



Long-term delivery strategies and common reference scenarios

Southern Water Response

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1 Summary

In November 2021, Ofwat published further detail on their approach to long-term strategic planning for inclusion within PR24 business plans in a discussion paper¹. We wish to contribute to this discussion on an important development from PR19 which allows Ofwat and water companies to strengthen the link between long-term strategic priorities and business plans. This is critical to meeting the significant challenge of delivering resilient water and wastewater systems in the face of climate change whilst balancing the affordability for customers in the short and long terms.

On the overall policy:

- We continue to welcome the emphasis on long term planning, and it is helpful to see Ofwat's framework early in the PR24 cycle.
- We also support the concept of identifying "no regrets" investments in the next 10-15 years which should be based on best available evidence and a robust process at the decision point.

However, we have a number of concerns on the details of the discussion paper and we would recommend that Ofwat considers the following as they develop this requirement:

- Ofwat continues to provide the necessary efficient funding for options development for significant infrastructure projects
- Ofwat considers the type and value of the enhancement investment that the long-term strategic planning and delivery framework applies to. This would consider both cost and the inclusion in an existing regulatory framework.
- Plans derived from existing regulatory frameworks should be directly read across into the long-term strategic plans as the core pathway with no duplication or additional requirements. As per WRMP, it would be better to undertake adaptive planning within the underlying regulatory frameworks with the investment and trigger points adopted within the core pathway.
- Ofwat provides guidance on how companies should model and cost the elements that are beyond the next set of WINEP, FRMP and RBMP time horizons.
- Ofwat changes the requirements for adaptive planning for the scenarios to reduce the fully costed scenarios and full plans to the highest variance scenarios only.
- Ofwat removes the requirement for a regulatory audit. It is explicit within adaptive planning that trigger points and pathways will change. These need to be well articulated and evidenced, however an audit does not seem proportionate.
- Ofwat provides guidance on the how the adoption of an alternative pathway and in-period triggers will be addressed within final determination allowances.
- Ofwat and other agencies provide early advice on the suitability of options in development particularly when related to the introduction of new innovative solutions to the UK.
- Ofwat considers the regulatory burden including Board assurance of potentially producing 44 additional enhancement plans and the use and value of this data.

¹ [PR24 and beyond: Long-term delivery strategies and common reference scenarios](#)

- Ofwat considers the level of detail and provides guidance on the estimation of costs and accuracy for the long-term costing templates.

We believe that the benefits of this adaptive approach could be achieved with a simpler, less prescriptive and less data intensive framework.

2 Emphasis on the longer term

We continue to welcome the emphasis on long term planning, and it is helpful to see Ofwat's framework early in the PR24 cycle. Lead times in the water and waste sectors are generally long for large scale capital investments, and economic asset lives can also be many decades. While it is inevitable that price limits must be reset periodically, a framework that recognises the long-term needs and supports the development of options to meet these needs could support the selection and efficient delivery of the solutions across multiple AMPs. The impact of this should be continuity between price reviews with the strategic needs being part of the ongoing business as usual and the optioneering, and justification for the proposed investments (capex or opex solutions) forming the key parts of the business plan.

We agree that for PR24 the emphasis on enhancement spending is also appropriate given the national and regional issues. It is likely that innovative and resilient solutions to the drivers and trends the industry is facing will require new or improved capabilities of the networks and the way services are provided. At a later date, once adaptive planning is established within the Price Review process, it is worth considering whether its application might also be appropriate for botex.

3 Common requirements for long-term delivery strategies

The process Ofwat sets out for developing the delivery strategies, involving ambition, strategy to meet the ambition, rationale, foundations and assumptions and Board assurance are likely to be reasonably comparable to the approaches already adopted by water companies in developing their long-term strategies.

3.1 Identifying early priority and “no-regrets” investments”

The development time for large infrastructure projects can be over 5 years, and in most cases over more than one price review period. The proposed approach which is generally consistent with the governments planning approach maintains the range of options for longer until the final decision point with the aim of ensuring that the correct decision is made with the best available information. It is important to identify these as “no-regrets” investments with a decision taken at the latest possible time based on a robust process and best evidence available.

OFWATs proposal for long term planning is to retain options longer to ensure the correct option is selected at the latest decision point. This approach requires multiple options to receive development funding and acceptance that not all will be built, particularly when using an adaptive planning approach. This is the

approach that Ofwat took with its Strategic regional water resource solutions² which identified that additional development costs are needed to retain options until a decision point. It is important for Ofwat to recognise that a retrospective clawback of spend on the development of these deselected alternatives would be counter-productive in the ensuring a behavioural change to an adaptive pathway approach.

