




# Customer and Stakeholder Researcher

Proposal

West Country Water Resources Group (WCWRG)

19<sup>th</sup> March 2021

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# 1. Introduction

This proposal is submitted by **Economics for the Environment Consultancy (eftec)** in association with **ICS Consulting** and **Watermelon Market Research**, in response to the invitation to tender (ITT) 'Customer and Stakeholder Research' issued by West Country Water Resources Group (WCWRG). It is structured as follows:

- Section 1 introduces our team;
- Section 2 sets out our understanding of the project scope and requirement;
- Section 3 presents our proposed approach, describing the main tasks that will be undertaken, and the associated work programme and timescales;
- Section 4 describes our project management approach, including quality assurance, risk management and data management;
- Section 5 details the key staff who will be involved in delivering the work;
- Section 6 provides our Pricing Schedule, including options for different components of the work; and,
- Appendices A and B provide staff CVs and further detail of our track record and experience.

## 1.1 Highlighting our team and experience

We provide a highly skilled team for this project. **eftec** ([www.eftec.co.uk](http://www.eftec.co.uk)) is a UK-based consultancy specialised in applying analytical tools to a range of public policy issues. **ICS Consulting** ([www.icsconsulting.co.uk](http://www.icsconsulting.co.uk)) has a proven track record in working across the whole of decision making, engagement and regulatory functions in the water sector. **Watermelon** ([www.watermelonresearch.com](http://www.watermelonresearch.com)) is a leading market research agency and will support the fieldwork delivery on the project.

Our team for this project features expertise at the national policy level, including water resources, natural capital and the environment. This is combined with our customer research and stakeholder engagement experience in regulated sectors and extensive track record across the whole of the investment planning, engagement and regulatory functions in the regulated network sector. Our customer research expertise includes a wide array of qualitative and quantitative research methods. We also support companies' in using the customer and stakeholder evidence that is produced in investment planning, decision-making and delivery. Our experience of helping companies to use customer and stakeholder evidence in practice ensures that we specify and deliver high quality, relevant, actionable insight.

Our recent portfolio of work features the full range of evidence review, qualitative and quantitative research methods. This includes our ongoing work with Water Resources South East (WRSE) that has similar requirements to WCWRG to develop the customer evidence base that supports water resource and resilience planning in the sector

### Customer engagement expertise

Table 1.1 summarises the breadth of our regulated utility sector customer engagement experience. Further detail is provided in **Appendix A** covering our industry experience, case studies, and regulated sector developments.

Our expertise and knowledge are also recognised by companies, regulators and stakeholders through our contributions to good practice guidance for PR19. We were commissioned by Ofwat to provide expert advice on how to evaluate the quantitative customer research that companies submitted as part of their PR19 Business

Plans<sup>1</sup>. As the technical lead for this project, we provided a synthesis of the good practice principles and requirements for the range of research methods that can be used to estimate customer priorities, preferences, and values. We also provided the technical expertise for the advice CCWater issued to companies on how to improve their use of revealed preference and stated preference methods as part of developing a wider customer evidence base<sup>2</sup>. These two reports surveyed a wide scope of good practice guidance to provide consolidated advice on the key principles and criteria to judge the quality of the customer research undertaken by companies.

