Annex 5: Challenge log for Customer Engagement Forum

Main challenges and comments from CEF minutes (2016-2018)

CEF Meeting: 28 September 2016

Alex Plant updated the CEF on the work that Given London are carrying out for Anglian Water to develop their customer engagement strategy for PR19. Given are using a different approach to what Anglian Water have done before to co-create the strategy with staff, customers and stakeholders.

Co-creation workshops with customers were held in Norwich and Lincoln on 13th and 15th September. Bernard Crump attended the Norwich session and Jeff Halliwell attended the Lincoln session on behalf of the CEF.

Bernard Crump noted that he had been impressed with the mix of customers at the workshop and the way the session had been run. He worked with a group of students and was interested to explore their issues. The preparation work that customers had done before the session was useful. It was one of the best sessions of its kind he had experienced.

Jeff Haliwell noted that he also felt the session had been very positive although was unsure if his group should have had a more diverse range of ethnic backgrounds.

Alex told the CEF that the co-creation workshop with businesses is being planned and the work is also looking at insight from other companies.

Bernard commented that the outputs need to be used in a more creative way than at PR14 – to understand how it all makes a difference to the final plan. This is a big question for the CEF.

Gill Holmes noted that she was impressed with the company progressing quickly with the work to develop the customer engagement strategy.

ODIs

Gareth Dalglish (Natural England) questioned whether further performance information can be found online. AW commented that currently environmental performance is not public until the end of the year, unless an incident results in prosecution. The company would give thought to providing more detailed performance information online.

Bernard Crump noted that it was important that customers could find more detailed information on performance as there were impacts on bills linked to ODIs.

Action: Alex Plant noted on 31 March 2017 that the company was developing a more userfriendly site with information on company performance. There was some discussion around the Water UK site. Bernard noted that even if hits on the site were not high, it was useful that the site existed, but CCW are still concerned about how to get meaningful comparisons.

CEF Meeting: 20 January 2017

Gareth Dalglish noted that as the activities reach a broader audience later in the plan, it will be important to maintain a focus on vulnerable customers. Consideration should also be given to how to reach people who are non-English speakers or have English as a second language.

Bernard Crump noted that the direction of travel for the customer engagement work was positive – the elements of the plan are good, but there is a risk it could be tricky to extract

specifics for Ofwat. However, group agreed it was right direction not to have too much focus on WTP and it was what a good business should be doing.

Jeff Haliwell noted that the CEF will need more detail on some aspects of the plan at certain points – not yet clear when and what, but will be done as the submission is developed and how customer engagement will feed into it.

Nathan Richardson commented that the plan looks like a 'start-finish' approach – need an indication of longer-term activity

Anglian Water response: Peter Simpson noted it was important to identify insight we are getting now that can inform business action – we don't need to wait for a regulatory cycle

CEF Meeting: 17 May 2017

WRMP

Bernard Crump asked if this was a single or multi-AMP scheme, and had Special Purpose Vehicles been considered, in the light of recent experience with Thames and the lack of capacity in the supply chain.

Anglian Water response: Peter confirmed AW Tier 1 partners are signed up and we are investing in a home-grown supply chain, for example with the work in Wisbech.

There was a discussion over the timetable for both WRMP and PR19, and a request to see both timelines.

CEF Meeting: 31 July 2017

Valuation Strategy

Allan Provins and Scott Reid from ICS presented the findings to date on the main and water resources studies. The process involved interviews, hall tests, surveys and analysis of the results. Initial findings were discussed, for example, that leakage was less favoured than at PR14 (although still a priority) and that customers preferred less intrusive options that do not disrupt communities.

Gill Holmes raised questions over what the results were used for, completeness of the information presented to customers, and the lack of use of inflation.

Anglian Water response: Helen Dunn confirmed the results would be used to inform the cost benefit analysis underpinning Anglian's business plan, and also to calibrate the ODIs. She confirmed that while customers were presented with two out of three blocks of information, at a later stage customers were presented with the full bill impact. It was also felt that inflation was too complicated to factor in. Helen offered the CEF the opportunity of two webinars which would explore the main and water resources studies in more detail, and agreed to find a date and circulated joining details. (See detailed challenges in Challenge log below – dated 31 October 2017).

CEF meeting: 5 October 2017

Gill Holmes asked if CEF could see a list of topics discussed by online community. She acknowledged the Synthesis Report was helpful but suggested it would be helpful to know what was coming up in the online community.

Bernard Crump was pleased to see lots of engagement activities and the Synthesis Report as a way of trying to make triangulation happen. However, he pointed out that most companies struggled to engage customers around trade-offs and asked where in the plan that would happen.

Anglian Water response: Carolyn Cooksey reported Anglian is planning research around ODIs and performance commitments in January. Bernard cautioned on using outputs for valuation to calibrate ODIs.

Jeff Halliwell expressed concern about time available between publication of final Ofwat methodology and WRMP and Anglian draft business plan in terms of consulting with customers.

Action: It was suggested that the next Customer Engagement Steering Group meeting on 10 Nov could be extended to include additional CEF members for the first hour and a report could be produced by CESG members Gill Holmes and Bernard Crump as part of CEF scrutiny.

CEF meeting: 8 December 2017

Bernard Crump expressed concern about the timetable and when the investment decisions and necessary trade-offs would be available for scrutiny. He felt that customers and the CEF would not have enough time to drill down into the level of detail needed and to see how this process had influenced the company's thinking (e.g. for leakage).

John Giles asked how the WRMP that went to Defra on 1 December fits into the overall plan.

Daniel Storey asked if the company would be in the position to show impact of trade-offs on customer bills by January.

Anglian Water response: Alex Plant reaffirmed that this was an iterative process (engagement with customers and CEF would be ongoing during the consultation period) and not all data would be available for all ODIs by January. But the company would bring a proposal to the January CEF meeting to give a sense of key trade-offs and enhancement elements of the plan. He reiterated there would need to be some tough choices made to make sure the overall business plan was affordable.

Jeff Halliwell asked how business as usual contacts/issues raised are converted into customer engagement feedback

Action: Bernard Crump wanted to make sure that WTP data is framed correctly for customers to be able to make an informed decision. He said there will need to be some trade off research.

Nathan Richardson asked how the synthesis report would feed into the business plan.

Anglian Water response: Alex Plant responded that it would be CEF's role to audit this.

Bernard Crump challenged the WTP figures presented and said that the process risks distorting customer priorities, which drives changes to customer bills.

Anglian Water response: Alex Plant reassured the CEF that the figures would be tested. This was a work in progress.

CEF Meeting: 16 January 2018

Daniel Storey asked how the company would avoid confirmation bias – and how the company would design a price control to meet increasing demand/pressures on housing?

Anglian Water response: Carolyn Cooksey responded on confirmation bias that the company uses external consultants; CEF member Gill Holmes feeds in to the process as CCWater regional rep. Results are consolidated into the synthesis report by an independent consultant, a process specifically designed to ensure impartial analysis of the engagement results. But if CEF wants additional assurance, Halcrow could be instructed to look at this in more detail.

Bernard Crump said he would like to see evidence of engagement with water retailers.

Anglian Water response: Ian Rule confirmed that the company has regular contact with retailers and will work to tie this into business-as-usual customer engagement.

CEF Meeting: 6 March 2018

On Hartlepool, **Peter Olsen** reported the main challenges from panel members were around identifying which parts of the synthesis report related to Hartlepool. AW had agreed to provide a sub-section relating specifically to Hartlepool, which would be helpful for preparing the Hartlepool section of the CEF report. There was also some concern expressed that the online community didn't include Hartlepool, but this would be addressed by community ambassadors and other community engagement programmes. ODIs for Hartlepool will also be different because AW supplies water only here.

Martin Lord reported that the main finding from the Affordability and Vulnerability Panel was that members felt they would benefit from a summary of all customer engagement work relevant to affordability and vulnerability.

Reflections from the panel were two-fold:

- Members were not fully convinced that AW had fully consulted with potential beneficiaries of the Priority Services Register (PSR). Members felt there was more to be done in terms of reaching out to vulnerable customers through other agencies. The panel was keen to learn more about AW's use of data to identify vulnerable customers.
- The panel also saw proposal for bespoke ODI, which included two measures: increasing PSR registrations and setting up a vulnerability panel. The panel was broadly supportive that increasing levels of PSR should be key but not only measure for the ODI on vulnerability/affordability.

Jeff Halliwell was concerned about how 3 May deadline for ODIs would fit in with CEF timeline and give enough chance for scrutiny. He was hoping to see more granular detail on 6 March to allow comment. It was agreed that the subgroups/panels would be the main vehicle for providing scrutiny on performance measures. He would share revised Aide Memoire with panel chairs to identify specific areas of focus for each panel and any "underlap".

John Giles also would have expected more detailed discussion on environmental ODIs with Natural England.

Nathan Richardson asked about environmental measure in river water, which came out quite high on WTP data. He also asked for dots to be joined up between panels (including S&R Panel).

Martin Lord asked about intergenerational bias/segmentation by age group in customer engagement

Anglian Water response: Carolyn Cooksey said the company has a quota and target for each age group. While they can report findings by age group, they haven't seen much difference between different segments.

ODI call: 16 April 2018

Bernard Crump acknowledged that WINEP's impact on AW was stark. In a price review process that's supposed to be about resilience, affordability and vulnerability, by far the biggest investment is the environmental aspect of the plan. He asked whether this is a closed issue.

He was also disappointed to see that all bill profile scenarios had moved to flat or upward. He'd be surprised if Ofwat was expecting this outcome. He also pointed out that this is based on 2017/8 price base – so bills would be significantly higher.

Anglian Water response: Darren Rice explained that the Secretary of State would like to see investments in AMP7 and the investment would be unlikely to be deferred in AMP8. He recognised the disappointment in the bill profiles and assured attendees that the company would be looking at challenging assumptions and making sure bill was as low as possible.

Jeff Halliwell asked whether any consumer engagement had been carried out around frontloading of investment under WINEP?

Anglian Water response: Darren Rice said that the outline business plan does ask questions around phasing of WRMP but not around phasing of WINEP. AW did point out that final scale of WINEP programme could have an impact on bill profile.

Jeff said that, from CEF's point of view, we could make the point that, in terms of customer engagement, this seems to be an arbitrary decision.

Bernard Crump was surprised to see a measure for customer satisfaction of non-household retailers with associated rewards and penalties and asked who would pay for that?

Anglian Water response: Arun Pontin said the company has been actively considering this question. One of the guiding influences was that reward or penalty would be spread among all customers. However, AW recognises that's potentially challenging for household customers to accept. AW is looking at placing rewards and penalties against non-household customers, but this is still a challenge that needs to be landed.

Peter Olsen asked whether costs for wastewater would be passed along to water-only customers?

Dan Bean said the Environment Agency couldn't support any ODI on pollution incidents that gives both rewards and penalty. Looking at the ODI on delivering WINEP, this wouldn't be something EA could support.

Anglian Water response: Darren Rice said that the ODI on pollution incidents is a common measure prescribed by Ofwat. The company would be asking customers for their views on reward and penalty for these measures.

Gill Holmes said that CCWater didn't support rewards in the ODI for vulnerable customers.

Anglian Water response: Darren Rice said that reward would be ringfenced and go back to supporting vulnerable customers.

Bernard Crump asked whether AW was proposing any major enhancement schemes other than those proposed around WINEP?

Anglian Water response: Arun Pontin responded that any major schemes may be carried out through direct procurement

CEF Meeting: 5 June 2018

Gill Holmes said she'd been impressed by depth and breadth and innovation used through different customer engagement channels. She had attended one of the vulnerability focus groups and was impressed by the engagement of customers on online community. There were some concerns from the Affordability and Vulnerability Panel about how questions were asked and what results are showing.

Paul Metcalfe also said the breadth and depth of customer engagement is really impressive. He would like to see some details on how the cost benefit analysis was done. He'd like to see a clear line of sight as to how customer engagement has set ODI levels to be able to make a judgement on whether the plan reflects the engagement

Action: Darren Rice said the 'one-pagers' on ODIs and customer engagement would be updated and presented to the Valuation Sub-panel for further scrutiny.

