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Chichester Local Plan Examination statement

Matter 10: Infrastructure
Policies 8/9/12/ Map 12.3/IDP

September 2014

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Matter 10: Infrastructure Policies 8/9/12/ Map 12.3/IDP

This statement has been produced as part of the examination of the Chichester Local Plan. It answers the Inspector's questions relating to matter 10.

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1. Is the Plan supported by robust infrastructure Planning?

1.1. Yes, the Chichester Local Plan: Key Policies Pre-Submission (CD-01) is supported by an Infrastructure Delivery Plan (CD-50). The Infrastructure Delivery Plan was subject to consultation with stakeholders and prepared through on-going engagement with infrastructure providers. Section B of the Infrastructure Delivery Plan provides details on broad strategic infrastructure provision and funding sources for the various infrastructure categories, and Section C sets out the infrastructure delivery schedules for each of the strategic development locations, and more general district-wide infrastructure delivery. The Infrastructure Delivery Plan is a live document and the infrastructure schedules will be updated as new information becomes available. The information in the Infrastructure Delivery Plan has informed the Council's work in producing its Community Infrastructure Levy and draft Regulation 123 list, and draft Planning Obligations and Affordable Housing SPD; the latter will be subject to public consultation in September 2014.

1.2. It is the Council's intention that the Infrastructure Delivery Plan will be supported by an Infrastructure Business Plan, which will set out the detailed infrastructure funding priorities as part of a five-year rolling programme. This is being developed by the Council as part of its Community Infrastructure Levy Governance and Spending arrangements. The first Infrastructure Business Plan is planned to be in place by November 2015.

2. Is the Plan underpinned by project planning to examine the relationship between infrastructure provision and development, particularly in the SDLs and to identify potential "show stoppers"?

2.1. Yes, please see the Infrastructure Delivery Plan (IDP) (CD-50) Section C. The only potential "show-stopper" is the expansion/upgrade of the Wastewater Treatment Works (WwTW) at Tangmere, which is currently subject to Ofwat approval. If given the expected approval, the expanded/upgraded wastewater treatment works would be operational in 2019. The phasing of development in the Chichester Local Plan: Key Policies Pre-Submission (CD-01) has taken this into account and the Strategic Development Locations of West of Chichester, Westhampnett/NorthEast Chichester, and Tangmere have been phased for delivery post 2019.

2.2. The developers of the West of Chichester Strategic Development Location are actively exploring the feasibility of installing an on-site Wastewater Treatment Works with Albion Water. If this meets the strict environmental criteria of the Environment Agency it could be delivered as an alternative

solution and bring forward the phasing of the Strategic Development Location. In the unlikely event of the expansion/upgrade of the Tangmere WwTW not being approved, the other Strategic Development Locations may explore the feasibility of delivery of on-site solutions as a contingency, although this is not the Council's favoured approach, nor one upon which it is relying. The feasibility remains untested. Nevertheless, given the low risk that the expansion of the WWTW is not agreed and the potential alternative solutions available, it is not considered that the issue of foul drainage for the strategic locations is a significant showstopper.

2.3. The transport infrastructure to be delivered by the Strategic Development Locations will be phased to synchronise with the delivery of development and will be identified in the respective masterplans. The draft Regulation 123 list identifies Strategic Road Network improvements to the A27 Chichester Bypass junctions as being secured through s278. Transport infrastructure is not identified as a "show stopper", and is dealt with in the questions below. Provision of other road/cycle/pedestrian infrastructure and improvements, where necessary to make the development acceptable in planning terms will be provided through s106, whereas transport provision to deal with the general growth of the area will be funded via Community Infrastructure Levy.

2.4. The new primary schools to be delivered as a direct result of the West of Chichester and Tangmere Strategic Development Location are intended to be provided through s106, rather than the Community Infrastructure Levy. WSCC will provide advice at the planning application stage as to the timing of provision.

3. Transport Study (CD18): Are the proposed mitigation measures (A27 junction improvements) assessed against the correct level of housing growth across the Plan period?

3.1. Yes, the level of housing modelled in Chapter 7 of the Transport Study of Strategic Development Options (CD-18a & b) is based on the housing figures which were proposed in the Local Plan Preferred Approach consultation (just under 7,000 additional homes). The same level of housing provision has been carried forward into the submission version of the Plan.

