

Appendix 2

**LEF Report to Ofwat on Bristol Water's 2015-2020 Business Plan.
December 2013**

Bristol Water's

Local Engagement Forum



Report to Ofwat on Bristol Water's

2015-2020 Business Plan

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Executive Summary

The purpose of this report is to provide assurance and opinion to Ofwat on the work of the Bristol Water Local Engagement Forum (LEF) in connection with its review and challenge of Bristol Water's 2015 – 2020 Business Plan and 25 year strategy.

As a result of its work, the LEF is able to confirm:

- **Bristol Water's 2015-2020 Business Plan and its resulting impact on bills appropriately incorporate the views of its customers. There is strong customer acceptability for its Plan.**
- **The Company's customer research on its Plan has taken account of characteristics of good engagement set out by Ofwat and CCWater and has reached a wide range of its household and non-household customers, both current and prospective.**
- **The Plan is focused on a series of outcomes that reflect a sound understanding and reasonable balance of different customer and stakeholder views and priorities as evidenced by its research.**
- **The phasing, scope and scale of activities contained in the Plan are designed to deliver the outcomes in ways that are socially, economically and environmentally sustainable and to maximise acceptability to customers.**
- **Bristol Water has given adequate consideration to both the short and long term in its planning.**
- **The Company has considered and included innovative and sustainable approaches in its Plan that are designed to deliver its stated outcomes.**
- **Bristol Water intends to meet its statutory obligations and its overall Plan strikes a reasonable balance between maintaining current levels of service and maximising affordability and value for money for customers.**
- **The Company is proposing additional measures to assist those customers who are struggling to afford their bills through more effective promotion of its social tariffs and assistance schemes.**
- **Bristol Water will be using a suite of performance measures that are appropriate to monitor progress against its stated outcomes.**
- **In response to customers' views on rewards, the Company's Plan does not include rewards for out-performance other than those already in place under the current regulatory regime.**
- **As a result of the LEF challenges on creating more affordable bills, reducing costs and the cost of capital, Bristol Water is proposing a first year cut in bills before inflation, and then inflation only rises.**

We commend Bristol Water's 2015-2020 Business Plan and the LEF's review and challenge process.

**Charles Howeson
Chair LEF**

**John Savage CBE
Deputy Chair LEF**

The LEF was established in January 2012 with a diverse membership including customer representative organisations, the statutory consumer, water and environmental regulators, local authorities, trade organisations, environment and countryside groups.

The LEF's key objectives over the two years since its formation have been to advise and challenge Bristol Water on its customer engagement methodologies for the Business Plan, on its interpretation of the results of this engagement and the reflection of customers' views in its strategy and its business plans. The LEF has also challenged the Company on the scope, justification, cost-effectiveness and affordability of its plans.

The LEF and Bristol Water agreed and implemented effective meeting processes and protocols to enable the LEF to fulfill its objectives whilst maintaining its independence.¹ The engagement process involves effective review and robust challenge of the Company's customer research programme, business planning methodologies, assumptions and outcomes.²

Bristol Water has co-operated fully with information requests from the LEF and has responded positively and constructively to its challenges and information requests. The LEF and the Company have been able to work constructively and collaboratively in order to achieve their respective objectives. The Company has welcomed the advice and challenge provided by the LEF.

The LEF has been given adequate and appropriate access to Company information and personnel throughout the process.

In undertaking its work, the LEF has been fully aware of the need to robustly and independently challenge the Company and to be able to evidence its findings and opinions. The extent and detail of the LEF's challenges are described in the main body of this report.

Numerous changes and amendments to Bristol Water's plans have resulted from the LEF's challenges particularly in the following areas:

- The scope of and approach to customer research
- The design and definition of outcomes, performance measures and incentives
- The clarity of the Company's communication with its customers over its plans.
- Removal of financial rewards for out-performance other than the existing Service Incentive Mechanism (SIM)
- A reduction in the level of customer bills in relation to inflation in 2015-16, and

¹ A list of the meetings held with the Company is provided in the LEF's Governance Process document

² A full list of the challenges is listed in Appendix 1

- Further assistance measures for customers who are struggling to afford their bills

Extensive challenging by members of the LEF on the Company's customer research helped ensure the research was unbiased, gave a fair representation of Bristol Water's customers views, and was fed into the company's thinking on future investment.³

The LEF was keen to ensure that Bristol Water's future plans did not include or risk a reduction in level of service to customers. The LEF has paid close attention to the choices the Company has made in the discretionary areas of its Plan to ensure they align with the willingness of its customers to pay for them.

At the same time the LEF accepts that the Company is facing new statutory water quality and environmental obligations and that it has had to strike a balance between meeting these and doing as much as it can to maintain existing service levels.

The Drinking Water Inspectorate (DWI), the Environment Agency (EA) and Natural England (NE) were represented on the LEF and participated fully in the engagement process. The statutory quality regulators have assessed the Company's proposals to achieve compliance with its statutory obligations⁴. The DWI, EA and NE have confirmed to the LEF that they do not have material concerns in this respect.

The LEF's focus has been on ensuring that the work the Company is obliged to do is:

- Fully justified by the evidence available
- Worthwhile as other parties involved in achieving the obligation are doing their bit
- Supported by the associated quality regulator, and
- Customers will be paying no more than they have to for it.

In particular repeated challenges were made to the Company and the Environment Agency on the justification and cost effectiveness of Bristol Water's proposals to address new Eel regulations. As a result of the LEF's challenges, the Environment Agency and the Company agreed a cheaper solution coupled with ongoing discussions aimed at achieving the most cost-effective outcome for customers and the environment.

The Company's proposals to develop new water resources received particular scrutiny from the LEF due to their impact on customer's bills. The LEF is satisfied that the plans are warranted and the proposed timing of the associated investment

³ A statement from CCWater on the customer research, its use and the resulting outcome for customers in the Company's Plan is provided in Appendix 3.

⁴ Statements from the DWI, EA and NE are provided in Appendices 4, 5 and 6 respectively

strikes a reasonable balance between the impact on bills in the forthcoming five-year period and the next.

The LEF was particularly interested in the Company's proposals to adopt new and innovative ways of working to deliver its service to customers in the future and the beneficial impact these will have on customer bills. It wanted to be sure the Company was doing as much as it could to identify benefits to customers and the environment from doing things differently in the future and that any associated risks had been properly considered and would not be borne by customers. The increased use of catchment management in this respect is supported by the LEF.

The LEF challenged the Company to explore all opportunities to reduce bills in real terms whilst maintaining its good service to customers and meeting its statutory obligations.

Challenges by the LEF resulted in the Company moving from an initial position of increasing bills above inflation to increasing bills in line with inflation. Further challenges on creating more affordable bills, reducing costs and the cost of capital shifted this position further and Bristol Water's Business Plan now reflects a first year cut in bills before inflation, and then inflation only rises. The LEF welcomes this given its knowledge of more industry-wide efficiencies and assumed costs of capital.

Whilst the overwhelming majority of both household and non-household customers find the Company's plans to be acceptable, the LEF challenged the Company on how it intends to assist the few who didn't, particularly those customers who are currently struggling to afford their bills. The LEF was pleased to learn of the Company's intention to identify ways to promote its social tariffs and assistance schemes more effectively, both directly with consumers and indirectly through partner organisations such as its local Citizens Advice Bureau, Age UK, debt advice agencies and debt charities.

Whilst the LEF supports the principle of incentives to promote efficiency and innovation, it expressed particular concerns to Bristol Water over the inclusion of financial rewards where there is no evidence that customers were willing for the Company to benefit from out-performance.

The LEF welcomed the Company's decision to consult its customers on the principle of financial rewards for good performance in response to this challenge.

The LEF supports the Company's decision not to propose financial rewards other than the SIM as a result of the research findings that showed that customers did not want the Company to include financial rewards in its Business Plan.

1. Introduction

The independent Customer Challenge Group (CCG) for Bristol Water's Business Plan submission for Ofwat's 2014 price review is known as the Local Engagement Forum (LEF).

The purpose of this report is for the LEF to provide assurance and opinion to Ofwat in connection with its review and challenge of Bristol Water's 2015 – 2020 Business Plan and 25 year strategy. The report is in two parts; this volume which describes the work undertaken by the LEF, its findings and the evidence to support these; and a separate document which describes the LEF's objectives and its governance processes and includes the LEF membership, its terms of reference, a list of the meetings held and the minutes of these meetings.

The LEF was established in January 2012 with an independent chair and deputy chair and diverse membership including the Consumer Council for Water (CCWater), the Drinking Water Inspectorate (DWI), the Environment Agency (EA), Natural England and a selection of Bristol Water's key stakeholders including local authorities, trade organisations, environment and countryside groups, academics and representatives of customers with particular needs.⁵

The LEF's key objectives over the two years since its formation have been to advise and challenge Bristol Water on its customer engagement methodologies for the Business Plan, on its interpretation of the results of this engagement and the reflection of customers' views in its strategy and its business plans. The LEF has also challenged the Company on the scope, justification, cost-effectiveness and affordability of its plans.⁶

In order for the LEF to assure itself of the detail of Bristol Water's plans, and to gather evidence to support its findings, three LEF sub-committees were formed covering customer service (chaired by CCWater), water resources management planning (chaired by EA) and the investment programme (chaired by CCWater). The Customer Service Sub-Committee has met regularly since May 2012, the Water Resources Sub-Committee since September 2012 and the Investment Programme Sub-Committee since March 2013. All the sub-committees reported their challenges and findings to the LEF.⁷

The LEF has looked to its members who represent the statutory bodies (eg DWI, EA and Natural England) to confirm the requirements of mandatory elements of Bristol Water's Business Plan and the evidence of need. The LEF challenged both DWI and EA on their decisions and required both regulators to confirm the statutory justification for their requirements.

⁵ The membership of the LEF and the engagement arrangements with Bristol Water are described in the LEF's Governance Process document

⁶ The LEF's terms of reference is provided in its Governance Process document

⁷ A list of the LEF sub-committee meetings held is provided in the LEF's Governance Process document

2. Engagement and Challenge Process

Bristol Water accommodated the role and objectives of the LEF from the outset and was responsive to its challenges. The LEF and the Company have worked constructively and collaboratively in order to achieve their respective objectives.

The LEF has been given adequate and appropriate access to Company information and personnel throughout the process.

Typically the LEF and its sub-group meetings consisted of presentations given by Bristol Water (or its consultants) on customer and technical aspects of its Business Plan, its planning methodologies and assumptions and on its interpretation of Ofwat's business planning requirements. The LEF and its sub-groups were given the opportunity to challenge the Company on its planning activities and assumptions both in the meetings and through email correspondence.

In order to gather evidence to support its findings to Ofwat, the LEF asked the Company to maintain a diary of challenges made to it, the DWI and the EA, the responses to these challenges and the resulting outcome. Around 500 challenges have been recorded.⁸

Bristol Water co-operated fully with information requests from the LEF and responded positively and constructively to its challenges.

The LEF was given access to Bristol Water's customer research consultants (Blue Marble) and to its independent technical assurer (Mott MacDonald) and its independent economic experts (NERA and Susana Mourato) who provided assurance to the Company on associated elements of its Business Plan.

⁸ A list of the challenges posed by the LEF is included in Appendix 1

3. Work Completed and Key Findings

3.1. General

The LEF and its sub-committees had the opportunity to review, discuss and challenge Bristol Water on:

- Research identifying customers' priorities and preferences for services and cost (willingness to pay), options for business plans and their acceptability of the Company's preferred plan and incentives
- Outcomes and Measures of Success
- The 25 year strategy 'Water in the Future'
- The draft Water Resources Management Plan (dWRMP)
- Development and finalisation of the 2015 -2020 investment programme
- The proposed level of customer bills and the associated drivers
- The Company's proposals on incentives and rewards

The following sub-sections outline the key challenges made by the LEF on the components of the Plan it has reviewed and its key findings.⁹

Case studies are provided throughout this report to illustrate typical challenges that were posed by the LEF, the Company's response to these and to demonstrate the impact of the challenges on the final Plan.

CCWater has prepared a statement on the customer research, its use and the resulting outcome for customers in the Company's Plan.¹⁰

3.2. Governance of the business planning process

The LEF sought and received satisfactory assurance that the Company's governance arrangements for the preparation of its Business Plan and the engagement and sign off by its senior management were robust and fit for purpose. Several of the Company's executive and non-executive directors attended meetings of the LEF and to demonstrate their engagement with the business planning process and the content of the Plan. They recognised the value of the LEF challenges in assisting them in their work.

⁹ A complete list of challenges posed by the LEF is provided in Appendix 1

¹⁰ CCWater's Statement is provided in Appendix 3

3.3. Customer Research

The LEF has challenged the Company robustly on its customer research methodologies and has been mindful of Ofwat's expectations of good engagement as set out in its policy statement. Several members of the LEF are highly experienced in customer research and in the interpretation of results. The LEF was particularly keen to ensure the Company obtained the views of the widest range of customers and stakeholders and accommodated these appropriately in its Business Plan both in the short and long-term. It also wished to confirm that a reasonable balance between the views of different groups had been struck and that the Company had appropriately considered the needs of customers who expressed particular concerns.

Bristol Water's customer research for its Business Plan was in five parts:

- Domestic and business consumers' priorities for the service provided – to inform the Company's Outcomes
- Domestic and business customer preferences for services and cost (willingness to pay) – to assist the determination of the investment programme and options
- Testing of four service options for its business plans with both domestic and business customers – to help prioritise the final plan
- Acceptability testing of the final preferred plan with domestic and business customers – to determine overall acceptability and understand any variations across different customer groups
- Qualitative research into incentives – to determine whether customers supported the Company receiving a reward for outperforming its targets

The LEF was involved in the development of the research methodologies at each stage, the research material and in the interpretation of the results. The quantitative research into incentives resulted from a specific challenge from the LEF.¹¹ More detail on this is given in Section 3.3.5 of this report.

3.3.1 Consumers' Priorities

The Company's research into consumers' priorities involved two stages:

- A qualitative stage that discussed themes around water service. Eight in-depth interviews were conducted with business customers and eight household discussion groups were held.
- A quantitative stage that asked customers by telephone to rank the importance of sixteen different aspects of the water service for domestic customers.

¹¹ Further details on the research into incentives and rewards are given in Section 3.3.5 of this report.

The LEF Customer Survey Sub Committee (CSSC) reviewed and challenged the approach used for both stages and the findings.

As a result of its review and challenge and the way the Company amended its approach in response to those challenges, the LEF is satisfied with the robustness of the Company's research into consumers' priorities.

3.3.2 Customers' Preferences for Services and Cost

The Company's research into domestic and business customers' preferences for services and cost (commonly known as Willingness to Pay) was a two-stage approach:

- Stage 1 covered domestic customers' preferences for interruptions, resilience and aesthetic/health attributes using face-to-face interviews
- An interim research exercise where focus groups were used to explore attitudes around leakage, water efficiency and metering, which informed the Stage 2 work.
- Stage 2 sought customers' views around leakage, water efficiency and metering, again using face-to-face interviews. This stage also included interviews with business customers to assess preferences on interruptions, resilience and aesthetic/health attributes. Desk research was also conducted to obtain health attribute valuations for coliforms, and cryptosporidium.

The LEF Customer Service Sub-Committee reviewed and challenged the questionnaires and research material used for both stages and changes that were made by the Company following cognitive testing and pilot interviews. The Sub-Committee reported its findings at each of the LEF meetings.

CASE STUDY – LEAKAGE

The LEF expressed concerns over the inclusion of leakage in the Stage 1 preference research, as leakage was not recommended in the UKWIR report on carrying out willingness to pay studies. As a result of these concerns Bristol Water dropped leakage from its Stage 1 research. The Company discussed leakage with customers through qualitative focus groups and then followed recommended practice of using these results to develop a Stage 2 of its WTP work. This meant that the value that customers place on leakage wasn't over or under stated and allowed customers' preferences on service improvements to be properly reflected in the Business Plan.

The LEF Customer Service Sub-Committee challenged the statistical models used for the analysis and whether the research considered other benefits such as environmental ones. The Company confirmed that environmental benefits would be considered in stage 2 and/or through research into benefits transfer.

The Sub-Committee ensured the questionnaire had clearly stated references to inflation and sewerage costs being in addition to the bill impacts presented. The Sub-Committee also received assurances from the market research agency that the approach to cold calling followed best industry practice.

In addition to these challenges, the LEF asked Bristol Water to benchmark its preference survey results against other companies¹² and also requested an independent peer review of the research on customers' preferences on service and cost. The LEF also requested a peer review of how the customer preference (willingness to pay) values were used in the cost/benefit work. The Company agreed to all these requests including its commissioning of an independent peer review by Susana Mourato of the London School of Economics. The LEF is content with the outcomes.

For the domestic customer preference research on leakage, metering and water efficiency valuations, four focus groups were carried out to provide the basis for input into a quantitative questionnaire. The LEF Customer Service Sub-Committee was concerned over the facilitation of these groups and questioned the quality of the outputs. Bristol Water agreed with these concerns but considered the outputs to be good enough to be used for the purpose of devising a quantitative questionnaire, but not for wider use. The LEF accepted this. The LEF Customer Service Sub-Committee provided input on the approach to the stage 2 questionnaire from two options developed by the economic consultants NERA from the qualitative focus group output.

In response to the challenges the Company shared the results of the independent peer review by Susana Mourato on its methodology for research into customers' preferences for services and cost.

The LEF was generally assured by the findings of this peer review, which concluded that the research was good. However it did note that review highlighted where elements of the research could have been improved. The Company provided satisfactory assurance to the Company that the issues raised were industry wide rather than Bristol Water specific and highlighted where methodologies for researching preferences for services and cost could be strengthened in future.

¹² There is an industry project, being driven by Southern Water, which is being undertaken by a specialist research agency to compare results across the 13 companies involved.

The LEF endorses the scope and progress of Bristol Water’s research into customers’ preferences for services and cost and is happy with the way the Company has involved the LEF in the development of the scope of the surveys and the interpretation of the results.

3.3.3 Testing of four indicative service and price options to inform the development of the final Business Plan

For the purposes of this testing exercise, Bristol Water developed four indicative business plan scenarios, which included varying investment options, and their impact of service and customer bills.

CASE STUDY – INVESTMENT SCENARIOS

The LEF reviewed and challenged the four investment scenarios proposed initially by the Company. The four scenarios proposed included changes in bills of minus £12 in real terms over 2015-2020, no change in bills in real terms, and two real term £12-increase scenarios covering different service levels. The LEF challenged the Company that a plus £6 scenario would be more useful and meaningful in this testing exercise than the two plus £12 scenarios proposed.

The Company agreed with the LEF’s challenge and replaced one of the plus £12 scenarios with a plus £6 alternative.

Bristol Water shared the details of the approach it adopted for the research. The LEF reviewed and challenged these and several changes to the approach to improve the clarity of information provided to customers and the questions asked of them were made by the Company as a result.

CASE STUDY – LEVEL OF BILLS

During the development of the Business Plan options survey, the LEF pressed for Bristol Water to include references to the fact that the customer would also face increases from other bills, such as the sewerage bill, energy bills as well as seeing increases from inflation. This would enable customers to make their assessments on what they wanted to pay for a service package while being aware that other household bills could increase.

The Company made changes to its research methodology accordingly.

The LEF challenged the use of 'at risk' when the Company wanted to describe its service and price options testing that some properties were at risk of failure of supply. The wording was changed so the number of properties being supplied by a single source was the focus of the question. This avoided customers being led to supporting a scheme due to alarmist wording, rather than supporting a scheme after a rational consideration of the issues.

The LEF also challenged Bristol Water to add 'I can't afford my bill' into one of the answers customers could give if they didn't find the Business Plan acceptable. Whilst customers would have already been asked a similar question during the scene-setting part of the research, the Company included a second question as it more explicitly allowed it to see the size of any potential problem on affordability. It also enabled the LEF to challenge the Company on whether it was doing enough to help those customers.

The Company tested the four agreed scenarios with a representative sample of both its domestic customers and its business customers. Qualitative testing using eight household and two business focus groups was conducted followed by quantitative testing via interviews with both domestic and business customers.

The LEF reviewed and challenged the results of the acceptability testing which showed that a majority of customers found the plus £6 scenarios to be acceptable when consulted in groups but the majority of customers found the 'no change in bills' scenario to be acceptable when answering individually.

3.3.4 Acceptability Testing of the Company's preferred Business Plan

The Company's objective was to test acceptability with an uninformed audience of each element of the preferred plan, and finally overall acceptability once the impact of inflation and the bill had been considered.

The Company developed its acceptability testing research initially through a quantitative survey of 519 households (comprising in-home computer assisted interviews) and 27 business customers (using semi-structured telephone interviews).

Bristol Water invited feedback from the LEF on its proposed approach for acceptability testing.

The LEF Customer Service Sub-Committee met with the Company during the development of the acceptability testing methodology and worked collaboratively with the Company and its market research consultant to ensure the methodology was appropriate for its intended use.

The LEF was particularly keen that the research would clearly and unambiguously indicate the level of acceptability of the Company's preferred plan across all customer groups.

The Sub-Committee's challenges covered:

- The presentation of the Business Plan information and the stimulus material for the testing
- The profile of consultees reflected the demographics of the Company's customer base
- The questionnaires used for interviews
- The importance of capturing the reasons why any customers found the Plan unacceptable
- Ensuring customers were aware that the water bill was only about half of the joint water and sewerage bill they would have to pay

The LEF wanted to ensure that the impact of inflationary increases on bills was clearly explained to customers when they were consulted on the Company's plans.

The LEF also wanted assurance that the views of uninformed customers were sought as part of the research and that the widest range of customers as possible was included. It also requested transparency and the availability of clear and easy-to-understand information about the investment programme for customers.

Bristol Water took on board these requests.¹³

The headline results of the testing showed that, informed of the impact of the Company's preferred Plan on their bills, 92% of household customers and 96% of business customers found the Plan to be acceptable. The LEF established that these results were sound through their review of the detailed findings from the acceptability testing exercise.

¹³ The full list of challenges and questions posed by the LEF Research Sub-Committee is given in Appendix 1

CASE STUDY – CUSTOMERS IN WATER POVERTY

The proportion of customers deemed to be in water poverty is a concern to the LEF and it challenged the Company on its plans to reach these customers and help them with their affordability issues.

The Company responded that its prime objective is to ensure the number of customers in water poverty does not increase during the next five years and will be looking at innovative ways to achieve this. The LEF felt strongly that the Company should be proactive in reaching these customers with the aim of reducing the number in water poverty. It also recommended that the Company assessed and quantified the action required around water poverty before the Business Plan was completed.

Bristol Water acted upon this challenge by providing an analysis of the impact in 2015 – 2020 of its proposed assistance tariffs for customers deemed to be in water poverty. The LEF welcomed this and CCWater agreed with the Company to review the implementation of the customer assistance proposals.

As a result of its review and challenges and the Company's responses, the LEF considers that the acceptability testing of the Bristol Water's Business Plan has been effective and robust and that a large and clear majority of both household and non-household customers find the Company's Plan to be acceptable.

3.3.5 Testing customers' views on incentives that have rewards

In response to a challenge from the LEF for evidence that customers support the idea of financial rewards for out-performance against incentives, the Company undertook a consultation exercise with 32 household customers on this issue in October 2013.¹⁴

¹⁴ More details on this research and the LEF's view on the results are provided in Section 3.4.2 of this report.

3.4. Outcomes, Measures of Success, Targets and Incentives

3.4.1 Outcomes and Measures of Success

For its 2015 – 2020 Business Plan Bristol Water has set itself six aims of reliable supply, excellent quality, environmentally sustainable, responsive to customers, best people, right culture and a sustainable business. The Company has also proposed a set of outcomes and associated measures of success it thought would best deliver these aims.

The Company was challenged robustly by the LEF over the development of the outcomes and measures of success to ensure they were based on customer views, and wouldn't bias expenditure towards areas that customers hadn't valued or prioritised.

Bristol Water welcomed the feedback from the LEF and responded positively to the challenges raised and provided assurance or amended its work where appropriate.

The LEF was keen that customers clearly understood the Company's plans and made a number of challenges on both the clarity of language used to explain the outcomes and measures of success and the choices for these. Bristol Water amended language and terminology as a result. The LEF was particularly keen to see a reputation measure of success. The Company included a 'Highly Reputable' outcome with a stakeholder survey measure of success in a wider aim of 'Sustainable Business' as a result of this challenge.

The 'Environmentally Sustainable' aim promoted significant debate amongst the LEF members. The LEF wanted the 'Efficient Use of Resources' outcome to be split between the Company and customers. Bristol Water agreed to this change. For the efficient use of resources by customers, the LEF wanted the measure of success of per capita consumption (PCC) to capture this. PCC has subsequently been included as a measure.

The LEF members also helped Bristol Water develop two new measures of success that would better deliver the outcome of 'Sustainable Environmental Impact'. These are 'Raw Water Quality of Sources' and 'Waste Disposal Compliance'. The Company also added a 'Biodiversity' measure of success as a result of an LEF challenge. This was particularly welcomed by the Natural England and the RSPB.

The LEF members challenged the wording around the measure of success for the 'Resilient Supply' outcome to ensure investment was phased at a pace customers found acceptable to pay for, rather than the company being driven to achieve the measure without further regard for customers' views.

The LEF members also helped develop the “Bills are Easy to Understand’ element of one outcome so the Company focuses on ensuring each customer group finds their bill easy to understand.

As a result of its review and challenges, the LEF considers that the outcomes and measures of success are reflective of customer views and statutory obligations and are designed appropriately to address customer priorities.

3.4.2 Targets and Incentives

Bristol Water shared its thinking and approaches on targets and incentives with the LEF as it developed them.

The LEF expressed reservations about the idea of a positive incentive or reward for work that customers could consider as part of the Company’s normal, everyday activities – such as a positive incentive to beat a target for customers who found the water acceptable to drink.

Whilst the LEF supports the principle of incentives to promote efficiency and innovation, it expressed concerns to Bristol Water over the inclusion of financial rewards where there is no evidence that customers were willing to pay for them.

Without evidence of customer support of the concept of a reward, the only ‘reward’ the LEF is comfortable with is one associated with customer satisfaction with value for money as the LEF believes this is self-regulating, as customers will only be satisfied if bills are controlled.

CASE STUDY – FINANCIAL REWARDS

The LEF expressed reservations about the idea of a positive financial incentive or reward for issues that customers could think are part of the Company's normal, everyday activities without evidence that Bristol Water's customers found this concept reasonable. The LEF requested that Bristol Water provide specific evidence that customers support the idea of a reward. The LEF did not believe that willingness to pay evidence was sufficient as this was carried out by the Company to understand the value customers place on issues, and didn't ask the question about whether they would be prepared to pay more on their bill to reward a company that has beaten its targets. The WTP evidence should only be used to judge the level of a 'reward' once evidence on whether customers agreed with the idea was available.

Bristol Water considered this challenge carefully. It responded by stating that financial rewards drive innovation but that the timing and scale of such rewards require careful consideration. The Company undertook to find out customers' views on rewards and incentives.

As a result of its research the Company found that, although there was some evidence of support from customers, the majority of customers rejected the principle of positive rewards.

As a result of this research Bristol Water has chosen not to include positive financial rewards in its Plan other than the Ofwat-defined SIM. The LEF has welcomed this decision.

The LEF welcomed the Company's decision to consult its customers on the principle of financial rewards for good performance as a result of its challenges. The LEF supports Company's decision not to propose financial rewards other than the SIM in its Plan as a result of the research findings.