Daniel Storey said there were still some big questions open. He wondered if the company had had to revisit assumptions and change direction at any point. And asked to what extent can AW go back and re-mine data for precise questions that are now on the table?

Anglian Water response: Alex Plant reminded the panel that SDS priorities were changed as a result of customer engagement. He said some areas were still more fluid than hoped at this part of the process but there are still different channels to capture customer views (e.g. online community).

Carolyn Cooksey said AW's challenge is to make these channels business as usual – a platform that's agile enough to respond quickly and robustly

Jeff Halliwell was concerned about the number of uncertainties and how those would be addressed. He also asked about the questioning of five retailers out of 21.

Anglian Water response: Carolyn Cooksey said AW tried to engage a mixture of retail customers and she was pleased that they were able to engage five – these are representative of the overall industry sector.

Jeff Halliwell asked to see consultation with customers around Putting the Sector back in balance

Action: this led to online community engagement in July.

Craig Bennett had a question about the swing from hard engineering to softer catchment management solutions. To what extent is AW maxing out on catchment management approaches in AMP7? And what's the impact on bills?

Anglian Water response: Alex Plant said AW would be exploring catchment management solutions. He said it's the right thing to do to maximise those opportunities but AW may also have to revert to some more traditional approaches. They are still working on numbers.

Peter Simpson agreed it's the right thing to do, but tends to have a longer lead time (but it's better from environmental point of view and cheaper for customers).

Alex Plant said AW wants to move from softer to harder engineering solutions but still keep bills as low as possible.

John Giles asked about the different investment scenarios and how those were set?

Anglian Water response: Alex Plant said AW consulted on both a principle and adaptive plan on WRMP. They wanted to demonstrate they had thought hard about cost consequences of some of those environmental obligations.

On WINEP, AW thought it was important to set out for customers a range of options (even though they were statutory obligations). Customers came back with strong views on prioritising environmental investment.

Nathan Richardson asked about collaboration with neighbouring water companies. He said it's difficult to get a feel for whether the companies have found the right solutions.

Anglian Water response: Peter Simpson said AW had some innovative trades set up with Affinity and a significant import from Severn Water that was part of the company's WRMP. Some of those things that were offered by other companies didn't come to pass. AW is now going through another iteration of WRMP to address these challenges. Alex Plant said the company hoped WRE would deliver this kind of collaboration but he suggested in future this may need to be devolved to a regional plan, rather than being voluntary.

John Giles said this situation isn't unique to AW. There's been a big discrepancy in water trades – we didn't see collaboration in a lot of WRMPs and we're pushing this in our representations very strongly (EA).

Craig Bennett asked what would happen if Ofwat insists on AW delivering falling bills?

Gill Holmes said that Ofwat were expecting bills to go down and she was concerned on this issue.

Anglian Water response: Peter Simpson said AW had had fantastic customer support for what they want to do. It's the right thing to do and we should stick with this plan. There may be an aspiration for falling bills across the country, but with our context it's different (level of housing development, dry climate etc). The plan is driven by real need and demand for housing and to adapt to climate change.

CEF Meeting: 31 July 2018

WATER TRANSFERS

Jeff Halliwell asked about water trading/transfers. How might plan develop over next five years? It's presented as a snapshot rather than evolving

Anglian Water response: Alex Plant said that WRMP had changed the thinking on water transfers. This will be an evolving picture

Daniel Storey asked if AW could look at being more dynamic over AMP rather than saving up discussions on this for last six months of Price Review?

Anglian Water response: Peter Simpson said AW still had a reverse trade with Affinity

- WRE trades with other sectors within 25 years
- There are opportunities to make this a better process
- Direction of travel is to have common model across regions and neighbouring regions
- Peter agreed that they would emphasise the level of ambition in the Business Plan

Call on financeability (CEF members and panel members): 9 August 2018

Jeff Halliwell:

- AW has explained in comprehensive detail the various factors behind the financeability assumptions. We've poked and prodded at it and we've concluded that we're all happy with it.
- In terms of customer support, we note the strong level of customer support for natural run off rate.
- We hope you'll have more data on customer support for dog legged bill profile at Monday's meeting (13 August).

Action: AW presented data at 13 August meeting

CEF Meeting: 13 August 2018

Bill profiles/financeability

Bernard Crump asked about company taking into account accumulated rewards from this AMP:

- 1) What assumptions have you been made about rewards for remainder of AMP?
- 2) What impact does this have on rating agencies?

Anglian Water response: Alex Plant responded that net ODI rewards of around £60 million are driven by AW's number one position on SIM and leakage. This gives more resilience in first years of AMP

Bernard Crump asked if customers were shown any profile of bills in AMP8?

Anglian Water response: AW focused this customer engagement on AMP7. In original customer engagement, we showed AMP8 figures. We said bills would go up slightly and then resume the downward trajectory (in AMP8).

Nathan Richardson: some of the earlier feedback suggested there was a chunk of customers who accepted 5% bill increase scenario. There's quite a gap there – some customers accepting more investment. Why have you ended up at a 1% increase?

Anglian Water response: we have been able to cover all areas of investment under WINEP and WRMP at a lower bill increase than 2.5% (have held back on RCV run off rates). Evidence from customers was that they wanted to see natural rate. Have chosen a balance of investment that minimises bill increases, gives 30% increase on Totex of last year on resilience and is still affordable. Strong support for doing customer engagement now rather than later.

The challenge is deliverability of a programme of this scale. In the context of a region that's facing considerable pressures, putting more in would have stretched deliverability of programme. This feels like the right trade off.

Bernard Crump: this will be one of the highest bill profiles, which will make it an outlier; he accepted exceptional circumstances and customer support.

Natural Capital ODI

Dan Bean said AW has gone well beyond industry standard on the Natural Capital ODI. It's encouraging to see the level of ambition – it's right that it's reputational. It's more about involvement. That was v welcome. I'd like to have seen an intention to involve the CEF and S&R Panel in developing this – it's a very ambitious and difficult ODI but very exciting. You're industry leaders and there are a lot of people willing to support this.

Anglian Water response: Alex Plant had taken feedback from John Torlesse, Natural England – AW have reworded ODI around utilising knowledge and expertise of CEF and S&R Panel. This will only work if we work together. Tied into regional natural capital ODI of UEA. Also through Natural Capital East – thinking about natural capital in region. Peter Simpson said the CEF were right that ODI didn't previously capture level of ambition – and now it does

Vulnerability ODI

Gill Holmes reported that the bespoke vulnerability ODI had been revised so the narrative better reflected panel's position. Only thing the panel disagreed with was the proposed incentive mechanism.

Anglian Water response: Jane Taylor said AW has taken this on board and is looking to revise the wording further.

Alex Plant concluded the challenges on these issues have been testing but the Business Plan is better as a result. CEF has pressed AW to think about things differently and got a set of views back. Recruiting technical expertise has bolstered plan – and this was a good decision.

Summary of response to CEF comments on main stage survey

1. This summary note provides an overview of CEF comments on the main stage

survey and responses to those comments. The detailed response to all the CEF Configure separate contraction of the contraction of the configure separate contraction of the contraction

2. Stages of the main stage survey development that members of the CEF have

provided comments include:

- Attending focus groups and hall tests
- Webinar on the main stage survey to the CEF
- Pre-launch final main stage survey design comments
- 3. We would like to thank the CEF for all the comments on the main stage survey that

have provided useful input and challenge and helped to improve the design. Particular improvements that have been made include:

- A range of suggested changes to improve cognitive design of the survey
- Improved sampling for waste only customers
- Updated river water quality service description please also see separate river water quality note providing fuller response to comments
- Greater focus on the bill payments with additional card
- A few areas where we have investigated further but no change is required where this is the case we have looked to provide the reasons for this.
- 4. For information, the DCE (discrete choice experiment) main survey is currently live and we hope to see the first set of results towards the end of the coming week.
- 5. We are also planning to invite CEF members to join a follow up webinar on the results of the 2nd stage water resources valuation study in January and in addition would be pleased to offer a presentation of the results from the wellbeing valuation

study on flooding incidents and road traffic disruption. We will follow up separately to arrange some suitable dates.

6. Please let me know if you have further comments and questions.

Helen Dunn, Societal Valuation lead, 31st October 2017



Annex: Response to Comments - Customer Engagement Forum

31 October 2017

Comments log - note: initial comments are provided below with follow-up responses including recommendations in blue.

1. Comments noted by project team during CEF webinar - Main Stage Study DCE (August 2017)

Panel member	Comment	Response to comments
Jeff Halliwell	As the language is quite complex, there may be an issue where customers might not read very well and/or English is not their first language.	The challenge of engaging customers who might not read well/or English is not their first language is a challenge faced by all strands of customer engagement, not just specific research projects such as the Main Stage WTP study. We refer the CEF to AW's overall engagement strategy for assurance that the needs of this type of 'hard to reach' customer will be adequately addressed in developing the Business Plan. The objective of the Main Stage study is to provide a representative view of overall customer base. We will check what statistics are available for the Anglian region concerning household's first language - this will give some steer on how big a concern this is regarding the survey results. We will then discuss any implications for the sampling strategy with AW, noting that we have provision in the in-home (CAPI) sampling to target 'hard to reach' customers.
		respondent understanding.

Panel member	Comment	Response to comments
		Updated eftec response:
		 We've had a look at the 2011 Census data to get a better sense of the materiality of this on the Anglian Water customer base. Based on 2011 ONS Census data (latest data available for the UK) for the regions that overlap with AW (East of England and East Midlands) the percentage of people where English is their first language is approximately 94% of the population. English as a first language - 94% Other - 6% For those who reported that English is not their first language (i.e. 'Other'), this is broken down further in the Census data for the regions that AW in the table below. Can speak English very well - 2.3% Cannot speak English very well - 2.3% Cannot speak English well - 1.1% Cannot speak English - 0.3% Based on this information, approximately 1.4% of the population have identified themselves/been identified as 'Cannot speak English well' or 'Cannot speak English'. For example, in the DCE household sample of 550 household sample, this would relate to under 8 respondents. Although sampling of these individuals is a valid concern, based on the size of the population, there is expected to be a limited material impact on the results from their inclusion. It is also important to account for whether these customers will have a different preference base to the rest of Anglian Water's customer base. Unlike other factors such as ethnicity (which will have a soft quota for the main study), English proficiency is not expected to have an impact on customers' preferences on water, sewerage and wider services. Therefore, we would recommend that this group of customers not be targeted as part of the main stage study.

Panel member	Comment	Response to comments
	Highlighted the issue of framing of the research in terms of CBA or ODIs.	This was outlined at the start of webinar presentation, recognising that the primary purpose of the Main Stage study is to provide customer evidence inputs to 'value for money' (VfM) assessments, which includes cost benefit analysis, hence the survey is primarily framed from this perspective. This issue was also raised at the CEF meeting on 31 st July 2017 and AW provided a response regarding customer research for ODIs. Current work being undertaken by Frontier Economics for AW on ODIs includes reviewing the valuation needs and identifying gaps going forward. Update: The survey makes it clear that the information gathered is to develop our "investment and service priorities for the period 2020-2025".
Bernard Crump	In relation to the likelihood of capturing a customer that has experienced a service disruption, noted that other companies are doing some targeted surveying of customers who have reported service problems to see how their WTP differs from the overall customer base.	objective of this research. However the survey does capture whether the respondent has experienced any service issues, and this can be used as an explanatory variable in our analysis to determine if this subset of customers has significantly different preferences from those who have not. This is part of the conventional validity testing analysis for this type of research. Update: To note that flooding is currently being explored in a wellbeing study by Simetrica for AW which is using customer data of properties in the AW region which have been impacted by sewer and water flooding incidents and linking this to national datasets on households that include data on reported wellbeing. We are exploring this method in providing different valuation information on customers who have actually been impacted by a flooding incident. The final report should be completed in November 2017.

