DWMP Consultation Document

2022

Welcome to our consultation

Our Drainage and Wastewater Management plan (DWMP) sets out how wastewater systems, and the drainage networks that serve them, are to be extended, improved and maintained to ensure they are robust and resilient to future pressures.

The aims of our plan are to:
1. protect our environment
2. improve the health of our rivers
3. increase resilience to the risks of flooding
4. generate wider benefits for the communities we serve

The DWMP identifies the wastewater catchments most at risk due to future pressures. For those catchments, DWMP delivers a strategic-level costed investment plan to tackle the key challenges of growth and climate change over a 25-year time horizon

Please access our draft plans at thameswater.co.uk/dwmp and use this consultation form to submit your views. Responding to these questions will help us to understand your views and shape our plan for the future.

Thank you for your time.

This form contains 9 sections, each containing 2-3 questions

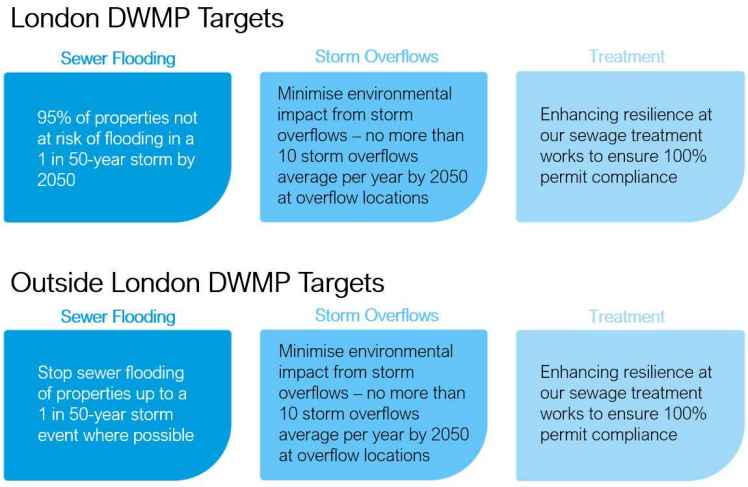
Planning Objectives

Through collaboration with stakeholders, we set 12 planning objectives for our shared DWMP (6 common to all water companies and 6 local to our region (bespoke). These focused on tackling storm overflows (spills), property flooding and achieving wider community benefits:

- Common objectives: Risk of sewer flooding in a 1 in 50 year storm*, storm overflow performance, sewage works compliance, collapses, internal sewer flooding and pollution incidents.
- Bespoke objectives: Wellbeing, carbon neutrality, reducing misconnections, reduced surface water runoff, external sewer flooding and dry weather compliance.

We set challenging targets for these planning objectives. For example, virtually eliminating sewer flooding risk in a 1 in 50 storm* as well as achieving no more than 10 storm overflows annually at storm overflow locations to minimise environmental impact**. This is driving unprecedented levels of expenditure.

We have three key DWMP targets for London & Outside London/Thames Valley to achieve the planning objectives. These can be found in the image below. The flooding targets for London are different to our Thames Valley region, reflecting the different scale of challenge in the capital city compared to less urban communities. For storm overflows we have modelled the impact of different spill scenarios on investment, see Section 7 of our Programme Appraisal Technical Appendix.



*1 in 50 storm - The risk of sewer flooding in a 1 in 50-year storm is defined as the likelihood that flooding will occur as a result of rainfall in a storm that has a 1 in 50 (or 2%) probability of happening in any given year
**Storm overflow rate - this aligns to latest Defra Consultation on Storm Overflows

Planning objectives see Strategic Context document. https://bit.ly/3HYSujq
Targets see Technical Summary. https://bit.ly/3QWXPMb
More detail see our Draft Plan. https://bit.ly/3ucIRYN

1. Do you think these targets are too ambitious or not ambitious enough for a 25-year plan?

The Ock Catchment Partnership (OCP) considers that these targets are not ambitious enough for the 25 year plan timeframe. In particular:

1. The target of no more than 10 storm overflows of untreated effluent per river outfall overflow on average p.a. by 2050 is nowhere near aspirational enough to tackle the scale of the problem. Just a single category 1 spill can wipe out aquatic fauna along large stretches of a river. The targets should reflect the ambition to remove altogether the ecological damage and health impacts associated with untreated effluent during storm overflow events. We are in a climate and ecological emergency and the Ock's river networks are critical to the recovery of nature and should not be subject to ongoing untreated sewage discharges for the next 28 years.