3.5. The 25 year strategy “Water in the Future”

“Bristol Water’s 25-year strategy sets out the outcomes it wants to deliver, the measures of success that will demonstrate delivery and its 25-year targets for these measures are set out in its publication entitled “Water in the Future” as well as being consulted as part of the wider stakeholder group.

The LEF had the opportunity to comment and challenge a draft of “Water in the Future” prior to its publication for consultation in December 2012.

The LEF made challenges on the 25-year strategy in the following areas:

- Whether Bristol Water’s vision should be to ‘exceed expectations’. This was then examined through the consumer priorities research and changed to ‘meet expectations’
- The lack of cost data included in the strategy
- The achievability of the hosepipe ban target in the light of climate change
- The achievability of the proposed full metering target by 2030
- The need to include customers’ views from the priorities research in the document

The LEF received satisfactory responses from the Company to these challenges

The feedback from the public consultation has also been reviewed by the LEF. No material concerns were raised by the LEF.

After research on customers’ preference for service and cost (WTP) was published, the LEF returned to query Bristol Water’s ambitions for hosepipe bans, as they didn’t reflect customers’ views. Bristol Water said it would account for this in the Business Plan and when it next reviewed its 25-year Plan. In response the Company did revise ambitions on hosepipe ban down in its final Business Plan in line with customers’ expectations.

With this exception in mind - as a result of its review and challenge and the Company’s responses, the LEF considers that the 25-year strategy as published reasonably reflects customers’ views.

3.6. The draft Water Resources Management Plan (dWRMP)

The LEF was given the opportunity to review and challenge the draft Water Resources Management Plan (dWRMP) through three meetings of its Water Resources Sub Committee (WRSC).

The Water Resources Sub-Committee made the following challenges on the dWRMP:

- How the Company was using the standard industry and/or appropriate water resource planning methodologies
- How the Company calculated environmental and social costs
- Whether the Biodiversity 2020 aim of no increase in abstraction was included. The Company confirmed that biodiversity forms part of the Strategic Environmental Assessments of the schemes and that it did not intend to abstract beyond its existing licence agreements. The challenge by the LEF resulted in Bristol Water discussing and agreeing biodiversity targets with the RSPB, EA and Natural England
- Should Bristol Water consider the reduction of bulk supplies to other companies
- Whether the provision of non-potable supplies to a new power station would cause any supply risks to existing customers
- How customer priorities survey results were used in decision making when developing dWRMP scheme options
- The approach to metering – change of occupier or compulsory
- The robustness of the leakage reduction targets

Bristol Water provided satisfactory assurances to the LEF on all these challenges.

In response to the challenge on leakage the Company shared the results of an independent peer review it had commissioned into its leakage management approach and the method used to assess leakage targets for the Business Plan, and the Water Resource Management Plan.

The LEF was assured by the findings of this peer review, which concluded that leakage management practices at the Company are in line with good practice and that the proposed leakage target for 2020 is appropriate.

Bristol Water provided satisfactory assurances to the LEF on all the challenges it posed on its draft Water Resources Management Plan and the LEF was content with the draft Plan as published for consultation.

3.7. 2015 – 2020 Investment Programme

3.7.1 Investment scenarios

Bristol Water developed four scenarios for its 2015 –2020 investment programme together with the associated impact on levels of service and customer bills. Customers were consulted on the four scenarios.

The LEF was given the opportunity to review and challenge the Company’s proposals and their impact on customers and to comment on the research methodology and process.¹⁵

The focus of the LEF at that stage was on the drivers and justification of investment to maintain or improve water quality and the evidence of the need for environmental improvements.

Particular challenges posed by the LEF included:

- The justification for why work is needed on lead communication pipe replacement and metaldehyde catchment work when this was funded at PR09
- The proposed investment at river abstraction points to protect eels - wanting to make sure other parties would be doing their part to make sure the Company’s work would have a beneficial impact
- The investigations into Invasive Species within the National Environmental Programme and the resulting catchment management investment proposals
- The need, quantum and timing of the proposed investment to address algal blooms at Cheddar WTW and its alignment with customer priorities and its impact on customer bills
- The proposed expenditure on the Southern Resilience project and customers’ willingness to pay for it
- The level of developer contributions

The LEF was also particularly keen to ensure that the impact on customer service and customer bills was clearly articulated by the Company.

3.7.2 Challenge scope and process

Once the Company received the results of its customer consultation exercise it finalised its preferred investment programme and the LEF was invited to review and challenge it in detail.

¹⁵ Sections 3.3.3 and 3.3.4 of this report provides the LEF’s opinion on this activity.

To help its challenges on the investment programme, the LEF met with the Company's independent PR14 technical and costing assurer Mott MacDonald. The LEF also considered the independent peer review Susana Mourato undertook for the Company on the assessment of benefits.

The LEF documented its assurance needs and scope and agreed these with the Company and its independent assurers. These needs were both generic and specific with the aim of establishing whether the proposed investment was justified, represented the best value for customers and that they were willing to pay for it.¹⁶

Bristol Water shared with the LEF the assurance reports provided to it by Mott MacDonald and Susana Mourato.

The following case studies illustrate the key challenges posed by the LEF on the Company's investment proposals:

CASE STUDY – CHEDDAR 2 RESERVOIR

The LEF challenged the Company to justify the drivers, phasing and costs for this major water resources scheme. The LEF was particularly interested in seeing how the proposal aligned with customers' priorities and wanted assurance that projected growth in demand supported the need for and the timing of investment. The LEF wanted to fully understand the impact on customer bills arising from delaying the scheme slightly so it could be sure that the proposed timing represented the best value for customers. The LEF also sought assurance that an appropriate long-term view had been incorporated into the proposals.

The Company and its independent technical assurer provided satisfactory assurance to the LEF that the proposals for the Cheddar 2 were soundly based and in the best interest of customers. It was also clear that a deficit in supply was forecast, and pacing the investment over a longer period would mean a large investment requirement, due to other investment needs, at one point over the following 5 year period.

¹⁶ The LEF's technical assurance questions and Mott MacDonald's responses are detailed in Appendix 2

CASE STUDY – EEL REGULATIONS

The LEF raised concerns from an early stage to both the Company and the Environment Agency that the Company's initial proposals to install screens at four locations appeared to be disproportionately costly, particularly at its Purton WTW canal intake. There was also no evidence that other parties who needed to do works to the river to make installing the screens worthwhile, were going to do this. The LEF was of the view that the screens would be a waste of customers' money.

The Company's initial response was that the requirement for screens was in the National Environment Programme (NEP). The EA reinforced this view and expected the Company to fulfill its obligations under the NEP.

The LEF continued to challenge on this point. The Company confirmed its obligations under the NEP and has included investment at the four sites in its Plan but only 40% of its original estimate for the work at Purton WTW. The Company assured the LEF that its revised estimate of the cost at Purton was based upon its current view of the likely solution at the site but including further investigations to better define the need and the solution. There will be ongoing discussions with the EA as these investigations proceed and the outcome becomes clearer. Both the EA and the Company confirmed that they aim to achieve the most cost-effective outcome. The LEF considers this agreement to be sensible. The Company assured the LEF that if the eventual cost of work exceeded the estimate then the Company would bear the risk of this, not its customers.

The LEF commends the Company for questioning the cost benefit of the initial Purton proposals and the transference of risk to its shareholders.

CASE STUDY – SOUTHERN RESILIENCE SCHEME

The LEF challenged the Company to justify the drivers and costs for this major water supply resilience scheme. The LEF was particularly interested in seeing how the customer willingness to pay and priority data supported the scheme and it was also keen to understand the customer benefits expected from the investment, the timing of these and the impact on customer bills. The LEF also challenged the Company to demonstrate that it had appropriately considered alternative solutions for increasing resilience.

Both the Company and its independent technical assurer provided satisfactory assurance to the LEF that the proposals for the Southern Resilience Scheme were soundly based and in line with customers' needs and priorities

CASE STUDY – ALGAL BLOOMS AT CHEDDAR WTW

The LEF challenged the Company to justify the investment drivers and the £20m cost for the water quality scheme at Cheddar WTW intended to deal with algal blooms.

The LEF was particularly interested in seeing how the customer willingness to pay or priorities results supported the scheme. The LEF also challenged the Company to demonstrate that it had appropriately considered alternative solutions for improving the water quality.

The Company and its independent technical assurer provided satisfactory assurance to the LEF that the water quality proposals for Cheddar WTW scheme were soundly based, in line with its statutory obligations and its customers' needs and priorities and reflect the best way forward.

The Drinking Water Inspectorate assured the LEF that the scheme is necessary and that it supports the Company's proposals to address the water quality issues at Cheddar.

3.7.3 Key findings and conclusions

Investment planning methodologies and assumptions

The LEF has seen that Bristol Water has where possible considered and included innovative and sustainable approaches in its Plan that are designed to deliver its stated outcomes. Particular areas where innovations are currently in place and will continue include risk assessment, decision-making tools and greater and more sophisticated use of asset and performance data in investment planning. Whilst these approaches reflect best practice in the wider industry they are new ways of working and represent a cultural shift for the Company. The LEF commends the Bristol Water in this respect.

The LEF challenged the Company and its independent technical assurer extensively on whether the proposed innovations were soundly based, whether the Company could be doing more in terms of innovation and that the risk of them not working would be borne by the Company and not by its customers. The LEF is content with the assurances it has received and welcomes the knowledge that the Company has improved and extended its use of innovative and sustainable approaches since previous Price Reviews. The LEF would like to see further use of innovation in AMP6. An example of where there is scope for future improvement is the Company's asset deterioration modeling and investment optimisation tool known as SEAMS. The Company commissioned an independent peer review of SEAMS by Atkins and it shared the findings of this review with the LEF. The review concluded that the Company has built the best model it could do with the data available to it. However, the input data is limited and so the model is not as robust as others in use in the sector. This is something the Company is aware of and has considered this in creating its Business Plan.

Notwithstanding this, the LEF has received assurance from the Company's technical assurer that the quality of asset, cost and performance data used by the Company was deemed to be suitable for investment planning purposes and no major inaccuracies in the level and timing of investment have been found as a result of poor data quality.

The LEF has received assurance that the capital costs for the material components of the proposed investment programme are soundly based and either reflect the current costs the Company is incurring or are reasonable estimates of the costs it is likely to incur in the future.

As a result of its challenges and the Company's response to these, the LEF considers:

- **Bristol Water has used appropriate planning tools, methodologies and assumptions to develop its proposed 2015 – 2020 investment programme.**
- **The Company has appropriately linked the results of its customer research to its investment plans and has adopted a sound approach to the assessment of customer benefits. Clear linkage to customer preferences and their willingness to pay have been established. Appropriate consideration of affordability has been made when compiling the proposed investment programme.**
- **Bristol Water has given adequate consideration to both the short and long term in its planning, particularly in the case of Cheddar reservoir.**
- **The measures of success the Company intends to use to monitor the effectiveness of its proposed investment have been appropriately incorporated into its programme.**

Statutory investment proposals

A clear linkage to statutory obligations has been established in all cases and the DWI and EA have confirmed to the LEF that they are satisfied that the Company's investment proposals are designed to meet the respective obligations.

The DWI's Statement to the LEF confirming the extent of its support for the drinking water quality proposals contained in Bristol Water's Business Plan.¹⁷

The EA's assessment of the extent to which Bristol Water's Business Plan will meet its statutory obligations is provided in its 'Response to Bristol Water' dated 4 November 2013.¹⁸

¹⁷ The DWI's Statement to the LEF confirming the extent of its support for the Company's drinking water quality proposals is provided in Appendix 4 to this report.

¹⁸ The EA's assessment of the extent to which Bristol Water's Business Plan will meet its statutory obligations is provided in its Appendix 5. Appendix 5 includes EA's initial response to the Company and a subsequent communication that incorporates the Company's responses to the EA's recommendations and the EA's further observations.

Natural England (NE) provided the LEF with its assessment of the Company's environmental proposals.¹⁹

The LEF accepts that the Company has to meet its statutory obligations and is satisfied that due care has been taken to ensure the proposed investment represents reasonable value for money for customers and that appropriate measures of success will be used to monitor this.

The LEF is satisfied that the Company's proposed pace of investment in AMP6 to meet its statutory obligations is appropriate and in line with the interests of its customers.

The LEF is also content that the proposed investment is intended to be socially, economically and environmentally sustainable.

The LEF is satisfied that proposals contained in the Company's 2015-2020 investment programme associated with meeting statutory water quality and environmental obligations are justified.

Discretionary investment proposals

The LEF recognises that, given that it has to meet its statutory obligations, Bristol Water has had to strike a balance between investing to maintaining short and long-term asset serviceability and levels of service, accommodating population and economic growth in its supply region and ensuring that bills are affordable for the vast majority of customers. This means that the Company has had to make informed trade-offs in the areas of its proposed investment programme where the Company has discretion, for example in maintaining performance and levels of service.

The LEF is content that the proposed 2015 – 2020 investment programme appropriately reflects the views of Bristol Water's customers and that it is focused on delivery of outcomes which reflect a good understanding and reasonable balance of customer priorities.

¹⁹ NE's assessment is provided in Appendix 6

The LEF considers that the phasing, scope and scale of activities in the plans as required to deliver the outcomes are socially, economically and environmentally sustainable.

As a result of the assurance given to the LEF by the Company's independent assurance providers and from its own challenges, the LEF considers that Bristol Water intends to meet its statutory obligations and its overall Plan strikes a reasonable balance between maintaining current levels of service and maximising affordability and value for money for customers.

3.8. Customer Bills

The LEF welcomed the Company's approach of listening to its customers' views and amending its proposed Business Plan to reflect the findings of its scenario testing.

CASE STUDY – LEVEL OF BILLS

The Company's early proposals included bills increases above inflation. The LEF challenged this and further development of the Company's Plan improved the proposal to increase bills by only inflation. Whilst the LEF welcomed the Company's revised proposals, it challenged it to do more to reduce its costs and create more affordable bills. The LEF strongly encouraged the Company to consider reducing bills in relation to inflation and to look hard again at its cost of capital assumptions, profits and dividends. This was particularly important to the LEF because of the knowledge that some other water companies had announced their intention to deliver below inflation bills, and the view that the effect of cost of capital should be creating a downward effect on bills.

The Company responded constructively to this challenge by sharing its assumptions on the cost of capital with the LEF and explaining the impact on the cost of capital and on bills of the small company premium. The LEF challenged the company to provide the evidence of its need for a small company premium given its ownership structure. The Company showed the LEF the results of research by Oxera which confirmed the premium remains appropriate. The LEF welcomed the Company's evidential movement on the cost of capital.

The challenges by the LEF resulted in the Company moving from an initial position of increasing bills, to increasing bills in line with inflation and finally to a first year cut in bills before inflation, and then inflation only rises. The LEF has welcomed this.

CASE STUDY – COMPANY ASSISTANCE WITH BILLS

Whilst the vast majority of both household and non-household customers find the Company's plans to be acceptable, the LEF challenged the Company on how it intends to assist the 2.1% of customers who expressed affordability concerns.

The LEF was pleased with the Company's response to its challenge by learning of the Company's intention to identify ways to promote its social tariffs and assistance schemes more effectively, both directly with consumers and indirectly through partner organisations such as its local Citizens Advice Bureau, Age UK, debt advice agencies and debt charities.

4. Summary

The LEF has robustly and effectively challenged Bristol Water on its 2015 – 2020 Business Plan over the last two years through constructed and collaborative engagement with the Company and its advisers. The challenge has been thorough and extensive as described in this report and its appendices.

The LEF commends the Company for the transparency and openness it has shown in accommodating its work.

Bristol Water has undertaken extensive and effective research to understand the views of its customers in ways that have exceeded previous work in this respect and has appropriately incorporated the views of both its domestic and business customers in its Plan. The LEF has welcomed the change in the Company's approaches to business planning since PR09 and notes that engagement with the customer is now embedded in its ways of working.

The statutory water quality and environmental regulators have assessed the Company's plans to achieve compliance with its statutory obligations and have confirmed to the LEF that they support the Company's proposals. CCWater has also endorsed the Plan.

Inevitably, where it has discretion, the Company has had to strike a balance between maintaining or improving levels of service and maximizing affordability to its customers.

The LEF considers that an appropriate balance has been achieved that meets the needs of customers and the environment over the next five years and in the longer term.

From its reviews and challenges and the Company's response to these, the LEF unanimously supports Bristol Water's Business Plan and considers it represents a fair deal for customers.

5. Looking Ahead

This report provides the LEF's assessment of the Bristol Water's Business Plan as submitted to Ofwat in December 2013. Both the Company and the LEF will now await the outcome of Ofwat's review of the Plan.

If Ofwat require more information on the Plan or the LEF's assessment of it then the LEF is committed to continuing its involvement in the process to achieve the required outcome.

Appendix 1 – List of Challenges

CODE	TOPIC	CHALLENGE DESCRIPTION	RAISED BY	RESPONDENT	DATE CHALLENGE RAISED	OUTCOME, COMMENTS, RESPONSES	DATE COMPLETED	
C-LEF-001	Customer research	Has BW reached a ceiling for customer satisfaction	LEF	BW	08/02/2012	BW confirmed that they were continuing to work to improve the score.	08/02/2012	
C-LEF-002	Bill impacts	What is the scale of the penalties under the SIM scheme	LEF	BW	08/02/2012	MJK confirmed the increase was 0.5% revenue for good performance and a decrease of 1.5% for poor performers.	08/02/2012	
C-LEF-003	Customer research	Is the plan for customer research acceptable	Chair	LEF	08/02/2012	CCWater confirmed the plan was in accordance with current guidance and UKWIR practice.	08/02/2012	
C-LEF-004	Demand	Clarification was asked for the definition of HH and non HH	LEF	RLD	08/02/2012	Definition was given at the meeting and RLD to add terms onto glossary.	18/11/2013	
C-LEF-005	Customer research	Forum to approve plan for customer research in accordance with slide 12. CCWater endorsed plan	CH	TD CCW	08/02/2012	Based on knowledge of the work carried out to date by BW the proposal plan fell within current guidelines for UKWIR and best practice.	08/02/2012	
C-LEF-006	Customer research	Sample for first stage research should include vulnerable people and businesses.	CCW	Blue Marble	23/02/2012	Blue Marble ensured a balanced sample was used reflecting the BW customer demographic.	04/04/2012	
C-LEF-007	Customer research	How will vulnerable customers be recruited	CSSC	Blue Marble	23/02/2012	Blue Marble confirmed they had experienced recruiters who had not had any problems previously. All participants was given a financial incentive to take part.	23/02/2012	
C-LEF-008	Customer research	A question was raised as to why randomised number selection was being used.	CSSC	Blue Marble	23/02/2012	It was explained that BW don't hold numbers for all customers.	23/02/2012	
C-LEF-009	Customer research	Concern was raised about individuals who don't want to answer long questionnaires.	CSSC	JS	23/02/2012	Due to the fact that the questionnaire is intended to be only 8 minutes it was agreed that the online option was not necessary.	23/02/2012	
C-LEF-010	Customer research	HTA challenged that Blue Marble should contact HTA president as part of survey.	HTA	CSSC	23/02/2012	CSSC counter challenged that this was inappropriate as it could be seen as biasing the results. This person was added to the possible list of respondents and Blue Marble would select the respondents in the usual unbiased way.	23/02/2012	
C-LEF-011	Customer research	Will the research take into account customers who only have mobiles?	CCW	Blue Marble	23/02/2012	Blue Marble confirmed that they would include customers who only had mobiles.	23/02/2012	
C-LEF-012	Customer research	Concern was raised about individuals who don't want to answer long questionnaires. Will there be an online questionnaire?	CSSC	Blue Marble	23/02/2012	As this was to be an 8 minute questionnaire it was agreed that this option was not necessary.	23/02/2012	
C-LEF-013	Customer research	Questionnaire Construction- amendments suggested: merge Q b&r; c&g, remove d and i. Have maximum of 15 sub questions	LEF	Blue Marble	04/04/2012	Questions merges were approved by BM/BW and questionnaire amended.	04/04/2013	
C-LEF-014	Customer research	Challenge some of the wording for the questionnaire	CSSC	Blue Marble	04/04/2012	Blue Marble amended the questionnaire to reflect the CSSC comments.	15/05/2012	
C-LEF-015	Customer research	Ensure questionnaire does not include respondents from water industry.	CCW	Blue Marble	04/04/2012	Blue Marble confirmed an exclusion question was used.	04/04/2012	
C-LEF-016	Customer research	Chad Staddon (CS) noted that there seemed to be a discrepancy in the results as to positivity to perceptions about the company.	LEF	BW	15/05/2012	It was noted that the discrepancy arose because in the qualitative research the contacts related to positive experiences such as metering whereas in the quantitative the contacts related to negative experiences such as leakage or billing problems.	15/05/2012	
C-LEF-017	Customer research	AM asked whether there were any differences in the results from the poorer households than the more affluent ones in relation to hosepipe bans.	BCC	Blue Marble	15/05/2012	BM confirmed that there was no statistical difference. It was confirmed that the sample size was appropriate for this level of research but that a larger size may have defined the issue further, as would an extra question on whether the customer had a garden.	15/05/2012	
C-LEF-018	Outcomes	Environmentally Friendly - Concern was raised that this was not a defined term	LEF	BW	15/05/2012	It was noted that this was not a quantitative question raised in the questionnaire, but comments which arose from the qualitative research (i.e. customer response).	15/05/2012	
C-LEF-019	Water Resources	What would BW do in relation to bulk supplies in an emergency.	LEF	BW	15/05/2012	MJK confirmed there was an agreement in place for transfers between companies. In the event of restrictions the company would look to prioritise ahead of those not subject to restrictions. Having an obligation to transfer in a drought would disincentivise .	15/05/2012	
C-LEF-020	Customer service	Does BW provide a personal bill service for non household customers	LEF	BW	15/05/2012	BW confirmed BWBSL managed the non household large customers. Plans were in place for real time billing for 1000 largest customers.	15/05/2012	
C-LEF-021	Outcomes	Additional suggestions for BW Vision. Reputationally sustainable, socially sustainable, help and advice on water consumption.	LEF	BW	15/05/2012	Taken into account when drafting the Outcomes and Measures of Success.	31/11/2012	
C-LEF-022	Demand	Were BW considering replacing supply pipes as an option for leakage.	UWE	BW	15/05/2012	MJK noted that other companies who have had larger programmes have experienced low take up of customers replacing their pipes and therefore the benefits were not realised; therefore the company is not considering this.	15/05/2012	
C-LEF-023	Customer research	Have reservations about researching leakage in willingness to pay	CCW	BW	15/05/2012	It was agreed to have an off line discussion. Subsequently agreed to defer until Stage 2 of willingness to pay. Dealt with under 2nd stage WTP research.	15/05/2012	

CODE	TOPIC	CHALLENGE DESCRIPTION	RAISED BY	RESPONDENT	DATE CHALLENGE RAISED	OUTCOME, COMMENTS, RESPONSES	DATE COMPLETED	
C-LEF-024	Customer research	JS noted that CCWater had issues with BW's intention to include leakage in the WTP research. The UKWIR report had recommended that it not be included. BW had concerns that we needed to take this forward from the initial research and investigate further.	LEF	BW	15/05/2012	It was agreed that CCWater and BW would discuss the issue in depth separately. Cc Water accepted inclusion.	24/01/2013	
C-LEF-025	Customer research	CS raised the issue of replacement supply pipes as an option on leakage.	LEF	BW	15/05/2012	MB explained that current evidence from other companies who have had more large scale programmes of replacing company side supply pipes in conjunction with a request for customers to replace their own has not resulted in sufficient take up and therefore the benefits on leakage and water quality issues have not been realised.	15/05/2012	
C-LEF-026	Customer research	Population forecast - it was confirmed that as well as the ONS forecasts we do look at Local Authority forecasts.	LEF	BW	15/05/2012	It was noted that the more recent ONS forecasts have more closely matched the Local Authority ones.	15/05/2012	
C-LEF-027	Customer research	NERA to provide recording of questionnaires.	CSSC	NERA	14/06/2012	Recordings were supplied and are stored on file.	03/06/2012	
C-LEF-028	Customer research	The committee went through the questionnaire and made a number of suggestions to clarify the wording and process.	CSSC	NERA then ALL	14/06/2012	Nera agreed to make amendments and circulate a new draft as soon as possible with responses due by return. Completed ahead of research.	18/07/2013	
C-LEF-029	Customer research	Include reference to inflation in WTP research	CCW	BW	14/06/2012	Wording will ensure that customers are aware that is in addition. Completed ahead of research.	04/09/2012	
C-LEF-030	Customer research	Ensure status quo is included in research for reference.	CCW	BW	14/06/2012	BW to provide figures for -1, 0, +1, +2 levels. Completed ahead of research.	04/09/2012	
C-LEF-031	Customer research	Include sewerage charges in WTP research.	CCW	BW	14/06/2012	On NERA's advice did not include sewerage as figures, use it as an additional cost. When looking at customer's current bill cost take it into account.	04/09/2012	
C-LEF-032	Customer research	Avoid bias for different questions.	CCW	NERA	14/06/2012	Questionnaire was rotated to avoid bias.	14/06/2012	
C-LEF-033	Customer research	Concern about cold calling in relation to vulnerable customers.	CAB	BW	14/06/2012	NERA agreed to and provided a policy statement on protecting vulnerable customers in research. BW agreed to provide a letter of introduction plus contact phone numbers to verify callers.	04/09/2012	
C-LEF-034	Customer research	Can the CSSC view the interviews?	CCW	BW	14/06/2012	Not possible to view interviews as in people's homes. NERA agreed to provide recordings.	03/06/2012	
C-LEF-035	Outcomes	JS asked how BW would use customers' priorities to make investment decisions.	CCW	BW	17/07/2012	BW explained customer priorities may conflict with customers' willingness to pay for things (i.e. customers may not want to pay more for something because whilst it is a high priority, the current level is acceptable). It is therefore the Willingness to Pay figures that are used in deciding levels of expenditure and the plan was reviewed to ensure it delivers against customer priorities. Confirmed by Susana Mourato report 28th October 2013.	18/07/2013	
C-LEF-036	Outcomes	TD raised how BW would base its business plan on the measures of success, particularly items it needed to deliver (e.g. legal obligations) that weren't included.	CCW	BW	17/07/2012	BW explained that it would manage delivery through key performance indicators (KPIs) underneath the measures of success. Business Plan based on Outcomes.	01/11/2013	
C-LEF-037	Outcomes	Specific points were raised by the group on leakage - whether it included customer supply pipe leakage.	LEF	BW	17/07/2012	BW confirmed it did.	17/07/2012	
C-LEF-038	Outcomes	TD was also concerned that any measure of success on meter penetration must not drive inappropriate investment.	CCW-TD	JS	17/07/2012	JS to consider whether CCWater considers meter penetration to be an appropriate outcome measure of success. The group agreed that the evidence on demand reduction and the cost benefit analysis for metering needed to be right. Note: Objection removed when BW was assessed as water stressed by the EA.	11/09/2012	
C-LEF-039	Outcomes	Tastes good to drink, changed to is good to drink.	DWI	BW	17/07/2012	Change made to Measure of Success.	17/07/2012	
C-LEF-040	Outcomes	Bills definition change "clear" to "easy to understand"	CCW	BW	17/07/2012	Change made to Measure of Success.	17/07/2012	
C-LEF-041	Outcomes	How will business customers be represented in MoS	CCW	BW	17/07/2012	BW to consider this in more detail. (See DOC 0082) BM PR14 Research Proposal includes business customers.	23/10/2012	

