### **TOPIC PAPER**

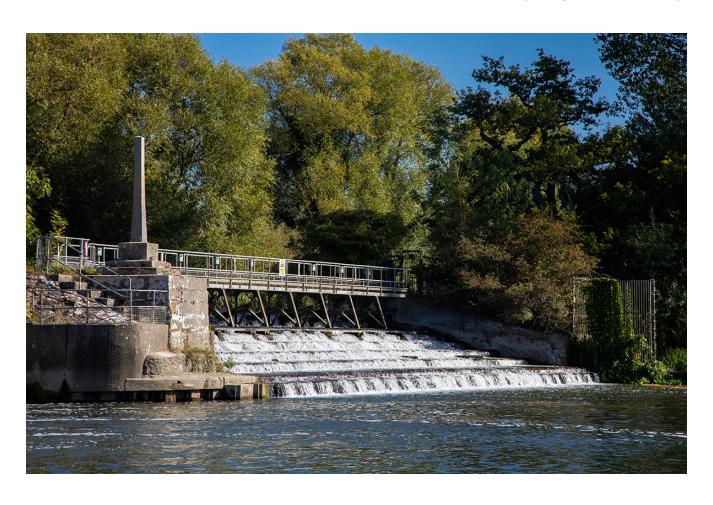
# **WATER EFFICIENCY**

Joint Local Plan 2041
EXAMINATION LIBRARY DOCUMENT

TOP11.1

## **Joint Local Plan**

Submission Version (Regulation 22)







This topic paper supports the Joint Local Plan 2041.

We have prepared topic papers to present a coordinated view of the evidence that has been considered in drafting the Joint Local Plan 2041. We hope this will make it easier to understand how we have reached our position.

#### **Publication history**

This topic paper was first published in January 2024, and was updated in October 2024 and released with the Regulation 19 publication version of the Joint Local Plan.

This December 2024 version contains the following updates since the October 2024 version:

- Addition of a reference to the Councils' climate emergency declaration.
- Addition of a paragraph on population growth in the region.
- Addition of Regulation 19 consultation feedback from key stakeholders on Policy CE7.
- Addition of paragraphs on abstraction license strategy.

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# Section 1: Introduction and background

#### Introduction

- Policy CE7 of the South Oxfordshire and Vale of White Horse Joint Local Plan 2041 (JLP) requires that all new residential development must achieve, amongst other things, a predicted water consumption of no more than 100 litres per person per day (lpppd).
- 1.2 The policy does not set specific water efficiency standards for non-residential development as there are a wide range of different non-residential uses that will each have different water needs. However, in demonstrating that non-residential development has been designed to be water efficient, developers are encouraged to consider schemes such as BREEAM and the Royal Institute of British Architects '2030 Climate Challenge', which may provide relevant standards.
- 1.3 The full text of Policy CE7 is attached to this paper at Appendix 1.
- 1.4 This paper provides the clear justification for the approach to water efficiency contained in Policy CE7 by reference to national planning policy and guidance and other relevant evidence. It demonstrates that the Plan area sits within an area of serious water stress such that a more restrictive approach than that mandated in national Building Regulations is both justified, appropriate and viable.

#### **Background**

- 1.5 The National Planning Policy Framework (NPPF)<sup>1</sup>, states that it expects local planning authorities to adopt proactive strategies to adapt to climate change that take full account of water supply and demand considerations.
- 1.6 In addition, the NPPF section on "meeting the challenge of climate change, flooding and coastal change", charges local planning authorities with the task of: "...proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures" (paragraph 158).
- 1.7 The NPPF is supported by National Planning Practice Guidance (NPPG)<sup>2</sup> which amplifies and clarifies much of the policy contained in the NPPF. On 27 March 2015 the Government published, as a supplement to the NPPG,

<sup>&</sup>lt;sup>1</sup> National Planning Policy Framework (December 2023), available at: <a href="https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF">https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF</a> December 2023. <a href="https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF">https://assets.publishing.service.gov.uk/media/669a25e9a3c2a28abb50d2b4/NPPF</a> December 2023.