**Table 1.1: Overview of our customer engagement track record**

Engagement area	Research approaches	Topics
Customer needs and priorities	Literature reviews Focus groups Deliberative workshops In-depth interviews Online forums (focus groups, bulletin boards) Interactive personalised videos Surveys Stakeholder workshops	Water resources planning; resilience (disruption to water supply from uncertain and/or unexpected events); resilience planning; impact of service failures; customers in vulnerable circumstances and vulnerability strategies; decarbonisation options
Customer valuation / willingness to pay	Literature reviews Valuation strategies and frameworks Stated preference Revealed preference Subjective wellbeing Validation exercises (playback & triangulation) Peer reviews (expert advice and guidance)	Overall service levels; water resources (service levels and options); tap water supply; sewer flooding; pollution; water environment; bathing water quality
Acceptability testing	Deliberative workshops Surveys Plan balancing simulators / configurator tools (sliders)	Water Resource Management Plan; overall Business Plan; incentive mechanism rewards and penalties; tariffs, social tariffs and affordability strategies;
Insight into how companies should deliver their plans	Post incident surveys Tracking Surveys and interviews	Ongoing engagement around satisfaction, priorities, monitoring and communications, and delivery
Customer needs and priorities	Literature reviews Focus groups and deliberative workshops In-depth interviews Online forums (focus groups, bulletin boards) Interactive personalised videos Surveys Stakeholder workshops	Water resources planning; resilience (disruption to water supply from uncertain and/or unexpected events); resilience planning; impact of service failures; customers in vulnerable circumstances and vulnerability strategies; decarbonisation options

### Water resources expertise

Our team includes water resources experts, who have worked within and for water companies to support the development of water resource management plans (WRMP). This has included the development of tools and processes to examine water resource options, as well as producing optimised water resource plans. This includes ICS Consulting’s long relationship of supporting WRMP demand modelling at Thames Water. The integrated demand management model (IDM) is used to determine the impact demand options to establish the most cost-effective means of achieving different demand reduction targets for households and non-households. The tool has been used to evaluate multiple scenarios defined to represent a range of demand targets and associated company strategies. The results across the scenarios provide the costs and benefits which feed into a separate Thames Water model for evaluating the most economic means to balancing supply and demand (EBSB).

<sup>1</sup> ICF Consulting Services Limited in association with Economics for the Environment Consultancy (eftec) and Simetrica (2018) Expert Advice on Assessing Customer Valuations, Final Report to Ofwat.

<sup>2</sup> ICF Consulting Services Limited in association with Economics for the Environment Consultancy (eftec) (2017) Improving Willingness-to-Pay Research in the Water Sector, Final Report to CCWater.

ICS Consulting is also currently developing a new tool to determine the optimal selection of demand and supply options for South West Water. This will ensure supply and demand is balanced whilst taking into account uncertainty. The approach explicitly considers the potential for using water use restrictions to balance supply in more extreme weather to avoid over investing in capital or demand management schemes. The objective of the work is to demonstrate with increasing complexity the implications of adopting a stochastic decision-making approach for balancing supply and demand with uncertainty in weather events and components for quantification of supply and demand. This will allow South West Water to assess the incremental value of applying the approach to different levels.

Finally, member of our team have also recently completed a project for Defra, developing long term water bill forecasts under a range of water resource and drought resilience forecasts. This is being used by policy makers to support ongoing discussions on the levels of risk and performance in the future.

## 2. Understanding of the requirement

### 2.1 Background

Regional water resource plans will establish how the supply of water for homes and businesses will be effectively and affordably managed across the region over the next 25 years. The development of regional plans is timely. Increasingly areas are being classed as water stressed over the long term. Whilst traditionally the focus has been more on the South East, security of water supplies is a growing consideration across all regions. Despite the backdrop of water stress, policy makers are looking for a step change in drought resilience and a contribution to a green recovery. There is ever increasing support from customers and stakeholders for an enhanced and protected environment. The future cannot be the same as the past. This means that now more than ever it is important to get the right customer and stakeholder evidence to support the development of plans.

We recognise that WCWRG water companies have already engaged with customers and stakeholders – through PR19 and as part of their business as usual activities. Much of this existing insight will align with the research topics and themes to cover in this project, but there will also be some differences in conversations and views received. The project therefore needs to build on the current evidence – refreshing what is known and infilling the gaps - so that it is efficient and targeted. Our proposed approach is intended to provide options for the research for WCWRG that can meet the requirements and constraints.