CODE	TOPIC	CHALLENGE DESCRIPTION	RAISED BY	RESPONDENT	DATE CHALLENGE RAISED	OUTCOME, COMMENTS, RESPONSES	DATE COMPLETED	
C-LEF-042	Customer research	Were the numbers of customers declining to confirm their income within normal levels?	CCW	NERA	04/09/2012	Yes - within normal levels.	04/09/2012	
C-LEF-043	Customer research	Were the results consistent with previous research?	CCW	NERA /BW	04/09/2012	NERA confirmed better than average. MJK confirmed all data except pressure was consistent. Subsequent checking of results showed results on pressure were incorrectly reported. 8/1/13 confirmation on correct figures.	08/01/2013	
C-LEF-044	Customer research	Were the protest responses consistent with previous research?	CCW	NERA	04/09/2012	NERA confirmed protest vote was less than average.	04/09/2012	
C-LEF-045	Customer research	Was the 1/3 difference between CV and CE normal?	CCW	NERA	04/09/2012	NERA confirmed it was.	04/09/2012	
C-LEF-046	Customer research	If willingness to pay increased by 10% would bills increase by this amount?	MDC	BW	04/09/2012	MJK confirmed it would be about a trade off between the cost of investment and the risk of failure. The company would then build a package that met the various requirements. Bills will therefore not automatically increase because there is a WTP i.e.an increase in willingness to pay would not automatically result in BW increasing the bill to the amount the willingness to pay research suggests is possible.	04/09/2012	
C-LEF-047	Customer research	Will the research have a peer review?	CSSC Chair	BW	04/09/2012	NERA will arrange for an internal peer review with staff not involved with the project. - Completed by NERA Full peer review was organised at the end of the process to see how the results are used in the analysis. - Completed by Susana Mourato.	18/07/2013 28/10/2013	
C-LEF-048	Outcomes	Total carbon emissions – Total GHG emissions for both business services & water processes. This doesn't suggest a trajectory? Obviously downwards but by how much? More than legal compliance? Best industry average? Better than? Worse than? Why not adopt the West of England Carbon Challenge for public, private and third sector organizations across the region to commit to making annual cuts in emissions to reduce their carbon footprint by at least 10% over four years. Align the Company and its Plan Outcomes with what other leading organisations in Bristol are doing: see http://www.forumforthefuture.org/project/west-england-carbon-challenge/overview ?	RSPB	BW	07/09/2012	We haven't specified a target for carbon reduction yet, but this is because we haven't decided what measure to target yet. For example, should it be total emissions, emissions per customer, or emissions per MI delivered. The outcome measures and targets are still being developed. We have shared them now to help us set them appropriately. The majority of our emissions are related to electricity use for pumping. Consequently, the biggest long term driver of our emissions will be the grid emission factor. Other factors are leakage, pumping efficiency, and consumption, however we have other outcome measures for these. A growing customer base makes overall reductions harder, which is why a per customer target might be a better measure of our performance. We are already signed up to the West of England carbon challenge, and our emissions have fallen by over 10% in the last two years, but that partly reflects lower demand as a result of wet summers. Matters dealt with during development of total carbon emission performance measure.	07/09/2012	
C-LEF-049	Outcomes	Meeting River Basin Objectives- set by the EA & meeting compliance with EU Water Framework Directive. Does this do any more than suggest compliance with statutory duties by the Company? As I understand it many of the objectives for WFD implementation (e.g. for protected sites) have not been set yet but meanwhile ambitious goals for the Company could include: <ul style="list-style-type: none"> water bodies impacted by the company operations meeting Good Ecological Status; and improved water quality (and quantity?), enhanced biodiversity and lower bills for customers, delivered through catchment management approaches. 	RSPB	BW	07/09/2012	In terms of WFD status, we did consider this, however our concern is that we influence only a tiny element of this, and we may not be able to influence the outcome at all. In terms of Catchment management we are already undertaking work in some catchments, and are considering additional schemes for Chew, Blagdon, and the Winford Brook for the next period. We haven't yet been able to think of a good outcome or measure to go with this though.	07/09/2012	
C-LEF-050	Outcomes	Please will the LEF get a chance to re-examine the Outcomes paper?	RSPB	BW	07/09/2012	Updated version provided	07/09/2012	
C-LEF-051	Outcomes	Outcome measures for catchment work could be 1. Reduction of source outage from water quality issues. 2. Risk assessment for sources showing reduced risk of raw water quality breaches; 3. Reduction in carbon and/or chemical use in treatment.	RSPB	BW	09/09/2012	Replaced by Biodiversity measure	09/09/2012	

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C-LEF-052	Outcomes	I understand that the potential of finding a good WFD outcome measure ?is frustrating but I expect more can be made of this ? both by the Company ?on its own where it can ?influence WFD status on water bodies where it has significant control and via outcomes set for work in partnership with others to meet WFD objectives ? particularly where the water company would benefit itself from an improvement in status	RSPB	BW	09/09/2012	Performance measure abandoned in favour of Raw Water Quality of sources & biodiversity index	09/09/2012	
C-LEF-053	Customer research	Concern was raised that although the results had captured those who had low willingness to pay whether we had captured those with a high willingness to pay.	LEF	BW	11/09/2012	Although no specific question dealt with that Nera confirmed that the distribution of results in relation to how many customers consistently selected the higher bill level was normal and they took comfort that the results were appropriate.	11/09/2012	
C-LEF-054	Customer research	Concern was raised about the methodology being accepted by Ofwat.	LEF	BW	11/09/2012	It was explained that the methodology closely reflected the previous research carried out and approved by Ofwat in the previous price review and the UKWIR project.	11/09/2012	
C-LEF-055	Customer research	Concern was raised about the statistical models used. In particular as some other research had been reported to CCW that there were issues with the methodology.	LEF	BW	11/09/2012	Nera confirmed that they had previously been aware of this and the methodology used in this research analysis did not include the methodology that had been brought into question previously.	11/09/2012	
C-LEF-056	Customer research	EA questioned the way in which the data was presented to the interviewee.	EA	BW	11/09/2012	Nera explained that the questioners were highly trained. They provided explanations to the respondents. The results showed sufficient understanding.	11/09/2012	
C-LEF-057	Customer research	Clarification was asked as to whether customers understood additional costs which were not within the control of the company.	LEF	BW	11/09/2012	The results were analysed and there was no statistical difference.	11/09/2012	
C-LEF-058	Customer research	The results of a high willingness to pay for avoiding low pressure were higher than expected.	LEF	BW	11/09/2012	It was confirmed that it was made clear to the respondents that the question related to reducing short periods of low pressure not a risk of low pressure generally. Analysis was under way as to whether or not a willingness to pay to avoid poor pressure results reflected the areas where BW had reduced pressure operationally. It was subsequently discovered that an error had been made and analysis was therefore not required. At the time of the updated report it was noted that this was a typographical error. The correct data showed no statistical difference between the current data and the previous research. NERA corrected typo in its report dated 18/7/13.	01/07/2013	
C-LEF-059	Outcomes	The DWI commented that there had been discussions about the wording in relation to whether discoloured water was safe to drink.	DWI	BW	11/09/2012	It was confirmed that this was not the point of the question. The question related to whether customers would wish to pay for improvements solely relating to discoloured water that was safe to drink, not in respect of discoloured water that was not safe to drink. Confirmed that the wording related to discoloured water that was safe to drink and this had been made clear.	11/09/2012	
C-LEF-060	Customer research	Bristol CC asked whether or not this was a good starting point before progress to the next stage.	BCC	BW	11/09/2012	The Chairman interjected that this was the next stage of the process.	11/09/2012	
C-LEF-061	Investment	Mendip DC (TN) asked whether the plans would reflect a localised service or a provision for the whole company.	MDC	BW	11/09/2012	MJK confirmed that the package of provisions would be built looking at the individual requirements of the different customer areas incorporated into the business plan for the whole area. The plans would reflect a single set of prices for the whole company area.	11/09/2012	
C-LEF-062	Outcomes	CCW (TD) had commented that the definition for "Population at Risk from Asset Failure" was not customer friendly.	CCW-TD	BW/CCW	11/09/2012	It was agreed that CCW and BW would discuss this and come up with a customer-friendly definition. The meaning was explained "the maximum number of customers BW could support using its own resources in the event one asset failed". The target was still to be finalised. Redefined and new definition approved.	11/09/2012	
C-LEF-063	Performance measures	It was suggested that BW should have KPIs for raw water losses and company usage.	LEF	BW	11/09/2012	MJK noted that both items were currently monitored though KPIs, but were deemed not to cover enough of the outcome to be a measure of success.. The more appropriate measure was leakage.	11/09/2012	

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C-LEF-064	Performance measures	RSPB (MR) suggested a "net water into supply" KPI could be appropriate.	RSPB	BW	11/09/2012	MJK explained that there were a number of uncertainties in this measure that would make a fixed or reducing target unsuitable. These included population growth, water usage by businesses, and other supply/demand uncertainties. BW believed PCC and leakage were more appropriate measures. If fixed targets for net water into supply were used the net effect would be a greater cost to customers. This was discussed further in the 21st Feb WRMP meeting.	21/02/2013	
C-LEF-065	Performance measures	EA asked whether there should be a Chemicals Measure.	EA	BW/EA/NE/RSPB	11/09/2012	MJK confirmed BW does monitor this within the KPIs but it doesn't cover a significant enough area of the Outcome to be appropriate.	11/09/2012	
C-LEF-066	Performance measures	Reference was made to the correspondence and suggestions from the RSPB.	RSPB	BW	11/09/2012	It was agreed that an off line discussion would take place between EA, NE, RSPB and BW and feedback given later. Resulted in development of Water Quality of sources and biodiversity index measures	11/09/2012	
C-LEF-067	Performance measures	BW highlighted six of the proposed measures of success had only met one of the UKWIR/Frontier criteria by 50% or less. Concern was raised by the LEF about these measures .	LEF	BW	11/09/2012	SB noted that Ofwat had said that it would not accept a plan based solely on measures which were totally within a company's control. BW confirmed that it had used the UKWIR/Frontier criteria to make a one-off assessment to identify whether the proposed measures of success were suitable and whether changes needed to be made. BM concluded that no changes were required.	11/09/2012	
C-LEF-068	Performance measures	CCW (JS) raised whether a survey question asking customers whether they use water more efficiently since going on a meter would be a better measure of success.	CCW-JS	BW	11/09/2012	BCC had concerns about the reliability of survey responses as they are subjective and therefore difficult to measure and verify.	11/09/2012	
C-LEF-069	Performance measures	Bristol CC asked why BW did not have more control over where it purchased energy.	BCC	BW	11/09/2012	Although BW can buy green energy it still has to report total carbon emissions based on the grid emission factor so there is limited scope on the total carbon emissions MoS.	11/09/2012	
C-LEF-070	Performance measures	EA believed there was a way to define this measure to ensure that it was more within the company's control to deliver.	EA	BW/NE/EA/RSPB	11/09/2012	BW, NE and EA did discuss separately. A separate meeting on 26th October 2013 when it was agreed that a Measure of Success around a basket of indicators reflecting raw water quality should be developed and would be acceptable.	11/09/2012	
C-LEF-071	Performance measures	DWI clarified that the compliance figure is within respect to an industry best standard.	DWI	BW/DWI	11/09/2012	Falling slightly below that standard does not make the water hazardous to health. The standards are set in relation to exposure over a total lifetime rather than just a short period. Confirmation was given that this point does not relate to pollutants.	11/09/2012	
C-LEF-072	Performance measures	EA noted that 100% metering would allow for different options on tariffs that are not available at the moment. Was 100% metering by 2030 too aggressive	EA	BW	11/09/2012	BW acknowledged CCWater concern in respect of affordability in respect of a fast roll out of meters and whether full metering by 2030 was too aggressive. BW acknowledged the comment. Subsequently BW noted as being "water stressed" so this challenge was no longer needed.	11/09/2012	
C-LEF-073	Customer research	Probabilities did not appear to be consistent in NERA research	EA	NERA	11/09/2012	NERA confirmed this was consistent with UKWIR research	11/09/2012	
C-LEF-074	Customer research	Was the research of good quality	CCW	NERA	11/09/2012	NERA confirmed the research was of good quality compared to previous research. Previous research had 66% respondents who understood the research in this study 82% mostly understood the research.	11/09/2012	
C-LEF-075	Customer research	Was there any interviewer bias in the results?	EA	NERA	11/09/2012	Accent had reviewed the data and confirmed no statistical bias had been seen.	11/09/2012	
C-LEF-076	Customer research	How many interviewers were there?	EA	NERA	11/09/2012	NERA quoted that there were 700 respondents	26/06/2013	
C-LEF-077	Customer research	Had the results captured high willingness to pay?	LEF	BW	11/09/2012	NERA had confirmed that the distribution of results was within the normal range.	11/09/2012	
C-LEF-078	Customer research	Would the methodology be accepted by Ofwat?	LEF	BW	11/09/2012	The methodology used closely reflected that approved by Ofwat in the previous price review and UKWIR project.	11/09/2012	
C-LEF-079	Customer research	CCW had heard that there was a problem with the methodology.	CCW	NERA	11/09/2012	NERA confirmed that there had been a problem with one of the methodologies but not the one used for this project.	11/09/2012	
C-LEF-080	Customer research	Did the research include other benefits e.g. environmental.	RSPB	BW	11/09/2012	This research was solely to look at valuations for specific elements of service. Additional benefits were considered later through a benefit transfer approach.	11/09/2012	

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C-LEF-081	Customer research	Did the research take into account the ethnicity of the respondents?	BCC	NERA	11/09/2012	This data was not captured.	11/09/2012	
C-LEF-082	Customer research	How was the information presented to the respondents?	EA	NERA	11/09/2012	The data was presented by highly trained questioners. They provided explanations to the respondents. The results showed sufficient understanding.	11/09/2012	
C-LEF-083	Customer research	Did respondents understand that some costs were not in the control of the company?	LEF	NERA	11/09/2012	The results showed no statistical evidence of lack of understanding.	11/09/2012	
C-LEF-084	Customer research	The bill differences were outside that proposed by BW	LEF	BW	11/09/2012	NERA suggested these to get a better statistical response. The approach was approved by the CSSC.	11/09/2012	
C-LEF-085	Customer research	Low Pressure Result was inconsistent with previous results	LEF	BW	11/09/2012	See also C-LEF-058	18/07/2013	
C-LEF-086	Customer research	Concern about perceptions regarding discoloured water being safe to drink.	DWI	BW	11/09/2012	See also C-LEF-059	11/09/2012	
C-LEF-087	Performance measures	There needs to be sub-measures building up to measures of success.	DWI	BW	11/09/2012	BW confirmed that they were using KPIs monitoring a number of sub-sets of data. Further discussion took place off line with the DWI to address their concerns.	11/09/2012	
C-LEF-088	Performance measures	Why did BW not have more control over where it purchased its energy	BCC	BW	11/09/2012	See also C-LEF-069	11/09/2012	
C-LEF-089	Performance measures	Definition of River Basin Objectives	EA	BW	11/09/2012	EA noted that there was a formal definition which can be found in the River Basin 2010 - 2015 plan.	11/09/2012	
C-LEF-090		Duplicated - deleted		RW				
C-LEF-091	Performance measures	WJS provided an update on the Measures of Success discussed at the previous LEF. (D0082) The Chair commented that part of the sense check was to ensure that the wording was understandable to customers.	LEF Chair	BW	23/10/2012	Agreed - LEF part of this process	24/10/2012	
C-LEF-092	Performance measures	The LEF requested that the definition for "disposable income" provided on the slide was clarified.	LEF	CAB	23/10/2012	CAB agreed to supply the current definition. CAB confirmed that the 2% limit seemed reasonable. Fuel Poverty is currently estimated at greater than 10% of disposable income.	25/10/2012	
C-LEF-093	Performance measures	MDC raised concerns about the impact of the sewerage bill.	MDC	BW	23/10/2012	It was confirmed that as BW had no control over the sewerage bill that it was impossible to include it within the assessment of this Measure of Success, although the selection of a 2% boundary was consistent with the 3-5% standard for a combined water and sewerage bill. It was confirmed that the estimated bill for sewerage would be considered in acceptability testing. WW confirmed they will work with BW on this.	26/10/2012	
C-LEF-094	Performance measures	EA asked whether BW had considered the effect of insets with grey water recycling on PCC.	EA	BW	23/10/2012	MJK confirmed we currently don't have any. If there are any in the future their impact on overall demand will reduce the overall PCC.	27/10/2012	
C-LEF-095	Demand	HTA queried why the measured rate was higher than the unmeasured rate in relation to actual increased dry year consumption.	HTA	BW	23/10/2012	It was noted that it was only one year's results in each case. It was also thought that unmeasured customers were more likely to reduce their consumption when faced with possible restrictions, but those who were already water saving may have decided they were happy to pay the additional to be comfortable. The figure related to additional consumption rather than total consumption.	28/10/2012	
C-LEF-096	Demand	Concern was raised about the bulk supply contracts reducing the water available to give to customers.	LEF	BW	23/10/2012	It was explained that the contracts were for proposed power stations and therefore it was necessary to balance the needs of customers in relation to power and water. It was also confirmed that bulk supply contracts would be priced to reflect the additional work required to ensure supply to all customers was maintained, thus having no negative impact on existing customers or their bills	29/10/2012	
C-LEF-097	Demand	The EA raised concerns about the target of 1 in 25 years for hosepipe bans	EA	BW	23/10/2012	MJK explained that the figure is calculated from the aim of <1 in 200 years for rota cuts. In effect not to fail except in the most extreme drought. HTA suggested a wait and see approach. MJK confirmed that there would continue to be five yearly reviews of the 25 year SDS plan which would take into account the situation at the time of reviews.	30/10/2012	
C-LEF-098	Investment	CCW (JS) raised a concern about the likely cost of increasing the water quality standard.	CCW-JS	BW	23/10/2012	MJK explained that a considerable amount of the previous improvements was down to technology advances and not cost e.g. trunk mains replacement, flushing. The Company was already on target to meet this aim. It was unlikely that there would be a significant bill impact to increase compliance from 99.96% to >99.99%	31/10/2012	

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C-LEF-099	Performance measures	Mean Zonal Compliance Definition	LEF	BW	23/10/2012	Terminology was not clear to customers, but accepted as amended as industry measure set by a regulator.	23/10/2012	
C-LEF-100	Performance measures	Need to capture a new MoS for environmental impact of new sources	LEF	BW	23/10/2012	Conference Call when Measure of Success was agreed and accepted	26/10/2012	
C-LEF-101	Performance measures	Was Sewerage taken into account for water poverty	MDC	BW	23/10/2012	Noted that it was not possible to take into account sewerage for water poverty. Assessed water bill as 2% was consistent with a 5% total bill for water and sewerage. LEF approved this decision.	23/10/2012	
C-LEF-102	Performance measures	Safe Practices Mos definition	LEF	BW	23/10/2012	Agreed that RIDDOR reportable accidents were the measure.	23/10/2012	
C-LEF-103	Demand	Why was measured consumption higher than non-measured in relation to dry year consumption.	HTA	BW	23/10/2012	Only 1 year's results in each case. It was suggested that unmeasured customers were more likely to reduce their consumption whereas measured customers had lower consumption and were paying for their water so may decide to pay the extra for more water used.	23/10/2012	
C-LEF-104	Demand	Why would BW agree to bulk contracts which would affect their ability to supply other customers.	LEF	BW	23/10/2012	See C-LEF-096	23/10/2012	
C-LEF-105	Demand	Target on Hosepipe bans didn't seem realistic bearing in mind climate change. Thought 1 in 15 would be a challenge.	EA	BW	23/10/2012	See C-LEF-097	23/10/2012	
C-LEF-106	Investment	Increased cost of meeting the new WQ standard on lead.	CCW	BW	23/10/2012	See C-LEF-098	23/10/2012	
C-LEF-107	Performance measures	Inconsistency between current performance figures and future performance.	LEF	BW	23/10/2012	BW updated to ensure consistency.	05/12/2012	
C-LEF-108	Performance measures	Does BW have a choice in how Co2 is calculated?	RSPB	BW	23/10/2012	BW follows standard industry reporting methodology.	26/10/2012	
C-LEF-109	Performance measures	Use SSSI Status as Measure of Success	NE	BW	23/10/2012	All SSSIs in BW area are in ""favourable status". NE to advise through catchment sensitive farming.	26/10/2012	
C-LEF-110	Performance measures	RSPB asked if BW has a choice in how CO ₂ emissions are calculated.	LEF Conference Call	BW	26/10/2012	PB replied that BW follows a standard methodology which is used across the industry and in the company's formal annual reporting. This requires that the standard grid electricity emission factor is used in all calculations, regardless of the actual source of the energy (renewables, low carbon generation etc. do not normally help reduce the reported footprint). Other water companies will make the same calculation, although Water and Sewerage companies will also have direct emissions to include which can be reduced. RSPB said there are others within RSPB who may have a view on carbon targets, and he would obtain their views on whether any other carbon measures may be appropriate.	26/10/2012	
C-LEF-111	Performance measures	RSPB asked what were the hard achievements that companies could celebrate? Habitat linkage, extension and connection are key concepts in biodiversity and these potential Measures of Success could also link to the Outcome on Raw Water Quality of BW Sources.	LEF Conference Call	BW	26/10/2012	RSPB agreed to provide suggestions for possible Measures, including a review of options from the Biodiversity 2020 paper. NE agreed to assist in this. The agreed deadline was by 9th November 2012.	27/10/2012	
C-LEF-112	Performance measures	RSPB observed that the presentation provided at the LEF meeting shows BW going quickly into a resource deficit, and asked how this impacts WIS.	LEF Conference Call	BW	26/10/2012	MJK explained that resources are at a similar position as in 2009. The gap between supply and demand will be filled with new resources, water efficiency measures, increased metering and improved leakage performance. BW agreed to add no increase in distribution input as an option for comparison in the resource plan.	28/10/2012	
C-LEF-113	Performance measures	Various matters on biodiversity: See references C-LEF-045 - 049	RSPB by email	BW/LEF	08/11/2012	Refer to C-LEF-048 - 052	09/09/2012	
C-LEF-114	Customer research	Comparison between previous results and current CPSC results	CSSC Chair	BW	26/11/2012	The results were similar	26/11/2012	
C-LEF-115	Customer research	Figures for CE/CV were they scaled?	BW	NERA	26/11/2012	Figures were not scaled, but based on a specific methodology.	26/11/2012	
C-LEF-116	Customer research	Figures for CPSC results were down to the nearest penny would BW use this?	CSSC Chair	BW	26/11/2012	BW confirmed the figures are used to the pence.	26/11/2012	
C-LEF-117	Customer research	How had the weightings been allied, regarding the WtP research.	CSSC Chair	NERA	26/11/2012	NERA confirmed that the level of weighting they were prepared to use depended on the purpose for which the results would be used for. Because the mean figures were to be used significant weighting on the results would not be a problem. However, in this case the amount of weighting used was not significant.	26/11/2012	

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C-LEF-118	Outcomes	Were the MoS now set	CCW	BW	08/01/2013	MoS are continually under review. If better measures were found there was no reason why they couldn't be included.	08/01/2013	
C-LEF-119	Outcomes	BW to review other Companies' SDS for MoS	CCW	BW	08/01/2013	BW confirmed that it would do this on a continuous basis. Subsequently considered in wording of explanation to customers.	01/11/2013	
C-LEF-120	SDS	Who received the 25 year strategy	Chair	BW	08/01/2013	LEF, other invitees to the LEF, MPS Councillors, local and national organisations. Also mentioned in customer newsletter and available on BW website.	08/01/2013	
C-LEF-121	Customer research	Had BW thanked the research respondents?	MDC	BW	08/01/2013	The researchers followed a standard process of thanking the respondents at the time and during the focus groups were given a small payment for attending. As anonymous not possible to contact them again so not appropriate.	08/01/2013	
C-LEF-122	Customer research	Had BW changed the strategy following feedback	EA	BW	08/01/2013	PM noted that BW had decided not to review the responses until the end of the feedback period. WIF feedback presented to LEF in March. The feedback was limited and no further action was required.	12/03/2013	
C-LEF-123	Customer research	What was likely to have the greatest influence on BW's thinking?	EA	BW	08/01/2013	Legislation	08/01/2013	
C-LEF-124	Outcomes	BW should go further on the satisfied customers outcome	UWE	BW	08/01/2013	BW agreed to review this and UWE agreed to provide details of any on going research as and when it became available.	25/11/2013	
C-LEF-125	SDS	When will the 25 year strategy be published.	EA	BW	08/01/2013	It had been published. There would be no republication. Information will be used to inform 5 year strategy in business plan.	08/01/2013	
C-LEF-126	Customer research	How will the research data be normalised bearing in mind the context in which it was carried out namely drought followed by heavy rain.	EA	BW	08/01/2013	BW confirmed that the second stage results were used for comparison and normalisation.	08/01/2013	
C-LEF-127	Customer research	How had the focus groups for the second stage CPSC research gone	CCW	BW	08/01/2013	BW commented and CSSC Chair confirmed they had not gone particularly well. Concern had been raised how the quantitative research could be based on the qualitative. CSSC discussed in more detail 24th Jan meeting.	08/01/2013	
C-LEF-128	Customer research	Raised concerns about leakage being in the CPSC research	CCW	BW	08/01/2013	Questionnaire section on leakage should not be drafted until the CSSC had an understanding of the qualitative research. CC Water agreed to inclusion at the 24th January meeting.	24/01/2013	
C-LEF-129	Outcomes	Literature review on lead - how relevant the data in international studies	NE	BW	08/01/2013	BW confirmed this was a starting point. Further UKWIR research results were due which related to the UK. No lead study was done.	08/01/2013	
C-LEF-130	Outcomes	Would the UV scheme increase the carbon footprint	MDC	BW	08/01/2013	Slightly but the majority of the carbon would be set off by the reduction in chemical usage. Have already implemented this in two other locations. Even with the increase the total BW carbon use was decreasing.	08/01/2013	
C-LEF-131	Outcomes	Was the sand in the sand filters replaced?	MDC	BW	08/01/2013	The sand would be replaced but it took time to regenerate to a useable state. Replacement scheme would remove this problem.	08/01/2013	
C-LEF-132	Outcomes	Would the DAF filter scheme be sufficient	NE	BW	08/01/2013	The planned scheme would give greater capacity and as it is modular it would be possible to put additional modules on at a later date when needed.	08/01/2013	
C-LEF-133	Outcomes	Would additional sand filters solve the problem	CCW	BW	08/01/2013	They would but they would be more expensive.	08/01/2013	
C-LEF-134	Outcomes	Would stubble burning be useful in the management of slugs	MDC	DWI	08/01/2013	Stubble burning is banned. Alternative solutions are being looked at.	08/01/2013	
C-LEF-135	Outcomes	Why not keep the lead standard the same rather than treating water with more chemicals.	MDC	DWI	08/01/2013	The new standard is based on toxicological evidence and protects babies and young children	08/01/2013	
C-LEF-136	Outcomes	Are BW working proactively to deal with lead replacement or just responding to failures.	LEF Chair	BW	08/01/2013	BW are working proactively with local authorities to identify and work with schools that have lead piping. BW also replacing company communication pipes as part of mains replacements. This was a key driver. Customers are also encouraged to change their supply pipes.	08/01/2013	
C-LEF-137	Outcomes	A question was raised as to whether CO2 emissions were a sufficient measure.	LEF	BW	08/01/2013	It was confirmed that it is a standard approach set by Ofwat based on a government procedure. Although it wasn't the most meaningful it was the government standard and enabled comparison with other companies. The Chair asked and BW confirmed that the Company would be willing to include additional measures.	08/01/2013	
C-LEF-138	SDS	EA asked if BW had changed its planning as a result of the feedback.	EA	BW	08/01/2013	Refer to C-LEF-122	24/11/2013	