3.2. Initially the Chichester Area Transport Model (CATM) was updated to a base date of 1 April 2011, taking account of housing completions up to that date. Existing housing commitments at that date (1,990 homes) were then added into the baseline growth assumptions as set out in Section 3.2 of the Transport Study of Strategic Development Options (CD-18a & b). A number of alternative development scenarios were then tested, based on providing 3,250 additional homes (Low housing target), 5,400 additional homes (High

housing target) or 6,100 additional homes (Maximum housing target) in the south of the District

- 3.3. At the final stage of the study, the effect of the mitigation measures was tested against a development scenario reflecting amount and distribution of housing proposed in the Draft Local Plan: Key Policies - Preferred Approach (CD-98) Consultation document. The housing figures incorporated in this scenario are set out in Table 7-a (section 7.2) and Appendix A of the Transport Study of Strategic Development Options (CD-18a & b). The elements that make up this figure are:

	<i>Number of dwellings</i>
South of District:	
Current housing commitment (updated to 1 April 2012)	1,990
Non-strategic housing (including assumed windfall)	1,669
Strategic locations (SDLs)	3,000
Total additional housing	4,669

Total housing	6,659
North of District	
Total additional housing	320
Plan area total	6,979

- 3.4. It should be noted that net housing completions for the year 2011-12 were not been factored into the modelling of the Local Plan Preferred Approach scenario (CD-98). As noted above, the traffic modelling used a base date of 1 April 2011 (the most up-to-date housing monitoring data available when the initial modelling work was undertaken in early summer 2012), whereas the base date for the housing figures in the Chichester Local Plan: Key Policies Pre-Submission (CD-01) is 1 April 2012. Housing completions for 2011-12 totalled 353 net dwellings for the whole of Chichester District (295 net dwellings for the south of the District).

- 3.5. The CATM uses a forecast date of 2031, whereas the Local Plan end date is 2029. However, this makes a relatively minor difference to the traffic flow figures. It means that the forecasts for background traffic growth (projected to 2031 in the model) will be (slightly) overstated for the Plan end date of 2029, and therefore do not undermine the overall conclusions of the modelling work.

4. What questions remain regarding funding and timing of the proposed traffic mitigation measures?

- 4.1. The transport infrastructure package has been developed to a sufficient level of detail to demonstrate that the Chichester Local Plan: Key Policies Pre-submission (CD-01) is deliverable. However, implementation is dependent on the phasing of development and therefore, needs to be flexible to allow sites to come forward in a timely manner. Whilst the Local Plan provides an indication of the phasing of sites, detailed phasing of infrastructure will form part of the Strategic Development Location masterplanning process.
- 4.2. An indicative cost of the local transport package was determined based on pre-feasibility work. These cost estimations have informed the Infrastructure Delivery Plan (CD-50) and technical work to prepare for the introduction of the Community Infrastructure Levy. The cost estimations will be refined as design work is undertaken. In some cases, study work is currently being progressed. Where developer contributions are expected, the transport mitigation measures have been identified in the Draft Regulation 123 List as either being funded at least in part by Community Infrastructure Levy or to be delivered through planning obligations. This work is ongoing.

5. Does Map 12.3 show sufficient detail of public transport and cycle routes?

- 5.1. Yes, Map 12.3 presents the emerging transport infrastructure package at a sufficient level of detail for this stage of the planning process. The map has been prepared to support Chichester Local Plan: Key Policies Pre-Submission (CD-01) Policy 13 which sets out the indicative Chichester City Transport Strategy Policy. It identifies key transport measures proposed in this strategy where they can be identified spatially. The package shown on the map includes public transport improvement corridors and 'aspirational' cycle routes.
- 5.2. Public transport improvement corridors have been identified on Map 12.3 to indicate where there is a need for improved public transport connectivity between the Strategic Development Locations and the City. This could be delivered through new or improved bus services which will be determined by bus operators on the basis of commercial considerations. The Strategic Development Locations policies set out requirements for bus service provision and improvements will be identified through engagement with bus operators as sites come forward for development.
- 5.3. Map 12.3 includes a cycle network for Chichester, which identifies existing, committed and aspirational cycle routes. The aspirational cycle routes

include those that have been identified to link the Strategic Development Locations to the city centre and those needed to fill gaps in the existing cycle network. If alternative cycle routes other than those already identified are needed, these could be identified as part of the masterplanning work for the Strategic Development Locations or at a similar stage in the planning process when site-specific principles are being discussed.

