

Part B5 – Maintaining the Supply / Demand Balance (Sewerage)**Summary Report by REPORTER****Summary of Audit Findings & Reporter Opinion**

The Company has undertaken a significant amount of work since the DBP to adapt its investment proposals to the impacts of the recession and address challenges made by Ofwat and the Reporter. From our audits, we consider that the Company has presented a well considered and soundly based plan within the limitations of the uncertainty that the current changing economic circumstances present.

The key changes to the Company's programme are: (TEXT REDACTED)

- Updated population and housing projections
- Non-Tideway non infrastructure – reduction in AMP5 investment and Increase in the number of outputs
- Tideway non infrastructure – reduction in AMP5 investment and Increase in PE
- Sludge treatment – reduction in AMP5 investment
- Infrastructure – reduction in AMP5 investment and Reduction in schemes

(TEXT REDACTED)

The change in the Tideway non infrastructure programme is based on a reassessment in the proportional allocation between supply demand and growth.

The very significant change in infrastructure expenditure and reduction in outputs is based on a critical site by site assessment of the likelihood of identified developments proceeding in AMP5 given the impact that the recession is having on new development.

We consider that the adjustments the Company has made are appropriate.

- Other changes were also made to bring investment into line with the draft CIS Baseline. (TEXT REDACTED)

This Summary Report discussed the major changes from the Draft Business Plan submission.

We are satisfied with the Company's submission and that it has used the best possible information available at the time to predict the impact of the economic downturn on the supply demand balance.

Reporter Engagement & Scope of Audit

Our approach to the audit of Thames Water's B5 submission has involved interviews and review of documentation, assumptions, methods, procedures, and data used to generate the table entries and line by line commentary for the Final Business Plan. We have trailed a sample of data and costs from their sources into the tables.

An initial briefing on the Company's Part B5 information took place at the Company's Clearwater Court offices in Reading on Monday 2nd March 2009. This was followed by audits on Wednesday 4th March and Friday 6th March.

We have seen evidence that the Company's submission has been subject to a good level of internal checking and challenge and are satisfied that there has been appropriate input and oversight from the Company's Senior Managers and Directors. We have noted that the submission has been signed-off by the responsible Senior Manager and Director.

We confirm that we have reviewed all of the Company's submission, are satisfied that it is complete and consider that it conforms to the Reporting Requirements.

We have liaised with Ofwat and the accompanying checklist addresses specific points in Ofwat's Reporter guidance and addresses all the points in the agreed Audit plan, including the Company specific guidance. Where further detail is required it is included in this summary statement.

Summary of Thames Water's Proposals

There have been significant changes to this chapter of the Company's submission as a result of a re-evaluation of the impact of the recession and in response to Ofwat and Reporter challenges relating to the DBP.

(TEXT REDACTED)

The key changes to the Company's programme are:

- Updated population and housing projections
- Non-Tideway non-infrastructure – reduction in AMP5 (TEXT REDACTED)
- but with a corresponding increase in the number of outputs respectively.
- Tideway non infrastructure – reduction in AMP5 investment from and Increase in PE (TEXT REDACTED)
- Sludge treatment – reduction in AMP5 investment (TEXT REDACTED)

- Infrastructure – reduction in AMP5 and Reduction in schemes (TEXT REDACTED)

Updated population and housing projections

The current recession has resulted in a higher than usual level of uncertainty around the population and housing forecasts for this AMP period. As the economic outlook has worsened considerably since the DBP submission, the Company sought specialist advice on how this might affect growth in population and households. The Company commissioned an Industry Expert to review the likely impact and develop revised forecasts.

(TEXT REDACTED)

On the basis of their projections the Company has estimated that the growth in household properties will be 220,000. This is 43,000 less than estimated at the time of the DBP. This estimate seems reasonable.

(TEXT REDACTED)

The analysis was carried out on the basis of economic data available in October 2008. This forecast has been used as the basis for the data presented in Table B5.4 and is consistent with the forecast used for the water service. The recession has worsened considerably since and the assessment may therefore overestimate growth in population and households in AMP5.

