



Need Not Greed Oxon

Hearing statement for Oxford Local Plan June 2024 Hearings, Matter 1

Email address: [REDACTED]

24th May 2024

Need Not Greed Oxfordshire (NNGO) is a coalition of 36 groups from across Oxfordshire, together representing thousands of community members. Our campaign is committed to:

- A restoration of planning principles, with a proper balancing of economic, environmental and social considerations;
- Local democracy, with planning control in the hands of locally elected and accountable representatives; and
- Environment and rural sustainability, ensuring that our landscape, nature and rural communities are at the heart of decision-making.

Our Respondent number is **35**.

1. Need Not Greed Oxfordshire (NNGO) responded to the Regulation 19 consultation and this statement is made in addition to those earlier representations.
2. The purpose of this statement is to provide up to date information and data in relation to the issue of waste water treatment in Oxford where there have been a considerable number of developments since the Regulation 19 consultation. We use the following additional abbreviations:

OCC – Oxford City Council

TW – Thames Water

EA – Environment Agency

3. In its response to the Regulation 19 consultation, NNGO stated that the Oxford draft Local Plan was not sound for the following reasons:

“the very significant matter of lack of sewage capacity also appears to have been deferred. Page 36 of the Oct 23 infrastructure Delivery Plan states ‘Thames Water have also confirmed that funding is available for the delivery of a major increase in treatment capacity at the Sandford Waste Water Treatment ‘.

Given the current financial difficulties Thames Water finds themselves in it would seem appropriate to test this assertion and actually PLAN a delivery date. The stormwater discharge site <https://www.thameswater.co.uk/edm-map> showing Sandford's ongoing regular discharges of raw sewage into the Thames, states 'we are finalising plans for a major upgrade at Oxford STW, costing more than £130m. This will provide a significant increase in treatment capacity, larger storm tanks and a higher quality of treated effluent going into the river, we can't confirm a completion date'

4. OCC's sustainability assessment (SA) notes that 'wastewater treatment' is likely to be 'adequate for the plan period', with a 'green' colouration provided in the table.
5. NNGO take issue with this statement for the following reasons:
 - a. A large proportion of any sewage generated by any proposed new development (at a rate of approximately 340l/day/per household) will be passed to Oxford Sewage Treatment Works (STW).
 - b. There is clear evidence that Oxford STW is operating outside of its permit. In a Compliance Assessment Report (CAR) (see Appendix 1) undertaken by the Environment Agency (EA) on 30 June 2021, a number of failures leading to non-compliance were identified. These include issues associated with the inlet sewage pumping stations (SPS), the impact of groundwater infiltration on storm overflows and illegal so-called 'dry spills,' the sizing of storm tanks, the installation of a balancing tank and the configuration of the pipe between the final storm tank and the storm overflow chamber. The CAR makes it clear that the EA regarded Oxford STW as non-compliant on the date of the visit.
 - c. Oxford STW remained non-compliant as of 15 February 2024, when the EA submitted its response (see Appendix 2) to the proposed development at Land North of Bayswater Brook, near Barton (Ref: P22/S4618/O). As well as citing the output of the 2021 CAR, the EA noted that the work was identified in 2017 as having insufficient Flow to Full Treatment (FFT) and was assigned a statutory U-IMP5 driver to deliver a suitable upgrade by the end of AMP7 March 2025.
 - d. The EA understands that the upgrade has been delayed by several years, with the TW website currently providing no date for the required upgrade. It does however note that the works are planned to be compliant with the government targets for storm overflows by 2030-35.
 - e. The EA has further noted that a scheme should be included in AMP8 (2025-30) to improve the dissolved oxygen status of the Northfield Brook into which the effluent is discharged. No such scheme has been included in TW's current business plan for that period.

- f. In combination the failings identified in the EA's response show clearly that Oxford STW is currently non-compliant (i.e. operating illegally) with its statutory permit, with no realistic prospect of becoming compliant prior to 2030.
6. Windrush against Sewage Pollution (WASP) has also provided submissions to the LPA, relating to Oxford STW's non-compliant nature and its inability to legally treat more sewage from proposed housing at Land Bounded by Meadow Lane and Church Way Oxford (see Appendix 3).
7. The Northfield Brook discharges into the River Thames with not only the ecology of the river but its recreational water users at real risk of harm. On 13 May 2024, DEFRA announced the designation of 27 new bathing water, with one of these located at Wallingford, downstream of the Northfield Brook confluence with Thames
<https://www.gov.uk/government/news/record-number-of-new-bathing-sites-get-the-go-ahead#:~:text=Following%20a%20public%20consultation%2C%2027,the%20highest%20number%20to%20date>.
8. In May 2024, the Royal Academy of Engineering and the National Engineering Policy Centre published their report 'Testing the Waters. Priorities for mitigating health risks from waste water pollution' with a forward from Professor Sir Chris Whitty.
<https://nepc.raeng.org.uk/media/qi2eyivp/testing-the-waters-priorities-for-mitigating-health-risks-from-wastewater-pollution.pdf>. The report lays out clearly the potential risks to river users from non-compliant discharges from sewage treatment assets, with its first recommendation stating '*Maintenance and rehabilitation: Water service providers should further prioritise maintenance and rehabilitation of assets, informed by regulatory frameworks that require the demonstration of asset resilience including the reduction in sewer infiltration, and supported by enforcement measures.*'
9. TW's response to this issue has failed to acknowledge the gravity of the situation to the local planning authority. Their advice to several planning applications (see Appendices 4, 5 & 6) has been to confirm that there are no capacity issues at Oxford STW, with the works capable of dealing with the additional sewage generated by the proposed housing; *Waste Comments. Ref: 24/00318/FUL. Thank you for consulting Thames Water for the discharge of matters relating to FOUL WATER networks. Thames Water confirms the foul water condition referenced, can be discharged based on the information.*

10. These statement clearly do not accurately reflect the non-compliant status of Oxford STW with regard to its statutory permit, and clearly conflict with the EA’s stated position, which has of course been communicated formally to TW.
11. The Event Duration Monitor (EDM) data for Oxford STW show very clearly the extent of dumping of untreated sewage into the downstream Northfield Brook and eventually the River Thames.
12. Analysis by Professor Peter Hammond (see Appendix 7) found that during the period 2018-2022, (inclusive) Oxford STW dumped untreated sewage illegally for a total of 215 days, with an annual percentage rate of illegal spilling varying between 39% and 73%

ILLEGAL SPILLS	2018	2019	2020	2021	2022	TOTAL
Dry only	0	4	2	3	0	9
Early only	36	28	79	27	10	180
Dry & Early	1	10	10	3	2	26
TOTAL	37	42	91	33	12	215
% illegal	73	39	71	55	60	

See Appendix 7 : Summary by Professor Peter Hammond of illegal spills of untreated sewage from Oxford STW 2018-22 inclusive

Summary

13. The EA has stated that Oxford STW has been non-compliant with its statutory discharge permit since at least 2017. The status of the treatment works has been communicated to TW on a number of occasions by the EA.
14. Additional analysis of EDM data by Professor Hammond has confirmed that much of the dumping of untreated sewage from Oxford STW is illegal.
15. Despite the EA’s view that the works are operating in contravention of its permit and in the face of Professor Hammond’s analysis, we believe TW has provided and continues to provide inaccurate information to OCC and other LPA’s, regarding the ability of Oxford STW to legally treat the additional volume of sewage predicted to be generated by proposed new developments.


16. The EA has felt the need to submit an outright objection to at least two developments whose generated sewage will be passed to Oxford STW.
17. Against this background it is impossible to see how OCC's Local Plan can continue to sustain the statement that 'wastewater treatment' is likely to be 'adequate' for the plan period.
18. It also seems incumbent on OCC to refuse permission for all substantial developments where increased flows of sewage will arise and which will pass to Oxford STW in its present state.
19. Not to do so will carry the risk of OCC directly countering the input of the environmental regulator, the EA, tacitly condoning the pollution of local watercourses and the River Thames and placing both the environment and recreational water users at a real and increasing risk of harm.

