

**Yorkshire Water**

# **Customer Forum Report**

**A report from the Yorkshire Customer Forum on  
Yorkshire Water's customer research, stakeholder  
engagement and business plan**





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Yorkshire Water Customer Forum Report

# Structure of report

# 1. Introduction from the Chair

## Andrea Cook OBE

This report is presented by the Yorkshire Water Customer Forum to Ofwat, the economic regulator of the water industry, as a contribution to the Price Review process.

**An extensive programme of consultation has taken place with customers and other stakeholders to ensure that Yorkshire Water's business plan reflects the priorities and values of local people.**

The role of the Customer Forum has been to challenge Yorkshire Water's customer research and engagement strategy and to comment on the extent to which these have met objectives set by Ofwat. In doing so the Forum identified three objectives for the company:

- To deliver a balanced plan which is aspirational in scope and content where possible, but which takes as its context the current austere economic climate and the affordability of bills.
- To demonstrate that the priorities of the people of Yorkshire in terms of what they want from their water and sewerage services have been understood and acted upon.
- To provide evidence that the proposed business plan can be delivered efficiently and cost effectively, while ensuring financial stability, the protection of the environment and addressing issues of risk.

This is a time when it is crucial that Yorkshire Water retains the confidence of its customers. Forum members have looked carefully at the trade-offs necessary to achieve a balanced plan. Balance is needed between shareholder and customer interests; between issues of affordability and investment in the environment; between being cost efficient and managing risk. Yorkshire Water is expected to comply with legal obligations for drinking water quality and the environment, deliver high standards of service, maintain its assets and hold prices at levels which demonstrate sensitivity to the pressures on customers who struggle to pay their bills.

Yorkshire Water's engagement with customers has been the cornerstone for ensuring that its proposals meet customer priorities. The Forum has challenged Yorkshire Water's engagement strategy, research materials, assumptions and conclusions. These challenges have been fully considered, and responded to by the company.

As Chair of the Forum I would like to thank my colleagues for what has been a significant commitment by people who have largely given their time on a voluntary basis, and the people of Yorkshire, who have shared their views through such an extensive consultation exercise.

The Customer Forum supports what we consider to be a clear and focused business plan from Yorkshire Water. We are fully satisfied that the plan recognises the need for balance between a range of interests and that it is centred on the highest quality research methodology, effective principles of engagement and full acceptance of consumer challenge.

**Yorkshire Water's engagement with customers has been the cornerstone for ensuring that its proposals meet customer priorities.**

## 2. Summary of findings

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**“The Forum is fully satisfied that appropriate governance has been in place for oversight and development of the business plan from the Board and the Executive Management Team of Yorkshire Water.”**

There has been effective and transparent communication with Forum members at all levels within the company. The Forum is fully satisfied that appropriate governance has been in place for oversight and development of the business plan from the Board and the Executive Management Team of Yorkshire Water. Challenges from the Forum have been welcomed and in the majority of instances positively responded to. In particular the company has recognised and acted upon the need for greater transparency around financial information and governance for the benefit of its customers.

The quality of the customer research undertaken by Yorkshire Water has been to the highest standards and consistent with best practice principles in research methodology. The company sought our active involvement in almost every aspect of the research programme, from helping to shape the overall approach, to providing advice on how the materials used in the research should be presented to customers. We were particularly impressed by the way in which the company showed inflation so explicitly in monetary terms and presented the impact of this alongside any increase in bills.

The Forum worked closely with Yorkshire Water in the development of the company's outcome statements to achieve short, clear statements summarising these at a high level. As a result of this work, the outcomes initially proposed, which described Yorkshire Water activities rather than the outcomes customers might want, were developed and improved. The Forum has concluded that Yorkshire Water has reliably researched customers' opinions on the draft Regulatory Outcome statements and explored the issues around the delivery incentives.

The Forum believes the business plan is aspirational in scope and content where possible, but takes as its context the current austere economic climate and the affordability of bills. The company has endeavoured to balance investment and customer priorities against keeping bills as low as possible while meeting regulatory requirements. The proposal for bill increases linked to inflation has strong customer support (77%) and is considered to be affordable to a majority of customers. The Forum pressed the company on a number of occasions to produce a business plan that would result in bills below inflation, but it continued to reinforce that reducing revenue further would compromise one or more of the key elements of the plan, and would not be financially sustainable.



## The Forum welcomes Yorkshire Water's approach to preventing flooding, developing better systems for predicting and monitoring problems and working more effectively with other agencies.

The Forum welcomes and supports the decision by the company and its investors to submit a business plan based on a lower level of Weighted Average Cost of Capital (WACC) of 4.2%. The company responded positively to challenge from the Forum to seek the lowest possible rate of return it felt able to while still producing a balanced plan. We are satisfied that the company has been pressed hard on the content of the business plan, on its efficiency targets and its financing. 77% of respondents accepted the company's proposals based on a WACC of 4.4%; a reduction in this would be expected to produce a higher level of acceptability. We recognise that the WACC is ultimately an issue for Ofwat.

The company kept a record of the penetration and reach of its stakeholder engagement to demonstrate the effectiveness of this. It included the completion of nearly 30,000 surveys by members of the public and 275,000 video hits about the family who had been selected to explore the Yorkshire Water network and almost 30,000 hits on the "Blueprint for Yorkshire" microsite.

The results of research to test customers' willingness to pay for social tariffs showed that customers do not currently support their introduction. They do, however, support the company maintaining and developing initiatives to support those struggling to pay their bills. Forum members were impressed with the portfolio of options available to help those who are vulnerable and/or have payment difficulties and the sensitivity which is shown towards those who 'can't pay'.

The statutory regulators – the Drinking Water Inspectorate (DWI), Environment Agency (EA) and Natural England – have all provided Statements setting out their input to the price review process, their engagement with the company and commenting on the specific proposals contained within the business plan. The Forum is aware that the environmental regulators have identified issues in some areas, for example targets for pollution incidents, however it is clear from the research programme that customers did not demonstrate a willingness to pay more for environmental improvements and the plan therefore is based on maintaining rather than improving services. It is a matter for Ofwat to assess the levels of expenditure proposed by the company to deliver these statutory requirements and to liaise with the regulators to seek their views on issues of risk.

Yorkshire Water has included provision for funding the National Environment Programme (NEP), even though the detailed guidance will not be available until 2016. The Forum understands that the company has made an appropriate provision for the investment which will be required to deliver obligations, based on current levels of knowledge, and to the extent that it will not require an Interim Determination of K (IDoK) in the remainder of the period.

Sewer flooding is one of the most distressing customer service issues and investment to address this is a high priority for customers. The company saw a significant increase in the number of properties which were internally flooded in 2012 because of adverse weather conditions. It is proposing a new approach which will focus less on tackling individual incidents and more on understanding the risks in the network and its performance under varying conditions. The Forum welcomes Yorkshire Water's approach to preventing flooding, developing better systems for predicting and monitoring problems and working more effectively with other agencies.

## 3. Introduction

- This report and the work of the Forum
- The characteristics of the region
- Recent performance
- Challenges and priorities

### 3.1 This report and the work of the Forum

**This report sets out the findings and conclusions of the Yorkshire Customer Forum (the Forum). Yorkshire Water established the Forum in readiness for the 2014 Periodic Review (PR14) to provide independent challenge to its research and customer engagement strategy and to ensure that its business plan and investment in water and waste water services in 2015-20 meet the priorities expressed by domestic and business customers. The Forum has an Independent Chair who was appointed by Forum members at its first meeting.**

The Forum sees itself, and the role assigned to it, as an exciting opportunity to put customers at the centre of the price review process and to ensure that the regional characteristics of the business plan are fully understood by Ofwat, as the economic regulator. The Forum has taken as its context that Yorkshire Water's business plan is expected to set out the levels of service it will offer to its customers and the level of investment that is needed to deliver these, including meeting legal requirements and standards for environmental protection and drinking water quality.

We felt that in order to challenge the company effectively it was essential that Forum members were appropriately informed. While members from the regulators had a great deal of detailed knowledge, the Forum has undoubtedly benefited from the wide range of skills and knowledge of the members of the Forum who had no industry background. The Forum membership has provided greater richness to the consultation process than has been achieved solely through interaction with statutory and consumer representative organisations in previous price reviews.

Yorkshire Water has engaged with the Forum at all levels within the company. The Director of Finance and Regulation has attended the majority of the meetings. Independent non-executive directors have attended meetings as observers. The chair has met regularly with the Chief Executive and individual executive directors and attended two Board meetings, including one where City investors were present.

We have challenged the company robustly, and across a broad range of areas, to ensure that the views of customer groups have been taken into consideration, and to satisfy ourselves there are appropriate governance and assurance processes in place. (Please refer to Appendix 1 for a list of members, their affiliations and backgrounds).



We have ensured that Yorkshire Water has:

- Effectively sought the views of its customers in developing its business plan.
- Reflected customers' priorities, and the values they place on particular services.
- Achieved a balance between the views of different customers and stakeholders.
- Produced a business plan that is likely to be acceptable to most customers.

This report demonstrates that the Forum has fulfilled this role and documents the challenges it has made to Yorkshire Water about the quality and effectiveness of its customer engagement and also taken into consideration the wider issues of outcomes and Delivery Incentives which are part of Ofwat's methodology.

### 3.2 The characteristics of the region

The people of Yorkshire expect value for money. They do not expect to pay more than they have to. They also understand the sense of tradition and legacy that binds existing and future generations. The Forum therefore believes that Yorkshire Water's role as a provider of a high quality essential service, at a cost people are willing and able to pay, and as a custodian of the natural environment, should be at the centre of its business plan.

'Yorkshire and the Humber' is the 5th largest administrative region in England. It covers an area of over 15,000 km<sup>2</sup> from Sheffield to Whitby and from Hull to Huddersfield. The north and east of Yorkshire are largely rural, while the south and the west are more urban. There are approximately 5 million people living in the region and over 130,000 businesses driving the regional economy, which centres on construction, manufacturing and chemical industries, health care and financial services. The county has an illustrious rural history and many of its cities grew because of the wool industry and, in the case of York, because of confectionary and the making of chocolate. Today Yorkshire has the largest digital sector outside London and is the country's largest producer of food.

Yorkshire has more National Parkland than any other region, with the North York Moors and the Yorkshire Dales, and more historic houses and castles. It has internationally renowned historic and wildlife sites and iconic cities such as York. The natural environment is spectacular and includes upland dales, moors and wolds, wildlife sites, reservoirs, rivers and canals. The water environment supports the population and is a resource for recreation, tourism and creative and spiritual inspiration.

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**Yorkshire Water has engaged with the Forum at all levels within the company.**

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### 3.3 Recent performance

Ofwat monitors detailed indicators to assess whether companies are meeting their obligations to maintain overall performance and compliance, off-set deterioration of the asset base and sustain stable serviceability. As the starting point for considering what is required in 2015-20 the Forum recognised that it needed to know the level at which Yorkshire Water is currently delivering services to its customers. A review of some of the key indicators follows:

- From information published by Ofwat on average household bills for 2013-14, at £368, Yorkshire Water has the 4th lowest bill among the ten water and sewerage companies, the remaining six all having bills over £400.
- Yorkshire Water has experienced less pressure from increases in its population historically than many other regions in the past but this appears to be changing as the population grows and investment to maintain the balance between supply and demand increases. Yorkshire Water confirmed to the Forum that it has “factored in” a 20% increase in growth. This was confirmed to be an estimated population increase of 855,000 by 2040, which is approximately 20% of 4m. Yorkshire Water assured the Forum that its estimates are based on census information and evidence from Leeds University. Yorkshire Water is allowing for a population increase of 132,000 over the plan period.

- Serviceability for water infrastructure has been reported as stable in the light of much improved performance in 2012-13; it will be subject to confirmation in the current year. We understand that Ofwat is maintaining a watching brief but has accepted the assessment taking into account good performance elsewhere on the water service.

On key measures of customer experience, Yorkshire Water has performed well. We note improvements:

- Against Ofwat’s ‘Service incentive mechanism’ (SIM) where the company is ranked 6th.
- For water supply interruptions where the company is ranked 2nd.

Areas identified for improvement include:

- Drinking water compliance, where the company delivers 99.93% on overall drinking water quality compliance, compared to the arithmetic average of 99.96% for all Water and Sewerage Companies (WaSCs). All companies have a statutory duty to be 100% compliant, i.e. to supply wholesome water.
- Pollution incidents (82.68 per 10,000 km sewer), ranked the same against serious pollution incidents (1.63) and discharge consent compliance (97.31).
- Sewage sludge recycling performance where it is one of three companies not reporting 100% compliance in 2012-13.

We now consider in further detail performance on sewer flooding, pollution incidents, discharge consent compliance and sludge disposal.

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**The Forum understands that Yorkshire Water faces increasing challenges posed by its operating environment and the quickening pace of change.**

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#### Sewer flooding

Internal sewer flooding is measured in terms of incidents of flooding, properties experiencing flooding and properties that experiencing repeat flooding. Internal sewer flooding increased in 2012-13 but overall performance is still good. The Forum acknowledges that the summer was the wettest on record and there were exceptionally intense summer storms, but sewer flooding is generally considered by customers to be the worst service failure, and the Forum has impressed on Yorkshire Water the need to maximise the effectiveness of its investment programme in this area.

There were 155 incidents of repeat flooding in 2012-13, more than twice the previous year (75). Yorkshire Water is ranked 4th of all water and sewerage companies for the number of sewer flooding incidents. The total includes 67 incidents due to overloaded sewers, of which 48 have been attributed to exceptional rainfall following investigations by the Meteorological Office that were commissioned by Yorkshire Water.

The key measure of performance is the number of properties experiencing internal flooding from sewers which is summarised in the following table (with additional analysis of the cause of the incidents that were due to operational problems):

Properties experiencing internal flooding due to:	2012-13
Lack of network capacity (overloaded sewers)	186
Operational problems (other causes) of which:	420
Analysis of incidents due to operational problems:	2012-13
Blockages (obstructions)	305
Collapses (structural failure)	118
Equipment failure	8
Total of incidents	431
Properties experiencing more than one incident	11

Note: There are more incidents (431) than there are properties (420) because 11 properties experienced more than one incident in the year.

### Pollution incidents

Yorkshire Water recorded 263 pollution incidents in 2012. The EA has set a target to reduce pollution incidents by at least 50% compared to the numbers of serious incidents recorded in 2012, and by at least one third compared to the number of all incidents (categories one to three).

Pollution incidents	2010	2011	2012
Number of incidents (in calendar year)	335	311	263

### Discharge consent compliance

Yorkshire Water’s performance against discharge consent compliance is 97.3% which is the result of eight failing works – the same as in 2011. The company rates its performance amber against the industry average (from 2008-10). Overall performance includes a further five works recorded as “failure to sample”; there are two grades of failure to sample and some of the failures were “low risk to the environment” due to being an analytical quality control fault followed by a failure to re-schedule the sample. Yorkshire Water has actions in place which it judges will reduce the number of failing works from eight to six or fewer, to be in line with stable reference levels. This is one of the key areas to which the company has responded to in developing its business plan proposals.

### Sewage sludge disposal

Sludge application was unsatisfactory at six sites in 2012. Two sites had elevated zinc levels and four fields failed because they “were showing no soil analysis” (A requirement of the Sludge Regulations 1989). In the prior year Yorkshire Water reported 100% compliance.

## 3.4 Challenges and priorities

Yorkshire Water supplies water to, and collects sewage from, the 2.1m households and 150,000 commercial premises in Yorkshire serving a population of approximately 5 million. The Forum understands that Yorkshire Water faces increasing challenges posed by its operating environment and the quickening pace of change, including for example:

- A rapidly growing population.
- Rapidly rising costs, as energy costs increase and resources become scarcer.
- A changing climate, more intense rainfall, longer dry periods, colder winters.
- Customers’ expectations of high quality customer service and good value for money increase.

In response to these challenges, the company’s four key areas of focus are:

- To provide a continuous supply of clean, safe water for drinking and business use.
- The removal of waste water and maintaining the sewer network.
- To provide good customer service at acceptable prices.

Yorkshire Water Customer Forum Report

# Engagement with customers

## 4. How well has Yorkshire Water engaged with customers?

- Overall customer research programme
- Forum involvement with the overall research programme
- Valuing water
- Willingness to pay, modelling and analysis
- Outcomes and measures of success
- Acceptability
- Social tariffs
- Stakeholder engagement
- How Yorkshire Water has responded
- Conclusions

### 4.1 Overall customer research programme

The current price review has moved from an outputs based, heavily regulated approach to one where each company sets its own unique outcomes based on engagement with its own stakeholders and customers. The main aim of Yorkshire Water's research programme has been to:

- Understand customers' Willingness to Pay (WtP) for future water and waste water services, including:
  - Identifying customer needs and priorities.
  - Obtaining customer service valuation.
  - Engaging with a wide range of stakeholders.

- Identify and develop customer-led outcomes and related measures of success.
- Test customer acceptability and affordability.
- Obtain Stakeholders' views.
- Test customers' views on social tariffs.

The company presented its plan for engaging with customers at the Forum meeting in February 2012 and provided updates on progress at every meeting.

Yorkshire Water began the customer engagement process earlier than the majority of companies by undertaking a research project in 2011-12 called 'Valuing Water'. This examined customers' perceptions of water and waste water services and quantified their priorities with regard to household bills.

The results helped Yorkshire Water understand the 'value' both domestic and business customers place on different aspects of water, waste water and environmental services. The values obtained from the study were used as part of the investment programme optimisation process and to shape the main WtP study which was conducted throughout 2012.

The subsequent phase of customer research, undertaken in 2013, covered two further projects. The first helped develop a set of Regulatory Outcome Statements, measures of success and explored customer's views of delivery incentives including rewards and penalties. The second was a program of acceptability testing to establish the level of support customers gave to the business plan.

## 4.2 Forum involvement with the overall research programme

### Introduction

The Forum has sought a level of confidence that Yorkshire Water has responded to customer priorities in developing its plan and will continue to provide resilient and sustainable services, meet the legal obligations placed on a water and waste water company and do so at a price which is acceptable to customers.

Yorkshire Water has undertaken an extensive programme of research to understand customers' priorities and preferences and determine the content of the business plan. We have challenged Yorkshire Water robustly throughout the programme to ensure that it achieves its objectives.

We have played an integral role in shaping the WtP work which is crucial to customers (in terms of customers' aspirations, relative priorities, support and affordability).

We challenged the choice of locations for focus groups and conclude that a more representative sample of customers resulted from this. We challenged the peer reviewer on this matter and accepted his assurances that the sample was representative of the region.

We have contributed directly to the customer research at all stages including design, testing, implementation and interpretation. We have directly observed focus groups, commented on survey material (stimuli, flashcards and questions) and heard from contractors and Professor Ken Willis of Newcastle University and Dr Scott Reid of ICS Consulting.

We reviewed the research material (stimulus materials and questionnaires) to be sure that the company is reliably representing options to customers, and have challenged wherever we felt material could be improved. For example we requested a change to the reference to improvements at "beaches", because "bathing waters" was more correct. In another example the description on show-cards referred to "discoloured water that was safe to drink" but we were clear that customers should understand that the safety of discoloured water cannot be assumed. As a result of the company's attention to detail and our involvement we believe that the materials finally presented to customers have been of a high standard, appropriate and correct.

We were concerned that customers might overlook or fail to understand the impact of the potential increase in bills resulting from inflation. As all price increases are expressed in 'real' terms (i.e. net of inflation), we pressed for an indicative amount (based on the Treasury forecast for RPI) to be expressed in monetary terms alongside any increase in bills resulting from increased investment. We have robustly held our stance on the need to show inflation explicitly in all of the research – and not restrict this to either an approximate percentage increase or an annual figure. Customers have therefore been shown what the bill impact is for RPI in monetary terms against current bill levels over the five year period and can make true comparisons. We believe that the approach which Yorkshire Water has adopted represents best practice.

In our assessment, our comments on Yorkshire Water's customer research are robust as a consequence of our involvement in almost every aspect of the customer research programme, from the overall approach, to providing advice and guidance on how the materials used in the research should be presented to customers. Yorkshire Water has captured Forum members' challenges on customer research and other issues via the minutes recorded at the Customer Forum meetings and through a separate log of challenges.

Next we summarise Forum involvement in each of the pieces of customer research:

### 4.3 "Valuing Water" Research

In 2011 Yorkshire Water commissioned Accent Market Research to explore with customers:

- Their attitudes to their current bills and potential increases.
- The trade-offs they are willing to make between the services they receive.
- Their 'relationship with water' and their views on its value.
- The general awareness of their dependence on and consumption of water.
- Their understanding of charging mechanisms and whether changes are needed to improve fairness.

The research involved over 55 domestic customers between November 2011 and February 2012 through 18 focus groups, an on-line quantitative survey of 400 respondents and virtual interactions with 24 respondents who engaged in interactive, text-based discussions led by moderators.



The research provided information that was useful to Yorkshire Water because it:

- Raised the profile of water, and its importance in everyday lives.
- Promoted the need for customers to conserve water.
- Reinforced that water is typically taken for granted so that conservation and water efficiency are not generally considered important.
- Highlighted the need to distinguish between essential and non-essential use when promoting conservation and that such messages should always be positive in tone.
- Confirmed that customers paying on an unmeasured basis who experience or worry about affordability are anxious about switching to a meter because of the uncertainty about their bill.
- Confirmed Yorkshire Water’s comparatively good standing amongst its customers.

### Forum involvement – “Valuing Water”

This piece of research was undertaken before the Forum was established. However, the Consumer Council for Water (CCWater) observed a focus group for the Valuing Water research and Yorkshire Water presented a summary of this work to the Forum in May 2012.

