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Secretary of State for Environment, Food & Rural Affairs
Water resources management plan consultation
Area 3D
Nobel House
17 Smith Square
London
SW1P 3JR

25 May 2018

Dear Secretary of State,

Portsmouth Water – draft water resources management plan 2019

Portsmouth Water published its draft water resources management plan 2019 on 5 March 2018 for consultation. This letter provides a summary of our assessment of the draft plan. It is our statutory consultation response, produced in accordance with our statutory duties and the Government's strategic policies and objectives for Ofwat. These views are without prejudice to any subsequent decisions that we may make at the next price review (PR19) in connection with the business plan that the company is scheduled to provide to us in September. Our assessment has considered:

- how adequately the draft plan follows the requirements of the water resources planning guideline and Defra's guiding principles for water resources planning; and
- how the draft plan helps achieve our vision of ensuring trust and confidence in the sector through the delivery of our key themes for PR19 of great customer service, affordable bills, resilience in the round and innovation.

Long term water resources planning is a key part of company business activities. We expect companies to integrate the development of their water resources management plans into their business plans which they submit to Ofwat. We also expect them to adopt the 'twin track' approach to improve water supply resilience through both increased supply and reduced demand. We will continue to work closely with Government and the other regulators in both England and Wales to ensure that a long term secure and sustainable supply of water is achieved.

Portsmouth Water supplies water to a population of approximately 700,000 people. It has a key strategic role in the Hampshire region with access to resilient supplies of

water that can provide wider benefits. Its water resources are planned on the basis of a single integrated zone and it predicts it will be in deficit in the future, without additional action to reduce demand or provide additional supplies. This means there would be insufficient water to maintain supply to customers in some severe drought conditions. The deficit is driven by the increase in water supplied to Southern Water.

In summary, we welcome Portsmouth Water's ambition to play a key regional role in providing supplies to Southern Water. The draft plan is consistent with most Water Resources South East (WRSE) scenarios and includes Havant Thicket reservoir which has been identified as the best value regional option. The plan also includes a forecast leakage reduction of 15% by 2025.

While the majority of Portsmouth Water's draft plan is in line with our expectations and good practice, there are areas of the plan where insufficient evidence is provided to convince us that the plan delivers in the best interests of customers. In particular:

- The relative low levels of demand management ambition may not be optimal in the regional context and need to be considered further in the final plan. Lower levels of demand would free up more water for trading and ensure greater consistency with the 'twin track' approach. For example:
 - While the commitment to meet a 15% leakage reduction by 2025 is welcome, leakage is then assumed to be flat over the rest of the planning period to 2045.
 - Even with the installation of 'not for revenue meters' Portsmouth Water will remain a company with one of the lowest levels of metering penetration and the levels will be lower than forecast during the previous plan.
 - Per capita consumption (PCC) reductions are below the national average for other companies and below our expectations for water efficiency across the sector.
- Currently the draft plan does not give Ofwat sufficient assurance that it will deliver good outcomes for customers and the environment. Board assurance was part of Defra's guiding principles for water resources planning. However, the draft plan does not provide any evidence of Board assurance and this raises concern about the robustness of plan development. The plans are key publications provided to stakeholders and we would expect to meet the same high assurance standards of other information and evidence of this should be provided in the final plan.

Further details on these points are outlined in the annex to this letter alongside more detailed comments on different areas of the draft plan.

I look forward to seeing these points addressed in Portsmouth Water's statement of response and final plan.

Yours sincerely

A handwritten signature in black ink, appearing to read 'D Black', written in a cursive style.

David Black
Senior Director, PR19

Annex

In this annex we outline further details on the points raised in our main letter alongside more detailed comments on different areas of the draft plan. Our points reflect our assessment approach and cover:

- 1. Plan building blocks:** The overall approach to the development of the draft plan in line with the technical guidance and broader resilience issues.
- 2. Customer participation:** The type and quality of interaction with customers and the impact this has had on the draft plan formulation and proposals.
- 3. Demand forecast:** How the company has considered the impacts of population growth, leakage and water efficiency in its demand forecast.
- 4. Supply forecast:** How the company has considered climate change, abstraction licences changes and transfers in its supply forecast.
- 5. Forecast uncertainty:** The robustness of the draft plan in accommodating uncertainties in the demand and supply forecasts.
- 6. Supply-demand balance:** The robustness of the overall need for water, if any, and the scenario testing applied to this assessment.
- 7. Options:** The approach taken to identifying and screening options for both supply and demand, including identification of trades and third party options.
- 8. Decision making:** The decision making tools, preferred programme development process and accompanying assurance processes.
- 9. National and regional considerations:** The interaction and consistency with national studies and regional groups (where relevant).