-END OF STATEMENT-

Respondent no : 35

Appendix 1 (see yellow highlight)

Environment Agency Compliance Assessment Report (CAR) , Oxford Sewage Treatment Works 30 June 2021

 Environment Agency	EPR Compliance Assessment Report		Report ID: S/0745272	
This form will report compliance with your permit as determined by an Environment Agency officer				
Site	Oxford (Sandford), Oxford (Sandford), -		Permit Ref	TEMP.2827
Operator/ Permit holder	THAMES WATER UTILITIES LTD			
Date	30/06/2021	Time in	10:50	Out 12:45
What parts of the permit were assessed	Wastewater Treatment Works / STW settled storm sewage, Wastewater Treatment Works / STW storm sewage overflow			
Assessment Type	Site inspection: Wastewater Treatment Works - Operator Self Monitoring (OSM)	EPR Activity:	Water Discharge	
Recipient's name/position	Compliance Assessment Report Inbox & [REDACTED]			
Officer's name	[REDACTED]	Date issued	25/11/2021	

Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details which conditions we have assessed, where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our [Compliance Classification Scheme](#) (CCS). For more details of our CCS scheme, contact your [local office](#).

KEY: C1, C2, C3, C4 = CCS breach category A = Assessed (no evidence of non-compliance)

Activities and Permit Conditions Assessed	CCS Category	Condition(s) breached
1 - Wastewater Treatment Works / STW settled storm sewage		
2.3d. Overflow to storage PFF/ due to rainfall or snowmelt (b5)	C3	3.1
2.3e. Storage provided and emptied (b5)	C2	3.1
2 - Wastewater Treatment Works / STW storm sewage overflow		
3.3d. EDM Monitoring (g1)	A	N/A

Descriptive Works Fail	N/A	Number of breaches recorded	2
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If the total no of breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response

Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment

Thank you to Performance Manager for accompanying [REDACTED] on his site inspection of Oxford Sewage Treatment Works (STW). [REDACTED] was also in [REDACTED] with two newly recruited Environment Officers ([REDACTED] and [REDACTED]) for training purposes.

The main purpose of the visit was threefold: (i) to conduct a routine regulatory visit; (ii) to inspect storm overflow infrastructure following concerns in relation to the operation of the storm overflow and (iii) to inspect storm separation and flow to full treatment (FtFT) control following concerns relating to FtFT compliance including concerns raised by third parties such as members of the public, the Angling Trust and Windrush Against Sewage Pollution; and in response to an incident on 19 April 2021 (NIRS 01924826) where sludge from the AD process spilled into the watercourse.

The full context of the inspection was explained to DF by [REDACTED] at the start of the inspection including the wider storm overflow compliance assessment being undertaken for this site for the period 1 October 2019 – 15 April 2021.

Please note there are two Compliance Assessment Report (CAR) forms which relate to this inspection. See this CAR form (Report ID: S/0745272) which relates to aspects of the inspection relevant to Environmental Permit TEMP.2827 and CAR form Report ID: S/0745271 which relates aspects of the inspection relevant to Environmental Permit CTCR.0709. There is some repetition between these CAR forms, but the two should be read together.

The effluent process was inspected from inlet to outlet (please see CAR form Report ID: S/0745271) including the storm infrastructure on the site. The following observations made on the day of inspection:

Inlet:

- All flows are pumped into Oxford STW from 6 pressure mains. A balancing tank receives influent from 4 of them and 2 (from Littlemore SPS) go directly into the inlet.
- We were informed that it can be difficult to manage flows coming into the site:
- The pumping stations - particularly Littlemore SPS (the largest SPS outside of London), has a pumping regime that at times conveys too much flow into the inlet of the site. This can result in the inlet being temporarily overwhelmed due to an intermittent influx of flow and we understand this can cause overflows into storm tanks before FtFT is met and / or in dry weather.
- Groundwater infiltration is an issue which can result in sustained high flows into the site including during dry periods. One issue in particular is infiltration into brick sewers close to the River Thames.
- The catchment size is large (approx. a 20 km reach) which means sewerage catchment drain down time can take a while as effluent and rainfall is drained and pumped through the catchment to the STW.

- We were informed that as a result of a combination of the above, and in particular infiltration issues, the site routinely makes sustained overflows from storm infrastructure on consecutive dry days (e.g. up to 5-7 dry days). Please note this raises a significant and serious compliance concern. As TWUL is aware we are conducting an initial storm overflow compliance assessment for this site and we will in due course communicate the outcome of that via formal written channels in Compliance Assessment Report (CAR) forms.

Additional observations and understanding relating to the operation of the inlet and storm separation:

- The site receives high volumes of 'rag'. We observed piles of rag which had accumulated near the inlet screens. There is a crane system in place to manually remove this on a regular basis. The volume of 'rag' is a serious problem for Oxford STW due to the relatively high population equivalent and sewer abuse (e.g. disposal of wet wipes into sewers etc.).
- The influent is passed over 3 'Mechana' conveyor screens - the number in operation at any moment in time depends on the volume of flow being received which is detected by a sensor. A sensor also detects when wash-down is required and triggers this when necessary. The screens had recently been maintained and all were fully operational. There are plans to install a further two screens at the site as part of a significant upgrade under Price Review (PR) 19 U_IMP5 to increase the FtFT the site is capable of treating.
- The flow then moves to a detritor to remove grit. We were informed the detritor is effective and grit wasn't a particular issue for the site despite the relatively urban catchment.
- A penstock and hydrobreak work in tandem to control FtFT, with additional flows going over the penstock weir to storm storage. We were informed during the inspection that the current FtFT is 1047 l/s. The Site Operating Manual states: FtFT of 1040 l/s.
- The flow was running smoothly along the channels and was quite dark in colour. We were informed this unusually dark discolouration was a known characteristic of the sewage at this site due to the nature of the mixed liquors returned to the inlet (please see the fourth bullet point below in this section) and the effluent coming in from Littlemore SPS which can sit in a large wet well at the SPS with risk of becoming dark and septic before being pumped to the site.
- There was an inlet flow meter on each of the two channels which measure the amount of flow being passed forward into the process. These meters are calibrated approximately once per year and provide reliable data.
 - Data from these two meters is added together to calculate FtFT.
 - MCERTs final effluent flow data is a good proxy for FtFT at this site within a ~10-15% margin of error.
 - We were informed inlet flow data is reliable and so TWUL is confident it is passing forward FtFT when required using the penstock and hydrobreak to control what is passed forward into the effluent process.
 - The combined total of the inlet flow meters have a higher reading than the FE monitor as they also measure return liquors (see 'Sample Points & MCERTS Final Effluent flow Monitoring') below for further details.
- Having looked at the Process Block Diagram for the site and the Site Operating Manual it appears that return liquors come back into the inlet upstream of the hydrobrake and storm weir. This presents the risk that high strength liquors could be lost to the environment when FtFT is being met and when the storm overflow is operational. We recommend TWUL look at this making sure FtFT can be met when required taking into account the impact of return liquors on flow.

Introducing return liquors downstream of the hydrobrake and storm weir would ensure the liquors always enter the effluent process and so undergo secondary biological treatment which will reduce environmental risk. It also appears cess imports enter the inlet upstream of the hydrobrake and storm weir. This presents a compliance risk if cess imports are occurring when FtFT is being met and when the storm overflow is operational.

Cess imports should only be made when there is the headroom to treat the effluent.

Primary Settlement:

- After flow has passed through the inlet it then goes to 8 circular and 3 rectangular Primary Settlement Tanks (PSTs).
- We were informed one of these rectangular tanks was historically supposed to be used as a balancing tank or additional storm tank, but it never has been and never could be used by TWUL for these purposes. This is because TWUL need to use it as a PST 100% of the time and do not have the redundancy to take it out so cannot use it as a balancing tank or storm tank. Additionally, a lot of maintenance would be required should they ever chose to do this which would not be practicable. This is contrary to the position stated in the Site Operating Manual for the site which on page 20 of 411 states “There are 3 x rectangular Storm tanks and a 4th Tank that can be used either as a Storm Tank or as a Primary Settlement Tank”. However, it is our understanding the 4th tank is not in fact available and it would not be practicable to use it so should not be factored in to storm storage capacity. The stated Storm Tank Capacity is 6855m³, but it is not clear if this includes the volume of the 4th tank which is not in practice available. We recommend you update the Site Operating Manual accordingly.
- For further detail relating to PSTs please refer to CAR form Report ID: S/0745271.