<sup>&</sup>lt;sup>2</sup> National Planning Practice Guidance, available at: <a href="https://www.gov.uk/guidance/housing-optional-technical-standards">https://www.gov.uk/guidance/housing-optional-technical-standards</a>

Optional Housing Technical Standards which, amongst other things, allows local authorities to set in local plans a tighter standard than that required under Building Regulations.

- 1.8 Building Regulations Approved Document G set limits for water consumption in new dwellings in England of 125l/person/day, which must not be exceeded. They also apply a lower limit of 105l/person/day plus 5l/person/day for outdoor use in water scarce areas which amounts to 110 litres per person per day. The values are strictly upper limits, which may not be exceeded and are encouraged to be improved on.
- 1.9 While the Regulations set upper limits, they do not encourage more ambitious installations, so submissions of calculator outputs or design specifications are not checked. Furthermore, checks of compliance of installation with design, or comparison of actual water consumption against design assumptions are not carried out. This was confirmed by a WRc study<sup>3</sup> of 80 new homes within the Welsh water area, where installed fittings averaged a consumption of 135 lpppd and individual homes exceeded 190 lpppd. Given the compliance issues in the current legislative framework there is a good case for tighter control on water consumption.
- 1.10 Whilst all new homes have to meet the mandatory national standard of 125 lpppd set out in the Building Regulations, the NPPG allows local planning authorities to set Local Plan policies requiring new dwellings to meet the tighter Building Regulations optional requirement of 110 litres/person/day if there is a clear local need identified.
- 1.11 The NPPG is not a policy but a guidance document which also clarifies how this local need should be determined. It states this is a matter for the local planning authority to establish through existing sources of evidence, consultations with the local water and sewerage company, the Environment Agency (EA) and catchment partnerships, and taking into account any development viability and housing supply impacts of setting more restrictive standards. In clarifying the sources of evidence to be used, the guidance highlights four potential sources:
  - the EA's Water Stressed Areas Classification (2021) which identifies areas of serious water stress where household demand for water is (or is likely to be) a high proportion of the current effective rainfall available to meet demand;
  - Water Resource Management Plans (WRMPs) produced by water companies;
  - River Basin Management Plans which describe the river basin district and the pressure the local water environment faces; and

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<sup>&</sup>lt;sup>3</sup> Waterwise (2024) Building Regulations Water Efficiency Review, available at: <a href="https://database.waterwise.org.uk/knowledge-base/building-regulations-water-efficiency-review/">https://database.waterwise.org.uk/knowledge-base/building-regulations-water-efficiency-review/</a>

 Locally specific evidence such as collaborative water cycle studies which may have been carried out in areas of high growth.

#### **Local Context**

- 1.12 Both South Oxfordshire and Vale of White Horse adopted Local Plans (via Policy INF4: Water Resources and Core Policy 40: Sustainable Design and Construction respectively) require new developments to be designed to a water efficiency standard of 110 lpppd for new homes, which reflects a clear response to the emerging local need to introduce measures to curb water consumption.
- 1.13 Both the Councils are committed to reducing carbon emissions and tackling the effects of climate change. In 2019 we declared climate emergencies and set ambitious climate action targets, including to become carbon neutral districts by 2045. Climate change is already impacting the districts in relation to water scarcity, with three drought events<sup>4</sup> registered since 2007 with impacts on agriculture, habitats and water resources and infrastructure. With more extreme weather events including droughts and floods becoming more intense and prevalent as a consequence of climate change, pressure on our water resources has increased. Therefore, in order to adapt and build resilience to these impacts of climate change, we need to implement higher water efficiency standards to ensure water is available and accessible for all in future.
- 1.14 The evidence to justify the JLP's policy position is set out in the next section.