Recommendation: Ofwat continues to provide the necessary efficient funding for options development for significant infrastructure projects.

3.2 Proportion of enhancement outside of regulatory frameworks

As with other companies we have less discretion over enhancement spending than the discussion document implies. At PR19 final determination we were allowed the following enhancement expenditure:

Enhancement Costs	Water Enhancement (£m)	Wastewater Enhancement (£m)
WINEP	17.1	536.7
Supply & Demand	173.6	-
Other Regulatory	87.1	
Other Non-Regulatory	10.4	30.5
Total	288.2	567.2

Table 1 – Southern Water Enhancement Allowances at PR19 (2017/18 prices)

For water enhancement £191m was allowed for WINEP and supply and demand balance schemes which together with the £87m for water quality and impounding reservoir work equates to 96% of the total allowance. The WINEP allowance for wastewater was £536.7m which is 95% of the total enhancement expenditure. Overall, the combined total was 95% of enhancement expenditure on required schemes through the WINEP, WRMP and mandated water quality improvements and impounding reservoir improvements. This is unlikely to change for the next few price reviews with the continuing requirements for investment as required by the frameworks.

Recommendation: Ofwat considers the type and value of the enhancement investment that the long-term strategic planning and delivery framework applies to. This would consider both cost and the inclusion in an existing regulatory framework.

² [PR19 final determinations: Strategic regional water resource solutions appendix - Ofwat](#)

4 Inter-action with WRMP and DWMP and other plans

4.1 Conflict with other regulatory processes

The main drivers for enhancement allowances at PR19 determination were around the delivery of the solutions to meet the WINEP and WRMP regulatory frameworks. Since then, the DWMPs are in the process of being developed with the FRMP and RBMP close to publication. The development of these plans is set with a government specified process that is well defined and prescriptive in defining the outputs. These outputs are then incorporated within our business plans for the next periodic reviews.

We are concerned that the proposed approach and scenarios within the discussion paper may create misalignment or significant rework or duplication of the above regulatory processes. Misalignment could occur due to timing of the formal agreement of WRMP/ DWMP and the submission of PR24 plans, as occurred at PR19. WRMP and DWMP will be either in late stages of completion or just finalised by the time PR24 plans are submitted in October 2023.

As an example, we have taken the WRMP process and mapped it against the approach and categories in the discussion paper below.

- **Ambition:** WRMPs clearly state the requirement and level of ambition the company will achieve.
- **Strategy:** the WRMP process sets out how the company will engage with the stakeholders to ensure that a robust process and external validation with stakeholders delivers the most appropriate investments.
- **Rationale:** WRMP process identifies the needs for investment and the options selection process to ensure the most appropriate schemes in the relevant timeframe.
- **Foundations:** WRMP process and requirements set out the key assumptions and uncertainties that must be considered.
- **Board Assurance:** WRMPs require Board Assurance for publication as determined by the process.

This example using WRMPs indicates that the common requirements are already set with the WRMP process and that a different approach or requirements could create a different result to the formally agreed plans. Hence the core path in the PR24 needs to reflect the final development of the regulatory plans to ensure consistency.

Recommendation: Plans derived from existing regulatory frameworks should be directly read across into the long-term strategic plans as the core pathway with no duplication or additional requirements. As per WRMP, it would be better to undertake adaptive planning within the underlying regulatory frameworks with the investment and trigger points adopted within the core pathway.

4.2 Regulatory processes timing and period

As mentioned above, the timeframes for the final publication of the WRMPs and DWMPs will be close to the submission of the business plans for PR24. Any late changes to the core plans may impact on the quality of the adaptive pathways and the production of the strategic plans.

For PR19 the allowances for WINEP schemes amounted to £554m approximately 65% of our total enhancement expenditure. The latest WINEP plans will only cover a period of 2035 with the aim of moving to a longer time frame in the next planning cycle. In addition, the FRMPs and RBMPs will be of a limited period

to 2027. The period covered by these plans will only inform the individual companies plans to 2035 whilst the discussion paper aims for 25 years of detailed costing for core and adaptive plans. The onus will be on companies to identify the costs associated with a regulated process beyond the current timeframe of those plans.

Recommendation: Ofwat provides guidance on how companies should model and cost the elements that are beyond the next set of WINEP, FRMP and RBMP time horizons.