### 2.2 Project requirements

The overall purpose of the project is to support WCWRG in formulating the best value regional plan for the South West. The aim is to develop the evidence base on customer and stakeholder preferences for the various outcomes associated with the planning objectives. The broad topic areas to explore are:

- **Option types** – preferences for individual supply and demand options and the overall balance between them within the plan, including how view may vary with customer characteristics (e.g, socio-economic and demographic factors; attitudes and experience);
- **Inter-company transfers** – views on sharing water with neighbouring companies or further afield, as a

“suppliers” or “recipients”;

- **Environmental ambition** – support for investment beyond the minimum requirement to reduce the dependency of the water system on sensitive habitats to wider river and groundwater sources;
- **Drought resilience** – preferences for further reductions in risk drought measures (e.g. hosepipe bans) and emergency drought restrictions (e.g. rota cuts/standpipes);
- **Wider societal benefits** – preferences for the broader public value that can be delivered by the plan, including carbon savings, health and wellbeing, and amenity and recreation benefits for communities;
- **Risk** – attitudes to the level of risk and resilience to future uncertainties and pressures from population growth, consumption levels, weather patterns and climate;
- **Timing** – views on the balance of early investment to reduce risk versus future investment to maintain customer bill levels in the short term; and,
- **Trade-offs** – views on the constraints on the plan in terms of the acceptable/unacceptable trade-offs between risk, service levels, dependency on the environment, and bills.

A combination of evidence review, qualitative research and quantitative research methods will be used to develop the evidence under these topic areas:

### **Work Package A**

Qualitative research with customers and “light-touch” engagement with stakeholders to provide insight on the broad policy and strategic issues that frame the regional plan and the planning objectives – for example the approach to drought resilience, targets for leakage and per capita consumption, the balance of supply and demand measures, the level of environmental ambition, principles for sharing water, and affordability issues (e.g. vulnerable customers; future customers).

### **Work Package B**

Quantitative research with customers to estimate “preference weights” for the best value criteria that describe the planning objectives for the regional plan in measurable terms, and to test levels of customer support for the plan overall in terms of affordability and the acceptability of proposed outcomes (e.g. leakage, environmental ambition, mix of supply and demand measures, etc.).

### **Work Package C**

A synthesis of findings, drawing together the results from the qualitative and quantitative research, along with insights from existing evidence compiled by the WCWRG companies (PR19; WRMP19), to provide a coherent narrative and dataset covering the overall understanding of customer and stakeholder views for the regional plan.

The research will provide a representative view of the WCWRG companies’ customers and stakeholders and their geographic areas (i.e. water resource zones). As a minimum, customers will be segmented into household, non-household and future customer / citizen groups. In the quantitative research socio-economic, demographic and attitudinal characteristics will also be controlled for in order to gauge the degree of consistency in customer preferences across a broader set of factors than just company geography (e.g. customers in vulnerable circumstances).

We propose a more “light-touch” approach for stakeholders. Whilst this will encompass environmental groups, regulators, non-water company abstractors, water retailers and local government, we recognise that the formal consultation for the regional plan will take place in January 2022. Ahead of this, this project therefore provides an early opportunity to engage with stakeholders to understand their priorities and needs, and how these align (or

otherwise) with the views of customers.

In our pricing schedule (Section 6), we provide alternative options for the scale of the qualitative and quantitative research, from covering the minimum requirement to a more comprehensive programme of activities.

## 2.3 Research methods

The project requires a combination of qualitative and quantitative research that can be robustly implemented within the practical constraints of ongoing COVID-19 restrictions. Necessarily we will conduct both aspects of the research aspects through online platforms. We will draw on our experience and learnings from engaging customers and stakeholders on water resources during PR19. We will also draw on our work with WRSE in 2020: this included online deliberate groups with customers from 10 participating companies (approx. 80 customers in total, split across 11 groups, each with two 90 minutes sessions and supplemental “homework” tasks for participants), along with a large-scale online survey (approx. 2,500 household and non-household customers in the South East).