Storm Tanks:

- The site has 3 large storm tanks, which are separated by partition walls with gaps at the top and bottom to allow the tanks to fill and drain sequentially. The tanks fill consecutively then spill once the third tank has been filled.
- Please refer to ‘Inlet’ for known issues with flow management and storm tank use.
- The channels leading to the storm tanks were wet and the sludge at the base of the tanks was wet, indicating they had been used recently. On the day we attended the weather conditions were dry. These observations raise potential compliance concerns.
- While at the storm tanks the first tank began to fill which we were informed was due to pumping station regimes feeding into the inlet (please see Photograph 1). **This is a breach of condition 3.1 of Environmental Permit TEMP2827 because the storm tank was filling not due to rainfall / and or snowmelt and was being used as a balancing tank and there was also a build up of sludge at the base of the storm tanks that had not been removed because it would require manual intervention. Therefore, the overflow is not being maintained in an effective operational condition and this presents environmental risk.**
- We were informed that initially effluent fills a deep channel at the back of the tank – if the channel overtops into the main tank then it is likely due to rainfall, but if it is contained in the channel it’s likely due to an influx of effluent due to the pumping regimes from the SPS(s) that feed into Oxford STW. Flows from storm tanks are returned to the inlet.
- RD & JO discussed with DF the potential need for TWUL to add another balancing tank to the inlet to address this issue. We were informed a balancing tank was needed to prevent storm tanks being used due to pumping regimes from relevant SPSs.

- Please note storm tanks should only fill or discharge due to rainfall and / or snowmelt (i.e. not due to SPS pumping regimes or due to groundwater infiltration). Please see below section of 'Groundwater Infiltration' for further information about storm overflow compliance.
- The tanks had all recently been used due to the heavy rain there had been over the previous weekend (26-27/06/21). There was a layer of sludge on the base of each tank. We discussed the need to clean this before it goes septic – we were informed this is usually done once it crusts over (please see Photographs 2-4).
- Once all storm tanks are full effluent spilling from the final storm tank passes through a large underground pipe / void to the storm sample chamber, which is a concrete chamber where the EDM monitor is located.
- The chamber itself holds residual storm sewage and also holds back what remains in the pipe, thereby effectively acting as a fourth storm tank / storm tank sewer which never drains out.
- This results in sewage going black and septic which gets pushed out on first flush. During our site inspection dark septic sewage was evident in this chamber. **This has the potential to increase the polluting effects of the discharge and could in certain conditions cause a significant pollution incident.**
- We have already detected water quality impact from storm overflows that may potentially be being intensified by this first flush of septic sewage. We have detected this impact using an instream water quality monitor which is situated in the watercourse downstream of Oxford STW to assess water quality following a series of reported concerns from members of the public.
- The volume of potentially septic sewage stored in this underground wide diameter pipe / void is significant. We were informed TWUL had tried to drain it down at one point using tankers, but despite tankering effluent all day (when the 3 main storm tanks were empty) the effluent kept coming and the pipe / void was not emptied successfully (see Photograph 5). This indicates that a significant amount of potentially septic non-storm sewage is stored in the chamber, pipe and underground cavity.
 - **This is a breach of condition 3.1 of Environmental Permit TEMP2827 because the overflow is not being maintained in an effective operational condition because the storm tank system cannot be fully emptied and returned to the process. We have recorded this a significant (CCS2) permit breach because the first flush of this concentrated non-storm sewage could cause a significant impact in low summer flows due to lack of dilution in the receiving watercourse.**

Storm Sample Point & MCERTS Final Effluent Flow Monitoring:

- The storm sample point was observed.
- The FE MCERTS flow monitor data is used in combination with the inlet flow meter to check FfFT is being passed forward when required.
- At the time of the visit, the FE MCERTS flow monitor read 859.65 l/s and the combined total of the inlet flow meters was checked within the same c.10 minute timeframe and read 961 l/s.

Groundwater Infiltration:

We are concerned about the impact groundwater infiltration may be having on the operation of the storm overflow at Oxford STW. We are aware there is a Groundwater Impacted System

Management Plan (GISMP) for this site and we note there is a Storm Overflow Assessment Framework (SOAF) investigation into the root cause and impact of spills arising from the storm overflow at Oxford STW.

It was clear from information gathered during the inspection, and from the existence of the GISMP, that groundwater infiltration is an issue at Oxford STW. We are concerned this may be causing or contributing to prolonged overflows made from storm infrastructure in dry weather. We generally do not expect to see discharges from storm overflows occurring after one dry day (i.e. after 24 hours of under 0.25mm of rainfall) which, if occurring, may indicate non-compliance although catchment hydraulics would need to be taken into account in any compliance assessment. We recognise Oxford STW serves a relatively large catchment. As TWUL is aware we are conducting an initial storm overflow compliance assessment for this site for the period 1 October 2019 – 15 April 2021. This assessment will also check compliance in relation to a number of incidents (duplicated to NIRS 01889917) that have been reported which we believe may be related to overflows made from storm infrastructure at Oxford STW between 21/01/21 and 15/02/21. We will write to TWUL via Compliance Assessment Report (CAR) form in due course in relation to the outcome of this assessment. For further information please refer to our letter to [REDACTED] (TWUL Director of Science and Environmental Assurance) of 25 October 2021.

Please note discharging from storm overflows to the environment is not permitted where the cause is groundwater infiltration (i.e. not due to rainfall and/or snowmelt) or other factors like SPS pumping regimes, irrespective of whether FtFT (stated overflow setting in the permit or design capacity where no overflow setting is stated) is being met.

Please see actions relevant to the points above in this CAR form in Section 4 and 4b.

Section 2 – Photographic Evidence

Photograph 1 - Effluent entering Storm Tank 1



Photograph 2 - Sludge in Storm Tank 1



Photograph 3 - Sludge in Storm Tank 2



Photograph 4 - Sludge in Storm Tank 3



Photograph 5 - Dark septic sewage being held up between storm overflow and Storm Tank 3



Section 3- Enforcement Response	Only one of the boxes below should be ticked
You must take immediate action to rectify any non-compliance and prevent repetition. Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.	
Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed.	
In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue.	
We will now consider what enforcement action is appropriate and notify you, referencing this form.	X

Section 4- Action(s)			
Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.			
Where the CCS Category is marked N/A then the specified action does not relate to a permit condition.			
Criteria Ref.	CCS Category	Action Required / Advised	Due Date
See Section 1 above			
1 - 2.3d	C3	Please take action to move back into compliance. This may involve investigating the issue and adjusting SPS pumping regimes and / or installing a balancing tank and removal sludge build up in the base of the storm tanks.	31/12/2021
1 - 2.3e	C2	Please investigate the configuration of the pipe between the final storm tank and storm overflow chamber. Please provide an estimation of the volume of this effluent and inform us of the chosen compliance solution and timeframe for delivery.	31/12/2021
OA01	N/A	We recommend TWUL investigate the impact of groundwater infiltration on the operation of the storm overflow at Oxford STW to establish if overflows after one full dry day are occurring.	31/12/2021
OA02	N/A	If TWUL identifies overflows from storm infrastructure are occurring after one full dry please investigate and address the root cause (s) taking catchment hydraulics into account. Please notify us if TWUL identify potential permit non-compliance.	31/12/2021
OA03	N/A	Please calculate the storm storage capacity of the site and provide us with this figure confirming whether or not that includes the fourth storm tank / Primary Settlement Tank taking into account the concerns raised in this CAR form.	31/12/2021

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.
- A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

See our Enforcement and Civil Sanctions guidance for **further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

Non-compliance categories

CCS category	Description
C1	A non-compliance which could have a major environmental effect
C2	A non-compliance which could have a significant environmental effect
C3	A non-compliance which could have a minor environmental effect
C4	A non-compliance which has no potential environmental effect

Data protection notice

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

Disclosure of information

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

Customer charter

What can I do if I disagree with this compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00-18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the [Parliamentary and Health Service Ombudsman](#) phone their helpline on 0345 015 4033.

