December 2016

Trust in water

# Final Ofwat opinion to the CMA on the acquisition of Dee Valley by Severn Trent

Ofwat

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# 1. Summary

Severn Trent plc has announced its intention to acquire Dee Valley Group plc. Severn Trent plc owns Severn Trent Water Limited ("Severn Trent"), a large Water and Sewerage Company (WaSC), Dee Valley Group plc owns Dee Valley Water plc ("Dee Valley"), a small Water Only Company (WOC).

Because WaSC and WOC activities involve significant elements of monopoly (such as the distribution of water) we regulate these areas of monopoly, including by making comparisons between the performance and efficiency of different WaSCs and WOCs.

The Water Industry Act 1991 (the "Act") provides for a special merger regime for water companies. This involves the Competition and Markets Authority (CMA) considering whether the proposed merger would be likely to prejudice our ability to make comparisons between water enterprises (i.e. WaSCs and WOCs), and if there is likely to be prejudice whether this would be outweighed by relevant customer benefits relating to the water merger. Following changes to the Act introduced by the Water Act 2014, the CMA now has the ability to clear water mergers in a Phase 1 review process.

Consistent with the requirements of the Act this document sets out our opinion on the likely impact of the merger of Severn Trent and Dee Valley (the "Merger"). This opinion is based on our statement of methods document (published in October 2015) that describes how we will approach the assessment of water mergers under the Act.

As required by our statement of methods, Severn Trent has provided an assessment of the potential impacts of the Merger. We have reviewed this assessment and found that the approach adopted to quantifying the adverse impacts of the Merger is consistent with our statement of methods. It is also consistent with the approach and analytical framework used by the CMA in investigating the Pennon Group (that owns South West Water) and Bournemouth Water merger in 2015. Although that merger was considered by the CMA before the most recent changes to the special merger regime were introduced, it is relevant precedent for this assessment as the supporting analysis took into account all the main criteria as set out in our statement of methods.

There is a strong case to take a conservative, customer-focussed view when considering whether the impacts of a merger would prejudice our ability to make comparisons between water enterprises. This is because the consequence of a merger is likely to be the permanent loss of an independent comparator and the associated data for our benchmarking analysis, which is important if customers are to be protected in monopoly markets.

In this instance, we found that adverse effects are likely to arise in respect of our use of comparators for retail costs and supply interruptions. The analysis that has been undertaken to quantify the impacts of this merger has indicated that the loss of Dee Valley from our retail cost and supply interruption benchmarking models has only modest materiality.

We also note wider characteristics of Dee Valley that might make it a useful comparator in certain circumstances, including that it is the only independent, listed WOC on the London Stock Exchange. However, we also found there were areas where Dee Valley has been less useful as an independent comparator, and it has been a relatively poor performer in terms of business planning and the provision of information.

**In the case of the Pennon/Bournemouth merger the CMA concluded that the adverse impacts that they had identified were not significant enough, either individually or in combination, to amount to prejudice to our ability to make comparisons between water enterprises. We have similarly concluded that the Severn Trent/Dee Valley merger is not likely to prejudice our ability to make comparisons between water enterprises.**

**Where we form the view that a merger is not likely to prejudice our ability to make comparisons between water enterprises, neither our statement of methods nor the Act require us to consider whether there are relevant customer benefits relating to that merger. Therefore we have not assessed if there are any relevant customer benefits relating to the Merger.**

The analysis underpinning our conclusions is based on the approach we developed for the price review in 2014 (PR14). It uses adjusted models and the resulting benchmarks which take account of the Pennon/Bournemouth merger that occurred in 2015. It then considers the impacts of the Merger on our models and future benchmarks.

We are confident that this approach is appropriate for this merger. However, in any future special merger regime assessments, we may need to carry out more substantial refinement of our approach to estimating adverse impacts and detriment to our ability to make comparisons between water enterprises. This is for the following reasons:

- the data that supports our modelling and the models themselves will continue to evolve. The analysis underpinning our assessment in this opinion relies on re-estimated data from PR14 in light of the Pennon/Bournemouth merger. The analysis has included sensitivities encompassing the new data that has become available on the Service Incentive Mechanism (SIM) and Outcome Delivery Incentives (ODIs) but in other areas such as wholesale and retail costs, where the underlying data and modelling is more complex, it has not been practicable to update for more recent data. This may become possible in subsequent mergers;
- while we do not consider it a material issue in the context of this case, we note that future mergers may require us to consider whether our benchmarking models need to be updated to take account of the cumulative loss of comparators, and how to quantify the adverse impacts associated with any loss of precision to these models.1; and
- our regulatory approach is evolving. PR14 introduced significant changes to the way performance is incentivised which will influence our choice of the most appropriate efficiency and service metrics in the future. These changes will be reflected in our next price review in 2019 (PR19). Our emerging approach to PR19 will be described in more detail in our Draft Methodology Statement due for publication in July 2017. Our developing thinking in this area is likely to influence our future assessment of mergers in the sector.

[1] In PR14 Determination (A7A.2.3.3), we stated that the econometric models we applied would remain robust in the event of 1 or 2 mergers. Since PR14, Bournemouth Water was acquired by Pennon Group plc and consolidated into the licence of South West Water. The merger of Severn Trent and Dee Valley would result in the loss of a further independent comparator. Subsequent mergers are therefore likely to require more detailed scrutiny.

# 2. Background to the special merger regime

This chapter provides background on:

- the special merger regime (section 2.1);
- our statement of methods, which explains how we will assess mergers for the purpose of the special merger regime (section 2.2); and
- the merger of the Pennon Group and Bournemouth Water that was completed in 2015 (section 2.3).

## 2.1 The special merger regime

Under section 33A of the Act, the CMA may clear a merger between two or more water enterprises as part of a Phase 1 investigation process if it is satisfied that either (a) the merger is not likely to prejudice our ability to make comparisons between water enterprises or (b) if the merger is likely to prejudice that ability, the prejudice in question is outweighed by any relevant customer benefits relating to the merger.

Before reaching a view on these matters, the CMA must request that we give an opinion under section 33B of the Act and must consider that opinion. Consistent with both the Act and CMA's guidance on procedure and assessment (published on 13 November 2015) this document comprises our opinion and sets out our assessment of the adverse impacts of the merger and whether these adverse impacts are likely to prejudice our ability to make comparisons between water enterprises.

As required by section 33C of the Act we have published a statement of methods (in October 2015) on the approach that we will take to assessing mergers. This opinion is consistent with our statement of methods.

## 2.2 Ofwat's approach to mergers

Our statement of methods sets out our approach to the assessment of mergers under the special merger regime. It explains the high level principles that we will adopt to assessing mergers and the seven key criteria we will consider in assessing whether a merger would prejudice our ability to make comparisons. These criteria are summarised below.

- **Criterion 1:** the extent to which the merger involves overlaps (for example a water only company taking over wastewater activities would not be expected to prejudice our ability to make comparisons with other water companies). Section 3.2 sets out our assessment of these matters.
- **Criterion 2:** whether the merger involves the loss of an independent comparator. Section 3.3.1 set out our assessment of these matters.
- **Criterion 3:** the extent to which the merger will change benchmarks. Section 3.3.1 and Appendix 1 set out our assessment of these matters.
- **Criterion 4:** the number and quality of independent observations that remain. Section 3.3.2 sets out our assessment of these matters.
- **Criterion 5:** whether there would be the loss of a comparator with important similarities to other water companies that might damage our ability to make comparisons (in particular by reducing the number or quality of comparators operating in similar circumstances to other water companies). Section 3.3.3 and Appendix 2 set out our assessment of these matters.
- **Criterion 6:** whether there would be the loss of a comparator with important differences to other water companies that might damage our ability to make comparisons, in particular the loss of comparators that might be good examples of leading or best practice across the sector. Section 3.3.3 and Appendix 2 set out our assessment of these matters.
- **Criterion 7:** whether there are alternative approaches available to us to offset the loss of the comparator.

These criteria have guided our analysis in the assessment of the Merger. They were also used by the CMA in its assessment of the Pennon/Bournemouth merger. The CMA's final report on this merger set out its analytical framework for putting these criteria into effect. We have used this framework in assessing the Merger with appropriate adaptations as and when required by the circumstances of this case.[2]

## 2.3 The Pennon Group and Bournemouth Water merger

In 2015 the Pennon Group (owner of South West Water, a large WaSC) announced its intention to acquire Bournemouth Water (a small WOC). This merger is the most recent example of the application of the special regime for water. Although this merger was considered by the CMA before the most recent changes to the special

[2] While the approach applied in the Pennon/Bournemouth merger is appropriate to adopt in the context of this merger, the water sector is evolving and it is possible that at some point in the future, we will need to adopt a different approach.

merger regime were introduced, the supporting analysis in the assessment of that merger took into account all the main criteria as set out in our 2015 statement of methods. Therefore, our approach and that of the CMA in relation to analysis of those main criteria is relevant to our consideration of the Merger.

The CMA's 5 November 2015 report on the Pennon/Bournemouth merger explained that it had considered both qualitative and quantitative evidence in assessing whether the merger would be expected to prejudice our ability to make comparisons between water enterprises. Its assessment encompassed all the main areas where we use comparative assessment:

- wholesale costs (including both precision and benchmark effects);
- retail costs;
- outcome delivery incentives;
- the service incentive mechanism; and
- spreading best practice and undertaking monitoring and enforcement activities.

The main adverse impacts identified by the CMA were in relation to the:

- wholesale cost benchmarks – adverse impacts quantified at £0 million to £9 million;
- outcome delivery incentives – in particular the duration of supply interruptions and number of contacts from customers regarding water quality – adverse impacts quantified at £15 million to £23 million (but with retention of some comparative information post-merger a relevant mitigating factor); and
- the service incentive mechanism – adverse impacts quantified at £1 million to £4 million.