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C-LEF-139	SDS	One of the concerns raised by respondents commenting on the strategy was in relation to outside influences.	LEF	BW	08/01/2013	BW confirmed they would have to respond to the outside influences.	08/01/2013	
C-LEF-140	Outcomes	UWE challenged BW to consider going further on the Satisfied Customers outcome. Can BW do something to lead the field in innovation? What can BW do to make water more customer- focussed, fun e.g. the Wessex Water app.	UWE	BW	08/01/2013	See C-LEF-124	25/11/2013	
C-LEF-141	Resources	How does BW get over to customers that it will potentially still have a water deficit even though there has been the second highest rainfall on record?	LEF	UWE	08/01/2013	WRSC discussed this point in their meeting of 21st February 2013.	21/02/2013	
C-LEF-142	None	In reference to the NERA DOC0094 the Chair raised the issue of benchmarking with respect to Stage one survey results..	LEF Chair	BW	08/01/2013	It was confirmed that this had been done during the previous process but it had yet to be agreed upon this time. Wessex agreed that they would be willing to enter into benchmarking with BW. See Industry WtP comparison study.	08/01/2013	
C-LEF-143	Customer research	How had the focus groups gone?	CCW-JS	NERA/ CSSC	08/01/2013	BW commented and Chair confirmed that the groups witnessed had not gone particularly well, and that they were concerned how the qualitative results would be interpreted into the quantitative questionnaire.	08/01/2013	
C-LEF-144	Investment	Mendip asked whether the scheme could affect the carbon footprint.	MDC	BW	08/01/2013	BW confirmed that the increase in electricity costs for the UV would partially be set off by the reduction in chemical costs.	08/01/2013	
C-LEF-145	Investment	CCW asked whether a cost/benefit analysis would be taken into account.	CCW-TD	BW	08/01/2013	MJK confirmed that this would form the basis of all schemes. Further details were provided as part of the investment planning appraisal. IPSC	25/07/2013	
C-LEF-146	Investment	Although Nitrate reduction work is in place there is little emphasis on phosphate reduction. UWE asked why?	UWE	BW	08/01/2013	EA confirmed the drivers were different. There was EU legislation with respect to nitrates but no such legislation currently relating to phosphates. Defra and the EA had been in discussions at a European level with respect to phosphates in washing powder but there was no current driver to reduce/ban it.	08/01/2013	
C-LEF-147	Investment	Mendip asked whether BW replaced the sand in the slow sand filters.	MDC	BW	08/01/2013	GW confirmed the process. He confirmed that the major problem was the speed of the process. Part of the treatment was physical and the rest biological. When the sand was skimmed or replaced it took a period of time to redevelop the biological filter. As a result the amount of water available to supply to customers was reduced. BY example it was noted that it took approximately 2 days to renew the bacterial filter in the summer but 5 days in the winter. See also C-LEF-131	08/01/2013	
C-LEF-148	Investment	NE asked if the proposed DAF solution would be sufficient.	NE	BW	08/01/2013	GW confirmed that the proposed scheme would have greater capacity than the current slow sand filters and that as the DAF system was modular it would be possible to increase the capacity easily in the future. See also C-LEF-132.	08/01/2013	
C-LEF-149	Investment	CCW asked whether additional sand filters would solve the problem.	CCW-TD	BW	08/01/2013	GW explained that they were more expensive than DAF. See also C-LEF-133.	08/01/2013	
C-LEF-150	Investment	UWE asked about PES schemes.	UWE	BW	08/01/2013	GW noted that BW were currently working directly with farmers and they had been responsive and happy to assist. But this is not sufficient to solve the problem. The schemes had previously worked well however the rate of decline in use had reduced in recent years so its effectiveness may have almost reached its peak.	08/01/2013	
C-LEF-151	Investment	Chair asked are BW proactively changing lead communication pipes or only responding to failures.	LEF	BW	08/01/2013	GW confirmed that BW was proactively working with local authorities to identify and work with schools which have lead piping.	08/01/2013	
C-LEF-152	Customer research	As BW had no customers supplied by rivers so river flows did not seem appropriate.	CSSC Chair	BW	24/01/2013	NERA confirmed it was used as a control in the research.	11/06/2013	
C-LEF-153	Customer research	Using litres/year was inconsistent with customers expectations would prefer litres per day	CSSC Chair	NERA	24/01/2013	NERA agreed to use litres per day	24/01/2013	
C-LEF-154	Customer research	Could desalination be used as an option.	CCW	BW	24/01/2013	Would be discussed in WRMP but as it was disproportionately expensive not likely to form part of this business plan.	24/01/2013	
C-LEF-155	Customer research	Could Leakage bias customer responses	CSSC Chair	NERA	24/01/2013	NERA confirmed the controls built into the research will show whether the WTP is due to leakage or other factors such as bill level.	24/01/2013	
C-LEF-156	Customer research	Why was % used rather than X and Y as previous	CCW	NERA	24/01/2013	Stage 1 focussed on the risk to the individual of the experience of a particular attribute. This wasn't the case here. This approach had been successfully used in other research.	24/01/2013	

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C-LEF-157	Customer research	How had the focus groups informed this stage of the research. For the audit trail.	CSSC Chair	NERA	24/01/2013	Used as flags for what customers associated with leakage which had allowed NERA to develop the controls of rows 4,5,6 & 7. Was not possible to control for all factors e.g. the notion of wastage in respect of leakage. Agreed to amend the memo to clarify audit trail. Covered in final WtP Stage 2 report.	01/08/2013	
C-LEF-158	Customer research	How were the Non Household customers selected and did it reflect BW demographics	CSSC Chair	NERA	24/01/2013	NERA used BW database and data regarding demographics. Results were weighted accordingly.	11/07/2013	
C-LEF-159	Water Resources	How does customer research fit into dWRMP	WRSC Chair	BW	21/02/2013	In focus groups customer mentioned desalination and Cheddar 2 in relation to supply demand issues. Acceptability Stage 2 research looked at metering, water efficiency and leakage as a quantitative survey. WTP data used in WRMP and is included in the SDB model so forms part of the business plan and used in Statement of Response on dWRMP.	19/11/2013	
C-LEF-160	Water Resources	Will the dWRMP change	CCW	BW	21/02/2013	Results have led to reconsideration of the planning for the fWRMP and has to record all changes and why they were done. A Statement of response. Was circulated.	19/11/2013	
C-LEF-161	Water Resources	How had environmental impacts of schemes been reviewed?	NE	BW	21/02/2013	High level environmental reviews carried out within option screening with EA. Full strategic environmental assessments (SEAs) were carried out on feasible schemes. SEAs published with dWRMP for consultation. Habitats Regulation Assessments part of SEA. EA confirmed that as part of the dWRMP scoping Ofwat Countryside Council for Wales EA and NE had responded. EA confirmed 3 month consultation period.	21/02/2013	
C-LEF-162	Water Resources	Environmental and Social Costs Assessment	NE	BW	21/02/2013	BW had followed EA environmental benefits assessment guidance on land, traffic etc. Embedded carbon based on standard methodology. Pumping costs converted to CO2 in accordance with DEFRA traded cost of carbon. SEA sets out detail of how these were applied.	21/02/2013	
C-LEF-163	Water Resources	What discussions had taken place in relation to bulk transfers.	WRSC	BW	21/02/2013	No offer from Dwr Cymru, UU transfer expensive due to works required at Purton, WW transfer viable from Bridgwater, SWW expensive and considerable infrastructure needed at cost. Note: All these have been rejected	21/02/2013	
C-LEF-164	Water Resources	Consider reducing WW Bulk supply out.	CCW	BW	21/02/2013	Confirmed that was the scheme listed on the schedule. It would reduce income but have additional environmental and water available benefits.	21/02/2013	
C-LEF-165	Water Resources	Any scope to increase connectivity?	EA	BW	21/02/2013	No internal constraints. Additional pipework would fall under resilience. BW plan to reduce number of customers reliant on a single source.	21/02/2013	
C-LEF-166	Demand	How does "Water Stressed" classification affect metering.	CCW	BW	21/02/2013	Gives BW the ability to compulsorily meter but were looking at the best option as to how. Subsequent classification to 'non-stressed' so no longer relevant.	21/02/2013	
C-LEF-167	Demand	NE noted PR issue of compulsorily metering when customers see leakage as inefficiency.	NE	BW	21/02/2013	Challenge noted. No further action.	21/02/2013	
C-LEF-168	Demand	Has any research been done into benefits of change of occupier metering?	CCW	BW	21/02/2013	Not possible because no details of pre-metering consumption available. Also change of occ large gardens had only identified approx. 2000 so far.	21/02/2013	
C-LEF-169	Demand	Compulsory Metering would ring alarm bells, want assurances that social tariffs would be designed to support vulnerable customers	CCW	BW	21/02/2013	Baseline - current company policies on optant metering and leakage. BW will require more assurances on comp metering before implementing. Note: BW no longer classed as 'water stressed'. Policy reverts to previous status.	21/02/2013	
C-LEF-170	Water Resources	What does the business audit entail	NE	BW	21/02/2013	Regulations inspectors carry out process review on domestic water usage in businesses. Suggest rainwater harvesting but do not include this on benefits due to high up front costs. Also focus on untoward usage such as leakage and third parties tapping in.	21/02/2013	
C-LEF-171	Water Resources	Current cost of water?	NFU	BW	21/02/2013	£1.26 per m2. Increasing to £1.35 per m2 on 1/4/13. Viable schemes for dWRMP would cost less than £1 per m2. And would have no impact on bills as would be covered by new customers.	21/02/2013	

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C-LEF-172	Water Resources	Confidence limit in deficit figure by 2030.	WRSC Chair	BW	21/02/2013	Not calculated as confidence limits. BW uses headroom of 80% certainty it can meet its level of service effectively a 1:5 risk	21/02/2013	
C-LEF-173	Water Resources	Could increasing the size of Cheddar 2 help the increased demand.	EA	BW	21/02/2013	Had been considered but additional costs significantly disproportionate to the benefit. Had already increased from 6ML to 9ML. Believed there was no additional yield available over and above that.	21/02/2013	
C-LEF-174	Water Resources	Are there any unconstrained schemes which may have a benefit on flood risk?	EA	BW	21/02/2013	Too early to say. Possibility Chew Stoke Reservoir would be within this class and is in 25 year WRMP.	25/11/2013	
C-LEF-175	Water Resources	Is Biodiversity included in the SEA?	NE	BW	21/02/2013	Yes in particular in relation to abstractions. BW assuming abstractions continue at licenced rate. EA confirmed donor companies have to do SEA for bulk transfers.	21/02/2013	
C-LEF-176	Water Resources	Water Framework Directive effects?	NE	BW	21/02/2013	BW unaware of any actions on WFD other than monitoring which BW intends to continue. Subsequently identified additional requirements and they've been included.	25.11.13	
C-LEF-177	Water Resources	Quality aspects in relation to WRMP	DWI	BW	21/02/2013	Dealt with under Quality schemes not WRMP. Catchment options and treatment options were likely.	21/02/2013	
C-LEF-178	Water Resources	Could the non potable bulk supply in 2017 be reduced.	EA	BW	21/02/2013	It was a supply to a gas power station. It could be billed at the actual cost to supply so no effect on customers. If BW refused power station would have to look at more expensive environmentally damaging alternatives. If not required would reduce the risk of a hosepipe ban from 1 in 15 to 1 in 25 years.	21/02/2013	
C-LEF-179	LEF	What happens if Ofwat does not accept the LEF report?	LEF	BW	12/03/2013	BW were pleased with the input and had found it extremely valuable. Work not wasted.	12/03/2013	
C-LEF-180	LEF	The previous meeting did not have an independent chair due to the Chairman and Deputy Chairman unavoidably absent. The chair had been taken by the CSSC Chair.	LEF	LEF	12/03/2013	The LEF raised no concerns and were happy there were no issues.	12/03/2013	
C-LEF-181	Investment	Will Ofwat be producing baselines.	DWI	BW	12/03/2013	Ofwat were not intending to produce baselines until after submission of the business plans. They were due in March/April 2014.	01/04/2014	
C-LEF-182	Investment	Will there be one baseline for all	CCW	BW	12/03/2013	BW expected there to be individual baselines for companies but the methodology would be consistent	12/03/2013	
C-LEF-183	Investment	Ofwat had not been collecting June Return data how would they be able to produce baselines?	DWI	BW	12/03/2013	An August Submission was required to produce relevant data	12/03/2013	
C-LEF-184	LEF	Should the LEF consider contacting Ofwat about their concerns on the process.	MDC	LEF	12/03/2013	It was agreed that the Chairman would draft a letter to Ofwat for circulation. LEF subsequently decided not to send such a letter.	12/03/2013	
C-LEF-185	PR14	What would happen if the PR14 process failed	CCW-TD	BW	12/03/2013	BW confirmed that there was a mechanism in the Water Industry Act which provided a fall back provision based on the final K of the previous AMP period	12/03/2013	
C-LEF-186	PR14	River basin plans were not due to be signed off until 2015. How would companies be able to deal with sign off.	EA	BW	12/03/2013	BW confirmed that river basin plans are less of a problem than for WASCs. Further details can be found in the RBMP for 2009 - 2015.	12/03/2013	
C-LEF-187	SDS	Were BW intending to respond to individual feedback on the 25 year strategy directly.	CCW-TD	BW	12/03/2013	BW were not intending to respond directly but a "thank you" to all respondents would be put on the website. Unforeseen circumstances meant this did not get done.	12/03/2013	
C-LEF-188	Performance measures	BW could use the Biodiversity 2020 paper standards as the basis for a Measure of Success.	NE	BW	12/03/2013	BW confirmed 100% in favourable status (above the 95% suggested). BW has therefore outperformed on these targets already and therefore cannot give an effective measure of success.	12/03/2013	
C-LEF-189	PR14	If UK left the EU would environmental policies change?	MDC	EA	12/03/2013	Confirmed that the EU policies were very close to UK policies in any event and no significant change would be expected if UK left the EU.	12/03/2013	
C-LEF-190	Water Resources	Has there been any change in the supply/demand figures since the previous meeting in October?	CCW-TD	BW	12/03/2013	BW confirmed the climate change impacts had been updated	12/03/2013	
C-LEF-191	Water Resources	Will the bulk supply to Wessex continue?	LEF Chair	BW	12/03/2013	BW said it was needed for peak demand during May/June/July but it was reviewing reducing the total volume supplied as part of the future options.	12/03/2013	

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C-LEF-192	Water Resources	Were BW looking at trading water with Dwr Cymru	LEF Chair	LEF/BW	12/03/2013	DWI said that it thought Dwr Cymru (Welsh Water) was looking for opportunities to trade water but CCWJ was not sure if the Welsh Assembly Government was keen to promote this. DWI noted that Dwr Cymru already supplies Birmingham and BW noted that its supply at Purton originates from Vyrnwy in North Wales via the Severn. Age UK asked about bringing water in from outside? BW confirmed that it was considering a number of options of bringing water from outside its own supply area. See also C-LEF-198.	12/03/2013	
C-LEF-193	Demand	What was the difference between the two types of change of occupier metering mentioned on slide 18 of the presentation on 12/3/13	AgeUK	BW	12/03/2013	One related to all changes of occupier and the other only to those with large gardens (which would only produce approx. 2000 metered properties per year). See also C-LEF-199.	12/03/2013	
C-LEF-194	Investment	Is it costly to repair customer side leaks? Should this info be provided to customers to encourage them to repair.	MDC	BW	12/03/2013	Metering will assist customers to be more aware of leaks on their side of the pipe.	12/03/2013	
C-LEF-195	Investment	Why cant we insist customers replace their own supply pipes	Chair	BW	12/03/2013	MJK explained that on the 1 st leak BW carry out the repair under a current scheme for specific types of customers. The scheme proposed would extend this offer to other types of customers. See also C-LEF-200	12/03/2013	
C-LEF-196	Demand	were increased population figures included in the calculations for the dWRMP?	CCW-JS	BW	12/03/2013	Confirmed. See also C-LEF-207.	12/03/2013	
C-LEF-197	Demand	Has there been a difference in the SDB since October 2012	CCW-TD	BW	12/03/2013	BW were considering both demand and supply options. SDB updated reflecting new data, reflected in statement of response.	20/11/2013	
C-LEF-198	Water Resources	Chair asked if Wales was likely as a net exporter since it has excess available.	LEF Chair	BW	12/03/2013	Duplicate of 192	12/03/2013	
C-LEF-199	Investment	Age UK asked for clarification on the two Change of Occupier Metering options on slide 18.	Age UK	BW	12/03/2013	Duplicate of 193	12/03/2013	
C-LEF-200	Investment	In respect of a scheme to subsidise supply pipe replacement, Chair asked why we can't insist customers replace their own supply pipes.	LEF Chair	BW	12/03/2013	Duplicate of 194	12/03/2013	
C-LEF-201	LEF	CCWJ asked how BW was going to take into account customer responses.	CCW-JS	BW	12/03/2013	MJK explained that within the optimiser the cost benefit analysis will take into account the results of the research when drafting the PBP, final WRMP and FBP. Currently metering has not come out as an optimised scheme because customer preference data has not yet been included (as not available until April). However, change of occupier metering has been included in the DWRMP as it is considered that the additional benefits would make it cost beneficial, and because BW believe it is an important element of a balance approach to supply and demand.	12/03/2013	
C-LEF-202	Water Resources	CCWT asked whether BW used the EA methodology.	CCW-TD	BW	12/03/2013	MJB confirmed that both BW and their independent consultants used the EA methodology.	12/03/2013	
C-LEF-203	Demand	Mendip asked whether there was a reduced carbon impact for the pressure reduction schemes.	MDC	BW	12/03/2013	MJB explained there was minimal impact as it doesn't reduce pumping. Water is pumped up to the reservoirs and then gravity takes it to the supply pipes. The impact on pumping will be the reduced leakage.	12/03/2013	
C-LEF-204	Water Resources	Mendip asked if redundant quarries had been considered.	MDC	BW	12/03/2013	MJB confirmed that they had been in the original list of unconstrained schemes. But both of those considered had been filtered out during the review using the EA methodology due to the uncertainty in yields.	12/03/2013	
C-LEF-205	Water Resources	DWI asked if any of the forecast deficit was due to sustainability reductions on abstraction.	DWI	BW	12/03/2013	BW does not have any of those yet but future investigations may identify some.	12/03/2013	
C-LEF-206	Customer research	CCWT noted that Willingness to Pay (WTP) was not included and so there might be a disconnect between the dWRMP and the PBP.	CCW-TD	BW	12/03/2013	MJK explained that WTP would be taken into account in the PBP, FDP and final WRMP.	12/03/2013	
C-LEF-207	Demand	Chair – was increased population included in demand figures?	WRMPSC Chair	BW	12/03/2013	MJB confirmed. See also C-LEF-196.	12/03/2013	
C-LEF-208	Demand	Chair asked about the proportion of energy cost to water and whether BW were sensitised to the increase in electricity costs.	WRMPSC Chair	BW	12/03/2013	MJK explained that the electricity bill was £7M out of a total turnover of £107M. The major reductions would come from reductions in leakage and increased metering. The biggest concern is if there is no electricity there will be no pumps.	12/03/2013	

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C-LEF-209	Water Resources	Have BW responded to NE on their position with regards to biodiversity?	CCW-TD	BW	12/03/2013	Yes. A separate meeting to discuss Biodiversity matters was held on 18th June 2013.	18/06/2013	
C-LEF-210	Water Resources	if BW were intending to respond to the individuals who provided feedback. PEJM stated that it was not intended to respond to individuals directly	CCW-TD	BW	12/03/2013	See C-LEF-187	19/03/2013	
C-LEF-211	Water Resources	CCWT asked if there had there been a change in the supply/demand balance since the Sub Committee meetings in October 2012	CCW-TD	BW	12/03/2013	There has been a change due to climate change. MJB confirmed that the Climate Change impacts had been updated.	20/03/2013	
C-LEF-212	PR14	Are BW aiming for Ofwat's "Enhanced" status for the plan?	IPSC Chair	BW	30/04/2013	Our aim is to make a good plan for our customers not specifically to obtain enhanced. What was most important was producing a balanced plan	30/04/2013	
C-LEF-213	Outcomes	Were there any plans to change the Outcomes	RW	BW	30/04/2013	WJS confirmed that there was no plan to change the Outcomes unless there was a significant change in circumstances. BW were not planning to make any changes but were open to suggestions from other companies Measures of Success if there was anything we had not thought of previously	30/04/2013	
C-LEF-214	Investment	Was the presentation looking at Opex or Capex?	RW	BW	30/04/2013	BW confirmed it was looking at both types of solution.	30/04/2013	
C-LEF-215	Investment	Had SEAMS model been used before? MM noted that he had worked with SEAMS on previous projects.	IPSC Chair	BW	30/04/2013	WJS confirmed the models have been built specifically for BW. They had previously carried out work for Severn Trent and Northumbrian among others.	30/04/2013	
C-LEF-216	Investment	How would the LEF get assurance on the modelling? Would there be any peer review?	IPSC Chair	BW	30/04/2013	WJS noted that there was assurance built into and around the project itself. There were internal review processes, the project had its own reviewer and the Reporter would also audit the data and procedure. MM Confirmed the audit would review design and ensure appropriateness. See Auditor report from LEF meeting of 4th November 2013.	04/11/2013	
C-LEF-217	Investment	The Chair asked the meeting to explain the problem with Eels.	IPSC Chair	BW	30/04/2013	EA - a new statutory instrument (SI) was introduced in 2010, after an EU directive. The SI makes the EA the competent authority for implementation. Under its provisions structures need to be updated to ensure no inhibition of the passage of Eels through waterways. The issues involve Obstruction and Abstraction.	30/04/2013	
C-LEF-218	Investment	Were there other organisations in the BW area who had obligations in this area (eels) over which BW has no control?	IPSC Chair	BW	30/04/2013	EA - yes. All EA assets were updated.	04/11/2013	
C-LEF-219	Investment	Has the Eel management plan been shared with other organisations?	IPSC Chair	BW	30/04/2013	MJK - an internal response was being drafted to the initial request for info from the EA. They confirmed two levels of work: High priority sites at low cost - phase one. And projects with significant cost implications - phase two. See briefing paper on Eels.	04/11/2013	
C-LEF-220	Investment	Could the relevant parties provide more details regarding these works when they are ready?	IPSC Chair	BW	30/04/2013	EA/BW confirmed they would provide a briefing on eels.	04/11/2013	
C-LEF-221	Investment	Could Eels subsequently become caught in different areas up or down stream once first tranche of works completed and cause new sites to fall within early schemes?	GSF/BW	BW	30/04/2013	EA - Yes. MJK confirmed that would be a business risk. It was noted that this could be evidenced as good practice among organisations. BW produced separate document on Eels.	04/11/2013	
C-LEF-222	Investment	Had there been problems with quality relating to metaldehyde as a result of the wet summer?	CCW-JS	BW	30/04/2013	Alternative solutions would be looked at if this proved necessary. It was noted new treatment works must include provision for metaldehyde removal but that there was no retrofitting provision. BW was not planning new TW but that a risk based approach was acceptable allowing time to further investigate catchment type solutions.	30/04/2013	
C-LEF-223	Investment	What provision had been made for customer supply pipe replacement in relation to the reducing lead standard limit?	Chair	BW	30/04/2013	MJK confirmed that a SDB had not proved to be cost beneficial when replacing piping at change of occupier - as was common practice. Lead was on going issue being mitigated by current phosphate dosing regime. Strategy was that when a standard failed, individual pipes would be dealt with.	30/04/2013	
C-LEF-224	Investment	What funding was available?	Chair	BW	30/04/2013	MJK £1.2m had been set aside within the current draft plans.	30/04/2013	
C-LEF-225	Investment	Reviewing NEP Stage 2 - it appeared that additional matters need to be dealt with by BW, in particular invasive plants and fish and Egford Main and Sub Nitrate.	Chair	BW	30/04/2013	MJK - Investigations were on going and were due to end 2017. Egford was to be dealt with under the catchment management programme. Part of NEP	04/11/2013	

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C-LEF-226	Investment	Were there likely to be any further changes between stage 2 and 3?	CCW-JS	EA	30/04/2013	EA - the additional provision on Eels - knowledge still in early stages. EA offered to keep IPSC/LEF up to date.	30/04/2013	
C-LEF-227	Investment	Was there provision for metaldehyde at Cheddar	IPSC Chair	BW	30/04/2013	MJK confirmed this was not necessary as the risk of met aldehyde was currently assessed to be low.	30/04/2013	
C-LEF-228	PR14	Looking at risk BW used the UKWIR methodology developed by Halcrow with the industry and Ofwat. Were there any specific significant risks?	Chair	BW	30/04/2013	MJK - Severn Tidal surge. - saline ingress at Sharpness Canal - 110,000 properties out for 2 weeks or more or major TW failure.	30/04/2013	
C-LEF-229	PR14	Were there any new solutions to these risks?	Chair	BW	30/04/2013	MJK - No new solutions but new methodology developed by UKWIR was being used rather than the previous company one. The questions in the previous WtP research (PR09) were not dealt with under the new approach. The new survey instruments are better, a more robust approach.	01/11/2013	
C-LEF-230	PR14	Are Ofwat on board with methodology?	CCW		30/04/2013	No specific assurance has been received direct from Ofwat but they were involved in steering group. Ofwat's 9 principles form part of the practice guide. Noted that the Reporter needs SEMD security clearance to provide the LEF with necessary assurance.	30/04/2013	
C-LEF-231	Cost of Capital	LEF would need assurances that calculations are to the correct level.	Chair	BW	30/04/2013	Confirmed. PWC provided this in their assurance report to BW Board.	21/11/2013	
C-LEF-232	PR14	How will efficiencies be taken into account?	CCW	Bw	30/04/2013	MJK - confirmed that efficiencies were calculated on overall programme rather than within individual schemes.	30/04/2013	
C-LEF-233	PR14	Will there be a preparation on menu choices for the LEF?	Chair	BW	30/04/2013	MJK - Aim is to get he right control plan together now. The menu process has not yet been specified and can be better addressed at a later stage.	2014	
C-LEF-234	Outcomes	How is the plan validated?	CCW	BW	30/04/2013	MJK - different validation processes are used for each deferent level of cost estimate maturity. Cross industry comparisons can be done using the TR61 database. GSF - S/D schemes have already gone through the process. Some schemes are alternatives for the same issue. In the current AMP5 70-75% of schemes were at maturity 1 or 2.	30/04/2013	
C-LEF-235	Outcomes	Will LEF be informed about risk data on the cross asset optimisation?	Chair	BW	30/04/2013	MJK - the information was available at the end of the process. A report was provided to the LEF.	25/11/2013	
C-LEF-236	Investment	Do BW feel confident in the modelling output?	RW	BW	30/04/2013	WJS confirmed the model was throwing up errors which were being rectified before rerunning the scenarios. BW will investigate anything that is contrary to expectations. Bw will verify model output before putting it into computer. MJK - Bill impacts assume a 6.0% vanilla CoC - same as competition commission determination.	30/04/2013	
C-LEF-237	Investment	Concerned that BW was including plans which would result in decline in service.	Chair	Bw	30/04/2013	MJK confirmed that none of the plans were the Preferred plan. They were examples to draw out themes for customer research. All scenarios comply with statutory requirements.	30/04/2013	
C-LEF-238	Bill impacts	Would there be a basket of options?	CCW	BW	30/04/2013	MJK - confirmed that there would be. This was subsequently included as the Purple plan.	18/07/2013	
C-LEF-239	Bill impacts	Will there be qualitative as well as quantitative work?	CCW	BW	30/04/2013	SEAB - confirmed that there would be. Subsequently included in Phase 2 surveys. Noted also that plan requirement by Ofwat was to be 'acceptable to most customers'.	25/11/2013	
C-LEF-240	Investment	How will Reporter check costs?	Chair	RW	30/04/2013	RW - Experienced auditors where a concern is raised. MM have costs estimators available to assist. MJK - noted that board would have concerns if costs were underestimated. If over-estimated there would be a risk of good schemes being excluded, neither of which was acceptable to the Board.	30/04/2013	
C-LEF-241	Investment	BW to clarify which schemes are compulsorily required and which are non statutory.	Chair	bw	30/04/2013	BW confirm will itemise the compulsory schemes. A response was supplied in Slide 4 of 9/7/2013 IPSC presentation.	09/07/2013	
C-LEF-242	Investment	When carrying out research will customers be asked to note inflation and other costs?	Chair	bw	30/04/2013	MJK - the current estimates include current best estimates. The only items not able to take into account are Sewage costs, inflation and the SIM adjustment.	30/04/2013	
C-LEF-243	PR14	CCWT – what is the difference between the Methodology and the Expectations documents?	CCW-TD	bw	07/05/2013	MJK – Methodology – how Ofwat want the plan done, Expectations – what information is required.	07/05/2013	
C-LEF-244	PR14	What happens after 2014? Will there not be a need for a review to see how far BW has got to achieving the MoS	DWI	BW	07/05/2013	MJK/Chair both noted that Ofwat had not provided any instructions as yet.	07/05/2013	