Panel member	Comment	Response to comments
	Cognitive difficult of completing the DCE questions. An alternative would be the BWS approach.	A range of alternative choice formats have been tested with customers in the cognitive interviews and hall tests, including the BWS approach. We will be feeding back to AW our assessment for the end of August prior to the piloting phase.
		Update: currently a BWS approach to the main study has been developed with recommendations from effec on the design of the survey. The design of the survey has been developed with feedback from cognitive interviews and a hall test of the survey with customers. We are in discussion with effec on piloting the BWS survey given their recommendations and a note on BWS will follow shortly.
	Limited familiarity of sewer flooding for majority of the population	Yes, respondents are likely to have limited familiarity of sewer flooding, but they should readily be able to understand the impacts of sewer flooding. This is the purpose of the explanatory information and warm-up questions in the survey, which is to get them thinking about the service areas and what their priorities would be. See also previous response above to the question on respondent experience with an event.
John Giles	Is there enough information on the role of Anglian Water on bathing water quality	We will review the information provided, and can explicitly test comprehension of the bathing water quality service area in the next set of cognitive interviews. Update: the cogs and pilot survey did not highlight any issues with the information on bathing water quality so no update has been made to the descriptions

Panel member	Comment	Response to comments
	Is it realistic to present customers with potential deteriorations of the river water quality, when that is not possible under regulation?	Yes, although avoiding deterioration in overall status is an objective under WFD, in order to understand the 'benefit' of maintaining current service levels it is helpful to understand the value associated with deteriorations - hence including lower levels of service the choice tasks. This allows us to measure the benefit of maintaining service levels in terms of what customers would need to be compensated in monetary terms to accept that deterioration.
		Usually we find that the compensation amount is greater in absolute terms than the
		service, and so would strengthen the 'value for money' assessments associated with value of an improvement for the equivalent loss/gain in service. This would provide
		strong evidence that customers that do not want to see deteriorated levels of
	Number of waste only customers of Anglian Water may also be in Essex and Suffolk	investments that maintain current services levels (e.g. avoiding deterioration in river quality status). Update: the service description has been updated to include a statement regarding AW's responsibilities to reduce our impact on the water environment over time. We will review the sampling strategy with Anglian Water, particularly to determine if waste-only customers outside the Anglian combined service and Cambridge Water regions experience substantially different service levels and therefore need to be
	Water and Affinity Water customers. How are these being accounted for?	considered as a distinct segmentation in the research.
		Update: Essex & Suffolk and Affinity waste only customers have now been included within the sampling strategy in addition to Cambridge customers. Sampling numbers and have been based upon the proportion of AW sewerage only customer numbers and surveys will be conducted in person for domestic and online for non domestic customers.
Gill Holmes	Please confirm the bill amount changes in the choice questions.	The range of the changes in the water bills for the standard DCE questions and package questions were outlined during the webinar.

2. Comments post webinar - Main Stage Study DCE (August 2017)

Panel member	Comment	Response to comments
	P6 - missing the word "receive"	Text has been edited in survey to account for this.
	P9 - main survey introduction - might benefit from briefly saying what AWS do - provide drinking water an recycle wastewater	Please note, this question is only intended to warm-up the respondents to think about these aspects in more general. The role of Anglian Water and its responsibility are outlined in the text that follows.
Nathan Richardson (on slide deck)	P17 and throughout - the wording "how much does this affect your household's day to day activities" is a little odd especially when talking about very rare events like rota cuts. Would it be better to ask how much does it or would it affect your households day to day activities?	Noted. This question has been reworded now to read 'How important is this aspect of service to you and your household'. Yes, events like rota cuts are very rare, but customers should readily be able to understand the impacts of these events. This is the purpose of the explanatory information and warm-up questions in the survey, which is to get them thinking about the service areas and what their priorities would be.
	P29 - odd that river water quality is not covered	River Water Quality is covered in this survey, but is included in the block on 'Wider services', not 'Wastewater services'.
	P34 - are flies really a significant issue?	We have confirmed with Anglian Water that this can be removed from the attribute. The text now reads 'Sewage odour'.
	P53 - can the respondent pick several boxes?	No, respondents are only allowed to select a single box. This is in order to identify the <u>main</u> reason for how respondents chose between the different options. A single code ensures that there is less ambiguity to the interpretation of this.

Panel member	Comment	Response to comments
	P55/56 - seems a very stark choicecurrent status or highest possible status. Will lead respondents to select current choice option I believe	The package choice question methodologically needs to be a choice between just two options and one must be the current situation. This is in order to determine the value (benefit) of the increase in all the services to customers. If they are unwilling to pay for the increased service, for a £60 increase (for example), they do not value the benefit of the increase in all the services to customers to be £60. However, it is important to then follow up this question to better understand the reasoning behind this choice. For example, whether the choice of No Change was due to other factors, such as 'The government or council should pay for this'. This is partly in order to identify if the individual's response has been biased by any other factors.
		Please also note, that the bill increase is not fixed at £60, but is randomised between a £5 increase and a £90 increase. This is again in order to test across the sample, different respondents' value of the benefit of the increase in all the services to customers.
Jeff Halliwell	Nothing to add to Nathan's points, but I remember when going through the survey that the illustrations are almost exclusively of able-bodied white people - you might want to look at the diversity here.	The visual illustrations are being reviewed in line with this comment.
John Giles	Overall I think the survey covers the key aspects of AWS business and sets out the issues/performance comparison well	Noted.

Panel member	Comment	Response to comments
	I believe the initial statement "we need to meet drinking water and environmental requirements" could be stronger to ensure understanding. I would prefer to see "we have to meet drinking water and environmental requirements as a minimum	Text has been replaced with the suggested statement to reflect this.
	On the basis of the above I have a strong reservation to see some of the choice cards suggesting lower bills if we accept a reduction in river water quality. I understand that this is a hypothetical question but there is a danger here that you set an expectation around deteriorating environmental quality as a trade-off for lower bills. This choice is not credible and does not present a feasible option. No deterioration is the statutory minimum. Therefore, I would like to see the choices/options reflect this	Please see above for response to comments during webinar. It is important to note that these deteriorations in river water quality (as with the other attributes) is not to be used to justify deteriorations, but to highlight the need to maintain. Testing has consistently shown that customers have a strong preference maintaining current service levels and avoiding deterioration. Update: Please see previous response to comments on river water quality - service attribute cards and comparison cards have been updated to explain companies' requirements to maintain the water environment. Please see separate river water quality note.
	Suggest that the first screen including a slider should include an instruction box (e.g. use your mouse to move the slider)	Noted, we will include the text under Q3A: Please drag the slider across the screen to select your choice.
	On the Rota Cuts screen the animation scrolls through too fast (perhaps because there are more pictures). Can this be slowed down? I would suggest that all animations could scroll through a little slower	Noted, this will be updated for the pilot survey.

Panel member	Comment	Response to comments
	Also on Rota Cuts the staple question "how do we compare?" is asked. However, there is nothing to compare here so this will lead to confusion and I suggest a lot of "don't know" responses. I suggest either the question is altered as it is out of context with the others or is removed	Industry comparative information for rota cuts service levels are not currently available. Anglian Water have instead provide the further additional information: "The risk of drought varies between different regions. The Anglian Water region is comparatively dry with a higher risk of drought than other areas in the country
	Following on from the webex session there was specific mention made of the Hartlepool and Cambridge Water areas where AWS provide wastewater services only. You need to ensure that other operational areas are covered by the survey where AWS does not provide both water and wastewater services, in particular the Essex & Suffolk Water area operational area	Please see above for response to comments during webinar. We are currently in the process of reassessing the sampling strategy with Anglian Water. Update: Essex & Suffolk and Affinity operational areas have now been taking into account within the main sampling strategy (please see previous response)
	The current Environment Agency and Natural England's Water Industry Strategic Environmental Requirements document clearly sets out the expectations of water companies to achieve 100% compliance for all licences and permits, and pollution incidents trending towards zero. Therefore, river water quality remaining the same or deteriorating should not be an option. Hence the need for the narrative in the survey to state more clearly that there is a requirement for water companies to reduce the number of pollution incidents, as well as comply with licences to drive improvements in the water environment.	Noted. Please see above for response to comments. A response is included with the note on river water quality.

3. Comments on DCE main stage layout version - Main Stage Study DCE (October 2017)

Panel member	Comment	Response to comments
	The language used and the survey instructions seem to me to be clear and I like the use of the gifs (obviously better when animated).	Noted.
	The only additional comment I have is in relation to Slide 33/Showcard 1 - 'Change in water bill'. The information on the slide is good, is important to me as a bill payer and, I think, to give some context to the values shown in the survey, but it only appears as a 'rollover' - 'More info on your bill'. In my view it contains important information and I wonder if it should be a screen in it's own right?	As suggested, we will add the card into the sequence of screens for the choice task instructions, following the budget reminder text. It will be then be provided as a rollover reminder for the second iteration of the choice task, consistent with how the instruction reminder is also made available.
Gill Holmes	In terms of the comparable information show cards, I made a note some time ago that the information used was from the 'Discover Water' website. Can you confirm that please?	Yes, the comparative information uses the 2016/17 data that is provided by Discover Water. This is the most up to date information that is available.
	Finally, during the webinar a question was raised about whether 'top up' research was needed to covers customers for whom English is not their first language and I wonder if anymore thought has been given to this?	Please see previous detailed response. Based on a review of census data, although sampling of these individuals is a valid concern, based on the size of the population, there is expected to be a limited material impact on the results from their inclusion. Therefore, we would recommend that this group of customers not be targeted as part of the main stage study.
Bernard Crump	I've looked at most of this (slightly hampered by a problem with the second zip file). I agree with Gill's comments. Otherwise it looks to be in good shape.	Noted.

Response to Comments on Main Stage Willingness to Pay Survey from Economic and Valuation Sub-group¹ - 17 April 2018

Panel member	Comment	Response to comments
Paul Metcalfe	Question asked: Whether we have tested the utility effect of a bill increase versus a bill reduction as part of the stated preference work.	The main results from the study are based on assuming that the marginal utility of income is constant across the change in bill amount range presented to respondents (£75; from -£40 to +£35). This is a conventional assumption that most studies adopt. The bill increase/decrease range represents a small change relative to average household income and the assumption is judged to be reasonable in this context. Analysis was undertaken to test for differences in marginal utility for income in relation to bill increases and bill decreases. Respondents were found to be insensitive to bill decreases, implying that larger bill reductions (than posed) would be required to compensate for service deteriorations. This is not an unexpected result and consistent with other studies we are aware of, including ones we have conducted. Results do not tend to be reported because they are imprecisely estimated and not reliable. For this reason we would not recommend that Anglian Water use these results.
		respondents commented that bills only tend to go up, never down, so there could also be a degree of scepticism behind the

¹ This CEF valuation sub-group meeting reviewed and commented on a range of PR19 societal valuation reports including the main stage study (DCE results), second stage water resources and interim stage valuation completion report. The responses to the questions below link mainly to the main stage survey; however, where there is a wider question for the valuation completion (VCR) report around the triangulation of values, this is also covered here.