Appendix 2 (see text highlighted in yellow)

Environment Agency response to Planning Application for Land North of Bayswater Brook, near Barton (Ref: P22/S4618/O)

Objection in principle

We object in principle to the proposed development as it falls within a flood risk vulnerability category that is inappropriate to the Flood Zone(s) in which the application site is located. In addition, the application is contrary to local policy STRAT13: Land North of Bayswater Brook as outlined in the Local Plan (South Oxfordshire Local Plan 2011-2035 (adopted December 2020)). We recommend that planning permission is refused on this basis.

Reasons

Annex 3 of the NPPF classifies development types according to their vulnerability to flood risk and provides guidance on which developments are appropriate within each Flood Zone. According to your baseline model which was approved in 2022 (our reference: WA/2019/126608/08) this site partially lies within the 5% annual exceedance probability (1 in 20 year) flood event which according to your Strategic Flood Risk Assessment is Flood Zone 3b – Functional Floodplain.

The development is classed as **more vulnerable** in accordance with Annex 3 of the NPPF. Table 2: Flood risk vulnerability and flood zone 'incompatibility' of the PPG makes it clear that this type of development is **not compatible** with the Flood Zones in which the site is located and therefore should not be permitted.

Furthermore, the Local Plan Policy STRAT13 states that built development should be located in Flood Zone 1 only, with areas of Flood Zone 2 and 3 preserved as accessible green space. According to the modelling submitted by the applicant, part of the housing development is located in the pre-development 1% annual exceedance probability plus an appropriate allowance for climate change (1% AEP + CC) flood extent. This means that houses are being proposed outside of Flood Zone 1 (defined as land with less than a 0.1% chance of flooding in any given year). While construction of a 'development platform' effectively raises the houses higher than the 1% AEP+15% climate change flood level, the Environment Agency would still class this as built development in the floodplain. The post development modelling does demonstrate the houses are located in Flood Zone 1, but it seems that this is only due to the construction of the 'development platform'.

Overcoming our objection

To overcome our objection, the applicant should clearly demonstrate that the proposed development is located outside of Flood Zone 3b – Functional Floodplain. The baseline 5% annual exceedance probability (1 in 20 year) flood event should be mapped onto a plan of the development to demonstrate that no 'more vulnerable' development is being proposed in Flood Zone 3b – Functional Floodplain. This includes any land raising to facilitate development.

In addition, the applicant should provide evidence to demonstrate that all built development is in Flood Zone 1 (i.e. that it lies outside of the baseline modelled 0.1% AEP flood extent), in accordance with local policy STRAT13: Land North of Bayswater Brook as outlined in the Local Plan (South Oxfordshire Local Plan 2011-2035 (adopted December 2020)). This may require the layout of the proposed development to be altered so that there is no built development outside of Flood Zone 1.

Objection 2 – Flood Risk Assessment

In accordance with Policy EP4 of the South Oxfordshire Local Plan 2011 – 2035 (adopted December 2020) and paragraph 173 of the National Planning Policy Framework (NPPF), in the absence of an acceptable flood risk assessment (FRA) we **maintain our objection** to this application and recommend that planning permission is refused.

Reasons

The submitted FRA does not comply with the requirements for site-specific flood risk assessments, as set out in paragraphs 20 to 21 of the Flood Risk and Coastal Change planning practice guidance and its site-specific flood risk assessment checklist. The FRA does not therefore adequately assess the flood risks posed by the development. In particular, the modelling used to inform the technical detail in the FRA is not fit for purpose. Please see attached spreadsheet for full details; in summary:

- Mass balance is still outside of the modelling tolerance
- The model review has queried the conveyance, since some locations in the 1D model where there are structures have been modelled as open channel
- The Z shape file on the Elsfield lane is not properly attributed
- There is a query regarding the increase in peak flows in the model
- A combined blockage scenario to the culverts under Elsfield Lane should be considered

Overcoming our objection

To overcome our objection, the applicant should submit a revised FRA or Technical Note, and the modelling should be amended to address the points highlighted above. If this cannot be achieved, we are likely to maintain our objection. Please re-consult us on any revised FRA submitted.

Sydling's Brook Mitigation – advice to Planning Authority

A volumetric-type floodplain compensation scheme is being proposed here due to various site constraints. The Environment Agency does not normally support volumetric compensation schemes since such schemes do not normally compensate for loss of floodplain storage at the higher levels, meaning that in more severe flood events adequate floodplain storage may not be provided. However in this case significant justification has been provided as to why true level-for-level compensation is not possible. We advise that it is for the local authority to determine in this case whether this option for the Sydling's Brook is an acceptable compromise while taking into account other planning considerations.

Objection 3 – Biodiversity

The submitted planning application and associated documents indicate that physical habitat improvements to the Bayswater Brook, including reprofiling and channel creation and realignment will be required as part of the proposed development. Whilst we support the principle and objectives of such proposals, we do not have enough information to be satisfied that the proposed development can meet our requirements for the net improvement of ecology and physical habitats. In accordance with paragraphs 180 and 186 of the National Planning Policy Framework (NPPF) and Policy ENV3 of the South Oxfordshire Local Plan 2011 – 2035 (adopted December 2020), we therefore **maintain our objection** to the proposal and recommend that the planning application is refused.

Reasons

Whilst we welcome that there will be a commitment to provide enhancements to the Bayswater Brook, the information currently submitted does not adequately address our earlier concerns.

This objection is supported by paragraphs 180 and 186 of the National Planning Policy Framework (NPPF) which recognise that the planning system should conserve and

enhance the environment by minimising impacts on and providing net gains for biodiversity. If significant harm resulting from a development cannot be avoided, adequately mitigated, or as a last resort compensated for, planning permission should be refused. Opportunities to incorporate biodiversity in and around developments should be encouraged.

In addition, this objection is in accordance with Policy ENV3 of the South Oxfordshire Local Plan 2011 – 2035 (adopted December 2020) which states: Planning permission will only be granted if impacts on biodiversity can be avoided, mitigated or, as a last resort, compensated fully.

Overcoming our objection

To overcome our objection, the developer needs to provide sufficient design and details of the proposed ecological enhancements to the Bayswater Brook.

Specifically:

- Analysis of the distribution of flows and levels under a normal and lower flow regime, especially in relation to the creation of secondary channels. It is the Environment Agency's strong preference that flow is not split between channels and that the newly created channels be appropriately designed to carry all flow and deliver river habitat net gain.
- Identify the low flow characteristics in the new and existing channels.
- Set out the outline design for the new channels and the physical habitat enhancements of the existing (including gradient, width, depth, bank connection and in-channel features).
- Provide an indicative plan to show the location and design of enhancements.

Objection 4 – Foul waste

In accordance with paragraph 180 of the National Planning Policy Framework, we **maintain our objection** to this application as submitted because the proposed development would pose an unacceptable risk of pollution to surface water quality. We recommend that planning permission should be refused on this basis.

Reasons

Paragraph 180 of the National Planning Policy Framework states that the planning system should contribute to and enhance the natural and local environment by preventing both new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of water pollution. In addition, the Thames River Basin Management Plan requires the restoration and enhancement of water bodies to prevent deterioration and promote recovery of water bodies.

Oxford Sewage Treatment Works is a site of significant concern for the Environment Agency. In November 2021 the Environment Agency inspected Oxford STW, which led to Thames Water being issued with a Compliance Assessment Report (C.A.R.). Within this report, some serious and significant permit breaches were identified. While the site is non-compliant with its permit, the risk to the environment remains high.

Oxford STW was identified in 2017 as having insufficient Flow to Full Treatment (FFT) capacity for the population served. It was allocated a U_IMP5 driver for the AMP7 investment period in order to realign the FFT. This was due to be delivered March 2025, however the EA understands this has been delayed by several years. The scheme and deadline are regulatory and legislative commitments, and failure to deliver it on time will potentially lead to further noncompliance at the site. It also presents a significant and

ongoing risk to the receiving waterbody, particularly from continued and extended periods of storm overflows. Adding additional flows to the STW before this scheme is completed is not acceptable.