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C-LEF-245	Outcomes	CCW raised concerns about Trade Offs. It was also noted that should these be agreed further challenge would be needed during the 2015-2020 period.	CCW-TD	BW	07/05/2013	MJK noted that the reason trade offs would be necessary would be circumstances out of BW's control. MJK confirmed that any trade offs would need external challenge, but confirmed the point was important. Trade offs not included.	01/11/2013	
C-LEF-246	Outcomes	Trade-Offs were a matter to be discussed at the next Ofwat workshop for Chairs and Companies at which both MJK and CCWT were speaking.	CHAIR	BW	07/05/2013	MJK saw this as an opportunity to read and consider Trade offs. CCWJ noted that CCW were looking at the issue and a response was expected shortly. AUK – Noted concerns about the impact on customers. MJK confirmed that it would be reviewed as a point of process. Trade offs not included.	01/11/2013	
C-LEF-247	Performance measures	CCWT – Raised the challenge whether % customers in poverty should be a reputational incentive.	CCW-TD	BW	07/05/2013	Reporter – Ofwat sets the prices. The change in numbers of customers in water poverty is driven by economic activity. MJK also commented that BW has affordable tariffs which affected the number of customers in water poverty. But research has revealed that most customers do not like having large subsidies for other customers in poverty	07/05/2013	
C-LEF-248	Customer research	Have BW received any complaints in relation to the WTP research	CCW-TD	BW	07/05/2013	No only customers contacting to check whether the research was genuine.	07/05/2013	
C-LEF-249	Bill impacts	HTA – What were the base prices for the -£12 etc.	HTA	BW	07/05/2013	MJK – 2014/15 prices.	07/05/2013	
C-LEF-250	PR14	MDC commented they he didn't feel the hosepipe ban change from 1in15 to 1in 25 was a particular concern	MDC	BW	07/05/2013	MJK - explained that the more important figure was the rota cut frequency, from which the hosepipe ban frequency was a bi-product of the calculation.	07/05/2013	
C-LEF-251	Customer research	Asked whether -£6 would be considered. Was £-12 put into scare customers? Would £-6 be sustainable	CCW-TD	BW	07/05/2013	MJK confirmed that £-12 to £12 were chosen because they were effectively £1 per month change. The variety was so that the differences could be captured but that the change was reasonable. Originally set up as two £12 scenarios but agreed with IPSC that £6 alternative was useful.	07/05/2013	
C-LEF-252	Cost of Capital	What happens with regard to Cost of Capital – concerned that majority of costs were not capable of consultation by the LEF	CHAIR	BW	07/05/2013	MJK confirmed that the cost of capital was included in the costings at 5% (the same as the Competition Commission determination and ½% lower than other companies. BW did better over all). BW are not expecting a large change. However 1% would have a 3% impact on bills (£3.5M) There would be more of an impact for WASC as ½% would be £4. Any effect would happen in year 1 of the period rather than being spread over the period	07/05/2013	
C-LEF-253	Customer research	Has concerns about the WW/BW similarity with respect to bill increases. With BW increasing and WW increasing on top. Not sure how this could be differentiated.	MDC	BW	07/05/2013	MJK confirmed that the WTP research made it clear that sewerage was separate. Unless WW end up charging significantly more the impact should be minimal.	07/05/2013	
C-LEF-254	Customer research	Chair noted that if something could be misunderstood then it would be. DChair – it would be a double up on quantum and not in percentage.	Chair	BW	07/05/2013	MJK confirmed that a "health warning" would be included in the research. This was subsequently included.	18/07/2013	
C-LEF-255	Investment	IPSC Chair – Scenarios don't currently have defined schemes attached.	IPSC chair	BW	07/05/2013	The schemes are going through checks. Research was to see which outcomes customers' prefer.	18/07/2013	
C-LEF-256	Customer research	Were external circumstances such as climate/cost of capital/income erosion taken into account as these put customers in a vulnerable position. Disinvesting in infrastructure is incredible for the short term future let alone the medium term. Do the draft scenarios spell out the impacts clearly in a world of fast changes?	RSPB	BW	07/05/2013	MJK - BW agree on the importance of climate change resilience. Other the other hand we do not want to bias the research by using inappropriate descriptions.	07/05/2013	
C-LEF-257	Customer research	Has a concern if we disagree with customer responses to different scenarios.	Chair	BW	07/05/2013	MJK- We would capture additional comments from customers. BW Board has concerns about the proposed price reduction scenario being included. But if it wasn't included customers could suggest that we hadn't given them all the options. Previous research suggests that this option will not be selected, but if it is this shows a step change in customer requirements from the previous research.	18/07/2013	
C-LEF-258	Investment	Can BW manage the proposed £401M?	CCW-TD	BW	07/05/2013	MJK it would require additional engineers and be quite challenging. A lot of the cost would be on Cheddar 2 as a single project but we would use external parties.	07/05/2013	
C-LEF-259	Outcomes	Has the problem of retiring engineers which was raised in PR09 been resolved?	CCW-TD	MJK	07/05/2013	MJK- has not been overcome completely. Some engineers have stayed on beyond retirement. Have more active training in place and new graduates have been recruited as part of a plan to deal with the ageing workforce	07/05/2013	

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C-LEF-260	Outcomes	Areas of concern raised by the EA lay in timing of the Cheddar II build, Scenarios used in draft plan and impact on demand from the new Power Station.	EA	BW	07/05/2013	Concerns have been addressed in the Statement of Response dated 19/11/13	19/11/2013	
C-LEF-261	Customer research	Was research acceptability an all or nothing option?	Chair	BM	16/05/2013	BM - No. The qualitative research was to look at the scenarios as packages and bring customers preferences to individual types of schemes. PEJM noted that BW were looking at a prudent approach. 1 st phase enables better insight into customers requirements before finalising the business plan. This was subsequently included in the plan.	25/11/2013	
C-LEF-262	Customer research	Noted the WTP research was not available. Would there be sufficient information to feed into this stage of the research?	Chair	BW	16/05/2013	MJK confirmed the packages had been put through the optimisation model with a cross checks on resilience and supply/demand. Tentative details on risk have been included. Risk/likelihood are broadly acceptable. Not declaring that we have WTP yet.	17/05/2013	
C-LEF-263	Customer research	Was there sufficient data not to invalidate results from WTP?	Chair	BW	16/05/2013	MJK confirmed that the results we had so far from the WTP enabled a crude assessment	17/05/2013	
C-LEF-264	Customer research	When selecting respondents, How will vulnerable customers be assessed?	Age UK	BM	16/05/2013	They would need to fill two of the listed criteria. CAB has provided suggestions as to suitable criteria. AgeUK suggested BME groups. BM confirmed they were included. Data was more interesting with a wide demographic input.	18/07/2013	
C-LEF-265	Customer research	Researchers often used pubs to recruit respondents. Will BM be doing this?	Chair	BM	16/05/2013	There is a no alcohol policy. We used hotels/suitable halls.	18/07/2013	
C-LEF-266	Customer research	Using halls may exclude some vulnerable groups.	Age UK	BM/BK	16/05/2013	BM asked BW for sample size requirements which were confirmed as 300. Together with Stage 2 domestic CAP1 interviews. Vulnerable people were also captured. BM confirmed researchers fully fulfilled their brief.	18/07/2013	
C-LEF-267	Customer research	Asked Age UK and CAB if they found responses to the challenge with respect to vulnerable people acceptable.	Char	Age UK/CAB	16/05/2013	Age UK noted that another spate of distraction burglaries were taking place which their interviewers needed to be aware of. CAB noted Trading Standards needed to be made aware. The proposed pre fieldwork steps and precautions were acceptable.	17/05/2013	
C-LEF-268	Customer research	Members were invited to attended a recorded interview.	BM	BW	16/05/2013	PEJM will listen to all audio recordings. BM provided a discussion guide as part of moderating the discussions.	11/06/2013	
C-LEF-269	Customer research	Was there to be a pilot?	Chair	BW	16/05/2013	In 1st stage qualitative research only. Stage 1 quantitative questionnaire was discussed at 11/6 meeting for approval by the CSSC.	11/06/2013	
C-LEF-270	Customer research	Feedback regarding changes?	CSSC	BM	16/05/2013	Minor changes between pilot and hall testing was fed back by email to the group. Substantial changes would need to be discussed in more detail.	30/06/2013	
C-LEF-271	Customer research	How were the businesses to be selected	Chair	BW	16/05/2013	PEJM noted that NHH would not be as representative as HH. An indicative sample would be used. BW to provide list of contacts	11/06/2013	
C-LEF-272	Customer research	Why were there three groupings for Stage 1 and four for Stage 2?	Ch	BM	16/05/2013	BM - Practicality. The availability for attending group discussions would be limited for nonHH sample. Phone questionnaire more likely to cover wider group of businesses.	17/05/2013	
C-LEF-273	Customer research	There has previously been issues with surveys conducted during summertime.	Ch	BM	16/05/2013	BM - The 2nd phase was in September and should not therefore encounter any issues.	17/05/2013	
C-LEF-274	Customer research	Would customer be asked to consider all bill impacts?	Chair	BW	16/05/2013	MJK confirmed that everything except SIM was included at stage 1. SIM would be included at stage 2. Retail side was unknown so only assumptions could be made. Stage 2 should be able to include if final methodology confirmed. If not will have to use best guess.	18/07/2013	
C-LEF-275	Customer research	How will sewage be taken into account?	CCW	BW	16/05/2013	Sewage will be itemised separately along with inflation.	17/05/2013	

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C-LEF-276	Outcomes	Would discounts for electronic bills be considered	AGE	BW	16/05/2013	PEJM BW are in the process of introducing electronic bills. This was considered once implemented. MJK there is a scheme in progress on paperless billing. Discounts are a separate issue and part of the billing process. PEJM – BW are also promoting the environmental benefits of online billing. One of the ideas to supplement this was to plant trees in return for customers agreeing to go for online billing. MJK noted that it is not policy currently to make a reduction for direct debits. The question is whether there is any incentive as the majority of customers 60-70% are already on DD and those who are not are more likely to be vulnerable customers. Thus decreasing bills for those who can pay and increasing for those who cannot which is counterproductive.	17/05/2013	
C-LEF-277	Outcomes	How are Electronic Bills set up, against the individual or the property?	Mendip	BW	16/05/2013	PEJM confirmed that individuals will have their own login which will move with them. Subsequent occupier would then need to register for it.	17/05/2013	
C-LEF-278	Customer research	Did BW have any issues in the previous research	Blue Marble	BW	16/05/2013	PEJM no issues or complaints. Did receive a few contacts. One of the queries was whether BW research was normally so complicated – assured not.	17/05/2013	
C-LEF-279	Outcomes	The question is what level is “acceptable”?	CHAIR	BW	16/05/2013	Lengthy discussion on definition of acceptable. BM noted Acceptability and Willingness are two separate concepts. BM obtained up front responses on acceptability. PEJM – BW will need to look at where social tariffs are necessary	AMP6	
C-LEF-280	Outcomes	Its about acceptability of plan and who can afford it	Chair	BW	16/05/2013	MJK – Within forecasting – Affordability is a Measure of Success. Will be part of bills, incomes, changes e.g. social tariff.	17/05/2013	
C-LEF-281	Customer research	Discussion guide for Phase 1. Will BM be responding on behalf of BW to questions raised in group discussions?	Chair	BM/BW	16/05/2013	BM - Need standard responses. WJS Definitions need to be clear. BM There can be representatives at focus groups. PEJM noted this can change dynamics of group.	11/06/2013	
C-LEF-282	Customer research	Can BW confirm what information BM have had so far?	Chair	BW	16/05/2013	BW confirmed the same slides used in the LEF presentation (D0144) were provided to BM.	17/05/2013	
C-LEF-283	Customer research	It was noted that the language used needs to be in customer speak for clarity.	Chair	BW	16/05/2013	PEJM - Draft stimulus material was circulated to the CSSC. Language was discussed with LEF on 7/5/13 and was re-iterated by SEAB.	17/05/2013	
C-LEF-284	Outcomes	Have BW made provision for Universal Credit?	Mendip	BW	16/05/2013	MJK – Confirmed BW will need to do some work on it but it is a company risk. If water is an issue then landlords and other bodies will be shouting first.	AMP6	
C-LEF-285	Outcomes	If there is a % increase can BW ask for prepayment	Mendip	BW	16/05/2013	MJK – Not entitled to ask for prepayment, has to be based on current rate, BW will have to bear the risk.	17/05/2013	
C-LEF-286	Customer research	There is low confidence in the data from the 10 respondents whose WtP most motivated hosepipe bans. Chair – will this be ignored?	Chair	BW	11/06/2013	NERA confirmed this would be ignored.– Yes.	11/06/2013	
C-LEF-287	Customer research	UWE – The research results show evidence of 2 groups in the populations. 2 extremes with different priorities: lowest bill and trying to deal with environmental impact in almost equal balance	UWE	BW	11/06/2013	MJK noted the PR09 research split was 40% price, 40% reliability and 20% water quality. The current research showed 45% on price.	12/06/2013	
C-LEF-288	Investment	Chair would like assurance on peer review on how BW apply figures in modelling	Chair	BW	11/06/2013	MJK confirmed this was planned to be done after August. Completed WTP peer review by Susana Mourato 28th October 2013	28/10/2013	
C-LEF-289	Customer research	How will the household and non household results be taken into account?	Chair	BW	11/06/2013	MJK confirmed that they would be allocated proportionately to number of customers. Now in appendix to RERA non-household report.	11/06/2013	
C-LEF-290	Customer research	Non-domestic WTP. There is a large gap between the numbers of 0-4 employees businesses that were recruited compared to the ONS data.	CCW	BW	11/06/2013	Nera - Yes, but we do weight and do sensitivity testing on the weight	11/06/2013	
C-LEF-291	Customer research	Non-domestic WTP - the report talked about a paucity of sample	CCW	BW	11/06/2013	Nera - Yes, but we do weight and do sensitivity testing on the weight	11/06/2013	

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C-LEF-292	Customer research	WTP - domestic - Stage 2 results - How concerned do we need to be about the 13% of the sample who describe themselves as having difficulty with understanding.	CCW	BW	11/06/2013	Nera - Yes, but we do weight and do sensitivity testing on the weight	11/06/2013	
C-LEF-293	Customer research	The stoppage (2-3 weeks) and hosepipe ban attributes have now been tested twice - what value should you use? Something in the middle?	CCW	BW	11/06/2013	Nera - Yes, but we do weight and do sensitivity testing on the weight	11/06/2013	
C-LEF-294	Customer service	MDC asked about permanently reducing pressure. Noted the conflict between the perceived need to improve pressure when this had lower WTP values.	MDC	BW	11/06/2013	BW noted that the main issue was for customers where their pressure was permanently low.	11/06/2013	
C-LEF-295	Customer service	How many properties on the DG2 Register	Chair	BW	11/06/2013	BW confirmed there were 72 on the register	11/06/2013	
C-LEF-296	Customer service	What was the cost to alleviate low water pressure?	Chair	BW	11/06/2013	MJK confirmed it was fairly high. Many were on shared supplies and BW were helping where possible. Others were located higher than reservoirs and would require pumps to alleviate.	11/06/2013	
C-LEF-297	Customer service	Will technological improvements assist BW in improving maintenance?	MDC	BW	11/06/2013	Slowly. On bursts yes but the main issue will be seepage. BW has invested and is investing in new technology to reduce repair times. More difficult to address seepage – only mains replacement will cover this.	11/06/2013	
C-LEF-298	Customer research	How do you account for the fact that customers seem to be pre-conditioned that bills will not go down and don't treat it as a reasonable suggestion?	CCW	BW	11/06/2013	We have considered that as we drafted the quantitative survey. This was tested: -£12 option.	18/07/2013	
C-LEF-299	Customer research	When drafting the quant survey can you include the effect of inflation as another company saw a significant effect on customers after they heard about inflation.	CCW	BW	11/06/2013	Bristol - (MK) - some reservations about including inflation. Blue Marble - we could add questions onto the end of the survey so we could judge the effect. Included in Stage 2 research.	22/10/2013	
C-LEF-300	Customer research	Show card - on protecting water sources is the term 'getting worse' going to lead respondents to vote against that?	CCW	BW	11/06/2013	Will consider wording and get it right for quantitative survey. Updated	18/07/2013	
C-LEF-301	Customer research	Can you let us see revised paperwork when there have been changes	CCW	BW	11/06/2013	Yes. For big changes. Shared on 17/06/2013 approved on 18/07/2013 for minor changes.	17/06/2013	
C-LEF-302	Customer research	Would you be able to outline to me your reasoning for using the £10 valuation for health attributes please.	CCW	BW	12/06/2013	MJK - If we had confirmed coliforms in a reservoir we would issue a boil notice to all customers potentially affected. Under our bond we pay £10 to customers affected by a boil notice. We may not have any schemes that depend upon the valuation.	12/06/2013	
C-LEF-303	Customer research	In Stage 1 results (page 48 Of Nera report - PR14 Domestic Customer Stated Preference Survey- 19 October 2012), it says the valuation for stoppages for 2-3 weeks is 80.04, and for hosepipe bans is 0.71.	CCW	BW	12/06/2013	SB - It's a units issue. The presentation units are in £/hh/year for a 1% change in probability of event. The £80.04 and £0.71 are £/hh/year for one less day of interruptions. I've checked through the stage 1 report this morning and the £/hh/year for a 1% change in probability of event isn't explicitly reported. However, there is a graph in appendix B from the pilot results which shows approximate values of about 2 for hosepipe bans and about 11 - for stoppages.	18/07/2013	
C-LEF-304	Customer research	In yesterday's graph –Page 28 – of the slide pack it compared stage 1 valuations of these two attributes with the stage 2 valuations.	CCW	BW	12/06/2013	We haven't got the stage 2 equivalent yet to the £0.71 and £80.04 you quote. If they are not listed in the final stage 2 report I will take on an action to convert the 1% values. I will also ask NERA when I feedback on the draft results that having the common attributes values listed side by side explicitly is needed in the final report. This has now been included.	July 2013 NERA final version report	
C-LEF-305	Customer research	It had stage 1 stoppages at just over £8 and hosepipe bans at stage 1 at just over £2. Which of these is correct?	CCW	BW	12/06/2013	Numbers and units confirmed in final report.	July 2013 NERA final version report	
C-LEF-306	Customer research	On 12 June. 19 June and 20 June by email, CCWater made 20-30 suggestions for amendments on the Acceptability research. Details are available from Jenny Suggate at CCWater - jennifer.suggate@ccwater.org.uk	CCW	BW	12/06/2013	Blue Marble provided a response to changes made and not made, and reasons why in an email dated 11/07/2013	11/07/2013	
C-LEF-307	Investment	CCWater commented that slide 2's numbers looked high for AMP6 compared to spend in AMP 5. And asked if you ran with the £276m that you spend in AMP5 would bills fall?	CCWater	BW	09/07/2013	BW responded that bills would fall.	09/07/2013	

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C-LEF-308	Investment	The Report Writer asked what the Board's strategic view was on the indicative programme.	RW	BW	09/07/2013	BW confirmed it was larger than we wanted although the indicative programme was yet to be optimised.	01/11/2013	
C-LEF-309	Customer research	Concerns that the LEF are not being consulted on material at the same time as they company and on not all comments being taken into account.	CCW	BW	09/07/2013	BM accepted some issues had arisen due to staff absence.	18/11/2013	
C-LEF-310	Customer research	Issues such as maintenance still being in the quant survey, even though it has produced an emotive reaction in people during the qual exercise.	CCW	BW	09/07/2013	Process improved for the future. Removed percentages to make it less emotive.	18/11/2013	
C-LEF-311	Customer research	On question 21 - we wanted to know what Bristol wanted to get from this section - but we didn't get a response	CCW	BW	09/07/2013	This question was used to help explain which elements are considered most important. See BM response for further details.	11/07/2013	
C-LEF-312	Customer research	The change in the definition of interruptions to supply without the context that Tony asked for, and on discoloured complaints cause us some concerns	CCW	BW	09/07/2013	Context given by providing correct level and performance. See BM response for further details.	11/07/2013	
C-LEF-313	Investment	CCWater asked what it would cost to replace the Line of Works in total, rather than fixing it piecemeal.	CCWater	BW	09/07/2013	BW responded that they did consider that, but it would cost more. Once we have done this 15 years worth of work hopefully we won't have to do anything more for 40-50 years.	11/07/2013	
C-LEF-314	Investment	CCWater asked for confirmation that all schemes linked to customer outcomes.	CCWater	BW	09/07/2013	BW said they did.	11/07/2013	
C-LEF-315	Investment	The Chair asked; what were the Drivers for this work? (Studies being carried out on Reservoirs.)	Chair	BW	09/07/2013	BW explained these [drivers] were for the following measures of success; customer minutes lost (interruptions), discoloured water complaints, leakage, and asset serviceability	11/07/2013	
C-LEF-316	Investment	The Report Writer asked what was in the 'Other' category [of the table]?	RW	BW	09/07/2013	BW said this related to activities such as running GIS systems, leakage and stop taps.	11/07/2013	
C-LEF-317	Investment	The Report Writer also asked how investment areas linked to outcomes.	RW	BW	09/07/2013	BW explained that we link investment to outcomes using WTP values and the performance constraints that we choose. The model gives the most cost effective way of delivering that level of service.	11/07/2013	
C-LEF-318	Investment	The Chair also asked if we can do 'What ifs' after optimisation and when these would happen.	Chair	BW	09/07/2013	BW confirmed that we can do 'what if's' modelling and that this was carried out in the scenario models.	01/11/2013	
C-LEF-319	Investment	The Report Writer asked how long term asset stewardship was considered.	RW	BW	09/07/2013	BW explained the asset level models consider 25 years while the Cross Asset Optimiser uses 10 years.	17/07/2013	
C-LEF-320	Investment	CCWater asked about the difference in expenditure between chlorine and chlorination?	CCwater	BW	09/07/2013	BW said the cost difference was the removal of Chlorine from the site, as this was a health and safety issue for both BW staff and those living nearby.	18/07/2013	
C-LEF-321	Investment	The Chair asked us to confirm our replacement rate for meters and whether we have an issue with loss of income from meters.	Chair	BW	09/07/2013	BW confirmed the replacement rates were 13 years for household meters and 20 years for non household meters. There was no issue with loss of income.	19/07/2013	
C-LEF-322	Investment	M&G – The Report Writer asked about our vehicle fleet and if there were any significant building spend in AMP6.	RW	BW	09/07/2013	BW said that we constantly considered if leasing vehicles would be cheaper and that AMP6 building expenditure would be more on operational buildings.	20/07/2013	
C-LEF-323	Investment	CCWater asked what the quality audit covered.	CCWater	BW	09/07/2013	BW said the Auditor looked at solutions considered as well as the preferred solution and also the cost efficiencies.	21/07/2013	
C-LEF-324	Investment	CCWater asked why the existing Northern Resilience Scheme did not cover the loss of the Sharpness Canal.	CCWater	BW	09/07/2013	BW explained that the Northern Resilience Scheme only allowed for the loss of Purton TW while the Southern Resilience Scheme would cover the loss of the Sharpness canal and hence both Purton and Littleton TWs.	22/07/2013	
C-LEF-325	Investment	The Report Writer asked if the resilience proposal had the same scope as PR09.	RW	BW	09/07/2013	BW said it was a different solution as it now considered growth synergies as well.	23/07/2013	
C-LEF-326	Investment	The Chair asked who decided which resilience schemes to include.	Chair	BW	09/07/2013	BW said this was being tested in the stage 1 acceptability research but BW would have to do something else if we included more resilience schemes.	24/07/2013	
C-LEF-327	Investment	The Chair raised the issue of the EA concerns over the timing of Cheddar II. This was also seen in the acceptability focus group.	Chair	BW	09/07/2013	The difference between the brown/blue plans and the orange plan was the timing of building Cheddar II.	25/07/2013	