Panel member	Comment	Response to comments
		insensitivity. Nevertheless, we do not think that the insensitivity detracts from the study's results. We are simply observing a behavioural effect that is present in many market and non-market settings.
		We find much greater consistency in non-linear effects when examining the marginal utility associated with service levels (rather than income) This is evidenced by the piece-wise linear models that reported which test for gains-loss asymmetry and diminishing marginal utility. Peer review has also considered the approach taken and acknowledges that: (a) constant marginal utility of income is a reasonable assumption; and (b) that testing for non-linear effects in the marginal utility of service levels is typical practice.
Daniel Storey (at meeting and follow-up written questions)	 <i>Willingness to pay for service improvement</i> <i>versus willingness to accept service decline</i> Many results show lower levels of willingness to pay (WTP) than willingness to accept (WTA). In discussion, this was attributed to well known features of stated preference (SP) studies and to the underlying psychology of loss aversion. Some researchers though have challenged this narrative and sought ways to design SP experiments to elicit more `truthful' WTA results, see for example Willis et al² and Plott & Zeiler³. 	Our understanding is that overall the literature is equivocal and there is no definitive answer as to where a discrepancy should be
	 To what extent have the SP studies for AW taken account of these approaches to measuring WTA? 	observed, and if it is, whether this is due to study design and framing, or individuals' preferences. Moreover, it is evident from the literature that the extent of the disparity can depend on the

² Mehrshad Radmehr, Ken Willis, Hugh Metcalf. A mechanism to derive more truthful willingness to accept values for renewable energy systems. Heliyon 4 (2018)

³ Plott, Charles, R., and Kathryn Zeiler. 2005. "The Willingness to Pay-Willingness to Accept Gap, the "Endowment Effect," Subject Misconceptions, and Experimental Procedures for Eliciting Valuations." American Economic Review, 95(3): 530-545.

⁴ See: Horowitz, J.K. and McConnell K.E., 2002. A Review of WTA / WTP Studies. Journal of Environmental Economics and Management 44, pp 426-447; and Brown, T.C. and Gregory R., 1999. Why the WTP-WTA disparity matters. Ecological Economics 28, pp 323-335.

Panel member	Comment	Response to comments
	 Where WTA> WTP (value of losses > value of gains), the WTP gains value appears to have been adopted in most cases, as the more conservative figure, in triangulating results to arrive at recommended value. In presenting results, it might be clearer to show the gains and loss figures and the linear, illustrate the difference and then explain why the WTP/gains figure is the more appropriate. Does the difference between WTP and WTA shed any light on customers' understanding of the SP experiment? 	characteristics of the good or attributes of interest (e.g. private consumption good vs. public good) and context of the choices (e.g. market setting, repeated choices in a simulated market, lab/experimental setting). Hence, regardless of the explanation it is not unreasonable to expect to observe qualitative differences in a unit gain from a given situation and a unit loss from that situation (other than in the direction of its effect upon utility) in settings where individuals can be seen as both buyers and sellers of a good (or the attributes of a good), assuming no transaction costs. It should also be noted that the referenced papers relate to the incentive compatibility of the bid mechanisms that are primarily features of auction settings and the contingent valuation method for (binary) dichotomous choices. Whilst there are generalizable results, the design of these studies is different from the discrete choice experiment (DCE) and repeated choice format across multiple alternatives used in this study. Peer review noted that there are opportunities to incorporate auction-type mechanisms into package valuation questions which use dichotomous choice contingent valuation (DCCV) question choice format. This has been noted as an area for future studies.
		Whilst the Main Stage study offers customers' improved and deteriorated levels of service from the current situation (which is required for estimating valid customer valuations), there is no inherent framing in the study itself that would lead customers to weight losses over gains. The explanation of the choice task disclosed to respondents that they will see improved, maintained and deteriorated service levels across the repeated choices. The
		experimental design that determines the specific trade-offs that respondents were presented with was optimised and balanced to

Panel member	Comment	Response to comments
		ensure that each service level for each service attribute would be presented with approximately the same frequency across the sample.
		Our approach has been to test for non-linear effects, primarily by allowing the marginal utility associated with service levels to differ between improvements and deteriorations. Linear and non-linear values can be used as part of sensitivity testing for benefits assessments. As outlined in the technical annex (Annex 10), the WTA should be applied in cases where there is a particular emphasis in an investment for avoiding deterioration (for example WFD no deterioration objectives).
		We also do not believe there is any inference from the observation of gains-loss asymmetry to respondent understanding of the survey. The fact that we are able to detect this expected effect indicates that survey responses are not random 'noise' (which would be an indication of respondents not understanding the survey).
		Both WTP and WTA are included in the Valuation Completion Report (VCR).
F f E t	2 SP methodology: 'warming up' How far were survey participants able to become familiar with SP concept by practising on non-water examples from everyday life (e.g. valuing different baskets of household shopping items) before immersing themselves in the more complex water choices?	The study has followed good practice guidance on developing a structure for stated preference surveys. It begins with an introduction to the survey and an outline of its purpose to establish the consequentiality of customer responses. This is to address issues concerning hypothetical bias by informing respondents that their answers do matter. This message is reiterated prior to the choice tasks along with the standard budget reminders that are used in stated preference studies that ask respondents to consider their overall household income and expenses when answering choice tasks.

Panel member	Comment	Response to comments
		Following the introduction, respondents are then presented with a subset of service attributes and asked a series of 'warm-up' questions. The purpose of this exercise is to familiarise respondents with the services and service levels that they will subsequently be asked to consider in the choice tasks. Whilst water and sewerage services are not necessarily at the forefront of customers' minds, the impacts of interest (e.g. having no water for a period of time) are not particularly complex nor unfamiliar. Hence the warm-up serves as a prompt and cue to the respondent to trigger this understanding. Indeed a 'Main Stage' study should feature aspects of service and outcomes that are readily recognisable by customers. Rarer or more nuanced aspects of service should be addressed in 'Second Stage' studies.
		Following the warm-up, respondents are then introduced to the choice task. We do not expect them to immediately comprehend the requirement of the exercise, therefore an onscreen explanation of the format of the choice card is provided. This is built up sequentially, starting with the service attributes the respondent has just seen, and then the alternative choice options. The actual choice question ("which option do you prefer?"), is also deliberately simple. Since weighing up the trade-offs between options can involve some tough choices, it is best not to make the choice question difficult (for example by asking respondents to rank options or state how likely they would be to choose an option).
		Generally, we would not recommend the suggestion that respondents 'practice' on non-water examples prior to the choice task. This would distract and interrupt the flow of the survey and the build-up towards the choice task as outlined above. The entire purpose of the lead into the choice task is to concentrate attention on the attributes and trade-offs. Whilst the choice format itself

Panel member	Comment	Response to comments
		can be initially unfamiliar in a survey setting, it is fully explained (with the explanation having been tested and refined within the survey design phase). Moreover, the attribute-based comparison of alternative options is not uncommon – indeed it is the standard way in which many product comparisons are presented to respondents (e.g. online comparison websites). Various aspects of customer feedback are summarised in the report and indicates that most respondents found the survey to be credible. For example, the majority of household (59%) and non-household (56%) respondents indicated that the DCE choice tasks were 'very easy' or 'fairly easy'; feedback on respondent choices also indicated that their choices were primarily drive by valid considerations (e.g. choosing options that were thought to be necessary); and feedback on the overall survey indicates that the largest proportion of respondents considered the DCE survey to be 'interesting' (36% household and 34% non-household). These findings are also in line with results from the qualitative testing. For more information see Section 5.3.2 – 5.3.7. Yes, and there are various examples of studies that do this, particularly in relation to recreation demand model. However,
	<i>3 SP methodology: calibration</i> In similar vein, is it possible to calibrate SP results by conducting related experiments on other consumer choices for which there is also revealed preference and/or market transactions data available?	these tend to focus on single types of good (e.g. non-market recreation). In contrast, the main stage study features multiple aspects of water and sewerage services. The market-based or revealed preference analogies vary for each aspect, which would make for a lengthy and involved survey. Our recommendation would be that Anglian Water consider the combined RP-SP approach as an option for a targeted study that provides triangulation evidence in a specific investment area.
	<i>4 Bundle versus individual measures</i> There is for most service attributes a high ratio	The issue of independent valuation and summation (IVS) effects and scaled/unscaled values is discussed in detail in the technical
	(typically 3-5 for households) between the unscaled	annex (Annex 10). The main points are drawn out in the report in
	value (measuring valuation of that attribute in isolation) and the scaled value (where the value of a	Section 5.4 which explicitly states the different scopes of application for unscaled and scaled values.
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Panel member	Comment	Response to comments
	 bundle of attributes are measured together). The reports note that the approach to scaling is being reviewed and both the scaled and unscaled values will be tested, in that order, with consumers in subsequent testing. To what extent does the difference between scaled and unscaled values cause concern about the validity of the unscaled estimations? Is there any underlying explanation for the differences in the scaled/unscaled value across service attributes? Does the difference suggest that some SP experiments were better understood than others? 	It is not possible to judge if the ratio of unscaled to scaled values is 'high' without comparative evidence. Nevertheless, the strength of the effect is likely driven by the characteristics of the service attributes. These have a strong public good element and there is likely a high degree of substitution between them. We also note that there is a fair amount of consistency in the DCE and PC scaling factors, which were derived independently, indicating comparability of results. Overall, we do not judge there to be a concern about the validity of unscaled values and there is no inference to respondent understanding in the context of IVS; the difference reflects income constraints on WTP and substitution effects between service attributes.
	 5 Marginal versus average valuations For some attributes, some of AW's consumer categories generated significantly lower valuation than average (e.g. Protective Provincials & Eco-Economisers lower WTP on restrictions survey in WR SP study). Where this is the case, how does this lower valuation feed through into the triangulation process? If the average value is used, then are some segments of AW's customer base paying well over their marginal valuation for putative service enhancements? 	The study does not consider the costs of investments so it is not possible to judge if some customers would be paying a price for maintaining or enhancing services that exceed their WTP. Unfortunately, the Main Stage study does not have a sufficiently representative coverage of the AW customer segments to indicate a consistent pattern in the results between the segments and the average customer value. We suggest that more insight might be provided by referring to the WR SP study. Overall there are no firm expectation as to how WTP would vary across the AW segmentations. These are not conventional representations of individual's characteristics, which economic theory predicts would impact or constrain WTP (e.g. household income).

Panel member	Comment	Response to comments
	6 Stability of results The detailed reports reproduce the various results of the battery of statistical significant tests applied. It would be helpful in the summary report and the triangulation report to provide some indication of the absolute and relative level of statistical significance of each valuation, and hence its stability and robustness.	As part of the VCR we will look to see differences across the different customer segments, which will be useful to compare to the average scaled and unscaled values. This question is best directed to the Valuation Completion Report (VCR). The VCR brings together all the valuation results, and combines them to form a single range of values. Each valuation source is assessed as to its robustness and relevance; those sources that are found to be reliable are used in the triangulation process as primary evidence sources. Other sources are used as secondary cross checks. The SP studies have been found to be robust – assessing them against the criteria set out. The detailed tests mean that we can be confident that the valuations from these studies are statistically significant and fit for use in our triangulation process. The studies have been peer reviewed and found to be good research studies, producing reliable and useable results. The triangulation process is designed to produce a robust set of valuations. The statistical significance and confidence intervals from individual studies informs the precision of results, which has been factored into assessment in the VCR process. Where the process identifies potential inconsistencies across valuation sources, further work has been undertaken – e.g. checking against the wider AWS evidence base, undertaking further customer focus groups, testing with our online community, etc. Therefore, the process ensures the valuations are stable and robust.
		Moreover, the academic peer reviewer found that a more mathematical approach to integrating the valuations would be less appropriate than the approach adopted, given the qualitative

Panel member	Comment	Response to comments
		nature of some of the evidence base. The peer review has recommended and endorsed the approach adopted.

Response to Comments from Economic and Valuation Sub-group Chair Daniel Storey – 4 June 2018

The table below provides written responses and clarifications to the points that have been raised in the CEF valuation sub-group draft note, 4 June 2018. This AW business plan draft note was presented at the CEF meeting on 5 June 2018 and summarises the sub-group's preliminary assessment of the valuation work.