The CMA also discussed and quantified the impact of other issues such as the loss of a comparator on the precision of the wholesale cost benchmarks. It noted that its estimates of the loss of precision did not directly translate to adverse impacts of the merger on consumers and that all the quantitative methods it had considered had inherent limitations[3]. It also carried out a qualitative assessment, but did not develop this approach such that it provided quantified estimates of adverse impacts.

[3] CMA Inquiry into the Pennon/Bournemouth acquisition, page 63, paragraph 6.103.

The CMA did not identify any material adverse impacts associated with the likely impact of the merger on the spreading of best practice, monitoring or enforcement.

On the basis of the above, the CMA concluded that the adverse impacts identified were not significant enough, either individually or in combination, to amount to prejudice to our ability to make comparisons between water enterprises.

# 3. Prejudice to Ofwat's ability to make comparisons

This chapter:

- provides an introduction to our approach to regulating the water sector (section 3.1);
- describes the companies that propose to merge (section 3.2); and
- summarises our assessment of the adverse impacts of the merger on our ability to make comparisons (section 3.3).

## 3.1 Regulation of water companies

We regulate water companies according to the statutory duties that are set out in the Act and the terms of their Instruments of Appointment ('licences'). In summary our main duties are to further the consumer objective, to secure that water companies properly carry out their functions and are able to finance their functions and to further the resilience objective. Subject to those duties, we also have other duties to, among other things, promote economy and efficiency and secure that no undue preference or discrimination is shown by companies in fixing charges.

There are currently ten WaSCs and seven WOCs with licensed activities that involve significant elements of monopoly (such as the distribution of water) and we regulate these areas of monopoly, including by making comparisons between the performance and efficiency of these companies.

The way in which we regulate has evolved since the sector was privatised and will continue to evolve in response to drivers for change. For instance, we have plans to encourage the greater use of market mechanisms to help to ensure the efficient provision of both wholesale water and wastewater services[4]. However, these arrangements are not sufficiently comprehensive or advanced that we no longer need to make comparative assessments across water companies.

[4] See for example an introduction to our Water2020 work programme in Ofwat (2016) "Water 2020: our regulatory approach for water and wastewater in England and Wales". Available in http://www.ofwat.gov.uk/wp-content/uploads/2015/12/pap_pos20150520w2020.pdf

## 3.2 The companies that are the subject of the merger

Severn Trent Water Limited provides water and wastewater services to customers from the Bristol Channel to the Humber, and from mid-Wales to the East Midlands. Dee Valley provides water only services to customers in northeast Wales and northwest Cheshire. Wastewater services for Dee Valley water customers are provided by Dwr Cymru or United Utilities. Since the merging parties overlap in the provision of water services, the Merger results in the loss of one of the 17 independently owned water companies for whom we currently set full price controls. As the Merger results in the loss of an independent comparator, consistent with the approach set out in the statement of methods, we have assessed the potential for adverse impacts on our ability to make comparisons between water enterprises.

At present Government policy in relation to the water sector is implemented along water company boundaries rather than national boundaries between England and Wales. Dee Valley, operating mainly in Wales in terms of area (and with approximately 77,000 of its approximately 122,000 customers located in Wales with the remainder in England), falls under Welsh government water policy and Severn Trent, operating mainly in England in terms of area (and with approximately 3,265,000 of its approximately 3,300,000 customers in England with the remaining 35,000 in Wales), falls under UK government water policy. There are differences in water policy and legislative framework between the two governments. We are alert to the different policies of the Welsh Government and, for example, we ensure that in carrying out our relevant functions relating wholly or mainly to Wales we act in accordance with the Welsh Government's statement of strategic priorities and objectives. However, we consider that these differences are not sufficiently large to undermine the benefits of comparative assessments across all 17 water companies. We do not anticipate any material changes in policy or legislative framework that would lead us to expect companies to perform differently in areas where we make comparative assessments. Consequently we do not expect companies in both England and Wales to have materially different drivers of performance which would lead us to consider their performance separately.

The Joint Government's Review Programme is currently examining the benefit of re-aligning the legislative competence for water with the national border, including in the context of the Wales Bill which is currently going through Parliament. Severn Trent is also proposing to restructure its and Dee Valley's licensed activities following the Merger, to create one licensee that focuses on the provision of water and wastewater services to all its post-merger English customers and one that focuses on the provision of water and wastewater services to all its post-merger Welsh customers.

We see the benefits that this clarity may provide generally. In the context of this assessment, however, we note that the creation of separate licensees within the same ownership structure has less value for drawing comparisons than where comparators are fully independent, as companies under the same ownership tend to exhibit similar management practices which drive similar behaviour. Therefore, for the purposes of our opinion in this Phase 1 assessment, we have analysed the Merger on the basis of a loss of a fully independent comparator. Nevertheless, we would be keen to see that the merged entity would implement a structure, governance frame work and reporting practices which maximise the value of a new Welsh comparator.

## 3.3 Approach to the assessment of prejudice

We have assessed the potential adverse impacts on our ability to make comparisons using the principles and approach set out in our statement of methods. While the Merger is the first to occur since the modified regime under the Water Act 2014 came into effect, the CMA considered all the main criteria from our statement of methods in its assessment of the Pennon/Bournemouth merger. We have considered it appropriate in this case to base our analysis in this opinion on the analytical framework set out by the CMA in its November 2015 report on the Pennon/Bournemouth merger.

As required by our statement of methods Severn Trent has provided an assessment of the impacts of the Merger – using the analytical framework applied by the CMA in the Pennon/Bournemouth merger. We have reviewed this assessment and where appropriate verified the associated estimates of adverse impacts and carried out our own review of certain key issues. These assessments compare the situation with the Merger against a counterfactual under which the Merger is assumed not to have occurred.

The analysis supporting this merger assessment has involved re-estimating the 2014 price review (PR14) models to take account of the Pennon/Bournemouth merger. In respect of wholesale cost models, a sensitivity has also been considered using the models adopted by the CMA in its final report (published in November 2015) on the

Bristol Water price determination[5]. Where ODIs and the SIM are concerned it has been practicable to consider a sensitivity that encompasses 2014/15 data.

Additional data is available for 2014/15 (in relation to costs) [6] and 2015/16 (in relation to costs, ODIs and SIM) and in due course this will allow us to start to consider more fundamental updating of the cost and other benchmarking models with the PR14 data. However, this work has not progressed sufficiently to inform this merger assessment as we are still preparing our methodology for PR19, including how we might make use of benchmark data in the future. We consider that the approach adopted at this merger assessment of relying on PR14 models is necessary and reasonable. However, with the effluxion of time, more data will become available and the scope for re-estimating models and benchmarks will increase. Bearing this in mind, it may not be appropriate to use the PR14 models (adjusted simply for each merger) in the future, as the appropriate specification for modelling outputs and data inputs may have changed considerably and our modelling may need to respond to these challenges.

An additional loss of comparators in the future could mean that it is appropriate for us to consider whether and if so, how to update benchmarking models to take better account of the cumulative loss of comparators, and how to quantify the adverse impacts associated with any loss of precision to our benchmarking models. We are also continuing to work on our Water2020 programme and to develop approaches to the next main price review in 2019 and so we should soon be in a position to take into account our emerging approach (which will be described in our Draft Methodology Statement due for publication in 2017). However, this merger needs to be assessed on the basis of the best information currently available, which involves using the PR14 benchmarking models as a baseline.

Sections 3.3.1, 3.3.2 and 3.3.3 below summarise our assessment of the adverse impacts of the loss of Dee Valley as an independent comparator. More detail is set out in Appendices 1 to 3.

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[5] CMA, 2015 "Bristol Water plc. A reference under section 12(3)(a) of the Water Industry Act 1991". Available in
https://assets.publishing.service.gov.uk/media/56279924ed915d194b000001/Bristol_Water_plc_final_determination.pdf

[6] It has not been practicable to use this data in the analysis of this merger and as we are still in the process of developing our methodology and benchmarking approach for PR19, we have not used this data to predict the possible impact on the benchmarks at PR19.

### 3.3.1 The extent to which the merger will change benchmarks

We explained in section 3.2 that both parties to the Merger provide water services and so the merger would involve the loss of an independent comparator which, as set in criteria 1 and 2 in our statement of methods, could affect our ability to regulate the industry.

In carrying out our assessment of the potential effect of the merger on our capacity to regulate the industry as set out below, we have applied our statement of methods, using the analytical framework applied by the CMA in the Pennon/Bournemouth merger when applying the criteria in our statement, and as set out in the Guidance on the CMA's procedure and assessment for water and sewerage mergers.

In estimating the potential adverse impacts of the merger on our ability to make comparisons a key consideration is the assessment of the impact that the merger may have on our capacity to benchmark the companies we regulate (criteria 3 and 4 in statement of methods). This section focuses on how the Merger may affect the calculation and stringency of sector wide benchmarks (criterion 3). At least as important is the impact on the merger on the precision of these benchmarks – as ultimately the loss of precision may jeopardise the overall credibility of the benchmark and ability to deploy the benchmark as an effective regulatory instrument. These matters are dealt with in the discussion of criterion 4 in section 3.3.2.

Severn Trent instructed Frontier Economics (FE) to prepare a report that, among other things, quantifies the impact of a loss of a comparator on the benchmarks we used at PR14 (the FE report[7]). As part of our assessment of this Merger, we reviewed the FE report in detail.