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C-LEF-328	Investment	CCWater mentioned that in the focus groups customers didn't understand why they would be charged more because of the timing of Cheddar. There is a question of whether Cheddar can be put back.	CCWater	BW	09/07/2013	BW responded that they couldn't unless they could get a cheaper price for a bulk supply from Wessex - which BW was negotiating on now, but that the bulk supply would have £30m of investment costs. It was concluded this it was not viable due to S19 undertaking.	25/07/2013	
C-LEF-329	Investment	The Chair asked if the new trunk mains/service reservoirs were all for new development?	Chair	BW	09/07/2013	BW said the priority was providing 12 hour storage across the whole network, old and new.	27/07/2013	
C-LEF-330	Investment	The Report Writer asked if the figures used the latest census data.	RW	BW	09/07/2013	BW confirmed this was the case until 2020. The Report Writer also asked if our actual figures in AMP5 had matched forecast. BW confirmed the forecast was 4000-4100, while the actual figure was 3900.	28/07/2013	
C-LEF-331	Investment	The Report Writer asked about how the investment modelling linked with outcomes/measures of success and where service level was included.	RW	BW	09/07/2013	BW explained that the service level is included in the performance data input into the Asset Level Models (ALMs). What comes out of the ALMs is constrained by the results of the acceptability research. WTP values feed into the Cross Asset Optimiser (CAO), which then optimises the ALMs output. The CAO is also constrained by the Measures of Success targets. See slide 22 for relevant diagram.	29/07/2013	
C-LEF-332	Investment	The Report Writer asked for clarification on the 'Not required or nice to have' filter.	RW	BW	09/07/2013	BW explained that this referred to where circumstances have changed or BW was prepared to carry on with existing risks.	30/07/2013	
C-LEF-333	Investment	The Chair asked BW to confirm if the initial design reports contained proof the scheme could be built/was deliverable.	Chari	BW	09/07/2013	BW confirmed that the IDRs included whether it can be built, practical design, time to build and phasing over AMPs if necessary	31/07/2013	
C-LEF-334	Investment	The Chair asked about costing for the rest of the Named Schemes.	Chair	BW	09/07/2013	BW said it depended on the complexity of the scheme and if we have not done a similar scheme before. For cheaper schemes, a lower level costing was involved. This is usually based on historic cost data for similar work. At PR09, 75% of the total programme at PR09 was costed using the IDR approach.	01/08/2013	
C-LEF-335	Investment	CCWater asked how the household and non household valuations were combined. CCWater also asked if BW were using the value for hosepipe bans and adding it to rota cuts and causing double counting.	CCWater	BW	09/07/2013	BW explained this was done on the number of households/number of non household's ratio (93%/7%). BW said the two valuations were tested separately.	02/08/2013	
C-LEF-336	Investment	In respect of the Southern Resilience Scheme CCWater said the values used bore no relation to the Nera WTP values. A peer review of the process was requested to consider WtP and how that information was used in the model.	CCWater	BW	09/07/2013	BW explained the frequencies of the different lengths of interruptions were taken from work Halcrow had done for us on assessing the risks. BW then set out the calculation to obtain the value per customer for each of the interruptions.	03/08/2013	
C-LEF-337	Investment	The Chair expressed his difficulty in understanding how figures converted into value per customer.	Chair	BW	09/07/2013	BW said the inputs into the CAO were expressed as £/event while the WTP values obtained from NERA were £/customer/change in likelihood of event occurring. The Chair asked if this would form part of the peer review of the WTP research. See Susana Mourato's peer review report.	28/10/2013	
C-LEF-338	Investment	CCWater asked for clarification with regard to the Nera report. Nera WTP was £80.36 - the slides that were presented recently gave a figure of £10 and £12.	CCWater	BW	09/07/2013	BW said they would ask NERA to present the WTP values using consistent units in their final report. Report now complete	18/07/2013	
C-LEF-339	Investment	Concerns were raised about the cost of installing screens to safeguard eels. What evidence is there that other parties who needed to do works to the river to make installing the screens worthwhile, were going to do their part.	CCWater	BW	10/07/2013	Screening for Eels forms part of the NEP. EA concurred with this. Subsequently it transpired that investment in this area could be reduced as the Eel population proved to be less than was previously thought.	21/10/2013	
C-LEF-340	Investment	The deadline for responses to the draft WRMP was 8/8/13. The EA raised concerns about timing of Cheddar II build and impact on demand from new Power station.	EA	BW	18/07/2013	BW agreed to show more detail in its consultation responses	18/07/2013	
C-LEF-341	Investment	CCWater raised the issue of the difference in figures for the 2-3 week stoppage attribute between the graph on slide 6 and the figure in the table on slide 7.	CCWater	BW	18/07/2013	BW to provide NERA's email explaining calculation. See briefing paper on WtP conversion	18/07/2013	
C-LEF-342	Customer research	CCWater asked BM to explain any difference between qualitative and quantitative research regarding maintenance.	CCWater	BM	18/07/2013	BM said in the qualitative research, the purple plan (decreased maintenance) was universally rejected. In the quantitative research 67% found the purple plan unacceptable. The difference was due to respondents making comparative judgements in the qualitative phase but were considering the plans in isolation in the quantitative survey.	18/07/2013	

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C-LEF-343	Customer research	The Deputy Chair asked what the impact of inflation would be.	Dchair	BW	18/07/2013	BW said an annual RPI impact of around £5 based on current RPI. BM said how we show this is in the stage 2 acceptability research is critical because customers were talking about flat bills /no increase when discussing the brown plan. The EA said that the understanding of inflation always an issue.	18/07/2013	
C-LEF-344	Customer research	CCWater also raised a concern about the position each plan was presented changed the acceptability result.	CSSC	BW	18/07/2013	BM explained that a quarter of the sample saw each plan first. Rotating in this way avoided an order effect in the results.	18/07/2013	
C-LEF-345	Investment	Asked if the reporter will scrutinise the options and costs	RW	BW	18/07/2013	It was agreed that reporter would do it and confirmed he could provide assurance for the LEF. See assurance report.	25/11/2013	
C-LEF-346	Customer research	AgeUK asked if vulnerable groups were in the percentage that preferred the brown plan.	Age UK	BM	18/07/2013	BM said the brown plan had lowest acceptability amongst C2s and the brown plan is more consistently acceptable for those would can't afford their bills, aren't satisfied with current service or who thing water is poor value for money.	18/07/2013	
C-LEF-347	Customer research	CCWater asked if the maintenance reduction is scaring customers.	CCWater	BM	18/07/2013	BM responded that it would be misleading not to include the information if that is the plan's proposal.BW said it was the reason the percentages on levels of maintenance were removed for the quantitative survey to avoid biasing the customers' responses.	18/07/2013	
C-LEF-348	Customer research	CCWater also asked why Outcomes such as 'best people, right culture' were included when these weren't customer facing.	CCWater	BW	18/07/2013	BW said it was trying to be completely transparent about its business.	18/07/2013	
C-LEF-349	Customer research	CCWater asked if the timing of the Cheddar II reservoir could be pushed back by 3 years and what would the impact be of this.	CCWater	BW	18/07/2013	BW explained that there was almost no spend in the last 2 years when the reservoir is filled. Delaying the build by 3 years would put £92m of expenditure into AMP7. BW was looking to the results of the acceptability research to give the customers' views on the right pacing. Mendip said BW should promote the benefits of Cheddar II reservoir , which is wider than just a supply/demand balance issue. BW said the focus on the amenity value was coming out of the public consultation on the reservoir.	25/07/2013	
C-LEF-350	Customer research	CCWater asked why the Cheddar Treatment Works scheme would cost £20m to treat algal blooms in raw water. North Somerset asked if this was due to fertiliser from land.	CCWater	BW	18/07/2013	BW said it was a wholesale replacement of the treatment process. BW confirmed that [fertiliser] was part of the issue.	25/07/2013	
C-LEF-351	Customer research	CCWater raised the issue of the DWI comments on metaldehyde and whether BW should be approaching EA about the issue.	CCWater	EA	18/07/2013	The EA said the comments were unhelpful and that there were jointly agreed drinking water catchment plans which covered metaldehyde.	18/07/2013	
C-LEF-352	Customer research	With regard to 'Water is Good to Drink' CCWater raised a concern about the cost for number of water quality complaints reduction-	CCWater	BW	18/07/2013	BW said the investment would also support iron compliance.	18/07/2013	
C-LEF-353	Customer research	Mendip asked about the proposed change of occupier metering policy, could customers change back after 12 months. AgeUK asked about metering in new builds.	MDC	BW	18/07/2013	BW confirmed this only applied to customers opting to meter. BW said new builds have been metered since 1999.	18/07/2013	
C-LEF-354	Customer research	AgeUK also asked if leakage is easier to detect with meters.	Age uk	BW	18/07/2013	BW said yes they investigate high readings that are unlikely to be consumption.	18/07/2013	
C-LEF-355	Customer research	CCWater asked about the Government expectation water companies would adopt customers supply pipes and how much this would cost. An UKWIR study had costed this as £4/bill. CCWater asked if BW would move informally to this policy.	CCWater	BW	18/07/2013	BW said it wasn't planning to.	18/07/2013	
C-LEF-356	Customer research	CCWater commented that just because we have customer research showing WTP, BW doesn't have to include in its business plan and BW should consider the overall acceptability of its proposals. CCWater said the LEF needed confidence in the use of WTP in cost benefit analysis and the timing of schemes.	CCWater	BW	18/07/2013	BW to present to IPSC on 25th July. LEF were urged to attend. BW noted comments for consideration in developing final business plan.	25/07/2013	

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C-LEF-357	Customer research	AgeUK raised concerns about the acceptability research showing that 16% of customers were worried about their bills and 5 % currently said they couldn't afford their water bill. The Deputy Chair agreed 21% was a sizable proportion.	Age uk	BW	18/07/2013	BW explained that Ofwat will be looking at both affordability and acceptability of the plan as a whole. BW would need to consider if it needs to do more mitigation over and above the existing social tariffs to address affordability concerns. Have considered, more publicity of existing, not new, measures.	04/11/2013	
C-LEF-358	Customer research	CCWater was concerned that BW could buy its way out of doing anything to deliver the biodiversity index MoS.	CCWater	BW	18/07/2013	BW explained it had developed a biodiversity index Measure of Success in collaboration with RSPB, NE and the EA. The target would be Increasing year by year. NE said it covered areas owned by BW and areas where BW was doing work through the planning system. NE said that sometime biodiversity offsetting could be a good thing.	18/07/2013	
C-LEF-359	Customer research	Chair felt that the reason for inclusion of group discussion results in the analysis was unclear.	Chair	BW	25/07/2013	BW acknowledged it was important to give greater weight to the survey results rather than the focus group discussions and this is the approach that was used.	25/07/2013	
C-LEF-360	PR14	It was noted that the Ofwat final methodology for PR14 had been released on 25.07.13.	LEF	BW	25/07/2013	BW had not yet had chance to review the document. It was felt that it was unlikely to impact the proposed Outcomes.	25/07/2013	
C-LEF-361	Customer research	Chair stated that Blue Marble's comments that the order in which plans were presented in the survey affected the views of respondents caused him concern. Chair requested a more considered response from Blue Marble or BW as to why this issue is not material to the survey results.	Chair	BW	25/07/2013	See C-LEF-362	30/07/2013	
C-LEF-362	Customer research	Blue Marble were asked by the Chair about presentation effects	Chair	BM	25/07/2013	BM explained order of presentation was rotated within the survey so that equal proportions of the sample (n = 74-77) were presented with e.g. the purple, brown, blue or orange first, followed then by the other plans in this sequence. Having equal proportions answer each of the 4 possible rotation sets essentially balances out any potential presentation effect in the sample overall. BM explained that people who see the purple plan before all the others rate this plan as being much more acceptable than those who see the purple plan last, because they have had exposure to each of the other plans and are better informed. But overall the sample is balanced.	25/07/2013	
C-LEF-363	Customer research	Why are these figures different to those presented before?	Chair	BW	25/07/2013	BW explained that LEF and its sub-committees were noticing regular changes in proposed expenditure and service levels because BW were exposing the LEF to its latest thinking and draft costs, rather than waiting until numbers were finalised.	25/07/2013	
C-LEF-364	Customer research	Reliable supply (slides 12-14) on interruptions.	CCW	BW	25/07/2013	BW explained that the blue plan represents the same level of non-infrastructure maintenance as in 2010-2015, whilst the preferred plan is nearer to that in the brown plan. Proposed infrastructure maintenance expenditure represented a reduction from the AMP5 level. Proposed non-infrastructure maintenance was lower than the figures presented to the LEF 18.7.13 but similar to the spend in 2010-2015.	25/07/2013	
C-LEF-365	Customer research	CCWater asked whether the hosepipe ban target proposed in 'Water in the Future' (BW's Strategic Direction Statement (SDS)) should be amended in response to customers' views.	CCWater	BW	25/07/2013	BW stated that the SDS would be updated after Ofwat had given its Final Determination. 25 year target supported by WtP so retained for 25 year strategy.	25/11/2013	
C-LEF-366	Customer research	CCWater asked how BW had obtained a willingness to pay value for rota cuts when it didn't ask a question on it.	CCWater	BW	25/07/2013	BW explained that the value for 2-3 week interruptions had been used for this, as BW wouldn't necessarily use rota cuts in such a situation. Customers are more willing to pay to avoid the loss of their piped supply rather than to avoid a hosepipe ban.	25/07/2013	
C-LEF-367	Customer research	CCWater asked whether BW would be subsidising lead pipe repairs.	CCWater	BW	25/07/2013	BW answered that it will replace the company side of the supply pipe and in the event of a second failure will subsidise repairs on the customer's pipe.	25/07/2013	
C-LEF-368	Customer research	Chair asked why trunk main relining wasn't a DWI scheme.	Chair	BW	25/07/2013	BW explained that it wasn't submitted to DWI due to issues at PR09, but it would be happy to include it as a maintenance proposal. DWI said that one company had submitted schemes which DWI could "commend to support" rather than put in place a legal instrument. BW will consider doing this, but did not do so.	18/11/2013	

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C-LEF-369	Customer research	Chair asked whether the length or the cost of pipe would drive the activity level.	Chair	BW	25/07/2013	BW said that 143km of mains were assessed to be at risk, and a list had been drawn up to prioritise replacement by cost-benefit.	25/07/2013	
C-LEF-370	Customer research	Chair stated that he felt the element of choice involved in this decision should be explained to the LEF. RW asked if the choice is all about cost-benefit analysis.	Chair	BW	25/07/2013	BW responded that the level of relining is sufficient to achieve the targets identified in acceptability research. Cost benefit of scheme presented.	25/11/2013	
C-LEF-371	Customer research	RW asked if the mains relining schemes are geographically distinct.	RW	BW	25/07/2013	BW said it looked at lengths of mains and assess if they can be combined.	25/07/2013	
C-LEF-372	Customer research	Chair asked if the use of the word 'ferrous' is deliberate.	Chair	BW	25/07/2013	BW answered that it was, because ferrous mains are most likely to give iron failures and ice pigging can be used for other pipe works.	25/07/2013	
C-LEF-373	Customer research	CCWater asked whether the level of service proposed in the brown plan was appropriate given customer support for leakage reductions.	CCWater	BW	25/07/2013	BW answered that it would be too expensive to reduce leakage further than it was planning.	25/07/2013	
C-LEF-374	Customer research	Chair asked if the support for river water quality improvements reflected customers' wish to improve their own supplies or was more altruistic.	Chair	BW	25/07/2013	BW felt it was probably a mixture of both. Chair said the results make sense if customers are mainly thinking of their own supplies.	25/07/2013	
C-LEF-375	Customer research	Slide 31 shows the assumptions BW has made in its bill calculations. Chair asked if a Small Company Premium had been included in the cost of capital.	Chair	BW	25/07/2013	BW replied that it is implicit in the stated WACC.	25/07/2013	
C-LEF-376	Customer research	Chair asked if any adjustment in relation to the Capital Incentive Scheme was included.	Chair	BW	25/07/2013	BW replied that it was included in the bill projections	04/11/2013	
C-LEF-377	Customer research	RW asked if it is reasonable to assume the PR09 efficiency assumptions will continue in 2015-2020.	RW	BW	25/07/2013	BW stated that it has outperformed those assumptions so it was reasonable to assume they would continue. [BW stated that it had been helped by input costs being lower than expected due to salaries being below inflation]. BW has commissioned First Economics to do a study on frontier movement, and Oxera to look at the relative efficiency effect on opex, and that this report was provided 28/11/13.	28/11/2013	
C-LEF-378	Customer research	RW asked if the cost estimates are based on current outturn costs, do they include efficiencies found in 2010-15.	RW	BW	25/07/2013	BW replied that the forecast are based on current rates so additional efficiencies will be on top of those already found. BW noted that costs for meters, mains and communication pipes are showing efficiencies of c2-3%, although the programmes were not yet completed. BW noted this was the first price control period in which actual costs had been below those assumed at the Price Review.	25/07/2013	
C-LEF-379	Customer research	Chair asked if phosphate is trapped in sediment. CCWater asked if BW could just take the sediment out.	Chair	BW	25/07/2013	BW replied that it was, and takes a long time to remove due to historic levels. BW replied that to do so would involve draining the whole reservoir and it would also stir up more phosphate.	25/07/2013	
C-LEF-380	Customer research	CCWater asked how does £20m to deal with algal blooms compare to other solutions.	CCWater	BW	25/07/2013	BW said DAF was more cost effective and more secure option.	25/07/2013	
C-LEF-381	Customer research	RW asked if the reporter will scrutinise the options and costs.	RW	BW	25/07/2013	BW confirmed that he would and could provide assurance to the LEF. See Audit report in LEF minutes for 4/1/2013	25/07/2013	
C-LEF-382	Customer research	CCWater asked if BW could use the planned new Southern link - to move water to Cheddar WTW when the algal blooms are high.	CCWater	BW	25/07/2013	BW stated that once it was built the Southern Resilience Scheme would allow it to spread demand over its sources to mitigate the risk of algae, but it wouldn't deal with peak demand	25/07/2013	
C-LEF-383	Customer research	Chair asked if BW has a problem with assets created at privatisation coming to the end of their useful life.	Chair	BW	25/07/2013	BW stated that this was not a significant issue.	25/07/2013	
C-LEF-384	Customer research	Chair asked if the EA had asked BW to reduce abstractions.	Chair	Bw	25/07/2013	BW replied that the only site where this is an issue is at Malmesbury due to low flows, and it won't be a significant investment driver.	25/07/2013	
C-LEF-385	Customer research	CCWater asked about progress on the bulk supply from Wessex.	CCWater	BW	25/07/2013	BW noted that the proposed bulk supply from Wessex is currently subject to a section 19 undertaking, and therefore DWI wouldn't sanction its use.	25/07/2013	

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C-LEF-386	Customer research	Chair asked for BW to prepare a 2 page summary to demonstrate how the Willingness To Pay (WTP) research was used to justify this scheme.	Chair	BW	25/07/2013	BW confirmed that an independent report to the LEF on how BW had used WTP in its cost benefit analysis would be provided. See Susana Mourato's peer review dated 28th October 2013.	28/11/2013	
C-LEF-387	Customer research	Chair asked if any positive shortfall shown on the table is a problem.	Chair	Bw	25/07/2013	BW answered that it is, but anything over 100% presents a problem which cannot be addressed through normal operational storage.	25/07/2013	
C-LEF-388	Customer research	Chair asked if the recent CEOs and Minister meeting had touched on developer costs.	Chair	BW	25/07/2013	BW answered that it was briefly covered, and that the Water Bill includes simplification of the charging rules.	25/07/2013	
C-LEF-389	Customer research	A list of challenges to the methodology of the investment proposal presented on 9th July 2013 was submitted to BM/BW.	CCWater	BM/BW	25/07/2013	A full response presentation was given to the LEF hard copy entitled Bristol Water's response to CCWater's questions on its investment proposals.	26/07/2013	
C-LEF-390	Customer research	On the issue of cold calling, CHAIR asked BM/BW to put the appropriate arrangements in place. Age-UK asked if the field agency would contact the police to inform them that a survey was being undertaken in the area.	Age UK	BM	30/07/2013	BM confirmed the field agency – Indifield – would do this.	30/07/2013	
C-LEF-391	Customer research	Chair asked if the length of the questionnaire BM was aiming for was 15 mins?	Chair	BM	30/07/2013	BM - Yes	30/07/2013	
C-LEF-392	Customer research	SEAB asked if a fourth option could be included to capture customers who did know their bill amount but were happy to pay it.	SEAB	CSSC	30/07/2013	All agreed to this change, but cognitive testing found question confusing and removed for stage 2 main survey.	30/07/2013	
C-LEF-393	Customer research	CHAIR – also asked BM to clarify why 'do not prompt' is sometimes used.	Chair	BM	30/07/2013	BM – For example, Q 7 is an open question, which means that the interviewer usually finds a code to record the respondent's answer. We have found that different approaches to questions keeps the survey interesting and open questions can relax the customer as they are speaking in their own words.	30/07/2013	
C-LEF-394	Customer research	CHAIR asked if we needed to test acceptability of individual elements.	Chair	MJK	30/07/2013	MJK confirmed that capturing acceptability research separately is important. This was done in stage 2 acceptability research.	30/07/2013	
C-LEF-395	Customer research	CHAIR – not sure about the term 'reliable supply', too technical. Similarly, maintenance is an emotive word. CAB – commented that the show card F is difficult to understand, it needed some wording around it.	Chair	BM	30/07/2013	BM – agreed that the wording needed to be amended to be more consumer friendly. This was done in stage 2 acceptability research.	30/07/2013	
C-LEF-396	Customer research	CAB – asked if the interviewer would provide an explanation of 'reliable supply' if asked?	CAB	BM	30/07/2013	BM said it would need to ensure that interviewers were well informed of the meaning so that this can be conveyed clearly when required.	30/07/2013	
C-LEF-397	Customer research	On leakage MJK confirmed that the target is from 49Ml/d to 43Ml/d – a 12% reduction. Showcard to say BW is meeting target and will reduce target level from 18% to 16%. SEAB asked if the CCWater research on the economic level of leakage could help with the language.	SEAB	CCW	30/07/2013	CCW confirmed that the concept was difficult for the public to understand and that cognitive testing is the key.	30/07/2013	
C-LEF-398	Customer research	CCWater asked whether the price needed to include pence.	CCWater	CSSC	30/07/2013	Agreed that bills would be to the nearest £.	30/07/2013	
C-LEF-399	Customer research	CHAIR asked if existing mitigation measures would be explained.	Chair	BW	30/07/2013	BW said no.	30/07/2013	
C-LEF-400	Customer research	CAB asked if respondents could choose more than one option to this question.	CAB	BM	30/07/2013	BM confirmed this was the case.	30/07/2013	
C-LEF-401	Customer research	This asks about property ownership. Age UK asked if renting property/tenant could be included in the list.	Age uk	CAB	30/07/2013	CAB stated the standard category was private rented.	30/07/2013	

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C-LEF-402	Customer research	Q12 - amend to: I'm aware of my water bill and I'm am aware of the approximate cost of my water bill and I am happy to pay it - Liz clarified 5/8 - On Q12 – the current wording (below) can be interpreted in two ways: I am aware of the approximate cost of my water bill and I don't have a problem paying it [NT1] I don't have a problem could be – I don't have any difficulty(as in struggling), or it could be I don't have an issue with it	CCW	BW	02/08/2013	Amended to - I am aware of the approximate cost of my water bill and I don't have a problem paying it - 5/8 Phil added:Re Q12, you're quite correct about the possible dual meaning; I did intend that when I suggested the wording! SB: I was seeking to avoid the word "happy" as that's emotively too strong if taken literally (as opposed to its other more neutral meaning of being fine or ok about something) and I was also trying to find wording for this option which would align with / fit more closely to the wording of the last two 'affordability' options.	06/08/2013	
C-LEF-403	Customer research	Q14 - Should this be 'safe and clean' rather than 'good'? Good is a subjective description of the water supply but the legal requirement is for it to be safe and clean rather than good to drink.	CCW	BW	02/08/2013	Amended to - WATER IS SAFE TO DRINK WITH A CLEAR AND CLEAN APPEARANCE	06/08/2013	
C-LEF-404	Customer research	Q16 - Could be simplified. EG. Now we are going to look at how inflation may affect your water bill from 2015 to 2020.	CCW	BW	02/08/2013	The exercise we are now going to undertake involves looking at the possible impact of inflation on your annual water bill across the 2015-2020 period.	06/08/2013	
C-LEF-405	Customer research	Q17 - include another option -Another option: Bills should increase by less than inflation/not at all/decrease	CCW	BW	02/08/2013	There is an option to record a verbatim response if customers want to make this point	06/08/2013	
C-LEF-406	Customer research	By email Suggest adding into list " I can't afford my bill".	CCW	BW	05/08/2013	coding added	06/08/2013	
C-LEF-407	Customer research	Suggest amend To - "Bristol Water's plans have been designed so that bills will <i>only</i> increase <i>by inflation</i> over the 5 years from 2015-2020"	CCW	BW	05/08/2013	Amended	06/08/2013	
C-LEF-408	Customer research	CHAIR asked BM to provide an explanation of the ordering effect seen in the stage 1 research and that this didn't affect the overall results.	Chair	BM	11/08/2013	BM confirmed that the approach was standard in the industry and that they had eliminated the ordering effect by showing each plan first to 25% of the respondents.	11/08/2013	
C-LEF-409	Customer research	Question to support the evaluation of PR14 business plan were received	?	BW	11/08/2013	Comments were supplied and incorporated into the research.	11/09/2013	
C-LEF-410	Customer research	By email - On Showcard E , suggested using the statement from Showcard M instead of the potentially contradictory statement.	CCW	BW	16/08/2013	Showcard E was amended with a statement from showcard M.	19/08/2013	
C-LEF-411	Customer research	Showcard I – would it be possible to have some more contextual information around the leakage %s – eg. is this better than most companies? The %s themselves are difficult to comment on without some reference point.	CCW	BW	16/08/2013	Industry average included for context.	19/08/2013	
C-LEF-412	Customer research	On the metering statement – might the intention of increased metering be better understood if it explained that being metered encourages people to use less water?	CCW	BW	16/08/2013	amended	19/08/2013	
C-LEF-413	Customer research	Showcards M & N Based on the cognitive interview feedback it seems that the statement around sewerage bills could be stronger. Would it be possible to include, with the appropriate context, the current average sewerage bill and note that this is also under a separate review being carried out by Wessex Water?	CCW	BW	16/08/2013	The final approved questionnaire clarified both water companies different roles and that each company is carrying out its own research into bill payment.	19/08/2013	
C-LEF-414	Customer research	We have seen that customers engage with inflation more effectively when it is presented as a monetary example – so the same should apply to the sewerage element of the bill.	CCW	BW	16/08/2013	See C-LEF-413	19/08/2013	

