	<p>Notwithstanding water companies' willingness to match investment against future growth needs (see next point) this investment is recognised as being essentially short term and reactive. One of the Study recommendations is to seek ways of getting ahead of the funding game to secure long term investment (particularly at the pan district, sub catchment level) to build up capacity in the system and provide greater certainty for long term planning for growth</p> <p>Such opportunities (which would see early investment coupled with a later recoup as development was rolled out) could potentially involve a role for the Hertfordshire LEP or a 'Bank of Hertfordshire' style investment (a concept mooted as forming part of the development of a Vision for Hertfordshire and collaborative work on infrastructure funding) and delivery discussed previously by HIPP)</p>
Planning for AMP7 (2020 – 25) and the forthcoming Price Review Mechanism (PR19)	As identified at the outset of the commission, the Study provides a high level examination of technical issues including investment priorities and costs over a significant timescale, as its focus is on long term solutions. Looking to the shorter term the Study recommends an immediate second phase of detailed work which will greatly assist the water companies in planning for the next Asset Management Period (AMP 7 2020 – 25), particularly when the companies review the health and performance of their network, although it will also assist infrastructure investment planning beyond that period. As such, this will be of great value to local planning authorities in future proofing the latter phases of their emerging and adopted local plans