The overall process – particularly for the qualitative research – was found to work well and positive feedback was received from customers. Considerable ground was covered during the deliberative sessions, demonstrating that engagement via an online platform was effective in terms of allowing a similar level of topic areas and materials to be covered with participants to in-person groups. A good mix of customers were also recruited for each group; indeed, older and vulnerable customers that may have struggled to attend in-person groups were included in the sample. The online platform also provided functionality for voting exercises and visual prompts that helped to enlivened the sessions, maintain participant engagement throughout, and give them the opportunity to interact with each other onscreen. On the whole, our conclusion is that the online approach did not compromise the validity of the research and is a fit for purpose engagement channel in current circumstances.

Regardless of the mode of engagement, it is also important that the qualitative and quantitative research for WCWRG follows good practice guidance for the sector and reflects on the lessons learnt from PR19<sup>3</sup>. For example, the recent Blue Marble report for CCW provides useful guidance around how to ensure customers are briefed and engaged prior to and during engagement exercises, in order to maximise the value of their input. Allied to this there is also a timely opportunity for this project’s outcomes to inform companies’ future customer research strategies and approaches – for both WRMPs and wider PR24 business planning – following on from various issues raised in Ofwat’s recent consultation paper on customer engagement<sup>4</sup>.

## 3. Proposed approach

### 3.1 Overview

In line with the project requirements (Section 2.2) will use a mixed methodology approach featuring desk-based evidence review, qualitative and quantitative research and analysis methods. The principal outputs for WCWRG will be:

- Deliverable 1: Report on qualitative research and findings (Work Package A)
- Deliverable 2: Report on quantitative research and findings (Work Package B)

<sup>3</sup> This includes commentaries set out in Ofwat (2019). Time to act, together: Ofwat’s strategy and CCW (2020). Engaging water customers for better consumer and business outcomes.

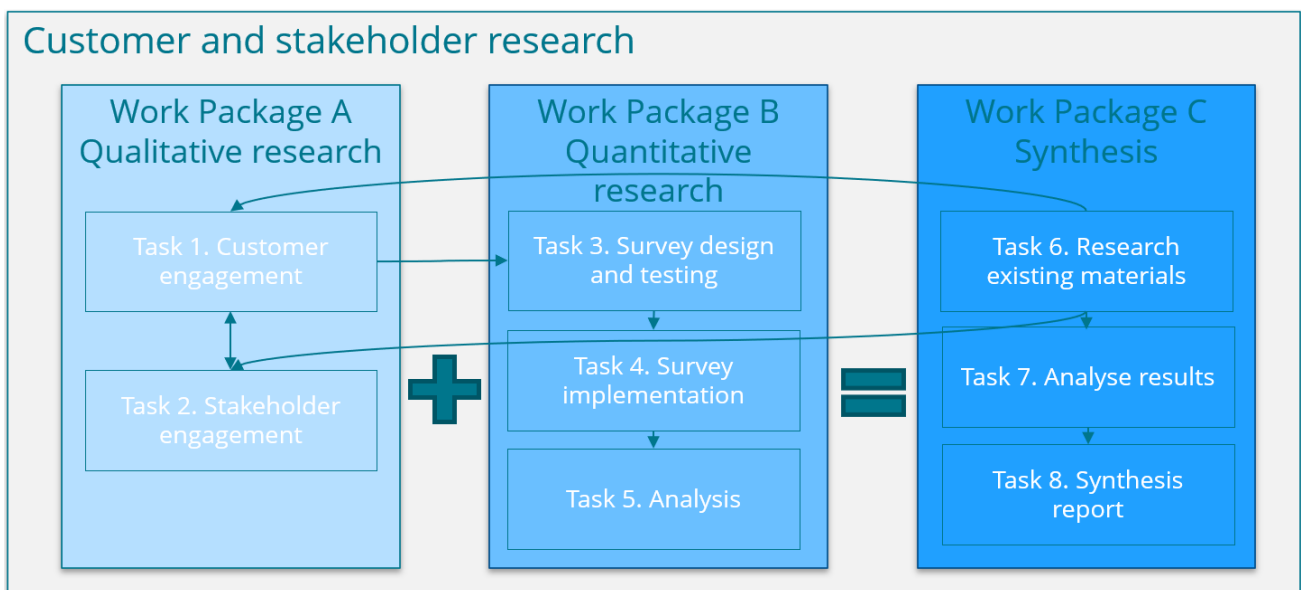
<sup>4</sup> Ofwat (2020) PR24 and beyond: Reflecting customer preferences in future price reviews – a discussion paper.