1. Plan building blocks

Portsmouth Water has adequately explained its approach to draft plan development and adopted methods and used data appropriate to the scale of its problem and complexity. However, we are concerned that levels of service are not clearly defined and that non-drought resilience does not appear to be adequately addressed. In particular:

- The levels of service for non-essential use bans and emergency drought orders (EDOs), such as standpipes, are both inconsistently reported and not clearly specified in the draft plan. For example, the severe EDO restrictions are reported to meet a 1-in-200 year level of service in some parts of the plan, but are reported as being less frequent than this in other parts of the plan. This should be clarified in the final plan alongside with the frequency and impact of the lower level restrictions.

- The draft plan does not appear to consider non-drought resilience to the full range of potential hazards and threats. For example the plan makes no reference to flood risk or freeze-thaw events. The approach to non-drought resilience should be clarified in the final plan.

2. Customer participation

The documentation has been presented clearly to support the draft plan consultation process with customers. However, there is limited evidence provided to give confidence that customers were able to participate effectively in the development of the plan and we would expect to see further clarity on this and potentially further work reflected in the final plan. Further comments:

- The main report is generally well structured and easy to navigate, with clear headings, sub-headings and appendices. The inclusion of a non-technical summary document makes the plan more accessible.
- In the plan reference is made to the outcomes of customer participation, but the supporting evidence presented is relatively limited and this is an area of concern. Further considerations:
 - We are unsure whether customers have been consulted on Portsmouth Water's regional role and how the trades will potentially impact on their service and bills. For example there is no evidence that customers have been consulted on any potential bill impact of the Southern Water trading agreement.
 - While it is stated customers are willing to accept drought restrictions, they do not appear to have been fully consulted on the different levels of these.
 - The plan states customers have been engaged on resilience (through focus groups and quantitative questionnaires) although the outcomes of this research do not appear to be described or whether the relative resilience of the Portsmouth area to other areas was highlighted during this exercise.
- Linked to this, the plan only provides a relatively brief description of the role of the Customer Challenge Group (CCG) in assuring the customer engagement undertaken in the development of the plan. This engagement should continue and be further clarified in the final plan.

3. Demand forecast

The demand forecast appears reasonable. It follows the relevant demand forecasting guidance and is aligned with historical trends. The approach taken in consulting with

large non-household users is an example of good practice. However, we would expect further details to be provided in the final plan on measured PCC trends. Further specific comments:

- The use of a trend-based population forecast based on national statistics and incorporation of the local authority plan-based forecasts is an innovative approach. However, the final plan should clarify this hybrid method does not result in lower forecasts than only using the local authority plan based method, particularly in the near term.
- To better understand non-household demand Portsmouth Water has actively engaged with a large regional growers association regarding the growth of horticultural activities in the area of supply. This complements the hybrid non-household modelling approach (both top down and bottom up) used.
- Average company PCC is forecast to decrease across the planning period in both the baseline and final plan scenarios. However, measured PCC is predicted to increase slightly over the planning period in both scenarios, unlike unmeasured PCC which decreases in both. Justification for these trends is not fully provided in the draft plan.

4. Supply forecast

The supply forecast appears reasonable, it follows the relevant supply forecasting guidance and is aligned with historical trends. Statistical approaches have been used to help determine low frequency drought yields with higher levels of confidence which is an example of good practice. However, as noted in section 1 further work is required on the interactions between the supply forecast, the level of service and the use of drought permits.

5. Forecast uncertainty

Forecast uncertainty is not a significant driver of the plan and the overall approach is in accordance with guidelines. However, we have concerns over Portsmouth Water's approach to different elements of uncertainty which need to be clarified in the final plan. In particular:

- Uncertainty in Southern Water's requirements for the bulk transfer (both in terms of timing and magnitude) is not clearly described in the plan.
- Nitrate pollution is not included in headroom but could have a significant impact on source availability.
- Oil pollution, is included as a component of both outage and target headroom and appears to be double-counted.

6. Supply-demand balance

The supply-demand balance components have mostly been forecast in line with the guidance. However, the future Southern Water trade has been incorporated into the baseline of the plan rather than presented as an alternative trading scenario. This creates some issues with transparency and it may have been more appropriate to provide an alternative trading scenario for consultation.