## 4.4 Willingness to pay, modelling and analysis

### Introduction

It is important to understand that ‘Willingness to pay’ (WtP) values derived from research should not be considered in isolation. The values form part of a wider assessment of benefits and costs to determine if there is a net benefit from investing to deliver service improvements. The research also helps to establish relative priorities for customers.

‘Willingness to pay’ or ‘stated preference’ research is designed to determine what customers of a company would be ‘willing to pay’, or more rarely ‘willing to accept’ as compensation, in terms of changes to their bills in future for clearly identified changes in the quantity or quality of the goods or services they use.

At both the 2009 and 2014 price reviews Yorkshire Water sought to establish customer WtP for a unit change in service. The research provided information on customers’ priorities and the value attributed by them per unit of change in the service provided so that this could be used to inform cost benefit assessment. The analysis compared eleven service areas (shown in the table below).

Service Area
Internal sewer flooding
External sewer flooding
Odour from sewage treatment works
Discolouration
Taste and odour
Safe water quality
Interruptions to supply
Security of supply
River water quality
Pollution incidents
Bathing beaches

### Scope of research

Yorkshire Water carried out its WtP customer research programme in three main phases. A testing phase preceded the two phases of the main stage study. The programme can be summarised as follows:

- Focus groups (Phase 1) to test proposed WtP material (May – June 2012).
- Main survey (Phase 2: Service Valuation) to obtain customers WtP for changes in the frequency of services provided (July – September 2012).
- Main survey (Phase 3: Severity Study) to obtain customers willingness to accept changes in duration for services provided (October – December 2012).
- Analysis to compare benefits with costs of proposals (October – December 2012).
- Analysis to develop investment scenarios from cost benefit analysis (December 2012 – January 2013).

Results from the focus groups and surveys were presented to the Forum in 2012 and those from the modelling and analysis during 2013.

The main WtP study assessed customers’ monetary valuation of the benefits from changes in the level (or quantity) of service they receive. In addition, Yorkshire Water needed to know the marginal benefit for different risks to the planned level of service. This ‘net benefit’ approach required an assessment of the value customers place on differences in the risk of service failures. Yorkshire Water chose to assess the relative importance (or weighting) customers attribute to different levels of service failure. It did this with an additional stated preference choice experiment study (the Severity Study) which followed a similar format to the main WtP study.

The “severity study” was conducted in September 2012 following completion of the main WtP research, to assess the change in customer satisfaction as the severity of an incident changes.

## Forum involvement – willingness to pay, modelling and analysis

This section explains the challenges by the Forum and the Forum's involvement in shaping this research.

The Forum found the terminology 'willingness to pay' unhelpful since it can be easily misunderstood. It describes the method used to obtain customers' preferences and rank them by asking what participants are willing to pay for alternative service packages. It does not determine customers' overall willingness to pay for improvements. The results of individual elements are sometimes mistakenly added to obtain an overall willingness to pay for multiple improvements. The results cannot be added in this way and an aggregate WtP for a basket of improvements should be separately tested.

We discussed the possibility of adopting alternative terminology and while 'service valuation' was considered more meaningful, we concluded that consistent terminology should be used during the current review but that we should recommend that this is reviewed.

The Forum emphasised to the company its view that in the past there had been an over-reliance on "willingness to pay" values and welcomed the validation that came from both the "outcomes" research and the "Acceptability" testing.

The Forum's understanding of the sequence of activities to obtain WtP values is summarised in the following table.

<b>Timeline for customer engagement in relation to willingness to pay:</b>	
<b>2011</b>	
Valuing Water research: exploratory research into customers' attitudes	
The results of "Valuing water research" were presented to the Forum in 2012	
<b>May to June 2012</b>	
Developed questions for the survey and stimulus material to provide background information	
Forum members fed back comments (on questionnaire and stimulus material) (May 2012)	
Presented material to customers' at focus groups: test clarity, comprehension, concentration and responses	
Forum members attended focus groups	
The results were presented to Forum members (June 2012)	
<b>July to September 2012</b>	
Planned main stage study to understand customers' willingness to pay for water and waste water services	
Forum members had the opportunity to observe customer interviews	
<b>October – December 2012</b>	
Analysis of results and modelling of customers' willingness to pay for use in cost benefit analysis	
The Forum was provided with explanation of economic analysis and how willingness to pay values had been calculated	
The results of the survey and modelling were presented to Forum members (November 2012)	
<b>January – December 2013.</b>	
ICS Consulting (Dr Scott Reid) provided assurance to the Forum that the results of the willingness to pay survey had been interpreted correctly	
Cost benefit analysis (CBA) used to develop investment scenarios	
Forum was provided with explanation of how WtP values had been used in CBA	
Forum discussed draft outcome statements	

Below we set out a selection of the actions from the Forum which illustrate the extent of members' involvement:

- Requesting that the results from the Qualitative Research be presented prior to the Quantitative Research beginning.
- Attending customer focus groups.
- Highlighting that lead, and any other quality issues that relate to safety or public health, should not be covered in the main stage survey for WtP; Yorkshire Water agreed the issue of lead in drinking water should be excluded.
- Requesting that any additional material or changes from the questions/service descriptions proposed in the UK Water Industry Research (UKWIR) study should be tested; Yorkshire Water agreed comprehension (of any new or changed material by both the interviewer and interviewee) should be tested.
- Advising that there should be no reference to the recent drought or temporary use restrictions in other parts of the country; Yorkshire Water confirmed it would not ask direct questions about events in other regions of the country but explained the qualitative research would draw out customer views/concerns.

Throughout the research the Forum insisted that all research material presented to customers as part of the survey to determine customers' WtP for alternative options must be set out clearly and must not constitute a barrier to understanding by customers, thinking, especially of those with learning difficulties. The Forum also insisted throughout that, in addition to the stated impact on bills, the company should always show the increase attributable to inflation.

The Forum challenged the company, and was satisfied with the responses it received on:

- Whether the WtP survey was statistically representative of the region's customer base.
- How results compared with PR09 – see separate assessment below.

- The inclusion of an item in the survey relating to "safe water quality" (despite the UKWIR guidance to companies on carrying out WtP surveys recommending that drinking water safety should not be included in WtP surveys). The Drinking Water Inspectorate (DWI) supported its inclusion. It was kept in the final study on the basis that the company should explore "benefits transfer value" and how it might be used.
- The inclusion of an item for lead in the survey to establish customers' willingness-to-pay, since the health effects of drinking water would be better evaluated through benefits transfer rather than through WtP. Lead was removed from the study and the use of benefits transfer values followed up.
- The need to express the expected effect of inflation in monetary terms.
- Whether optional investment for flood resilience was solely for the water service or should be split between water and sewerage.
- The inclusion of investment in health and safety.

Members of the Forum fed back comments on the questionnaires and stimulus used in the focus groups (May 2012) and the main survey (July 2012) of the service valuation research. Members attended focus groups and observed customer interviews. Phase 2 determined customers' preference between a choice of five service levels (two levels of improvement to service, two levels of deterioration and maintaining the status quo). The company analysed results in the Autumn of 2012 and explained the results in detail to the Forum in November 2012.

The main WtP study assessed customers' monetary valuation of the benefits from changes in the level (or quantity) of service they receive. In addition the "severity study" assessed the differences in customer satisfaction as the severity of an incident changes. The Forum was involved throughout this stage of the research and provided feedback on the questionnaire, severity framework and research stimulus.

Research updates and results from the WtP activity were presented to the Forum in 2012. The challenges by the Forum and the Forum's involvement in shaping this research is summarised in Appendix 4.

The Forum is satisfied that Yorkshire Water has been fully aware of, and followed, best practice principles in its research methodology. In doing so we believe that it has helped move on the best-practice standards expected at future reviews. We commend the approach to regulators and the industry.

We understand there are a number of features of the research which illustrate the progress that has been made since the 2009 price review (PR09) and which we think should be highlighted. The Forum noted that Yorkshire Water has:

- Included the option to maintain the status quo when presenting choices to customers, as recommended by UKWIR.
- Selected, developed and defined appropriate service attributes of its own (to help customers understand better what was being asked of them rather than adopting UKWIR standard definitions).
- Chosen the number of service levels to present to customers (five: two levels of deterioration, a base level to maintain the status quo and two levels of enhancement).
- Opted for five service area blocks, after judging it appropriate to split the water service "block" between quality and security (water quality, water security, waste, environment and a package experiment).
- Reduced the number of choice sets.
- Presented an approximate bill impact for each service level in terms of pounds, which was calculated based on a percentage increase/decrease in the respondent's bill.

## 4.5 Outcomes and measures of success

In this section we explain the steps the company has taken to agree outcome statements intended to summarise the service commitments it will deliver for customers and the environment which customers support.

The objectives of the research into outcomes are summarised in the following panel.

The regulatory outcomes research was qualitative work undertaken by Creative Research from February to May 2013 in two phases.

Phase 1 concentrated on defining a set of regulatory outcomes and measures that customers understood and supported.

Phase 2 of the research focused more closely on incentives that were aligned to each of the Regulatory Outcomes. The research tested both proposed “measures of success” and “delivery incentives”. It aimed to test the form and strength of the incentives, the rewards and penalties that would be deemed acceptable and the likely impact, if any, that implementing incentives might have on how customers feel about Yorkshire Water.

The link between outcomes and the 25 year strategic direction statement is covered in Section 6 on the business plan.

### Objectives of the research into outcomes and measures of success were to:

- Explore understanding of proposed Delivery Incentives.
- Test the suitability of the proposed Delivery Incentives in the context of the outcomes Yorkshire Water is seeking to achieve.
- Gauge the level of support for the proposed Delivery Incentives, including the reasons for supporting and/or challenging these.
- Explore how the draft Delivery Incentives make customers feel about Yorkshire Water and what the company is seeking to achieve, including in relation to rewards and penalties.
- Identify areas which customers feel are important but may not be addressed in the proposed Delivery Incentives.
- Understand if delivering on the proposed Delivery Incentives will make customers ‘value’ the services they receive from Yorkshire Water better.

### Yorkshire Water outcome statements

Through the research that has been conducted, customers told the company that they needed or wanted:

- A continuous supply of clean, safe water for drinking and business use.
- The removal of waste water and maintenance of the sewer network.
- Protection of the environment.
- Good customer service.
- Acceptable prices.

As a result of this feedback, and taking into consideration challenge from the Forum about priorities, language and presentation, Yorkshire Water has identified seven outcomes:

- We provide you with water that is clean and safe to drink.
- We make sure that you always have enough water.
- We take care of your waste water and protect you and the environment from sewer flooding.
- We protect and improve the water environment.
- We understand our impact on the wider environment and act responsibly.
- We provide the level of customer service you expect and value.
- We keep your bills as low as possible.

For each outcome the company has stated what it will need to do over the next 25 years to achieve this, identified the benefits and provided measures for success. The measures of success, which have been informed by customer views, have been selected because they can be independently measured and verified, are able to be controlled by the company and meet regulatory requirements.

## Forum involvement – outcomes and measures of success

In this section we describe the Forum challenge and our involvement in deriving meaningful outcome measures. We assess how well the proposed outcomes, which are embedded in the business plan, reflect customers' views and priorities revealed by the company's customer engagement.

The Forum took particular interest in the outcomes as they were being developed and attributed considerable importance to short, clear statements which summarise at a high level, Yorkshire Water's activities. The Forum was keen to see how customers' priorities linked to outcomes, which in turn directly linked to activities and outputs in a way that was transparent. The Forum emphasised that a clear means of assessing the delivery of outcomes, through appropriate measures of success, is vital if outcomes are to be successfully employed and understood by customers.

The Forum fed back comments on the research design for Phase 1 of the Regulatory Outcomes research and discussed and tested the wording of the proposed outcomes.

The Forum challenged that the outcomes initially proposed in the Phase 1 research were phrased as statements about Yorkshire Water activities rather than the outcomes Yorkshire Water wished to achieve. We stated that the outcomes should be expressed in plain English and SMART (simple, measurable, achievable, relevant and time-bound). The Forum highlighted that in the version presented the objectives appeared to emphasise outcomes and objectives mainly on the water service and the company rebalanced them to include appropriate recognition of the value of the waste water service.

Examples of challenges include:

- Whether the outcomes as presented would be understood by customers.
- That it was not appropriate to present material on outcomes to customers under the Kelda brand.

The company agreed that the 'Yorkshire Water' feature of the company was key to its relationship with customers and that it would test only strategic business objectives under the Kelda brand.

Examples of comments to improve the material included:

- Replace 'We will...' with 'Yorkshire Water will...' and 'you will' with 'our customers will'.
- Outcomes should be more inspirational.
- Measures of success should reliably and consistently reflect customer feedback and preferences.

The Forum challenged the company which was initially looking for support for Health and Safety investment as an outcome under the 'enhanced package'. The Forum argued strongly that the company was obliged to meet health and safety standards as an employer and therefore was not justified in suggesting customers might like to pay for an enhanced health and safety performance level. The health and safety option was subsequently removed from the package.

Yorkshire Water gave full consideration to all challenges and the Forum was satisfied that the final research topic guide reflected its comments.

The results of the Phase 2 research were presented at the June Forum meeting by Creative Research. As a result of Forum challenge and responding to the Phase 1 research, the outcomes used in Phase 2 aligned much better with customers' views. Yorkshire Water reduced the number of outcome statements from 11 to seven and all outcomes that Yorkshire Water proposed were supported by the majority of customers.

Key findings were:

- Two of the measures were sometimes challenged: firstly, the time taken to repair leaks (best measured from when a leak is first reported to Yorkshire Water); and secondly, exclusion of sub-contractors from data relating to accidents reportable to Health and Safety Executive (HSE).
- There was no appetite to see a reduction in any of the performance targets and the main issue was whether to maintain them or look to improve them.
- Although most customers were able to express an opinion on where they would like to see improvements, this was done more on the basis of an instinctive feel rather than consideration/understanding of the implications. This was particularly true when it came to improvements and deciding over what time period these should be achieved. The Forum commented that while Yorkshire Water should take note of customers' preferences, customers were not sufficiently informed to set targets and timescales.

The Forum considers that Yorkshire Water has reliably researched customers' opinions on the draft regulatory outcome statements and explored the delivery incentives that might be considered for either exceeding or failing to hit targets.

## 4.6 Acceptability

The Customer Acceptability testing was intended to ensure customers' views, which have been tested throughout the development of the business plan (and described in the sections above), were appropriately and fairly represented in the final plan submitted to Ofwat.

As part of Phase 1, eight domestic focus groups were held twice during June 2013. Overall, the focus groups supported the business plan and the proposal for bills to increase in line with inflation (no increase in real terms). In the first week the presentation material was considered too complex and technical, contributing to information overload. This led Yorkshire Water to simplify the material and resulted in improved engagement by respondents in the second week. Yorkshire Water also interviewed 10 "hard to reach" customers, as well as 16 business customers, as part of this phase of activity.

The customer research involved testing both investment scenarios and outcomes. The scope of the research was reduced following discussion with the Forum at the May meeting so that a shortened timetable could be achieved. However, the Board reinstated the final round of testing, excluding choices, to provide full assurance that the plan, as finalised and submitted to Ofwat, has the broad based support of all customer groups.

Acceptability testing demonstrated broad support, from 77% of customers overall, for investment that was funded by bills increasing in line with inflation, as shown in the table on the right.

### Acceptability for investment to maintain existing services (funded by inflation only increases in bills)

Segment	Sample	Acceptability	Choice
Overall	1056	77	
Domestic	802	72	37-61
Hard to reach	52		
Business	202	89	48-61

### Acceptability for investment to deliver choices (funded by increases in bills above inflation)

Domestic acceptability	Acceptability	Bill change £	Investment £m
Sewer flooding	58	0.97	44
Flood resilience	56	1.14	50
River water quality	37	6.46	300
Energy through waste	58	1.52	76
Renewable energy	61	0.76	47

## Forum involvement – Acceptability

In this section we describe the Forum challenge and our involvement in ensuring that a summary of the plan was appropriately tested.

The Forum strongly challenged a number of perceived shortcomings in the Acceptability testing as it was developed:

- An equal number of options should be available to respondents for supportive and unsupportive responses (and "not sure" should be in neither category) The Forum and Yorkshire Water agreed that the "acceptability scale" should be amended. A further measure ('very unsupportive') was added to the scale to provide an equal number of both positive and negative options.
- The bill impact for both the 'base' and the 'optional' investment should be shown in the Acceptability testing. The impact on bills of both (the 'base' and the 'optional' investment) were therefore shown alongside each other at the end of the survey.
- The Forum challenged the company on its intention to test the acceptability of an "enhancement" that the Forum felt belonged in the "base" package. Investment was proposed to address problems at Withernsea Waste Water Treatment Works. The works at Withernsea is vulnerable to coastal erosion and the company would be obliged to make alternative provision if erosion continued to the point at which the treatment works could no longer function. The Forum argued strongly that the company was obliged to drain, treat and dispose of sewage and was not justified in separately testing the acceptability of "protecting our sewage treatment works from coastal erosion". Yorkshire Water removed the option from the research.



- The bill impact for both the 'base' and the 'optional' investment should be shown in the Acceptability testing. Yorkshire Water agreed to show the impact on bills of both the 'base' and the 'optional' investment alongside each other at the end of the survey.
- The Forum was keen to know that Acceptability testing had been carried out with "hard to reach" and less advantaged customer groups who have considerably less flexibility to absorb bill increases. It felt that it would be beneficial if Yorkshire Water selected some organisations that work with those communities and developed relations with them as partner organisations.
- The Forum challenged whether Yorkshire Water had referred to any organisations that work with hard-to-reach customers. Yorkshire Water acknowledged that it had not contacted any and would use the contacts within the Forum to achieve this.

We believe strongly that Yorkshire Water followed best practice in setting out the expected increase in monetary terms as well as percentage terms based on forecasts for inflation. In our view, the company presented clear information in a simple and accessible format.

The Forum is satisfied that the approach to customer research on acceptability was soundly based; the quantitative and qualitative measures for determining acceptability were clearly set out and the Forum is confident that the approach was well thought out and the results provided a robust and reliable basis for the plan.

In our view the company has implemented a well thought out programme of Acceptability testing. Members of the Forum actively reviewed and contributed to the development of the Acceptability material and Yorkshire Water accepted and valued their input.

The Forum agreed that acceptability of the proposals at 77% went beyond commonly held ideas of the minimum expected since it exceeded the 70% threshold, in line with the research carried out by CCWater.

### Yorkshire Water response - Acceptability

Yorkshire Water's response on Acceptability testing is covered here in some detail and deserves particular recognition because Yorkshire Water went further than expected by commissioning an additional piece of research to test a summary of the final plan.

At the Forum meeting in September Yorkshire Water presented results of the customer acceptability testing which included customer choices. Overall 76% of customers supported the business plan but there was a lower level of support for the choices offered above the basic package. Based on these results the Forum concluded that the company had a clear mandate from customers that customers wanted a 'basic' rather than 'enhanced' plan and indicated it did not consider further research was necessary to test a plan that increased in line with inflation.

However, the same results were presented to Yorkshire Water's Board after the Forum with the recommendation that the choices, which would add costs above RPI to the bill, were excluded from the plan. The Board endorsed a further research project to test the plan one further time, excluding choices, to provide an additional degree of assurance that the plan, as submitted, has the broad based support of all customer groups. The final stage of testing followed the same approach as previous stages for sample size and customer representation. Overall 76% of customers supported the plan. The level of acceptability and the consistency with the previous results (an increase of 1% from the previous stage) validates the approach and should give customers (as well as the Board and Ofwat) assurance that the plan has broad based support.

## 4.7 Social tariffs

In this section we briefly review the extent to which social tariffs have been considered and the steps taken to consult with customers about this.

We are aware that the Government wants to see social tariffs implemented provided there is support for them from customers. The current process stipulated by the Department of the Environment Food and Rural Affairs (Defra) requires that there must be an appropriate level of customer support and that the development of any social tariff should align with customer views of what is acceptable. Yorkshire Water has conducted appropriate research which indicates that the introduction of social tariffs does not currently have the support of customers.

The company undertook qualitative research using six deliberative groups facilitated by Accent to understand customers' attitudes to social tariffs, the degree of support for them, who might pay for them, what levels of subsidy would be appropriate and the segments that might benefit from them.

Following the qualitative research the company conducted quantitative research across households and business customers. The company interviewed 453 household customers and conducted 100 business interviews. The research aimed to test possible levels of cross-subsidy and the support for social tariffs compared to other assistance that might be provided.

## Yorkshire Water has shared examples of the material it has produced in conjunction with its Yorkshire family with the Forum and the members considered it to be very well targeted and effective.

Domestic customers had relatively little understanding of cross-subsidies and 70% were initially unwilling to contribute anything to support those experiencing affordability issues. Once the issues were explained, 58% supported some element of cross-subsidy. In contrast, only 16% of business customers expressed their willingness to contribute any support for those struggling to pay. Yorkshire Water discussed with the Forum its view that metering, in appropriate circumstances, is an effective 'precursor' to social tariffs and an important way for some customers experiencing affordability problems to reduce their bills.

The research found that social tariffs are seen as having potential benefits but significant concerns were raised about who could be helped and some customers objected strongly in principle. It also revealed that customers believe that there are measures that those struggling to pay could take to make water bills more affordable. The most frequently mentioned measure was 'asking to go on a water meter', followed by encouraging those who are on a meter 'to use water more efficiently'.

### Forum involvement – Social tariffs

The Forum reviewed the company's progress to understand customer views on social tariffs at a number of its meetings. Our discussions raised basic questions as to whether social tariffs were the responsibility of a water company or of government. Defra has provided guidance about the development of social tariffs and Forum members are aware that the company has flexibility about how they might be implemented.