5 Adaptive planning and alternative pathways

5.1 Adaptive Planning and Pathways

The use of adaptive planning and adaptive pathways is a method to ensure that plans are reviewed and revised based on the uncertainty inherent with predicting the future. The shift to the use of adaptive planning has been stated within the UK Governments draft Strategic Policy Statement. Ofwat has identified that adaptive planning “aims to optimise the profile of key interventions across time, ensuring that decisions are not avoided when they are needed while minimising the risk of stranded assets should low impact scenarios come to pass”.

We agree that adaptive planning should be used for long-term strategic planning and investment into large infrastructure. The use of adaptive planning could promote a core pathway of cost-efficient schemes which may favour lower risk and larger schemes, if better value for money than smaller alternatives. The adaptive pathways could then identify smaller or alternative schemes to either replace or top-up the core pathway dependent on the change in the environment. The aim of the adaptive planning is to identify the changes in the environment and ensure that alternate options are always available.

However, we are concerned that Ofwat have taken adaptive planning and then appear to be laying on a formulaic approach to presenting the plans in the PR24 business plans. This approach may compromise whole process if not implemented in a manner that is consistent with the goals of adaptive planning. The premise of adaptive planning is that the core pathway assumptions will be wrong and likewise the test scenarios will also be wrong. The choice of appropriate scenarios is an element but the subsequent planning process and appropriate level of detail for each plan is the key output.

The different scenarios are unlikely to significantly change the core options and may only inform the number of schemes that are kept underdevelopment and or the order in which they are built. It is expected that as information, technology and external drivers develop over time, there would be a changing sequence of investment and delivery.

We would support the use of adaptive planning for the list of scenarios to develop decision points and trigger points for each scenario and potential options.

We do not support the proposal to provide fully costed adaptive plans for the core and all eight scenarios. We consider this excessive and would propose that only the highest variance scenarios to the core path should have fully costed plans. This ensures that the core path and adaptive pathways can address the most extreme cases and provides Ofwat the assurance that companies have robust processes and flexibility to adapt to a changing environment.

In addition, the assessment of adaptive plans will need to carefully balance the decision to delay investment against the risk of acting too late. Successful adaptive planning will need to be flexible enough to implement real options quickly and consider certain scenarios where incremental investment, even in the face of uncertainty, is beneficial. It is suggested that there is asymmetric downside from too little or too late investment as opposed to the consequences of investing too much or too early.

Recommendation: Ofwat changes the requirements for adaptive planning for the scenarios to reduce the fully costed scenarios and full plans to the highest variance scenarios only.

5.2 Regulatory Audit of Adaptive Pathways

Ofwat has proposed that future business plans will be expected to show clear explanations for changes to the adaptive pathways, the reasons for them and the extent to which the changes could not be anticipated in advance. It is reasonable to anticipate that scenarios should be able to consider plausible futures and that plans should be able to adapt to these changes. However, an over-prescriptive approach with decisions on future funding being related to what was set out years before and a retrospective audit may limit innovation and flexibility. The aim of adaptive planning is to have prepared options and flexibility for the changes to the expected environment. Adaptive pathways are defined by a particular scenario which creates a significant variance to the core pathway and the plan that could be used to address this change. As such a regulatory retrospective audit and evaluation of changes risks being disproportionate and being an increase in the regulatory burden without a corresponding increase in benefit to long term strategic planning.

Recommendation: Ofwat removes the requirement for a regulatory audit. It is explicit within adaptive planning that trigger points and pathways will change. These need to be well articulated and evidenced, however an audit does not seem proportionate.

5.3 In-period move to an alternate pathway

In the short term, triggers and decision points for the adoption of an alternative pathway from the core pathway might be beyond the current AMP due to the higher level of certainty in the external factors. There will be some situations in the short and long term, where a trigger point is met within an AMP that requires a decision to be made. Post final determination, it is currently unlikely that a company could swap to a different option due to changed circumstances within period without the access to an interim determination.³ The situation may arise where the customer would benefit from changing pathways in the AMP but the enhancement expenditure is unfunded.

These considerations limit the amount of adaptation that can be carried out within an AMP period. Southern Water has direct experience of the conflict between delivering an option within a fixed timetable, while plans to do so are still subject to optionality and change. The breakpoint in our adaptive WRMP was set as 2027, with one pathway before that date, and pathways beginning to diverge after it. The date was chosen to coincide with the delivery date contained in our agreement with the EA under Section 20 of the Water Resources Act 1991, so that there was a preferred strategy in WRMP19 for delivery by that date. Both WRMP and the regional plan have raised the possibility of changing some of the options in the preferred strategy when we were in a “must build” time. Certainty over the availability of a range of solutions is needed when the decision points are reached.

