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Cotswold – Fairford Neighbourhood Plan: Regulation 16 Consultation

Dear Sir/Madam,

Thank you for allowing Thames Water to comment on the above.

As you may be aware, Thames Water are the water and sewerage undertaker for the District and hence are a “specific consultation body” in accordance with the Town & Country Planning (Local Planning) Regulations 2012. We have the following comments on the consultation document:

Policy FN5.1 and FNP5.4 Infrastructure Improvements - Comments on Water Supply and Wastewater/Sewerage Infrastructure

These policies are supported in respect of sewerage infrastructure as they are in line with our previous comments. However, they should also cover water supply infrastructure.

Wastewater/sewerage and water supply infrastructure is essential to any development. Failure to ensure that any required upgrades to the infrastructure network are delivered alongside development could result in adverse impacts in the form of internal and external sewer flooding and pollution of land and water courses and/or low water pressure.

Thames Water seeks to co-operate and maintain a good working relationship with local planning authorities in its area and to provide the support they need with regards to the provision of sewerage/wastewater treatment [and water supply] infrastructure.

A key sustainability objective for the preparation of Local Plans and Neighbourhood Plans should be for new development to be co-ordinated with the infrastructure it demands and to take into account the capacity of existing infrastructure. Paragraph 20 of the revised National Planning Policy Framework (NPPF), 2021, states: “Strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for... infrastructure for waste management, water supply, wastewater...”

Paragraph 11 states: "Plans and decisions should apply a presumption in favour of sustainable development. For plan-making this means that:

a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects"

Paragraph 28 relates to non-strategic policies and states: "Non-strategic policies should be used by local planning authorities and communities to set out more detailed policies for specific areas, neighbourhoods or types of development. This can include allocating sites, the provision of infrastructure..."

Paragraph 26 of the revised NPPF goes on to state: "Effective and on-going joint working between strategic policy-making authorities and relevant bodies is integral to the production of a positively prepared and justified strategy. In particular, joint working should help to determine where additional infrastructure is necessary..."

The web based National Planning Practice Guidance (NPPG) includes a section on 'water supply, wastewater and water quality' and sets out that Local Plans should be the focus for ensuring that investment plans of water and sewerage/wastewater companies align with development needs. The introduction to this section also sets out that "Adequate water and wastewater infrastructure is needed to support sustainable development" (Paragraph: 001, Reference ID: 34-001-20140306).

It is important to consider the net increase in wastewater and water supply demand to serve the development and also any impact that developments may have off site, further down the network. The Neighbourhood Plan should therefore seek to ensure that there is adequate wastewater [and water supply] infrastructure to serve all new developments. Thames Water will work with developers and local authorities to ensure that any necessary infrastructure reinforcement is delivered ahead of the occupation of development. Where there are infrastructure constraints, it is important not to under estimate the time required to deliver necessary infrastructure. For example: local network upgrades take around 18 months and Sewage Treatment & Water Treatment Works upgrades can take 3-5 years.

The provision of water treatment (both wastewater treatment and water supply) is met by Thames Water's asset plans and from the 1st April 2018 network improvements will be from infrastructure charges per new dwelling.

From 1st April 2018, the way Thames Water and all other water and wastewater companies charge for new connections has changed. The economic regulator Ofwat has published new rules, which set out that charges should reflect: fairness and affordability; environmental protection; stability and predictability; and transparency and customer-focused service.

The changes mean that more of Thames Water's charges will be fixed and published, rather than provided on application, enabling you to estimate your costs without needing to contact us. The services affected include new water connections, lateral drain connections, water mains and sewers (requisitions), traffic management costs, income offsetting and infrastructure charges.

Thames Water therefore recommends that developers engage with them at the earliest opportunity (in line with paragraph 26 of the revised NPPF) to establish the following:

- The developments demand for Water Supply infrastructure;

- The developments demand for Sewage/Wastewater Treatment and network infrastructure both on and off site and can it be met; and
- The surface water drainage requirements and flood risk of the development both on and off site and can it be met.