The Forum understands that there is an expectation that all companies should seek the views of their customers before submitting proposals. The Forum is very aware that it is difficult to differentiate between the different categories of customers who pay late or do not pay.

It is not easy to be clear who is in receipt of benefits and the appropriate level of cross-subsidy. There are many people who struggle to pay their bills and do so by going by without in other areas of their lives. Previous customer research had been national rather than regional. The research undertaken by Yorkshire Water suggests a limited willingness to pay and difficulty in categorising those who should receive help.

From the research the Forum agrees with the company that there was little appetite shown within the region for the provision of social tariffs. The company confirmed that it would not be looking to put forward proposals for social tariffs at this stage.

We emphasised the need to ensure that customers are fully aware of the support that is available to help those facing affordability issues. The Forum requested a presentation on the measures which are available, and proposed that the company should develop further measures that do not disadvantage other customers. The Forum is mindful that Yorkshire Water has an extensive portfolio of options to help vulnerable customers and those in debt, for example its Resolve initiative and the Trust Fund. Partner organisations expressed a willingness to work with the company on the impact of welfare reform as this becomes clear over the next two years.

The Forum also argued that support for commercial and business customers operating at the margins of profitability should be kept in mind.

The Forum is aware that Yorkshire has higher levels of unemployment and social/economic deprivation than some other regions. Yorkshire Water tracks debt against the Multiple Deprivation Index but has not proposed any special socio-economic factors but told the Forum that it will keep the possibility under review.

The company confirmed the extent of its stakeholder engagement from a comparatively modest budget, the following figures summarise the consultation:

- 4,000 face to face customer contacts.
- 29,862 surveys completed and returned.
- Personal contacts and meetings with:
  - 220 stakeholders from 150 organisations
  - 12 senior executives from NGOs
  - 25 regional MPs
  - 20 council leaders or chief executives.
- 250,709 video hits.
- Four letters to 250,000 domestic customers.
- 28,267 unique hits at the “Blueprint for Yorkshire” microsite.

## 4.8 Stakeholder engagement

Yorkshire Water has proactively discussed the development of its business plan with stakeholders and listened to their views through:

- Speakers’ panel, events, experiences of its ‘family’ and its contact programme.
- Stakeholder conference.
- Consultation.

The company recruited a family to explore the Yorkshire Water network. The family was given wide exposure to Yorkshire Water’s activities, assets and processes, and was filmed talking about what they had seen and learnt. The purpose was to promote understanding about Yorkshire Water and its values to stakeholders.

Yorkshire Water has shared examples of the material it has produced in conjunction with its Yorkshire family with the Forum and the members considered it to be very well targeted and effective.

A stakeholder event was held on the 30th of July. The event set out the key themes of the business plan and discussed the parameters for future bills, taking into consideration all of the trade-offs which needed to be made.

1,700 local and regional stakeholders were invited and 150 attended from 82 different organisations. Invitations were sent to MPs, Yorkshire councillors, representatives from most town and parish councils and local representatives of national organisations including Non-governmental organisations (NGOs), The Wildlife Trust, the National Farmers’ Union, CCWater and neighbouring companies.

## Forum involvement – Stakeholder engagement

Below we set out the questions the Forum has sought to address, to illustrate Forum involvement which includes:

- Requesting early sight of Yorkshire Water’s Communication plan in order to contribute to its development.
- Requesting a more strategic customer engagement plan to show how Yorkshire Water is engaging with domestic and business customers and what plans it has for schools.
- Suggesting that in the current economic climate the campaign should focus more on saving money than saving water.
- Challenging the company to keep a record of how many people it had come into contact with so that it could determine penetration and reach.

The Forum challenged the company as to what it had been able to do to ensure that it also reached hard-to-reach groups. The company stated that it had relied mainly on the number of face-to-face contacts on the street which were very widely accessible, on events and the activities of its speaker panel.

The company has established a fully reliable assessment of customers' views about the services it should deliver in the future, including for future generations of customers.

## 4.9 How Yorkshire Water has responded

The research described in this section is specific to the price review, however the Forum has emphasised to the company that Yorkshire Water should take advantage of all sources of customers' views available to it (tracking research, customer contacts and customer complaints) when determining priorities. As a result, the company has drawn on a wide range of research and its records of customer contacts, including complaints statistics and research carried out by other organisations, for example CCWater's Annual Tracking Survey.

There has been a good exchange of information throughout the process and helpful discussions outside the meetings by e-mail and phone. Yorkshire Water has provided summary documents which have been updated and re-issued as the research has progressed to show how the company's approach has changed. A particular instance of this is the revised approach to Acceptability testing (described in that section).

The company presented a comparison of PR09 and PR14 WtP values in response to challenge from the Forum. The Forum believed that it was important that the overall results were found to be consistent with the context of the prevailing economic climate at the time each study was carried out. We summarise the significant observations below.

The largest percentage change in unit value across the service areas is for sewage odour nuisance (+129%), followed by external sewer flooding. Generally increases were reported for waste water services (except internal flooding which saw a 22% decrease) and bathing beaches.

Reductions were reported for pollution incidents, river water quality and the water service. Interruptions to supply is the only water service area that has seen a positive change (+40%) since PR09. The greatest reduction was for security of supply (-98%); but it should be noted that the units of measurement have changed for this indicator.

## 4.10 Conclusions – engagement with customers

The Forum has challenged the company extensively. So far as we are aware every aspect of Yorkshire Water's customer research programme has been scrutinised: from helping to shape the overall approach, providing advice and guidance on how materials should be presented to customers, attending focus meetings, through to interpreting the results and incorporating them into the investment planning process.

Based on the evidence presented to the Forum, which includes independent assessment and validation from experts in the field, the Forum has concluded:

- The company has conducted an extensive programme of research with domestic customers including 'hard to reach' and existing domestic and business customers.
- The company has established a fully reliable assessment of customers' views about the services it should deliver in the future, including for future generations of customers.
- The customer research has been robust, consistent with best practice and has provided the evidence for the decisions taken by the company.
- The company has taken customers' views into account at each stage in the formulation of its business plan.
- The company has engaged effectively with its wider stakeholders, gaining significant penetration and reach, to establish their views on the priorities for the region.

From the outset, Forum members requested to be active participants in agreeing the content of Yorkshire Water's customer engagement studies and have welcomed this opportunity. We summarise below the extent of our involvement.

- The Forum has reviewed the research materials at every point of the programme. Our involvement related particularly to the sample size, overall approach and the wording of research materials.
- The Forum and Yorkshire Water recognised that it was essential that those taking part in the survey really did understand the questions put to them in their proper context. Forum members commented on the text for all research material to check it was not unnecessarily complex, was acceptable to all customers and took into account potential barriers to understanding for those with learning difficulties. Cognitive questions were included throughout the WtP study and the results show that respondents understood what was being asked and presented to them.
- The Forum has been involved throughout as the price review process has progressed, and has shaped and challenged the business plan. It anticipates further involvement through the delivery phase, as the plan is reviewed, refined and finally delivered.
- The scale and quality of the engagement was set out for the Forum in advance. We have been impressed by how much has been achieved within the aspirations explained to the Forum.

- The Forum has pressed the company at each stage of the research to make sure that the effects of RPI have been explained to customers. Yorkshire Water has responded positively to this discipline in each phase of the research. As a result, the research material (questionnaires and stimulus material) has expressly stated the expected increase attributable to the investment programme and to RPI in monetary terms and not simply percentages. Consequently the issues and the financial implications of RPI have been fully exposed to customers, even though these could have had an impact on acceptability testing results.

Feedback from Forum members and customers was incorporated into the research stimulus material and the questionnaires. The company responded to all input and challenges from the Forum, took on-board the majority and advised where it had decided not to make changes. The Forum is satisfied that the final material was of a high standard and appropriate to the research.

We conclude that Yorkshire has undertaken effective research to gain customers' views about the services it should deliver. We specifically believe that the plan:

- Takes customers' views fully into account.
- Presents a good balance of proposals once affordability is taken into account.

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**We conclude that Yorkshire has undertaken effective research to gain customers' views about the services it should deliver.**

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Yorkshire Water Customer Forum Report

# Finance



# 5. How will Yorkshire Water finance its investment?

- Governance
- Investment
- Cost of debt

**Yorkshire Water is proposing that bills should increase in line with inflation, as measured by RPI, between 2015-20. The average annual domestic customer bill would therefore increase from £382 in 2015, based on RPI of 3%. Increasing bills in line with inflation will provide sufficient revenue to fund operating costs and capital investment (totex) over five years totalling £3.9bn.**

The Forum requested a summary of the key issues relating to governance, finance and financeability from the company to understand the context of the company's debt and equity arrangements, its overall financial 'health' and make informed challenges. We wanted to understand the link between the cost of capital, investment levels and ratings and revenue from bills.

We held a workshop with the company to cover issues that were specific to Yorkshire Water in relation to:

- Gearing.
- Interest cover.
- Embedded debt.

## 5.1 Governance

### Background

The company has a comparatively complex structure and the Forum is concerned to ensure that the company maintains its legitimacy and the trust of customers and investors. Public trust and confidence in the company is essential to reputational risk and to maintaining customer support. Customers and regulators need confidence that Yorkshire Water is operating to the highest standards of corporate governance.

This need for transparency and high standards of governance is shared by investors. We also recognise that Board leadership, governance and transparency are an important part of Ofwat's agenda and something on which it has been consulting with the industry.

The Forum noted that the use of associate companies registered in what are described as 'tax havens' complies with UK tax rules. Similarly, the corporate structures of many water companies have numerous associated companies between the regulated company and its ultimate owners. There is nothing fundamentally wrong with such arrangements, and Yorkshire Water is not unique in this regard. However, for a company such as Yorkshire Water which wishes to retain trust there is a clear need to demonstrate that tax arrangements can be of benefit to customers, for example by claiming capital allowances, thereby reducing the impact on bills. Transparency in all that Yorkshire Water does in the areas of finance and governance is key.

## Forum challenge – governance

We challenged the company robustly on governance issues and received the following assurances which set out the company's commitment to paying all taxes that are due and meeting the same standards of transparency as would be required of a listed company. Specifically the Board gave the following assurances about how it will address certain issues to provide reassurance to customers.

- It will appoint a non-executive director (NED) from a senior financial background.
- The senior NED will chair the audit committee.
- The remuneration committee will include one independent NED from Yorkshire Water.
- There will be full disclosure of directors' pay and bonuses.
- There will be full disclosure of the details of the debt held by a company registered in the Cayman Islands.
- The company will reinforce that all other companies in the structure are UK registered.

We consider it important to record that Yorkshire Water has engaged well with the Forum in discussing such issues and recognising the need for greater transparency. This was evidenced by the inclusion of information about all group companies in jurisdictions other than the UK in its Annual report for 31 Mar 2013.

The Chair has met regularly with the Chief Executive and individual executive directors, and attended two Board meetings and Independent non-executive directors have attended meetings as observers and this has included discussion about such issues.

## 5.2 Investment

### Introduction

In this section we consider the balance which the company is seeking to achieve in financial matters, which includes:

- Delivering bill increases which are affordable to the majority of customers.
- Making appropriate allowance for the cost of capital, taking account of embedded debt.
- Balancing investment now against issues for future generations.
- Sharing the benefits of 'out-performance' with customers.

### Background

The company has argued that pressure on prices comes from:

- Meeting increasing customer expectations.
- Delivery of regulatory obligations.
- The need for investment in assets.
- The requirement for investors to have a return.

To some degree the upward pressures have been met by a reduction in the return on capital (WACC) compared to the current period and an extension to the "cost recovery period" which the company has chosen to make from 25 years to 29 years. Yorkshire Water told us that these two measures, careful investment planning and a self-imposed efficiency challenge, have enabled the company to submit a plan based on level prices (K=0). We are aware that as a consequence apart from investment in enhancements to meet statutory requirements and maintain the assets, there is no scope for discretionary investment to improve service or to improve resilience to climate change.

We understand from the company that the main components which determine the revenue required are:

- The level of allowed 'fast money' (2015-20 PAYG expenditure) (including the immediate requirements to finance the investment programme).
- The return on regulatory capital value (RCV is a proxy for the value of the company used to set returns; the return on RCV is a combination of RCV run-off – equivalent to depreciation charges – and the return on the remaining RCV).
- An allowance for corporation tax.
- Incentives (where applicable).

### Forum challenge and conclusions – finance

The Forum sought an early indication of the average cost of capital the company proposed to use. CCWater emphasised that its own work at PR09 had indicated the need for a much lower cost of capital than was allowed by Ofwat to ensure an appropriate balance between shareholder and customer interests. The level of 5.1% at PR09 had proved to be considerably higher than current interest rates. We recognise that setting the WACC for 2015-20 is an area for which Ofwat is ultimately responsible, however Ofwat has itself publicly acknowledged that its cost of capital for the current pricing period was too generous, that companies have benefited from this through lower costs of borrowing.

We particularly welcome the company's reinvestment of £123m over and above the capital programme allowed for at the 2009 periodic review during the current period.

For the Forum a key issue is the need for Yorkshire Water to explain how it proposes sharing future benefits of out-performance with customers. Excess dividends returned to shareholders and/or a lack of transparency in the company's financial structure would pose potential obstacles and reputational risk. It is therefore vital to communicate when and where customers have received a fair deal during a time of continuing austerity.

We explored the pressures on the plan and pressed the company on the drivers of increased costs and any off-setting benefits. Increased pressures come from under-collection of revenue compared with assumptions in the current period during the economic down-turn, new legal obligations to improve quality, the transfer of private drains and sewers and the risk of asset failure. To some extent these are offset by:

- A requirement for a lower return on capital compared to the current period.
- Efficiency improvements.
- Higher rate of RPI inflation than assumptions in the last Final Determination (2009).
- Temporarily extending the period over which Yorkshire Water recovers the cost of its assets (“the cost recovery period”).
- Accepting a shortfall in investment in network assets (which Yorkshire Water plans to address through increased operational support).

The Forum recognises that the plan has to be finely balanced. We challenged the company strongly on a number of fronts. We have seen clear evidence from research that customers do not want to see an increase in their bills. Equally the Forum has wanted to ensure that the company should not pare investment to a minimum level and leave customers or the environment exposed to the risk that service levels may deteriorate, with bills increasing sharply in the future as a result of under-investment.

The Forum acknowledges the work done by Yorkshire Water to optimise investment and keep bills affordable. The Forum also needed to understand what Yorkshire Water has done to satisfy itself that increases below inflation or level bills in real terms (no inflation) could not be achieved. The Forum pressed the company to consider other options which could include reducing the return on capital or reducing costs.

The Forum challenged the company on a number of occasions to understand better what could be done and what impact it would have. Yorkshire Water was steadfast that reducing revenue further would compromise one or other of the key elements of the plan and would not be financially sustainable. The company presented an analysis of the options available.

Additionally the Forum challenged the company in the following areas:

- What it considers would constitute a fair return to customers if the company exceeds its own expectations during the course of the plan period.
- How it has benefited from the lower cost of RPI in the current pricing period.
- What would need to be sacrificed and/or deferred in order to deliver level bills in nominal terms (negative K).
- The robustness of the data.
- What can be shown from a sensitivity analysis of the package in terms of the cost of capital and interest cover ratios.
- What climate change data is being used for the purposes of investment planning.
- How successful the company has been in raising funds from other sources to fund investment (eg insurance at Withernsea Waste Water Treatment Works, Environment Agency, grant aid and matched funding for coastal erosion and flooding).
- The implications of its stated policy of relying on operational teams and ‘reactive’ maintenance, rather than wholesale replacement, to keep long life assets functioning reliably.

## 5.3 Cost of debt

From our discussions with the company we have concluded that one of the principal challenges for the company is the embedded debt and its implications for the cost of capital.

The level of debt is frequently expressed as gearing (debt/(debt + equity)). There has been an industry trend to increase gearing until about 2008.

Embedded debt is the debt already taken out by the company for which it continues to have an obligation to meet repayments. Yorkshire Water has higher levels of debt (80-84% of RCV) than the notional level typically assumed by Ofwat (57.5%) and comparatively high levels by industry standards. It is held within Yorkshire Water and not the parent company, Kelda.

Yorkshire Water confirmed the level of index-linked debt will be at least 40% of RCV and it is a concern for the company whether the level of embedded debt that is index linked will be recognised by Ofwat. Index linked debt lowers the debt service charge but increases the debt refinancing requirement at the end of the term.

**We conclude that Yorkshire has undertaken effective research to gain customers’ views about the services it should deliver.**

Yorkshire Water Customer Forum Report

# Development and delivery of the plan

## 6. How well does Yorkshire Water's plan deliver for customers?

- The 25 year context
- The overall business plan
- The plan for water
- The plan for waste water
- Discretionary spend on the environment
- Sewerage network improvements
- Present and future customers
- Conclusions

### 6.1 Introduction

In this section we examine the tensions in putting together a plan that meets statutory requirements, maintains assets and services and is affordable to customers. We confirm that the plan is expected to deliver the required legal obligations for drinking water and waste water and that we have been advised that it includes no discretionary investment. Overall, we conclude that it is a balanced plan with appropriate provision for:

- Looking after existing assets.
- Creating new assets.
- Addressing key performance issues.
- Protecting the environment.
- We provide you with water that is clean and safe to drink.
- We make sure that you always have enough water.
- We take care of your waste water and protect you and the environment from sewer flooding.
- We protect and improve the water environment.
- We understand our impact on the wider environment and act responsibly.
- We provide the level of customer service you expect and value.
- We keep your bills as low as possible.

Yorkshire Water has developed seven high level outcomes:

## 6.2 25 year context

### Blueprint for Yorkshire (Strategic Direction Statement)

All companies are required to set their five year business plans within a longer term context by producing a 25 year plan which is called a Strategic Direction Statement. This means that companies are asked to look beyond the five year business plan which is submitted for 2015-20. In this price review they have also been asked to look at the outcomes - higher level objectives - they should deliver for their customers, based on the things which customers and society value.

Yorkshire Water has called its Strategic Direction Statement "Our Blueprint for Yorkshire - taking responsibility for the water environment for good". This is its response to what customers and the Forum have communicated through research and challenge and was published in July 2013.

The Forum welcomes the fact that this document is not simply a statement of what Yorkshire Water needs to deliver in terms of water and waste water services which are affordable for the people of Yorkshire. It is also aspirational and provides recognition of the company's role as a custodian of the environment. The company has demonstrated that it is thinking ahead and is prepared for wider challenges such as climate change and the demands of future generations of customers. Forum members commented on the draft document.

The document reflects Yorkshire Water's view that it is a difficult balance to deliver the improvements that customers want, meet the obligations of the economic and environmental regulators, provide a return for investors and keep bills as low as possible. Achieving this balance, and making transparent the issues and tensions, has also been at the heart of the customer challenge process.

Yorkshire Water has committed itself to putting its customers at the heart of everything it does by delivering services at a price customers are willing and able to pay, whilst also being sensitive in supporting low income and other

**"Yorkshire Water's plan is based on focussing investment to address risks prioritised in terms of the value for money achieved."**

vulnerable customers, for example through the provision of payment plans and other schemes which meet their needs.

One of the key messages which the Forum has reinforced and challenged on has been about climate change, which has the potential to create water shortages and stresses, and could increase demand from domestic and business customers. The population of Yorkshire is forecast to increase by approximately 855,000 people over the next 25 years and has been expressed by the company, in terms customers can understand, as the equivalent of a new city the size of Leeds being built in the region. There is recognition by the company that it can do more to provide water that is sustainable, secure and affordable and it has produced a draft Water Resource Management Plan to show how it will maintain the balance between supply and demand over the 25-year period. Leakage, the availability and targeting of meters and the education of consumers are all key areas to be addressed in tackling climate change and the management of resources.

Yorkshire Water has forecast that its energy needs will continue to rise as it treats water and waste water to higher standards and because of climate change. It wants to be a sustainable company which considers the environment, the economy and the social needs of customers when making long-term decisions. Key to this will be increasing its own renewable energy generation - through wind, water turbines and the generation of bio-gas - and by reducing carbon emissions by cutting the amount of energy used across the business. The business plan is set in this context.

The company is required to meet minimum standards to improve and protect the natural environment, for example making sure that impacts from its operations on receiving rivers, catchments and coastal areas are kept to a minimum. In the past in some areas, it has said that it wants to go beyond minimum requirements, for example in the current period by achieving "Excellent" standard for bathing water quality at beaches in the region to support tourism, the coastal economy and the marine environment. This is an example of an area where the Forum has challenged the company to demonstrate that this aspiration is supported by domestic customers and businesses.

We are aware that the Environment Agency will continue to question and challenge the company on the proposed levels of investment for the environment. The EA is not fully convinced that the environment will be adequately protected by the proposals, for example investment in reducing pollution. However, the Forum remains mindful that customers did not indicate support for increased investment in the environment and the company has sought to deliver a balanced plan.

Yorkshire Water also has responsibilities as a landowner and, in this capacity and in others, a key message from the Forum was the need to strengthen and develop partnerships. Partnerships should include a wide range of intermediary organisations, particularly in the environmental sector. The company has an Environmental Advisory Panel (EAP) which is an environment stakeholder panel which provides opinion on the company's proposals for protecting and managing the environment and on changes in regulation. A member of the EAP has been a member of the Forum to achieve some symmetry in this area.

### Water Resources Management Plan

The draft Water Resource Management Plan (dWRMP) sets out how companies will ensure that the supply of water will meet demand for the 25 years from 2015 to 2040. The consultation period has concluded but the plan has not yet been finalised. The plan, which we understand has been independently reviewed, takes account of forecasts for:

- Supply availability.
- Demand – based on population growth and per capita consumption.
- Water efficiency.
- Leakage.
- Metering.