2. The timescales for reducing the number of storm overflows are set too far ahead, there is no sense of urgency and too little in the short-term 5 years from now. 10-15 year plan might be better, allowing more detail in the short–term, staged over 5 year target periods.

3. Need a hard date by which "enhancing resilience to 100% permit compliance" is achieved. We remind Thames Water this this is a legal obligation, it should not be a target but a factual expectation.

In addition, the OCP are concerned that the targets are hampered by:

- Risk assessments of STWs are based on STWs being adequately maintained and operated to meet design specifications. In reality this is not the case and the assumption that things are working correctly risks failure.
- STWs that already have limited storage should be identified and upgraded.
- Many STW don't record spill data, so hard to know the scale of the problem.
- How were the population estimates determined and how realistic are they?

2. If not, what targets would you like to see in the final plan/our next DWMP?

The OCP wishes to see the current DWMP re-drafted with the following targets and timeframes adopted:

1. The 25 year strategy split into 5x 5 year plans with SMART targets for detailed measures for each 5 year period, specifically including STW maintenance as well as upgrades. As a minimum we would expect to see 100% permit compliance at all STWs on rivers and watercourses of exceptional environmental importance (chalk streams) by the end of the first 5 year period, with 100% permit compliance at all STWs by the end of the second 5 year period.

2. Outcomes not outputs: Link targets to biological outcomes i.e. identify which specific stretches of streams and rivers can be lifted from 'poor' or 'moderate' to 'good' ecological status by targeted investment in STW storage capacity. Storm overflow spills need to be related to impact on receiving body size, status, designation etc.

3. A new target to include restoring watercourses that have been and continue to be adversely impacted by untreated effluent discharges needs urgent consideration.

4.A new target to tighten the terms of the consents to drive up the water quality of the receiving waters

Solutions

We propose a set of solutions to help overcome a series of long-term challenges for both London and outside London. These include:

- SuDS - Sustainable Drainage Systems - Uses 'green infrastructure' to divert rainwater and surface water away from wastewater drains
- Network enhancements - Increase the capacity of the current sewer systems in order to hold and transport more wastewater
- Sewer lining - Sewer lining to prevent extra water getting into our sewers and overloading them
- Sewer upsizing - Increase network capacity by installing larger sewers
- Separation - New pipes are built underground and the existing combined sewer system is separated.
- Misconnections - Sometimes pipes for rainwater are incorrectly connected to pipes containing sewage. This uses up capacity, and these misconnections should be corrected.
- Sewage treatment works upgrades - Build additional or larger treatment processes on an existing wastewater treatment works to increase capacity so that additional wastewater from population growth can be treated.
- Property mitigation - Properties that are at risk of sewer flooding during storms are provided with temporary measures such as flood gates that can be fitted during heavy rainfall
- SMART networks - Use technology more to increase automation of the current system and actively control the wastewater flowing through the network

For more information see the Draft Plan https://bit.ly/3ucIRYN and the ODA Appendix https://bit.ly/3nIRJC5

3. Do you have any comments on the main solutions set out in the draft plan?

The main solutions in the plan appear to be effective, provided they can be delivered at a large enough scale and within a more ambitious timeframe.

Of particular importance is the need to ensure STWs have sufficient capacity to cope with storm flows, whether through upgrading individual STWs, reducing the volume of storm water entering the foul water drainage system or both.

It is not clear how the solutions account for the very substantial additional housing and industrial development proposed within the Thames Water area. Specifically, how will the DWMP ensure that planning translates into the financial investment necessary in new and upgraded STWs to cope with the increased demand.

