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OXFORD CITY COUNCIL

Oxford City Council Local Plan 2036

Enhanced Water Efficiency Building Regulations

BACKGROUND PAPER

INTRODUCTION

As part of the "Housing: optional technical standards" guidance[1] (hereafter "the Guidance"), the Government sets mandatory and optional standards for water efficiency in new homes. The mandatory standard that all new homes must meet is 125 litres per person per day. Where there is a clear local need, planning authorities can set out Local Plan policies requiring new dwellings to meet the tighter Building Regulations optional requirement of 110 litres per person per day[2].

In order for a planning authority to establish that there is a clear need to apply the optional technical standards for water efficiency, the Guidance requires the following criteria to be met:

- Existing sources of evidence
- Consultations with the local water and sewerage company, the Environment Agency and catchment partnerships
- Consideration of the impact on viability and housing supply of such a requirement

This background paper sets out Oxford City Council's justification for implementing the optional technical standards for water efficiency. It draws on existing evidence and discussions with stakeholders to demonstrate that the water efficiency standards have been tested as part of the Local Plan 2036 viability assessment.

EXISTING SOURCES OF EVIDENCE

This section reviews the existing sources of evidence and draws some conclusions as to whether the physical conditions exist to support the inclusion of the optional technical standards for water efficiency.

The Guidance helpfully indicates the types of evidence which might support a tighter water efficiency standard for new dwellings, which include primary and local sources of evidence.

Primary sources of evidence are:

- The Environment Agency Water Stressed Areas Classification (2013)[3]
- Water resource management plans produced by water companies[4][5]

[1] https://www.gov.uk/guidance/housing-optional-technical-standards
[2] Paragraph: 014 Reference ID 56-014-20150327 https://www.gov.uk/guidance/housing-optional-technical-standards#water-efficiency-standards
[3] https://www.gov.uk/government/publications/water-stressed-areas-2013-classification
[4] Thames Water (2014) Water Resources Management Plan https://corporate.thameswater.co.uk/About-us/our-strategies-and-plans/water-resources/our-current-plan-wrmp14
[5] Thames Water Draft Water Resources Management Plan 2019 https://corporate.thameswater.co.uk/About-us/our-strategies-and-plans/water-resources

- River Basin Management Plans[6]

Oxford City Council has produced a Water Cycle Study to supplement the above primary evidence.

Water Stressed Areas Classification (2013)

In July 2013 the Environment Agency published "Water Stressed Areas – final classification". This document provides a methodology by which to classify water stressed areas in England and Wales. In England, water companies in "water stressed" areas need to evaluate compulsory metering and other options when preparing water resource management plans. The final classification (2013) shows that Thames Water company area is considered to be an "area of serious water stress" across the current and future usage scenarios and the climate change scenarios.

Thames Water Resource Management Plan

Thames Water has a legal duty to develop and maintain an efficient and economical system of water supply, and every five years are required to produce a Water Resources Management Plan (WRMP). The current plan is the 2014-2040 WRMP which sets out how Thames Water plans to maintain the balance between supply and demand for water over a 25 year period.

To understand if Thames Water has sufficient water to meet their customers' needs over the planning period, a comparison is made between the demand for water and the available supply, taking account of the uncertainties in the forecasts. This assessment produces the supply demand balances for each Water Resource Zone (WRZ) which shows if there is sufficient water to meet customers' needs or if there is a deficit. Oxford lies in the Swindon and Oxford WRZ (SWOX) where, in the current WRMP, an increasing "dry year critical period" has been predicted from -1Ml/d in 2020 to -32Ml/d by 2040.

Thames Water has been implementing a suite of demand management options for the SWOX WRZ and across the wider Thames Valley area. The demand management measures selected by Thames Water consist of a combination of progressive metering, water efficiency and leakage control measures. Thames Water considers that water efficiency measures form a fundamental part of the demand management programme. Thames Water has engaged in an active promotion of water efficiency activity as part of the short term measures in their current WRMP. This is to help customers use water wisely and promote behavioural change that will stem the underlying increase in water use in their baseline forecast.

[6] Thames River Basin Management Plan (2015) https://www.gov.uk/government/collections/river-basin-management-plans-2015

Thames Water has been producing a new Water Resources Management Plan to run from 2019 for the next 80 years until 2100. The new Water Resources Plan is currently in draft form and sets out a suite of activities including reducing leakage, metering, water efficiency and new water supplies.

River Basin Management Plans

River Basin management plans describe the river basin district and the pressure that the water environment faces. These include information on where water resources are contributing to a water body being classified as 'at risk' or 'probably at risk' of failing to achieve good ecological status, due to low flows or reduced water availability.[7]

The Thames River Basin Management Plan (RBMP) was published by DEFRA and the Environment Agency in 2015. The purpose of the RBMP is to provide a framework for protecting and enhancing the benefits of the water environment. To achieve this, and because water and land resources are closely linked, it also informs decisions on land use planning. The following table shows the ecological and chemical status of waterbodies in the Oxford area.

Waterbody	Eastings	Northings	Ecological Status	Chemical Status
Thames (Evenlode to Thame)	445741	211361	High	Good
Bayswater Brook	452925	210152	Poor	Good
Cherwell (Ray to Thames) and Woodeaton Brook	451209	209547	High	Good
Northfield Brook (Source to Thames) at Sandford	453717	202133	Good	Good

The current status of the watercourses within Oxford suggests that on the whole they are not vulnerable at present and that there is reasonable capacity for development. The Bayswater Brook is more vulnerable; however none of the potential development sites are located near it, and nor is the Oxford Sewage Treatment Works.