The Forum was invited to comment on the plan and specific input has been provided by CCWater and the Environment Agency. CCWater noted that a considerable number of different options had been proposed to offset a forecast demand deficit but there was a lack of clarity about the preferred options to address the deficit. It advocated customer involvement if the final proposal included any contentious schemes such as dam raising.

In preparing the draft plan, the company has identified options which reduce demand as well as developing new sources. An optimiser selects the least cost combination of measures in accordance with guidance on the economics of balancing supply and demand. Additional guidance makes recommendations on incorporating the sustainable economic level of leakage into water resource planning. The draft plan has been submitted to the Secretary of State and the consultation period has closed. Yorkshire Water will next liaise with the EA to revise the plan if appropriate and produce a statement detailing the consideration given to the representations it has received.

The Environment Agency continues to liaise with the company to ensure that the final plan is robust in its ability to effectively manage demand, supplies and future uncertainties.

They welcome the company’s assurance that the main water resources supply-demand components of the business plan will be consistent with their statement of response following the draft consultation.

The Forum understands that further examination may be appropriate to confirm whether in the next iteration Yorkshire Water should re-run its options selection process and scenario testing and confirm that it has:

- Incorporated sustainability reductions defined since the draft plan.
- Developed options with neighbouring companies and/or third parties (including bulk transfer options).
- Incorporated customers’ WtP for service enhancements and/or environmental improvements.

The principle change on the supply side is the loss of 140 ML/d of deployable output in the Grid surface water zone by 2040 due to climate change. Potential changes are also required under the Water Framework Directive (WFD) to improve the ecological potential of rivers and streams downstream of reservoirs - so called sustainability reductions – which may reduce deployable output by 27 ML/d.

The proposed mix of options to augment supply includes transfer schemes, groundwater abstraction and dam raising to improve supply availability. Pressure management schemes for leakage control will serve to reduce demand, as will mains replacement and water efficiency.

Reducing leakage also serves to help balance supply and demand; Yorkshire Water proposes a reduction of 25 ML/d to achieve a target based on the sustainable economic level of leakage reducing from 284.6 to 259.6 ML/d in AMP6 .

The company forecasts 40,000 meter optants per year in the first five years, decreasing in subsequent five year periods. In forecasting incremental demand from new homes the company has reduced per capita consumption from current levels to 120 l/head/day as all new homes will be built in accordance with new guidelines for sustainable homes.

### 6.3 The overall business plan

Yorkshire Water’s plan is based on focusing investment to address risks prioritised in terms of the value for money achieved. Yorkshire Water scores risks according to probability and impact and forecasts the change in the risk position with and without intervention by the company. An increasing deterioration rate brings new pressures to maintaining service and serviceability. To simplify the analysis risks are categorised as “Red”, “Amber” and “Green”.

The company has obtained independent external assurance from Atkins. The team leader attended several Forum meetings, explained the work he and his team had done and shared their high level findings. Forum members attended when he reported the results of Atkins’ review to Yorkshire Water.

The company highlighted to the Forum, in general terms, the results of investment at successive periodic reviews. At PR04 the company aimed to hold red risks stable, but allowed them to increase at PR09, as it is proposing again for PR14. The number of red risks identified through modelling at the start of each period is summarised in the following table:

Red risks	Start of period (Pre-Investment)	Change over prior AMP	
PR04	5,592		
PR09	10,200	4,608	82%
PR14	16,798	6,598	65%



The Forum understands that the plan must cover a wide range of investment needs centred around:

- Ensuring Yorkshire Water's assets are capable of maintaining the level of service to customers and protection to the environment that each currently receives – now and in the future.
- Ensuring there are sufficient supplies of water to meet customers' needs, including measures driven by changes in where people choose to live or how they choose to pay for their water, and measures intended to reduce demand, manage flooding from sewers and ensure resilience to environmental pressures.
- Meeting the legal and regulatory requirements to ensure the rivers of Yorkshire are adequately protected, meet all the latest standards, support the natural environment and improve biodiversity.
- Adapting to raw water deterioration to ensure drinking water quality meets all current standards and protecting/reversing the raw water resource from further deterioration to minimise the need for chemical treatment.

Yorkshire Water's plan for water and waste water can be expressed in several ways. The following two panels summarise the proposed investment.

#### The capital programme

Maintenance	£m	Drinking water quality programme	£m
Water resources	79	Rivelin	16.0
Water treatment	96	Irton	6.0
Water distribution	290	Langsett	13.0
Management and General	226	Cowick borehole	0.43
<b>Total (Water)</b>	<b>691</b>	Heck Borehole	0.29
Sewage treatment	232	Lead (Regional)	13.87
Sewerage installations	148	AMP 5 Overhang	8
Sludge	110	Plus opex	0.36
Sewerage network	103	<b>Total</b>	<b>57.95</b>
<b>Total (Waste water)</b>	<b>593</b>	<b>Environment investment</b>	<b>£m</b>
<b>Total Water and Waste</b>	<b>1,284</b>	Monitoring	10
<b>Supply demand</b>	<b>£m</b>	Investigations	37
New Development	92	Rivers	245
Domestic meter optants	38	Environment	26
Supply demand deficit	2.5	<b>Total</b>	<b>318</b>
Sludge growth	12	<b>Other</b>	<b>£m</b>
Internal sewer flooding	84	Public to private sewers	54
		Security measures	15.3
		First time sewerage	2.2
		Total	71.5
		<b>OVERALL TOTAL</b>	<b>1,960</b>

Proposed investment	Average bill (£)	Average bill (%)
<b>We provide you with water that is clean and safe to drink</b>		
To ensure drinking water is safe and meets stringent Government standards		
£399m	£39	10%
<b>We make sure that you have enough water</b>		
Ensuring there is a sufficient supply of water to deliver to customers		
£1009m	£28	26%
<b>We take care of your waste water and protect you and the environment from sewer flooding</b>		
Continuing to take care of customers' waste water and treat it responsibly		
£660m	£64	17%
<b>We protect and improve the water environment</b>		
Meeting the region's minimum environmental needs		
£1375m	£134	36%
<b>We understand our impact on the wider environment and act responsibly</b>		
Improving the impact of Yorkshire Water's operations on the wider environment		
£77m	£8	2%
<b>We always provide the level of customer service you expect and value</b>		
The cost to continue to deliver and improve customer services		
£159m	£16	4%
<b>We keep your bills as low as possible</b>		
The cost of keeping bills low through innovation		
£132m	£13	3%
<b>TOTALS</b>		
<b>£3,810m</b>	<b>£372</b>	<b>100%</b>

We have challenged the company extensively on the need to minimise the impact on bills and to ensure investment is well focused and kept to a minimum. Yorkshire Water has a history of managing its assets carefully.

## Minimising investment costs

We have challenged the company extensively on the need to minimise the impact on bills and to ensure investment is well focused and kept to a minimum. Yorkshire Water has a history of managing its assets carefully. We have challenged the company that it should find the right balance and not expose customers to unnecessary risk.

The Forum recognises that Yorkshire Water must be able to finance its planned investment and that it is unlikely to be able to deliver services from charges based at the level of those least able to pay. However, the plan, and the bill impacts resulting from it, needs to be acceptable to a majority of customers including both domestic and business customers. In this context, the Forum has scrutinised the plan, which we describe briefly in the following section, and challenged the company to demonstrate that it has maintained services, and preferably gone some way to addressing priorities, for both domestic and business customers.

## 6.4 The plan for water

### Introduction

Water companies are expected to address all statutory drinking water quality requirements as set out in Defra's Statement of Obligations. In particular, the Drinking Water Inspectorate (DWI) ensures that companies pay due regard to the need for public water supplies to be safe, clean and compliant with all the regulatory standards. The DWI protects public health and maintains confidence in public water supplies by ensuring water companies supply safe clean drinking water which meets all related statutory requirements. Where standards or other requirements are not met, it has statutory powers to require water supply arrangements to be improved.

For PR14, all water companies are expected to ensure that their business plans make provision to meet all their statutory obligations and that provision is made for a sustainable level of asset maintenance to maintain public confidence in drinking water quality.

## Companies are required to maintain assets that are fit for purpose, to comply with statutory standards, to deliver defined service levels and to deliver the programme of enhancements for each five year planning period.

The Inspectorate has placed emphasis 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.

We reproduce in Appendix 5 the statement from the Drinking Water Inspectorate.

Companies are required to maintain assets that are fit for purpose, to comply with statutory standards, to deliver defined service levels and to deliver the programme of enhancements for each five year planning period. Companies are responsible for risk assessments for all of their drinking water supply systems and undertaking regulatory raw water monitoring to inform these risk assessments. Consequently all proposals for investment to safeguard drinking water quality are expected to be based on up to date risk assessments.

The DWI has issued guidance to water companies on its requirements in relation to:

- Water safety plans.
- Principles for catchment management.
- The revised standard for lead in drinking water.
- An expected new standard for disinfection by-products.
- The management of metaldehyde (along with certain other agricultural pollutants).
- Proposed Euratom Directive (which if it becomes law will require a new standard for radon in drinking water).

The Forum understands that the key obligations in relation to the provision of water services can be summarised as:

### Maintenance

Investment to maintain the company's existing assets includes:

- Water resources: principally aqueducts, tunnels and catch-waters.
- Water treatment: at water treatment works and service reservoirs.
- Water distribution: to manage risk from discoloration, pressure and interruptions.
- Management and General: investment in computers, software, telemetry and vehicles that support the company's operations.

### Eel Regulations

Yorkshire Water is required to provide protection that prevents eels being drawn into pump intakes at abstraction points. Measures are required at two sites, plus installation of two eel passes and minor measures at a pumping station at a third.

### Supply Demand

Investment to maintain the supply demand balance in response to growth, new development and migration includes:

- New Development: population growth: 172,000 waste, 131,500 water.
- Domestic meter optants: customer-led, estimated at 200,000 properties.
- Supply demand deficit: climate change (6ML/d) and sustainability reductions (27 ML/d).

These obligations translate into schemes at six water treatment works and longer term protective measures as summarised on page 37.

## Water Treatment Works

Yorkshire Water has proposed six schemes to manage risks at water treatment works:

### At Rivelin,

- The process is vulnerable to a single source supply of Magnetite (a chemical used in the treatment process).
- The treatment process is unable to match the rate of change in the raw water quality.
- The raw water is at risk from cryptosporidium.
- The raw water has experienced prolonged deterioration in colour which needs to be addressed.
- The treated water is at risk from disinfection by-products including Trihalomethanes (THMs).

### At Irton, the raw water is at risk from:

- Cryptosporidium.
- Pesticides.
- Colour.

### At Langsett, the treated water is at risk from disinfection bi-products.

In addition to the above defined schemes, a number of longer term measures are required under the Environment Agency's NEP to reduce the risk of problems which may materialise in future, including:

- Drinking water safeguard zones – actions and investigations to safeguard drinking water sources.
- Reductions in pesticides – measures to reduce pesticide levels in raw drinking water resource.
- Nitrates leaching into water supplies – measures to reduce.
- Saline intrusion in coastal areas – investigations to increase understanding.

## Catchment management

The catchment management programme is a key component of delivering the outcome 'By working with others, we will continue to protect and improve Yorkshire's water environment'

Yorkshire Water has gained experience through a catchment management pilot scheme in the current period (AMP5) and includes implementation of solutions as well as proposals for further research and development in the plan period (AMP6).

The catchment management programme is driven by the need to address long term water quality risks. The risks are identified both through risk assessments under the Drinking Water Safety Plans monitored by the Drinking Water Inspectorate, and the measures required for Drinking Water Protected Areas set out in Safeguard Zone Action Plans developed and monitored by the Environment Agency, in consultation with Yorkshire Water, the agricultural industry and land managers.

The overall programme forms part of the Environment Agency's National Environment programme (NEP) for AMP6. It covers specific water quality parameters including colour, pesticides, and nitrates for reservoir, river and borehole sources. The upland management schemes for colour should deliver a range of additional benefits such as carbon mitigation and biodiversity. The programme also contributes to resilience to climate change.

Peatland restoration is a key element of catchment management. Yorkshire Water proposes a mix of directly procured moorland restoration work and support for two leading peatland restoration groups in the Yorkshire region, namely the Yorkshire Wildlife Trust-hosted "Yorkshire Peat Partnership", and the Peak District National Park based "Moors for the Future".

Examples of partnership working for peatland restoration include work with private landowners where Natural England is a key stakeholder, working with Severn Trent Water on a joint peatland restoration programme in the catchment for both Bamford and Rivelin Water Treatment Works and supporting the Yorkshire Peat Partnership in its European LIFE funding bid for peatland restoration in the headwaters of upstream of a number of river abstractions.

Catchment management also plays an important part in Yorkshire Water's plans to tackle the concentration of metaldehyde in rivers and nitrates in groundwater. We understand that the Environment Agency will be working with the company and other stakeholders to implement Safeguard Zone Action Plans and that Natural England's Catchment Sensitive Farming initiative, which is due to run to March 2015, does not cover all of Yorkshire Water's river abstractions.

Yorkshire Water sits on Steering Groups, such as the Upland Hydrology Group and Yorkshire Methaldehyde Group, alongside the Environment Agency, Natural England, National Farmers Union and other key stakeholders from the agricultural sector. Yorkshire Water has the opportunity to raise water quality issues in an open and positive forum and discuss solutions. The steering group has proved a useful means of working more closely with the agricultural sector. Yorkshire Water reports that it has received encouraging feedback and positive responses and has confirmed its intention to do more of this type of work. We are encouraged by the engagement between Yorkshire Water and key stakeholders, in terms of a willingness to work with a range of different parties to review evidence and address important issues as they develop.

Yorkshire Water's abstraction sites are designated as protected areas, and Yorkshire Water will therefore have to develop Safeguard Zone Action Plans in conjunction with the Environment Agency (EA), Catchment Sensitive Farming (CSF), National Farmers Union (NFU) and Natural England (NE). Yorkshire Water will deliver on-farm advice and support aimed at reducing diffuse pollution from agriculture, in conjunction with CSF delivery where appropriate. While the EA is responsible for monitoring the delivery of measures under the WFD, and the results from the package of measures proposed cannot be guaranteed, we are encouraged by Yorkshire Water's acknowledgement of the need to support the EA and other key partners in bringing about change in everyday practices on the ground through a proposal to recruit specialist staff, and will look to others to monitor how effectively it improves river water quality, and over what timescale.

## 6.5 The plan for waste water

### Introduction

In this section we set out our understanding of the measures proposed by Yorkshire Water to meet its obligations in respect of the aquatic environment. Some obligations will not be confirmed until after River Basin Management Plans have been improved in December 2015. The plan includes provision for work that Yorkshire Water anticipates will be necessary after 2015.

### Environment Agency

The Environment Agency has clarified that its role in the price review is to work with water companies and others to plan environmental improvements to protect the water environment better and secure wider benefits for society and the economy. One of the ways the Environment Agency does this is through the National Environment Programme (NEP). The NEP forms part of a water company's business plan and sets out the statutory requirements that ensure that water companies meet European and national environmental standards related to water.

A recurring challenge from the Forum has related to "fair share apportionment" seeking to ensure that the environmental programme being proposed by Yorkshire Water is good value to customers and does not avert the requirement on other industries from delivering their fair share of improvements. This challenge has been addressed by the EA and assurance has been given that the same approach is being taken across all sectors, including agriculture, to ensure a fair and equitable methodology to delivering necessary environmental improvements.

The reports from the EA are included in Appendix 5.

### Natural England

Natural England is the government adviser on the natural environment. It provides practical advice about management of protecting and enhancing nationally and internationally designated sites for habitats and wildlife, and works with others to safeguard a healthy and sustainable natural environment for the benefit of everyone.

The priorities and outcomes of PR14 for the natural environment are set out in the following objectives from Natural England.

- Water quality will be improved and water resources more sustainably managed.
- Statutory obligations to conserve and enhance the most important water-dependant habitats, species and landscapes are met.
- The PR14 process will help water companies contribute to the delivery of Biodiversity 2020 objectives.
- Innovative solutions and whole catchment approaches that are resilient to climate change will become increasingly commonplace.

The letter from the NE is reproduced in Appendix 5.

### Obligations

Environment standards are driven by statutory requirements set down in European and national legislation with in-river standards being set by the UK Technical Advisory Group (UKTAG).

Water companies are expected to address all statutory requirements as set out in Defra's Statement of Obligations which also sets out the aspiration that companies will aim to generate wider benefits and deliver multiple outcomes where possible.

Each company has a duty to provide, improve and extend the sewer network to ensure its area is drained effectually and to maintain its network to achieve this. It has to comply with existing and new statutory requirements. The new statutory requirements are set out in Defra's Statement of Obligations. They are subsequently developed by the Environment Agency Investment into the NEP to ensure that water companies meet statutory (European and national) environmental standards relating to water. Each water company must include investment proposals that deliver the NEP as part of its business plan.

For a measure to be included in the NEP, it must be a clear legal requirement for the improvement, a link to a water company discharge or, for drinking water protection, a water company abstraction at risk of requiring additional treatment.

The obligations on water companies under the WFD are uncertain due to the conflicting planning timeframes for determining improvements required to meet 'good' ecological status or potential in all water bodies by 2027. To reduce this uncertainty, Yorkshire Water has had to make assumptions about investment requirements in this AMP that will deliver improvements where there is evidence that their assets are currently impacting on water body status.

The full programme of requirements (measures) will not be finalised until Ministers decide on the affordability of the programme in January 2016. Defra advocates that companies should propose investment to meet these obligations that is evenly balanced over AMP periods.

The Forum understands that the key obligations in relation to the waste water service are as follows.

### Maintenance

Investment to maintain the company's assets including:

- Sewage treatment: includes sea outfalls.
- Waste Water Assets: pumping stations, overflows and storage.
- Sludge: sludge treatment facilities including incineration.
- Sewerage network: rehabilitation to protect from flooding and pollution.

### Supply Demand

Investment to maintain the supply demand balance in response to growth, new development and migration includes internal sewer flooding to address issues related to hydraulic capacity.

### Biodiversity 2020

A central government strategy for England's wildlife and ecosystem services is promoted under the "Biodiversity 2020" title of Defra's 2011 report. The requirement is underpinned by a number of pieces of legislation. We understand from regulators that they view this as a very good programme that has been well put together with a view to achieving the required outcomes through an effective use of partnerships with other agencies and interested parties.

### Biodiversity

#### The work involves

- Restoration of habitats on targeted land.
- Support for priority species.
- Biodiversity enhancement.
- Identifying veteran trees.
- Restoration of ancient woodland.
- Invasive species on operational sites.
- Riparian invasive species leading to deterioration of the water environment.
- Fish passage (Measures at two sites plus two eel passes and minor measures at a third).
- White-clawed crayfish.
- Discharge assessment under Urban Pollution Management principles.

Basic measures include control of pollution at source through emission limit values and environmental quality standards and may include the use of economic instruments (such as water pricing). The planning process, together with the implementation of the programme of measures, is often referred to as river basin management.

### The National Environment Programme

The NEP relates to a programme of investment to comply with statutory requirements in relation to the aquatic environment driven by the need to:

- Protect sensitive environments threatened by future anticipated future abstraction.
- Ensure continuous and intermittent discharges from treatment works and the sewerage network operate in accordance within their consents.
- Protect properties and external areas from sewer flooding.

The NEP includes investment to address heavily modified water bodies which are at risk of not achieving "good ecological potential". All Yorkshire Water reservoirs are designated as heavily modified water bodies and the Environment Agency has identified those that present significant risks to achieving the status of "good ecological potential". Proposed mitigation measures include modifying downstream flow regimes, provision for fish passage and sediment management.

Yorkshire Water has produced a plan which takes fully into consideration the costs of delivering the NEP, including provision for the WFD which will not be announced until 2016. The Forum understands that other companies, with which it might be compared, may well defer aspects of the NEP and rely on an IDoK or may not have consulted customers on the full programme in as transparent a way as Yorkshire Water.

### Water Framework Directive

The WFD (2000/60/EC) was transposed into UK law in 2003 and came into force on 2 January 2004. The Regulations include an obligation to secure improvements to the ecological quality of natural watercourses and as a minimum ensure there is no deterioration in their status/quality.

The River Basin Management Plan (RBMP) process includes the preparation of a "programmes of measures" at river basin level for achieving the environmental objectives of the Directive and doing so cost-effectively. The planning, implementation and evaluation of the programme of measures is an iterative process that will probably include the river basin management plan based on the six year cycles (which started in 2009) including 2015 and possibly subsequent cycles (2021, 2027).



## The National Environment Programme (NEP) Part 1

Investment agreed with EA to meet obligations under the NEP.

### WFD heavily modified water bodies

#### 14 flow schemes and 11 headwater fish passage schemes

Interventions to reduce the risks of failing to achieve good ecological potential.

- Compensation flows.
- Fish passage.
- Flow trials and an options appraisal scheme.

### Urban Waste Water Treatment Directive

#### Three sites

Schemes required where population growth has triggered the need to provide additional treatment in accordance with the population thresholds (2,000 and 250pe) specified in the directive (including discharges to sensitive waters).

### Storm overflows

**96 high amenity sites; 23 sensitive areas; 43 formal public parks** (includes 43 sites which potentially may be challenged and may be moved out).

Extend monitoring of the duration for which storm overflows operate to all environmental priority locations.

### Water Framework Directive No Deterioration

#### 10 sites

Safeguarding existing river water quality, where taking up existing headroom in a permit (for flow or quality) up to 2015 is predicted to change the river class.

### Groundwater Daughter Directive

#### 13 sites (to be assessed)

The sites require assessment to understand the potential risk of deterioration of groundwater quality as a result of nitrates discharged to ground on the chalk at Waste Water Treatment Works.