4. Please tell us about any alternative solutions that you feel should also be considered

The OCP consider there a number of additional solutions which need to be adopted by the DWMP:

1. Include Catchment Sensitive Farming and the role of farmers and landowners in minimising sewage storm overflow events by reducing volumes of surface water reaching the foul sewage drainage network

2. Potential for increasing storm water storage at STWs could be improved by working with neighbouring landowners to implement constructed wetlands to temporarily store increased volumes of sewage contaminated storm water in times of flood. For example the Rivers Trust and Anglian Water have successful delivered constructed wetlands in Norfolk which act as extra storm capacity. This has a range of other benefits including for biodiversity, whilst payments to landowners would provide a valuable income stream and represent better value for money than costly STW upgrades.

3. Scope for incentivising residents/landowners/stakeholders to reduce surface water entering the network for example installation of waterbutts for private residences on a neighbourhood scale, improving driveway permeability, removing plastic lawns and reinstating with naturally permeable materials etc.

4. The potential role of Natural Flood Management as a cost effective method in reducing flood risk to property and delaying volumes of surface water entering the sewage network over a longer period.

5. Working in partnership with the public and Non-Governmental Organisations who are already monitoring of receiving waters. What will Thames Water do to help monitor the impact of their effluent? Not just basic citizen science, but robust, quality information gathered by citizens to help Thames Water invest in their business plan. This will require Thames Water to accept third party data is valid and useful as an indicator of a problem in their networks.

Partnership Solutions

The interactive workshops sessions with our stakeholders, during DWMP development, has resulted in the identification of 105 potential partnership opportunities. These are all at different localities across the region and require further investigation.

As the DWMP is in its first cycle, the focus has been on the development of a portfolio of potential partnership opportunities. Although we have not secured funding for partnership schemes at this stage, the scale of the opportunity demonstrates that partnership solutions are going to play a key role in balancing ambition, delivery, and affordability in the future.

For more information on how we went about identifying partnership solutions please read the Stakeholder Engagement Technical Appendix https://bit.ly/3u9l0co. For examples of partnership solutions in your area see the appropriate Catchment Strategic Plan https://bit.ly/3OtOtpG. A full list of partnership opportunities is provided at the end of the Technical Summary Document https://bit.ly/3R02pcD.

5. Do you agree that working in partnership will have a significant contribution to make in meeting the objectives of DWMP?

The OCP consider that partnership working delivers much greater additionality. Catchment Partnerships can and should be seen as a trusted intermediary by many stakeholders and we would welcome the opportunity to work with Thames Water as a trusted, critical friend.

6. How do you think we could do this differently to generate even more opportunities? If we have missed a great opportunity, let us know here.

Opportunities could be generated by:

1. Improving the quality of data shared with partners and the public. Simple measures such as splitting the data out by Catchment as well as the County scale.
2. Asking the public what information they need and providing easy to access online resources. For example, it is difficult to find out what treatment is conducted at STWs and which local STWs have tertiary treatment.
3. Improving the ability for the public to report pollution incidents in the wider countryside, rather than just postcodes related to domestic properties
4. Taking a more strategic approach to what is going into river corridors, many of which are fed by multiple STWs.
5. Paying for Ecosystem Services – are landowners aware of opportunities? The Thames Water Catchment Fund is an example of a funding stream aimed at farmers about which there is little awareness in the target farming community.

A range of plans – London area

Our approach for our catchments in London is to deliver a transformational SuDS programme to reduce spills and properties at risk of sewer flooding in each of the thirty-five risk zones. Through discussions at stakeholder forums, we have devised different plan scenarios. The radar plot compares how different plans perform against the planning objectives.

The resilient plan is our preferred plan as it ensures an optimum balance across outcomes while keeping plans deliverable and affordable in the near term.