As a first step, we reviewed the choice of the counterfactual used in the FE report, which represents the baseline against which FE assessed the impacts of the merger. The FE report builds a counterfactual using PR14 information, but taking account of the fact that the Pennon/Bournemouth merger (which occurred in 2015) has already taken place. This counterfactual position is then compared to the position assuming the merger of Severn Trent/Dee Valley – with the intention of isolating the impact of the new merger. To develop its counterfactual, FE has combined the historical data for South West Water (Pennon) and Bournemouth Water and re-estimated the key

[7] Frontier Economics (2016), Project Penguin: A report for Severn Trent.

benchmarking models used at PR14 (essentially using data from 17 companies rather than the 18 available at PR14). This is consistent with the approach that we have used previously in estimating benchmarking models following a merger.

As noted in our statement of methods, if at least one of the merging companies is leading or high performing in some areas (for example, if its leading or high performance helps set a benchmark for efficiency), there is a greater risk of detriment for customers than if both companies are poor performers.

Our approach to benchmarking at PR14 was based largely on upper quartile performance. If one or both of the merging companies are upper quartile performers then the potential for adverse impacts for customers is greater as there is a greater probability that one of the companies making up the upper quartile would be removed and replaced by a less efficient company. This could dilute upper quartile performance and reduce the stringency of the benchmark, creating potential adverse impacts for customers. So our risk based approach has involved focusing our testing on those benchmarks where the merging companies were relatively high performers.

In assessing the impact of this merger on our benchmarks, FE took the efficiency rankings from the counterfactual modelling that forecast the impact of the Pennon/Bournemouth merger on the PR14 results. It compared these results with a new composite score for the merged entity.

Our testing of the FE report focused mainly on the quantitative analysis when evaluating criteria 3 and 4 in our statement of methods. The review of the quantitative analysis involved two stages. First, we validated the performance rankings produced by the FE report. We then considered the impact of both ‘static’ and ‘forward-looking’ approaches (consistent with the approach used previously by the CMA) to quantifying the potential adverse impacts from the proposed merger. The static approach considers the impact of the Merger on our ability to benchmark under the assumption that the performance of companies, and the regulatory approach, remains the same. Conversely the forward looking approach allows both for the possibility that the relative performance of companies to change in the future and for different techniques to be used to set regulation (although this issue was not explored in this merger).

## Performance rankings

The performance rankings used in the FE report derive from re-estimating the PR14 benchmark models to take account of the Pennon/Bournemouth merger. These can be cross-checked against the PR14 efficiency rankings – which should be reasonably close given the modest changes to the models that we would expect to see following a reduction of the number of companies from 18 to 17. The efficiency rankings encompass all the main areas where we used benchmarking models at PR14:

- **wholesale cost benchmarking:** the rankings are based on the ratio between the cost estimates derived from our benchmarking models and actual costs (under the static approach and the forward looking approach) and the ratio between the cost estimates derived from our benchmarking models and PR14 business plan costs (under the forward looking business plan approach);
- **cost to serve in household retail:** two methods are applied the first uses a forward looking approach that develops rankings based on cost to serve for unmetered water only customers, and a second set of rankings based on the incremental costs of serving metered water only customers; and
- **ODIs and SIM:** for ODIs there are static and forward looking approaches both starting with average scores and rankings between 2011 and 2013; and for SIM, there are static and forward looking approaches both starting with average scores and rankings from the period 2011/12 to 2013/14.

Table 1 below shows the rankings for the merging parties used in the FE report based on 17 independent companies following the Pennon/Bournemouth merger and those obtained with 18 independent companies at PR14, i.e. without the effect of that merger.

### Table 1: Rankings for the merging companies

| Areas of benchmarking | FE (17 companies) | | PR14 (18 companies) | |
|---|---|---|---|---|
| | Dee Valley | Severn Trent | Dee Valley | Severn Trent |
| Wholesale costs | | | | |
| • Historical | 7 | 8 | 9 | 8 |
| • Forecast | 15 | 13 | 16 | 14 |
| | | | | |
| Retail costs | | | | |
| • Incremental measured costs | 3 | 13 | 4 | 14 |
| • Unmeasured costs | 9 | 10 | 10 | 11 |
| | | | | |
| ODIs | | | | |
| • Drinking Water Contacts | 17 | 6 | 17 | 7 |
| • Water Supply Interruptions | 4 | 15 | 5 | 16 |
| | | | | |

| Areas of benchmarking | FE (17 companies) | | PR14 (18 companies) | |
|---|---|---|---|---|
| | Dee Valley | Severn Trent | Dee Valley | Severn Trent |
| SIM | 12 | 10 | 13 | 11 |

Note: The rankings for PR14 are based on Ofwat's analysis during the CMA review of the Pennon / Bournemouth merger. The rankings for SIM in PR14 will differ from those in Pennon/Bournemouth merger as we have removed Cambridge Water from the analysis.

Source: Ofwat and Frontier Economics.

With 18 companies in the dataset, upper quartile performance is defined by the weighted average performance of companies ranked 5$^{th}$ and 6$^{th}$. When the data set reduces to 17 companies then the upper quartile is defined by the performance of the 5$^{th}$ company. The table above indicates there are two areas where the parties are included among the upper quartile performers and therefore where we might expect greatest adverse impacts arising from this Merger – (i) retail costs to serve in relation to the incremental costs of providing services to measured (i.e. metered) household customers and (ii) water supply interruptions. In these two areas we have undertaken an in-depth review of the calculations underpinning the assessments in the FE report to ensure that they are consistent with Ofwat's statement of methods.

## Reviewing the calculation of adverse impacts

Our review of the two key areas identified above (retail cost to serve for measured household customers and water supply interruptions) involved using the spreadsheet model that we published showing the analysis supporting the CMA's decision in the Pennon/Bournemouth merger[8] to replicate the calculations developed in the FE report. As part of the process, we considered in detail the assumptions underpinning the FE calculations to evaluate whether they were consistent with the approach used by the CMA. Where necessary, we clarified with FE the rationale for those assumptions and reviewed the information provided by FE to ensure that the assumptions were reasonable. On this basis we are satisfied that the estimates of adverse impacts quantified in the FE report are consistent with those that derive from a reasonable application of the approach used to quantify adverse impacts in our statement of methods.

[8] Spreadsheets available at http://www.ofwat.gov.uk/assessing-the-impact-of-a-merger-spreadsheets-developed-for-the-pennon-bournemouth-merger/

In respect of the main areas covered by our approach to benchmarking, including the ODI on water supply interruptions, the CMA in Pennon/Bournemouth and the FE report considered both static and forward looking approaches. The static approach considers the impact of the merger using the regulatory framework we used in PR14 and the rankings of Severn Trent and Dee Valley have been used to determine a new ranking for the merged entity. The forward-looking approach takes account of information relevant to how the merger parties may perform in future price determinations – and could include known modifications to the price determination process.

### (i) The static approach

For water supply interruptions the static approach estimates the impact of the merger over the PR14 price control period using the following steps:

a) calculate the upper quartile using PR14 data but combining together South West and Bournemouth into a single data point;
b) recalculate the upper quartile combining together Severn Trent and Dee Valley into a single data point;
c) calculate the difference in (a) and (b);
d) work the impact of this change in the benchmark level of performance by combining (c) with each company's penalty/reward rate and sum together to derive an industry total for each year; and
e) work out the impact in NPV terms over the period of the PR14 price control.

As noted above in the subsection on performance rankings combining South West Water and Bournemouth Water reduces the data set from 18 to 17 and changes the upper quartile such that it is determined by the 5$^{th}$ ranked company. Further reducing the data set from the current 17 to 16 companies to take account of the Merger means that the upper quartile is defined by the weighted average performance of the 4$^{th}$ and 5$^{th}$ ranked companies. So unless the Merger means the loss of a company in the upper quartile[9] then the benchmark associated with the upper quartile will become more stringent as it is no longer diluted by the performance of the company ranked 5$^{th}$.

[9] We have used an assessment of upper quartile as that was the approach at PR14. There are alternative options we could pursue, including for example, the use of frontier, upper quintile or average target. Different targets would lead to different assessments about the impact of the loss of Dee Valley as an independent comparator. We are likely to revisit our approach at PR19.

In the calculations used by the CMA in Pennon/Bournemouth this means that a number of the scenarios show customer benefit associated with the merger – and the same is true in respect of Severn Trent/Dee Valley (with a number of the scenarios showing the calculation of substantial customer benefit). Nonetheless, in reaching its conclusions on Pennon/Bournemouth, the CMA focused on the scenarios showing adverse impacts, rather than netting off benefits and detriments, or looking at the average results across all scenarios.

This analysis has its limitations. For instance, it is important to consider the impact on the precision of our benchmarks of any qualitative impact of the merger. We discuss those in sections 3.3.2 and 3.3.3. Moreover, rankings and companies' positions in the upper quartile are not necessarily static. We consider this issue when we discuss this issue below.

### (ii) The forward looking approach

The forward looking approach for water supply interruptions calculates impacts on the basis of two scenarios – one using convergence rates and the other change matrices. The convergence rates scenario is similar to the static approach but uses assumptions on catch-up rates such that the gap between the best and worst performing companies shrinks over time but the company rankings remain unchanged. It also calculates impacts up until 2025, to take account of the possible impact of the merger on future price control periods. However, the CMA preferred the scenario using change matrices, based on past movements in company rankings, which have the advantage of also allowing for changes in company rankings over time.