6. Policy 12: Is the policy soundly based to reflect the situation at Apuldram WwTW and the position of the Environment Agency?

- 6.1. Yes, the policy within the Chichester Local Plan: Key Policies 2014-2029 (CD-01) was drafted to reflect the aims of the Environment Agency position statement, as set out in Position Statement on Wastewater and Delivering Development in the Local Plan (CD-15) which followed on from the work undertaken on the Water Quality and Strategic Growth for Chichester District Background Paper November 2012 (CD-89).
- 6.2. The Environment Agency drew up its position statement to address the issue of the water quality in Chichester Harbour particularly relating to the storm discharges from Apuldram Wastewater Treatment Works WwTW). It was agreed that ultraviolet treatment on the storm discharges would reduce the bacteria levels entering the Harbour and enable the release some of the headroom at the treatment works.
- 6.3. Criterion 4 of policy 12 in the Chichester Local Plan: Key Policies 2014-2029 (CD-01) was superseded following the installation of the ultraviolet treatment and the withdrawal of the Environment Agency position statement. There was no longer a requirement for proposals of 6 or more dwellings to demonstrate no significant net increase in flows to the sewer network as the ultraviolet treatment had released up to 700 new dwellings to connect to Apuldram WwTW.
- 6.4. The Position Statement on Wastewater and Delivering Development in the Local Plan (CD-15) has been updated¹ to reflect the most up to date position regarding the headroom capacity at Apuldram WwTW.
- 6.5. Paragraph 3.1 2nd bullet point of the Water Quality and Strategic Growth for Chichester District Background Paper November 2012 (CD-89) highlights that the Apuldram catchment (Chichester City, Fishbourne, Apuldram and Donnington) has particular issues regarding groundwater infiltration to the network, meaning that the wastewater treatment works is treating more than

¹ [Update on Apuldram Wastewater Treatment Works and Wastewater Position Statement June 2014 Agenda Item 6 page 161](#)

sewage. Southern Water are undertaking a series of investigations involving CCTV of the network, lift and look of man-holes and have a programme of works.

6.6. The requirement of criterion 2 for development to minimise water usage was considered one possible solution to help address the issue of infiltration.

6.7. For clarification proposed additional modifications **M64** and **M65** and proposed main modification **M66** address the issues with regard to Policy 12²³.

7. Policy 12: Should criterion 1 refer to water use in litres/head/day rather than the CSH (in order to be future-proofed)

7.1. Yes, criterion 1 in policy 12 of the Chichester Local Plan: Key Policies 2014-2029 (CD-01) has been drafted to reflect the unique issues highlighted in the Water Quality and Strategic Growth for Chichester District Background Paper November 2012 (CD-89).

7.2. However, the Code for Sustainable Homes is currently undergoing a Government Housing Standards Review. Level 5 of the Code for Sustainable Homes sets a standard of 80 litres per person per day. The existing Building Regulations⁴ require 125 litres per person per day.

7.3. As mentioned above, the Apuldram catchment has particular issues regarding groundwater infiltration to the network. Paragraph 3.1.2 of the Strategic Growth Study – Wastewater Treatment Options (CD81a-c) states that a reduction in the per capita consumption of water would have an equivalent reduction in the volume of wastewater received at Chichester (Apuldram) WwTW.

7.4. A Technical Briefing Note⁵ produced by the Environment Agency references a 2012 report commissioned by UK Water Industry Research (UKWIR)⁶ called 'the relationship between per capita consumption and waste water flows'. The study concluded that "reductions in per capita consumption of up to 25% would in many cases improve sewage works effluent quality and ...in most cases environmental pollution load would be reduced."