An AMP7 investigation was carried out at Oxford STW to understand the impact of the sewage discharge on Dissolved Oxygen. The investigation concluded that a scheme should be included in AMP 8 (2025-2030) to improve the Dissolved Oxygen status in the Northfield Brook. This was not included in Thames Water's draft business plan submission in October 2023. Without this scheme, there will be an unacceptable risk to deteriorating the Dissolved Oxygen status under the Water Framework Directive (WFD).

Oxford STW suffers greatly from groundwater infiltration and has an associated Groundwater Systems Impacted Management Plan (GISMP). This is partly, but not entirely, due to the brick sewers close to the Thames. The infiltration within the catchment, alongside a complicated pumping regime put the entire network at risk of storm overflows or network failures during times of high(er) flows. Additional load within the network, without improvements, will lead to more storm overflows, pollution incidents and network failures.

Overcoming our objection

The delivery of the AMP 7 scheme is vital to ensuring that Oxford STW has enough capacity to treat incoming flows. We also recommend that the STW is upgraded to meet the expected demands up to the end of the local plan period. Thames Water need to work with the Environment Agency to agree a scheme design, and a realistic and appropriate timescale. Thames Water also need to execute the recommendations of the 2021 CAR form and do everything possible to come back into compliance.

The AMP 8 Dissolved Oxygen scheme should be included in the final business plan submission. Furthermore, continued work on the GISMP to reduce the impact of infiltration in the network is essential.

Sequential test – advice to Planning Authority

What is the sequential test and does it apply to this application?

In accordance with the National Planning Policy Framework (paragraph 162), development in flood risk areas should not be permitted if there are reasonably available alternative sites, appropriate for the proposed development, in areas with a lower risk of flooding. The sequential test establishes if this is the case.

Development is in a flood risk area if it is in Flood Zone 2 or 3, or it is within Flood Zone 1 and your strategic flood risk assessment shows it to be at future flood risk or at risk from other sources of flooding such as surface water or groundwater.

The only developments exempt from the sequential test in flood risk areas are:

- Householder developments such as residential extensions, conservatories or loft conversions
- Small non-residential extensions with a footprint of less than 250sqm
- Changes of use (except changes of use to a caravan, camping or chalet site, or to a mobile home or park home site)
- Applications for development on sites allocated in the development plan through the sequential test, which are consistent with the use for which the site was allocated.

Avoiding flood risk through the sequential test is the most effective way of addressing flood risk because it places the least reliance on measures such as flood defences, flood warnings and property level resilience.

Who undertakes the sequential test?

It is for you, as the local planning authority, to decide whether the sequential test has been satisfied, but the applicant should demonstrate to you, with evidence, what area of search has been used. Further guidance on the area of search can be found in the planning practice guidance [here](#).

What is our role in the sequential test?

We can advise on the relative flood risk between the proposed site and any alternative sites identified - although your strategic flood risk assessment should allow you to do this yourself in most cases. We won't advise on whether alternative sites are reasonably available or whether they would be suitable for the proposed development. We also won't advise on whether there are sustainable development objectives that mean steering the development to any alternative sites would be inappropriate. Further guidance on how to apply the sequential test to site specific applications can be found in the planning practice guidance [here](#).

Exception test – advice to Planning Authority

In accordance with the National Planning Policy Framework (paragraphs 164 and 165), the proposed development is appropriate provided that the site meets the requirements of the exception test. Our comments on the proposals relate to the part of the exception test that demonstrates the development is safe. The local planning authority must decide whether or not the proposal provides wider sustainability benefits to the community that outweigh flood risk.

The exception test should only be applied as set out in flood risk table 3 of the Planning Practice Guidance (PPG) following application of the sequential test. The exception test should not be used to justify the grant of planning permission in flood risk areas when the sequential test has shown that there are reasonably available, lower risk sites, appropriate for the proposed development.

In those circumstances, planning permission should be refused, unless you consider that sustainable development objectives make steering development to these lower risk sites inappropriate as outlined in PPG (ref ID: 7-033-20140306).

Our role in the exception test

The exception test is in two parts, described in the NPPF (paragraph 164). In order for the test to be passed it must be demonstrated that

1. The development would provide wider sustainability benefits to the community that outweigh flood risk; and
2. The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Paragraph 165 of the NPPF makes clear that both parts need to be met for the test to be satisfied. It is for the applicant to demonstrate this.

We provide advice on the second part of the test, but it is for you, as the local planning authority, to consider the first part of the test, accounting for the findings of the flood risk assessment and our flood risk advice, and to determine whether the test, overall, has been satisfied. Development that does not satisfy both parts of the exception test should be refused.

Where the flood risk assessment shows the development will be safe throughout its lifetime without increasing flood risk elsewhere

Even where a flood risk assessment shows the development can be made safe throughout its lifetime without increasing risk elsewhere, there will always be some remaining risk that the development will be affected either directly or indirectly by flooding. You will need to weigh these risks against any wider sustainability benefits to the community.

Environmental permit - advice to applicant

The Environmental Permitting (England and Wales) Regulations 2016 require a permit or exemption to be obtained for any activities which will take place:

- on or within 8 metres of a main river (16 metres if tidal)
- on or within 8 metres of a flood defence structure or culverted main river (16 metres if tidal)
- on or within 16 metres of a sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission

For further guidance please visit <https://www.gov.uk/guidance/flood-risk-activities-environmental-permits> or contact our National Customer Contact Centre on 03708 506 506 (Monday to Friday, 8am to 6pm) or by emailing enquiries@environment-agency.gov.uk.

The applicant should not assume that a permit will automatically be forthcoming once planning permission has been granted, and we advise them to consult with us at the earliest opportunity.

Other Consents – advice to applicant

As you are aware we also have a regulatory role in issuing legally required consents, permits or licences for various activities. We have not assessed whether consent will be required under our regulatory role and therefore this letter does not indicate that permission will be given by the Environment Agency as a regulatory body.

The applicant should contact 03708 506 506 or consult our website to establish if consent will be required for the works they are proposing. Please see <http://www.environment-agency.gov.uk/business/topics/permitting/default.aspx>

Final Comments

Thank you again for consulting us on this application. Our comments are based on the best available data and the information as presented to us. **Subject to our flood risk objection being overcome, we have planning conditions we would recommend in regards to groundwater and contaminated land.**

If you are minded to approve this application for major development contrary to our flood risk objection, we request that you contact us to allow further discussion and/or representations from us in line with the [Town and Country Planning \(Consultation\) \(England\) Direction 2021](#).

This statutory instrument prevents you from issuing planning permission without first referring the application to the Secretary of State for Housing, Communities and Local Government (via the National Planning Casework Unit) to give them the

opportunity to call-in the application for their own determination. This process must be followed unless we are able to withdraw our objection to you in writing. A failure to follow this statutory process could render any decision unlawful, and the resultant permission vulnerable to legal challenge.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me. Please quote our reference number in any future correspondence.

Yours faithfully

**Miss Chloe Alma-
Daykin Planning
Advisor**

Appendix 3

Submission by Windrush Against Sewage Pollution (WASP) in respect on Planning Application 22/03078/FUL | Full planning permission for residential development (Use Class C3), access arrangement and public open space, landscaping, associated infrastructure and works including pedestrian and cycle routes. | Land Bounded By Meadow Lane And Church Way Oxford Oxfordshire OX4 4ED

- 1. This submission is made by Windrush Against Sewage Pollution (WASP), a registered charity one of whose aims is to promote for the benefit of the public the conservation, protection and improvement of the physical and natural environment of the River Windrush and surrounding river catchments. A major focus in working toward this is to eliminate the discharge of untreated and poor-quality sewage into local watercourse. WASP takes no position with respect to development proposals.*
- 2. The submission focusses solely on the ability of Oxford Sewage Treatment Works (STW) owned by Thames Water Utilities Limited (TWUL) to deal legally with the increased sewage generated by the proposed development.*
- 3. The Flood Risk Assessment and Drainage Plan by The Hill Group (22_03078) accompanying the application notes that the development will discharge foul water into the adopted sewer network serving Oxford STW. Thames Water (TW) has confirmed that the sewer network has sufficient capacity to meet the requirements of the development However, the enquiry response from TW (29/11/21) clearly states that the response is only valid for 12 months and is thus already out of date.*
- 4. TW has also failed to comment on the ability of Oxford STW to legally treat and discharge the foul sewage that will be produced by the proposed development*
- 5. Data gathered by WASP shows that Oxford STW is currently operating on a temporary statutory permit, issued by the Environment Agency (Ref: TH/CTCR.0709/009. Storm*

permit TH/TEMP.2827/002 issued 03/09/2010), with the former permit due to be revoked on in favour of a permanent, more rigorous iteration by 30 March 2025.