Both in the FE report and the CMA determination in Pennon/Bournemouth, data on historical rankings is used to estimate probabilities of companies moving up and down the efficiency rankings. The change matrix then summarises the probabilities of a company being in any ranking position, given its ranking in the previous price control period. This approach allows for the probability that companies will change ranking position over time. It makes calculations by combining:

- the probability of the parties being upper quartile in PR19;
- the probability that the merged entity would be upper quartile in PR19; and
- the impact on the benchmark associated with losing one company above/below the upper quartile as a result of the merger in PR19, depending on whether the merger causes the loss of an upper quartile company.

In some instances, the CMA and the FE report made calculations using assumptions about convergence and used change matrices to allow for the possibility of changes in company rankings. Convergence assumptions might be relevant where, for example, new regulatory approaches have been adopted which increase the management focus of poorly performing companies on certain metrics.

For those areas that were identified as lower risk, i.e. where the parties did not appear in the upper performance quartile at PR14 and would not do so following adjustments made in light of the Pennon/Bournemouth merger, we did not carry out the same degree of detailed probing of the FE report. Rather, we focused our attention on areas where the risk of detriment is greatest. Nevertheless, we carefully reviewed the methods used in the FE report and compared them with those in the CMA report on the Pennon/Bournemouth merger to check consistency in the overall approach.

We have also considered the sensitivities carried out by FE using the CMA's Bristol Water wholesale costs models and the data for 2014/15 in respect of ODIs and SIM. These appear consistent the approach adopted by the CMA in Pennon/Bournemouth to consider a reasonably wide range of scenarios, provided that they can be supported by reasonable data, to make sure that any adverse impacts have been identified with a reasonable degree of certainty. These scenarios do not identify adverse impacts.

The potential adverse impacts identified in the FE report, together with our commentary, are summarised in Table 2 below.[10].

[10] The NPV estimates in Table 2 have been calculated over different periods for different benchmarks. This is consistent with the approach adopted in the Pennon / Bournemouth merger where impacts were calculated over the time period for which it was reasonably certain that current regulatory approaches might persist.

**Table 2: Summary of our assessment**

| Benchmarks | Quantification of impacts | | Commentary |
|---|---|---|---|
| | Static approach (NPV, £m) | Forward looking approach (NPV, £m) | |
| Wholesale costs | No adverse impact | Scenario with the largest adverse impact (historical rankings with changes matrice applied)<br>£3.3m (NPV calculated over 30 years) | **The forward looking approach identified the potential for small adverse impacts under one scenario.**<br>Neither Severn Trent nor Dee Valley were in the upper quartile of companies in the PR14 totex assessment or using the adjusted rankings in the FE report. Therefore, the static approach (which does not involve the application of a change matrix) finds no expected adverse impacts.<br>Applying a forward looking approach the FE report considered 3 scenarios, based on different starting points:<br>1. historical rankings – based on historical cost data compared to model results, with change matrix applied - £3.3m adverse impact (30 year NPV);<br>2. business plan rankings at PR19 – based on PR14 business plan forecasts of AMP 6 totex compared to model results – no adverse impact; and<br>3. business plan rankings at PR19 with a change matrix – as (2) but with change matrix applied to derive revised rankings for the starting point (to reflect the fact that actual performance is likely to vary from business plan forecasts) – no adverse impact.<br>Where FE applied a change matrix, these were determined using the expected levels of adverse impacts/benefits for each 5 year period.<br>FE found an adverse impact in the case of the historical rankings (where in terms of starting points the parties were ranked 7th and 8th compared to the business plan rankings for which they ranked 13th and 15th). This is because where companies are ranked close to the upper quartile there is a greater chance that those companies could be ranked in the upper quartile in the future, and so introduce a possible adverse effect by leading to a less stringent efficiency benchmark in the future. We |

| Benchmarks | Quantification of impacts | | Commentary |
|---|---|---|---|
| | Static approach (NPV, £m) | Forward looking approach (NPV, £m) | |
| | | | note however the CMA's view that it placed no weight on the historical weighting approach in the Pennon/Bournemouth merger. |
| Retail costs (residential only) | N/A[11] | Scenario with the largest adverse impact £3.5m (NPV calculated over 5 years) | **The forward looking approach identified the potential for small adverse impacts under certain scenarios.**<br>Dee Valley was a relatively high performer in terms of the costs of providing retail services to measured (i.e. metered) customers (ranked 3rd using the FE report data). Because of Dee Valley's upper quartile performance we undertook a more in-depth review of the analysis in the FE report as explained in section 3.3.1 above. The FE report modelled the results for measured and unmeasured customers separately and then combined these results together to give an overall estimate for the impact on residential retail cost benchmarks – consistent with the approach used by the CMA in the Pennon/Bournemouth merger. |
| ODI – water supply interruptions | Scenarios based on penalty and reward rates show adverse impacts – up to £3.4m in the case of penalty rates (NPV calculated over the PR14 period) | Scenarios based on penalty and reward rates show adverse impacts – up to £3.6m in the case of penalty rates (NPV calculated over the PR19 period) | **Both the static and forward looking approaches identified small adverse impacts across all scenarios.**<br>Dee Valley was a relatively high performer in terms of the ODI relating to supply interruptions (ranked 4th using the FE report data). Because of Dee Valley's upper quartile performance we undertook a more in-depth review of the analysis in the FE report (as explained in section 3.3.1 above). |

[11] We note that because we expect to move to regulating household retail costs from an average to an upper quartile basis in the future, the CMA did not consider the static approach for these benchmarks but only considered a forward looking approach based on upper quartile efficiency. We replicated this approach here.

| Benchmarks | Quantification of impacts | | Commentary |
|---|---|---|---|
| | Static approach (NPV, £m) | Forward looking approach (NPV, £m) | |
| | | | We note FE carried out a sensitivity, taking account of 2014-15 data, which suggest no adverse impact under this sensitivity, however, we have taken a conservative view, in stating the possible adverse impact.. |
| ODI – drinking water contacts | No adverse impact | No adverse impact | **No adverse impacts were identified for water quality contacts**<br>Neither Severn Trent nor Dee Valley were in the upper quartile of companies with respect to water quality contacts and so no adverse impacts were identified with the static approach – and even after applying a change matrix in the forward looking approach no adverse impacts were identified.<br>The sensitivity using additional data from 2014/15 also did not identify adverse impacts. |
| Service incentive mechanism (SIM) | No adverse impact | No adverse impact | **No adverse impacts were identified for the SIM**<br>Neither Severn Trent nor Dee Valley were in the upper quartile of companies with respect to their SIM scores and so no adverse impacts were identified with the static approach – and even after applying a change matrix in the forward looking approach no adverse impacts were identified.<br>The sensitivity using additional data from 2014/15 also did not identify adverse impacts. |

See Appendix 2 for more information on the quantification of the potential adverse impacts of the Merger on our benchmarks.

### 3.3.2 The number and quality of independent observations that remain

Criterion 4 in our statement of methods recognises that in addition to the direct impacts on our benchmarks we need to consider the number and quality of the independent observations that will remain after the merger. In particular the reduction in the number of comparators can have an impact on the robustness of our analysis by reducing the precision of estimates of explanatory variables derived from statistical modelling. For example, in PR14 we found it more difficult to develop robust models for wastewater than for water services, at least in part because we had only 10 observations for wastewater compared with 18 for water.

In addition to these general impacts the merging companies may have specific characteristics which make them particularly useful for us in modelling wholesale costs. If the companies were to provide useful variation in certain variables which helps us to identify key determinants of wholesale costs across companies, and some of this variation is lost as a result of the merger, this may result in a loss of precision in our models.

The CMA addressed both the general and specific approach in its investigations of the Pennon/Bournemouth merger as follows:

- **general approach** – this involved estimating the increase in the models' prediction error due to there being a smaller sample size. The approach does not re-estimate the benchmarking models. Instead, the standard errors are re-calculated using the fewer degrees of freedom that would correspond to a smaller sample; and
- **specific qualitative approach** – this involved focusing on whether, as a result of the merger, there was likely to be a loss of variation in the data used in Ofwat's models, and how this might affect the precision of these models.

In relation to the general approach, a range of approaches have been used by the CMA in Pennon/Bournemouth and FE to try to measure these effects and then translate these measurements into quantified estimates of adverse impacts on our ability to make comparisons between water enterprises. In its report on Pennon/Bournemouth, the CMA focused its assessment of the loss of precision on our wholesale cost models – where the potential for adverse impacts is greatest.

As noted by us and the CMA in the Pennon/Bournemouth merger, a loss of precision does not directly translate to customer detriment. This is because a loss of precision does not lead to our benchmarking consistently under- or over-estimating costs or performance. Rather, it means that we can be less confident that the predictions from our models are a sound basis on which to set future controls. In the context of our wholesale cost models, a loss of precision may mean that we under- or over-predict a company's costs.

The FE report follows the approach applied in the Pennon/Bournemouth merger and estimates that the Merger could lead to a 0.15 percentage point expansion in the error band around our estimates of wholesale water costs, which based on the total wholesale water costs, would correspond to a monetised loss of precision of £5.3 million per year. The FE report also uses two alternative sensitivities as a supporting check on its results, one using the wholesale cost models developed by the CMA in its Bristol Water price control determination and the other using more a more conservative calculation of standard errors (a statistical measure of precision). These produce a range of estimates for the loss of precision of between £1.9 million per year and £7 million per year.

These estimates are broadly in line with the estimates derived by the CMA in its assessment of the loss of precision of £6.3 million per year associated with the Pennon/Bournemouth merger. The CMA noted that these estimates should not be interpreted as a direct estimate of the adverse impacts on customers from a loss of precision but as increased uncertainty around the estimates of explanatory variables that could lead to costs being estimated on either a higher or lower basis following a merger[12]. An increase in the error band around our benchmark estimates of wholesale costs could impact on the confidence we might have in using econometric models to set appropriately challenging efficiency benchmarks in the future and we consider this will be a more important issue in future merger investigations.