CODE	TOPIC	CHALLENGE DESCRIPTION	RAISED BY	RESPONDENT	DATE CHALLENGE RAISED	OUTCOME, COMMENTS, RESPONSES	DATE COMPLETED	
C-LEF-415	Customer research	By email Why was the survey designed to ask the question on a different output to that which is now included (i.e. 0.105d/yr. vs. 1.0d/yr.)?.	CCW	BW	22/08/2013	<p>NERA The survey was designed to always be asking people about experiences they could relate to (e.g. long interruption or hosepipe ban, with some degree of risk) and the formats were chosen after checking the recommendations in the literature and confirming them with the initial and pilot research. Distinct from this we can report the derived WTP (for that attribute and that range of risks) using any of a number of units, and the unit of “value per expected day” has the advantage that it is convenient for Bristol to use in considering the benefits of various schemes with various effect on the risks of 2-3 week stoppages, and the same for hosepipe bans. It also helps in sense-checking the relative sizes of the WTP values derived for different interruptions.</p> <p>The number 0.105 expected days is the 2-3 week stoppage duration multiplied by the current risk of this in Bristol every year, I believe. We would expect schemes to improve this risk to deliver improvements of only a fraction of this, for example the improvement might be of 0.01 of an expected day. But to value that improvement, it can be multiplied by the WTP value (£ per expected day) that we reported. So for the outputs, we provided the 2-3 day interruption and the hosepipe ban per expected day to make the valuations easier for Bristol Water to use and more immediately comparable with the other attribute valuations. We considered this useful because the 2-3 week interruption and hosepipe ban happen over considerably longer time frames than the other interruptions attributes and are therefore not directly comparable.</p> <p>To be clear, we are NOT claiming that the 2-3 week stoppage WTP value (£ per expected day of improvement to this risk) is valid for any other length of stoppage or any range of risks especially those outside the range we surveyed. We are only adopting a convenient unit to report the values in.</p>	22/08/2013	
C-LEF-416	Customer research	Straight-line Relationship – the calculation of the 1 day less restriction value £101.28, assume a straight-line relationship to the calculated WtP mean value of £10.63. The NERA Report provides no evidence to support or confirm that this is a valid assumption. It can be the case that cost/value does not increase in linear proportion to output. In this case it would be likely that an increased output could be delivered for less than a straight-line relationship would suggest and customer’s willingness to pay will reflect the same relationship if they were sufficiently informed. What evidence can NERA provide to support the use of the straight-line relationship used to calculate the 1 day less restrictions WtP values for both the Temporary Use Ban and the 2-3 Weeks Stoppage?	CCW	BW	22/08/2013	<p>Perhaps it is mixing up a) our choice of units to report in (£ per expected day) with b) thinking that we are only putting this value on an effect of size one expected day? As above, the value should be valid within the range of risks that we surveyed (interpolating) and maybe a little beyond (extrapolating with caution), but probably not for a big extrapolation. Where above they say that “an increased output could be delivered for less” that seems to be a reference to the cost side of the equation, not the benefit or WTP side. As a general matter we would expect customers’ marginal valuations for service improvements to decline as service gets better and better, but perhaps not very strongly over the ranges of levels of service that we surveyed, if so a linear assumption is appropriate. We tested for this sort of non-linearity in customers’ utility functions extensively, within each range of levels of risk that we surveyed. Mostly we found that there was not sufficient statistical evidence to support a non-linear finding within this range, as described for example in section 5.3.3 of the domestic customer report. We therefore concluded that, over the relatively small service level ranges examined, utility hence the marginal WTP was approximately linear in service levels. This allows us to employ the expected day WTP values across the surveyed risk range for the Temporary Use Ban and the 2-3 week stoppage. For our linear interpolations, described for example in section 7.2 of the domestic customer report, the straight line relationships used there are simple approximations and we note that they are not universally robust.</p>	22/08/2013	
C-LEF-417	Customer research	How has the individual mean attribute WtP value been used in CBA both for individual schemes and packages of schemes?	CCW	BW	22/08/2013	This has been covered in the peer review by Susana Mourato.	28/10/2013	

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C-LEF-418	Customer research	By email - since July, CCWater has given the concept further thought, and to allow us to support a 'reward' we would like to see specific evidence that customers support the idea of a reward. We do not believe that willingness to pay evidence is sufficient. As this was carried out to allow companies to understand the value customers place on issues, and didn't ask the question about whether they would be prepared to pay more on their bill to reward a company that has beaten its targets on X or Y.	CCW	BW	05/09/2013	The theory behind including incentives is not so much to reward companies for out-performance, but to encourage innovation. Behavioural modelling has shown that a penalties only regime encourages companies to minimise risk and just do enough to meet targets, whereas a regime with rewards and penalties tends to encourage more innovation. (More precisely, the modelling shows companies with an innovative approach achieve lower returns than risk averse companies in a penalties only framework, and that they achieve higher returns than risk averse companies in a rewards and penalties framework). This is an important result, and is the reason why Ofwat has become open to more opportunities for companies to out-perform.	06/11/2013	
C-LEF-419	Customer research	By email - We agree that incentive rewards drive innovation, but incentive rewards for outperformance should be acceptable to customers i.e. the company would need customer evidence to show that incentive rewards are acceptable to their customers. If BRL can produce such evidence, this would be acceptable to us. While the availability of financial rewards may drive innovation which is beneficial, customers still pay more if a target is met or exceeded. We need clear evidence to clearly show customers would accept paying more to give the company this reward in return for whatever added value service the company's innovation delivers.	CCW	BW	09/09/2013	BW conducted an Incentives research workshop on 6/11/13 at which the respondents rejected incentive rewards.	06/11/2013	
C-LEF-420	PR14	How will your business plan ensure you meet the statutory environmental obligations that apply to your company as set out in Defra's Statement of Obligation?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-421	Outcomes	What environmental outcomes and associated commitments (performance measures) and incentives have you included in your business plan?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-422	PR14	What assumptions have you made about future Water Framework Directive commitments that remain uncertain? How have these been reflected within your business plan?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-423	Investment	How are you planning to phase delivery of WFD measures up to 2027?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-424	Investment	Have you developed improvements over and above the NEP that might contribute to improved WFD compliance?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-425	Investment	Please can you provide a letter of assurance from the company board that the measures set out in the National Environment Programme (NEP) have been included within your business plan? If there is any material differences please describe them and the rationale for the change?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-426	Investment	Are you putting forward any specific proposals for transational investment before the start of PR14?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	

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C-LEF-427	Outcomes	What action have you taken to ensure that you generate wider benefits and deliver multiple outcomes?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-428	Outcomes	Are you planning to adopt innovative or new approaches to the way you deliver environmental outcomes?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-429	PR14	What mechanism is your company proposing to use to adjust process during the price review period?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-430	Investment	Have you ensured that you have identified the most cost effective means of meeting your statutory obligations?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-431	Performance measures	What success measures have you set for reducing environmental incidents? What is your target compliance rate for meeting Environment Agency discharge permit conditions? How do you propose to meet 100% compliance?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-432	Investment	To what degree are you planning to undertake capital maintenance where you have identified that this is contributing to problems within the environment?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-433	Investment	Have you taken account of the Drainage Strategy Framework within PR14?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-434	Investment	Please detail and justify any differences in the preferred supply-demand options you have included in your business plan for delivery in AMP6 compared to your draft WRMP. Please highlight if you have based your business plan on different supply and demand forecasts to those in your draft WRMP and what effect these have had, if any, on your preferred options. Please clarify to what extent these differences result from the consultation responses you have received on your draft WRMP.	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-435	Investment	How will you manage abstraction sites that fall within Ofwat's Abstraction Incentive Mechanism? Do you envisage that AIM will impact on your supply-demand balance?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-436	PR14	How do you propose to maintain regular engagement with partners to discharge your RMA duties?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-437	Investment	What has been your approach to developing partnership projects to manage flood risk from all sources and sewer flooding? How many partnership projects have you included in your business plans and what are your plans for delivering this work during the AMP period?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	

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C-LEF-438	None	How many properties will be better protected from the risk of sewer flooding through your work during this PR period? What are your measures of success for dealing with properties at risk of sewer flooding? What proportion of all properties at risk on the DG5 register is this?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-439	Investment	How have you made use of Cabinet Office guidance "Keeping the Country Running", the UKWIR resilience guidance, and Ofwat principles for resilience planning in your approach to managing risks from all types of hazard to your outcomes, services, and networks?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-440	Investment	How have you taken into account future climate change and the possibility of more extreme events?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-441	Investment	What account have you made to fulfil your duties on managing reservoir safety?	EA	BW	11/09/2013	Answers to these queries raised as part of the EA regulatory assessment of the business plan have been received by the EA and form part of their report issued 31st October 2013.	31/10/2013	
C-LEF-442	Investment	CCWater would like to ask you to look further at your costs, and see if a reduction to below inflation prices is possible. You'll be aware of the pressure from some other water companies who have announced their intention to deliver below inflation bills, and Ofwat's view on bills – particularly the effect of cost of capital creating a downward effect on bills.	CCW	BW	29/09/2013	BW Board agreed to a £2 decrease to average bills in the 1st year of AMP6, then only inflation increase for remainder of AMP6.	05/11/2013	
C-LEF-443	Quality	Please could you send me the confirmed final outcomes, measures and KPIs for drinking water quality that will go in the final business plan, with reference to current performance against those measures, how much base maintenance expenditure is allocated to water and how this relates to customers willingness to pay research.	DWI	BW	04/10/2013	Output Performance spread sheet was provided.	25/11/2013	
C-LEF-444	PR14	The Chair emphasised the importance of assessing and quantifying the action required around water poverty before the Business Plan is completed. Not to address this issue sufficiently may well trip up the entire process.	Chair	BW	08/10/2013	BW confirmed that figures and plans to mitigate water poverty would be incorporated which has been subsequently done.	08/10/2013	
C-LEF-445	PR14	Chair asked what the critical mass is on smaller water only companies.	Chair	BW	08/10/2013	BW stated that they can be perceived as less healthy and therefore have a lower credit rating. That prior to the 2007 financial crisis, there were more companies able and willing to lend to smaller businesses, through 'Artesian Loans' (using monoline insurers to provide credit wrapping), but that is no longer available. BW is issuing bonds which will access lower debt rates than some smaller WOCs, such as Portsmouth; larger WASCs can issue their bonds with smaller spreads and access cheaper debt. BW's investment spread is currently at 2%. BW issues bonds less often than other companies (because of having a smaller investment programme than large companies so less debt is required) and is therefore not able to take advantage of the continuing low rate of interest.	08/10/2013	

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C-LEF-446	PR14	BCC and CCWTD asked why a company that is owned by large/larger companies, can they not borrow the money and then pass it on to their smaller subsidiaries. Otherwise it is the customer who pays the added cost of borrowing.	BCC/CCWater	BW	08/10/2013	BW explained that borrowed monies are ring-fenced to their purpose and that licensing issues also prohibit the practice. BW clarified that there is not always an advantage in being bigger as this can attract greater perceived risk. Interest is usually then in the top %5 range. Also that different company's profiles with land, coast, and business practices mean that customers pay for variations in many other things, depending on where their supplier is. Larger companies can loose out through less customer satisfaction on service levels etc. By and large it tends to equal out.	08/10/2013	
C-LEF-447	PR14	CCWTD asked for an explanation as to how retail prices will be set .	CCWater	MJK	08/10/2013	MJK explained it's default tariffs for month 7 Average Cost to Serve (ACTS) for households, and that we are lower than the sector ACTS so we'll get our actual costs, rather than companies who are above it, having to decrease to the ACTS.	08/10/2013	
C-LEF-448	PR14	CCW asked if BW can contact this person to find out what went wrong.	CCWater	BM	08/10/2013	BM stated that respondents' identity is not held by them for privacy reasons, so that information is not available. However, all respondents had the option to have their details passed to BW to discuss any issues they were not happy with. This was declined by all respondents.	08/10/2013	
C-LEF-449	PR14	BCC queried the variance between acceptable and very acceptable.	BCC	BM	08/10/2013	BM explained that the challenge was to get a full understanding of the plan across to respondents. This was achieved through the interviewer in the consumer's home. Many consumers expressed their surprise at some of the activities that BW is involved in and felt they had learned a great deal.	08/10/2013	
C-LEF-450	PR14	CCWTD raised a query about energy changes and how they impact on bills.	CCWater	MJK	08/10/2013	MJK indicated that energy was a big issue at PR09 and the approximately £4m increase added £6.00 to customer bills.	08/10/2013	
C-LEF-451	PR14	Comments and queries supplied on Acceptability Research Phase 2 Summary	CCWater	BW	15/10/2013	BW/BM supplied responses which were presented to the LEF on 22/10/2013	22/10/2013	
C-LEF-452	Customer research	Chair noted the split between older and younger respondents. WJS asked why this was so?	Chair	BM	22/10/2013	NK – said that keeping groups in similar catchments worked best when respondents could relate to each other; shared experiences, especially things like hobbies and attitudes helps the group to form quickly and blend. This breaks down inhibitions and allows for group cohesion to form for discussions. It makes for a comfy dynamic. PM – this type of structure can also show up differences within age groups whereas that could be lost in too wide a selection.	22/10/2013	
C-LEF-453	Customer research	TD - asked why there are no vulnerable respondents from sections AB.	CCWater	BM	22/10/2013	BM – explained that vulnerable in this case is largely about ability to pay and AB groups are the upper income groups, it therefore does not necessarily apply. Using CD will give a wider vulnerable group experience.	22/10/2013	
C-LEF-454	Customer research	TD – asked BM if they expected respondents to fill in a form prior to joining groups.	CCWater	BM	22/10/2013	BM - agreed that they would and this was done prior to the group activities.	06/11/2013	
C-LEF-455	Customer research	TD – asked whether respondents would be told about the recording? WJS - who is going to be recorded?	CCWater	BM	22/10/2013	BM – explained about the MRS industry Code of conduct for market research. It also forms a key part of their proposal to BW as a key part of the ethical guidelines. BM - one of the older DE groups. Members of this group and BW were able to sit in adjoining room to listen.	22/10/2013	
C-LEF-456	Customer research	DP – Asked whether a bias will be introduced through paying respondents £70?	SDC	BM	22/10/2013	BM – Explained they find respondents happy to give their opinions regardless. It was more about offering compensation and expenses for giving up their time and recognising its value to the respondents.	22/10/2013	

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C-LEF-457	Customer research	TD – Asked for clarification on the process for the evening [of 6th November 2013].	CCWater	BM	22/10/2013	BM – explained that it starts at 6.00pm with everyone in one big room. There was a series of short presentations followed by a break at 7.00 for the opportunity to mingle and discuss the presentations. Food and drink will also be available at this time. At 7.30 to 8.30 everyone will go into their groups in separate break out rooms. At 8.30 they all go back to the one room to wrap up.	22/10/2013	
C-LEF-458	Customer research	TD - asked what happens with four groups' results questions.	CCWater	BM	22/10/2013	BM – Explained they will all be merged, and this will highlight differences of opinion within the different groupings. Each moderator will transcribe and take notes, adding their feelings about each group. They then get together and compare. All this is then put together for analysis with caveats on age etc. as appropriate. A report is then presented to BW.	22/10/2013	
C-LEF-459	Customer research	TD – asked if BW is asking respondents to comment on the four strategies.	CCWater	BW	22/10/2013	PM – Both the concept of incentives and how that applies to the individual strategies. BM - concept ok.	22/10/2013	
C-LEF-460	Customer research	TD – Once the results have been merged and analysed, what will be the timescale after that?	CCWater	BW	22/10/2013	MJK – Once the CSSC and LEF have been consulted, the results will be taken to the Board Meeting of 25th November 2013.	22/10/2013	
C-LEF-461	Customer research	CCW JS – Will there be a quick report/feedback prior to that?	CCWater	BW	22/10/2013	MJK –There is likely to be one of three outcomes. Yes, customers accept the incentives method of regulation. No, customers reject outright an incentives method of regulation. Only some of the proposals are accepted. Before 25th can say how we responded to it. TD concerned. Gone thru prep will be asked what he thought of it. Needs to be able to process. Can be email. Feedback pre 25th. BM plan to get back first draft straight after. More formal findings on 18th 19th. TD was involved in those discussions.	22/10/2013	
C-LEF-462	Customer research	Acceptability Slide TD – We saw BM's presentation at LEF meeting. There is now additional slide – 41 – to be discussed. BM – We were asked to add the profile of not people who did not accept the plan.	CCWater	BM	22/10/2013	26 people did not find it acceptable, as outlined on slide. Two key reasons – currently most did not think it was VfM. Also 19 were not finding difficult to pay. The important message here then is the starting point of their valuation. It's the not VfM, then for these respondents, it is not about cost of bill.	22/10/2013	
C-LEF-463	PR14	TD asked for clarification of the term 'flat bill'.	CCWater	BW	04/11/2013	WJS explained this is the industry language to indicate a bill amount without inflation. MJK explained that the flat bill is based on the price limit formula based on $K = 0 + \text{inflation}$.	04/11/2013	
C-LEF-464	PR14	TD asked if that meant PR09 schemes were going to overrun.	CCWater	BW	04/11/2013	MJK explained that it was not.	04/11/2013	
C-LEF-465	PR14	TD queried the catch-up figures of 0.5% per annum.	CCWater	BW	04/11/2013	MJK explained that the previous regulatory figure was 60% catch up to the frontier. Since Oxera indicates Bristol Water is 5% behind the frontier, we have applied a 3% catch-up efficiency. Overall a 1% per annum improvement – 0.5% catch-up and 0.5% productivity.	04/11/2013	
C-LEF-466	PR14	TD asked whether BW is able to handle capital programme.	CCWater	BW	04/11/2013	MJK – Yes. AMP6 capital expenditure of £340m is similar to AMP5 plus Cheddar II reservoir.	04/11/2013	
C-LEF-467	PR14	BCC asked about debt.	BCC	BW	04/11/2013	MJK explained that some debt was fixed and some index linked gives a combined cost of 4.85%. 4.7% represented a good balance before financing costs became prohibitive.	04/11/2013	
C-LEF-468	PR14	JS asked why cost of capital had previously been quoted at 4.85%.	CCWater	BW	04/11/2013	MJK explained that this figure includes inflation. TD asked whether there was refinancing in AMP6. MJK explained that £250m of new debt in AMP6 will include £50m refinancing in 2017.	04/11/2013	
C-LEF-469	PR14	TD asked whether CoC was for new or replacement financing.	CCWater	BW	04/11/2013	MJK explained that £250m of new debt in AMP6 will include £50m refinancing in 2017.	04/11/2013	
C-LEF-470	PR14	TD asked whether the retail margin applies to all companies.	CCWater	BW	04/11/2013	BW explained that it is likely to be all companies.	04/11/2013	
C-LEF-471	PR14	The Chair asked if the customer research showed that they were not in favour of incentives, what BW would do in that situation.	Chair	BW	04/11/2013	MJK confirmed that BW would in that case continue with the penalties only system, already in place in some business areas.	04/11/2013	

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C-LEF-472	PR14	TD asked how the flat bills system would work when the incentives are assessed annually.	CCWater	BW	04/11/2013	MJK confirmed that the incentives reward/penalty would be reconciled at the end of AMP6 and applied at the start of AMP7.	04/11/2013	
C-LEF-473	PR14	The Chair asked the Mott MacDonald reporter whether he could foresee any issues [with the LEF process to date].	Chair	RW	04/11/2013	AH confirmed that he did not. Mott Macdonald's review process was quite rigorous and therefore foresaw no problems. In all AH expressed himself impressed with the work BW had produced. That it was an exemplary approach which Ofwat may use in the future. An Outcomes Centred method for risk analysis. Good measure of individual thinking. Good planning.	04/11/2013	
C-LEF-474	PR14	TD –asked for clarification on the difference between 1% and £39m?	CCWater	BW	25/11/2013	MJK — difference is that the penalties are all expressed as a percentage of revenue, except for the asset reliability penalty which is expressed as a reduction to the RCV	25/11/2013	
C-LEF-475	PR14	JH asked if AH could comment on how the plan provides for further development into the future?	JH	AH	25/11/2013	AH said he believes that the diagrams seen all around the building, the Parthenon model of the business plan, shows that the 25 year strategy is being embedded into a 'business as usual' philosophy. BW has taken its outcome aims as a starting point, rather than the usual industry output approach. JH – so therefore customers are even more at the heart of everything that BW now does.	25/11/2013	
C-LEF-476	PR14	CH – BW was at the bottom of the company list at the end of PR09 because of a piece of research that was not as good as it could be. So it is a really good idea to show where, how and why thinking has been changed. Therefore asked if BW could give examples of where these changes are greatest.	Chair	BW	25/11/2013	LG – yes, BW can provide examples of these.	27/11/2013	
C-LEF-477	PR14	A video presentation was shown that has been prepared for support of the planning application for Cheddar 2. TD asked whether planning could be refused.	CCWater	BW	25/11/2013	MJK – Yes.	25/11/2013	
C-LEF-478	PR14	The Chair asked whether there is a lot of flooding around Cheddar.	Chair	BW	25/11/2013	MJK – The area west of the reservoir is known as the flooding compensation area which needs to be accounted for in the event of the possibility of the reservoir flooding.	25/11/2013	
C-LEF-479	PR14	TN –commented that the area is in need of football pitches. He is led to believe that football pitches act as a filtering area.	MDC	BW	25/11/2013	MJK – possibly for sewage works but not for drinking water. PM noted that there is a scheme set	25/11/2013	
C-LEF-480	PR14	A 1 in 15 years estimate of the necessity of hosepipe bans. TD - Sought assurance from BW that there were no major concerns in the new plan.	CCWater	BW	25/11/2013	MJK confirmed that there were none.	25/11/2013	
C-LEF-481	PR14	TD - asked for assurance from the EX about plan now?	CCWater	EA	25/11/2013	EA confirmed it had no concerns.	25/11/2013	
C-LEF-482	PR14	TD – why does the graph show a drop in discoloured water quality contacts?	CCWater	BW	25/11/2013	MJK – that's the impact of the trunk mains relining.	25/11/2013	

Appendix 2 -Technical assurance sought by the LEF



Our ref 281275BA13

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Your ref

Charles Howeson,
Chair of the Local Engagement Forum,
Bristol Water,
Bristol,
BS99 7AU

28 November 2013

Attn: Sally Birse

Dear Charles

Technical assurance questions raised by the local engagement forum

We undertook a high-level assurance review and challenge of the processes and information that constitute technical element of Bristol Water's business plan. Our opinion is based on a sample of processes and data, and on the final draft of the high-level business plan. In summarising our assessment, we have tested the plan against an assurance framework that incorporates some of Ofwat's tests for a high-quality plan.

Our assurance complements other assurance that Bristol Water commissioned: the Water Resources Management Plan, financial elements and technical detail of the customer engagement process. These areas were thus outside of our scope.

Our preliminary view is that the processes supporting Bristol Water's PR14 business plan are reasonable. The messages in the high level plan align to the information presented to us as part of our assurance activities (where they are within the remit of our scope). The data behind the plan is reasonable and we have explained in our report where improvements can be made and where Ofwat may challenge Bristol Water.

This is a preliminary view because the business plan data tables and detailed business plan narrative were not all available for review at the time of writing.

The nature of the assurance undertaken, its limitations and our findings are summarised in our report to Bristol Water. This statement is based on the supporting evidence made available to us before 18 November 2013.

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Overall opinion

We consider that Bristol Water's plan is reasonable, begins from a position of strong performance, and clearly responds to customer opinion. It is relatively well supported by the detailed planning. Bristol Water has taken an exemplary approach to developing outcomes and integrating them into its high-level planning. It has achieved very high customer acceptability for its plan.

Engineering costs are compiled in accordance with normal practice and although different cost estimation methods are used by different consultants, the overall process is good. Overall we consider that Bristol Water's engineering costs are comparable with industry costs.

Our opinion on the LEF's individual questions is annexed to this letter.

Yours sincerely,

Dr Andrew Heather
Technical assurer

Mott MacDonald Ltd

Annexe: Response to questions raised by the Local Engagement Forum

The generic areas of technical assurance the LEF required of the Company and its independent assurers included:

Ref.	LEF question	Reporter response
1.1	Justification for investment with clear linkage to drivers (statutory and discretionary), customer preferences and willingness to pay, outcomes and measures of success	<p>Investment categories are linked to outcomes wherever practicable.</p> <p>At the detailed scheme level, whilst many links between investment and outcomes are clear, some could be more strongly articulated for some schemes. However, for some investment groups such as IT and vehicles, it may not be worthwhile trying to fully quantify the service impact of minor asset failure, and a 'cost-effectiveness' approach remains most appropriate.</p> <p>We recommend that during AMP6 the company continues to develop its data for linking assets to outcomes.</p> <p>Overall we consider the company's approach to be reasonable.</p>
1.2	The clarity of need and evidence for investment to meet statutory water quality and environmental obligations	<p>We recommend that the company provides adequate evidence to Ofwat in order to explain the needs for water quality schemes, even though it has successfully made the case to the DWI.</p> <p>On the environmental obligations the greatest uncertainty was the Eels Directive compliance at the Gloucester and Sharpness canal abstraction. It appears that scheme will be seen as excessively expensive for an uncertain benefit, and that greater environmental benefit could be achieved in other catchments for less cost. The company has therefore chosen to take a risk on the cost of meeting its obligations. Rather than the £10m estimate for that site, the company has allowed £7m. The approach is reasonable although we have not reviewed the individual options in detail, although they do exist.</p>
1.3	The identification and prioritisation of discretionary investment and the benefits to customers	<p>The process has been thorough, with a significant amount of proposed investment being held back because it does not meet the priority criteria.</p> <p>We challenged the company to ensure that its business plan fully explained its approach with respect to the use of 'must invest' scheme categories. We found that a significant proportion of investment was assessed on an individual scheme basis and classified as 'must invest', because full data on the costs of not investing were not available (for example for long-life structures which have little or no failure data, or for vehicles, plant and machinery). We found that some of the 'must invest' projects could have been left as free choice, but the company did not have</p>

Ref.	LEF question	Reporter response
		<p>time to re-run the cross asset optimizer.</p> <p>It is especially important for Bristol Water to explain to Ofwat the full case for the Cheddar water treatment works upgrade, which the company proposed to the DWI as a water quality enhancement project. The DWI commended the project, but did not consider it a water quality obligation. The project will therefore be part of the company's maintenance plan and not a statutory water quality project. Therefore we consider that the case should be made in full to Ofwat.</p> <p>We recommend that in future the company collects more risk management data in order to make it easier to express investment in terms of costs of not investing, costs of investing, and benefits to service or outcomes. However, we accept that for some asset types the analysis is not worth doing and 'cost effectiveness' approach is more appropriate.</p>
1.4	The sophistication of asset management and investment planning methodologies	<p>Bristol Water has made significant progress during AMP5, and has developed more sophisticated forecasting tools. This step forward will also help in delivering AMP6 since it should allow ongoing re-prioritisation of the optimized element of the programme, leading to more efficient delivery.</p> <p>We recommend that the company continues to develop its capability in asset and risk management and modelling during AMP6.</p>
1.5	Investment solutions including the use of tried and tested technologies and the adoption of innovative and sustainable solutions	<p>For the major schemes, tried and tested technologies are likely to be used.</p> <p>We did not review in detail the company's plans for innovation.</p>
1.6	The consideration and selection of investment options including both capex and opex solutions	<p>The company has attempted to identify lowest whole-life solutions to problems.</p> <p>Catchment management has been proposed for AMP6 and has also been a solution in AMP5. For Metaldehyde this is an opex solution to a water quality problem that would otherwise be very expensive to solve. Catchment management is thus likely to be the lowest totex solution until such time as an effective treatment process is available. .</p>
1.7	The assessment of benefits and the robustness of the cost benefit methodology	<p>For modelled and many named schemes the quantification of benefits was strong.</p> <p>We found that for some named schemes, risks and benefits could be better quantified and more strongly aligned to outcomes. This</p>

Ref.	LEF question	Reporter response
		would be an area for further development during AMP6.
1.8	The quality of asset and performance data	<p>We have reviewed some data as part of our review of the investment models. We have seen where the models use data and the extent of input available to them.</p> <p>We consider that Asset and performance data are much improved with the advent of the Avon+ projects. However, as with most water companies there are still some areas of data weakness which we recommend the company addresses during AMP6.</p>
1.9	The robustness of capex and opex cost estimates	<p>For named schemes, the costs are constructed for individual schemes; for modeled schemes a cost curve approach has been used.</p> <p>Based on sample of capital costs we consider that capital costs are robust and are built according to good practice.</p> <p>We did not review opex build-up in detail.</p>
1.10	The scope for future cost efficiencies	<p>The company proposes to continue improving operating cost efficiency in line with its economic consultants' recommendations. Its proposed efficiency is in line with Ofwat's previous approach, being 60% catch-up plus the frontier shift.</p> <p>On Capex, the company is proposing to deliver efficiency of 1.2% p.a., through three initiatives – using the cross asset optimizer to deliver an efficient mix of schemes; ensuring asset specifications are appropriate; and seeking to build at competitive costs.</p> <p>The approach is reasonable although we did not review the economic assessments and hence cannot comment on the quantum of efficiency available.</p>
1.11	Risk identification and apportionment with particular challenge on any unnecessary risk being borne by customers	<p>The company is not proposing notified items, so it is attempting to balance overall risk in its price offering.</p> <p>The resilience scheme reduces the risk to customers of a major supply outage; it also reduces the risk to the company of having to respond to a major interruption to supply.</p>
1.12	The Company's ability to deliver its proposed investment	The company has a good track record of overall delivery in AMP5. Proposed investment for AMP6 is of a similar scale and therefore the company should be equally able to deliver it.
1.13	The prioritisation of investment and phasing of delivery of outcomes to minimise the impact on customers' bills (both measured and unmeasured) and	We have reviewed the prioritization of schemes in the cross asset optimizer but not the calculation of customers' bills.

