16 January 2026

## Addendum to Environment Agency response to the Inspector's questions in Matter 10

In our responses to the Inspector's questions regarding the following sites 10.16 (Central Reading), 10.27 (South Reading), 10.36 (West Reading and Tilehurst) 10.48 (Caversham and Emmer Green), 10.58 (East Reading) under Matter 10, we said the infrastructure requirements for our constraints to development and growth in Reading are the need for the Reading Sewage Treatment Works (STW) to be upgraded. This is because any additional flow to the STW, can result in rising main or pumping station failures, which can cause significant environmental damage. Reading STW discharges into the Foudry Brook. The impact then will be further pollution and deterioration of the Foudry Brook which is at Poor ecological status (overall since cycle 1 of the Water Framework Assessment), and Poor for Phosphate. We are aware that Phosphate is a 'Reason for not achieving good' (RNAG) status. The evidence can be seen here - Foudry Brook (West End Brook to M4) | Catchment Data Explorer | Catchment Data Explorer.

Improvements must be made to the network before all new developments in the local plan are connected to it. As mentioned previously in our answer to the Inspectors questions, at the Regulation 18 and 19 stage of the partial update to the Local Plan, we requested that a Water Cycle Study (WCS) was submitted to address this matter. Instead of a WCS, a Water Quality Assessment (WQA) prepared by Stantec - EV025 was provided, however we only noticed the WQA on the local plan examination website when we were informed about the stage 2 hearings and as such, we have only now reviewed this document and provide the following comments below.

### 1. Reading Borough Council Water Quality Assessment - Environment Agency Comments

1.1 Having reviewed this document (Water Quality Assessment (WQA) prepared by Stantec on behalf of Reading Borough Council in March 2025) in January 2026, we have identified a number of issues with the WQA and have concerns about its robustness for use as an evidence document to support the delivery of growth proposed in Reading Borough Council's Local Plan. Our concerns

relate specifically to Chapter 4 (Infrastructure Capacity) and Chapter 5 (Environmental Capacity).

1.2 Chapter 4 – Infrastructure Capacity

It is stated that Reading STW has a permitted Dry Weather Flow (DWF) permit of 177,275m3/d and is currently utilising 32% of this permit. This is not correct. Reading STW has Maximum Daily Volume (MDV) permit of 177,275m3/d. MDV permits are measured differently to DWF permits, and utilising 32% of an MDV permit is not the same as 32% of a DWF permit. Reading STW is one of a few remaining large STWs with an MDV permit and the EA are working with Thames Water to convert this into a DWF permit. Standard conversion for DWF is MDV/3, which for Reading STW would be 59,061m3/d. The reports for Reading STW show it has been in excess of 59,061m3/d for 3 out of the last 4 years, which indicates there are potential capacity concerns.

1.3 This should have been picked up and assessed though the WQA in order to provide an assessment of the capacity and environmental risk from the proposed growth connecting to Reading STW. There is a further risk that when the MDV permit is converted to DWF, there could be significantly less capacity for growth available than has been anticipated through this study. As this has not been picked up or assessed, the EA cannot support this WQA assessment to be sufficient to support the delivery of development proposed in the Reading Borough Council's Local Plan.

1.4 We provide below an explanation of what the DWF and MDV are and reasons why we expect the STW to comply with DWF assessment requirements rather than MDV.

1.5 The DWF permit is set against the measured Q80 which is the flow value exceeded 80% of the time. Discharge permits are set with conditions against the Q80 flow to protect the environment to ensure the discharge does not lead to a deterioration of the receiving waterbody. When Q80 discharge permits are exceeded, these conditions are no longer protective and there is a significant risk of deterioration under the Water Environment Regulations. It is imperative that new developments are supported by adequate infrastructure, which includes ensuring that wastewater can be treated without causing an adverse environmental impact. Permit compliance is measured against the Q90. The Q90 is the flow that is exceeded 90% of the time. The measured Q90 is always lower than the measured Q80. Q90 is used for permit compliance as it takes into account year on year variations in catchment flow rates and monitor uncertainty. This tries to ensure that operators are not penalised for exceedances outside of their control. However, we expect permit holders to plan to remain within their measured Q80 to avoid the risk of harm

to the environment. Consistent exceedance at Q80 could trigger the need for the EA to revise permit levels.

1.6 MDV is the maximum amount of flow that can be discharged in 24 hours, which takes into account potential peak flows across a range of climactic conditions. Pollutant control permit limits are not set against an MDV value, but rather the Q80 DWF value. As the DWF is usually 3 times less than the corresponding MDV value it allows for more robust control over the impacts of the sewage discharge on the receiving waterbody and regular reviews of the permit limits. MDV permits are not suitable to control the impacts of growth because it defines a maximum flow that can be discharged over day, rather than controlling the typical amount of flow a STW would except to receive on an average day. Equally, permit conditions relating to storm overflows are linked to the DWF and increases to storm water capacity should increase in line with growth. An MDV permit does not make allowances for these increases which leads to a risk of increases volume of frequency of storm water discharges.

1.7 Whilst we are working with Thames Water to convert the permit to a DWF, Reading Borough Council would need to work with the sewage undertaker – Thames Water to undertake a robust assessment of capacity at the STW including looking at scenarios based on a reasonable assumption of a future DWF permit limit, and the impacts of growth on water quality in Reading with the receptor being the Foudry Brook.

1.8 <u>Chapter 5 – Environmental Capacity</u>
This chapter has not made any assessment of the potential impacts of growth on the water quality in the receiving waters i.e. the Foudry Brook which is at ‘poor ecological status’. Local Authorities must take into consideration the impacts of growth on meeting statutory water quality objectives under the Water Framework Directive (WFD) and Environment Act (2021). **As a minimum, evidence should be provided to show that growth will not lead to a deterioration of the WFD status, nor prevent a waterbody from achieving its statutory objective and this must be considered at the local plan stage as required by Framework 15 of the NPPF.**

1.9 This is usually done through catchment modelling using the SIMCAT – SAGIS model, or any other appropriate modelling software. As this has not been done, the EA are unable to comment on whether growth can progress without deteriorating water quality. Given what has been said above regarding potential capacity concerns, we considered there is a risk to the environment that has not been assessed and understood. As this has not assessed, the EA cannot support this WQA to be sufficient to support the delivery of growth through the proposed development in Reading Borough Council’s Local Plan.

## 2. Summary and conclusion

2.1 We raised these points when we provided our responses to the Regulation 18 (our letter of 9 February 2024) and Regulation 19 (our letter of 17 December 2024 and Representation on policy EN16 and to all the Central Reading, South Reading, West Reading and Tilehurst, Caversham and Emmer Green and East Reading site allocations) of the partial update to the Reading Local Plan. In summary our answer to the Inspector's questions regarding the required infrastructure and physical constraints to development is that the Reading Sewage Treatment Works infrastructure must be upgraded based on the reasons provided above to accommodate growth in Reading.