<sup>4</sup> Oxfordshire County Council Climate Vulnerability Assessment (2024), available at: <a href="https://insight.oxfordshire.gov.uk/cms/system/files/documents/ClimateVulnerabilityAssessmentOxfordshireApril24Final.pdf">https://insight.oxfordshire.gov.uk/cms/system/files/documents/ClimateVulnerabilityAssessmentOxfordshireApril24Final.pdf</a>

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# Section 2: Evidence for the JLP Policy Approach

#### **Water Stressed Areas Classification**

- 2.1 Taking the advice in NPPG, the main source of information for establishing need for higher water efficiency standards in the JLP is the Environment Agency's 'Water Stressed Areas Final Classification (2021)<sup>5</sup>. The updated methodology for the 2021 classification 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.
- 2.2 The EA has classified the area served by Thames Water (which includes South Oxfordshire and Vale of White Horse) as being in "serious water stress". The primary purpose of the classification is to provide evidence to support universal metering proposals in certain areas. However, the information can also be applied to encourage or support high water efficiency measures in new builds, or to support retrofitting initiatives. Therefore, the water efficiency standards set out in Policy CE7 are expected to directly help reduce the severity of the water stress the region is experiencing by setting more stringent requirements.
- 2.3 Moreover, the Environment Agency has produced a National Framework for Water Resources (2020)<sup>6</sup> that sets out the scale of action needed to ensure that resilient water supplies are available for people and the environment in the future, whilst also restoring, protecting and improving the environment. The draft regional plan identifies options to secure water supplies in the region, including increasing water efficiency. Additionally, it highlights that the South East region's water crisis is exacerbated by its population change.

#### **River Basin Management Plans**

2.4 Water efficiency standards can also help deliver objectives set out in River Basin Management Plans (RBMPs). Local authorities have a legal duty to have regard to RBMPs and should ensure that their decisions do not compromise those objectives. The National Planning Policy Framework also says planning policies should contribute to and enhance the natural and local environment by taking into account relevant information such as

<sup>5</sup> Environment Agency and DEFRA (2021) Water stressed areas – 2021 classification, available at: https://www.gov.uk/government/publications/water-stressed-areas-2021-classification

<sup>&</sup>lt;sup>6</sup> Environment Agency (March 2020) Meeting our future water needs: a national framework for water resources – accessible summary, available at: <a href="https://www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources/meeting-our-future-water-needs-a-national-framework-for-water-resources-accessible-summary">https://www.gov.uk/government/publications/meeting-our-future-water-needs-a-national-framework-for-water-resources-accessible-summary</a>

RBMPs. The relevant Thames River Basin Management Plan 2022<sup>7</sup> contains an action to encourage local authorities to adopt the optional minimum building standard of 110 litres per person per day in all new builds where there is a clear local need, such as in water stressed areas. In serious water stress areas like our own, tighter standards would be the appropriate response as set out in Policy CE7.

2.5 In January 2023 the Government launched the Environmental Improvement Plan (EIP)<sup>8</sup>, which is the first revision of the previous 25 Year Environmental Plan (published in 2018), and sets out how the country will improve our environment. Among other things, it which brings together the significant steps that have already been taken with new action. The EIP aims to transform management of the water system, deliver cleaner water for nature and people, and secure a plentiful water supply. As part of these aims, the EIP contains new potential water efficiency standards for new homes with a baseline of 105 l/p/d, with a tighter standard of 100l/p/d where there is a local need. Policy CE3 is a direct response to the EIP. Through the EIP the government also showed commitment in delivering a roadmap on water efficiency which has now been published by Future Homes Hub (explained further on in this paper).