### Flow monitoring at WTW

#### 37 sites

5 sites "potentially significant for the environment".

32 where there is "no risk of significant deterioration" and pe > 250.

Requirement to monitor all significant water treatment works discharges to the environment.

### Drinking water protected areas

#### 20 sites

19 groundwater sources have a nitrate risk. (Yorkshire Water has seen risks for nitrate only).

A project to establish the location and dynamics of saline intrusion at Hull.

Investigations and the implementation of findings from previous investigations required to avoid or rectify compliance failures.

### Phosphorous Trials

#### Three sites

Trials to establish whether there are technologies available that can deliver the required performance.

### Chemical investigations

#### 67 sites

17 sites sampling to test presence of "priority" hazardous substances.

2 pilot trials of nationally agreed process technology.

48 sites for expansion of Defra's Chemical Investigations Programme.

### Urban Pollution Management

#### 19 CSOs and 2 storm tank overflow solutions

Implement improvements following AMP5 investigations under the Urban Pollution Management procedure.

### Countryside and Rights of Way Act

#### 10 schemes not subject to cost benefit assessment

### Biodiversity 2020

See separate panel.

### Eel regulations

#### Three sites

Measures are required at two sites plus installation of two eel passes and minor measures at a pumping station at a third.

### Water Framework Directive

#### 12 sites – ammonia

#### 1 site – BOD

#### 11 sites – P

#### 4 sites – dual ammonia and BOD

#### 1 site – ammonia, BOD and P

Measures are required at waste water treatment works which need improving in order for receiving waters to achieve WFD "good" status where the failure for in-river ammonia, phosphorous or biological oxygen demand is due at least in part to a Yorkshire Water asset or some combination of its assets.

### WFD Investigations

Investing in national trials for new treatment technologies for phosphorous to understand whether the level of treatment can be improved and the cost of doing this.



All customer challenge groups\* were asked by Ofwat to incorporate the views of the regulators in their reports. The Forum has not found this an easy task and has concerns that this undermines the status and significance of the regulators. The views of the regulators are detailed, and specific to their respective roles, and are not necessarily consistent with an agenda for affordable bills. The Forum has concluded, on balance, that the letters which set out the views of regulators are more appropriately placed in the appendices rather than in the body of the report and hopes that there will be direct contact by Ofwat with them to discuss relevant issues.

## 6.6 Discretionary spend on the environment

### Introduction

In this section we confirm that the company has tested the scope for discretionary enhancements but has not committed to deliver anything additional to the legal minimum outcomes, as this was not supported by customers. The benefits of closer cooperation to deliver high level outputs are described here.

### Partnership working and the Environmental Advisory Panel

Yorkshire Water's Environmental Advisory Panel (EAP) reports that over the last five years there have been many very significant improvements to Yorkshire's water environment and the ecosystem services it provides. After an absence of nearly a century the iconic, once commonplace, salmon have returned to the River Ouse and River Derwent. The Panel recently identified a number of improvements which can be summarised as follows:

- Reduced pollution and fewer pollution incidents leading to dramatic increases in fish populations and improved biodiversity as a result of much improved water quality in the rivers and bathing beaches from the opening of modern sewage treatment works.

- Improved understanding of how the environment provides ecosystem services, including the dynamics of catchments, resulting in creation of wetlands to provide flood storage.
- Investment to make good the impact of industrialisation such as removing weirs to give fish passage and meet EU regulation standards.
- Shared goals between landowners, for example to manage Yorkshire's uplands leading to increased wildlife value, particularly for threatened species such as moorland birds.
- Yorkshire Waters commitment to climate change, combined with the substantial shift in company policy, which has yet to have an impact, but reflects the importance wider society and some customers put on the water environment.

Many of Yorkshire Water's customers see the water environment as an important and valuable asset. But for the majority of its 1.9 million domestic bill payers, appreciation of the services they receive is limited to water coming from the tap and waste sent down the drain and toilets. Changing customer behaviour lags behind knowledge and understanding – and has a long way to catch up. Yorkshire Water projects a population increase of 20% over the next 20 years and faces a huge challenge to change the perceptions of its customers and significantly reduce both the region's use of water and the production of waste. The risk of serious disruption from droughts, water shortage, floods and anticipated changes in weather patterns makes it a particularly urgent challenge.

The Environmental Advisory Panel has highlighted to us three developments, which we consider briefly below, where a more collaborative working partnership with customers and outside agencies is vital in order to meet common goals and deliver improvements cost effectively.

- Reconciling increasing demands on limited water resources.
- Responding to climate change.
- Providing greater access to water related locations at little or no cost to users.

There is already increasing competition for our limited water resources, between public supply, the environment, food production and food processing.

Climate change is now the best known environmental issue. Climate change adaptation has created opportunities for business and, unexpectedly, for engagement with some domestic customers, for example through renewable incentives. Recent work by Yorkshire Water has highlighted the very significant additional cost associated with reducing the carbon impact of water and waste processing, adapting to warmer wetter winters and hotter drier summers, and coping with more intense weather events. Changing weather patterns will threaten some species and help others; inevitably we will need to adapt to invasive species, pests and diseases.

Maintaining and developing access to low cost, or free, public facilities has taken on increased importance in the current period of austerity. There is already demand for access to the water environment for cycling, walking and fishing and the demand would probably be even greater if more customers were aware of the extent of readily accessible facilities that are available. Collaboration between the company and its customers may be part of the solution to one of the region's most longstanding and common concerns: the blight of commercial and domestic litter on the water environment. There are notable improvements where there has been recent investment, for example along the waterways of Sheffield and Leeds.

Developing an intelligent response to each of these issues in a period of reducing public services suggests a need for new approaches to solving some longstanding issues.

\* Known in Yorkshire as the Customer Forum

## Yorkshire Water will focus on stopping flooding, developing better systems for predicting and monitoring problems and working more effectively with other agencies.

### 6.7 Sewerage network improvements

#### Background

Sewer flooding is identified as one of the worst service failures affecting customers. Solutions are often disruptive and expensive and require a high level of collaboration between various organisations. Progress requires policy changes to ensure new developments, including the many thousands of homes planned for the region, have sustainable drainage systems. Investment is needed to maintain and improve the sewer network, starting with surveying and understanding its condition and capacity.

Yorkshire Water experiences blockages, collapses and inadequate capacity in some sections of the sewerage network. It has to prioritise investment carefully and manage expectations in some quarters that it should fix a wide range of problems, not all of which will be explicitly allowed for in the final determination.

Realistically Yorkshire Water cannot solve all flooding problems and needs to work effectively with the Strategic Flood Defence Partnership to source funding and prioritise limited investment.

Internal flooding of properties has been brought sharply into focus by the very wet summer of 2012. Comparatively low intensity rainfall caused flooding in places where none had been experienced before. The company distinguishes the solutions it has implemented in the past to address flooding of individual properties from its policy for the plan period of reducing incidents affecting, or potentially affecting, a much larger number of properties. Implementing the new policy requires much broader understanding of the risks in the network and its performance under varying conditions. Yorkshire Water will focus on stopping flooding, developing better systems for predicting and monitoring problems and working more effectively with other agencies.

In the past Yorkshire Water has sought to deliver a comparatively fixed list of outputs agreed with Ofwat. Yorkshire Water now plans to hold its current position on sewer flooding by resolving new properties as they arise but looking for much wider additional benefits as well.

#### Forum challenge and conclusions

The Forum emphasised the need for a balance of measures that are aspirational in as far as they stretch the company to achieve outcomes which appear challenging but deliver improvements that customers can afford.

The Forum challenged the company in a number of areas:

- The need for customers to see a co-ordinated response to flooding.
- The need for customers to experience similar levels of risk across the region – regardless of location or strength of local pressure groups.
- Customers need to be empowered to identify and report problems and prioritise solutions – possibly even to help to deliver solutions.
- Customers should be offered options and able to influence outcomes to achieve solutions that address their needs.

There was challenge from the Forum and rebuttal from the company as to whether Yorkshire Water was going far enough and demonstrating sufficient ambition in its proposals on flooding. The company felt it was important to understand the duties on the company under Section 37 of the Water Industry Act and the Environment Agency's role as a risk management authority.

The company stated that it believes it has an obligation to also represent customers' interests and only address issues where failure of Yorkshire Water's assets have contributed to flooding. It cannot be expected to contribute to schemes where there is no link to its statutory obligations or where the problem to be solved is caused by the actions of other agencies, including flood defence works, which compromise the performance of its assets. Yorkshire Water would be unlikely to fund a pumping station in anticipation of flood defences being raised that reduced the effectiveness of an existing outfall.

The Forum emphasised the need for good collaborative working between Yorkshire Water and Lead Local Flood Authorities; Yorkshire Water gave assurances that this is already happening and confirmed it has agreed a data exchange protocol and been given access to the company's public sewer record. The Forum confirmed the need for the company to be more proactive during scheme development and to look to more sustainable projects in future.

Members of the Forum were aware of examples of successful collaborative working including for example in the case of Beverley.

## 6.8 Present and future customers

### Introduction

In this section we consider briefly how the plan balances the needs of present and future customers and Yorkshire Water’s work to develop outcomes.

### Background

The Forum sought assurance that the company had good information on all its assets and could demonstrate an optimal programme of maintenance that was equitable between current and future generations. For example we sought to understand that the company was:

- Carrying out investigations to find the lowest whole life cost solutions.
- Investing sufficiently to understand its assets to determine the appropriate level of investment and particularly in pipes and network assets below ground.
- And was not acting precipitately for example by putting in place capital investment sooner than was needed.

### Forum involvement

A critical issue for the Forum and for customers is the timing of the company’s interventions to maintain service to customers and the environment on a basis that is fair to both current and future generations. Given the long life of many of the assets it is possible for a company to take “maintenance holidays” and hold off the point when it must address maintenance needs knowing that a period of reduced maintenance activity may not be evident to customers or regulators for as much as ten years.

The Forum raised with the company concerns that there was a comparatively widespread perception that it had not invested sufficiently in the past as evidenced by recent events. Under-investment, if it existed, was most likely on the sewerage network and could best be addressed by focused, additional, discretionary maintenance spend.

In the Forum’s view this is a higher priority than discretionary capital spend on enhancements and Yorkshire Water should be concerned to demonstrate that it is not leaving a maintenance backlog for future generations.

In the Forum’s view this suggested that Yorkshire Water had not traditionally “over-bid” on its investment programme and that on the contrary it may be that there had been a history of underspend. Capital investment per property is also comparatively low (Yorkshire Water ranked fourth and fifth in per property investment at PR04 and PR09).

Yorkshire Water has set out measures of success for each outcome and performance commitments for 2015-20. Against the measures it has identified financial and reputational incentives and performance commitments for each of the seven outcomes. In addition it anticipates industry standard incentives for:

- Service incentive mechanism.
- Abstraction incentive mechanism.
- Leakage.

Yorkshire Water has developed a general framework for financial and reputational incentives which it shared in outline with the Forum. We examine the proposed delivery incentives (rewards for delivery and penalties for non-delivery) in the business plan and assess how well they:

- Represent a fair balance between generations (present and future customers).
- Reflect the company’s customer engagement, and customers’ views and priorities.

The Forum has carefully considered the outcomes Yorkshire Water aims to deliver, the incentives that will help with their delivery and the place of both in the plan. Two key questions to resolve for each outcome are who is expected to benefit and what they will receive when the outcome is delivered.

Yorkshire Water has developed performance commitments which fall into three categories

Type of performance commitment	Basis for commitment
Objective target to maintain service	The forecast performance at the start of the plan period
Objective target leading to a change in service	A forecast performance that is clearly linked to the planned investment
Qualitative or subjective target	A trend that shows no worsening in performance

Ofwat has indicated that incentives should be linked to the value customers place on the service they receive. In devising incentives Yorkshire Water highlights that the value customers place on individual service measures exceeds the cost of providing the service. Yorkshire Water has also made the commitment that incentives will be consistent with their statutory obligations and linked to value through the WtP research. The Forum was concerned, however, that the specific issue of rewards has not been tested with customers.

Yorkshire Water explained that its proposal was that performance should be assessed annually with the final assessment in Year 3 of the plan period so that incentives and penalties can be incorporated into the plan for the next period.

The Forum was clear, and Yorkshire Water agreed, that penalties should cause the company to incur an additional cost over and above the cost of putting right the problem – which must be achieved at the company’s own expense. The Forum emphasised to the company that penalties must be funded out of out-performance that would otherwise be distributed to shareholders. An external group may be used to validate performance and ensure that incentives and penalties are appropriately paid.

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## “Yorkshire Water must balance customer expectations with the increasing demands of legislation.”

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Yorkshire Water explained that where financial rewards were proposed they were relatively small and would be applied in such a way that customers were left with a net benefit after the reward was paid for. The Forum acknowledged that, the company had experienced difficulty testing incentives with customers and has found that customers did not readily understand or accept the concept. The Forum pressed the company on the form financial incentives would take, our concerns focused on:

- The need for the company to demonstrate that customers valued, and were willing to pay for, the improvement that may trigger a reward.
- The need to seek the views of customers before the company paid a reward (and/or incurred a penalty) under a proposed incentives scheme, given customers' reluctance to pay modest increases in bills for an enhanced package of limited improvements.

## 6.9 Conclusions – development and delivery of the plan

Yorkshire Water has advanced nearly £50m of expenditure planned for AMP6 into the final year of the AMP5 period. To the extent that this is consistent with maintaining level bills with increases in line with inflation (k=0), which is supported by customers, we believe that this should be welcomed.

The Forum highlighted that at past Periodic Reviews Yorkshire Water was funded for a higher proportion of the investment proposed in its business plan than most other companies. Yorkshire Water has a history of comparatively limited adjustments from Ofwat to its business plan. This is evidenced by the expected increase in bills calculated by Ofwat at the Final Determination in both 2004 and 2009 compared to the modelled increase proposed in the company's business plan. Yorkshire Water had the smallest differential at PR04 and it was smaller only for Wessex at PR09.

The Forum has seen its role to ensure that the company has challenged regulators to an appropriate degree whilst recognising the need to address the NEP in particular. In some instances we anticipated that there might be a need to challenge investment that is planned:

- In response to something that is not strictly a legal obligation.
- To deliver quality enhancements where costs significantly outweigh benefits and/or it is not beneficial to water company customers.
- To address pollution by others, contrary to the polluter pays principle, that is not customers' responsibility.

We welcome the overall approach taken by the company in responding to and on occasions challenging the requirements and believe this is evidenced in the case of phosphorous schemes under the Water Framework Directive described below where we summarise conclusions for the waste water service.

Yorkshire Water tells us it has substantially improved its understanding of risk and performance on the network and although this is beyond the scope of our review it may be an area that would benefit from further scrutiny and confirmation by Ofwat.

The Forum's understanding is that the plan is consistent with the required legal obligations for the water service. In discussions with DWI we have concluded that the relative modest investment to meet new legal obligations (slightly less than £50m) means that the focus of attention should now be on expenditure to maintain assets (slightly less than £650m) and ensuring that it is properly focused on a risk based approach. Provision must be made for a sustainable level of asset maintenance to maintain public confidence in drinking water quality. We understand that the plan currently proposed is intended to achieve that but acknowledge our dependence on others who are better placed to make that assessment.

We welcome the approach in the case of phosphorous schemes under the Water Framework Directive where identifying failing water bodies is based on establishing both the failure of the in-river standard and an associated adverse impact on the ecology of the river. We understand that schemes are included where the reduction in phosphorous is achievable with current technology and leads to either the in-river standards being met or the current class being improved as much as possible.

We have concluded that the plan is expected and intended to deliver the minimum legal outcomes required by the regulators (Natural England, Drinking Water Inspectorate and the Environment Agency). We are aware of the reservations of the EA about a lack of investment but can only reinforce that this was not a priority for customers. Statements from each of the regulators are included in Appendix 5.

Yorkshire Water has planned its investment in new assets (quality enhancement programme) based on what it anticipates will be necessary to comply with mandatory requirements. We believe that it has acted in good faith based on robust planning to meet the requirements of Defra's Statement of Obligations and set out what it "reasonably anticipates will be necessary after 2015" (page 7). It is recognised that detailed scheme requirements under the Water Framework Directive will only be confirmed once the Secretary of State has approved the revised River Basin Management Plans in December 2015 and additional requirements may be identified at that time.

From the customers' perspective we welcome the approach taken by Yorkshire Water and, while Ofwat may wish to make its own enquiries, we confirm our understanding:

- The programme has been developed in an open and transparent way between the company and the regulator.
- Yorkshire Water has fully faced up to the current understanding of likely obligations under the Water Framework Directive to the extent that it can reasonably anticipate those obligations.
- There is no expectation that an IDoK will be required in a future period, for example once the Secretary of State has approved the revised River Basin Management Plans.

Yorkshire Water has mapped its capital investment to the seven outcomes it has developed and we understand that 36% of investment is based on protecting the environment.

We were told that the Environment Agency and Yorkshire Water have developed a constructive partnership in which both are committed to achieving the best possible outcomes based on good evidence.

We understand that Yorkshire Water was the only company that was funded for WFD investigations under the previous final determination (2009). This has been a major benefit in allowing schemes to be included in the current plan with reasonable certainty in advance of the Secretary of State's approval of the River Basin Management Plans (due in December 2015). We welcome the inclusion of further studies in the plan period which should help achieve clarity about future periods.

We believe, on the advice of those members of the Forum who are closer to the statutory programme, that Yorkshire Water has actively cooperated with regulators in modelling the quality of receiving waters and understanding the impact of discharges. By working together, Yorkshire Water and the Environment Agency report that they have cooperated to understand environmental impacts and benefits, so that investment is only planned where there is sound evidence that it is required.

We acknowledge that there remain some areas which will not be resolved before Ministers make decisions in 2016, but we believe that difficult known issues have not been "parked" unnecessarily and that customers should not face unexpected substantial increases to bills when decisions are announced.

Yorkshire Water has to meet challenges from climate change, the recreational use of its assets and sewer flooding from discretionary spend. Developing a more collaborative working partnership with customers to meet common goals is vital in order to meet future challenges.

We welcome the assurances given by the company that it will use the priorities obtained from the WtP and acceptability testing research to determine where it might re-invest out-performance and efficiency savings if any materialise in the next period.

Given the affordability constraints that are a consequence of the current straightened economic times, there is a concern that investment in the statutory programme may have deferred maintenance of long lived assets and displaced discretionary investment that could have delivered other improvements or reduced the risks of service failures.

Yorkshire Water must balance customer expectations with the increasing demands of legislation. Recent legislation has addressed flooding and water quality. Legislation leads to more "must do's" and, in consequence, less discretion for Yorkshire Water and its customers. It leads to prioritisation of international and national obligations over local and community issues and can focus attention on the "quick fixes" at the expense of issues that are harder to solve. Much of Yorkshire Water's very substantial upland land holdings remain some of the region's most degraded habitats for which there is no immediately obvious solution. The temptation for quick-fix solutions to complex issues is always present; an example cited was a return to river dredging to alleviate flooding. Further challenges lie ahead, for example in the development of EU policy for agriculture and fish and the incentives which will drive how the region's land and sea are managed.

The Forum puts considerable weight on the arguments for changed ways of working by the company, customers, investors and regulators to share information and resources to achieve shared goals. The Forum consistently made challenges about the need for a partnership based approach in relation to environmental bodies and to develop partnership working. The Forum felt that the company needs to be more proactive and take a leading role in resolving flooding problems which fall across multiple agencies. Partnership working needs to be the norm, rather than the exception, and this requires a significant shift in culture and ways of working.

Yorkshire Water Customer Forum Report

# Appendices



## Appendix 1 Additional meetings with Forum members

An affordability sub-group has reviewed research and company proposals in relation to social tariffs and affordability.

Date	Representatives from	Scope of meeting
12 June 2012	Environment Agency Natural England	Overview of willingness to pay and how it feeds into CBA
1 November 2012	CCWater	Severity study Net benefit analysis
30 January 2013	Environment Agency	Willingness to pay
18 January 25 April	Environment Advisory Panel	Consultation on PR14 customer research
3 April	CC Water (public meeting)	Approach to PR14 customer research
11 April		Accounting procedures and transparency
25 April	Environment Advisory Panel	Approach to PR14 customer research
25 April	CCWater (quarterly company meeting)	Approach to PR14 customer research
14 May	Environment Agency	Approach to PR14 regulatory outcomes research
10 October	Environment Agency Natural England CCWater	National Environment Programme



## Appendix 2 Composition of the forum

Organisation	Forum Member	Sector
Independent Chair	Andrea Cook	
Drinking Water Inspectorate	Jacqueline Atkinson	Regulator Representative
Citizens Advice Bureau	Annette Cassam	Domestic Customer Representative
Environment Agency	Leonore Frear	Regulator Representative
Confederation of British Industry	John Huddleston	Business Customer Representative
Consumer Council for Water	Barbara Leech	Customer Representative
Natural England	Jeff Lunn	Regulator Representative
University Professor	Adrian McDonald	Independent Academic
City of York Councillor	Dave Merrett	Local Government Representative
Environmental Advisory Panel	David Stewart	Independent Environmental Specialist
AgeUK	Joanne Volpe	Domestic Customer Representative
Federation of Small Businesses	Simon Williams	Business Customer Representative

## Appendix 3 Curricula Vitae

### Independent Chair

#### Andrea Cook OBE

Andrea chairs the forum, ensuring that Yorkshire Water is properly challenged over the quality of its engagement with customers, the integrity of interpretation of customer views and the proper inclusion of customer views in Yorkshire Water's business plan. The chair is responsible for issuing a report, on behalf of customers, to Ofwat on the development and acceptability of Yorkshire Water's business plan.