In Pennon/Bournemouth the CMA also carried out a qualitative assessment of the effect of that merger on the precision of our wholesale cost models. Following the approach adopted by the CMA in Pennon/Bournemouth, we have considered those variables where there is a significant reduction in variability (using the 10% threshold used by the CMA).

[12] See paragraph 6.170 in CMA, 2015, Pennon Group and Bournemouth Water

The prevailing view is that the merged company is more likely to be similar in performance to Severn Trent because of the size disparity between the merging parties. The qualitative analysis in the FE report followed the approach put forward by the CMA, considering the percentage changes in the standard deviation of the explanatory variable if Dee Valley was not included in the dataset. FE identified three variables used in our modelling for which the reduction in the standard deviation would be at least 10%:

- the proportion of properties below pressure reference level;
- the proportion of water input from rivers; and
- the proportion of water usage from metered business customers.

Of these variables only one was used in all our main wholesale water models at PR14 (water input from rivers). In relation to the other two variables (the proportion of properties with water pressure below reference levels and proportion of water usage from metered business customers), Dee Valley appears to be an outlier with relatively poor performance, suggesting that it may be of limited value for benchmarking purposes or for deriving precise estimates of industry cost drivers.

Taken together, these factors suggest the Merger will create individually no greater issues in relation to loss of precision than Pennon/Bournemouth – but there remain issues in our assessment of the loss of precision:

- While the approaches set out in the FE report encompass those used by the CMA in Pennon/Bournemouth and some interesting additional sensitivities, they do not address the issue previously identified by the CMA that estimates of loss of precision do not directly provide clarity on the potential extent of customer detriment.
- While the qualitative assessment described above is reassuring in the sense that the impacts identified appear less than those associated with the Pennon/Bournemouth merger, it does not produce quantified estimates of adverse impacts.
- The assessment does not recognise that the impacts of the loss of a comparator on precision are cumulative. There is likely to be a point in a future merger where the loss of a comparator is such that we can no longer have sufficient confidence in the use of econometric models to set efficiency challenges.

Looking forward there is clearly a case for seeking to improve the calibration of adverse impacts associated with the loss of precision in our approach to merger assessment. We recognise that loss of precision may not be directly equivalent to adverse impacts on customers because the resulting models could either give higher or lower estimates of costs. However, companies for which a model over predicts costs because the model is imprecise are unlikely to challenge the estimate whereas companies for which a model predicts a low cost are high-likely to both challenge the model and to submit special factor costs claims for the costs of which they consider are not captured accurately with our models. Consequently, there may be real adverse impacts associated with the loss of precision. It will also be appropriate to consider further whether there might be some tipping point where the cumulative loss of comparators might cause significantly greater damage to, or the loss of, some categories of benchmarking models.

Given our assessment at PR14 that the loss of up to two small WOC comparators is unlikely to prejudice our ability to make comparisons in the PR19 wholesale cost assessment[13], and given the modest detriment identified, we did not seek to address these weaknesses in this assessment but recognise that it may well be appropriate to revisit them in any future merger assessments.

### 3.3.3 The loss of comparators with important similarities or differences for comparison

Consistently with criteria 5 and 6 in our statement of methods, the CMA, in its assessment of the Pennon/Bournemouth merger, considered the impact on our use of qualitative comparisons in relation to:

- ongoing monitoring;
- enforcement; and
- spreading best practice.

The CMA, in that merger, concluded that, in relation to ongoing **monitoring** and **enforcement**, evidence provided did not relate to the impact of the loss of the merger parties as independent comparators and so concluded that the merger would

[13] In Annex 3 of out PR14 Final Determination Notice, we said “We consider that, if one or two companies were to merge during the PR14 price control period, the PR19 wholesale cost assessment models would still be robust enough to be used in the same way that the PR14 models have been. Consequently, we consider that the loss of precision from the loss of a comparator would have no material impact on customers.”

not adversely impact Ofwat's ability to monitor performance or enforce regulatory provisions.

In relation to the **spreading of best practice**, the CMA examined whether the reduction in comparators might reduce our ability to identify and spread best practice. It concluded that the merger would not have an adverse impact because:

- Bournemouth Water was a small WOC and the scope for learning by other larger companies was limited;
- best practice specific to small water companies will impact only a small proportion of the sector; and
- best practice can be spread using a range of techniques and not only comparative assessment across water enterprises.

We have carried a qualitative assessment of the potential impact of the Merger on our ability to spread best practice by making comparisons across the following areas:

- customer engagement;
- company specific adjustments to cost benchmarking results;
- company behaviour;
- accounting information and the reporting of data;
- financeability, risk and reward; and
- performance commitments (PCs) and ODIs.

In none of the six categories identified above have we found that Dee Valley is especially useful in making comparisons with other companies, and in only very limited circumstances (such as demonstrating that a small WOCs can retain a stock exchange listing) does it have attributes or deliver for customers in ways that provide material assistance to us in making comparisons with other companies. Severn Trent has been a more helpful comparator, for instance in respect of aspects of its customer engagement and ODIs – but in general we would not expect the proposed merger to jeopardise these aspects of its performance given that Severn Trent is taking over Dee Valley and Severn Trent is a much bigger enterprise. More detail of these assessments is set out in Appendix 2.

We have also specifically considered whether the Merger might impact on our approach to regulating the business retail sector. From April 2017 business customers[14] which use the supply and/or sewerage systems of appointed companies whose areas are wholly or mainly in England will be able to choose their provider of water and sewerage retail services in a competitive market. We intend that these market arrangements and market forces will be the primary way of protecting customers that receive these services, although underpinned by regulatory rules and our enforcement and concurrent competition powers.[15] There will remain business customers which use the supply system and/or sewerage system of appointed companies whose areas are wholly or mainly in Wales (including Dee Valley) that will not be able to participate in the competitive market unless they use more than 50Ml of water per year, in which case they may choose their water supplier only (as the Welsh government has said it remains to be convinced about the merits of extending retail competition). Nonetheless, we will have information from the wider market to help regulate the provision of services to these customers and the Merger will not have adverse impacts on our ability to make these comparisons.

The FE report also sets out a qualitative assessment of the potential impact of the merger covering ongoing monitoring, enforcement and spreading best practice. It explains that this assessment is for completeness – as FE suggests that the conclusions of the CMA on Pennon/Bournemouth on the lack of adverse impacts of the merger on these matters should also apply to the Merger.

In summarising the findings of the qualitative assessment, the FE report states the following (paragraphs 8.1.14 and 8.1.15 of the FE report),

> "Overall, we find that Dee Valley has limited attributes that are useful to Ofwat in making qualitative comparisons with other companies or sub-sets of companies, and provides limited scope to apply best-practice across the sector to help deliver an efficient, high quality service to customers. We summarise below our conclusions in respect of the impact on similarities and differences.
>
> - **Similarities:** Dee Valley's similarity to some of the smaller water only companies has not been particularly useful since, unlike

[14] "Business customers" includes all non-domestic supplies including businesses, charities and public sector companies. We refer to them collectively in this document as "business customers".
[15] Retailers who participate in the non-household market will be under new licence obligations and subject to new industry codes. There is a licence obligation and associated Customer Protection Code of Practice relating to particular customer protection matters. New regulations requiring retailers to meet guarantees standards of performance are also expected.

Bournemouth, it has not demonstrated particular best practice that could be used by Ofwat.

- **Differences:** There are only a few examples where Dee Valley could be categorised as part of the group of best practice companies. From our assessment of past performance (focusing on PR14), it appears that Dee Valley demonstrated best practice in engaging with customers on topics such as the pay-as-you-go-ratio. It is also an active contributor to Ofwat's public consultations raising issues that may be specific to small companies.

"We have identified very few areas where we consider Dee Valley to be useful as an independent comparator to enable Ofwat to carry out its functions. The loss of Dee Valley is highly unlikely to have a material effect and introduce a level of detriment over and above the detriment that it is possible to quantify in monetary or percentage terms."

FE's analysis and conclusions are similar to our analysis (as summarised above and set out in more detail in Appendix 2) and conclusions. In summary, none of the qualitative analysis suggests that the loss of Dee Valley as a comparator would represent a material adverse impact on our ability to make comparisons between water enterprises.

### 3.3.4 The results of our assessment of detriment

In the case of Pennon/Bournemouth, the CMA concluded that the adverse impacts that they had identified were not significant enough, either individually or in combination, to amount to prejudice to our ability to make comparisons between water enterprises.

We have reached similar conclusions in respect of the Merger. In particular:

- Dee Valley is a small WOC that played only a modest role in the benchmarking work that supported PR14 and was only classified as an upper quartile company in relation to the extra retail costs associated with servicing metered customers and the number of water supply interruptions. Consistent with these circumstances the modelling of impacts of the Severn Trent/Dee Valley merger on our PR14 benchmarks shows only small adverse impacts.
- We have carefully reviewed the work of FE submitted by the parties in support of their case and confirm that the approach is consistent with that used by the CMA in Pennon/Bournemouth.;

- In addition to the direct impact on benchmarks, mergers can reduce the precision of our models that may have adverse impacts on our ability to use these models to make comparisons. The analysis that has been undertaken indicates that the loss of precision is no more than that associated with Pennon/Bournemouth individually and does still allow us to use our comparator models even when the cumulative effect with Pennon/Bournemouth is considered; and
- In relation to our use of qualitative comparisons we found that Dee Valley is not especially useful in making comparisons with other water companies and only in very limited circumstances (such as in demonstrating that a small WOC can retain a stock exchange listing) does it have attributes that are of material assistance to us in making comparisons with other companies. Severn Trent has been a more helpful comparator, for instance in respect of aspects of its customer engagement and ODIs – but in general we would not expect the Merger to jeopardise these aspects of its performance given that Severn Trent is taking over Dee Valley and Severn Trent is a much bigger enterprise.