6. *The current Flow to Full Treatment (FFT) figure advised to WASP by TW is 1,040 l/s which is inadequate for the current works loading. This under-capacity is acknowledged by TW in the recent Water Industry National Environment Programme (WINEP) which notes that Oxford STW requires upgrade of its FFT to meet the required 3PG + iMAX + 3E. Using this formula the upgraded FFT should be at least 1,711.2/s, a more than 64% increase on the existing. Note that this FFT if achieved, would be adequate for the present sewage works loading but would not have any built-in capacity or 'headroom' for any proposed development.*
7. *In a letter to the River Cherwell and Ray Catchment Partnership (26/11/22) TW's sustainability director noted that **'Over the next few years, Oxford STW will be upgraded with an investment of over £40m. We will be upgrading the flow capacity and phosphorous consent from the site whilst improving the sludge treatment process and refurbishment of existing assets to maintain compliance. The site currently treats a population equivalent of circa 225,000 and will be upgraded to meet a 2031 design horizon which equates to roughly 267,000.'** TW's own data show that this population estimate will be rapidly exceeded with figure of 270,576 (2035) 275,042 (2040) and 283,848 (283,848) provided by TW.*
8. *Using a figure of 300 l/day foul sewage (a conservative estimate provided by TW), this development will produce an additional 9.6 tonnes foul sewage/day, that will be discharged to an already overloaded and illegally operating Oxford STW.*
9. *TW initially included Oxford STW in the present Water Industry National Improvement Programme (WINEP) – AMP7 period 2020-25. Improvements agreed with EA included no deterioration of ammonia standard of the effluent and an undertaking to increase the Flow to Full Treatment (FFT; that is the flow that must be treated at the sewage works before the discharge of raw sewage to the Northfield Brook is permitted) to the volume required by the EA.*
10. *However, TW appears to renege on its already funded commitment to OFWAT for upgrade of Oxford STW in the period 2020-25, with its website now offering a vague commitment to a 'major upgrade costing £130 million' by a 'yet to be confirmed date <https://www.thameswater.co.uk/about-us/performance/river-health/frequently-asked-questions/information-about-specific-sites#o>*
11. *In essence this means that until delivery of the required upgrades at Oxford STW by some future unspecified future date, the works will be operating at a FFT figure in excess of that prescribed by the EA; i.e illegally*
12. *The consequence of the failure to meet the required FFT figures is all too clear: Oxford STW discharged raw sewage into the Northfield Brook for a total of 4,895 hours (204 days) during 2018-2022 and for a period of 1,871 hours (78 days) during 2023. Much of this spilling was illegal.*

13. *The EA is currently carrying out a wide-ranging investigation into the unpermitted (illegal) operation of sewage treatment works, focussing on early/dry spilling of untreated sewage. It is believed that Oxford STW is included in this investigation.*
14. *WASP contends that without prior completed upgrade to ensure compliance with the required FFT standards at Oxford STW, granting of this development will simply endorse its present un-permitted and at times illegal operation, and will increase further the spilling of untreated and poorly treated sewage into the Northfield Brook and thence to the River Thames.*
15. *We submit that unless suitably worded Grampian conditions are imposed and enforced with respect to this application, the local planning authority or inspector will in effect be giving tacit approval to the continued acknowledged and illegal operation of Oxford STW and associated sewer network. These conditions should ideally relate to the commencement of development rather than first occupancy.*
16. *WASP contends that the planning authority MAY take the advice of the statutory water company (TWUL) with regard to foul system and sewage treatment works capacity, but in the face of contrary evidence presented to them, does NOT HAVE to. This belief is based on counsel's advice and case law^{1,2}.*

References cited:

1: In the CA in Gateshead MBC v Secretary of State for the Environment [1995] J.P.L. 432, Glidewell LJ noted that the extent to which discharges from a proposed plan would or would probably pollute the atmosphere and/ or create an unacceptable risk of harm to human beings was a material consideration to be taken into account when deciding to grant planning permission.

In cases which followed subsequently, while the planning authority was entitled to rely on overlapping pollution controls, it was not required to do so in fact and could make its own assessment. See Hopkins Developments v First Secretary of State [2006] EWHC 2823 (Admin) where the High Court dismissed the appeal on that basis.

In Harrison v Secretary of State for Communities and Local Government [2009] EWHC 3382 (Admin) it was held that a planning decision maker was entitled to reach its own view on the effects of a development and that it was open to the inspector to conclude that the use of the land would cause problems for local residents, notwithstanding the grant of an environmental permit

2: Under capacity sewerage infrastructure and Grampian conditions Counsel's opinion obtained by WASP and Evenlode Catchment Partnership, 2023.

Windrush Against Sewage Pollution (WASP)

Registered Charity No: 1199418

22 January 2024

Appendix 4 (see text highlighted in yellow)

Thames Water response to Oxford City Council in respect of Planning Application Ref 24/00318/FUL. LAND TO THE NORTH OF GOOSE GREEN CLOSE, OXFORD, OXFORDSHIRE, OX2 8JP 22 February 2024

Oxford City Council
St. Aldates Chambers
24/00318/FUL 109 - 113 St. Aldates
Oxford
Oxon
OX1
1DS.

Our DTS Ref: 76424
Your Ref:

22 February

2024 Dear

Sir/Madam

Re: LAND TO THE , NORTH OF GOOSE GREEN CLOSE, OXFORD, OXFORDSHIRE, OX2 8JP

Waste Comments

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 and as such we have no objection, 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.

Thames Water recognises this catchment is subject to high infiltration flows during certain groundwater conditions. The developer should liaise with the LLFA to agree an appropriate sustainable surface water strategy following the sequential approach before considering connection to the public sewer network. The scale of the proposed development doesn't materially affect the sewer network and as such we have no objection, 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 network.

The application indicates that SURFACE WATER will NOT be discharged to the public network and as such Thames Water has no objection, however approval should be sought from the Lead Local Flood Authority.

Should the applicant subsequently seek a connection to discharge surface water into the public network in the future then we would consider this to be a material change to the

proposal, which would require an amendment to the application at which point we would need to review our position.

Thames Water would advise that with regard to FOUL WATER sewerage network infrastructure capacity, we would not have any objection to the above planning application, based on the information provided.

There are public sewers crossing or close to your development. If you're planning significant work near our sewers, it's important that you minimize the risk of damage. We'll need to check that your development doesn't limit repair or maintenance activities, or inhibit the services we provide in any other way. The applicant is advised to read our guide working near or diverting our pipes.

<https://www.thameswater.co.uk/developers/larger-scale-developments/planning-your-development/working-near-our-pipes>

Water Comments

If you are planning on using mains water for construction purposes, it's important you let Thames Water know before you start using it, to avoid potential fines for improper usage. More information and how to apply can be found online at [thameswater.co.uk/buildingwater](https://www.thameswater.co.uk/buildingwater).

On the basis of information provided, Thames Water would advise that with regard to water network and water treatment infrastructure capacity, we would not have any objection to the above planning application. Thames Water recommends the following informative be attached to this planning permission. Thames Water will aim to provide customers with a minimum pressure of 10m head (approx 1 bar) and a flow rate of 9 litres/minute at the point where it leaves Thames Waters pipes. The developer should take account of this minimum pressure in the design of the proposed development.