Andrea's background is in consumer representation and regulation in the energy, financial, legal and water services sectors, with a particular interest in the needs of low income and other vulnerable people and in addressing issues of affordability. She has extensive experience as a non-executive director in the public and private sectors and has also served on key Government committees, including the UK Round Table on Sustainable Development and the Renewable Energy Advisory Committee. She has been a member of numerous international delegations on energy, the environment, poverty and employment, including the Climate Change negotiations in Kyoto in 1997. Andrea was awarded the OBE in 1990 for services to tackling fuel poverty which led to the insulation of 4 million homes. She is also currently an Independent Member of the Parole Board. She is the Independent Chair of the Customer Challenge Groups for Northumbrian Water, Yorkshire Water and United Utilities.

### Drinking Water Inspectorate

#### Jacqueline Atkinson

Regulator Representative

DWI aims to help protect public health and maintain public confidence in drinking water through independent, effective and proportionate regulation of the quality of drinking water supplies, and providing independent technical advice on all aspects of drinking water quality. Its main job is to check that the water companies in England and Wales supply safe drinking water that is acceptable to consumers and meets the standards set down in law.

### Citizens Advice Bureau

#### Annette Cassam

Domestic Customer Representative

CAB aims to provide the advice people need for the problems they face and improve the policies and practices that affect people's lives. It provides free, independent, confidential and impartial advice to everyone on their rights and responsibilities. The bureau values diversity, promotes equality and challenges discrimination.

### Environment Agency

#### Leonore Frear

Regulator Representative

Leonore is PR14 programme coordinator at the Environment Agency. The EA aims to protect and improve the environment, and to promote sustainable development. It plays a central role in delivering the environmental priorities of central government. Its job is to create a better place for people and wildlife and to do it in an environmentally sensitive way.

### Confederation of British Industry

#### John Huddleston

Business Customer Representative

John is responsible for account management across the three CBI regions of the north (Yorkshire and the Humber, North West and North East regions) he works on policy engagement, business intelligence and lobbying; he leads on medium sized businesses.

The CBI aims to deliver results for business by lobbying and campaigning by keeping business interests at the heart of policy in Westminster, the devolved administrations, across the UK regions and internationally. It works to deliver benefits for consumers and communities.

### Consumer Council for Water

#### Barbara Leech

Customer Representative

Barbara is a Policy Manager at the Consumer Council for Water, the organisation which represents customers of water and sewerage companies. It will take up consumers' complaints if they have tried and failed to resolve issues with their water companies. Based in the North East of England she has over ten years experience of speaking up for water consumers through her work with local water and sewerage companies, including Yorkshire Water, scrutinising and challenging their services from the customer's perspective and encouraging them to put the consumer at the heart of their plans and decision making. She is also the lead policy manager on debt and the vulnerable in society for the Consumer Council for Water nationally, and through this work has close links with Water UK, Citizens' Advice.

### Natural England

#### Jeff Lunn

Regulator Representative

Jeff Lunn is Area Manager for Natural England in Yorkshire & the Humber region. Natural England is the government agency responsible for ensuring the conservation and enhancement of the natural environment across England. He has worked for Natural England and its predecessors since 1985 across the UK and prior to that worked with the private sector in biological publishing, the water industry and in the voluntary environment sector.

He is a Director of the Humber Industry & Nature Conservation Association and a Director of Pennine Prospects (a regeneration company in the South Pennines), Chairman of the Humberhead Levels Partnership, and is a Chartered Environmentalist and founder member of the Institute of Ecology & Environmental Management.

Natural England's remit is to ensure sustainable stewardship of the land and sea so that people and nature can thrive. It has a responsibility to see that England's rich natural environment can adapt and survive intact for future generations to enjoy. It provides practical advice, grounded in science, on how best to safeguard England's natural wealth for the benefit of everyone.

### University Professor

#### Adrian McDonald

Independent Academic

Has specific interest in the areas of water security and water balance. Research interests focus on environmental management, with particular emphasis on the following fields: resource assessment, natural hazards, microbial dynamics, water colour processes and control, catchment planning and risk, decision support systems, and water demand assessment. Previous research experience also includes diffuse pollution assessment and forecasting, biofuel futures in the energy economy and alternative disputes resolution.

### City of York Councillor

#### Dave Merrett

Local Government Representative

Cllr Dave Merrett represents the Yorkshire & Humber Local Authorities, and is currently Cabinet Member for Planning, Transport & Sustainability at City of York Council. Dave is an active member on the Yorkshire & Humber Regional Flood & Coastal Protection Committee. He is a chartered civil engineer working for Amey Consulting in the rail sector and an active member of a number of environmental organisations.

### Environmental Advisory Panel

#### David Stewart

Independent Environmental Specialist

A previous Vice-Chair and Chair of Yorkshire Water's independent Environment Advisory Panel David has a good understanding of the environmental issues and challenges that Yorkshire Water faces having participated in the PR09 and PR14 planning. He was awarded an OBE for Services to the Environment. Past Minister-appointed chairman of the statutory Environment Agency's Fisheries, Ecology and Recreation Advisory Committee for the North East & Yorkshire regions. He is the Managing Director of Tyne Team Ltd, a consultancy business providing innovative services to public and private sector on rural issues, sustainable communities and environment conservation.

David's current honorary appointments include the elected chair of chairs for the Regional Rural Affairs Forums, leading the chairs' interface with ministers and government, and also serving on the Rural Development Programme England performance monitoring committee. He serves as elected chair of North East Rural Affairs Forum as well as serving as vice chair of the North East Regional Development Board, the SustainE board and the North East Commission for Rural Health, as well as acting as adviser to the regional committee of the Country Landowners Association. Previous relevant professional experience includes Chief Executive of Northumberland Wildlife trust and Area Manager for the National Trust.

### AgeUK

#### Joanne Volpe

Domestic Customer Representative

Age UK aims to improve later life for everyone through its information and advice, services, campaigns, products, training and research. It works for a world where, among other things, older people are equal citizens with equal rights, have enough money for a secure and decent life, have access as consumers to the products and services they need at a price they can afford, have the opportunity to live healthier longer lives and to enjoy a sense of well-being and live in homes and neighbourhoods that are safe and comfortable and which enable them to lead fulfilling lives.

Joanne has been with Age UK Yorkshire & Humber for almost five years, working on projects that span the region. Part of her work is to ensure the voices of older people are heard at all levels. To do this she supports the forum on ageing for Yorkshire & Humber: Future Years. This is a forum of older people who work to ensure policy and service development take into account their impact on older people.

### Federation of Small Businesses

#### Simon Williams

Business Customer Representative

The Federation of Small Businesses aims to be the most effective organisation promoting and protecting the interests of the self employed and small business owners within the UK. Formed in 1974, it has 200,000 members and is committed to delivering a wide range of high quality, good value business services to members.

## Appendix 4 Summary of challenges

THE FORUM'S CHALLENGE	RESPONSE FROM YORKSHIRE WATER
PR14 CUSTOMER RESEARCH STRATEGY	
Forum highlighted the need for customers to play a more active part in helping meet shared goals; customer views need to be considered when setting short and long term investment plans.	Yorkshire Water agreed there would be an opportunity for this when developing outcomes and Strategic Business Objectives.
WILLINGNESS TO PAY - QUALITATIVE STAGE	
In order for customers to make informed choices they should know that bill increases are linked to RPI in addition to those for the benefits being tested.	Research materials (discussion guide and questionnaires) were tested with customers prior to the main study.
Yorkshire Water should not evaluate WtP for safe water quality in relation to lead (Pb). A benefits transfer value should be derived instead in accordance with guidance set out in UKWIR research.	Lead removed from WtP survey and benefits transfer valuation to be derived.
Yorkshire Water should not evaluate WtP for safe water quality in relation to biological/chemical standards. A benefits transfer value should be derived instead in accordance with guidance set out in UKWIR research.	Safe Water Quality included in the main WtP study, and Yorkshire Water investigated the feasibility of obtaining a benefits transfer value. After a review of the available literature and much deliberation the academic team supporting Yorkshire Water advised that the lack of revealed preference data, mitigation costs and cost of illness attributable to safe water quality, meant that a benefits transfer approach would not produce reliable estimates. Yorkshire Water concluded that for PR14 the value of improvements to meet safe water quality needs to be based on an alternative stated preference value. Yorkshire Water included the measure in the willingness to pay study to derive a stated preference value for 'Safe Water Quality'.
Forum suggested that a small number of household that have experienced service failure (eg internal flooding) should be included in survey.	Customers who have experienced service failures were not explicitly included in main survey, but customers' views of service failure were captured during the qualitative stage from those in the random sample of customers recruited to take part in the research and some of those had actually experienced service failures.
If using questions not already tested as part of UKWIR study appropriate cognitive testing should be included.	The Forum and Yorkshire Water recognised that it was essential that those taking part in the survey really did understand the questions in their proper context. Cognitive questions were included throughout the WtP study and the results show that respondents understood what was being asked and presented to them.
Forum argued that Yorkshire Water should questions business customers as to whether they are dependant on water/ sewerage services to operate on a routine day to day basis to establish whether they would place a greater value on water and sewerage services.	For business customers questions were included in the qualitative survey to establish the value they place on water and sewerage services.
Forum highlighted that there was no reference to the recent drought or use restrictions in other parts of the country and questioned whether media coverage would influence results from WtP study.	Yorkshire Water confirmed that it would not ask customers of Yorkshire about specific issues in other regions; the qualitative stage would draw out any customer views or concerns.

THE FORUM'S CHALLENGE	RESPONSE FROM YORKSHIRE WATER
PR14 CUSTOMER RESEARCH STRATEGY (contd)	
WtP introductory text and showcards should clarify what customers can and cannot influence eg the distinction between statutory and discretionary investment.	Introductory text and showcards agreed by Forum.
Within security of supply there is no reference to leakage or metering	CCW confirmed that the UKWIR guidance recommends that leakage should not be included in WtP surveys and should be tied into Security of Supply. Yorkshire Water supported this approach.
Proposal to merge a number of service areas (lead, discolouration, pollution) into a more holistic ecosystem services approach.	Yorkshire Water resolved to present separate service areas in the final WtP study which reflected UKWIR guidance.
Very small sample size (0.04%) could limit validity of results. The Forum sought confirmation that the random sample would be representative of the Yorkshire region.	Yorkshire Water confirmed that the sample size is valid and representative of the Yorkshire region.
WILLINGNESS TO PAY (contd)	
Forum challenged both the "service area" heading shown on the research stimulus and the content which it felt should be changed to be more accurate and avoid potential confusion.	The heading "Bacterial/Chemical Water Quality" changed to "Safe Water Quality" and related content revised (following customer feedback and forum challenge).
The Forum felt that whether customers had lead pipes or not was critical to their response and more supporting information was required.	Lead removed from WtP survey and benefits transfer valuation to be derived (See also item above with identical response (13)).
The Forum made a large number of detailed comments on the volume of information, the clarity and accuracy of technical terms presented to customers for the WtP Qualitative Stage.	The Forum commented on all of the material at each stage and the company responded to all input from the Forum, made the changes it judged appropriate and advised where it had decided not to make suggested changes. The Forum is content that the final material was of a high standard and appropriate to the research.
The aims and objectives for all the research from the qualitative stage should be clear throughout the engagement process.	Yorkshire Water agreed.
Forum challenged the wording on topic guides and the presumption of increasing bills and asked whether customers would be given the opportunity to indicate whether they consider that service levels are good enough, need improving or could even be reduced and offer customers a corresponding impact on the bill.	Topic guides amended and agreed with Forum members.
PR14 CUSTOMER RESEARCH STRATEGY (contd)	
Following initial presentation of the Valuing Water research and the key components of the customer engagement process the Forum sought specific discussion about obtaining customers' views on the environment and how research results are assessed and fed into CBA.	Meeting held with EA and NE (12 June 2012) to explain approach.

THE FORUM'S CHALLENGE	RESPONSE FROM YORKSHIRE WATER
<b>WILLINGNESS TO PAY</b>	
<p>Yorkshire Water should compare and contrast WtP results with those obtained for PR09.</p>	<p>Paper circulated and presented to Customer Forum (26 February 2013).</p>
<p>The Forum members expressed their opinion that the term 'willingness to pay' was confusing. It somehow creates a sense there is a 'pot of money' available for investment that customers support. The research method does not determine customers overall willingness to pay for improvements.</p>	<p>Yorkshire Water agreed to consider alternatives and that possibly 'Service Values Research' might be used. The Forum and Yorkshire Water agreed that there was limited scope in this price review to change the terminology. It should be looked at afresh once PR14 has been completed.</p>
<p>There was consistent challenge throughout the process as to how the company captures issues in respect of the environment and the need for pressure groups, the Environment Advisory Panel (EAP) and Yorkshire Water to work together effectively.</p>	<p>The company principally captures issues through engagement/ dialogue with environmental bodies and NGOs but recognises the need to go further.</p>
<p>Yorkshire Water needs to be clearer about the basis for assessing costs presented to the Forum especially in relation to the environment and whether only capex is considered.</p>	<p>Yorkshire Water confirmed that it assesses whole-life costs including opex, discounted over a 40 year period.</p>
<b>REGULATORY OUTCOMES</b>	
<p>Admin (clarification about sewer flooding) Prioritisation of flooding that is not a statutory requirement.</p>	<p>The Forum consistently made challenges about the need for a partnership based approach in relation to environmental bodies and to develop partnership working. The Forum felt that the company needs to be more proactive and take a leading role in resolving flooding problems which fall across multiple agencies.</p>
<p>The regulatory outcomes initially proposed in the Phase 1 research were phrased as statements about Yorkshire Water activities rather than the outcomes Yorkshire Water wished to achieve. The outcomes should be expressed in plain English and SMART (simple, measurable, attainable, relevant and time-bound).</p>	<p>Regulatory outcomes re-stated and much improved.</p>
<p>The Forum highlighted that the regulatory outcomes, initially proposed in the Phase 1 research, appeared to emphasise the outcomes and objectives on the water service and should be rebalanced to the waste water service when they were reviewed.</p>	<p>Regulatory outcomes re-stated and much improved.</p>
<p>Yorkshire Water needs to identify the assumptions that have been made about energy price inflation in cost-benefit analysis.</p>	<p>The Forum looks to Ofwat to challenge key assumptions - eg energy prices, the proportion of energy that is self-generated.</p>
<p>How are changes in the probability of events taken into account in WtP research? Whether the cost of solutions are estimated in today's prices or take account of trends in future costs?</p>	<p>Probability has been expressed relative to the reference point of what customers currently experience. The Forum accepted assurance given by Yorkshire Water that the costs factor in future needs driven by climate change as well as current needs.</p>
<b>RESILIENCE AND CLIMATE CHANGE</b>	
<p>The Forum sought visibility of the greatest areas of risk from climate change and company plans for mitigation.</p>	<p>The company briefed the Forum on current thinking on climate change at a workshop (16 September) and members commented on the climate change strategy document which was updated and revised as a result.</p>
<p>The company sought Forum involvement in climate change engagement strategy and the Forum offered extensive comment and challenge, highlighting the need for a collaborative approach to make the best use of partner organisations.</p>	<p>The Forum accepted assurances by Yorkshire Water that it does so (and will continue to) work with and rely on partners.</p>

THE FORUM'S CHALLENGE	RESPONSE FROM YORKSHIRE WATER
PR14 COMMUNICATIONS STRATEGY	
That the company should provide a more detailed customer engagement plan, explaining how Yorkshire Water is engaging with domestic and business customers and its plans for schools.	Comms strategy a recurring agenda item, Forum regularly updated.
The wider customer engagement plan would be more effective if it focused the benefits to customers from water efficiency in terms of money saved rather than in terms of water savings.	Yorkshire Water suggested it should have a dual approach.
Whether Yorkshire Water kept a record of how many people it had come into contact with.	Yorkshire Water updated the Forum on the total number of contacts made with customers at stages throughout the engagement process.
ENVIRONMENTAL OBLIGATIONS	
How will Yorkshire Water's response to widespread flooding be more effective in future given recent experience? Yorkshire Water should clarify the lessons learnt and explain how the company will deal differently with any future widespread flooding events. For example: clarity of responsibilities, what is possible for the company to deliver, how the company manages expectation?	Paper presented to Forum.
REGULATORY OUTCOMES	
The Forum made a large number of detailed comments on the research material to test draft Regulatory Outcomes and Measures of Success with customers (Stage 1). The Forum suggested that further review was necessary.	Outcomes reviewed and amended in the light of comments received.
Forum comments included the proposal that Yorkshire Water should: <ul style="list-style-type: none"> <li>• improve clarity</li> <li>• not constrain the opportunities for further innovation by being too specific in its research material about future approaches</li> <li>• highlight benefit to customers from access to land</li> <li>• test importance of an outcome related to climate change</li> <li>• use plain English.</li> </ul>	See above.
DWI expressed concerns about the number of events that have been reported to it over the previous year and the Company's approach to asset management and operations. Irrespective of what customers want to see, the Company should look to improve its serviceability assessment, because of the impact that drinking water quality events can have on consumers and the risks to public health.	Yorkshire Water acknowledged the concern, gave assurances that the issues are being addressed and confirmed Ofwat's assessment of "stable" serviceability.



THE FORUM'S CHALLENGE	RESPONSE FROM YORKSHIRE WATER
ACCEPTABILITY TESTING	
In general, wherever bills will be subject to inflation increases, it would be useful context to express inflation in monetary terms to show the amount that inflation is expected to add to bills over the current five year period up to 2015.	Impact of inflation made explicit.
Yorkshire Water to give assurance that by keeping bills increases in line with inflation would not compromise future environmental obligations and improvements or an increase in risk from under-investment in asset maintenance.	Yorkshire Water gave assurances (EA/Yorkshire Water Joint Management Group meeting June 2013) that Yorkshire Water will meet all environmental obligations set out in the NEP to date.
Some 25 year aspirations cannot easily be measured eg "Make sure the people of Yorkshire always enjoy the safest drinking water".	Yorkshire Water decided to remove 25 year aspirations from the stimulus materials as these were internally focused and aligned with our SBO's, they are not customer focused.
Statement implying that sewage is cleaned to a higher standard than the receiving waters is misleading. It is treated so that its impact on the receiving waters will be within acceptable limits.	Statement corrected to read: "continue to ensure treated waste water meets legal standards when it is put back in to rivers and the sea".
Option to protect Withernsea should not be presented to customers as a choice as Yorkshire Water will be obliged to proceed with it under its existing obligations anyway.	Removed.
Statement implying that sewerage operations have no harmful impact is misleading.	Corrected.
Yorkshire Water needs to qualify the timeframe for the baseline from which it plans to reduce the numbers of pollution incidents.	
The Forum made a large number of detailed comments on the Qualitative stage (Stage 1) of "Acceptability testing" in terms of the clarity and accuracy of technical terms presented to participants in the stimulus materials.	The company responded substantively to input from the Forum, made the changes it judged appropriate and set out its position where it had decided not to make suggested changes. The Forum is content that the final material was of a high standard and appropriate to the research.
Customers should understand that decisions on affordability of measures under NEP lie with ministers.	Yorkshire Water confirmed it will be meeting all committed environmental obligations now and in the future.
Statements about NEP investigations are not strictly accurate.	Yorkshire Water removed NEP Investigations from the research testing phase.
The Forum argued strongly that the company was obliged to meet health and safety standards and was not justified in suggesting customers might like to pay for an enhanced health and safety performance level.	Yorkshire Water removed H&S from the research testing phase.
ACCEPTABILITY TESTING STAGE 3 (Quantitative)	
Wording on research material was misleading: everything implies the whole plan.	Wording corrected.
Clarification of CO <sub>2</sub> obligation on the company, there is scope for the company to set its own target, in which case it remains uncertain what acts to incentivise the company.	
The options presented to customers included two that were positive, but only one that was negative.	Additional option added to give 2 positive, 2 negative and a neutral option.

## Appendix 5 Regulators' Reports

### Drinking Water Inspectorate

#### Formal Drinking Water Proposals Requiring DWI Technical Support

Water companies seeking technical support from the DWI 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.

Yorkshire Water submitted six 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
YKS23	Langsett No. 2 WTW	Colour, Disinfection By-products	Treatment	Provision of additional clarifier & Rapid Gravity Filtration (RGF) capacity, with enhanced sludge handling capacity.	Regulation 28 Notice
YKS24	Rivelin No 2 WTW	Cryptosporidium, Colour, Disinfection By-products	Treatment	Ferric sulphate coagulation with DAF process and additional RGF capacity.	Regulation 28 Notice
YKS25	Irton WTW	Cryptosporidium, Pesticides, Disinfection By-products	Treatment + Catchment Management	Provision of optimised coagulation pH, installation of ozone contact & GAC absorbers.	Regulation 28 Notice
YKS26	Selby Supply System (Great Heck and Cowick WTWs)	Microbiological parameters (bacteriological)	Treatment	UV installation for disinfection.	Regulation 28 Notice
YKS27	Catchment Management - 7 WTWs	Metaldehyde	Catchment Management	Catchment actions.	S19 Undertaking
YKS28	Lead Strategy	Lead	Company lead strategy	Package of measures.	Regulation 28 Notice

The company has been commended by the DWI on the quality of the submissions, which were received slightly in advance of the published deadline of 31st July 2013 and is supportive of the Company's approach.

The inclusion of disinfection by products as a parameter in three of the above proposals relates to the new Regulation 26(1A) in the Water Supply Regulations 2010, which requires companies to minimise the formation of disinfection by-products during treatment and in distribution, without compromising the effectiveness of any disinfection stages.

The Inspectorate has formally supported all of the company's proposals and will put legal instruments in place to make the proposals legally binding programmes of work. It issued final decision letters to Yorkshire Water on 6th and 8th October 2013.