Bearing all of the above considerations in mind our opinion is that it is reasonable to conclude that the potential adverse impacts associated with the Severn Trent/Dee Valley merger are not significant enough, either individually or in combination, to be expected to prejudice our ability to make comparisons between water enterprises.

# 4. Relevant customer benefits and undertakings in lieu

Our statement of methods explains that if we consider that a merger is likely to prejudice our ability to make comparisons between water companies then we would consider whether the prejudice is outweighed by relevant customer benefits relating to the merger[16] [17].

Chapter 3 explains that the adverse impacts that we have identified in the circumstances of this particular merger are not significant enough, either individually or in combination, to amount to prejudice to our ability to make comparisons between water enterprises.

In these circumstances the detailed assessment of relevant customer benefits is not necessary according to our statement of methods or the Act. This is consistent with the approach adopted by parties in their Merger Notice, which explains they do not consider that the proposed merger would give rise to any prejudice to Ofwat's ability to make comparisons between water enterprises, that it should not be necessary for the CMA to make an assessment of relevant customer benefits, and so they have not made detailed submissions on these matters.

[16] This is consistent with section 33B of the Water Industry Act 1991 (as modified by the Enterprise Act 2002) that states where the CMA makes a request undersection 33A then Ofwat must give its opinion and 'where it forms the view that the actual or prospective merger has prejudiced or is likely to prejudice that ability, whether the prejudice in question is outweighed by any relevant customer benefits relating to the merger'.

[17] Our statement of methods also explains that if relevant customer benefits do not outweigh likely prejudice then the CMA may accept undertakings in lieu (UIL) instead of making a reference for a Phase 2 investigation. In deciding on whether to accept UIL the CMA must request and consider our opinion on the likely effectiveness of the undertakings.

# Appendices

# A1 The extent to which the merger will change benchmarks

This section discusses criterion 3 in our statement of methods and the likely impact of the Merger on our benchmarks. Our analysis of these matters has been based on a targeted review and assessment of the analysis in the FE report as discussed in Chapter 3.

The counterfactual used in the FE report had taken into account the fact that the merger between the Pennon Group and Bournemouth Water had already taken place and that, following its acquisition by Severn Trent, Dee Valley would cease to be an independent comparator. This counterfactual constituted a conservative case as it did not take account of Severn Trent's proposal to continue to operate two separate licensees, its proposed restructuring of the business, and the additional comparative information that these proposals would create.

As well as the choice of counterfactual we have reviewed the approach that is taken in the FE report to the calculation of the possible adverse impacts associated with the Merger. As noted in section 3.3.1 we have taken a risk based approach to these matters focusing most on the areas where we would expect the largest adverse impacts – based on the historical and forecast performance of Severn Trent and Dee Valley. Where these areas are concerned we have undertaken further analysis and where necessary challenged the assumptions in the FE report.

Each of the main areas where we used benchmarking analysis at PR14 is dealt with below and we summarise the approach taken to identify the possible adverse impacts of the Merger.

## A1.1 Wholesale cost benchmarking

In the context of wholesale cost modelling, the impact of a loss of a comparator can be assessed by considering whether a merger might change the efficiency benchmarks that we use in setting price controls. If our upper quartile benchmarks change this could result in other water companies across the sector receiving a less (or more) demanding determination or efficiency challenge, relative to the counterfactual case in which there is no merger.

The merger could affect Ofwat's ability to set appropriate benchmarks by removing a valuable comparator or more generally by reducing the precision of the estimates in our models. This Appendix focuses on the analysis of the effects of removing the merged companies from our benchmarking. The analysis on the effect on precision of our models is presented in section 3.3.2 above.

At PR14 we benchmarked the wholesale costs of companies against each other using a variety of econometric and unit cost models[18]. The efficiency scores derived from these historical performance models were used to set the upper quartile (UQ) efficiency adjustment applied at PR14[19]. We then used the benchmarking models to make projections of costs over the period of the new price controls and applied the UQ adjustment to these projections to give a set of efficient cost targets for the new price controls.

The first steps in the analysis in the FE report were to adjust the dataset to reflect the Pennon/Bournemouth merger and then use this data set to re-estimate the models used at PR14 to set the wholesale cost benchmarks. The FE report then considers the implications of these revised models using static and forward looking approaches.

### A1.1.1 The static approach

The static approach examined the UQ efficiency challenge derived from the re-estimated models on the basis of 17 independent observations, with the UQ efficiency challenge following the consolidation of the data for Severn Trent and Dee Valley into a single set of observation. This then allowed the change in the UQ efficiency challenge arising from the merger to be estimated.

Since neither of the parties were in the upper quartile (they were ranked 7th and 8th in the efficiency scores deriving from the re-estimated PR14 model), we would generally expect that the merger would increase the stringency of the UQ challenge, due to the reduction in the number of companies and the UQ point moving from the company ranked 5.25 to the company ranked 5. A more stringent efficiency challenge would suggest that there were no adverse impacts of the merger.

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[18] The econometric models for the water network relied on historical data of the 18 comparators (opex from 2008-09 to 2012-13 and capex from 2005-06 to 2012-13). The econometric models for wastewater relied on data from ten comparator companies as there are fewer water and sewerage providers.
[19] The upper quartile was situated between the 5th and 6th ranked companies at 93.47% (calculated by reference to outturn totex used in the wholesale cost modelling divided by modelled totex after triangulation).

The FE report finds that the UQ efficiency challenge will increase from 5.90% to 5.99%. Based on industry totex in PR14 of circa £17.4 billion, the FE report concludes that the Merger would result in no adverse impacts but rather benefits to customers of £14.7 million over five years at PR14.

### A1.1.2 Forward-looking approach

As well as the static approach, the FE report considered a forward looking approach. In making these calculations FE used the same analytical framework as applied by the CMA in the Pennon/Bournemouth merger and considered the same three scenarios:

- historical ranking: the initial rankings were based on the ones that result from the re-estimated PR14 models and matching historical costs. Rankings for PR19 and future periods were estimated probabilistically via a change matrix;
- business plan: the estimated rankings at PR19 were based on the efficiency scores constructed from the ratio of totex reported in the PR14 business plans to the projections of totex from the re-estimated PR14 models. Rankings for future periods were estimated probabilistically via a change matrix; and
- business plans with change matrix applied to PR19: expected rankings were based on the business plan after applying the change matrix. This starting point suggested that companies' actual PR14 performance was not likely to be the same as indicated in the business plans but would involve changes in rankings based on the change matrix. Rankings for future periods were estimated probabilistically via a change matrix.

The results from these scenarios constituted the basis for the analysis in the FE report of the expected effect going forward. Consistent with our statement of methods the FE report considers the effect of the Merger on benchmarking over a 30 year period. To undertake this analysis FE used the past rankings to estimate the probability of companies moving up and down the efficiency rankings (these formed the change matrices). This probability of companies moving up or down was used to evaluate the probability that the companies would be in the UQ in future price reviews. This allowed FE to develop probabilities for the following scenarios:

- both companies being UQ and merged company is UQ;
- Severn Trent being UQ, Dee Valley being non-UQ and the merged company being UQ;
- Severn Trent being UQ, Dee Valley being non-UQ and the merged company being non-UQ;

- Dee Valley being UQ, Severn Trent being non-UQ and the merged company being UQ;
- Dee Valley being UQ, Severn Trent being non-UQ and the merged company being non-UQ; and
- both companies being non-UQ and the merged company being non-UQ.

These probabilities, combined with the potential monetary effect of each scenario were used to calculate a weighted average of the different effects. The table below shows the estimated effect under each one of the three starting points discussed above:

**Table A1.1 Summary of the forward-looking effects identified in the FE report for wholesale costs**

| PR14 rankings | NPV (in £ million) |
|---|---|
| Business plan rankings applied directly in PR19 | £67.0m (benefits) |
| Business plan rankings with change matrix applied to PR19 | £16.9m (benefits) |
| Historical rankings | £3.3m (adverse impacts) |

Source: Frontier Economics

As pointed out in the FE report, the difference in the results is largely driven by the fact that the parties are deemed less efficient when business plan rankings are used. This suggests that if future performance is likely to follow historical performance (that is good performing companies are more likely to remain good performers in the future) then the Merger may be expected to have a small detriment. If, the expectations set out in business plans are a better predictor of future performance then the Merger may be expected to lead to customer benefits. We do not consider that either approach is necessarily more reliable in the context of this merger. However, on balance, this analysis suggests that there is unlikely to be a significant detrimental effect on our ability to set efficient cost target.

As with the static model, we considered the robustness of the counterfactual and the assumptions as well as reviewing the method used. We concluded that the approach was consistent with our statement of methods.

## A1.2 Retail activities

Business retail activities in England will be open further to competition in 2017 and the combination of competition and market information should be sufficient such that there are no adverse impacts on business retail customers from the loss of comparative information that will follow from the merger.

In relation to residential retail at PR14 we used a regulatory approach based on average cost to serve (ACTS). Nonetheless, we indicated that at PR19 we would expect to use a frontier approach, such as basing costs on UQ performance to help us regulate these activities[20].

The CMA took into account this potential evolution of approach in its analysis of the Pennon/Bournemouth merger. It considered what impact the merger could have on a UQ/frontier approach to setting costs. It used a similar forward looking approach to the forward looking scenarios it considered in relation to wholesale costs.