#### **Water Resource Management Plans (WRMP)**

- 2.6 South Oxfordshire and Vale of White Horse lie wholly within the Thames Water supply area. The Thames Water Resource Management Plan Revised Draft 2024<sup>9</sup> identifies how Thames Water will manage the supply and demand balance over the next 25 years. It shows what demand and supply measures will be introduced to manage the longer-term challenge of population increase, climate change, drought resilience and growing environmental needs.
- 2.7 Looking to the future, water supplies are forecast to fall, the main cause being climate change. The districts lie within the SWOX Water Resource Zone, where the water available for use in 2025/26 is estimated to be 304.77 Megalitres/day (Ml/d) and 330.02 Ml/d expected under Dry Year Annual Average (DYAA) and Dry Year Critical Average (DYCP) conditions respectively, the latter being the time in a dry year when demand is greatest, often termed the peak week. Based on the demand figures the WRMP suggests that during peak week (DYCP) conditions, there is a shortfall of 10.65 Ml/d already. This is expected to be exacerbated in the coming years.

<sup>&</sup>lt;sup>7</sup> Environment Agency (2022) Thames river basin district river basin management plan: updated 2022, available at: <a href="https://www.gov.uk/guidance/thames-river-basin-district-river-basin-management-plan-updated-2022">https://www.gov.uk/guidance/thames-river-basin-district-river-basin-management-plan-updated-2022</a>

<sup>&</sup>lt;sup>8</sup> HM Government (2023) Environmental Improvement Plan, available at: https://assets.publishing.service.gov.uk/media/64a6d9c1c531eb000c64fffa/environmental-improvement-plan-2023.pdf

<sup>&</sup>lt;sup>9</sup> Thames Water Revised Draft Water Resources Management Plan (2024), available at: <a href="https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/wrmp24-draft/technical-report/environment.pdf">https://www.thameswater.co.uk/media-library/home/about-us/regulation/water-resources/wrmp24-draft/technical-report/environment.pdf</a>

2.8 These matters set out in detail in the various technical documents that support WRMP serve to further highlight the degree of water stress suffered in the wider water supply region / catchment in which the districts lie. They also help justify why there is a clear need to ensure the JLP takes all appropriate steps it can to try to reduce water consumption in new development and therefore implement higher water efficiency standards.

#### Royal Institute of British Architects (RIBA) Climate Challenge Study<sup>10</sup>

- 2.9 RIBA has developed, in consultation with other professional UK construction bodies, voluntary performance targets for water use relating to construction. The performance targets align with the future legislative horizon and set out challenging but achievable operational energy, water use and embodied carbon performance targets in order to have a realistic prospect of achieving net zero carbon for the whole UK building stock by 2050. In terms of water use it sets a standard of 95 l/person/day by 2025 and 75 l/person/day by 2030. BREEAM<sup>11</sup> sets graded standards for individual water fittings, which developers can use to reduce water consumption.
- 2.10 Although these are voluntary standards that developers could choose to adopt, they are based on recommendations from the Green Construction Board with membership from leading businesses and have been developed in consultation with industry experts and UK professional bodies from across the built environment industries, suggesting potential for a wider take-up. Policy CE7 represents a direct response to the RIBA's initiatives.

#### **Future Homes Hub guidance**

- 2.11 Defra commissioned the Future Homes Hub to support on the creation of a roadmap towards greater water efficiency in new homes and developments. The Hub's work informs the Government's Roadmap to Water Efficiency. The emerging Future Homes standard will include targets in relation to achieving water resilience and water efficiency, anticipating greater water efficiency in new development and potential future targets for reducing water use in 2025 and 2030.
- 2.12 The Future Homes Hub's Water Ready<sup>12</sup> (Apr 2024) working group recommended a roadmap to include the following future water standards: 90lpppd in seriously water stressed areas (in which the South and Vale districts are located), to enable sustainable growth by 2025, which progressively goes down to 80lpppd by 2035 in water stressed areas, which can be expected to be lower in seriously water stressed areas such as South

<sup>&</sup>lt;sup>10</sup> RIBA (2021) RIBA 2030 Climate Challenge, available at: <a href="https://www.architecture.com/-/media/files/Climate-action/RIBA-2030-Climate-">https://www.architecture.com/-/media/files/Climate-action/RIBA-2030-Climate-</a>