² [Schedule of Proposed Additional Modifications to the Pre-submission Local Plan](#): Pages 8 and 9

³ [Schedule of Proposed Main Modifications to the Pre-submission Local Plan](#): Page 7

⁴ [Building Regulations Requirement G2 and Regulations 36 page 15](#)

⁵ [Technical Briefing Note: Water Quality Benefits of reducing domestic water consumption](#)

⁶ [UK Water Industry Research](#)

- 7.5. The Technical Briefing Note goes on to states that by actively reducing per capita consumption through water demand management there is an opportunity to improve the water environment not only by taking less water from it but also by putting less pollution back into it.
- 7.6. The Water Framework Directive establishes legal requirements to aim to achieve “good” status or “good ecological potential” and “no deterioration” status for all water bodies by 2027⁷. Further information is provided in the South East River Basin Management Plan (SERBMP)⁸. Page 21 highlights the role that local planning authorities have in implementing the SERBMP and suggested example actions to help manage water environment to a consistent standard.
- 7.7. Paragraphs 94 and 99 of the National Planning Policy Framework (CD-62) highlight the need to take a proactive approach to water supply in the context of adaptation to climate change and paragraph 156 of the Planning Practice Guidance (CD-72) also identifies the need to consider water infrastructure, including waste supply and waste water.
- 7.8. Water Efficiency and Planning – Solent and South Downs Position (January 2014) (Appendix 10A) produced by the Environment Agency encourages the adoption of water efficiency standards above those required under Building Regulations.
- 7.9. The Environment Agency updated their classifications of areas of water stress in July 2013⁹. Portsmouth Water is classed as moderate stress, however as stated in the Water Efficiency and Planning – Solent and South Downs Position (January 2014) document “the information can also be applied to encourage or support high water efficiency measures in new build, or to support retrofitting initiatives.” The document goes on to state that “even in those areas designated not in serious water stress there should be some activity to ensure that water is used more efficiently and effectively”.
- 7.10. The Council therefore considers it would be appropriate to seek the highest standard, requiring 80 litres/head/day rather than stating the Code for Sustainable Homes or Building Regulations.

⁷ [Water Framework Directive](#)

⁸ [South East River Basin Management Plan \(CD-79\)](#): Page 21

⁹ [Water stressed areas – final classification \(2013\)](#)

Chichester Local Plan Examination: Matters & Issues

Appendix Contents Page

Matter 10

Appendix 10A – Page 1 Water Efficiency and Planning – Solent and South Downs
Position

January 2014

Water Efficiency and Planning - Solent and South Downs Position

OUR POSITION

We will recommend that:

- all new homes should achieve, as a minimum, internal water use of 105 litres/head/day
- all new commercial buildings should meet the BREEAM "excellent" standard

The justification and evidence available to support this position is detailed below. There is no single piece of evidence that can provide an indicator of the pressure on water resources in a given area. Instead, we use a number of different sources of information to build up that picture.

When engaging with a local authority to encourage the adoption of water efficiency standards above those required under Building Regulations you should consider each source of evidence and work with colleagues in the Integrated Environment Planning team to provide more detail if required.

Please note this position applies to our engagement on Local Plans and other strategic work. It does not apply to consultations on planning applications.

1. Background

Within South East England there is a large population with a high water demand, yet limited water availability. So great is the pressure upon water resources, that according to [Waterwise \(2012\)](#), there is less water per person in the South East than there is in the Sudan.

Water consumption in the South East is approximately 156 l/h/d as reported in the Environment Agency's [State of the Environment – South East England \(2010\)](#). This is higher than the UK average of 147 l/h/d stated in the [Water Resource Planning Guideline \(2012\)](#).

2. Water Stress

The Environment Agency and Natural Resources Wales published updated classifications of areas of water stress in England and Wales in July 2013. These updated those previously published in 2007. [Water stressed areas - final classification \(2013\)](#)

The new methodology identifies areas of serious water stress where: (a) the current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or (b) the future household demand for water is likely to be a high proportion of the effective rainfall available to meet that demand.

The primary purpose of this classification is to provide evidence to support universal metering proposals in certain areas. However, it is recognised that the information can also be applied to encourage or support high water efficiency measures in new build, or to support retrofitting initiatives. It also states that even in

those areas designated "not in serious water stress" under the new methodology, there should be some activity to ensure that water is used more efficiently and effectively.