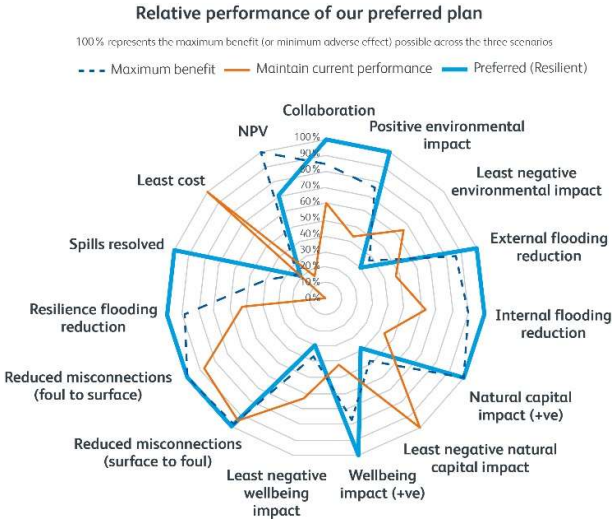
The maximum score plan achieves similar outcomes but maximises benefits earlier resulting in deliverability and affordability concerns in the near term.

The maintain flooding plan retains current flooding performance for the next 25 years, taking pressure off bills but does not address ambitious environmental improvements.

No harm from storm overflows plan reduces overflows by 2050 to no more than 10 in a typical year, with minimal reduction in flooding

Note: The plan with the largest area under the radar best balances criteria. The closer the line is to the outside of the graph, the better the outcome. Bill impact is an indicative view in real terms, with inflation excluded. Bill impact reflects timing and size of investment. A plan with more upfront investment may have a greater bill impact despite the construction cost being less than other plans.

For more information on plan scenarios and bill impact calculation, please read the Programme Appraisal Technical Appendix https://bit.ly/3OOhdZZ. Detail on a plan for London is provided in the Draft Plan document https://bit.ly/3uePA4v



	Indicative Bill Impact (25 year average £/household)	CAPEX (£m) (Construction cost)	Spills (Nr) (Number of sewer overflows resolved)	Resilience (Nr) (Properties reduced risk of flooding in a 1 in 50 storm)
Maximise score (achieves targets, benefit upfront but near term cost and delivery concerns)	109	14,427	2,422	147,639
No harm from storm overflows (reduces overflows by 2050 to no more than 10 in a typical year)	8	4,767	2,422	52,559
Maintain flooding performance (focus on 1 in 50 year protection)	12	3,206	-	83,128
Resilient system = Preferred Plan (achieves targets, deliverable and affordable in the near term)	62	16,013	2,422	155,018

7. Our preferred plan is the resilient system plan. Do you agree with this?

No comment – the OCP are primarily concerned with the plans affecting the upstream Thames Valley

8. If not, what is your view on the other plan scenarios we show? What aspects are influencing your assessment?

No comment - the OCP are primarily concerned with the plans affecting the upstream Thames Valley

9. What alternative wider benefits would you like to see in the final plan/our next DWMP to improve the overall plan outcome?

No comment - the OCP are primarily concerned with the plans affecting the upstream Thames Valley

A range of plans – Outside London area

Our approach for our catchments outside of London has focused on removing unwanted flow in our foul only systems, such as groundwater and surface water ingress, to meet spills and flooding reduction targets across the region. Through discussions at stakeholder forums, we have devised different plan scenarios. The radar plot compares how different plans perform against the planning objectives.

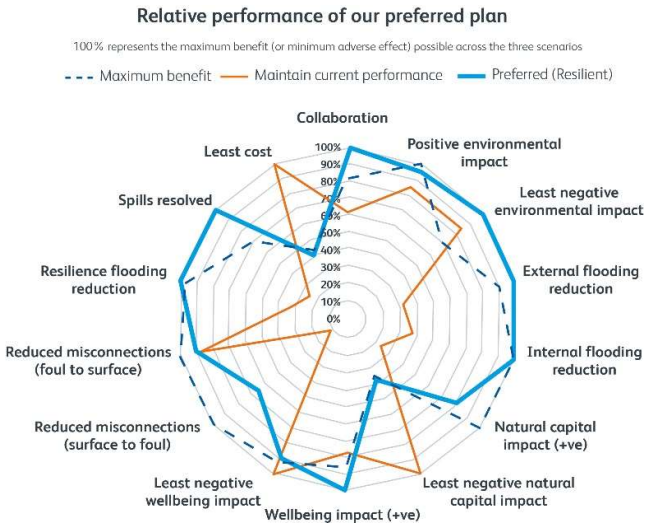
The resilient plan is our preferred plan as it ensures an optimum balance across outcomes while keeping plans deliverable and affordable in the near term.