For PR24, there are some factors that may introduce trigger points in the next two price controls including the industry commitment to reach net zero carbon by 2030, and the new requirement to progressively reduce wet weather discharges from CSOs. Both of these require near term delivery, this limits the time available to identify alternative options and the trigger metrics that would change the preferred option.

³ Interim determination as specified in a water company licence of appointment.

Recommendations:

- Ofwat provides guidance on the how the adoption of an alternative pathway and in-period triggers will be addressed within final determination allowances.
- Ofwat and other agencies provide early advice on the suitability of options in development particularly when related to the introduction of new innovative solutions to the UK.

6 Data and economic modelling requirements

In the discussion paper and the associated data tables⁴ Ofwat has proposed that companies provide long-term costings for each scenario over 25 years at the same level of detail for the PR19 business plans. This creates some significant issues for both OFWAT and companies.

For companies the issues are around the following:

- Level of detail. The detail in the tables require the costs on be broken out in a similar manner to the tables for PR19. For example, there are 32 lines on table, with 6 specifically for WINEP, and the expectation is the value is accurate to £1000.
- Number of scenarios. The number of proposed scenarios and a core pathway over a 25 year is equivalent to producing 44 additional enhancement plans compared to PR19.⁵
- Accuracy and Assurance. The level of accuracy and assurance with the cost estimates for the pathways is unclear and could create a huge regulatory burden on companies to provide the required bespoke scheme costs for each scenario.
- Economic modelling of solutions. There will be challenges in identifying economic solutions with delivery dates well into the future. There is limited insight into how to solve economically some key issues today, such as the best value approach to reducing CSO flows in wet weather. This problem will be amplified when considering technology scenarios, where the pace and scale of new technologies is inherently difficult to predict, let alone model.
- Board assurance. The discussion paper has touched on the Board assurance for these long-term plans and we are concerned that Boards will need to assure the full detail of all the 'hypothetical' scenarios and associated cost estimates.

For Ofwat the issues are more about the understanding of the data provided by all the companies. Cost estimation of infrastructure schemes is difficult and usually a range of values is used starting with a wide range that narrows as the scheme progresses through the design and development phases to contract letting. Even at the point of tender the estimated range can be +/- 25% depending on the complexity and risk. This will be particularly true for the estimation of large or innovative schemes with no historical references.

For example, the SRO process has found it necessary to develop common approaches to costing schemes, including setting out assumptions on how to treat key decision areas, such as optimism bias in capital cost forecasts. Estimated costs for new technology adoption are extremely difficult to provide particularly when services will need to be provided by third parties, such as the inclusion of satellite real time data in the

⁴ [Long Term Scenario Data Table](#)

⁵ At PR19 the enhancement plan covered 5 years. The proposal is for 8 scenarios and the core pathway each for 5 periods, equivalent to 45 PR19 plans less the business plan period, totalling 44.

technology scenario. Scenarios and pathways around conceptual technology should be carefully considered before including in the scenarios.

These areas require specific guidance to ensure that Ofwat collects a set of relevant comparable data with a realistic understanding on the estimation inaccuracy over time.

Recommendations:

- Ofwat considers the regulatory burden including Board assurance of potentially producing 44 additional enhancement plans and the use and value of this data.
- Ofwat considers the level of detail and provides guidance on the estimation of costs and accuracy for the long-term costing templates.

7 Conclusion and recommendations

We agree with the approach that long-term planning and delivery should be at the core of all business plans. We consider that the work being carried out already for WRMP, DWMP and WINEP covers the majority of enhancement schemes we could need over a 30-year time frame. The PR24 framework should be limited to identifying areas not already covered by these plans (or share inputs and results) otherwise it risks being a disproportionate response to a relatively small amount of discretionary expenditure.

We believe that most of the benefits of the approach could be achieved with a simpler, less prescriptive and less data intensive framework. Throughout this response we have provided recommendations on areas we consider Ofwat should consider and develop in advance of PR24 methodology. These recommendations are collated below:

- Ofwat continues to provide the necessary efficient funding for options development for significant infrastructure projects
- Ofwat considers the type and value of the enhancement investment that the long-term strategic planning and delivery framework applies to. This would consider both cost and the inclusion in an existing regulatory framework.
- Plans derived from existing regulatory frameworks should be directly read across into the long-term strategic plans as the core pathway with no duplication or additional requirements. As per WRMP, it would be better to undertake adaptive planning within the underlying regulatory frameworks with the investment and trigger points adopted within the core pathway.
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- Ofwat considers the level of detail and provides guidance on the estimation of costs and accuracy for the long-term costing templates.