The analysis undertaken by the commissioned industry experts, which has been applied in a consistent manner to both projections for water and sewerage services, is discussed in further detail in our B5 water summary report.

Site level assessments

In an attempt to better reflect the impact of the recession on the likely levels of development the Company has assessed investment requirements on a site by site basis. The process has involved a review of planned development contained in the local and regional plans and a review of this information with local authority planners. This has provided a pragmatic means of identifying developments needing or likely to need infrastructure extensions and sewage treatment works needing or are likely to need extending. From our audits we are satisfied that the Company has taken a realistic approach to assessing the likelihood of development proceeding and the need for both infrastructure and non infrastructure schemes to be delivered in AMP5.

Infrastructure programme

The reduction in proposed investment in infrastructure to meet the needs of new development is based on an assessment that x defined and x defined contingent schemes are needed. This is a much reduced programme from the x schemes proposed in the DBP. (TEXT REDACTED)

Our audits have shown that all the scheme solutions have been based on hydraulic modelling applying a new 1 in 30 storm event design standard. Each scheme has been appraised by considering multiple options and costed in a detailed manner using the Company's EES cost model supported by bottom up derived costs where modelled costs were unavailable. The Company has selected least cost solutions. We are satisfied that the process used by the Company is consistent with its normal approach to project appraisal and that the scheme costs produced are robust.

We are satisfied that the Company cannot recover the cost of these schemes from developers.

Non-Tideway non-infrastructure programme

The Company's Non Tideway non infrastructure programme is based on the delivery of x outputs. This reflects a reduction in supply demand driven schemes and the inclusion of x schemes that were not identified in the DBP that are quality driven. (TEXT REDACTED)

From our audits we are satisfied that investment will be needed at all defined sites and that there is a good possibility that the defined contingent schemes will also need to proceed. The Company has applied a sound project appraisal process to develop scheme solutions and to cost them. We consider that the Company has generally identified least cost solutions. However, it should be noted that in some cases costs are based on the evaluation of a single option. In these cases the Company has concluded that only one solution is practicable. This is usually the case at the larger sewage treatment works where the process is activated sludge and the obvious solution is to extend the existing process with a further activated sludge stream. We have reviewed the single solution schemes and are satisfied with the solution selections.

(TEXT REDACTED)

Tideway non-infrastructure programme

The costs of the supply demand element of the programme have reduced since the DBP although the output in PE has increased.. These changes are due to a reassessment in the costs to be logged down in AMP4 and a

reassessment in the proportional allocation between supply demand and growth. We have examined the logging down position and note that there is considerable uncertainty over the amount of expenditure that will be incurred in AMP4, principally due to uncertainty with regard to the securing of planning permissions. As a result, the amounts to be logged down may be greater than the amounts included in the Company's logging up / down submission. We have reviewed the proportional allocation of costs and consider that they have been allocated correctly.

Sludge programme

We have commented on the sludge programme in our separate B5 report.

Flooding additions

The proposed investment in flooding additions to prevent newly flooded properties in AMP5 is broadly unchanged from the DBP submission. This investment was included as enhancement in the DBP, but has now been included under supply demand at Ofwat's request. We comment on this element of the plan in our B6 sewer flooding report. (TEXT REDACTED)

(TEXT REDACTED)

Sewer requisitions

The Company's estimated figure for the cost of providing sewer requisitions in the AMP5 period has reduced from DBP due to the deepening economic downturn. This is based on the assumption that requisitions will continue at the level seen in AMP4, but with the addition of a large 'x' scheme that has already been identified. We consider that this may be an optimistic assumption given the impact that the recession is currently having on housing development and the high level of uncertainty going forward and consider that a lower figure may be more appropriate. However the overall company estimate for new development is for an increase over the AMP4 level of activity and the requisition estimate is consistent with this view.

The standard industry formula for the recovery of requisition costs provides for full recovery over a 12 year period. Therefore not all the cost of requisitions will be recovered in an AMP period. The Company has based the level of recovery on its experience in the first three years of AMP4, and business forecasts for the remainder of the period. This has shown a recovery level of 80%. We reviewed an example of a requisition income calculation and the analysis of the AMP4 data and confirm that 80% is a sound assessment.