Challenge.pdf?srsltid=AfmBOopW1CKKCWUCJ76wMu2194M2EVKmfsT9sCZT-NoSvN8rClGvzGv1

<sup>&</sup>lt;sup>11</sup> BREEAM (2024) BREEAM Standards, available at: https://breeam.com/standards

<sup>&</sup>lt;sup>12</sup> Future Homes Hub (2024) Water Ready report, available at: <a href="https://irp.cdn-website.com/bdbb2d99/files/uploaded/Water%20Ready\_A%20report%20to%20inform%20HM%20Government-s%20roadmap%20for%20water%20efficient%20new%20homes.pdf">https://irp.cdn-website.com/bdbb2d99/files/uploaded/Water%20Ready\_A%20report%20to%20inform%20HM%20Government-s%20roadmap%20for%20water%20efficient%20new%20homes.pdf</a>

and Vale's districts. The Roadmap standards looking 5 and 10 years ahead provide a useful direction of travel.



Figure 1: Future Homes Hub Roadmap for water efficiency

- 2.13 The document also recognises that in his Written Ministerial Statement of 19 December 2023<sup>13</sup>, the DLUHC Secretary has encouraged "...local planning authorities to work with the Environment Agency and delivery partners to agree standards tighter than the 110 litres per day that is set out in current guidance" in "areas of serious water stress, where water scarcity is inhibiting the adoption of Local Plans or the granting of planning permission for homes." This effectively introduces a water efficiency requirement into the national picture which needs to be considered.
- 2.14 South and Vale welcome the development of a roadmap for improving water efficiency beyond the 2025 Building Regulations standards to 2035. We agree that confirmation of the targets for litres per person per day should occur as early as possible, to provide greater lead-in times for local policies and water company environmental incentives. The Future Homes Hub roadmap suggests an even more ambitious figure than what we are proposing for 2025, showing the urgency for higher requirements. Taken together, the Ministerial Statement and the Roadmap provide a strong intention from the government to implement tighter water efficiency requirements over the next ten years. In that context, we consider the target set by Policy CE7 is justified.

#### **Abstraction Licensing Strategies**

- 2.15 Abstraction Licensing Strategies have links to the requirements of the Water Framework Directive. They seek to identify how water resources are managed and provide a guide about where water is available for further abstraction. The majority of South and Vale is covered by the Thames Corridor ALS<sup>14</sup>.
- 2.16 The Environment Agency has developed a classification system which shows the relative balance between the environmental requirements for

<sup>&</sup>lt;sup>13</sup> The Next Stage in Our Long-Term Plan for Housing update statement made on 19 December 2023, available at: <a href="https://questions-statements.parliament.uk/written-statements/detail/2023-12-19/hcws161">https://questions-statements.parliament.uk/written-statements/detail/2023-12-19/hcws161</a>

<sup>&</sup>lt;sup>14</sup> Environment Agency (2019) Thames Catchment Abstraction Licencing Strategy, available at <a href="https://assets.publishing.service.gov.uk/media/5de4ebc940f0b650c268495f/Thames-Abstraction-Licensing-Strategy.pdf">https://assets.publishing.service.gov.uk/media/5de4ebc940f0b650c268495f/Thames-Abstraction-Licensing-Strategy.pdf</a>

water and how much has been licensed for abstraction. The report indicates that there is restricted water available in Oxfordshire for additional abstractions, and existing abstractions may not be available all year. The water resource availability is calculated at flows Q70 and Q50 in the entirety of the area. This scenario highlights water bodies in which abstraction is contributing to flows falling below the Environmental Flow Indicator, where no new consumptive licences would be granted at this flow. Furthermore, it identifies that availability of water for licensing reflects the greatest pressures for abstraction being in the Lower River Thames which encompasses the majority of both districts, and the area is classed as 'water not available for licensing' up to the Q30 flow. The Q30 is the flow that will be equalled or exceeded for at least 30% of the time it is typically equivalent to the mean flow.