7. Options

A broad range of supply and demand options are presented, including building Havant Thicket reservoir as an ambitious solution to a regional problem, and the proposal to reduce leakage by 15% by 2025. However, limited evidence is provided on how options were assessed, the level of engagement with third parties, and identified supply options. Looking longer term we also have concerns around Portsmouth Water's ambition in water efficiency, metering and leakage. In particular:

- The screening criteria and processes for developing lists of options appear to be appropriate. However, it is not clear how well the feasible options perform against each criterion, for example sustainability and technical difficulty. Greater clarity should be provided in the final plan.
- The draft plan does not include any third party provision of options. Limited information is provided on the approach to third party engagement and the company should provide clarity on its approach and consider what it could do in order to promote these options.
- The trade with Southern Water is not consistently presented in both company plans. For example, the planning tables suggest that Southern Water expects to receive 9 MI/d additional raw water import from Portsmouth Water from 2023, while Portsmouth Water specifies exporting 9 MI/d of potable water in 2022. This needs to be addressed and further clarified in the final plan.
- The company plan to reduce leakage by 15% by 2025 demonstrates a good level of ambition. However, the early ambition does not continue beyond 2025 as total leakage is then forecast to remain flat until 2045. In the final plan Portsmouth Water should explore and evaluate further options to reduce leakage beyond 2025.
- Metering is forecast to increase by 9% by 2025 as a result of maintaining current optant strategies, however, it is unclear in the long term if the metering approach is optimal in the regional context. Further considerations:
 - The short term increase in metering is supported by the additional installation of 'not for revenue meters' whereby unmeasured customers who have an existing meter box will be fitted with a meter and provided

information to encourage billed switching. This is an example of good practice.

- The draft plan metering forecast of 62% by 2040 is still 7% lower than the forecast in the previous plan (69% by 2040). This means Portsmouth Water will remain a company with low metering rates.
- The relative low level of metering may not be optimal in the regional context, as lower levels of demand would free up more water for trading.
- Linked to this, the water efficiency options for households appear to be relatively unambitious with only minor falls in company average PCC over the planning period, from 135 l/h/d in 2020 to 130 l/h/d by 2045. Further considerations:
 - The household water efficiency programme (incorporating a partnering approach and home visits) appears to be relatively low cost, and yet is limited to saving 1 Ml/d of unmeasured PCC overall as it is small scale.
 - Portsmouth Water should consider whether this option could be scaled up to reduce demand further or whether further innovation options could be pursued.
- The supply options generally comprise of borehole upgrades to maximise the output from existing sites and the development of Havant Thicket reservoir. For some supply options only limited information is provided while Havant Thicket reservoir uses cost information that appears to be from sources 10 years out of date and only inflation-adjusted. The lack of information means it is hard to assess the relative costs and benefits of the options, and their potential deliverability. This should be clarified in the final plan.
- The planning tables are generally completed accurately, however:
 - there are a number of problems with discounting of costs to determine net present values with some costs appearing to be entered as discounted costs and then further manipulated in error; and
 - a high environmental and social benefit value is included for the Havant Thicket reservoir (including recreational benefits) which should be further justified in the final plan.

8. Decision making

The decision making approach taken was a conventional economics of balancing supply and demand (EBSA) approach to produce the preferred plan, which is appropriate for the problem characterisation. However, there is limited evidence presented that the decision making process has been carried out robustly and

appropriately assured. We would expect to see further clarity on these issues in the final plan. In particular:

- There were 178 unconstrained options and 16 feasible options, which resulted in 15 preferred options after screening. This suggests that too few feasible options were identified given the scale of problem.
- The plan also does not present evidence on how:
 - a least cost plan would compare with the preferred plan;
 - resilience has been incorporated into the decision making process, for example option resilience testing appears limited and is not described in any detail in the draft plan; and
 - the deliverability of the options, such as the Havant Thicket reservoir, has influenced the preferred plan.
- Board assurance was part of Defra’s guiding principles for water resources planning. However, the draft plan does not provide any evidence of Board assurance and this raises concern about the robustness of plan development. This concern is compounded as there is limited description of the quality assurance of the plan. For the final plan we expect to see assurance that the company Board are satisfied the plan represents the most cost effective and sustainable long term solution.

9. National and regional considerations

Portsmouth Water has demonstrated clear ambition through the integration of a regional supply solution into its plan. However, greater clarity on how the delivery of Havant Thicket reservoir is part of a regional strategy would help provide greater context to the draft plan and this should be complemented by further consideration of the approach to demand management in the regional context. Further specific comments:

- The plan makes reference to the Water UK national project although it is noted that the study was not conducted at a sufficient level of detail to have significant influence on the Portsmouth Water draft plan.
- The construction of Havant Thicket reservoir appears to be in line with most WRSE scenarios. It has been identified as the best value option to solve a regional problem and this has been reflected in the draft plan.
- The proposed levels of demand management may not be optimal in the regional context and need to be considered further in the final plan. Lower levels of demand could enable further trading supporting regional solutions.