The maximum score plan achieves similar outcomes but maximises benefits earlier resulting in deliverability and affordability concerns in the near term.

The maintain plan retains current system performance for the next 25 years, taking pressure off bills but does not address ambitious environmental improvements.

Note: The plan with the largest area under the radar best balances criteria. The closer the line is to the outside of the graph, the better the outcome. Bill impact is an indicative view in real terms, with inflation excluded. Bill impact reflects timing and size of investment. A plan with more upfront investment may have a greater bill impact despite the construction cost being less than other plans.

For more information on plan scenarios and bill impact calculation, please read the Programme Appraisal Technical Appendix https://bit.ly/3uafCpD Detail on a plan for outside London is provided in the Draft Plan document https://bit.ly/3OQdnj7.



	Indicative Bill Impact (25 year average £/household)	CAPEX (£m) (Construction cost)	Spills (Nr) (Number of storm overflows resolved)	Resilience (Nr) (Properties reduced risk of flooding in a 1 in 50 storm)
Maximise score (achieves targets, benefit upfront but mid-term cost and delivery concerns)	86	7,732	7,354	20,019
Maintain current performance	21	3,139	4,893	7,174
Resilient system = Preferred Plan (achieves targets, deliverable and affordable in the near term)	56	8,213	9,739	20,601

10. Our preferred plan is the resilient system plan. Do you agree with this?

The OCP supports the resilient system plan over the existing situation.

However, the difference between the resilient and the maximum benefit plan is not clear from the information presented.

Clarity on the detail of differences between the plans would be helpful. Protection of the environment should be prioritised.

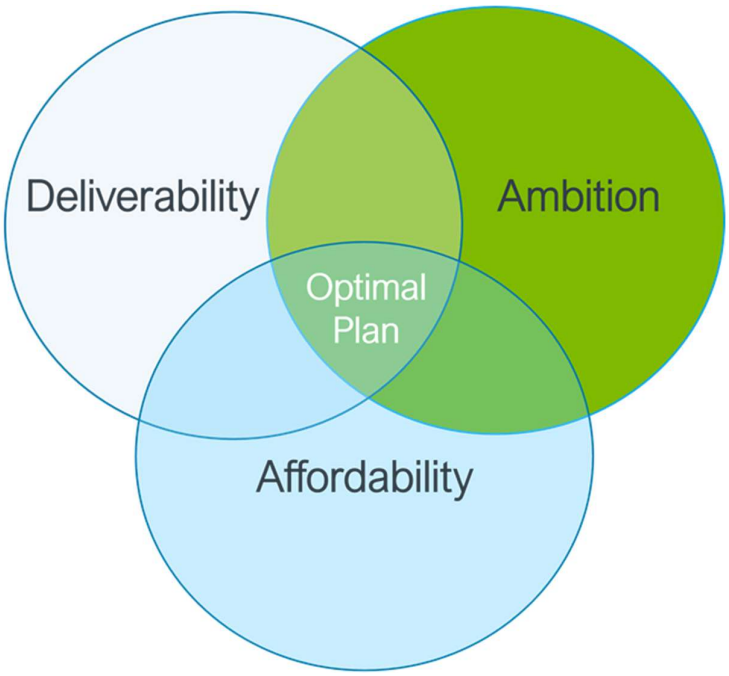
11. If not, what is your view on the other plan scenarios we show? What aspects are influencing your assessment?