Yours faithfully
Development Planning Department

Development Planning,
Thames Water,

[Redacted signature block]

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Appendix 5

Thames Water response to Oxford City Council in respect of Planning Application Ref Ref: 59102 Land Bounded By A34 And A44 And A40 Parcel 1, Woodstock Road, Wolvercote, OXFORD, Oxfordshire, OX2 8JR, 29 January 2024

Oxford City Council
St. Aldates Chambers
18/02065/CND14 109 - 113 St. Aldates
Oxford
Oxon
OX1
1DS.

Our DTS Ref: 59102
Your Ref:

29 January 2024

Dear Sir/Madam

Re: Land Bounded By A34 And A44 And A40 Parcel 1,, Woodstock Road, Wolvercote, OXFORD, Oxfordshire, OX2 8JR

Waste Comments

Thank you for consulting Thames Water for the discharge of matters relating to FOUL WATER networks. Thames Water confirms the foul water condition referenced, can be discharged based on the information submitted. .

Thank you for consulting Thames Water for the discharge of matters relating to SURFACE WATER. Thames Water are unable to support the discharge of this condition for the reasons outlined below.

Water Comments

Thank you for consulting Thames Water for the discharge of matters relating to water networks. Thames Water is unable to support the discharge of this condition for the reasons outlined below.

Supplementary Comments

Water - Information provided within enquiry 18/02065/CND14 relates to waste water. Therefore unable to discharge condition 47 (Water network upgrades).

Thank you for consulting Thames Water for the discharge of matters relating to FOUL WATER for condition 45 (Wastewater upgrades . Thames Water confirms the foul water condition referenced can be discharged based on the information submitted.

Thank you for consulting Thames Water for the discharge of matters relating to SURFACE WATER for condition 46 (Surface water network), Thames Water confirms the surface water condition referenced can not be discharged as the information submitted does not apply to surface water contained within the Thames Water Consent to Connect document.

The conditions 54 (Events strategy) and 59 (Air quality) of planning permission 18/02065/OUTFUL. can be discharged as these relate to the proposed development set within this application only.

Yours faithfully
Development Planning Department

Development Planning,
Thames Water,

██████████
██████████
██████
██████████

Appendix 6 (see text highlighted in yellow)

Thames Water response to South Oxfordshire District Council in respect of Planning Application Ref P22/S4618/O Land North of Bayswater Brook, Didcot, Oxfordshire OX11

FW: 3rd Party Planning Application - P22/S4618/O - UPDATED 21 SEP 23

Planning South <planning@southoxon.gov.uk>

Fri 29/09/2023 13:00

To: Planning Registration <registration@southandvale.gov.uk>

-----Original Message-----

From: [REDACTED]

Sent: 29 September 2023 12:51

To: Planning South <planning@southoxon.gov.uk>

Subject: 3rd Party Planning Application - P22/S4618/O - UPDATED 21 SEP 23

****EXTERNAL****

South Oxfordshire District Council
Benson Lane
Crowmarsh Gifford
Wallingford
Oxon
OX10 8NJ

Our DTS Ref: 61369
Your Ref: P22/S4618/O - UPDATED 21 SEP 23

29 September 2023

Dear Sir/Madam

Re: LAND NORTH OF, BAYSWATER BROOK, -, DIDCOT, OXFORDSHIRE , OX11

Waste Comments

Thames Water recognizes this catchment is subject to high infiltration flows during certain groundwater conditions. The scale of the proposed development doesn't materially effect the sewer network and as such we have no objection, 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.

Thames Water recognises this catchment is subject to high infiltration flows during certain groundwater conditions. The developer should liaise with the LLFA to agree an appropriate sustainable surface water strategy following the sequential approach before considering connection to the public sewer network. The scale of the proposed development doesn't materially affect the sewer network and as such we have no objection, 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 network.

The application indicates that SURFACE WATER will NOT be discharged to the public network and as such Thames Water has no objection, however approval should be sought from the Lead Local Flood Authority. Should the applicant subsequently seek a connection to discharge surface water into the public network in the future then we would consider this to be a material change to the proposal, which would require an amendment to the application at which point we would need to review our position.

Thames Water would advise that with regard to FOUL WATER sewerage network infrastructure capacity, we would not have any objection to the above planning application, based on the information provided.

Water Comments

The proposed development is located within 5m of a strategic water main. Thames Water do NOT permit the building over or construction within 5m, of strategic water mains. Thames Water request that the following condition be added to any planning permission. No construction shall take place within 5m of the water main. Information detailing how the developer intends to divert the asset / align the development, so as to prevent the potential for damage to subsurface potable water infrastructure, must be submitted to and approved in writing by the local planning authority in consultation with Thames Water. Any construction must be undertaken in accordance with the terms of the approved information. Unrestricted access must be available at all times for the maintenance and repair of the asset during and after the construction works. Reason: The proposed works will be in close proximity to underground strategic water main, utility infrastructure. The works has the potential to impact on local underground water utility infrastructure. Please read our guide 'working near our assets' to ensure your workings will be in line with the necessary processes you need to follow if you're considering working above or near our pipes or other structures.

<https://www.thameswater.co.uk/developers/larger-scale-developments/planning-your-development/working-near-our-pipes> Should you require further information please contact Thames Water. Email: developer.services@thameswater.co.uk.

On the basis of information provided, Thames Water would advise that with regard to water network infrastructure capacity, we would not have any objection to the above planning application. Thames Water recommend the following informative be attached to this planning permission. Thames Water will aim to provide customers with a minimum pressure of 10m head (approx 1 bar) and a flow rate of 9 litres/minute at the point where it leaves Thames Waters pipes. The developer should take account of this minimum pressure in the design of the proposed development.

Yours faithfully
Development Planning Department

Development Planning,
Thames Water,

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Appendix 7

Professor Peter Hammond: I am a mathematician with 40+ years' experience as a university academic, the last 20 at UCL's Institute of Child Health and Oxford's Big Data Institute, applying image analysis of neurofacial anatomy in medical genetics and teratology. I am retired with recent/current visiting research posts at the UK Centre for Ecology & Hydrology (2018-20) and Dept. of Human Genetics, Leuven University, Belgium (2017-21).

OXFORD STW

Updated version of analysis in WASP report *PART1: 735 "illegal" discharges of untreated sewage from 13 Thames Water STWs 2018-2020*

Peter Hammond, April 24th 2023

Background

Aylesbury, Cassington and Oxford STWs are different from the other Thames Water sewage works because their storm discharge permits do not require minimum continued treatment during a spill. Instead, they include the following conditions (**Fig. 1**)

- 1. Discharge from Combined Sewer Overflow or Storm Tank**
 - 1.1 A discharge from a Combined Sewer Overflow ("CSO") or storm tank shall consist of storm sewage effluent resulting from rainfall or snowmelt into the sewerage system.
- 2. Restrictions on Discharges from Combined Sewer Overflow or Storm Tank**
 - 2.1 The discharge or discharges from a CSO or storm tank shall not so far as reasonably practicable cause significant visual or aesthetic impact due to deposit of solids on the bed or banks of the receiving watercourse, estuary or a beach, or growth of sewage fungus on the bed of the receiving watercourse.