2.17 In summary, the Environment Agency sets out that the major impacts of abstraction are linked to public water supply, with this being the main consumptive use in the catchment. The Environment Agency highlights strong support for demand management measures as a means of making best use of water resources.

#### **Water Cycle Study**

- 2.18 In addition to the above we commissioned Wallingford HydroSolutions (WHS) to undertake a Water Cycle Study (WCS). The study considers how strategic plans and development proposals will affect the water environment, as unmitigated future development can adversely affect the infrastructure capacity of clean and wastewater infrastructure, often resulting in environmental impacts. Therefore, the study looks to identify infrastructural and environmental constraints, in order to determine the steps required to ensure that planned growth can occur without compromising the water environment. This study provides evidence to support the Joint Local Plan.
- 2.19 The WCS Scoping Report appropriately highlights that the forecasts in Thames Water's latest WRMP indicate that there could be shortfalls in water supply up to 2041 and beyond. The WCS Scoping Report found that:
  - Without corrective action, the water supply for both districts could be less secure which will mean a greater probability that water demand restrictions will be required in dry years.
  - The JLP and adopted local plans are bringing forward a greater allocation of dwellings than currently forecasted by the WRMP, so could exacerbate the shortfalls in water supply predicted.
- 2.20 In the analysis of demand forecast, the WCS shows the total number of dwellings being brought forward in the plan period by the JLP and number of Neighbourhood Plans being made to be higher than predicted by Thames Water, with 38,686 dwellings proposed in the JLP compared to 31,719 dwellings based on Thames Water's plan-based forecasts. This suggests a significantly higher projected demand for water unaccounted for in Thames

Water's current projections, and calls for identifying other tools and interventions to be deployed to improve water efficiency in an area that already experiences serious water stress. This again justifies the higher water efficiency target set out in JLP Policy CE7, in order to address this water resource concern.

#### **Population Growth**

2.21 Further, increased demand strains water resources, especially in drylands where rapid population growth has been observed. In the 10 years between the 2011 and 2021 censuses, South Oxfordshire's population increased by 11.1%, from around 134,300 people in 2011 to around 149,100 people in 2021<sup>15</sup>. Over the same period, Vale of White Horse's population increased by 14.8%, from around 121,000 people in 2011 to around 138,900 people in 2021<sup>16</sup>. The population increases in the districts were significantly higher than the population increase seen across the south east of England (7.5%) and nationally (6.6%) over the same period. The population increase in Vale of White Horse was more than double the national figure. This scale of population change makes a strong case for tighter water standards locally, as the greater the population, the more demand there will be for water. Taken together, Policy CE7 makes an effective response to the Water Cycle Study recommendation that "New interventions from the district councils such as stricter water use standards may also be required during the plan period".

# Feedback from Joint Local Plan Consultation on Policy CE7 - Water Efficiency

#### Regulation 18 Part 2 Preferred Options Consultation Feedback (Jan-Feb 2024)

- 2.22 Whilst there were concerns from some respondents that the proposed water efficiency standard of 100 litres per person per day for new dwellings is not consistent with the Building Regulations or planning practice guidance, there were some requests to set an even more ambitious water efficiency standard (such as 80 or 90 litres per person per day) and to apply the standard not only to new dwellings, but to extensions and renovations too.
- 2.23 Thames Water expressed support for applying a 110 litres per person per day standard in accordance with national planning guidance but noted that the Building Regulations allow water efficiency requirements to be achieved

<sup>&</sup>lt;sup>15</sup> Office of National Statistics (28 June 2022) How the population changed in South Oxfordshire: Census 2021, available at:

https://www.ons.gov.uk/visualisations/censuspopulationchange/E07000179/

<sup>&</sup>lt;sup>16</sup> Office of National Statistics (28 June 2022) How the population changed in Vale of White Horse: Census 2021, available at:

https://www.ons.gov.uk/visualisations/censuspopulationchange/E07000180

through either the 'Calculation Method' or the 'Fittings Approach', with the Fittings Approach being most effective. In our view, while Thames Water's views are supported in principle, considering compliance issues with the "Fittings Approach" as explained in the WRc Study, there is a case for introducing tighter standards.