This is one of the areas where one of the parties is a high performer (Dee Valley being 3rd in the ranking for measured customers). Therefore, we undertook a more in-depth review of the analysis underpinning the FE report. As part of this analysis we checked the underlying calculations. Where we identified minor differences in approach, we challenged the assumptions made by FE. After reviewing FE's responses, we are satisfied that their findings are consistent with our statement of methods.

FE was not able precisely to replicate the CMA's approach because of the limited amount of information in the public domain on its precise approach to modelling retail costs. Nonetheless, it was able to follow key elements of the CMA's approach.

It used the same overall approach as the CMA for the retail benchmark analysis. The starting point for the analysis of the Severn Trent/Dee Valley merger is a dataset with 17 companies to account for the Pennon/Bournemouth merger. In line with the approach taken by the CMA (and Ofwat) in the Pennon/Bournemouth case, it assessed the impact of the Merger under the same six different scenarios used in relation to wholesale costs discussed in the preceding section. It applied a change matrix[21] and then calculated the probability that Severn Trent and Dee Valley are upper quartile companies. The total probability of each scenario is then multiplied by

[20] See for example Towards Water 2020 – policy issues: regulating monopolies
[21] Changes matrices have been used in previous merger investigations, they are based on past movements in rankings and captures the probability of a company changing ranks, given its ranking at the outset.

the impact of that scenario. The impact of the scenario is the generalised impact of losing either an upper quartile or a non-upper quartile company.

FE also used the CMA's approach to convergence in its analysis. The CMA expected costs to converge over time and considered three approaches to convergence. FE replicated this approach on the basis of the same three scenarios:

- convergence starts in 2020/21 and water companies whose cost to serve is higher than the UQ converge to the UQ by 2025;
- convergence starts in 2020/21 and 75% of the gap between the frontier company and the rest of the industry is closed within 20 years; and
- convergence starts in 2015/16 and 75% of the gap between the frontier company and the rest of the industry is closed by 2034/35.

The impact of losing an upper quartile or non-upper quartile company is determined by the convergence in underlying costs. As well as using the CMA's three sets of convergence assumptions from Pennon/Bournemouth, FE added a fourth scenario based on Ofwat's statements in the Pennon/Bournemouth case where convergence starts in 2015/16 and companies whose cost to serve is higher than the UQ converge to the UQ by 2024/25.

The table below shows the results FE obtained in the scenarios used by the CMA.

### Table A1.2 Summary of the forward-looking effects identified in the FE report for retail services

| Approach | NPV with no glide path (over 5 years) | NPV with glide path (over 5 years |
|---|---|---|
| Impact of convergence from 2020 /21to UQ in 2025 | £7.9 m (benefits) | £16.1 m (benefits) |
| Impact of convergence from 2020/21 to 75% of frontier in 2040 | £3.5 m (detriment) | £8.8 m (benefits) |
| Impact of convergence from 2015 to 75% of frontier in 2035 | £ 2.2 m (detriment) | £1.2 m (detriment) |

Source: Frontier Economics

As noted above, we considered the robustness of the counterfactual and the assumptions, as well as reviewing the methods used in the FE report. We concluded that the approach was consistent with our statement of methods. The alternative scenarios considered by Frontier showed detriment in the range £0 million - £0.2 million and so did not suggest greater adverse impacts of the Merger.

## A1.3 Monitoring and incentivising service quality: Outcome Delivery Incentives (ODIs)

In PR14, for the first time, companies developed a set of outcomes that reflect what their customers need, want and can afford. Companies were required to determine performance commitments to support their outcomes. In assessing company business plans, we sought evidence to assess that the performance commitments proposed were challenging, appropriately incentivised each company to deliver and were supported by customer engagement.

Where possible we performed detailed comparative analysis across all companies where they proposed similar performance commitments and outcome delivery incentives. In particular, we considered it important that companies were incentivised to deliver UQ performance in those areas where they were proposing comparable performance commitments and ODIs. Our analysis highlighted some variations, causing us to intervene to protect customers' interests.

Five specific aspects of service delivery were identified where it was possible to compare the proposed performance commitment levels. These were:

- duration of supply interruptions;
- number of contacts from customers regarding water quality;
- compliance with DWI water quality standards;
- number of sewerage pollution incidents; and
- number of properties impacted by internal sewer flooding.

The last two of these performance commitments are not affected by the Merger as Dee Valley, as a water only company, does not face sewerage related performance commitments. Further, the CMA in Pennon/Bournemouth concluded that mergers are unlikely to have an effect on compliance with DWI water quality standards. The CMA pointed out that all companies obtained similar average scores between 2011/12 and 2013/14 and, as a result, the merger was unlikely to lead to any effect on the benchmark.

As a result, the analysis in this instance needs to focus only on the two remaining performance commitments – duration of supply interruptions and number of contacts from customers regarding water quality. Supply interruptions was one of the areas where one of the parties is a high performer (Dee Valley was 4$^{th}$). Therefore, we undertook a more detailed review of the analysis undertaken in the FE report. Chapter 3 explains how the FE report uses the approach adopted by the CMA in Pennon/Bournemouth to estimate the adverse impacts of the merger on this benchmark.

We checked the calculations in the FE report using our own spreadsheet templates and reviewed the assumptions made by FE in completing its analysis. Based on this review and FE's answers we are satisfied that FE's findings are consistent with our statement of methods and the approach the CMA used in the Pennon/Bournemouth merger.

The FE report shows the following expected effects for the performance commitments as set out in the table below.

**Table A1.3 Summary of the static and forward-looking effects identified in the FE report for retail services**

| Performance measure | Static impact (NPV over 3 years) | | Forward looking impact (NPV over 5 years) | |
|---|---|---|---|---|
| | Penalty rates | Reward rates | Penalty rates | Reward rates |
| Supply interruptions | £3.4m (detriment) | £2.3m (detriment) | £0.4m (detriment) | £0.3m (detriment) |
| Water quality contacts | £15.6m (benefits) | £10.9m (benefits) | £13.2m (benefits) | £9.0m (benefits) |
| Total | £12.3m (benefits) | £8.6m (benefits) | £12.7m (benefits) | £8.7m (benefits) |

Source: Frontier Economics

## A1.4 Monitoring and incentivising service quality: SIM

The service incentive mechanism (SIM) is a financial incentive mechanism that was introduced in 2010 to encourage companies to provide better customer service. This incentive compares service delivery performance and provides financial rewards and penalties associated with company relative performance. Under the SIM, companies that perform comparatively well are rewarded and those that perform comparatively poorly are penalised.

At PR14, we reviewed each company's three year SIM performance against the information provided by all companies. We used average data reported from the three years 2011/12 to 2013/14 to apply rewards and penalties in the range of +0.5% to -1.0% of company turnover.

The calculations of adverse impacts in the FE report assume that a merger will lead to two water companies that previously reported their SIM scores separately, reporting a single combined SIM score. The penalties and rewards for SIM are based on the distribution of the SIM data and the Merger may mean that the point at which penalties and rewards are given becomes less demanding.

To account for this potential effect, the CMA in Pennon/Bournemouth decided to focus its analysis on a forward-looking approach similar to that it had adopted for ODIs. The CMA also considered the static effect but discounted the result as, given the significant range of convergence in SIM, the historical impact of SIM is unlikely to be meaningful.

In implementing the forward looking approach, the CMA noted in its Pennon/Bournemouth analysis that due to the convergence in SIM scores the impacts of the merger on SIM beyond 2020 are likely to be relatively small, but it adopted monetising merger impacts until 2025.

The FE report replicated this approach in its report on the Merger by weighting Pennon's and Bournemouth's SIM scores by the relative number of properties for each company to arrive at the SIM score of the merged company. It did not manage to replicate the precise results of the CMA but its model consistently overstated the potential detriment arising from Pennon/Bournemouth and, as such, it would constitute a more conservative approach.

With this conservative approach the FE report identified a potential customer benefit of £7 million over ten years. They also point out that if we were to keep these two companies as two separate observations, the customer benefits could be £3 million over 5 years.

# A2. Loss of a comparator with important similarities or differences

Criteria 5 and 6 in our statement of methods explain that we will consider the extent to which the pre-merger companies operate in similar/different circumstances to the other companies, or a sub-set of the remaining companies in the industry. If at least one of the merger companies is a valuable comparator for the regulatory regime, this would have the potential for greater detriment.

As well as making quantitative use of comparators in setting price limits we also make use of qualitative comparisons across a range of areas including:

- customer engagement;
- company specific adjustments to cost benchmarking results;
- company behaviour;
- accounting information and the reporting of data;
- financeability, risk and reward; and
- performance commitments (PCs) and ODIs.

This appendix describes these qualitative comparisons and deals with the fifth (the loss of a comparator with important similarities) and sixth criteria (the loss of a comparator with important differences) in our statement of methods.

## A2.1. Loss of a comparator with important similarities

If at least one of the parties operates in similar circumstances to other water companies, its removal from our analysis would have the potential for adverse impacts. Our assessment focuses on:

- the extent to which the parties operate in similar circumstances to other companies in the sector; and
- areas where the parties provide valuable information for us to identify best practice which may no longer be available post-merger.

## A2.2. Loss of a comparator with important differences

If one of the parties has helpful important differences – for instance it demonstrates best practice or frontier performance – its loss of independence could have adverse impacts. Our assessment focuses on:

- which one or both of the parties operates in a way which is different and better from other companies in the sector; and
- if so which information on these matters would continue to be available post-merger.

## A2.3. Assessing potential impact

We have assessed the potential impact on our ability to make qualitative comparisons using criteria consistent with those we used in assessing the Pennon/Bournemouth merger, as summarised in the table below.