Figure 1: extract from Oxford STW's temporary permit TEMP_2827

Oxford STW has had a "temporary" storm discharge permit for more than 12 years. When asked for information about storm overflow rates and storm tank sizes for all STWs in

England, the EA provided a large table for Thames Water STWS with the following entry for Oxford STW (20/05/20):

STW Name	Settled Storm (Storm Tank) Permitted Pass Forward Flow Rate / Overflow Setting (L/S)	Storm Tank Permitted Volume (M3)	Storm Tank Capacity Required To Meet 68 L/H (At Permitted Dwf) (Based On Thames Water Pe Methodology Re Separate Sewers)	Current Storm Tank Volume (M3)
Oxford	1040	9093	9607	9093

Table 1: Oxford STW storm overflow rate and storm tank size specified by Environment Agency

In response to an EIR request about the permit, the EA said:

“This permit does not specify an exact amount of sewage that must be passed forward prior to making a storm sewage discharge. However, if a discharge from storm tanks occurred at a time when flow to full treatment / specified design capacity was not being met (e.g. due to an inlet pumping failure, diversion of flow or any other issues that were not rainfall or snowmelt) this would be deemed a breach of condition 1.1 even if there was also rainfall / snowmelt simultaneously present.” EA THM208600 24/03/21

and about the values in Table 1:

This is not yet confirmed and is still being reviewed, but it is what we anticipate. EA THM208600 24/03/2021

and, in the same response, the EA made the following comment about Aylesbury STW:

In the Aylesbury Crown Court case of 2017 HH Judge Sheridan agreed with the Environment Agency position that flow to full treatment / specified design capacity should be met prior to making any discharge from storm tanks.
EA THM208600 24/03/2021

In an EIR request, Thames Water were asked by WASP to provide a copy of the site operating manual and its design capacity. Thames Water refused to supply the site operating manual on the grounds that it was not environmental data but did offer the following comment on design capacity:

In AMP 2 (1995-2000) Oxford STW was designed to treat flows of no more than 1040 l/sec (in line with its previous 90,000m³/d maximum permitted discharge limit in the consent). This limitation has not changed since.
Thames Water EIR-21-22-042 24/05/2021

WASP has decided to complete the analysis of Oxford STW using the specified design capacity to guide a storm overflow setting of 1040 l/s.

Summary of findings

18 of the spilling days between 2018 and 2022 appear not to be due to rainfall and 157 appear to be “early” using HH Judge Sheridan’s verdict that, before spilling, a works should treat its design capacity. Examples are shown below.

ILLEGAL SPILLS	2018	2019	2020	2021	2022	TOTAL
Dry only	0	4	2	3	0	9
Early only	36	28	79	27	10	180
Dry & Early	1	10	10	3	2	26
TOTAL	37	42	91	33	12	215
% illegal	73	39	71	55	60	

2018

Oxford STW spilled for 691 hours over 51 spilling days of which, WASP believes, **1 involved no rain on the day or day before** and **36 were “early”** using the 1040 l/s specified design capacity to guide a storm overflow setting.

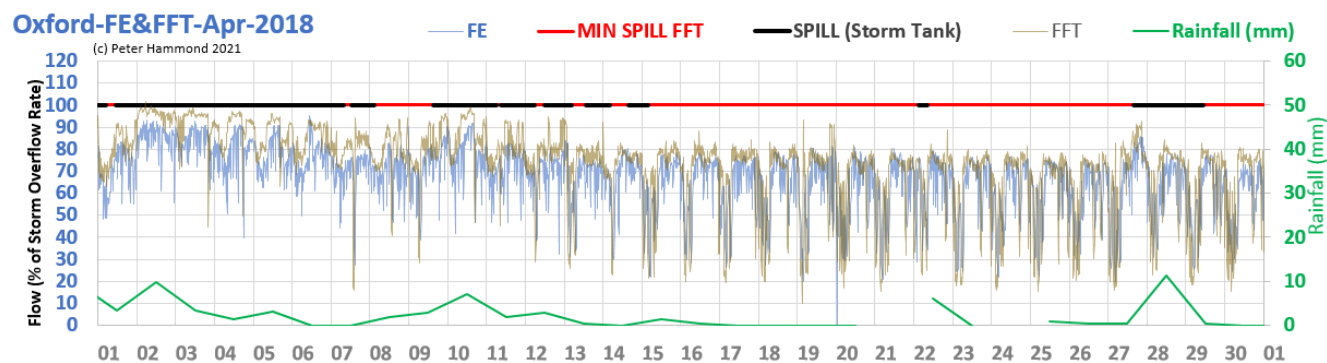


Figure 1: apparently permitted spills (April 2nd) and potentially “early” spills (April 13th, 14th, 22nd, 28th, 29th)

2019

Oxford STW spilled for 1,332 hours over 84 spilling days of which WASP believes **14 involved no rain on the day or day before** and **28 were “early”**.

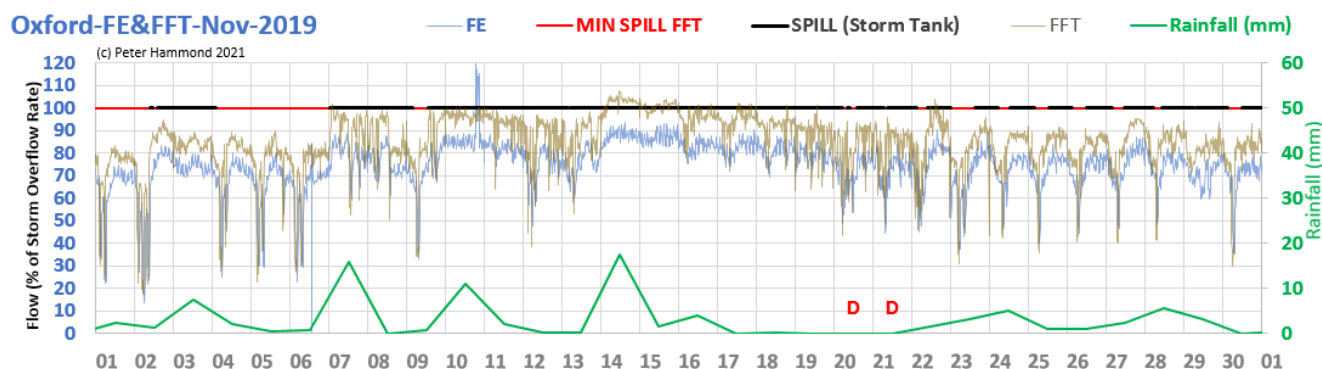


Figure 2: apparently permitted spills (Nov 10th, 14th, 15th) and potentially “early” spills (Nov 24th, 25th, 26th, 29th)

2020

Oxford STW spilled for 1,822 hours over 128 spilling days of which WASP believes **12** involved no rain on the day or day before and **79** were “early”.

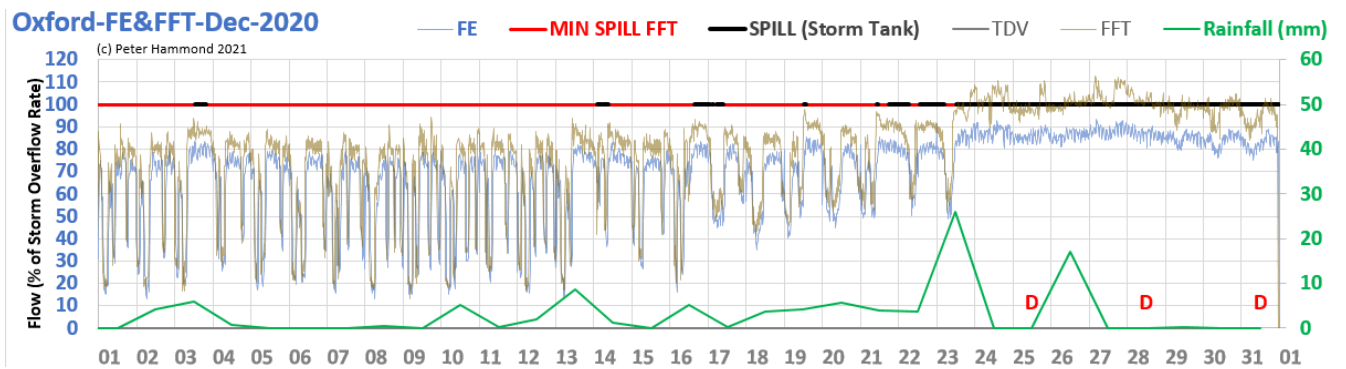


Figure 3: apparently permitted spills (Dec 19th, 25th to 28th) and potentially “early” spills (Dec 3rd, 14th, 17th)

2021

Oxford STW spilled for 892 hours over 58 spilling days of which WASP believes **5** involved no rain on the day or day before and **27** were “early”.

2022

Oxford STW spilled for 164 hours over 20 spilling days of which WASP believes **2** involved no rain on the day or day before and **10** were “early”.