

## Wessex Water Services Ltd Response to Ofwat's PR19 Draft Determination – August 2019

**Representation reference: Cost Assessment C11**

**Representation title: Pollution reduction strategy**

### Summary of issue

Our performance for pollutions in 2018 was upper quartile and we are seeking to achieve a 20% reduction in this key performance metric by 2025.

Ofwat acknowledge for other drivers that, where a company is performing at the historical upper quartile, it may be appropriate to allow additional funding above the base cost models to improve further. This concept should be extended to other key areas of service, such as pollutions, but currently Ofwat has disallowed the enhancement expenditure needed to achieve the step change in service standards required for this common performance commitment.

Given that we are already an upper quartile performer, it is not feasible to achieve the target without additional expenditure.

The EA has recognised our PR19 Pollution reduction strategy (Document 8.10.A of our PR19 submission) as best practice and asked us if they could circulate to all the other WaSCs, which we agreed to.

In our response to Ofwat's Initial Assessment of our PR19 business plan (IAP), we reduced our costs to align with the revised target set for 2025, which reduced our Pollution reduction cost adjustment claim (CAC) to £15.6m.

### Change requested

We request that the cost adjustment claim is reconsidered and Ofwat allow additional funding for the efficient cost of the improvement required to deliver the target, as identified in our business plan and response to the initial assessment of plans.

Relevant values are summarised in the table below along with confirmation of the value we request in order to achieve the target, which is supported by our stakeholders and customers.

Supply interruptions	£m
PR19 business plan	15.588
Draft determination	0
Representation request	15.588

Rather than providing an explicit cost allowance as above, an alternative approach, that is acceptable to us, would be to recognise the £15.6m cost as an implicit efficiency challenge which should be offset against (reduce) the overall productivity/efficiency challenge of 1.5% per annum.

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### **Rationale (including any new evidence)**

Pollution reduction is one of the most high profile issues for all our stakeholders, including the Environment Agency (EA).

It is not feasible to deliver a step change in performance for pollutions down to the forecast upper quartile level in 2025 without any additional funding.

In the draft determination Ofwat have restated their position that they expect us to deliver this step change in performance through base cost allowances. No evidence is provided that this is actually feasible.

In section 5.4 of our summary representations document we set out our overall conclusion that Ofwat's base plus models at best only make sufficient cost allowances for average levels of performance.

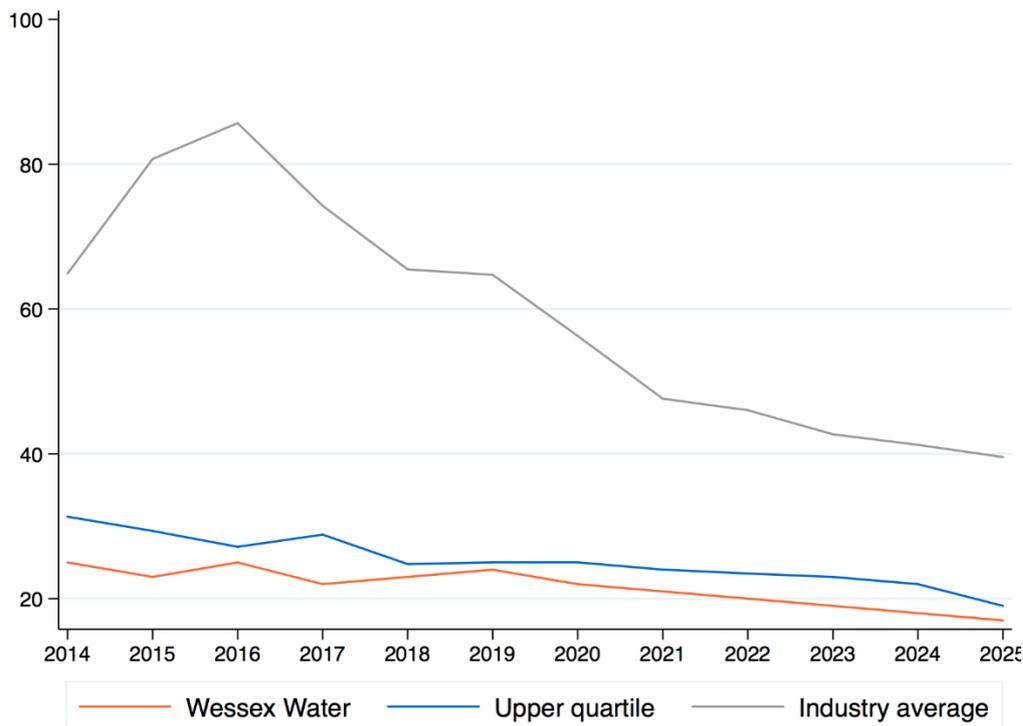
Following a short summary of our performance in comparison with the rest of the industry, we set out below:

- 1) our conclusions about whether wholesale base cost allowances are sufficient to deliver upper quartile service levels for the common performance commitments, and
- 2) additional evidence with regard to pollution reduction, including
  - comments from the EA
  - details of our rising main burst detection costs, and how we have benchmarked the costs for burst detection monitoring equipment, in response to the comments in the draft determination cost adjustment claim feeder model.

### **Performance comparison**

In Figure 1 below we present the historical performance and performance commitment levels for 2021-25 of Wessex Water and that of the industry UQ and industry average, over time. The Y-axis is "Category 1-3 pollution incidents per 10,000km of wastewater network.

This shows that our historical performance is above average and above the industry UQ performance, and that we are proposing to improve performance over PR19.

**Figure 1: Pollution performance**

### **Are wholesale base cost allowances sufficient to deliver upper quartile service levels for the common performance commitments?**

In our response to Initial Assessment of Plans in March 2019 we provided a detailed review of whether the base cost models (as they were at the time) provided sufficient allowances for enhancing the common performance commitments to future upper quartile levels (section 3.3.4 pages 29 to 35). We considered four aspects in detail and concluded that on each aspect there was no evidence that the base cost allowances were sufficient. The result was an additional implicit regulatory efficiency challenge in relation to the costs of quality improvements not funded through the base cost models, exacerbated by a further 1.5% productivity challenge on top of this base cost challenge.

We have reviewed this aspect again based on the draft determination in relation to the new base plus cost modelling, as set out in the accompanying Draft Determination Summary representations document (section 5.4). Our conclusion is that Ofwat's base cost plus modelling approach at best only gives sufficient expenditure for average historical levels of performance.

Therefore where our performance is beyond that implicitly funded by base costs allowances we consider that an additional cost allowance over and above the base cost allowances needs to be made. This position applies to pollutions where our performance is upper quartile, and for which we request acceptance of our request for a cost adjustment claim - as summarised in Table 1 below.

**Table 1: Performance in key service-level metrics where step-change in performance level is required in relation to cost adjustment claims**

	2018-19 performance	Step-change improvement to 2025 required in DD	Representation on costs
Pollutions	Upper Quartile	c.20%	Accept cost adjustment claim

We have commissioned a study by Reckon, jointly with other companies, on a proposed approach to implicit allowances relating to enhancement operating expenditure. This is included in full as Appendix C11.1.

In summary, the paper sets out the concept of enhancement operating expenditure, uses simulation analysis to illustrate how implicit allowances relate to that expenditure with an explanation of how they can be categorised, and sets out options for how Ofwat might deal with the concept in its determinations.

Also we previously commissioned a study by Reckon, jointly with other companies, on a proposed approach to enhancement operating expenditure. This was included in full in our IAP response as Appendix 13.

In summary, the previous paper sets out policy issues associated with enhancement opex, deficiencies in the way Ofwat's IAP dealt with that opex and potential remedies. Whilst some of those have been adopted by Ofwat to some extent in the draft determinations, there remains a significant issue regarding the performance levels covered by base allowances and those achievable with enhancement opex.

Reckon go on to explain how they “do not see any general case for thinking that the implicit allowances from the historical models of base costs cover the costs of delivering performance levels beyond the industry-average levels of performance (assuming no explanatory variables for the relevant aspects of performance are included in the models).”

Further, “in the absence of evidence and analysis that relates directly to a given aspect of service quality or environmental performance, we propose that the implicit allowances for base costs should be understood as funding a level of quality/performance that is the industry-average over the historical period covered by the data used for the modelling. We feel that this is the natural assumption in the absence of further evidence, given the statistical properties of the models and the allowances derived from them.”

#### **Additional evidence - Pollution reduction**

In the draft determination cost adjustment claim feeder model Ofwat note that we present a comprehensive sewage reduction plan which details the proactive activities required to address the risk of pollutions in the short and middle term, and it agrees with this preventative approach.

Since submission of our business plan we have combined several aspects of our future work into an Escape of sewage plan and we have appointed a Regional pollution manager to ensure a much greater focus in the area.