Oxford City Council Water Cycle Study[8]

Oxford City Council commissioned Wallingford Hydrosolutions Ltd. to undertake a Water Cycle Study to support the Oxford Local Plan 2036. The Water Cycle Study (WCS) considered a range of issues including water supply, wastewater treatment, the impacts of

[7] Paragraph 16 Reference ID: 56-016-20150327 https://www.gov.uk/guidance/housing-optional-technical-standards#water-efficiency-standards

[8] Wallingford Hydrosolutions Ltd, July 2018Oxford City Council Water Cycle Study

development on the water environment and flood risk. The WCS recognised the importance of the Thames basin in supplying water to Oxford City.

> *The Thames basin supplies Oxford. It is one of the most intensively used water resource systems in the world. Around 55% of effective rainfall is licensed for abstraction and 82% of that is for public water supply. Upstream of London, approximately 30% of abstractions are from surface water, with 70% from groundwater.*

In relation to abstraction from the River Thames, the WCS noted that abstraction licences are limited in Oxford mainly due to the Oxford Meadows SAC. In total there are four licences, the majority are not for public use, and their impact on water resources in Oxford is thought to be minimal.

The WCS summarises Thames Water's work to date and provides additional analysis in relation to the levels of growth proposed in Oxford. Thames Water has assessed the impact of forecast population and housing growth as part of their WRMP 2019. Thames Water considers that in the short to medium term (2020-2045), estimated savings could be up to 4.6Ml. These savings will be made through a combination of leakage reduction, smart metering and the promotion of water efficiency.

Consultations with the local water and sewerage company, the Environment Agency, and catchment partnerships

Oxford City Council consulted Thames Water, the Environment Agency, and the Berkshire, Buckinghamshire, and Oxfordshire Wildlife Trust (BBOWT - as the host of the catchment partnership for the River Cherwell) which joins the river at Oxford) on the Local Plan proposals, which included proposals to implement the optional technical standards for increased water efficiency in new developments.

Thames Water supported the inclusion of a planning policy requiring proposals for new residential development to meet Building Regulations higher optional water efficiency requirement of 110 litres per person per day.

The Environment Agency agreed with the Local Plan approach to introduce a planning policy requiring new dwellings to meet the optional technical standards for increased water efficiency in new residential developments (110 litres per person per day) in their formal response to the preferred options stage consultation.

BBOWT - as the catchment partnership for the River Cherwell - did not make any comments in relation to this topic area in their formal response to the preferred options consultation.

CONSIDERATION OF THE IMPACT ON VIABILITY AND HOUSING SUPPLY

The Development Viability Assessment Report[9] undertaken to support the Oxford Local Plan 2036 considered how the proposed plan policies, including the affordable housing policy requirements, impact on the viability of new development in Oxford in association with S106 contributions.

The Report considered the impact on viability and housing supply on range of sustainable policy approaches put forward in the plan. The Development Viability Assessment factored the following specific policies into the viability testing:

- Sustainable design and construction (including carbon reduction)
- Water efficiency
- Air quality
- Green infrastructure
- Electric car charging stations

The viability assessment provided an additional allowance of £15,000 per dwelling to reflect the above sustainability policies. The viability assessment recognised that this cost is in addition to allowances for externals. It helpfully notes that:

> *"In previous viability assessments a rate of £8,000 per dwelling was used to reflect environmental policies. This has been increased to reflect the Council's increased focus on this area in emerging policy and to ensure that potential costs were fully reflected and that the calculations remained realistic in line with the advice in the NPPF."*

The report looked at the viability of a sample comprising sixteen illustrative sites and has been assessed to determine the likely deliverability of affordable housing and the potential for increasing CIL charges within the city and demonstrates that the policy approaches put forward in the plan are viable in most instances, even with a modest increase in CIL rates to £200 per sqm (residential) and £50 per sqm (commercial).

CONCLUSION

Oxford City Council lies within an "area of serious water stress" with the potential for dry year water supply issues. The current state of the watercourses within Oxford suggests on the whole that they are not vulnerable at present and there is reasonable capacity for development. Limited abstraction occurs from the River Thames mainly due to the presence of the Oxford Meadows SAC.

[9] GVA, September 2018, Oxford City Council, Economic Viability Assessment to inform the Oxford Local Plan 2036 and the Review of the Community Infrastructure Charging Schedule

Water supply to the SWOX (Swindon Oxford) area in which Oxford lies, is likely to be in deficit during the plan period in dry years and Thames Water have been promoting water efficiency as part of their Water Resource Management Plans.

As a result of formal consultation, both Thames Water and the Environment Agency were both supportive of using the optional technical standards for residential development regarding water efficiency.

The Development Viability Assessment undertaken to support the Oxford Local Plan 2036 factored in an increased cost for the suite of sustainability policies in put forward in the plan which included the cost of using the optional technical standards in the Building Regulations. The Development Viability Assessment demonstrated that the majority of the sixteen assessed sites were viable in most instances, even with a modest increase in CIL rates.

This background paper shows that the City Council has met the criteria outlined in the Planning Practice Guidance and as such is in a position to include a policy in the Plan to require the higher optional technical standards in the Building Regulations for water efficiency of 110 litres per person per day.