CEF Valuation Sub-Group Comment	Anglian Water Response
Customer interpretation of valuation experiments: in general, good evidence from focus group discussions after WTP exercises that experiments were well understood and tractable for individuals. In one case though, customer feedback on description of service being valued (river pollution) resulted in realignment of valuation with more significant pollution incident.	Validity testing has been a core part of the PR19 stated preference surveys undertaken by Anglian Water. One aspect of validity testing is 'content validity' which provides a basis for assessing respondent understanding of the survey and motivations for their choices. This assessment draws on both the survey design and testing process and responses to the follow-up questions in the survey. Both the main stage surveys and second stage water resources survey have demonstrated good content validity showing that respondents have had good understanding of the choice tasks. Across the survey, there have only been a few specific cases of issues in relation to
Question to explore: are all other results sound in this regard, or could some be subject to similar (if less severe) drift in customer perception of service away from AW's corporate understanding.	customer perceptions of service. For pollution incidents, the issue was related to the surveys including a description that did not match what we had originally set out to value. In the second stage WR study we included a post survey focus group to test out that customer perceptions of reliability of water resource options and water restrictions were consistent with our interpretation; this was considered by the peer review as an innovative aspect of the survey. A potential other area to highlight is the Second Stage Water Resources Study measured a value for supply interruptions greater than 3 hours. ICS have
	 compared this value for supply interruptions greater than 5 hours. ICS have compared this value to the 3-6 hour supply interruption value in our triangulation process as they felt customers focused on the 3 hour duration and not on the potential for this to be a longer duration interruption. The triangulation process has also helped ensure the results are reliable by bringing together findings from multiple sources and secondary data, along with going back to customers to help interpret and update the findings after the surveys when we have identified gaps. This has also been done as part of our research on ODIs with ICS showing it to be a central part of our studies.

Strong asymmetry in results (willingness to pay for improvements markedly lower than compensation value / willingness to accept lower service). AW conservative approach leads in most cases to adopt lower WTP for gains figure.	We have previously discussed with CEF valuation sub-group, the potential reasons for the asymmetry between WTP for improvements and WTA lower services. See Main Stage Report Annex 11 which provided a detailed technical response to the CEF valuation sub-group and for an overview, see summary box in the main report (page 85).
Question raised but not yet answered: to what extent will higher WTA values feed into penalty rates for outcome delivery incentives and into cost benefit analysis for investments to sustain current	We make a number of observations on this point; firstly, the ODI framework is largely targeted at companies making improvements to their levels of service during AMP7. For example, there are a number of measures where Ofwat prescribe companies to target improvements, i.e. upper quartile performance and so for these measures WTP values are appropriate.
service levels?	Secondly, the approach to setting incentives rates, based on the Ofwat formula (shown below), builds in asymmetry towards penalty by default. This is because it takes account of marginal costs as part of the penalty calculation. The only scenario where there is no asymmetry is where the performance commitment level is set beyond the level suggested by cost benefit analysis, as the marginal cost starts to outweigh the marginal benefit.
	 Penalty Rate = incremental benefit - incremental cost x 50%⁵ Reward Rate = incremental benefit x (1-50%¹)
	Using WTA customer valuation to drive the incentives would result in higher penalty, and if applied consistently as per the Ofwat framework, and reward rates. As the ODIs are focused on improvements in service – even in the context of penalties - we conclude that it is most appropriate to use our triangulated WTP values.
	Additionally, the ODI framework is asymmetric towards penalty in a number of other ways. A number of asset health performance commitments are penalty only (such as Compliance Risk Index, Sewer Collapses). Also the performance commitment levels are stretching (and some based on the forecast upper quartile) meaning companies will have to work hard to avoid penalty. Our WTP surveys have routinely focused on changes in service i.e. decreasing supply interruptions rather than asset measures i.e. number of mains bursts. However, our recent asset health customer research has focused on valuing asset measures relative to service to provide this additional customer insight.

⁵ 50% represents the totex sharing incentive rate.

Wide and widely varying range in values from lower to upper estimates for each service attribute. Typical low-high range is just over 100% of the central estimate, but range is as low as 38% (hosepipe ban) and as high as 307%. Highlights combination of differing valuations across customer segments and/or variability across individuals. Need to explore further the implications of wide ranges for ODIs, CBAs etc.	Part 1 of the Valuation Completion Report sets out the detailed methodology and approach that underpins the recommended PR19 societal values including the triangulation principles and key steps as well as how we have used the key information from the valuation data. This has helped to ensure we apply a credible and robust approach to triangulating the customer valuation evidence. The approach to identifying the ranges varies depending on the information available. Factors that are common to the approach for setting values and ranges include the use of confidence intervals to inform the low to high range, mainly basing the values on PR19 sources taking into account the type of value each source covers and checking against PR14 sources. The C55 appraisal system has incorporated scaled gains values for mid, low and high and so offers the opportunity for sensitivity analysis in appraisal of investment options with respect to the value ranges. The wide range of sources and values provides useful additional tools to analyse the ODIs. Moving away from the central value involves significant judgement and we have sought to avoid this where possible. As part of our CBA analysis, we have crossed referenced the results with both the high and low valuations.
Big difference between unscaled values (willingness to pay for one service attribute in isolation) and much lower scaled values (measuring value of a bundle). Median unscaled/scaled factor is 4.6, but again wide range (1.2 to 6.2). AW conservative approach leads to scaled values being adopted (in nearly all cases). Need to explore further whether higher unscaled values have a role in	As discussed above, the approach to setting incentives rates, based on the Ofwat formula, builds in asymmetry towards penalty by default. There is only one instance where the Ofwat framework provides for differing levels of incentives, and that is enhanced incentives for shifting the frontier. Where enhanced incentives are proposed there is also a requirement that they apply for significant underperformance, with the suggested threshold for this being the lower quartile. We will follow this approach for leakage.
quantifying penalty rates for loss of service against baseline. Triangulation – use of other companies' valuations: AW researchers scaled other companies' valuations for relative size of customer base. Outstanding question as to whether that is a necessary step, given the units of the original valuations. Effect of scaling is to increase other companies' valuations in comparison with AW's, reinforcing 'conservative' theme.	Please see separate written response from ICS (180613 Note V2 Response to Challenge Raised at May CEF Meeting)

Differing valuations from lower income groups: some results show statistically significant material difference in willingness to pay among lower income groups (e.g. socio economic groups DE – 25% of customer base – only willing to spend 43% of all customer average on leakage reduction.	The majority of the societal valuations for SEG are statistically insignificant and have not been taken through our triangulation process and hence not used in any of the CBA. However, an example of where we have made use of differing values by socio-economic groups is in the drought resilience CBA work which NERA have been undertaking. This work looks at the CBA of the option of increasing AW's level of drought resilience beyond the current planning standards to inform the WRMP.
Question outstanding as to how this result will be factored in to design of ODIs, CBA, etc.	The analysis undertaken assesses the impact of increasing the resilience target under different customer valuation scenarios and socio-economic group (SEG) of the affected customers. The societal values for avoiding standpipes & rota cuts have been used for all SEGs, AB and DE & C2 groups as provided by ICS through the valuation completion report.
	We are mindful that customer views on valuations and affordability vary based on individual circumstances as well as demographics and we are ensuring a fair and equitable framework for all. For the ODIs, we have sought customer views on the maximum of reward and penalties that are appropriate. While there are variations in response by different groups of customers, the average choice of customers in the DE segment was 2.2% of RoRE (focus groups with this segment confirmed this felt affordable). This is the same result as the rest of the customer base on average and in line with the range of incentives that we will propose. Overall, we conclude that our approach accounts for differing views on affordability and valuation because:
	 We have used scaled valuations to set incentive rates and generally adopted a conservative approach. Incentives are asymmetric, both unit rates through the default formula and in a macro sense where there are a number of penalty only performance commitments. We will further constrain incentives based on evidence from customers at 2.2% of RoRE. The range we have selected is supported by customers in the DE segment. Due to the asymmetry in the incentive design, the potential for outperformance will be lower than this range even with enhanced incentives for leakage and C-MeX. It is extremely unlikely that we will outturn at either end of the range.
	Alongside our affordability strategy, we believe the approaches we have outlined above ensure that we have adequately accounted for differing views on willingness to pay and affordability in the customer base.

Application of valuations to cost benefit analysis and quantification of ODIs: yet to see e.g. worked examples of application of valuations, including implications of high-low valuation ranges and whether there are any threshold values which might trigger a step change in investment.	To be provided at the CEF valuation sub-group meeting on 21 June.
Sense checking: even where scaled conservative values are used, these are still derived from unscaled values, so anomalies here will feed through to business plan.	The societal valuation strategy (underpinned by NERA, developing a PR19 societal valuation strategy, 2017) identified internal sewer flooding as a high priority for societal valuation work. As a result, the focus for both internal and external sewer flooding has been to ensure multiple sources of valuation data available for triangulation. These sources include: main stage survey (both DCE and BWS), second stage water resources survey, subjective wellbeing study and PR14 values.
Sub-group has challenged high values for internal flooding in particular: unscaled central value of £375k (compared to	In general, these sources of valuation evidence have all been used with a lower weight given to the high BWS values which appears to be an outlier.
average house price in East of England of £288k in August 2017).	Wider customer engagement evidence suggests sewer flooding is still a high customer priority as seen at PR14. The synthesis report highlights some of the results supporting this -the SDS acceptability research found 'zero pollutions and flooding' to be voted as the second most important outcome by customers, with the first being 'compliant and chemical-free drinking water'. Feedback from our Draft PR19 Plan found burst water mains and sewer flooding to be the two top priority issues important to customers as they were seen to impact most on customers in terms of disruption and cost. Qualitative evidence from the PR19 Main Stage WTP study found internal sewer flooding to be the most important attribute by both household and non-household respondents.

Response to Comments from Affordability and Vulnerability Panel – June 2018

Please note: these challenges are also available in Annex 9: Report by Affordability and Vulnerability Panel.

We have received some questions and comments from the Affordability and Vulnerability Panel, both through sight of a draft report and through discussion at the CEF meeting on **5 June 2018**. This note sets out Anglian Water's response to those challenges.

We have carried out extensive engagement with customers on our vulnerability strategy and we are pleased this is recognised by the panel. We do not underestimate the challenge of implementing our strategy, and in particular we recognise the need to build and maintain more partnerships with organisations in the third sector. We think this is the best way to ensure our vulnerability services are targeted to the right people, through channels they trust, in a way that will help them most. This will require us to invest time and resources in building those relationships and providing practical help and support to more organisations working in the third sector. We have built those resources into our business plan for PR19.

We intend to arrange a further meeting of the A&V panel during June or July, to allow further discussion on the detailed operation of the performance commitments, and scrutiny over the engagement that supports these commitments. We set out below our response to the challenges from the panel ahead of that meeting.

A&V panel comment	Anglian Response
A&V panel comment 1. At the moment, the sheer range of initiatives responding to vulnerability, many of which are "pilot" in nature, make it difficult to be persuaded that the company's activities are targeted, efficient or effective in this regard, although that is not to say they are not to be commended	We are pleased the panel recognises the extensive and innovative range of initiatives we have developed in consultation with our customers. Our engagement has shown us that there are many different types of and responses to vulnerable circumstances, and support needs to be tailored, and targeted, as a result. We have moved beyond the pilot stage and into business as usual for a significant number of initiatives such as staff training, building partnerships and using data. We continue to push ourselves to find new ways of helping customers, for example using speech analytics, to ensure we are consistently providing the best and most effective support we can. We would welcome the opportunity to discuss with the panel in
	more detail our methodologies for ensuring our activities are targeted, efficient and effective.