The proposal for Cowick and Great Heck WTWs was based on deterioration of microbiological quality of the raw waters and the need for more robust disinfection. The evidence provided by the company in support of the deterioration of raw water quality was inconclusive, but intends to put a Notice in place to protect consumers. Yorkshire Water has stated that it will include the schemes in its capital maintenance plan.

The proposal for a comprehensive programme of catchment management actions is primarily to address metaldehyde, to mitigate the risk of contraventions of the standard in drinking water. There is currently no feasible and sustainable treatment option available to remove this substance from drinking water. The schemes are included in the NEP, but the DWI will put (one or more) legal instruments in place to make the schemes statutory binding programmes of work to achieve compliance with the drinking water standard, where there is an identified risk to wholesomeness. The following water treatment works are covered by the proposal: Acombe Landing, Eccup No.2, Elvington, Huby, Loftsome Bridge, Tophill Low and Irton.

The DWI envisages that a legal instrument will be required for all of these works.

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 Yorkshire Water to determine and deliver. For its part, the DWI 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.

## Environment Agency

### EA summary of environmental challenges faced by Yorkshire Water

The company, through its water and wastewater operations, has a significant impact on the environment. The raw water taken from surface and groundwaters impacts on environmental quality, the treated sewage impacts on ecological and chemical quality in receiving waterbodies, and overloaded or blocked sewers can lead to flooding or increased pollution risk in rivers and lakes. The Water Framework Directive is driving tighter treatment standards at waste water treatment works, requiring the removal of chemicals that impact on the environment. In operating its reservoirs, which are classified as Heavily Modified Water Bodies (HMWBs) under the WFD, the company needs to ensure that flow regimes are enabling conditions that meet good ecological potential as soon as possible, and by 2027 at the latest.

Yorkshire Water must also consider the challenges of development growth and climate change; and their implications for water resources, water quality, flooding and the wider environment.

These are challenges that will require significant investment to meet minimum obligations and maintain current levels of service.

Meeting these challenges will require the company, and the wider industry, to explore the use of new technology, to find innovative solutions and to work in partnership with others.

### Summary of EA regulatory report

The Environment Agency has been asked by Ofwat to highlight within this report whether or not Yorkshire Water's plan provides adequate assurance that it will meet its current and future statutory obligations.

It is stated that it is not possible to provide absolute assurance that all current and future statutory environmental obligations will be met. The EA has not seen the final business plan in full and Water Resource Management plans have yet to be finalised. However, the Environment Agency has used information provided by the company to evaluate the company's PR14 commitments. The report was shared with the company and the Forum and is reproduced below; the key findings are as follows.

- Yorkshire Water has provided adequate information and assurance to demonstrate how it plans to deliver its statutory environmental obligations as set out in Defra's Statement of Obligations (as well as subsequent direction on increased ambition for chemicals and monitoring of storm discharges).
- The EA welcomes the company's assurance that they aim to achieve 100% compliance with their licences and permits.
- The EA has stated that Yorkshire Water has an overarching responsibility to control its impact on the environment. It expects to see capital maintenance investment targeted at minimising all uncontrolled discharges to the water environment, with particular focus given to avoiding serious incidents. It is disappointed that the company is not proposing any funding to reduce pollution incidents throughout the plan period. Their performance commitment to maintain incidents at 260 per year over the period falls short of the EA's expectations.
- The EA welcomes the company's assurance that its business plan will be fully aligned with its final Water Resource Management Plan.
- Significant provision is being made within Yorkshire Water's business plan to manage currently uncertain WFD obligations. The EA supports the benefits-led approach adopted by the company, and feels that it is based on strong evidence and reasonable assumptions. It is concerned, however, that the approach may result in back loaded investment requirements in subsequent AMPs to deliver WFD improvements by 2027.
- There is evidence that the company is embracing an integrated catchment management approach to planning for the environment and is seeking innovative ways to deliver improvements. Its commitment to encourage partnership working across the business, through catchment management, fish passage, catchment pilots and flood risk, should deliver benefits for customers beyond those they could achieve on their own.
- As a risk management authority (RMA), Yorkshire Water has recognised its obligation to collaborate and share information with partners to reduce the risk of flooding from all sources. The EA welcomes the progress being made in this area, particularly the company's proposal to allocate funding to enable proactive, joint partnership working with other RMAs. This is a strong signal of the company's intent to adopt a collaborative approach to flood risk partnership engagement, which it is hoped will deliver better and more cost effective solutions for customers in high flood risk areas. The EA has stated that it looks forward to working with the company to explore the extent of opportunities available.

## EA Evaluation Report and 18 November Update

18 November 2013- Update following further communication with the company.

### Response to Yorkshire Water Services

Following receipt of our evaluation report on 31 October 2013, we have been involved in further discussions 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 EA recommendations:

EA Recommendation	Yorkshire Water response
<b>PR14 CUSTOMER RESEARCH STRATEGY</b>	
Plan to achieve 100 per cent compliance for all licences and permits.	Confirmation that the business plan aims to achieve 100% compliance with licences and permits.
Plan to reduce serious pollution incidents towards zero, and less serious incidents by at least a third by 2020.	The company cannot give this assurance. They say there are no funded proposals within PR14 to reduce pollution. However, pollution reduction remains an important area of focus and there is continued commitment to pursue efficiency and effectiveness gains in pollution prevention activities and make further improvement where possible. Following a reducing trend in AMP5, their performance target for PR14 is to maintain 260 incidents per year, with a focus on trying to eliminate cat 1 and 2 incidents through their base maintenance activities.
Continued engagement in River Basin Management Plan process.	The company commit to continuing excellent engagement with the EA in this respect.
Change mechanism process for dealing with uncertain legislative requirements.	Confirmed intention to use Relevant Change of Circumstance 1 (RCC1) if required.
Proposals for flood risk reduction investment.	The company proposes to allocate 10% of the flood risk programme to pro-active partnership working with other flood risk management authorities. They commit to continue dialogue with the EA on flood risk reduction issues, and to continue working with LLFAs to understand what other interventions might be required in the future.

Based on the further information provided to us, we make the following observations:

- We welcome your assurance that you are planning to achieve 100% compliance with your permits and licences.
- We are disappointed that Yorkshire Water is not proposing any funding to reduce pollution incidents throughout the plan period. This falls a long way short of our expectations which were clearly outlined by Paul Leinster in his letter in August 2013. It also puts the company at risk of future enforcement and prosecution which is not acceptable. You have an overarching responsibility to control your impact on the environment. We would expect to see capital maintenance investment targeted at minimising all uncontrolled discharges to the water environment, with particular focus given to avoiding serious incidents.
- We are pleased with your continued commitment to proactively engage with the River Basin Management Planning process.
- You have given assurance of your proposed change mechanism to deal with uncertain legislative requirements.
- We welcome your proposal to allocate funding within your flood risk management programme to enable joint partnership working with other RMAs. This is a strong signal of your intent to adopt a collaborative approach to flood risk partnership engagement which we hope will deliver better and more cost effective solutions for your customers in high flood risk areas. We look forward to working with you to explore the extent of opportunities available.

## Covering letter

Richard Flint  
Yorkshire Water  
Western House  
Halifax Road  
Bradford  
West Yorkshire  
BD6 2SZ

Our ref: DRD/YWS  
Date: 31 October 2013

Dear Richard

### **Yorkshire Water Business Plan evaluation report**

I would like to thank Yorkshire Water for providing the Environment Agency with material from your draft business plan.

In the attached report, we have used this information to assess the extent to which your business plan will meet your statutory requirements, and the environmental obligations set out in Defra's Statement of Obligations.

When making our assessment, we have reviewed how quickly you are planning to deliver your obligations, together with your overall level of performance. For your river basin management plan proposals in particular, Ministers are looking for assurance of early delivery wherever possible.

My team would be happy to discuss the report with you. We would be pleased to include any clarifications before we contribute to the Customer Challenge Group report and prior to our submission to Defra in mid November.

We look forward to continuing to work with Yorkshire Water to help ensure that your investment protects and improves the water environment, for the benefit of your customers and the economy.

Yours sincerely

**David Dangerfield**  
**Director North East Region**

## EA Evaluation Report

### Response to Yorkshire Water Services

#### 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 believe that Yorkshire Water has engaged openly and transparently with the Environment Agency in developing your business plan, and that you have showed a high degree of commitment to ensure you deliver your statutory environmental obligations.

From the evidence submitted and through ongoing dialogue, we are of the opinion that your business plan is robust. You have based your business plan on a flat bill model of consolidation and maintenance of current levels of service. This should not limit your ambition to maximise your outcomes for the environment and to show strong leadership in this area. The need to focus on outcomes, to think innovatively and to adopt a catchment based approach, in collaboration with others, is greater than ever.

We can see evidence that you are embracing a more integrated approach to investment planning for the environment. You are seeking cost effective and innovative ways to deliver environmental improvements, through integrated catchment management for both clean and waste water issues, adaptive management investigations

for heavily modified water bodies, and a proposed new approach to sewer network management. Your intention to work in partnership on catchment management, fish passage, catchment pilots and flood risk should deliver benefits beyond those you could achieve on your own.

On operational performance, we set out in our expectations letter at the end of August our requirement for companies to plan for 100 per cent compliance for all licences and permits and to reduce serious pollution incidents towards zero by 2020. We expect you to have a plan in place to meet your legal obligations, and to see this as a target within your business plan. We are encouraged that you have an overarching ambition of zero failing works and that are planning to use your capital maintenance programme to improve current compliance and performance. However, we have not seen information at a detailed enough level to comment on whether this will be sufficient to meet our expectations to 2020.

We have worked closely and effectively with you in developing the National Environment Programme (NEP). Regular engagement and constructive challenge at our joint management steering group and technical sub groups has helped ensure that all measures proposed are based on strong evidence and are required to meet statutory legislative drivers. We welcome your assurance that your plan includes investment to deliver the NEP and revised Water Resource Management Plan (WRMP) components.

We consider the approach you have taken to managing uncertain Water Framework Directive (WFD) obligations to be robust and reasonable. You have planned a phased delivery of your obligation up to 2027, investing first in schemes at sites where standards can be met within technically feasible limits and where there is evidence of ecological impact. Whilst we support this evidence based approach we would advise against potential back-loading of river basin management plans obligations, and ask that you propose a clear price adjustment mechanism within your business plan

to readdress investment proposals once there is greater certainty around these. Defra is looking for assurance of early delivery where possible.

You have recognised that delivery of your duties as a Risk Management Authority (RMA) requires dedicated resource to focus on partnership working and engagement with other RMAs. Your new flood strategy team has a critical part to play in sharing data and aligning investment plans to optimise identification and delivery of cost effective solutions that will reduce the risk of flooding to your customers irrespective of the source. We welcome your commitment to drive behavioural change in this area through incentivising delivery of sustainable joint partnership solutions. We acknowledge that you have used outputs from your customer research to determine your funding proposals for managing your sewer flooding obligations, and that you are planning to maintain current levels of service. However, the best companies in this field have recognised the savings and enhanced outcomes that can be achieved for their customers by working with other partners to deliver strategic flood risk reduction projects. We consider that there are opportunities for you to play a greater part in identifying and participating in such projects, particularly in high flood risk locations such as Hull and the Upper Calder Valley. We would encourage you to review your sewer flooding investment proposals to ensure that your plan delivers maximum benefits for your customers and the environment.

#### We support:

- Your commitment to deliver the NEP, including Defra's increased chemicals investigation programme and combined sewer overflow (CSO) requirements.
- Your positive approach to transitional investment to deliver phosphorus trials and priority chemicals investigations.
- Your commitment to the alignment of your business plan with your final WRMP.



- Your phased approach to managing uncertainty to 2027.
- Your risk based, adaptive and integrated catchment management approach to maximise outcome delivery.
- Your commitment to embed the Drainage Strategy Framework into your business activities during AMP6.
- Your recognition of your enhanced role as a RMA, and the need to engage proactively in partnership working with other RMAs.
- Your integration of climate change and resilience measures across all weather dependant aspects of your business plan.

#### We need to see:

- A plan 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.
- Demonstration in your business plan how you can reduce serious (category 1 and 2) pollution incidents year on year to achieve a trend towards zero by 2020. There should be at least a 50 per cent reduction compared to numbers of serious incidents recorded in 2012.
- Greater commitment to minimise all pollution incidents (category one to three) by 2020. There should be at least a third reduction compared to numbers of incidents recorded in 2012.
- A clear message within your business plan regarding the need for greater collaboration with partners, particularly in the area of flood risk where your participation is critical to the delivery of joint solutions that reduce the risk of flooding to your customers.
- Continued commitment to sharing of data and investment programmes with partners to enable multi-benefit integrated catchment solutions to be delivered at least cost.

#### 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) Pollution incidents and compliance.

The details provided suggest that your targets for permit compliance are less than 100%. Based on maintaining serviceability, you expect to have around four failing works. You also state that you have an overarching ambition of zero failing works and that are planning to use your capital maintenance programme to improve current compliance and performance. However, we have not seen information at a detailed enough level to comment on whether this will be a sufficient level to meet our expectations to 2020.

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 you to plan for a trend towards zero serious (category one and two) pollution incidents by 2020. Please provide further information on the actions you will take to improve your current operational performance to meet your legal requirements.

##### 2) Delivery of statutory and environmental requirements.

We welcome the commitment you have made to meet your environmental obligations. Based on the information provided in your submission, we believe that you have demonstrated in most areas how your business plan will allow Yorkshire Water to meet the statutory environmental requirements set out in Defra's Statement of Obligations, along with the subsequent directions on increased ambition for chemicals, and monitoring of storm discharges. However, we do require you to provide a commitment within your business plan to deliver 100% compliance on permit conditions and a reducing trend towards zero for category one and two pollution incidents by 2020.

##### 3) 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 believe that the programme will allow you to deliver what is best for both the environment and your customers.

##### 4) Transition investment programme.

For bathing waters, the Chemicals Investigation Programme, and the national phosphorus trials we have set delivery deadlines early within the AMP6 period. These timescales enable statutory obligations to be met, as well as planning for PR19 and river basin management plan outcomes to occur. We notice that you have identified a need for transitional spend on these aspects of your business plan and are pleased that your company recognises the importance of early planning to meet these important deadlines. We support the need for transitional spend on these aspects of your business plan.

##### 5) Provision for the outcome of second cycle river basin management plans.

We are pleased that you have made provision within your business plan for achieving outcomes from the second cycle river basin management plan. Your approach is based on reasonable assumptions, underpinned by available evidence of ecological impact, and shows consideration of how your company will meet WFD obligations to 2027. You acknowledge that as new evidence emerges there may be a need to go further than proposed during this plan period, and you accept the risks associated with securing additional funding to deliver your obligation in this respect.

A balanced programme of delivery will militate against having a large number of WFD actions to complete in AMP7 and AMP8. Early delivery of WFD measures is essential if England is to make progress towards the necessary environmental improvements by 2027.



### 6) Options and proposals for reducing the impact of your abstractions from the most seriously affected sites.

We are pleased to see that you are putting forward options and proposals within your business plan to reduce the impact of your abstractions from the most seriously affected sites. We note that you have:

- Included the confirmed and likely sustainability changes set out in NEP phase three in the water resources supply-demand component of the business plan.
- Made an allowance for options appraisal of currently unknown sustainability changes in your business plan.
- Considered which abstractions fall within Ofwat's Abstraction Incentive Mechanism.

### 7) Alignment of Water Resource Management Plan (WRMP) options and business plans.

We expect WRMP options to form the supply-demand component of your business plan, and ask that any material differences between the two plans should be justified. 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.

### 8) Fulfilment of risk management authority duties.

Water and sewerage companies have statutory duties on flood risk management. You have described what you are doing now on these new duties and your commitment to continue to do this in the future. It is important that your business plan demonstrates how you intend to secure compliance with your risk management authority duties.

There is a real opportunity for your dedicated flood strategy team to work with us on flood risk management plans and lead local flood authorities' strategies. Partnership working will deliver cost effective solutions for customers and the environment through effective cooperation.

We support your continued investment in drainage area plan investigations and multi-agency studies. Greater understanding of the hydraulic and operational performance of your sewerage network, and interactions with other flooding mechanisms, will enable effective investment planning to meet regulatory objectives in future AMPs. We would encourage greater sharing of the outputs of these studies to inform other partners' plans and strategies. Access to the information you hold on areas at high risk of flooding such as the Upper Calder Valley would add to our understanding of risk in these areas and would enable better solutions to be considered to reduce flood risk to all our customers.

Moving your focus from DG5 registers to best customer outcomes will enable a more collaborative approach with partners to deliver cost effective, innovative solutions. We are supportive of your proposals to incentivise partnership working to drive the changes in behaviour required to engage and deliver in this way. We look forward to working with you and the other risk management authorities in the next AMP period.

### 9) Sewer flooding, planning and flood partnership work.

It is good to see that you are making some positive steps to deal with sewer flooding, as we believe this is one of the worst service failures your customers can suffer.

Enhanced investment in sewer flooding in previous plans has significantly reduced the number of properties on your DG5 registers. We understand from the evidence provided that you plan to maintain the number of internal flooding incidents at 2015 levels through AMP6. You estimate that 400 properties will require protection measures, requiring investment in the region of £80 million.

The cost effectiveness of your sewer flooding programme and the benefits to customers is not clear. However, we welcome your commitment to work collaboratively with other risk management authorities on this reactive programme to deliver integrated, cost effective improvements.

Your move to more outcome focused mitigation measures, and your recognition of the need for more proactive communication and data sharing is welcomed.

Leading companies in this area have recognised the need to take a more proactive approach to flood risk reduction to ensure sewer flooding incidents are minimised for their customers. Partnership projects can deliver the best solutions for customers at a fraction of the cost. You have been involved in delivery of a multiple benefit scheme at Beverley and in Sustainable Drainage Systems (SUDs) retrofit trials in Bridlington, Walton and Roundhay, yet you have not identified any such opportunities for investment in AMP6. We would like to further explore your reasoning for this approach, as we believe you have a critical role to play alongside other strategic partners in reducing flood risk to your customers in high flood risk areas such as Hull.

### 10) 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. You have provided limited information on the programme of work or the strength of your teams. Your continued maintenance and capital investment is essential for public safety.

You have referenced the recent changes in reservoir legislation. We need to understand 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.

### 11) Drainage Strategy Framework.

The evidence provided indicates that you plan to follow the Drainage Strategy Framework principles within the AMP6 period and beyond. We note you have already been applying some of the principles in developing your plans.

You have committed to continue to develop drainage area plans, and business processes and systems to enable better data sharing. You are also proposing investment in developing your storm water management strategy, promotion of sustainable drainage solutions and adoption of adaptive management techniques.

Partnering is a key theme in development of your plan. We welcome your intent to modify your asset management activity to deliver multiple benefit intervention plans in conjunction with other drainage partners.

Demonstrating delivery of your drainage strategies and adequate engagement with partners and stakeholders in AMP6 is a priority. We expect you to embed its principles in all your sewerage planning and produce drainage strategies in your priority catchments by 2020.

### 12) Mitigation measures adopted to manage future risks.

We are satisfied from your response that you plan to take appropriate measures to manage risks from natural hazards and climate change. You have said you have followed relevant guidance from Ofwat and others, and provided evidence that you have done so. Your business plan should clearly address the risks revealed by your analysis. It is important to keep raising awareness of these issues so that the impacts are fully understood.

### 13) Environmental outcomes.

We are generally satisfied with the outcomes included in Yorkshire Water's business plan as they accurately reflect the important role that your company plays in protecting the environment. We are aware that you are still developing the full details of the measures and targets and would like more details when you are in a position to share these.

We are encouraged by your approach to setting delivery levels and designing incentives around your environmental outcomes and obligations, to ensure these are achieved. However, the lack of detail in particular around the units used to measure success means we cannot comment on whether your ambitions are sufficient or your incentives strong. Balancing the results of quantitative research on customer preferences with your own incremental costs is essential to ensure sufficient ambition. Strong incentives should, wherever possible, financially reward or penalise delivery in line with customer preferences.

### 14) Change mechanism.

At previous price reviews, Ofwat have used a mechanism called 'the change protocol' for managing in-period changes to 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 believe you do require an explicit change mechanism for dealing with such changes. We acknowledge your assurance that you are developing one.

### Concluding remarks and recommendations

Based on the information provided to us through our evaluation process we believe that your business plan is sound. However, there are areas where we believe further work or understanding is required. Our recommendations are:

- We seek your commitment to put a plan in place to achieve 100 per cent compliance for all licences and permits, as they are legal obligations. We expect to see a target within your business plan to deliver this.
- We need your assurance that your planned investment is sufficient to reverse your recent poor performance on pollution incidents that you are planning to reduce serious pollution incidents towards zero, and less serious incidents by at least a third by 2020. Please provide further information on the actions you will take to meet these operational performance targets.
- We recommend that you continue to work closely with our technical teams involved in development of draft River Basin Management Plans in order to understand, shape and plan for emerging requirements.
- Please provide confirmation that you have proposed within your plan a change mechanism process for dealing with currently uncertain legislative requirements should the investment requirements exceed those planned for.
- We would welcome further dialogue on your approach to flood risk reduction investment, particularly around the delivery of joint partnership solutions in areas at high risk of flooding, such as Hull and the Upper Calder Valley.

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.

## Natural England

Natural England is the government adviser on the natural environment. It provides practical advice about management of protecting and enhancing nationally and internationally designated sites for habitats and wildlife and works with others to safeguard a healthy and sustainable natural environment for the benefit of everyone.

In its role as a government adviser, Natural England is a member of the Yorkshire Water Customer Forum (CCG) and has participated in the price review to assure how the business plan considers obligations and duties for the natural environment, further to the Forum's primary function to assess customer representation and engagement.