Thames Water offer a free Pre-Planning service which confirms if capacity exists to serve the development or if upgrades are required for potable water, waste water and surface water requirements. Details on Thames Water's free pre planning service are available at:

<https://www.thameswater.co.uk/developers/larger-scale-developments/planning-your-development/water-and-wastewater-capacity>

In light of the above comments and Government guidance we consider that Neighbourhood Plan should include a specific reference to the key issue of the provision of wastewater/sewerage and water supply infrastructure to service development proposed in a policy. This is necessary because it will not be possible to identify all of the water/sewerage infrastructure required over the plan period due to the way water companies are regulated and plan in 5 year periods (Asset Management Plans or AMPs).

Paragraphs 6.35- 6.39 Thames Water

The Drainage Strategy document referred to in paras 6.35/6 has been updated to provide the latest view. It was updated in October 2022. Please refer to the latest document via the following link: <https://www.thameswater.co.uk/media-library/home/about-us/regulation/drainage-reports/groundwater-infiltration-management-plans/fairford-groundwater-impacted-system-management-plan.pdf>

The document details what works we have carried out so far in the last few years and what we have planned go forward.

The general statements made in paras 6.35-6.39 are still relevant. Developers should still follow the planning route and early stakeholder engagement with developer services for relevant developments.

Water Efficiency/Sustainable Design

The Environment Agency has designated the Thames Water region to be "seriously water stressed" which reflects the extent to which available water resources are used. Future pressures on water resources will continue to increase and key factors are population growth and climate change.

Water conservation and climate change is a vitally important issue to the water industry. Not only is it expected to have an impact on the availability of raw water for treatment but also the demand from customers for potable (drinking) water. Therefore, Thames Water support the mains water consumption target of 110 litres per head per day (105 litres per head per day plus an allowance of 5 litres per head per day for gardens) as set out in the NPPG (Paragraph: 014 Reference ID: 56-014-20150327) and support the inclusion of this requirement in the Policy.

Thames Water promote water efficiency and have a number of water efficiency campaigns which aim to encourage their customers to save water at local levels. Further details are available on the our website via the following link: <https://www.thameswater.co.uk/Be-water-smart>

It is our understanding that the water efficiency standards of 105 litres per person per day is only applied through the building regulations where there is a planning condition requiring this standard (as set out at paragraph 2.8 of Part G2 of the Building Regulations). As the Thames Water area is defined as water stressed it is considered that such a condition should be attached as standard to all planning approvals for new residential development in order to help ensure that the standard is effectively delivered through the building regulations.

Within Part G of Building Regulations, the 110 litres/person/day level can be achieved through either the 'Calculation Method' or the 'Fittings Approach' (Table 2.2). The Fittings Approach provides clear flow-rate and volume performance metrics for each water using device / fitting in new dwellings. Thames Water considers the Fittings Approach, as outlined in Table 2.2 of Part G, increases the confidence that water efficient devices will be installed in the new dwelling. Insight from our smart water metering programme shows that household built to the 110 litres/person/day level using the Calculation Method, did not achieve the intended water performance levels.

Policy CNP13 part 252 should be updated as follows:

“Development must be designed to be water efficient and reduce water consumption. Refurbishments and other non-domestic development will be expected to meet BREEAM water-efficiency credits. Residential development must not exceed a maximum water use of 105 litres per head per day (excluding the allowance of up to 5 litres for external water consumption) using the ‘Fittings Approach’ in Table 2.2 of Part G of Building Regulations. Planning conditions will be applied to new residential development to ensure that the water efficiency standards are met.”

Comments in relation to Flood Risk and SUDS

The National Planning Practice Guidance (NPPG) states that a sequential approach should be used by local planning authorities in areas known to be at risk from forms of flooding other than from river and sea, which includes "Flooding from Sewers".

When reviewing development and flood risk it is important to recognise that water and/or sewerage infrastructure may be required to be developed in flood risk areas. By their very nature water and sewage treatment works are located close or adjacent to rivers (to abstract water for treatment and supply or to discharge treated effluent). It is likely that these existing works will need to be upgraded or extended to provide the increase in treatment capacity required to service new development. Flood risk sustainability objectives should therefore accept that water and sewerage infrastructure development may be necessary in flood risk areas.

Flood risk sustainability objectives should also make reference to 'sewer flooding' and an acceptance that flooding can occur away from the flood plain as a result of development where off site sewerage infrastructure and capacity is not in place ahead of development.

With regard to surface water drainage it is the responsibility of the developer to make proper provision for drainage to ground, watercourses or surface water sewer. It is important to reduce the quantity of surface water entering the sewerage system in order to maximise the capacity for foul sewage to reduce the risk of sewer flooding.