A&V panel comment	Anglian Response
2. The Panel supports and there is widespread customer support for, a Bespoke Performance Commitment on vulnerability. Whilst there is a considerable amount of detail missing into how such an initiative would operate, the subgroup felt that it might provide a framework in which performance in respect to vulnerability could be independently measured and assured.	We are pleased the panel supports the bespoke commitment we are putting forward. The operation of the performance commitment has been developed and tested through a number of challenge processes within Anglian, and we hope to arrange an additional V&A panel meeting with sufficient time to take the group through the detail of how the qualitative performance incentive will operate, how we have set the targets, the benchmarking we have carried out, and the customer views we have gained.
3. The Panel , at time of writing, is not wholly convinced that a Delivery Incentive has been consulted on in such a way as to preclude customer support for Penalty for failure.	We are not proposing that there will be a penalty for failing to meet the targets set out for the vulnerability ODIs. We have committed to ring-fencing any rewards gained to be re-invested back into initiatives to support vulnerable customers.
4. The Panel remains unconvinced that a commitment to engage more robustly with third sector, housing associations and other intermediaries, as a vehicle by which the hardest to reach can be supported, has been properly planned or costed.	The extra resource requirements to increase our engagement with third parties and the number of partnerships have been identified as part of our business planning process for AMP7, and is included in our PR19 business plan. This includes plans for dedicated resource to support stakeholder and community engagement.
5and may in their current form underestimate the difficulties many reported in engaging with the sector, and therefore might not fully realise the potential this work could release	We have recognised the challenges of ensuring effective engagement with third-parties. Building effective partnerships is a key part of our business plan and under our proposed performance commitment, partnerships and engagement with third parties will be explicitly tested on an on-going basis – therefore providing an incentive to continuously improve our engagement. The performance commitment will also provide regular challenge from an independent panel on our engagement. As we have previously set out, we have committed to reinvest any rewards we gain into vulnerability projects, some of which will be helping third-parties by providing resources to them.
Additional Challenges and Responses logged through Affordability and Vulnerability Panel

Challenge during Panel meeting, 25 May 2018:

The Panel wanted to see more customer engagement around financial incentives related to the Performance Commitment on Vulnerability.

Response from Anglian Water:

We carried out research across 602 participants to understand which service measures that customers felt should have a financial incentive. The research was conducted across a representative sample taking into account age, gender and socio-economic groupings. The results show support for vulnerable customers being the 3rd most important with a score of 7.4/10.

Panel question (email 10 July 2018):

Firstly, we are very much in favour of measures that support customers in vulnerable circumstances and of the quantitative and qualitative elements. We think that any reward (if there is to be reward) should be for very high levels of performance and we wonder if 'good' is good enough?

We also have some questions around the customer engagement relating to the financial incentive. It's not clear whether the question of outperformance incentive only was raised in the principle ICS survey or just in the follow up focus groups or whether it was made clear to customers that it was they who pay for the outperformance payment?

Response from Anglian Water (email 11 July 2018)

On the **performance commitment level** – in short, our initial thinking on setting the 'good' level was based in part on the observed performance of the best companies in the energy sector when this incentive was introduced, and in part to reflect that 'good' performance alone would not lead to a reward (i.e. 'good' is the committed level and rewards would only be achieved for going beyond this). By way of example, if we have a performance commitment level of 40/50, and we demonstrated 'good' performance across all 5 assessment criteria we would score 8/10 for each, giving a total score of 40. This being equal to the performance commitment level, we would not get a reward for this. To exceed this score and start earning a reward would require us to demonstrate 'excellence' in at least one of the five criteria (or in more than one criteria if we only achieve 'fair' or 'poor' performance in any other category).

On your specific questions relating to **ICS research**, in the earlier ICS surveys, customers were asked about the importance of having financial incentives against the performance commitment. This informed us that customers felt this was the third most important service measure to have a financial incentive against. This was followed up with the focus groups where customers were asked about the best *type* of financial incentive (i.e. penalty only, outperformance only, or both – see script on page 72). Further findings and

quotes from customers involved in the focus group can be found from page 65 of the appendix.

The focus group and survey included an earlier discussion on the broader nature of PCs and ODIs and their impact on bills. Page 5 shows the background on ODIs and questions asked to customers about the financial impact of ODIs in the survey, and page 68 shows the focus group script relating to this.

Panel question (email 9 July 2018):

Please could you give more precise detail behind the assertion that: "We have engaged with customers on the proposed reward only incentive, with customers expressing that they would not want incentives in place which discourage sharing of best practice. Customers felt that there should be a neutral or positive impact from joining and sharing best practice and those companies shouldn't be competing in the vulnerability sphere. Customers felt the package of reward only and ring fencing the reward was a positive one and would help to share and expand best practice." What was the detail of this engagement please?

Response from Anglian Water (email 11 July 2018):

The appendix to the ICS report provides more detail on the engagement and the findings. In short, an initial survey was conducted with customers in which strong support was expressed for financial incentives. Follow-up engagement was done with focus groups where customers were asked about the specific type of incentive that should be applied to vulnerability (penalty/ reward/ both). What the report is trying to say is the customer felt that reward-only incentives would encourage the sharing of best practice and saw this as being preferable over competition. They liked the idea of ring fencing rewards.

Panel question (email 9 July 2018):

Please could you give more detail of the nature of "ringfencing" any reward. How is the possibility to be avoided that the ringfenced funds simply replace funds that would otherwise be invested in this area?

Response from Anglian Water (email 11 July 2018):

We are planning investment in vulnerability for the next AMP which is included in our business plan. Any reward would be in addition to this and we would make this clearly visible to the panel.

Panel question (email 10 July 2018):

Bill impact is clearly important – could you confirm that the maximum incentive is £5 per customer over the AMP?

Response from Anglian Water (email 11 July 2018):

On the **bill impact:** we have based our performance payments on there being a maximum bill impact of $\pounds 1$ per customer per year across both performance commitments so $\pounds 5$ per customer over the whole AMP is correct. It is worth

noting that this bill impact would only result from us both a) far exceeding our PSR targets in every year of the AMP, and b) being assessed by the Panel as demonstrating excellent performance across assessment criteria in every year of the AMP.

Panel question (email 9 July 2018):

Can you explain how Hartlepool would feature in the proposed panel please?

Response from Anglian Water (email 11 July 2018):

We have plans to integrate Hartlepool Water more into the core Anglian Water business activity moving forward. As such, this would result in any actions taking place in the AW region automatically being covered in Hartlepool. This applies to both the measures in our vulnerability strategy and the remit of the independent Panel.

Panel questions during Panel meeting, 25 May 2018:

The V&A Panel had questions about the process and robustness of the independent Panel proposed under the performance commitment on vulnerability. Would it be transparent enough? How would it made up and chosen? How would it maintain independence? There were also questions raised about the remit and recruitment of the independent consultant and assessment criteria for the company's performance.

It is worth noting that Panel members were pleased to see Anglian Water had removed "expert" from the vulnerability panel wording as a result of previous feedback.

Response from Anglian Water:

A fuller explanation and description of the independent Panel was given during the 12 July 2018 Panel meeting. However, some questions still remained.

Phone call on 9 August 2018

Challenge: Panel members questioned the company's argument that a penalty based incentive mechanism for the vulnerability ODI might represent a disincentive for sharing information and best practice with other companies.

Response: The company explained that, if you have a financial penalty attached to this ODI and share best practice with other companies to raise the bar across the sector, you could put yourself at a disadvantage. By sharing information, you're potentially raising the standards of other companies, so this might disincentivise sharing of best practice. This was based on a discussion with colleagues at Ofgem.

The Panel concluded that Anglian Water is industry leading in this area and it was a shame if best practice couldn't be shared more widely to the advantage of customers in vulnerable circumstances.

Summary of Challenges from Hartlepool Independent Advisory Panel – May 2018

Please note: these challenges are also available in Annex 11: Report by Hartlepool Independent Advisory Panel

We have received some questions and comments from the Hartlepool Panel on the customer engagement that we have carried out, and how this is reflected in the business plan we will submit by September 2018. Set out below are Anglian's responses to the comments made.

We have sought to ensure all our customer engagement is representative of all parts of our customer base, including a good geographical spread, participation across the age and socio-economic spectrum and the more vulnerable segments of our base too. Hartlepool customers represent just under 2% of our overall base, so we must ensure our engagement is proportionate and representative, so that we balance this against the views of the 98% of our customers in our Anglian region. We are confident that we have ensured the views of Hartlepool customers are included in the synthesis of our customer views, which we have used to drive our business plans for 2020–2025.

Where possible and practical we have provided bespoke materials and engagements for Hartlepool customers. For example, bill profiles presented to Hartlepool customers were Hartlepool specific, and notably were the only set of profiles presented to customers that included options for bill decreases.

We have also tried to balance the need for one regulatory submission that supports the water resources and water networks price controls, which are not region specific, with the desire to highlight differences between Hartlepool and Anglian Customers. By and large, we have found that Hartlepool customers' views fall within the wide range of views we see within our Anglian region, but have sought to highlight where that is not the case.

Alde Memorie CCG Role 1. Quanty of Customer Engagement		
Hartlepool panel comment	Anglian Response	
1. The WTP work was not carried out with any significant sample of Hartlepool customers.	We have ensured Hartlepool customers were included in the willingness to pay work, where appropriate. In the main stage study, we surveyed 150 household customers and 52 non-household customers through the DCE survey, out of total sample sizes of 900 households and 500 non-households. Hartlepool customers represented 17% of household and 10% of non-household respondents to the survey forming a reliable representation of our overall customer base. The sample quotas were based on respondent gender, age and SEG to ensure representation of the Hartlepool region. Results of the survey were then weighted back to ensure proportional representation.	

Aide Memoire CCG Role 1: Quality of Customer Engagement

2. The vulnerability focus group in Hartlepool asked customers for their views on spending on climate change adaptation, whereas Anglian's Water Resource Management Plan says climate change will not necessitate changes to the way Hartlepool's water is managed (see Water Resource Zone Summaries p 59-63 in Anglian Water Resource Management Plan). Additional price rises to accommodate adaptation to climate change either need to be justified, or price rises need to be adjusted for Hartlepool.

3. When the segmentation questions were used as part of the willingness to pay research recruiting to (we assume) the same quotas, the makeup of the sample showed very different proportions of each segment, casting doubt on the utility and repeatability of the segmentation research. As this was one of the few pieces of research conducted in Hartlepool with a large sample, this is a significant concern.

4. A re-analysis of the Main Stage Willingness to Pay Study showed that, in the choice tasks, although confidence intervals for Anglian and Hartlepool customers overlapped, the rank order of priority for service attributes was different. Customers in Hartlepool's greatest priority was bill stability, whereas customers in Anglian's main area prioritised severe water restrictions.

5. We believe that applying a company wide price increase to the existing Hartlepool base price should exclude any rise attributable to the environment and wastewater expenditure, or otherwise the local We asked all water customers the same question in the focus groups, as there is one set of price controls for water. There are varying amounts of investment needed in each water resource zone, but there is one price control covering all these zones, so investment is spread over all customers, so we need to understand the views of a representation of all customers. This works both ways so what that means is where there has been investment in Hartlepool in the past, the cost of that has been spread over all customers. There are strict charging rules around allowed bill increases and maintaining bill stability which are reflected in our approach to charging. Our segmentation identified six segments within our overall customer base, with differing priorities and views on water and water recycling services. We use that segmentation to help articulate those differences and to disaggregate 'average' responses into more granular pockets of views. We have used the segmentation in several different surveys and there are differences in the proportions of customers falling in to each segment, but we still think it is a useful tool to help us articulate the broad spectrum of views in our customer base.

The re-analysis (April 2018) found the relative prioritisation of the five service attributes to be similarly aligned between Hartlepool and Anglian customers, with 'leakage' and 'change in bill' having a high level of importance for both groups. The main difference found was Hartlepool Water customers placing a lower level of importance on 'severe water restrictions' than Anglian customers. While the Willingness to Pay values for Hartlepool are generally lower than Anglian Water values, the confidence intervals overlap making it not possible to conclude that the two sets of values are statistically different. As a result, the way we have used the values in our cost benefit analysis has not changed.