(TEXT REDACTED)

Climate change

The Company has acknowledged that climate change is likely to have a major impact on its sewerage networks in the medium to long term. However, it has not made any provision for this in the FBP as it does not presently have suitably accurate probabilistic data to allow it to model the impact effectively. The Company is raising its design standard to provide protection for 1 in 30 year storm events for schemes delivered in AMP5, which is consistent with the design standard generally used within the water industry. This should provide a degree of additional resilience.

We understand that the Company will review the matter of making provision for climate change when UKCIP09 data becomes available later this year and that any changes to the AMP5 investment plans that result from the modelling of this information will need to be addressed by logging up or IDOC as appropriate.

Ofwat and Reporter challenges

Ofwat and the Reporter made a number of challenges with regard to the DBP and set out in the CIS draft Baseline report. (TEXT REDACTED)The key challenges concern the inclusion of:

- headroom allowances for sewage treatment schemes
- the (x) STW inlet works scheme as a defined scheme with a negative whole life cost of £x m

We challenged the Company on the inclusion of the headroom allowances for sewage treatment works schemes. The Company has addressed this by providing data that shows that the provision of these allowances has only a marginal impact on the investment programme. The Company also stated that it had made high level programme reductions of £x m and £x m without corresponding reductions in outputs. However, we consider that it could be argued that sufficient headroom has been allowed by basing non infrastructure solutions on 2021 design horizons without an additional headroom allowance.

Summary of Audit & Review

The Company has cooperated with Reporter's team through the audit process and has provided commentary and data tables.

We are satisfied that the Company has fully disclosed its assumptions, methodology and data sources used for the preparation of its B5 submission for the sewerage service.

We consider that the Company's commentary provides a full and detailed explanation of its investment plans and the basis for these and that its methodology is based on the latest guidance.

The Company's plans show clear linkages between size and locations of development and growth forecasts, analyses of impacts on existing assets and scheme solutions and costs.

The Company has updated its population and household growth forecasts to reflect more up to date information on the impact of the recession. This review, undertaken by an Industry Expert, was based on data from October 2008. It is now apparent that the recession will be deeper and longer lasting than had been assumed, so the revised forecasts are likely to under estimate the impact of the recession on population and household growth.

(TEXT REDACTED)

The revised forecasts do not have an impact on the infrastructure investment included in the FBP as this is based on a site by site assessment using local plan information that has been reviewed by Thames and local authority staff to confirm that the developments are to proceed in AMP5.

There is clearly great uncertainty over the impact that the recession will have on the amount of development that will occur AMP5 and this has the greatest impact on the infrastructure programme where expenditure will be directly related to individual developments proceeded. However, we note that the Company has very significantly reduced the size of this programme from that included in the DBP. We consider that the size of this programme is reasonable.

With regard to the sewerage non infrastructure programme, the bulk of this consists of defined schemes. We note that the Company has moved a number of AMP4 schemes into this programme and deferred several schemes that were included in the DBP into AMP6. We consider that the defined programme is reasonable. With regard to the defined contingent programme, we are generally satisfied with the schemes included with the exception of one of the schemes., (TEXT REDACTED)

However, we note that this investment is related to consent compliance and pollution avoidance and therefore accept that this scheme needs to proceed.

The Company recognises that the proposed investment levels are uncertain and that changes are likely to be needed during the course of AMP5 via

means of the change protocol and possibly logging up or down or IDOK depending on the scale of change required.

The Company has adopted a standard process to identifying needs, assessing impacts and costing solutions.

(TEXT REDACTED)

We have reviewed scheme solutions on a sample basis and are generally satisfied that the needs have been correctly assessed, the solutions are fit for purpose and that the cost estimates are well based and robust.

The Company has elicited the views of its stakeholders in the preparation of its SDS and this confirms that there is strong support for maintaining and improving the levels of service that underpin its supply demand proposals.

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