Limiting the opportunity for surface water entering the foul and combined sewer networks is of critical importance to Thames Water. Thames Water have advocated an approach to SuDS that limits as far as possible the volume of and rate at which surface water enters the

public sewer system. By doing this, SuDS have the potential to play an important role in helping to ensure the sewerage network has the capacity to cater for population growth and the effects of climate change.

SuDS not only help to mitigate flooding, they can also help to: improve water quality; provide opportunities for water efficiency; provide enhanced landscape and visual features; support wildlife; and provide amenity and recreational benefits.

With regard to surface water drainage, Thames Water request that the following paragraph should be included in the Neighbourhood Plan: ***"It is the responsibility of a developer to make proper provision for surface water drainage to ground, water courses or surface water sewer. It must not be allowed to drain to the foul sewer, as this is the major contributor to sewer flooding."***

Draft Site Allocations

The attached table provides Thames Water's site specific comments from desktop assessments on sewage/waste water treatment works capacity in relation to the proposed development areas, but more detailed modelling may be required to refine the requirements.

We recommend Developers contact Thames Water to discuss their development proposals by using our pre app service via the following link: <https://www.thameswater.co.uk/developers/larger-scale-developments/planning-your-development/water-and-wastewater-capacity>

It should be noted that in the event of an upgrade to our sewerage network assets being required, up to three years lead in time is usual to enable for the planning and delivery of the upgrade. As a developer has the automatic right to connect to our sewer network under the Water Industry Act we may also request a drainage planning condition if a network upgrade is required to ensure the infrastructure is in place ahead of occupation of the development. This will avoid adverse environmental impacts such as sewer flooding and / or water pollution.

We recommend developers attach the information we provide to their planning applications so that the Council and the wider public are assured wastewater and water supply matters for the development are being addressed.

Where developers do not engage with Thames Water prior to submitting their application, this will more likely lead to the recommendation that a Grampian condition is attached to any planning permission to resolve any infrastructure issues.

We trust the above is satisfactory, but please do not hesitate to contact David Wilson on the above number if you have any queries.

Yours faithfully,

David Wilson
Thames Water Property Town Planner

Thames Water

Site ID	Site Name	Net Gain to System (l/day)	Net Foul Water Increase to System (l/s)	Net Property Equivalent Increase - Waste	Net Increase in Demand (l/day)	Net Increase in Peak Demand (l/s)	Net Property Equivalent Increase - Water	Water Response	Waste Response	Additional Comments
64412	Land between Leafield Road and Hatherop Road	85536	0.99	80	28000	0.97	80	<p>The scale of development/s in this catchment is likely to require upgrades of the water supply network infrastructure. It is recommended that the Developer and the Local Planning Authority liaise with Thames Water at the earliest opportunity to agree a housing phasing plan. Failure to liaise with Thames Water will increase the risk of planning conditions being sought at the application stage to control the phasing of development in order to ensure that any necessary infrastructure upgrades are delivered ahead of the occupation of development. The housing phasing plan should determine what phasing may be required to ensure development does not outpace delivery of essential network upgrades to accommodate future development/s in this catchment. The developer can request information on network infrastructure by visiting the Thames Water website https://developers.thameswater.co.uk/Developing-a-large-site/Planning-your-development.</p>	<p>On the information available to date we do not envisage infrastructure concerns regarding wastewater network or wastewater treatment infrastructure capability in relation to this site/s. It is recommended that the Developer and the Local Planning Authority liaise with Thames Water at the earliest opportunity to advise of the developments phasing. Please contact Thames Water Development Planning, either by email Devcon.team@thameswater.co.uk tel: 02035779998 or in writing Thames Water Utilities Ltd, Maple Lodge STW, Denham Way, Rickmansworth, Hertfordshire, WD3 9SQ. Thames Water recognises this catchment is subject to high infiltration flows during certain groundwater conditions. The scale of the proposed development doesn't materially affect the sewer network, however care needs to be taken when designing new networks to ensure they don't surcharge and cause flooding. In the longer term Thames Water, along with other partners, are working on a strategy to reduce groundwater entering the sewer networks.</p>	<p>These comments are based on foul flows connecting to the public sewer by gravity (not pumped) and no surface water flows being discharged to the public sewer.</p>