We can confirm that all expenditure associated with the wastewater service and in particular the wastewater WINEP would fall within the two wastewater controls, and would not be applied to

concumore will be offectively charged	Hartlandal customer bills as they are
consumers will be effectively charged twice for these costs, as no doubt Northumbria Water will charge for these costs in the wastewater charge they apply to Hartlepool customers.	Hartlepool customer bills, as they are water only customers.
6. Are there any Hartlepool Water customers included in the online community?	While no Hartlepool Water customers are currently included in the online community, it is important to remember that we do receive regular and frequent feedback on customer satisfaction via qualitative and quantitative surveys that are proportionally higher than those in the wider AW area. Feedback is then divided in to groups by customer type. For example, one of the groups is titled 'Protective Perennials' and reflects around 9% of all AW customer base. This group don't want us to pursue Ofwat directives involving transfer of water over borders for resilience. In Hartlepool, the 'comfortable and caring' group are in a higher proportion that the rest of AW and so from the outset differing priorities are clear. Colin would like to see evidence in report form.
	We've also looked at vulnerability of our customers; of whom 22% are classified as vulnerable according to the definition written in the Water Industry Act. We think that this classification could and should be much broader as vulnerability could be fluid depending on personal circumstances and that things can happen to anyone at any time. Four of forty customers interviewed about this were from the Hartlepool area.
	We've carried out some acceptability research based on the Strategic Direction Statement (SDS) which is consistent for HW and AW. This can be difficult to explain to customers therefore we used focus groups to ask customers how to get the messages across. It was and is, important for us to communicate the difficulty in reliably predicting weather in the short, medium and long term. %proportion HW in AW research.
	Willingness to Pay (what customers will pay and be billed for) research has been very important. Some customers want to pay less for less dependable and thorough services, others would be willing to pay more for more. So, we're trying to look

more at revealed preference and how we need to phrase questions to better communicate what we're trying to ask without guiding customers' answers. So far we've asked 1400 in total about this, of whom 200 were in Hartlepool.

A customer focus group took place in Hartlepool (*Tuesday 12th December*) in order to further explore the differences between HW and wider AW customer priorities. On our behalf, Given London spoke to 10 people for around 2.5 hours.

Aide Memoire CCG Role 2: Extent to which the results of engagement are driving the company's decision making and being reflected in the company's business plan

Hartlepool panel comment	Anglian Response
6. The outline business plan prepared by Anglian Water does not mention Hartlepool at all. The only mention of Hartlepool is a brief summary on the consultation website of the investments Anglian Water will make in the area.	Our outline plan was a relatively high level summary covering our whole region and did not set out plans for any town in our area. We did set out regional investments on the digital version of the outline plan, and included Hartlepool as a region alongside a county-based breakdown including, for example, Lincolnshire, Cambridgeshire, Norfolk and Suffolk. We are preparing a short summary of the specific investment planned in Hartlepool.
7. Stakeholder consultation is ongoing in Hartlepool based on the outline plan. This is cause for significant concern for the Hartlepool Panel, as the outcomes will not reflect customers' views on the company's plan for Hartlepool. As the Panel has not seen the documents sent to stakeholders, further reassurances required that stakeholders understood there were only commenting on the water supply sections of the plan.	We received minimal feedback from stakeholders on our plan. This should provide the panel with reassurance that we are not acting on comments made on our wastewater plans from stakeholders based in our water only areas. Our focus has been on customer feedback on our plans, and we included Hartlepool customers in the acceptability research, the focus groups, a visit from the H2O Lets Go road show and participation in Be the Boss.
8. Questions being addressed by the online community exclude Hartlepool customers as there are no Hartlepool customers in the online community. Work through Community Ambassadors is not acting as a replacement for this.	The take up rate in the Anglian region for the online community compared to our overall customer base is extremely small. We did recently publicise the community to Hartlepool customers but had no sign ups, and the advice from our online community provider is that it is not suitable for a small group of customers

such as those in the Hartlepool region. We have boosted the role of community ambassadors in the Hartlepool region as feedback from Hartlepool customers is that they would like to see more of Hartlepool water colleagues out and about. We have tailored the ambassadors talk to the Hartlepool region so that it offers a more bespoke engagement route than the online community would be able to do.
The 25-minute surveys would be followed up both in the online community and via 16 more in-depth interviews (some of which would be in Hartlepool). The surveys were one part of the process. There would be a chance for customers to feed back on ODIs as part of the business plan consultation too. (Customers may be split into streams so they only have to consider several ODIs at one time, followed by a focus group to bring everything together.)
Where the research results from customers in the Hartlepool area are statistically different from those in other areas then there would be specific mentions in the Synthesis report. Otherwise the Business Plan would represent Hartlepool customers too. The differences between Anglian Water region and Hartlepool customers would be highlighted in future versions of the synthesis report. As of July 2018, the customer engagement Anglian Water had carried out in Hartlepool represented 1.38% of the overall engagement.
Hartlepool has always had a strong focus on leakage and benefits from a small urban area, which is strongly pressure controlled. The environmental pressures in the North East on resource availability is fundamentally different to the East of England so resource constraints are less of a driver. However, this does not influence Hartlepool Water's strategy to minimise leakage to contribute to overall AWS/HPL performance.

Main challenges from Sustainability and Resilience Panel meetings (2017-2018)

Please note: these challenges are also available in Annex 10: Report by Sustainability and Resilience Panel

S&R Panel Meeting (12 July 2017)

Comments on Anglian Water's draft <u>Strategic Direction Statement</u>:

Barry Bendall commented that he would expect to see environmental protection listed as a relevant challenge for all the outcomes and would like to see more on partnership working under the 'Flourishing Environment' challenge.

Dan Bean recommended focussing the language on *`people* and the environment'. Craig Bennett agreed, and suggested the SDS talk about *`our* environment' rather than *`the* environment'.

Craig Bennett asked what Blueprint thought were particular issues for Anglian Water. Nathan Richardson replied that Anglian Water is seen as being ahead of the game on leakage and resilience and getting on pace with catchment management and sustainable drainage

S&R Panel Meeting (17 September 2017)

Craig Bennett fed back that there's been a strong focus in the S&R Panel on catchment management and he felt that this didn't yet show through as strongly in the SDS as he would have hoped. For the PR19 Business Plan, he suggested it would be useful for it to be something that can be interrogated by catchment as this would be an easier way for customers to engage

CB suggested that the panel needs more detail in order to scrutinise AW performance results around environmental responsibilities.

S&R Panel Meeting (27 March 2018)

CB was pleased to report that the panel's input into Anglian Water's <u>Strategic Direction</u> <u>Statement</u> had been very important. It had directly influenced the introduction of a fourth goal on improving ecological quality.

BB asked if the panel would have an opportunity to respond to the WRMP, as this is crucial to the direction of the outline plan.

On ODIs

BB said that for the one-pager on Natural Capital, it would be useful to narrow down what the company wants to deliver – as well as showing line of sight to customer engagement.

DB said EA would like to see the words "catchment delivery" in ODIs

There was discussion among panel members about timelines. Members felt frustrated at the lack of information about the outline business plan and had hoped there would be a fuller and more detailed presentation about the ODIs at today's meeting. They felt that timelines were very rushed, giving the panel inadequate time to give useful input.

It was agreed that a panel meeting was needed as soon as possible to talk through in more detail about the business plan and ODIs.

One member said he would have liked the panel to have a role in forming the environmental ODIs, rather than coming in at this late stage. Although it was encouraging that the company had listened to the panel's views about the SDS, he said, that was high level thinking and the performance measures are very specific. This is now the opportunity for panel members and stakeholders to hold the company to account on the finer details.

The panel agreed that they wanted to support the company in their decision making processes around the environmental performance measures and in particular on natural capital. One member suggested the company could be trickling information as it's being developed to give useful feedback in a more timely fashion. Areas of specific interest included catchment management (one member said some companies are proposing ODIs on this) and population increase in the region.

S&R Panel Meeting (25 April 2018)

Craig Bennett reported that members of the Sustainability and Resilience Panel had been surprised by some of the content discussed at the last meeting regarding the <u>outline plan</u>, which was scheduled to be published the next day. The panel felt that the plan included several elements that hadn't been mentioned previously (e.g. the strategic grid).

CB said it was hard for the panel to make an assessment at the moment as to whether there's the right balance in the outline business plan between catchment management approaches and structural investment.

Rob Wise was surprised by the lack of empirical background data available. He referred to a map of the Anglian area on the website, which gives some idea of investment made per area. This kind of information would be useful to help the panel make more informed decisions.

CB: In terms of the panel's response to AW's outline business plan, we don't want to see lots of expensive hard engineering investment that's going to increase customer bills if we can find alternative ways that deliver better environmental outcomes and save bills too. The panel would be quite firm in supporting that.

- The panel needs more detail to be really confident that AW is maximising alternative approaches to hard engineering solutions in current AMP period (e.g. Newmarket shopfront innovative approaches)
- 2) We want to see empirical evidence that these alternative and innovative approaches will deliver
- 3) We would like to see the plan for re-engaging communities on catchment management approaches to make sure they are on board and involved (including questions around metaldehyde)
- 4) We would like to see what consumers/bill payers think do we have rich analysis on this?

5) We would like more information on company thinking behind performance commitments/ODIs.

S&R Panel Meeting (1 May 2018)

Focus on ODIs

Phil Rothwell said he was impressed by the inclusion of the natural capital performance commitment and he hoped other companies would do the same.

Dan Bean (EA) also welcomed the natural capital ODI. He stressed the importance of the company setting out how they'll engage with stakeholders to develop these ODIs. From his perspective, a milestone would be effective engagement with partners.

Nathan Richardson (RSPB/Blueprint for Water) sent in a comment by email that also praised the inclusion natural capital as a performance commitment. He said this is an area where AW, together with a small number of other water companies, will be leading the way in AMP7. He was keen to understand more about how the ODI will be framed and said it would be good to see wider catchment work reflected in the ODI suite and perhaps it could be integrated into this performance commitment.

Common Performance Commitments

CB asked for comments from panel members on AW's Common Performance Commitments:

The view of panel is it's important to continue driving down leakage, he said.
Panel members would hope to see opportunities for step changes in new technology (e.g. through shop window approaches seen at Newmarket).
On pollution incidents: CB referenced Nathan's email comment on the lack of an ODI on river water quality. Overall Nathan wrote that the ODIs represented a good spread of AW's activities. However, he expected to see a performance commitment on river water quality (such as km improved?) rather than just one ODI on bathing water quality, given how strongly water quality and pollution featured in the general customer feedback.

CB added that he was surprised that river water quality was not a common performance commitment set by Ofwat.

- **Joff Edevane (Anglian Water)** responded this would be included in the WINEP ODI measure, which focuses on delivery of obligations.
- John Giles (EA) said it wouldn't be enough to achieve WINEP requirements, as this is a statutory requirement so this aspect of business as usual performance shouldn't be rewarded. John said he believed there shouldn't be a reward for pollution incidents – this should be penalty only.

John's views were backed up by Nathan's email, which reiterated that many of the environmental NGOs are uncomfortable with companies claiming financial rewards for numbers of pollution incidents. They would like to see AW either set up their ODI so as not to receive rewards for pollution or commit to returning any rewards received into environmental enhancement. - **Alex Plant (Anglian Water)** agreed that this is something that needs to be part of continued conversation with Ofwat.

Bespoke Performance Commitments

Members looked at ODIs that are most pertinent to the panel.

External sewer flooding: no specific comments

Bathing water quality:

- **John Giles (EA)** suggested that bathing water quality isn't necessarily a reflection of a company's work, as it could be due to favourable weather patterns etc. He would welcome further discussions on measures that improve water quality.
- **Lou Gilfoyle (Anglian Water)** suggested adding "catchment management" into this ODI and to reflect level of ambition in improvement rather than simply maintaining the status quo.
- **Dan Bean (EA)** suggested this was an opportunity to empower AW staff to go the extra mile and wanted to look at wording in the narrative that reflected working in partnership/collaboration and a level of ambition.

WINEP Measure:

- **CB** suggested that this measure should include something about water quality. He suggested it would be good to cluster similar measures together so that they made more sense to customers.
- Alex Plant (Anglian Water) confirmed that measures would be clustered under the term "flourishing environment" to help customers understand the interlinkages. More thought would be given to the narrative to help show the links.
- **Dan Bean (EA)** added that it would be good to include a little box after each ODI to show if they're relevant to other measures.