Our cost adjustment claim (WSX06) and response to the IAP response summarised our plans for the 2020 to 2025 period to reduce pollution incidents.

Infiltration sealing to prevent groundwater inundation is unique to the south of England. In Representation C10 on Sewer flooding we provide a detailed description of our activities to reduce infiltration.

### **Feedback from the EA**

Since then we have also had positive feedback about our approach from the EA. We are pleased that the EA has recognised it as best practice and asked us if they could circulate the strategy to all the other WaSCs, which we agreed to. We include below the quote from the email from the EA:

*Many thanks indeed for sending this through – and appreciate the abridged version!*

*Would you be happy for both your Pollution Reduction Strategy and this supporting document to be shared more widely with other WCs as an example of best practice? Many WCs are yet to produce their own versions so to study yours may be very useful.*

*Please would you let me know your thoughts? Until then, we will of course keep the documents confidential. Many thanks.*

*Regards*

### **Rising main burst detection**

In our PR19 business plan submission and our IAP response we explained that a key strand of the strategy was increased monitoring and data acquisition from rising mains and sewers. Such monitoring is not installed on existing rising mains and would provide a significant enhancement of the existing network. Ofwat requested that we provide better information on the robustness and efficiency of costs.

In 2018 we commenced a pilot project to install 20 burst detection systems. We are in the process of installing a further 50 by March 2020. These sites have been surveyed and we have detailed costs estimate for the installation of these.

Our original objective was to install flow meters (recording the instantaneous flow in l/s) at both ends of each rising main i.e. a flow monitor at the pumping station and a second flow monitoring at the discharge point of the rising main. This would allow a mass balance of inflow versus outflow, so a simple check on 'missing' flow can be made.

The project has confirmed that providing flow monitors can be very costly, especially at the discharge location which is normally remote from any power source (needed to power the monitor and data transmission).

Therefore we have revised our approach to use pressure monitors at the discharge end where possible. Through analysis of the pressure data, typical 'windows' of pressures can be seen, and deviation of these can indicate leakage/bursts.

The relative unit costs are shown in Table 1 below.

**Table 1: Unit rates of different burst detection monitoring equipment per location**

Monitor type	Unit cost (£k)	No in AMP6	Costs in AMP6 (£m)	
Pressure site	8	58	0.4	Reqd. at one end of the main
Flow in existing site	18	32	0.5	Assume applicable at 90% of other end of main
Flow in new chamber	42	34	1.4	Assume applicable at 10% of other end of main
<b>Total</b>		<b>133</b>	<b>2.3</b>	

Our proposals for each rising main are:

- A pressure monitoring system at one end of the rising main
- A flow meter at the other end of the main, with a conservative assumption that the split between existing and new chambers will be 90%:10%.

This gives an all up rate per rising main of £28.4k per rising main.

There are around 350 rising mains that require monitoring, of which we will have completed 70 in AMP6. Therefore our programme in AMP7 will comprise 280 rising mains at £28k per main giving a total cost of £7.9m.

A visualisation system would be required but we will aim to maximise the use of other systems for this purpose.

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### Why the change is in customers' interests

A very high percentage of our area has designated environmental status, such as SSSIs. Our rising mains cross these sensitive areas as well as thousands of ditch systems. Burst rising mains cause escape of sewage into watercourses and are therefore vulnerable to serious pollution incidents should they fail.

The BBC website regularly informs our customers and the world about how water companies are contributing towards poorer river ecological status, and we are not doing enough to make these water bodies 'good' ecological status by 2027. For example, see ['Rivers used as open sewers'](#) article on the BBC website.

Customer protection is provided directly through a performance commitments for wastewater pollution incidents.

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## **Links to relevant evidence already provided or elsewhere in the representation document**

### **Already provided**

#### ***Wessex Water response to the IAP, April 2019***

Appendix 4 - Protecting and enhancing the environment - Response to IAP

Appendix 7 – Minimising sewer flooding

#### ***Wessex Water PR19 submission, September 2018***

Supporting document 5.1 - Protecting and enhancing the environment

Supporting document 8.10 - Claim WSX06 summary - Pollution reduction strategy

Supporting document 8.10.A - Claim WSX06 - Pollution reduction strategy

Supporting document 5.6 Maintaining our services

### **New**

Wessex Water response to the DD, August 2019

Representation C10: Sewer flooding

Appendix C11.1 Third party report – Reckon. Covering a discussion on implicit allowances relating to enhancement operating expenditure.