## NE assurance on environmental components

As a member of the Forum, Natural England has provided a short assessment to assure Ofwat of how the business plan will protect and enhance the natural environment in accordance with government priorities.

The priorities and outcomes of PR14 for the natural environment are set out in the following objectives from Natural England.

- Water quality will be improved and water resources more sustainably managed.
- Statutory obligations to conserve and enhance the most important water-dependant habitats, species and landscapes are met.
- The PR14 process will help water companies contribute to the delivery of Biodiversity 2020 objectives.
- Innovative solutions and whole catchment approaches that are resilient to climate change will become increasingly commonplace.

These objectives are also embedded in the Statement of Obligations (SoO) (SoO 2012), government expectations and through substantial references to CRoW Act 2000, NERC Act 2006, 'the Habitat Regulations 2010' (as amended) and Biodiversity 2020 (Biodiversity Strategy for England).

## NE summary of the business plan benefits to the natural environment

Natural England welcomes the commitment Yorkshire Water has made in the business plan to meet its statutory requirements and wider environmental and biodiversity obligations in the NEP. These commitments will deliver further improvements to bring important direct benefits to the local natural environment and underpin the company's strong ambition to its long term 25 year vision (Blueprint for Yorkshire). It is essential that the business plan (and 25 year vision) helps raise customers' understanding and awareness of the company's investment in the natural environment and the value they place on this work in the future.

Natural England considers that, while it would have liked to see a more ambitious plan for this area of the company's work, the final programme contains a welcome commitment to delivering worthwhile and affordable schemes.

The plan will provide direct benefits to the natural environment and give a commitment to government outcomes of Biodiversity 2020, particularly through further investment to maintain 99% of SSSIs in unfavourable recovering condition; while gaining 10-15% in favourable condition, enhance non-SSSI priority habitats strengthening ecological networks; WFD improvements and catchment schemes, to provide more robust evidence and research which will benefit the delivery of its strategy in the future.

Natural England has commended the company's ambition of its 25 year vision and in the shorter term its five year plan will make an important step towards this.

## Natural England Report

Letter dated 25 November addressed to the Forum Chair

Dear Andrea

Customer forum report of Yorkshire Water's final Business plan for PR14

We are pleased to provide you with this letter confirming Natural England's assessment of Yorkshire Water's final business plan for PR14.

## 1. Introduction to Natural England's role as an environmental representative on the customer forum

NE is the government adviser on the natural environment. Our remit is to provide practical advice about management of protecting and enhancing nationally and internationally designated sites for habitats and wildlife and working with others to safeguard a healthy and sustainable natural environment for the benefit of everyone.

In this role as a government adviser, Natural England is a member of the forum to assure how Yorkshire Water's business plan considers environmental obligations and duties as part of its decision making, further to the forum's primary function to assess customer representation and engagement.

## 2. Assurance on environmental components of the final business plan

In this sub-section we aim to assure Ofwat of the business plan component's contribution to the natural environment illustrating this with reference to the business plan. As a member of the customer forum (CCG), Natural England provides a short assessment to assure Ofwat of how the water company business plan will protect and enhance the natural environment based on government priorities.

To enable us to make this assurance, our approach is to consider the business plan's contribution of regulatory and discretionary components to natural environment outcomes and priorities, in the context of environmental drivers, government obligations and objectives of PR14 (details on the following pages).

The priorities and outcomes of PR14 for the natural environment are set out in the objectives listed below from Natural England. When opportunities have been made available these have been discussed with the forum and closely with the company.

- a) Water quality will be improved and water resources more sustainably managed
- b) Statutory obligations to conserve and enhance the most important water-dependent habitats, species and landscapes are met
- c) The PR14 process will help water companies contribute to the delivery of Biodiversity 2020 objectives
- d) Novel solutions and whole catchment approaches that are resilient to climate change will become increasingly commonplace

These are also embedded in the Statement of Obligations (SoO) (SoO 2012) and government expectations, through substantial references to CRoW Act 2000, NERC Act 2006, 'the Habitat Regulations 2010' (as amended) and Biodiversity 2020 (Biodiversity Strategy for England)<sup>1</sup>. The latter encompasses four outcomes for biodiversity (aquatic and terrestrial) delivery (terrestrial and aquatic) that all stakeholders, including water companies, can help the UK achieve its important vision to halt biodiversity loss by 2020 (60% of species have declined in recent decades (State of Nature 2013)) and in the longer term move to a net gain in the value of nature.

## 3. Regulatory compliance

The national environment programme (NEP) delivery mechanism, coordinated by the Environment Agency, contains schemes identified to meet regulatory compliance standards and obligations for water quality, water resources, WFD failures, fish passage and nature conservation requirements. Separate forum meetings and discussions took place with the 3 regulators (NE, EA and DWI) on behalf of the forum, but the programme was subject to further scrutiny from the CCG.

Natural England welcomes the wider improvements to the natural environment that the NEP schemes will provide while delivering against their priority environmental objective. Investment proposals in the NEP, of particular interest to Natural England relates to the company's commitment to maintain and enhance its company owned SSSIs (section 6.6 of this report). The inclusion in the NEP is welcomed by Natural England (one of its top priorities) as it will importantly maintain 95%+ SSSIs in unfavourable recovering condition whilst gaining 10-15% to favourable condition by 2020. These proposals are an important contribution to government objectives identified in the SoO (2012) of Biodiversity 2020 (outcome 1A) and the company's duties through CRoW.

## 4. Contribution of regulatory schemes to the wider natural environment

Opportunities within the customer forum to assess the detail of proposals in the water company business plan have focused on the NEP compliance schemes, through a specially convened sub-group of the quadripartite forum and a themed workshop of the forum. Natural England recognises the importance and is supportive of proposals to meet primary obligations in the NEP, such as WFD failures. We are interested in how the business plan can bring potential additional wider benefits to the natural environment through its proposals to support the company's biodiversity strategy and ambition of Blueprint for Yorkshire (25 year strategy) and contribute to wider environmental objectives and outcomes as outlined in the SOO and NE priorities/outcomes for PR14. Further to the primary aim of a compliance scheme, there are likely to be a number of secondary benefits they deliver for the natural environment and people.

Examples of schemes where we recognise a number of secondary benefits could be possible are:

- 1 Biodiversity 2020: A Strategy for England's wildlife and ecosystem Services is the Government's strategy for people and wildlife. Published in 2011 following the publication of the Natural Environment White Paper (NEWP) it replaced the previous England Biodiversity Strategy Working With The Grain of Nature. Biodiversity 2020 forms part of the UK's commitments under the United Nations Convention of Biological Diversity.
- 'Biodiversity 2020' sets out an overall biodiversity vision for England by 2050, together with a list of four outcomes to deliver its ambition by 2020 "to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people". It commits to going further than halting biodiversity loss, moving to a net gain in the value of nature.
- Catchment management to reduce pesticides, nutrients and discoloured water (section 6.5 of this report and part 4 business plan) secures a long term resilient supply whilst also bringing a number of multiple environmental benefits for landscape, priority habitat and species and restoring healthy ecosystems to provide essential services to benefit customers. Supported by Natural England outcomes for PR14, Joint Position Statement (PR14) and may also contribute to Biodiversity 2020 outcome 1C.

Subject to Defra approval, the CSF advice delivery programme aims to continue its delivery of advice in protected areas, including contributing efforts to Safeguard Zone areas of DrWPAs

- Fish pass and eel improvements could provide wider educational and access opportunities where appropriate (section 6.6 of this report and part 5 business plan).
- SSSI management and priority habitat restoration and enhancement (section 6.6 of this report and part 5 business plan) also benefit landscape quality, carbon and soil management, amenity and recreation value. Supported by Natural England's outcomes for PR14, SoO (2012) and Biodiversity 2020 outcome 1A.
- Sustainability reductions for ecological status of downstream river reaches as well as benefits to downstream designated sites such as Humber estuary (section 6.5 of this report and part 3 business plan).
- Sludge strategy (part 6 business plan).
- Urban pollution management (section 6.6 of this report and part 4 business plan).

During AMP6 planning and implementation of schemes we encourage the company to seek and incorporate these additional benefits, where there are no or minimal costs and it is appropriate to do so. We encourage the company to communicate to customers the environmental improvements (for primary and secondary objectives) that will be achieved while maintaining water and sewage network and service.

## 5. Level of ambition to the natural environment through regulatory and discretionary schemes

Natural England is interested in how the business plan benefits the wider natural environment objectives (aquatic and terrestrial) of the SoO, beyond compliance schemes in the NEP. These are duties that water companies have discretion to identify their level of commitment where current environmental regulations do not require companies to adhere to compliance standards. Level of investment and commitment can sometimes be based on the direct or indirect benefits to its business and level of support from customers or other stakeholders (section 4.2 of this report).

In addition to the NEP process, Natural England was concerned about the delivery of the company's 'Biodiversity programme', perhaps only a very small financial component of the business plan, but one which represents the company's wider commitments to delivering national priorities in the fields of the natural environment, climate change, protected landscape, biodiversity and access. One of Yorkshire Water's four key outcomes and focus for PR14 business plan is 'protecting and improving the environment', its longer term 25 year strategy as expressed in the Blueprint for Yorkshire and its Climate Change Plan, all refer to these themes as integral parts of the company's future strategic and operating rationale, while protecting the environment is also supported by the customer feedback process.



The business plan demonstrates welcome commitment to the wider natural environment and government expectations particularly addressing Biodiversity 2020, evidenced by;

- 10-15% gain of its company owned SSSIs into favourable condition by 2020, an important contribution to the Biodiversity outcome 1A of 50% by 2020.
- A suite of priority habitat and species schemes within the Biodiversity section 6.6 of this report (part 5 of the business plan) are also an important contribution to the Biodiversity outcome 1B to increase priority habitat extent by 200,000ha, in particular given the scale of Yorkshire Water's assets and potential opportunities they provide to make more, bigger, better, less fragmented areas for wildlife.
- The company also demonstrates good practice to investigate the potential impacts of its intermittent discharge assets to white-clawed crayfish and management to control invasive species in partnership with others working at a catchment scale.

We continue to support the company's recreation and access strategy and welcome the longer term vision to make its land accessible where appropriate. We welcome the measure of visitor satisfaction and we encourage the company to develop an understanding of the amenity benefits its accessible land has for people and its' customers, to ensure its local recreational resource is valued appropriately.

Natural England welcomes the company's valuable and wide-ranging commitment through its business plan to make positive improvements and benefits for the wider natural environment which are supported by our priorities and outcomes for PR14 and the SoO. The scale and importance of the company's asset and holdings are significant to their local natural environment and the Yorkshire region. Combined with the scale of the challenge evidenced in the State of Nature report (2013) and the company's longer term 25 year strategy we consider the business plan could be more ambitious in its investment for wider natural environment outcomes.

#### **6. Summary of the business plan benefits to the natural environment**

Natural England welcomes the positive commitment Yorkshire Water have made in the business plan to meet its statutory requirements and wider environmental and biodiversity obligations in the NEP. These commitments will deliver further improvements to bring important direct benefits to the local natural environment and underpin the company's strong ambition to achieve its long term 25 year vision (Blueprint for Yorkshire). It is essential that the business plan (and 25 year vision) helps raise customer understanding and awareness of the company's investment in the natural environment and the value they place on this work in the future.

Natural England considers that, while it would have liked to see a more ambitious plan for this area of the company's work, the final programme contains a welcome comprehensive commitment to delivering worthwhile and affordable schemes. Delivery of the plan will provide direct benefits to the natural environment and commitment to government outcomes of Biodiversity 2020, particularly through further investment to maintain 99% of SSSIs in unfavourable condition while gaining 10-15% in favourable condition, to enhance non-SSSI priority habitats strengthening ecological networks, WFD improvements and in the catchment schemes, will provide more robust evidence and research which will benefit the delivery of its strategy in the future.

We encourage subsequent planning details for delivery and implementation in AMP6 to seek additional environment benefits where cost effective, incorporate ecosystem services in its delivery and to work in partnership with others. This would help deliver an integrated management of 'services' that benefit the company and its customers and could contribute to the UK's Biodiversity 2020 outcomes and longer term 2050 vision. We look forward to continuing to work with Yorkshire Water during AMP6 to implement the planned investments for the benefit of the natural environment, customers and the economy. We commend the company's ambition of its 25 year vision and in the shorter term its 5 year plan will make an important step towards this vision.

Yorkshire Water have worked directly with Natural England to identify schemes that support its obligations to ensure both regulatory commitments are met and opportunities to make a wider contribution to Government aspirations for biodiversity outcomes in Biodiversity 2020 are evidenced. For example, liaison has taken place to identify SSSI areas to maintain and enhance, and restoration and enhancement of priority habitats targeted using Natural England's priority habitat opportunity mapping for Yorkshire Water. We also commend the company for its engagement, sharing of documentation with us and the positive way in which its staff have engaged with the PR14 process and the Customer forum.

For any queries relating to the specific advice in this letter only please contact Jeff Lunn on 0300 060 1870. For any new consultations, or to provide further information on this consultation please send your correspondences to [consultations@naturalengland.org.uk](mailto:consultations@naturalengland.org.uk).

Yours sincerely

**JEFF LUNN**  
Area Manager  
Yorkshire & Humber (South)

## Appendix 6 Summary of research

### Valuing Water November 2011 – March 2012

#### Project aim:

To understand customer's views and opinions on the value of water now and in the future and, in preparation for PR14 – to understand customers' financial position today compared to research undertaken for PR09.

#### Project objectives:

Given the scope of the objectives of the study, the research was undertaken in four separate stages, each stage had its own objective and approach to research shown in the table below:

*\*All stages of research included a representative sample of customers (gender, age, socio-economic grouping and metered and unmetered customers), research was undertaken across the region (North, West, South and East Yorkshire).*

#### Key findings:

- Water was described as an essential part of everyday life, but is typically taken for granted. Water conservation is something customers rarely think of.
- The past two years have seen a drop in affordability: the costs of food, petrol, energy bills and insurance have risen while income has remained the same. Despite this, there was no appetite for a lowering of services levels in the provision of water and/or sewerage in return for a lower water bill.

#### How the research supported PR14:

The insight derived from this research helped us understand the customer mindset in this price review vs. the previous price review in PR09. It allowed us to understand customers priorities for household expenditure as well and their expectations of the service we provide. Finally, the study informed our willingness to pay study.

#### Project objectives stages:

Objective	Methodology
To evaluate the elasticity of water (and waste water) services budget and the trade-offs customers are willing (and able) to make between these and other services.	<ul style="list-style-type: none"> <li>• 6 x 2 hour extended focus groups with domestic customers – 1 group was with customers who struggled to pay their bill.</li> <li>• 400 online quantitative surveys.</li> </ul>
To understand customers' relationship with water, their views on whether water is currently undervalued and how it can be valued and priced in future to enable sustainability.	<ul style="list-style-type: none"> <li>• 24 participants took part over a 4 week period - online qualitative approach – Qualboard.</li> <li>3 participants struggled to pay their bill.</li> </ul>
To explore with customers the subject of water footprinting to assess how useful and informative this technique is and test whether communication channels, such as social network tools, help customers reduce water use.	<ul style="list-style-type: none"> <li>• 6 x 2 hour extended focus groups with domestic customers.</li> <li>1 group was with customers who struggled to pay their bill.</li> </ul>
To investigate whether customers feel the current charging mechanisms are fair and what possible future methods might improve fairness.	<ul style="list-style-type: none"> <li>• 6 x 2 hour extended focus groups</li> <li>1 group was with customers who struggled to pay their bill.</li> </ul>



## Willingness to Pay May – August 2012

### Project aim:

To identify priority areas of service among our customers and within this, to ascertain customers 'willingness to pay' for specific levels of service improvement achievable under each priority area.

This study included a 'test' and 'main' stage of research. The test phase included qualitative and quantitative research and was used to explore customers' understanding of materials before conducting the main stage of testing. The focus of the below project outline will be on the main stage of testing.

### Project objectives:

To derive, customer priorities for investment, willingness to pay values for specific service measures and customer preference for levels of severity of service failures.

### Main stage qualitative methodology:

The qualitative research was undertaken in the forum of eight focus groups with domestic customers and 15 telephone in-depth interviews with business customers.

### Main stage quantitative methodology:

Given the complexity of the study an interviewer lead face to face quantitative survey approach was adopted for domestic customers, 1200 surveys were undertaken in this way. For business customers, a telephone survey approach was undertaken, 500 business customers were contacted in this way.

*\*All stages of research included a representative sample of customers (for domestic customers: gender, age, socio-economic grouping and metered and unmetered customers; for business customers: small, medium and large, a range of sectors and those with differing water usage levels), research was undertaken across the region for both domestic and business customers (North, West, South and East Yorkshire).*

### Key findings:

In terms of individual service measures, domestic customers were willing to pay most to achieve improvements in levels of pollution incidents, safe water quality, interruptions to supply and river water quality. They were willing to pay least for making improvements to security of supply (i.e. reducing the probability of a hosepipe ban); external sewage flooding and odour from sewage treatment works.

While business customers were willing to pay more for service improvements than domestic customers (reflecting their larger bills) they had a very similar ordering of preferences for improvements in services with the four most valued service improvements being safe water quality, pollution incidents, discolouration and river water quality. The least valued improvements for business customers were security of supply, taste and odour and external and internal sewage flooding.

### How the research supported PR14:

The outcome of this study provided us with the 'value' both domestic and business customers place on different aspects of water, waste water and environmental services that we provide. The values derived from this study were used as part of the programme optimisation process which builds the five year business plan.

## Outcomes Research February – May 2013

### Project aim:

As part of PR14, Ofwat has signalled the need for water companies to move from an outputs based, heavily regulated approach, to a more flexible approach to regulation – one that allows each company to set its own unique outcomes based on engagement with its stakeholders and customers. This means that there was a need for water companies to develop a set of 'Regulatory Outcomes' - high level objectives which customers and society value and which address the short, medium and long term challenges for the company.

### Project objectives:

The overall aim of the research was to develop a set of draft Regulatory Outcomes, Measures of Success and Delivery Incentives that are both understood and supported by customers.

Given the extent of the project objectives, a programme of research was decided upon with the Customer Forum. The research was carried out in two stages, the high level objective of each stage includes:

- Stage 1: to help define a set of Regulatory Outcomes that customers understand and support.
- Stage 2: to explore understanding of, perceived suitability of, and level of support for, the proposed Measures of Success and the Delivery Incentives.

### Methodology:

A qualitative method was adopted based on a combination of reconvened focus groups with domestic customers and depth interviews with business customers (face-to-face and by telephone). A breakdown of the sample is below:

### Domestic Customers

Six extended focus groups were conducted with domestic customers in total. Four with mainstream domestic customers (mix of age, gender, socio-economic grouping), one group with customer of the future and one with 'hard to reach' customers.

### Business Customers

Five face to face interviews with were conducted with larger businesses and one focus groups with SME businesses.

*\*All stages of research included a representative sample of customers (for domestic customers: gender, age, socio-economic grouping and metered and unmetered customers; for business customers: small, medium and large, a range of sectors and those with differing water usage levels), research was undertaken across the region for both domestic and business customers (North, West, South and East Yorkshire).*

### Key findings:

- There was a clear hierarchy of services which are important to customers – clean safe drinking water was the number one priority followed by removal of waste, good customer services and affordable bills and finally protecting the environment. The suggestions for aspects of service they valued most reflected what was particularly important to customers.
- The outcomes were felt to reflect what is important to customers and there were no obvious omissions.

### How the research supported PR14:

Our Blueprint and PR14 business plan have customer supported outcomes at their centre. The findings from this project very much provided the foundations for our long-term vision and our five year plan, thus ensuring we are delivering plans based in customers wants and needs.

## Acceptability Testing May – October 2013

### Project aim:

To ensure the PR14 business plan fairly reflected customers views, we implemented a programme of research which tested customers' levels of acceptance of the plan.

As discussed and agreed with the Customer Forum, we conducted four stages of acceptability testing and shaping of the plan prior to submission to Ofwat.

*Note: CCWater undertook customer research in May – June 2013 exploring the ideal 'threshold of customer acceptability' for the business plans of water and waste water companies, this was identified as 70%-75% acceptance.*

### Project objectives:

- Understand how our customers felt about specific investment scenarios and measure customer support for investment scenarios as they developed in to the Business Plan.
- Determine how acceptable our customers considered the company plan to be overall.

### Methodology:

As mentioned, the project took place in four parts. Initially a qualitative stage was used to understand customers opinions on the business plan scenarios presented to them. The qualitative stage included six focus groups with mainstream domestic customers and two groups with customers of the future. Ten face to face depth interviews were conducted with 'hard to reach' customers and 16 face to face depth interviews with business customers.

Following this we undertook three stages of quantitative testing, each stage involved learning from the previous stage and refining the business plan along the way. Amalgamating the three studies (which were similar in approach): 3600 domestic customers completed an online survey, 150 'hard to reach' customers completed a face to face survey and 600 business customers completed a telephone survey.

\*All stages of research included a representative sample of customers (for domestic customers: gender, age, socio-economic grouping and metered and unmetered customers; for business customers: small, medium and large, a range of sectors and those with differing water usage levels), research was undertaken across the region for both domestic and business customers (North, West, South and East Yorkshire).

### Key findings:

- Overall 76% of customers (domestic and business) supported our business plan (this is above CCWater's acceptability threshold).
- 75% of domestic customers supported our business plan.
- 82% of hard to reach customers supported our business plan.
- 85% of business customers supported our business plan.

### How the research supported PR14:

The findings from the study confirms that the final business plan presented through the study meets the needs of our customers and therefore we can be reassured that our plan has customer support at the centre of it.