- 2.24 Oxfordshire County Council are supportive of more ambitious water efficiency standards. They noted that a reduction in water use helps to reduce the need for strategic water resource infrastructure such as the proposed reservoir near Abingdon. Notably the Environment Agency also raised no objection to the tighter standards set out in Policy CE7.
- 2.25 There was some support from respondents for alternative options such as exploring the potential for community-scale rainwater harvesting and grey water recycling schemes. However, these systems would be expensive to install and will likely take longer to implement. On the contrary, tighter control would address the urgency of the issue.
- 2.26 Combined with significant pressure on water resources in the districts, the feedback from the Regulation 18 Part 2 consultation further supports the retention of Policy CE7's approach to water efficiency, including a water efficiency standard of 100 litres per person per day for new dwellings.

#### Regulation 19 Publication version Representations (Oct-Nov 2024)

- 2.27 Statutory bodies and a utility company have supported the policy through their representations on the Regulation 19 Publication version of the plan. The Environment Agency stated that "the adoption of the strategic policy to limit water use in all new homes to 100 l/p/d or a future tighter standard alongside other rainwater harvesting measures and the demonstration of water efficiency is an ambitious and justified policy that is sufficiently evidenced in the relevant topic paper."
- 2.28 Likewise, Oxfordshire County Council fully supported the policy, and also stated that they are "willing to help the Councils with background information if they need support to defend this policy".
- 2.29 Thames Water also provided their support for the higher water efficiency standard, stating that "Thames Water support the enhanced mains water consumption target of 100 litres per head per day and support the inclusion of this requirement in Policy". They again noted in their response that the 'fitting approach' as set out in Table 2.2 of Part G of Building Regulations should be used and that conditions be applied to new residential development to ensure that the water efficiency standards are met.
- 2.30 Natural England raised no concerns about the Policy.
- 2.31 Those objecting to this policy raised no concerns about the cost or impact on housing supply as a result of the policy but objected on the basis that the policy is inconsistent with the national policy requirements.

#### **Viability**

- 2.32 The final aspect of justifying the policy is demonstrating that any policy requirements would not adversely affect development viability or housing supply. This aligns with the recommendations from Future Homes Hub which clearly suggest that whilst the recommendations provide a useful direction of travel, the commitment to specific levels of litres per person per day will need to be confirmed as deliverable by industry.
- 2.33 We commissioned Aspinall Verdi to prepare a Viability Report<sup>17</sup> in support of the JLP which tested the impacts of all relevant policies on the viability of a suite of different development typologies in different market areas. One of the policies included in the testing was the water efficiency criteria of Policy CE7.
- 2.34 Table 3.1 of the Report notes that delivering tighter standards incurs an additional build cost of £350 per dwelling, which we consider negligible (with the cost implication based on the standard of 100 l/p/d):

"We recognise that there is a cost implication with the enhanced water efficiency target. 100 litres per head per day is a pioneering requirement. This may involve technologies such as a smart water meter, low flow fittings and water efficient appliances. In this respect, we have explicitly included an allowance of £350 per unit for water efficiency. This is based on the report Future Homes Hub (April 2024) – 'Water Ready - A Report to Inform HM Government's Roadmap for Water Efficient New Homes'."

2.35 Overall, the Aspinall Verdi Viability Report demonstrates that this additional cost incurred by imposing 100lppd does not adversely impact the viability of schemes. Moreover, in considering its application, the report suggests that these costs are considered to be the 'worst-case' scenario, which indicates that actual costs could be less than those estimated.