**Table A2.1: criteria applied to the qualitative assessment**

| Score | Assessment definition |
|---|---|
| A | The party has attributes that have been or are likely to be especially useful in making comparisons with other companies. |
| B | The party has attributes that have provided or are likely to provide substantial assistance in making comparisons with other companies. |
| C | The party has attributes that have provided or are likely to provide only limited assistance in making comparisons with other companies. |
| D | The party does not have attributes that have been used or are likely to be used in making comparisons. |

### A2.3.1. Customer engagement

Customer engagement played a critical role in PR14 and we anticipate it will continue to be a very important part of the regulatory framework.

**Table A2.2: qualitative assessment of customer engagement**

| Customer engagement | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Was either party identified as having best practice with regard to customer engagement? | | | B | C | We score Severn Trent as "B". Severn Trent scored well in the PR14 risk-based review passing all three elements of the customer engagement tests and on one of the tests "Engagement with wider consumer interest", we judged Severn Trent to be exceptional.<br>We score Dee Valley as "C". Dee Valley was a poor performer on the customer engagement tests in the PR14 risk based review when most other companies performed well or very well. |
| Was either party identified as having best practice with regard to its affordability measures? | | | B | C | We score Severn Trent as "B". At the PR14 risk based review, overall we categorised Severn Trent as acceptable for the affordability tests. For those customers experiencing affordability problems, Severn Trent proposed a number of measures that allowed us to identify best practices in this area.<br>We score Dee Valley as a "C". We requested additional evidence from Dee Valley during PR14. This was based on the relatively low levels of acceptability and issues with presentation of inflation. |

Given that Severn Trent is taking over Dee Valley and is a much bigger enterprise it should be able to retain and develop its approach to customer engagement post-merger. Dee Valley has a weaker track record with respect to customer engagement.

### A2.3.2. Company specific adjustments to cost benchmarking results

We used comparisons to help assess the requests that companies made for special cost factor adjustments to our wholesale and retail cost benchmarking allowances at PR14.

**Table A2.3: qualitative assessment of specific cost adjustments**

| Specific cost adjustments | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Did either party provide best practice evidence on assessment of special cost adjustments for allowed wholesale service expenditures? | B | C | | | We score Severn Trent as "B". Severn Trent is a large WaSC that put forward a number of special cost factor claims at PR14 and had specific characteristics that helped us assess special cost factor claims from other companies. These included characteristics such as transport of bulk water over relatively large distances and a significant emphasis on catchment management.<br><br>Dee Valley was classified as "C". It has some characteristics that could be useful to make sub-sample comparisons but its use in the identification of best practices is very limited. |
| Did either party provide best practices evidence on assessment of specific retail cost adjustments? | C | C | | | No significant specific adjustments were made to Severn Trent's residential retail costs at PR14 and its customer base tends not to have unique characteristics. Therefore, we consider that Severn Trent has been of limited help when identifying best practices and have scored it as "C".<br>There were also no significant specific adjustments in relation to Dee Valley's residential retail costs at PR14. As above it may be a useful comparator for small WOCs but it has been of limited use when identifying best practices and so we have scored Dee Valley as "C". |

Severn Trent will retain its position as a large WaSC after the Merger and should continue to provide useful information in respect of special cost factor claims.

### A2.3.3. Company behaviour

It is important for us to try to identify and spread best practice in respect of the business plans that support price control reviews.

**Table A2.4: qualitative assessment of company behaviour**

| Company behaviour | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Was either party identified as having best practice with regard to business planning (e.g. did it achieve enhanced status)? | | | B | C | Severn Trent was not an enhanced company, although we did identify best practice in some areas, in particular the excellent customer engagement processes.<br>Dee Valley was not an enhanced company either, as more evidence was required in respect of wholesale costs, customer engagement and willingness to pay, performance commitments, average cost to serve, adjustments for performance and affordability. |

Given that Severn Trent is taking over Dee Valley, and is a much bigger enterprise, it should be able to retain and develop its approaches with respect to business planning post-merger.

### A2.3.4. Accounting information

We also make comparisons for the purpose of developing our regulatory accounting arrangements.

**Table A2.5: qualitative assessment of accounting information**

| Accounting information | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Has either party demonstrated best practice with regard to tax assumptions in its business plans? | | | C | C | Severn Trent was an outlier in its tax treatment of Infrastructure Renewals Expenditure but following challenge this was accepted. For Dee Valley Ofwat had no reason to challenge the tax assumptions made by the company. Both companies published a tax reconciliation for 2015-16 comparing allowed tax to actual but we did not consider that either company had fully explained the variances arising. Both companies have been scored as a "C". |
| Has either party been identified as having best practice with regard to regulatory reporting? | | | C | C | Neither Severn Trent nor Dee Valley showed examples of best practice with regard to regulatory reporting (and both had minor infringements in 2015-16). We have scored both companies as "C". |
| Does either party demonstrate best practice in other aspects of accounting policy? | | | C | C | We score this as "C" for both as we have no evidence of the parties being useful comparators in other aspects of accounting policy. |

We have not used the accounting practices or policies of Severn Trent or Dee Valley to spread best practice across the sector and so the merger should not create adverse impacts in respect of these matters.

### A2.3.5. Financeability, risk and reward

We have put in place a performance reporting and assurance framework, which will require companies to increase transparency around their performance reporting and governance arrangements, and draws on comparative assessments. At PR14 we also made comparisons across companies in assessing the evidence provided in their business plans relating to financeability.

**Table A2.6 qualitative assessment of financeability, risk and reward**

| Financeability, risk and reward | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Are the parties' financing structures and/or governance arrangements consistent with best practice? | | | B | B | We score both companies as "B", as both perform reasonably well in this area, helped by having listed parent companies, which can help drive improvement at other companies. |
| Were the parties' choices of PAYG rate, RCV run-off rate and asset lives consistent with customer views at PR14? | | | B | C | For the final determination we accepted Severn Trent's evidence in support of its changes to PAYG rates and so we assess that Severn Trent demonstrated good practices and has been scored as "B".<br>Dee Valley's business plan did not provide sufficient evidence to convince us that its use of PAYG and RCV run-off levers would not lead to a risk of affordability problems in the long term. We have scored Dee Valley as "C". |
| Did the Board (or external) assurance that each company provided with their plan was financeable on an actual and notional basis represent best practices? | | | B | C | Severn Trent provided appropriate assurance from its Board that it was financeable on an actual and notional basis in its business plan and on this basis we have scored it as "B".<br>We identified significant issues with financial data provided by Dee Valley during the review of the company business plan and so we required the company to provide Board and additional third party assurance on the calculation of financial ratios and financeability. It was not used to identify best practice and has been scored "C". |

Dee Valley is the smallest water only company we regulate when measured by RCV (current RCV £76m); Portsmouth Water, Sutton and East Surrey Water, South Staffordshire Water and Bristol Water are the only other water only companies with RCVs below £500m. While Dee Valley could, in the future, potentially be useful as a comparator to allow us to assess claims related to the financing costs of other small water only companies when setting price limits, when taken in the round, we do not consider this to be a material issue in the context of this merger assessment. In particular, we do not expect any new information on Dee Valley's cost of debt until after 2032.

Severn Trent has been a useful comparator in the identification of best practices on financeability and risk and reward. As with the other aspects of its performance discussed above, this should continue post-merger.

### A2.3.6. Performance commitments (PCs) and Outcome Delivery Incentives (ODIs)

Company specific outcomes, performance commitments and outcome delivery incentives were introduced at PR14 for the first time. Companies were required to demonstrate that their proposals were consistent with Ofwat's requirements and reflected customer willingness to pay. In making assessments of these matters we made comparisons across companies.

**Table A2.7 qualitative assessment of performance commitments and outcome delivery incentives**

| PCs and ODIs | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| Has either party developed a high quality and innovative set of performance commitments? | | | C | C | We score both Severn Trent and Dee Valley as "C" as both were required to provide additional evidence to support their PCs at PR14. |
| Has either party adopted a high quality and innovative approach to setting ODIs? | | | A | C | We score Severn Trent as "A". Severn Trent proposed several innovations in its approach to outcomes at PR14 including not having caps and collars on individual ODIs to allow for greater incentives and having a large number of in-period ODIs to increase the immediacy of their impacts.<br>We score Dee Valley as "C". It submitted only a small number of financial |

| PCs and ODIs | Similarities | | Differences | | Commentary |
|---|---|---|---|---|---|
| | Severn Trent | Dee Valley | Severn Trent | Dee Valley | |
| | | | | | ODIs in its PR14 business plan. |
| Does the company's reporting on performance represent a leading approach? | | | A | C | We score Severn Trent as "A". Under our company monitoring framework Severn Trent is currently assessed as being on the top of three tiers and in our "targeted" category.<br>We score Dee Valley as a "C". Under our company monitoring framework Dee Valley is currently assessed as being on the third of three tiers and in our "prescribed" category. Companies in the prescribed category are required to publish their assurance plans for all information in advance of reporting. |

We consider that Severn Trent has demonstrated performance that has helped us make comparisons with other companies, particularly its industry-leading approach to ODIs. Dee Valley has been of much more limited assistance in making comparisons with other companies.

## A2.4. Overall assessment of similarities and differences

Our review above shows that Dee Valley has been of very limited value in terms of developing best practice that has then been used to help regulate or spread best practice to other companies in the sector (it has been a useful comparator in terms of governance arrangements, particularly as it is a small WOC, but on relatively little else). Severn Trent has been more helpful, for instance in respect of aspects of its customer engagement and ODIs – but in general we would not expect the proposed merger to jeopardise these aspects of its performance given that Severn Trent is taking over Dee Valley and Severn Trent is a much bigger enterprise.