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Environment Agency

Mr Mark Worringham
Reading Borough Council
Planning Manager
Civic Centre
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Our ref: WA/2006/000005/CS-07/EW1-L01
Your ref:

Date: 04 October 2018

Dear Mr Worringham

Evidence Base. Water Cycle Study. Update from Environment Agency. October 2018.

We refer to our soundness representations for the Reading Local plan evidence base about a water cycle study submitted on 25 January 2018 and our response dated 17 September to the Water Quality Assessment dated March 2018 produced by Peter Brett Associates. We also refer to our own assessment for the potential deterioration risk to water quality from sewage treatment works due to growth.

Point of Soundness – Water Cycle Study

One of the points of soundness made on 25 January 2018 for the Reading local plan evidence base was that a Water Cycle Study had not been carried out. We were therefore unable to conclude that the proposed growth in Reading Borough Council Local Plan would not result in a deterioration in Water Framework Directive (WFD) Status in the Foudry Brook or River Kennet. Therefore without this assessment in the local plan the proposed growth may not be consistent with national policy and may not justified or effective. The relevant National Planning Policy Framework (NPPF) 2012 paragraphs are 110,120, 165 and 173.

Water Quality Assessment, dated March 2018, produced by Peter Brett Associates

Following these comments, Reading Borough provided a Water Quality Assessment dated March 2018 produced by Peter Brett Associates, which included an assessment of the impact of the housing numbers on water quality.

In our opinion this assessment is ‘not fit for purpose’, as it does not sufficiently demonstrate if housing figures in the plan are deliverable without causing a deterioration in water quality. A Water Cycle Study should typically help answer the following questions:

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1) Is there sufficient environmental capacity within the receiving water environment to accommodate the resulting increase in flow and pollutant loads from the Sewage Treatment Works as the result of the planned housing growth?
2) If not, are there alternative discharge locations that will not cause a failure of water quality targets or cause deterioration in water quality?
3) Is there an increased risk of discharges from storm water overflows causing an adverse water quality impact?
4) Will the sewerage undertaker need to apply to increase the level of treated sewage effluent that is allowed to be discharged under the existing environmental permits, to allow for future growth?
5) Will the quality standard on the environmental permit need to be tightened to meet existing or future water quality standards as a result of the proposed growth (e.g. Water Framework Directive (WFD))?
6) Can the existing sewerage and wastewater treatment networks cope with the increased wastewater the proposed growth will generate?

The Water Quality Assessment provided a qualitative to answer questions 6 above and partly question 4 with an assessment of future flows and effluent qualities in relation to the current permit at the works. The study suggested that the Reading STW will remain within its permitted flow and quality limits after growth. This in itself is reassuring for water quality impact as it shows that the works is able to sufficiently accommodate the increased effluent flows whilst maintaining its ability to treat to the required standards.

However the Water Quality Assessment does not tell you the impact on the receiving watercourses as a result of the potential increased volume of effluent. Therefore the document as an evidence base to support the local plan, was not answering some of the other key questions listed above. The document in its own right is not demonstrating that the proposed growth within the local plan will not result in impact on water quality in the river.

Therefore as set out in our letter dated 17 September 2018 we still don't know whether the polices and site allocations for new development are deliverable without a detrimental impact on the water environment. This is not consistent with national planning policy and may not be justified or effective. The relevant paragraphs are 110, 120 165 and 173 of the National Planning Policy Framework dated March 2012.

Available Evidence of Risk

Notwithstanding the above we wish to inform you that on the 31st March 2018 we concluded an internal assessment of our own for the potential deterioration risk to water quality from sewage treatment works due to growth. The purpose of this work was to identify the necessary environmental improvements and actions that Thames Water needed to include in their business plan for the Price Review 2019 (which covers the period 2020-2025).

Thames Water provided growth projections in the form of forecast future 'dry weather flow' for all of their sewage treatment works including Reading. We used this information to complete a high-level risk assessment to determine where proposed growth might pose a deterioration risk using catchment water quality models.

From this risk assessment we can confirm that we do not believe the growth (based on TW Effluent Flow projections) will cause a deterioration in water framework directive status class in the Foudry Brook or River Kennet.

There is now available evidence to draw upon to show that the risk to effluent receiving rivers is low downstream of Reading STW.

This is evidence that came to light since our point of soundness on the lack of a water cycle study was made in response to the Reading local plan. Therefore our point of soundness based on uncertainty of impact of future growth on water quality has been addressed by the Price Review 2019 work.

This study will be updated every five years as part of the ongoing planning we do with water companies with the next one in Price Review 2024.

If you have any questions please contact me.

Yours sincerely

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