<sup>17</sup> Aspinall Verdi (September 2024) South Oxfordshire & Vale of White Horse District Council Joint Local Plan Viability Report, available at: <a href="https://www.southandvale.gov.uk/JLPEvidence">www.southandvale.gov.uk/JLPEvidence</a>.

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### **Section 3: Conclusion**

- 3.1 The NPPG allows local authorities to seek tighter control where there is a clear need, and local evidence justifies it. Following government guidance set out in the NPPG, this topic paper sets out the clear and robust justification for the Joint Local Plan to seek a more restrictive level of water efficiency (100 lpppd) in Policy CE7, than that mandated nationally through Building Regulations (125 lpppd).
- 3.2 Central to this justification is that South Oxfordshire and Vale of White Horse are in an area of serious water stress, as identified by the Environment Agency. Policy CE7's higher water efficiency requirements will directly help to reduce the severity of the water stress in the region. Additionally, a key finding from the Water Cycle Study commissioned by the Councils found that the number of homes being brought forward in the plan period is higher than that predicted by the WRMP. This results in significantly higher projected demand for water unaccounted for in Thames Water's current projections. With more homes coming forward, and the population rising across both districts over the plan period, the demand for water is ever increasing, and therefore higher water efficiency standards are essential to ensure future water availability.
- The emerging plan also has a suite of policies that seek to tackle climate change which Policy CE7 is an integral part of. Both councils have declared climate emergencies, recognising that we must take action locally in order to tackle the global issue of climate change. This policy and the recommended tighter standard for water consumption is therefore an integral element of the JLP's overall approach to addressing wider issues of climate change and sustainability. With heatwaves and droughts becoming more frequent as a result of climate change, adding further pressure to our already strained water resources, higher water efficiency standards are required to ensure water is available and accessible for all throughout the plan period and beyond.
- 3.4 It should be noted that the current development plans for both South Oxfordshire and Vale of White Horse have successfully applied a 110 lpppd requirement.
- 3.5 Given the strong local evidence of, amongst other things, serious water stress in our districts, and in conjunction with the Future Homes Hub recommendations actively advising the government for tighter standards, the requirement for no more than 100 litres per person per day as set out by Policy CE7 in the JLP is considered entirely justified. Notably, this standard is also supported by Thames Water and by the Environment Agency. It is also further justified by the Viability Report outcomes which demonstrate the costs of achieving this standard do not adversely impact the viability of schemes.

## **Appendix 1**

#### Policy CE7 – Water efficiency

- 1) It must be demonstrated that development has been designed to be water efficient and to minimise water consumption.
- 2) All new homes must be designed to high water efficiency standards, with water use not exceeding 100 litres per person per day, or any future tighter standard that may replace this.
- 3) Every new home with a garden must be fitted with at least one water butt (unless an alternative rainwater harvesting scheme is implemented that would make this redundant).
- 4) Compliance with exemplar water efficiency standards (such as the Royal Institute of British Architects '2030 Climate Challenge' water use targets<sup>a</sup>) is encouraged.
- 5) Development at site allocations and major development should maximise water efficiency through large-scale rainwater harvesting and grey water recycling schemes where it is feasible and viable to do so.

<sup>&</sup>lt;sup>a</sup> The Royal Institute of British Architects 2030 Climate Challenge, available at: <a href="https://www.architecture.com/about/policy/climate-action/2030-climate-challenge?srsltid=AfmBOorewwsWd7l6uwbpNSw9-5Q45fOd88sMG8x0MM756dNEhR7r-bwo">https://www.architecture.com/about/policy/climate-action/2030-climate-challenge?srsltid=AfmBOorewwsWd7l6uwbpNSw9-5Q45fOd88sMG8x0MM756dNEhR7r-bwo</a>





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#### **Planning Policy Team**

Abbey House, Abbey Close Abingdon, OX14 3JE Tel: 01235 422422

Email: planning.policy@southandvale.gov.uk

www.southoxon.gov.uk www.whitehorsedc.gov.uk