Hard to judge, clearly maintaining the current performance is wholly inadequate.

12. What alternative wider benefits would you like to see in the final plan/our next DWMP to improve the overall plan outcome?

There needs to be a much stronger link between the DWMP measures, their impacts and the biology of watercourses. This requires monitoring the biology of the watercourses as part of the DWMP to determine if it is working to improve ecological outcomes.

Trade-offs



To derive our preferred plan, it is necessary to trade-off different targets and objectives. In order to deliver on the ambitious targets on flooding and sewer overflows as expected by stakeholders, this must also be balanced against the affordability and deliverability of the programme.

For our first DWMP we seek to achieve that balance by:

1. Keeping ambitious targets in sight as a 25-year goal.
2. Profiling significant spend uplifts into the medium to long term where partnership working, innovation and knowledge of surface water impacts will have matured and therefore better mitigated cost impact.
3. Addressing high risk performance issues in the near term, particularly on sewer overflows.

For more information, please read our Technical Summary https://bit.ly/3QV5Xgk and Programme Appraisal Technical Appendix https://bit.ly/3u9B2D6.

13. Do you believe our DWMP strikes the right balance between affordability, deliverability and ambition?

It is very difficult for the OCP to judge what the financial costs of sewage spills are in terms of human health, biodiversity, fish stocks and natural capital. Without this information, it is hard to tell what the actual affordability of the DWMP – to put it another way, can Thames Water afford not to take action?

The DWMP does not define the measure of affordability; is it affordability to bill payers, affordability to Thames Water shareholders, affordability of borrowing, willingness to pay measures of affordability or is it to catchment health? The environment and ecology of our rivers cannot continue to be treated in the manner it has been in last 40 years.

Deliverability hard to judge, depending on regulation, labour and market forces.

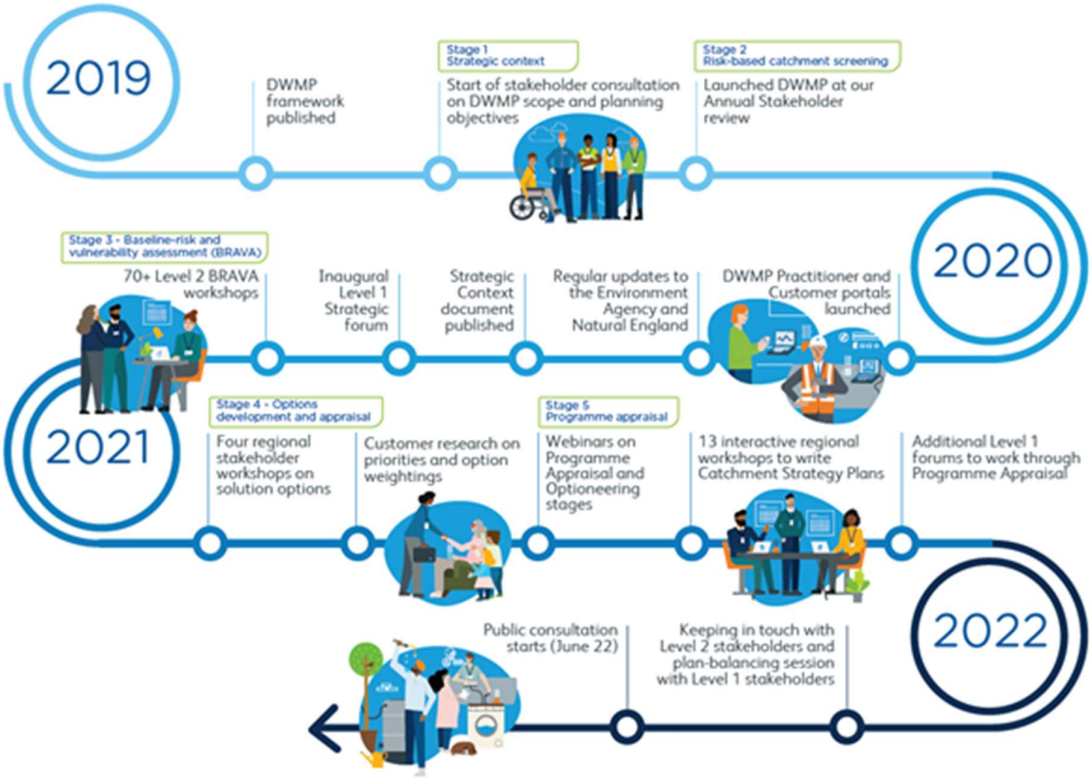
As already made clear, the DWMP seriously lacks ambition and the targets are inadequate to the scale of problems facing our rivers and bathing waters.