Abstraction Incentive Mechanisms:

- **John Giles** said that companies have to talk to the Environment Agency about this measure and conversations have started. His comment was that this AW definition is very focused on surface water and lakes rather than ground water. He suggested it would be worth having a conversation with Nick Walters (AWS) to make sure that everything is included from an EA perspective as he has been fully engaged in the process.

Natural Capital:

- **CB** welcomed this performance measure although he acknowledged there was a lot of work to be done to flesh out the details. He suggested there were three aspects of natural capital to be addressed:
 - Rarity of species: need to say something about protecting rare habitats
 - \circ $% \left(Abundance: want to see abundant natural capital rather than just protecting it % \right) is the set of t$
 - Function: what we mean by flourishing environment is that everything needs to be flourishing and doing the job it needs to be doing naturally
- **Alex Plant (AW)** said it would be good to work together to get the metrics right for this ODI
- **Anne Ramsay (Natural England)** wondered how you can define the increase in natural capital over the AMP?
- **Joff Edevane (AW)** said this was a challenge and there would a number of different measures to capture this.
- **Chris Gerrard (AW)** said that current AW view is based on natural capital work already done and a range of measures available. For example, if you're improving effluent quality, this could be a metric for a more fully functioning river quality with a flourishing environment.
- **Dan Bean (EA)** pointed out that AW are experts in ecosystems and this ODI should be framed in that way. He recommended using WISER as the bible for developing this measure. He wanted to see more ambition in terms of enhancing and improving natural capital
- **Alex Plant (AW)** acknowledged that the definition could be tweaked to demonstrate a more pro-active approach to show the negative/positive impact on the environment over time
- **Phil Rothwell** said that partnership work is vital to improving natural capital so recommended linking with other sections of environmental management sector.

Social Capital

CB asked how this would fit alongside the ODI on natural capital?

Chris Gerrard (AW) responded that he would be refining wording over the next few days to incorporate working with environmental NGOs to maximise social benefit.

WINEP

Dan Bean (EA) said it could be helpful to AW if stakeholders around this table (including EA, Natural England) get opportunity to help look for softer catchment management solutions.

CB said there's a clear view from panel members that AW shouldn't get a reward for what's a statutory requirement. Some performance indicators should be penalty only.

The panel thinks there should be rewards when you go over and above what's legally required. Where you take measures that facilitate long-term measures to tackle root causes of problems, that's an approach the panel would support.

Anne Ramsay (NE) would like reassurance from the company on wider biodiversity work, building on the biodiversity action plan.

Alex Plant (AW) replied that this should be an enhancement over baseline performance. At the moment, these enhancements aren't captured within existing ODIs. Within the new performance commitments, there will be more measures in place to monitor this improvement in performance.

Chris Gerrard (AW): The natural capital metric will include biodiversity value of every one of sites (SSSI rating). There are plans to revise biodiversity strategy in next AMP.

Alex Plant said some of the changes in wording are quite important. He will share final submission with panel so can see what's been put into this.

S&R Panel meeting (5 July 2018)

Discussion on Business Plan

Anne Ramsay asked whether upward trajectory in bill profile would continue? Alex said this small incremental increase would likely continue.

Nathan Richardson questioned AW about choice of 2.5% bill profile – drawing evidence from synthesis report.

Alex Plant cited findings from Be the Boss: 41% said 2.5% increase in bills was acceptable and 42% said 5% increase was acceptable - therefore 83% were happy with bill increase.

Craig Bennett said that a headline overall was that this panel could be confident that customers do support investment in the environment, even if it means a slight increase in bills.

CB said WINEP was a real challenge for this panel. AW wouldn't expect panel members to be happy about the company asking for a delay on delivery of WINEP. He asked for reassurance from the panel that this approach would be better for the environment and that AW was maxing out on catchment management solutions.

AP said AW was not going to ease back on WINEP obligations. However, fulfilling some commitments would force AW to reach for engineering solutions to deliver on time within AMP7. The company has picked out 38 [now 34] potential catchment management schemes – they are currently doing feasibility studies with partner agencies and sounding out land owners.

John Giles urged caution in making WINEP a reward-based ODI because delivering against these commitments is mandatory.

Panel members acknowledged that what AW is proposing in terms of catchment management is pioneering work and is a brilliant commitment for the future. However, they felt they needed more reassurance in the quantifying how AW was going to roll out catchment management solutions. AP reiterated that AW was committed to natural capital approaches and had set aside funds accordingly. Regulators will be monitoring AW's performance on WINEP but pointed out that the company may need to reach for engineering solutions with bigger capital commitments if they were obliged to deliver all WINEP obligations within AMP7. (The decision on timings from EA was still pending).

AW's aim would be to deliver as many solutions as possible via catchment management projects, but this hasn't been done before so is uncharted territory. He pointed to pioneering work being carried out with the University of East Anglia on natural capital and partnership work with NGOs and other key stakeholders through Water Resources East.

Joff Edevane (AW) acknowledged that natural capital solutions may not be able to achieve everything that harder engineering approaches could do, for example, in terms of phosphate removal. But projects like Northrepps are also proving successful in unexpected areas (e.g. nitrate removal). AW is potentially looking at hybrid solutions; some of this is two or three AMP process.

Nathan Richardson welcomed the direction of travel but questioned whether endof-pipe wetland projects could truly be counted as catchment solutions. He questioned whether the programme should also be looking more broadly at behaviour change to reduce levels for phosphates, for example.

CB wanted to encourage AW to be more confident in setting the agenda on sustainability. For example, making sure new housing developments are as water efficient as possible and hiring lobbyists to make arguments over issues such as potential ban on metaldehyde.

AP said AW had lobbied hard on metaldehyde and used all available routes to try and win arguments. He also discussed AW's plans to move the Milton sewage works and said that new housing there would need to be an exemplar in water efficiency. He also acknowledged that rolling out smart meters would only be effective if it was accompanied by customer behaviour change to help reduce water usage.

Barry Bendall expressed concern that the thinking on the natural capital ODI was still too vague. He would like to see something more specific about catchment management solutions included in this ODI.

Dan Bean suggested that some of profits from any reward/penalty system could be reinvested into catchment management.

Nathan Richardson said that most water companies are doing something on natural capital in AMP7. Some are looking at dipping toes into catchment management solutions but AW is further ahead.

Members felt that there was a contradiction between the ODI on natural capital and WINEP, with its focus on delivering ahead of schedule.

AP said there was still some room to make these ODIs more ambitious, subject to board approval of the direction of travel. AW could look at a counter weight in the NC ODI to encourage the use of NC approaches.

Panel only 5 July: Summary of Discussion

Customer engagement

First section of report should note issues around customer engagement. AW has carried out a strong and extensive customer engagement process and one of the main conclusions is there is strong support from customers to pay for improvements that will guarantee long-term resilience.

John Giles mentioned that more recent language from Ofwat recognised that some water company bills may have to increase to deal with challenges faced.

Craig said the point this panel can make is we're confident AW has done thorough customer engagement process and conclusion is very strongly that measures should be taken to improve sustainability and resilience of water supply (with strong figures to back this up).

Moving towards a softer catchment management approach is good for bills and for the environment, as well as for social capital (community engagement). Too often it's been framed as a trade off.

Natural capital and catchment management solutions

The panel welcomed the SDS and sees it as important context for the business plan, specially in terms of recognizing natural capital approaches.

But this is the AMP where we need to see the catchment management solutions scaled up. This is fundamental. We welcome the scaling up to 38 catchment management schemes. But could it be more ambitious? Is it genuinely mainstream? Some members felt that catchment management approach was still a bit patchy. WRMP didn't talk about catchment management, for example, which is clearly a big gap.

There was also concern that the catchment management approach was buried in the natural capital ODI and that the business plan wasn't being driven by the exemplars panel members had seen at Northrepps, for example.

Flood risk

Julia Beeden mentioned that AW were going above and beyond what other companies are doing on flood risk. On that side, they are an exemplar. AW has taken on new member of staff to work on partnership. Partnership is integral to their flood work. They should draw on good work that's been done through Love Every Drop so this AMP raises it to a new level.

Level of ambition

The panel recognised a step change in the company's ambitions on S&R issues but felt it was still a long way before catchment management approaches were mainstreamed into business as usual.

Members felt that AW could be more ambitious in standing up and talking about natural capital and catchment management approaches. Also explaining to customers about their own catchments and focusing on behaviour change (for example: around smart meters; how will that actually work? Are they smart enough?

Other issues to flag included:

- Plastics and drinking water

- Suggestion of rising block tariffs (where customers would be charged more if they use over a certain amount of water)

ODIs

There was strong disagreement from the panel on the company being rewarded for pollution incidents. They felt this was morally wrong.

Panel members also felt that the WINEP ODI undermined the company's natural capital ambitions and would like to see more detail on this.

Conference call on 23 July 2018

Q&A: Clarifications regarding Natural Capital

Jeff Halliwell (CEF Chair) asked Chris Gerrard (AW) to clarify how thinking around Natural Capital East and a granular level of natural capital in ODI spend would fit into the business plan.

Arun Pontin (AW) noted Natural Capital performance commitment is a developing area and is more an Innovative framework and will be put in line and will develop over time rather than being a specific performance commitment as is the case for other ODIs.

In terms of the business plan, Ofwat has accepted AW's definition for the natural capital ODI. The measure itself will form reporting progress on our strategy plus reporting against specific metrics. AP confirmed there are no proposals to have financial implications for sub measures of natural capital ODI with the exception of WINEP.

Within the ODI, there will be incentives on delivery of WINEP but AW confirmed that the incentives will be ring-fenced to obligations that are not considered likely for natural capital solutions to ensure that there are no perverse incentives.

Ann Ramsay (NE) raised a question on the biodiversity definition of SSSIs. CG confirmed the current AMP6 ODI has at least 50% of sites in a favourable condition. Natural England resource constraints have impacted on NE's ability to undertake condition assessments. A 50% target was originally set up in 2020 and there will be a similar target now but will need to be refreshed. The 2030 target will continue to be reported, impact tracked and reported at the end of the AMP.

Paul Metcalfe (CEF member) asked for clarification of this as a performance commitment and this being a reporting framework rather than delivering against objective. AP agreed in principle but within this AW have measures in AMP6 and AMP7 which have their own performance commitments, for example – carbon measures.

Nathan Richardson questioned whether this measure is simply a retrospective reporting commitment. LG (AW) provided reassurance that the emphasis was to promote natural capital into decision making in the AW investment decision making process.

Wider commentary:

John Giles expressed concern that previously the two proposed ODIs for Natural Capital and WINEP seemed to contradict each other so was delighted to see movement on these and pleased AW have looked at natural capital solutions, acknowledging that it is critical that natural capital forms parts of future decision making processes and noted the positive steps have been taken in the last few weeks.

In terms of Bathing Water ODI – John noted the role of third parties and how this linked to the deadband for the measure noting how this could be a benefit to the company.

With respect to the company proposal on pollution incident, John understood the company position and that the performance commitment looked stretching but this needed to be backed up by self reporting.

Ann Ramsay (NE) noted that AW have made considerable progress over last month and noted the need to work together with Natural England and continue the current dialogue.

Dan Bean (EA) noted it was encouraging to see AW recognising their wider role and setting themselves up as a major player.

Daniel Storey (CEF member) requested clarification regarding the WINEP ODI stated that there are a number of obligations delivered – 2,200. How many remaining obligations are there around this quantified reward ODI?

Bernard Crump asked if the group would be receiving a note to understand the implications for the Business Plan as a whole from agreement to phase back some of the WINEP schemes? DR confirmed that it was part of proposal to run through the plan with the CEF at the session on 31 July.

It was also suggested proposed that AW capture this point in terms of the overall shape of plan for bills and investments. BC asked whether there are counter proposals that will have an impact on resilience part of the plan? DR confirmed this still be captured in narrative.

CB stated that on behalf of S&R panel, it would be more positive to phrase as taking longer to implement WINEP rather than delaying implementation.

Summary

Craig summarised by noting a lot of welcome progress has been made noting that in specific areas still some important question marks remain which will keep evolving.