Ref.	LEF question	Reporter response
	maximise affordability	
1.14	The alignment of the proposed investment programme with the Company's 25 year strategy	There is good alignment between the 25-yr strategy and the five-year business plan.
1.15	The extent of quality control and executive management engagement with the proposed investment programme	The approach to quality control is reasonable and there has been a good level of executive management involvement. Bristol Water should check that this involvement is fully explained in its business plan.

In addition to these generic challenges, the LEF challenged the Company and its independent assurers on specific areas of its investment programme including:

Ref.	LEF question	Reporter response
2.1	The justification for why work is needed on lead communication pipe replacement and metaldehyde catchment work when this was funded at PR09	Both these programmes are ongoing schemes that may span several AMP periods. Lead pipes are replaced as samples fail the drinking water standard, rather than removing all lead pipes in one operation. The catchment management for metaldehyde control was a pilot scheme in AMP5 and is an opex solution because no economically viable treatment process is currently available. The approach is reasonable.
2.2	The proposed investment at river abstraction points to protect eels - wanting to make sure other parties do their part to make sure the Company's work will have a beneficial impact	We did not review whether other parties will play their part. We found that Bristol Water's approach to the Eels Directive compliance was reasonable although uncertainty remains over the Gloucester and Sharpness Canal abstraction.
2.3	The investigations into Invasive Species within the National Environmental Programme and the resulting catchment management investment proposals	The company has provided for surveys to investigate the presence of invasive species, some of which can be controlled if identified before they are fully established. Examples include knotweed, invasive shrimp species, zebra mussels, and floating pennywort. No major action is planned for this AMP – the costs are for investigative surveys. The approach is reasonable.
2.4	The need, quantum and timing of the proposed investment to address algal blooms at Cheddar WTW and its alignment with customer priorities and its impact on customer bills	Although Bristol Water has a non-statutory letter of support from the DWI, we recommended that it fully quantifies the risk to service in its case to Ofwat. The scheme will be funded through maintenance and so we would expect it to be subject to the same challenges as other maintenance activities. The timing is a matter of judgment but the risk is present

Ref.	LEF question	Reporter response
		whenever there is a 'good' algal growing season.
2.5	The proposed expenditure on the Southern Resilience project and customers' willingness to pay for it	<p>The benefits of the southern resilience project have been articulated in detail and customers accept the company's concern and appear willing to pay for it.</p> <p>Resilience is a matter of judgment and we recommend the company's business plan clearly sets out the evidence supporting the risk assessment, and the benefits that will be delivered. The new Water Bill is expected to contain specific resilience duties.</p>
2.6	The largest schemes contained in the water mains, service reservoirs and management and general areas of the programme, their impact on levels of service and linkage to customers' preferences	<p>The water mains programme is a series of smaller schemes rather than a large scheme. The length of mains rehabilitation has been estimated through deterioration modeling, which also proposes the pipe types to replace. This is in line with normal UK water industry practice and links to long-term customer service.</p> <p>Management and general programmes include large budgets for information technology, which has driven many of the improvements delivered in AMP5. Whilst M&G is clearly important for delivering customer service, the links are generally not as well quantified as for operational assets. For example an IT, vehicle, or office failure could directly affect service to customers, but it is not practicable to say how many customers or for what period.</p> <p>The Bedminster service reservoir replacement will be a complex project because of the need to ensure adequate supplies are available during its refurbishment.</p>
2.7	The level of developer contributions	Not reviewed.

Appendix 3 - Consumer Council for Water Statement



The Consumer Council for Water (CCWater) is the independent statutory representative of domestic and non-household water consumers for England and Wales.

In addition to the work CCWater carries out on behalf of customers during a Price Review, Ofwat gave CCWater specific tasks relating to its membership of a Customer Challenge Group²⁰.

Our extensive challenges across Bristol Water's plan on customer engagement, research, outcomes, performance measures, incentives and its investment plan give us the confidence that they have developed a plan with customers' priorities in mind, and that reflect the needs of customers over the next five years and in the longer term.

Customers' have found Bristol Water's business plan acceptable, with 92% of its customers accepting its plan. We were pleased that Bristol Water after challenge about its approach to those customers who found the plan unacceptable, went on to consider what more it would do for those customers who had indicated they struggled to afford their bill.

As part of the LEF, CCWater challenged Bristol Water to do better than the RPI plus K package it was considering in July 2013. They responded to this, and we pressed them further in September and asked them to look again at their costs and do better than the RPI only package they had at that point. The company responded to this challenged and has is now offering a £2 reduction in 2015-16 with RPI only after that point. We have also repeatedly challenged on the cost of capital, which the company also moved on.

As part of our role within the LEF, we have scrutinised the customer engagement approach, research methodology, material, results and how the company has used those results as it has planned its 25 year strategy and 5-year business plan. CCWater are confident the outcomes Bristol Water wants to achieve in its business plan and long-term plan reflect the priorities that their customers' said they valued through research.

We challenged Bristol Water on its outcomes and performance measures, and welcomed their shift in several areas in response to challenges.

CCWater also challenged extensively on the company's investment programme, so we could understand the extent of innovation, sustainability and cost-effectiveness that were being considered as the company developed its plan. These challenges are outlined in the LEF report and Challenge Log. Bristol Water have improved their innovative and sustainable approaches since previous Price Reviews, and we would like this to develop more during the next few years. We have been assured that their investment is cost-effective compared to other approaches to an issue.

Overall Bristol Water's approach to engaging with the LEF has been good.

²⁰ Ofwat - [Involving customers in price setting](#) - August 2011
- Pg 23-24

Appendix 4 - Drinking Water Inspectorate Statement



Drinking Water Inspectorate Statement for Bristol Water's Customer Scrutiny Group Report to Ofwat

1. Introduction

- 1.1 The Drinking Water Inspectorate (DWI) is the independent regulator of drinking water quality in England and Wales. We protect public health and maintain confidence in public water supplies by ensuring water companies supply safe clean drinking water that is wholesome, and that they meet all related statutory requirements. Where standards or other requirements are not met, we have statutory powers to require water supply arrangements to be improved.
- 1.2 We publish information about drinking water quality and provide technical advice to the Secretary of State for the Environment, Food & Rural Affairs, and to Welsh Ministers.
- 1.3 For PR14, water companies are expected to ensure that their business plans make provision to meet all their statutory obligations, including the need for public water supplies to be safe, clean and wholesome, and that provision is made for a sustainable level of asset maintenance to maintain public confidence in drinking water quality. Ministers summarised these requirements in Defra's Statement of Obligations²¹, and in their further guidance on PR14 matters to Ofwat. In addition, the Inspectorate set out in **DWI Information Letter 01/2013 – The 2014 Periodic review of Prices – Guidance for water companies**, published on 1st February 2013 supplementary guidance to companies on the regulatory framework for drinking water quality, statutory requirements, the Inspectorate's role in the Price Review process and our requirements for companies seeking technical support. The Inspectorate also published separate PR14 guidance on a range of specific issues. All of the Inspectorate's published PR14 guidance is available on the DWI website.
- 1.4 It is worth noting the particular emphasis that Ministers placed in their Guidance on the resilience of supply systems, and that the Inspectorate placed on existing duties to manage the introduction of new sources and to plan supply arrangements to protect consumers and ensure no deterioration in the quality of their supplies.

²¹ <http://www.defra.gov.uk/publications/files/pb13829-statement-obligations.pdf>

1.5 The Inspectorate has a position on all of the water companies' customer challenge groups in England and Wales. The Inspectorate's representative on Bristol Water's Local Engagement Forum (LEF) has supported the process by acting as an independent member with the overall remit of ensuring that the Company business plan proposals reflect the views of consumers and place drinking water quality at the forefront of such plans.

2. Formal Drinking Water Proposals Requiring DWI Technical Support

2.1 As with previous periodic reviews, water companies seeking technical support from the Inspectorate must demonstrate the need for each proposal. The case for justification must be accompanied by evidence of the company's options appraisal process to identify the most robust, sustainable and cost-effective solution, with evidence that the preferred solution will adequately address the risk and deliver the required outcome within an appropriate timescale.

2.2 Bristol Water submitted 6 formal proposals for drinking water quality to the Inspectorate, listed in the table below:

PR14 DWI Ref.	Scheme Name	Quality Parameter(s)	Scheme Type	Preferred Option	DWI Final Decision
BRL02	Cheddar WTW	Various - Raw water deterioration	Treatment	Replacement of SSFs with Ozone, DAF and RGFs	Commend for Support
BRL03	Purton & Littleton Catchment Management	Metaldehyde	Catchment Management	Catchment actions	S19 Undertaking
BRL37	Cheddar WTW Final pH	pH	Treatment	pH correction with sodium hydroxide	Commend for Support
BRL38	Lead Strategy	Lead	Company lead strategy	Package of measures	Regulation 28 Notice
BRL39	Stowey Final pH	pH	Treatment	pH correction with sodium hydroxide	Commend for Support
BRL40	Barrow WTW	<i>Cryptosporidium</i>	Treatment	UV irradiation	Regulation 28 Notice

2.3 The Company is to be commended on the quality of the submissions to the Inspectorate, which complied with our PR14 guidance. The Inspectorate met with the Company before the proposals were submitted, and in addition discussions had taken place at meetings of the LEF and Investment Programme Subcommittee. Therefore, we were broadly aware of the Company's plans for drinking water quality and we are generally supportive of the Company's approach.

- 2.4 The Inspectorate has supported all of the proposals as indicated above and discussed below, and we will put legal instruments in place for three of them to make these proposals legally binding programmes of work. Our final decision letters were sent to the Company on 9th October 2013.
- 2.5 The two proposals for Cheddar WTW involve major refurbishment of and improvements to the treatment works to deal with an increasing level of raw water challenge, in particular algal blooms. The final water pH correction proposal, whilst submitted as a separate proposal, is linked to the same issue. We have commended these two schemes for support because we agree that it is in customer's best interests in the longer term for this work to be done. There are no grounds for DWI enforcement for the schemes because there is no clear drinking water quality driver and there is no clear link between the performance of the existing treatment processes and any non-compliance with the drinking water standards in the final water. There is evidence of need, however, because of raw water quality challenges, and the Company provided evidence of deterioration of raw water quality in its proposal.
- 2.6 The proposal to install pH correction at Stowey WTW is also linked to deterioration of raw water quality (increasing algal challenge which affects pH), and we have commended this proposal for support. As with the Cheddar pH proposal, there are no grounds for DWI enforcement but we agree that the scheme will benefit customers and that it should be included in the Company's business plan. The Company provided evidence of deterioration of raw water quality in its proposal.
- 2.7 The Company submitted a proposal to address lead in drinking water, which will be covered by a Notice. The standard for lead will reduce from 25µg/l to 10µg/l in December 2013, and the package of measures included in the Company's proposal will improve compliance with the new standard and reduce consumers' exposure to lead from drinking water.
- 2.8 The catchment management proposal to address metaldehyde is also included in the NEP. Metaldehyde is widely used in agriculture for the control of slugs, and is not removed by existing treatment processes for pesticide removal. 2012 was a very wet year and Bristol Water, like many other companies, experienced high levels of metaldehyde in raw waters which lead to failures of the standard in water supplied to customers. We recognise that companies need to focus on catchment activities to reduce the risks to drinking water quality and therefore we will put a legal instrument in place to cover this proposal.
- 2.9 The proposal to install UV treatment for *Cryptosporidium* at Barrow WTW is to address a risk to public health because of detections of oocysts in

one of the raw water feeds to the treatment works. This proposal will be covered by a Notice.

2.10 It should be noted that these improvement schemes will make only a small contribution to enabling the Company to meet its legal obligations in respect of drinking water quality. These obligations are met overwhelmingly by the Company making sufficient provision for operational and maintenance requirements in its business plan, and by its use of those resources. These are matters for the Company to determine and deliver. For its part, the Inspectorate will continue to keep under review, and report on, the performance of the Company in meeting its legal obligations. Statutory powers are available to secure or facilitate compliance, if necessary.

2.11 The summary of improvement schemes above reflects the position at the time of writing this statement. Further discussions are needed with the Company to finalise details. We will advise the LEF and Ofwat of any material changes.

2.12 This statement will be copied to Graham Williams of Bristol Water, and any queries arising should be directed to Jacqueline Atkinson, Inspector, Drinking water Inspectorate, telephone number: 03000686402; email dwipricereview@defra.gsi.gov.uk.

Milo Purcell
Deputy Chief Inspector (Regulations)

Drinking Water Inspectorate

Area 7e, 9 Millbank
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29th October 2013

Appendix 5 - Environment Agency responses to Bristol Water

Response to Bristol Water

Introduction

The final price review methodology confirms that Ofwat expect the Environment Agency to highlight in the Customer Challenge Group report whether your business plan will meet your statutory obligations (section 4.2.1 Setting Price Controls for 2015-2020, Ofwat, July 2013). As part of our engagement with your Customer Challenge Group, we have been working with you to be assured that your business plan is in accordance with these requirements.

The following report summarises our views of the evidence provided. These views are based on a high-level review of the processes as described in the letter explaining our expectations sent to you in August 2013.

Overview

We welcome the positive way that you have engaged with the PR14 planning process, through your support of the Customer Challenge Group (Local Engagement Forum) and through close discussions with Environment Agency managers and technical staff. We would like to thank you for the information that you have shared with us to allow us to comment on your business plan approach. This information was in the form of written answers to our questions, with some supplementary information supplied to support your responses. We also had subsequent discussions.

We support:

- Your commitment to deliver all measures identified in the National Environment Programme (NEP).
- Your willingness to work with others to identify multiple benefits for the environment and your customers.
- Your willingness to adopt the use of catchment schemes.

We need to see:

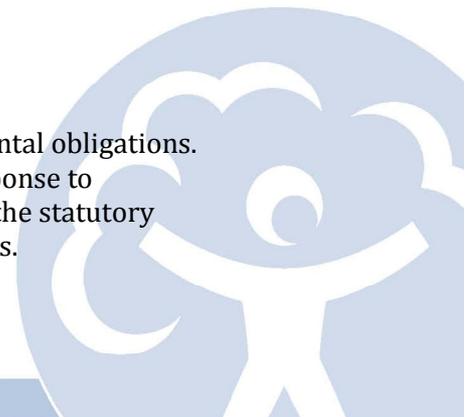
- Further details of your risk assessments and mitigation of all your assets (including your reservoirs) for resilience.
- Confirmation of your target for permit compliance.

We have made more specific comment on the following areas:

These are our observations on the replies you have made to the questions posed in response to the expectations letter.

1) Delivery of statutory and environmental requirements.

We welcome the commitment you have made to meet your environmental obligations. We believe that you have presented sufficient information in your response to demonstrate how your business plan will allow Bristol Water to meet the statutory environmental requirements set out in Defra's Statement of Obligations.



2) Measures identified within the National Environment Programme (NEP).

We are encouraged by your agreement to include all of the measures set out in the NEP within your final business plan. We note ongoing discussions regarding the screening requirements for the Purton abstraction. We believe that the programme will allow you to deliver what is best for both the environment and your customers.

3) Evidence of options and proposals for reducing the impact of a company's abstractions from the most seriously affected sites.

We are pleased to see that your company is putting forward options and proposals within your business plan to reduce the impact of its abstraction from the most seriously affected sites. All sites requiring investment by the company have been identified in the NEP and have been included in the business plan.

4) Alignment of the Water Resource Management Plan (WRMP) options and business plans.

Defra expects that the Water Resources Management Plan (WRMP) will form the water resources supply-demand balance component of the business plan. We welcome your assurance that the main water resources supply-demand components of your business plan will be consistent with your WRMP statement of response.

5) Reservoir safety.

We note your intentions to maintain reservoir safety. This is an important duty given the potential high impact your reservoirs pose to public safety. Your continued maintenance and capital investment is essential for public safety.

You have referenced the recent changes in reservoir legislation. Please could you confirm how you will implement these changes during the next AMP.

Defra set out their expectation in the Statement of Obligations that companies will prepare reservoir plans. We encourage you to co-operate with relevant authorities and partners on the development and maintenance of site plans and on incident planning. Having good incident arrangements in place is essential in order to reduce impacts on downstream communities should an incident occur.

Under the Flood Risk Regulations, the Environment Agency is required to develop Flood Risk Management Plans for England that include objectives and measures to manage flooding from reservoirs. We look forward to working with you as reservoir undertakers to set out the measures and timescales for delivery.

6) What mitigation measures have been adopted to manage future risks?

You have provided some evidence that you plan to take appropriate measures to manage risks from natural hazards and climate change. However, we expected to see more details about your approach, and how you have used relevant guidance from Ofwat and others. It should be clearer as to how the risks revealed by your analysis are addressed in your business plan.

7) Environmental outcomes.

We are happy with the outcomes, performance measures, and targets outcome, performance measure and targets included in your business plan which accurately reflect the important role that your company plays in protecting the environment.

Delivery and incentives.

We are encouraged by your approach to setting delivery levels and designing incentives around your environmental outcomes and obligations, to ensure these are achieved. Overall your level of ambition is appropriate. Demonstrating the tightest links between quantitative evidence of customer preferences and your ambition and incentives is essential. We expect all companies to explore using financial and reputational incentives in tandem, to go further and faster than statutory environmental obligations wherever justified by consumer research.

Pollution incidents and compliance.

We would like to see confirmation of your target for permit compliance. All water companies should be planning to achieve 100 per cent compliance for all licences and permits, as they are legal obligations. We expect to see this included as a target within your business plan. In addition, we expect your company to continue to plan for zero serious (category one and two) pollution incidents during AMP6 and beyond.

8) Change mechanism.

At previous price reviews, Ofwat has used the change protocol for managing in-period changes the risks and costs. This time you are being asked to put forward proposals for dealing with such changes. It is imperative that new statutory commitments can be delivered whilst maintaining levels of ambition around customer priorities, so we want to see a clear process for dealing with predictable but, nonetheless, uncertain new commitments you could face during AMP6.

Interim determinations of K provide a route to deal with genuinely unforeseeable events that meet Ofwat's materiality criteria, and of course you have more discretion over expenditure than in previous price reviews. However, to be assured that important "discretionary" outcomes are not prejudiced by additional legislative requirements, we would advise you to propose an explicit change mechanism for dealing with such changes.

9) Eel Regulations

We are committed to working with you to ensure that the requirements of the Eel Regulations are fully met and welcome the positive strides you have taken to include Eel screening measures in your plans.

We acknowledge that you have sought clarification regarding the costs and benefits associated with the implementation of Eel Regulation measures at Purton. Any scheme can be put through an economic appraisal to validate the approach being proposed at any given site. This will always require a very site-specific discussion with you for each scheme.

Where there are concerns, your company can choose to investigate options in this price review period with a view to have a specific programme of works proposed for PR19

delivery. After 1 January 2015, it will become an offence not screen intakes or outfalls for eels, unless we specifically issue notice to exempt the requirement.

Concluding remarks and recommendations

We are confident the information provided by your company and which is to be included in your business plan delivers the requirements as set out by Defra's statement of obligations and the Environment Agency's expectations, subject to the ongoing discussions regarding Purton.

We would like assurance on the issues described in our overview ahead of the submission of your business plan to ensure they are accounted for appropriately. We look forward to working closely with you over the next few weeks to finalise your business plan. Our aim is to help you produce a plan that delivers its statutory obligations and facilitates the continuing achievement of better environmental performance.

Response to Bristol Water

28 November 2013 - Update following further communication with the company

Following receipt of our evaluation report on 4 November 2013, we have been involved in further discussions with you regarding our recommendations in the report. This note provides an update to our response based on those discussions.

The following table summarises the company's response to Environment Agency recommendations. Based on the further information provided to us, we now also make the following additional observations:

Environment Agency recommendation	Company response and date	Environment Agency comment and date
We are encouraged by your agreement to include all of the measures set out in the NEP within your final business plan. We note ongoing discussions regarding the screening requirements for the Purton abstraction. We believe that the programme will allow you to deliver what is best for both the environment and your customers.	Email from Patric Bulmer 25 November 2013. The NEP also requires Eel screening at Purton. We have accepted this obligation. The estimated cost of meeting this specific requirement to be £6.9m. However, we have only included 40% of the cost of this scheme in our plan as we believe that we can work together with the EA to find an alternative solution that gives the same benefit without disproportionate cost	We recognise your concerns and we will continue to work closely with you to maximise the environmental benefit across all your Eel Regulation obligations. 26 November 2013.
Further details of your risk assessments and mitigation of all your assets (including your reservoirs) for resilience.	Email from Patric Bulmer 25 November 2013. Our PR14 business plan includes specific proposals on resilience of water supply for	Thank you for your additional comments, which are noted. 26 November 2013.

	<p>our customers, targeted at reducing the number of customers in zones where more than 25,000 people are reliant on a single asset for their water supply (and hence a single failure of an identified asset could lead to the loss of supply for a significant period of time). This programme of resilience improvements will, if funded through the periodic review process, allow us to reduce the number of people in this situation from 311,629 to a residual level of 9063 people.</p> <p>Regarding the resilience risk represented by our own sites for safety and the broader environment, we are currently carrying out a structured site environmental risk assessment programme that has identified our top-25 sites which will now be assessed through full investigation process, reviewing on & off-site risks. The investigation is planned to be complete prior to AMP6, with investment carried out in AMP6 to address any key risks identified. Our anticipated level of expenditure for this programme is £3.952m.</p> <p>The specific risks associated with reservoir failure and the potential need for improved drain-down have been addressed as follows. As we need to examine in detail the potential effect of changed requirements in drain-down capacity, we propose that in the first year of AMP6 we will carry out a full investigation at the following sites to determine our current compliance with any</p>	
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	<p>new legislation, with most investment being carried out in AMP7. These investigations are all scheduled for 2015-2016, the first year of the AMP6 period, with an anticipated expenditure of £25k per investigation.</p> <p>Blagdon Lake Cheddar Reservoir Chew Valley Lake Barrow compensation reservoir Litton upper reservoir Litton lower reservoir Barrow tanks 1,2,3 Chew Magna reservoir</p> <p>Due to the significant size of Chew Valley Lake and the scale of inundation risk that this site could present, we anticipate that in addition to the investigation we will carry out improvements to the emergency drain-down system at the site in the first year of AMP6. Our anticipated level of expenditure for this draindown improvement is £1.257m.</p>	
<p>Confirmation of your target for permit compliance.</p>	<p>Email from Patric Bulmer 25 November 2013.</p> <p>Our PR14 business plan includes proposals on site environmental risk management, effluent treatment improvements and fuel storage improvements that will enable us to reduce the residual risk our sites can pose for the environment. Our measure of success for this will be an improvement of</p>	<p>Thank you for confirming your target of 100% permit compliance. 26 November 2013.</p>

	<p>compliance against our site discharge permits, as measured by our own operational monitoring programme. The "measure of success" target level we have set for this measure is 98% compliance within our operational monitoring although we will aim toward an internal compliance rate of 100%. Our target for compliance against statutory monitoring by EA is 100%.</p>	
<p>Change mechanism.</p> <p>At previous price reviews, Ofwat has used the change protocol for managing in-period changes the risks and costs. This time you are being asked to put forward proposals for dealing with such changes. It is imperative that new statutory commitments can be delivered whilst maintaining levels of ambition around customer priorities, so we want to see a clear process for dealing with predictable but, nonetheless, uncertain new commitments you could face during AMP6.</p> <p>Interim determinations of K provide a route to deal with genuinely unforeseeable events that meet Ofwat's materiality criteria, and of course you have more discretion over expenditure than in previous price reviews. However, to be assured that important "discretionary" outcomes are not prejudiced by additional legislative requirements, we would advise you to propose an explicit</p>	<p>Email from Patric Bulmer 28 November 2013.</p> <p>"I can confirm that our final business plan does not propose any notified items for adjusting prices during the price review period. In our wholesale plan we set out a consideration of the key risks we considered might be appropriate for including as notified items. Our conclusion was that notified items were not appropriate for these risks and therefore we do not propose any notified items in our plan."</p>	<p>Thank you for your additional comments, which are noted. 28 November 2013.</p>

change mechanism for dealing with such changes.		
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Appendix 6 - Natural England statement

22 November 2013

Our ref:

Your ref:



Mr Mike King
Bristol Water plc
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BS99 7AU

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TA1 4AP

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Dear Mike

STATEMENT FOR BRISTOL WATER CUSTOMER GROUP REPORT

Natural England is the government's advisor on the natural environment. We provide practical advice, grounded in science, on how best to safeguard England's natural wealth for the benefit of everyone.

Our remit is to ensure sustainable stewardship of the land and sea so that people and nature can thrive. It is our responsibility to see that England's rich natural environment can adapt and survive intact for future generations to enjoy.

For PR14, water companies are expected to ensure that their business plans make provision to meet all statutory obligations, including the need to protect and restore special sites of nature conservation importance protected under national and/or European legislation. Ministers summarised these requirements in Defra's Statement of Obligations.

In addition Natural England has worked with water companies to identify opportunities for multiple benefits from other investments to and so make a wider contribution to Government aspirations to protect and restore biodiversity.

We commend Bristol Water for the submissions and documentation shared with Natural England throughout the process. We also welcome the very positive way in which your staff have engaged with the PR14 process and Customer Panel.

We welcome the commitment you have made in the Final Business Plan to meet your obligations to the natural environment and in particular to deliver all of the relevant elements of the National Environment Programme (NEP) with respect to Special Areas of Conservation, Special Protection Areas and Sites of Special Scientific Interest.

Yours sincerely

Mark Jones
Area Manager, Somerset and West of England

Glossary of Terms

AMP5	Asset Management Period 5 (2010 -2015)
AMP6	Asset Management Period 6 (2015 -2020)
AMP7	Asset Management Period 7 (2020 -2025)
CSSC	LEF Customer Service Sub-Committee
DOMS	Distribution Operation and Maintenance Strategy
DWI	Drinking Water Inspectorate
dWRMP	Draft Water Resources Management Plan
EA	Environment Agency
IPSC	LEF Investment Programme Sub-Committee
LEF	Local Engagement Forum
NE	Natural England
NEP	National Environmental Programme
NERA	National Economic Research Associates
OXERA	Oxford Economic Research Associates
PCC	Per capita consumption
PR09	Periodic Review 2009
PR14	Periodic Review 2014
RBMP	River Basin Management Plan
RPI	Retail Price Index
RSPB	Royal Society for the Protection of Birds
SDS	Strategic Direction Statement
SEAMS	Bristol Water's asset deterioration modeling and investment optimisation process
SIM	Service Incentive Mechanism
WFD	Water Framework Directive
WRSC	LEF Water Resources Sub-Committee
WTP	Willingness to Pay
WTW	Water Treatment Works