In delivering the DWMP, the OCP wishes to make clear its strong preference for the cost to implementing the DWMP to be met by Thames Water borrowing, substantially reduced returns to shareholders and rewards to Senior Executives and funding from housing developers in the first instance and not bill payers.

14. If not, what could we incorporate into the final plan/our next DWMP to improve this?

No comment

Stakeholder engagement



Our aim for stakeholder engagement in the first cycle was to ensure we were creating a plan that was based on shared ideas. It was hugely important that the needs of everyone were being listened to through our varied stakeholder interactions. Stakeholder engagement has led to a better plan as detailed below:

- Planning objectives increased from 6 to 12, broadening the impact of our plan
- Customer research helped us to prioritise multiple objectives
- Co-creation/co-funding opportunities were identified through ongoing engagement with stakeholders

More of the benefits from stakeholder engagement can be found in our stakeholder engagement technical appendix https://bit.ly/3xZpDqR.

15. On a scale of 1 to 5, how well do you believe we achieved the aim of creating a shared plan through stakeholder interaction?

3

16. What could we do differently to encourage more engagement in the plan?

Bring in relevant stakeholders for specific areas. How are co-created opportunities going to be implemented? More ambition, more co-creation, greater outreach to landowners and farmers.

Final Questions

17. Do you have any further comments on the Drainage and Wastewater Management Plans not covered by the previous questions?

The OCP observes that there is a tension between the requirement on Thames Water to provide drainage and wastewater services to new housing but not necessarily an ability to influence the scale and location of that development. The disjointed planning system where land allocation, planning approval and flooding and sewage disposal infrastructure and are not considered holistically does not provide confidence that future foul drainage needs will be met. There is a critical question as to the interaction between Local Planning Authorities, developers and the capacity and wastewater needs of the Thames Water drainage network

There is a lack of overflow data for a large number of STWs; without data the extent of the problem cannot be quantified and substantially hinders prioritisation of treatment.

This is a significant problem given that many STWs already have limited capacity and we remain concerned about forecasts for population growth and how this will affect future provision of sewage treatment during storm events.

About you

Please tell us some information about you before you submit your response. This will allow us to ensure your response gets to the right people and let us contact you when our response document is published.

18. Are you responding as an individual or on behalf of an organisation or group? When we come to analyse the results of this consultation, it will help us to know if you are responding as an individual or on behalf of an organisation or group.

This is a response on behalf the Ock Catchment Partnership, collated by the Catchment Host, Freshwater Habitats Trust.

19. Name of the organisation or group. If you don't want to give the name, please tell us what type of organisation it is.

Ock Catchment Partnership (OCP)

20. Name?

Adam Bows

Catchment Officer, Freshwater Habitats Trust, on behalf of the OCP

21. In some cases, we may wish to follow up a consultation response where there is an offer of help or provision of evidence. If you're happy for us to do so, please provide your details below. We can also use it to let you know when we have published the Summary of consultation responses document.

Adam Bows

Catchment Officer

Freshwater Habitats Trust

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22. Can we publish your response? We will not publish any personal information or parts of your response that will reveal your identity.

Yes

23. Finally, it would really help us if you let us know where you found out about this consultation.

Via Thames Water

Thank you for taking the time to complete this questionnaire. Please email your response to us at:

DWMP@thameswater.co.uk

Nb. closing date for consultation response is 22nd September 2022.