Much of SSD is classed as at serious water stress, with remaining places at moderate water stress. Three water companies cover the SSD area for water supply – Southern Water, Portsmouth Water and South East Water. The water company classifications for current use are as follows:

- Portsmouth Water – Moderate Stress
- Southern Water – Serious Stress
- South East Water – Serious Stress

We can also provide information on the break down of water stress by individual water body. Please speak with your Integrated Environmental Planning team to get this information if required.

3. Catchment Abstraction Management Strategies

Water resources are managed locally through the Catchment Abstraction Management Strategies (CAMS). These assess how much water is available in each catchment, how much is allocated to people and how much is needed to sustain the environment. A Licensing Strategy is derived for each catchment and is published on <http://www.environment-agency.gov.uk/business/topics/water/132669.aspx>.

Across SSD there is very little water available for further licensing in these catchments during the summer low flow period. Some water is available during winter in most years.

Peak demand for water companies in the south occurs in summer so there is little potential for developing their water resources apart from through a winter storage reservoir. The only practicable site remaining is Havant Thicket.

4. Environmental Legislation

The implementation of environmental legislation, including the Habitats and Water Framework Directives are influencing water company abstraction.

This change in environmental law is modifying water company licences where centres of population are surrounded by designated rivers, wetlands and coastlines. For example the abstraction from the River Itchen will be curtailed during severe droughts and will be replaced with water from other sources including the River Test and by managing demand through compulsory metering. In other areas groundwater licenses have been reduced to protect designated European sites along the coast.

Water efficiency standards can help to deliver objectives set out in the River Basin Management Plans (RBMPs). Local authorities have a duty to regard the RBMPs and should ensure their decisions will not compromise those objectives. Both the [South East RBMP](#) and [Thames RBMP](#) contain an action that requires local authorities to seek the use of water efficiency standards that exceed the Building Regulations, where local evidence supports the need.

5. Climate Change and Future Proofing

Whilst most water companies have headroom available at the current time to meet existing demand they face future challenges. These challenges include:

- Housing and population growth - more consumers and lower occupancy leading to greater demand and higher per capita consumption (PCC);
- Changing lifestyles - power showers and recreational use of water outdoors;
- Climate change - affecting the amount and distribution of rainfall, the demand for water and the use of land. Existing water infrastructure that is designed to cope with past and present climate may not be adequate for the future.

Water use in the home also has an impact on carbon and greenhouse gas emissions. Domestic water heating is responsible for 5% of UK CO₂ emissions, and from 10-25% of the household energy bill ([Waterwise](#)).

Simple demand management measures, particularly those which reduce the amount of hot water used in the home, have huge potential not only to promote water and energy efficiency but also to reduce the carbon footprint

The benefits of water efficiency

The advantage of opting for a standard of 105 l/h/d is a substantial saving in water consumption for a negligible outlay at the time of construction. With the increase of water metering, there is also an added benefit for house buyers due to reduced water costs. For a family of four this cost saving could be in the order of £200 per year.

Achieving the water efficiency standard of 105 l/h/d within new dwellings can be accomplished at very little extra cost. The [Cost of building to the Code for sustainable homes – updated costs review \(2011\)](#) estimates that it would cost between £150 and £200 per dwelling to attain such a rate, in addition to the costs incurred adhering to Building Regulations (2010). This would typically involve low/dual-flush toilets, low-flow/aerated taps and showerheads and efficient domestic appliances. More costly greywater or rainwater technologies would not be required. [The Water Efficiency Calculator for New Dwellings \(2009\)](#) provides further information on how to achieve and assess water efficiency in new homes.

[The Department for Communities and Local Government Housing Standards Review \(2013\)](#) also states that a potable water consumption of 105 l/h/d is achievable without detriment to quality or functionality of appliances and provides updated costings. This states that for an average 3 bedroom house the cost of achieving a standard higher than building regulations would be £68 (page 59, Housing Standards Review).

There are also real long-term benefits in keeping down the capital costs of new water supply and waste water infrastructure; in reducing power costs in heating water for water and energy customers; reducing carbon footprints of water and energy companies; maintaining ecosystem services for people and business; protecting landscapes and environment.

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