- Deliverable 3: Synthesis report, dataset and presentation (Work Package C)

In combination, the overall outcome from the project will be a refined understanding of customers views on how the WCWRG best value plan should be configured. The evidence and insight developed through the project will provide the basis for gauging the level of support for the candidate plans and identifying which elements of these are the main drivers of best value for customers.

The main aspects of the three work packages, associated tasks, milestones and deliverables are outlined in Figure 3.1. The key activities under the project task are described subsequently (Section 3.2).



**Figure 3.1: Work packages and tasks**

The accompanying project workplan and timescales for the tasks and deliverables are provided in Section 3.3. Details of our project management approach, including progress reporting, quality assurance, risk assessment, and data management policy are provided in Section 4.

## 3.2 Project tasks

### Project inception

We will commence the project with an initial online meeting with the WCWRG project manager to introduce the project team, discuss any points of clarification or elaboration concerning the project requirements and our approach, and confirm the agenda for the project inception meeting. The inception meeting will be a web conference attended by the key team members of the project team and WCWRG steering group. The purpose will be to: (a) review the project aims and objectives to ensure expectations are aligned; (b) discuss the status of the best value criteria; (c) confirm the processes for accessing data; (d) confirm the scope of the project tasks and timings for deliverables; (e) discuss the format and style for the project deliverables; and (f) confirm the project management arrangements, including schedule of progress updates. We will produce a brief inception meeting summary note, reflecting the discussions, clarifications and agreed next steps in relation to (a) – (f) above.

**Milestone 1: Project inception meeting**

## **WORK PACKAGE A: Qualitative research**

The purpose of Work Package A is to explore the with customers and stakeholders the broad policy and strategic issues that frame the regional plan and the planning objectives. We propose to implement the qualitative research via VisionsLive, which is the platform that hosted our work with WRSE in 2020 (Section 2.3). We will use a video conferencing format for the online groups and utilise the voting and visual prompt functionalities of the platform with sessions. The quick polls appearing as pop-ups and mean we can gauge the strength of feeling around discussion points. This was a particularly successful feature of the research we conducted for WRSE to ensure that supporting quantitative evidence is captured alongside the qualitative discussion. The platform also allows for observers (e.g. WCWRG, CCG members) to view the groups, and features a direct messaging function that allows observers to communicate with the moderators during the sessions.

For the minimum scope option (bronze) – see below - we propose 8 online groups with an extended format, with groups of 8-10 customers participating in a moderated session approx. 2 hours in duration. Participants will be required to complete a pre-reading exercise ahead of their session. Within this option, we propose 2 sessions with a mix of business customers and stakeholders.

Our enhanced scope option (gold) is based around a reconvened format, with groups of 8-10 customers participate in two moderated sessions that each are approx. 1.5 hours in duration. Participants will be required to complete a pre-reading exercise ahead of the first session and a homework exercise between the first and second session. This format allows for a more deliberative approach to the research, building up customers’ understanding, and more time to explore each topic areas in depth.

### **Task 1.1 and Task 2.1 Prepare research materials (customer and stakeholders)**

The discussion scripts for customer and stakeholder groups will be drafted for review and comment by WCWRG. We will use a threaded dialogue format with the moderator posing information and questions to the groups based around the broad topic areas for option types, inter-company transfers, environmental ambition, drought resilience, wider societal benefits, risk, timing, and trade-offs (Section 2.2). The discussion scripts will be supported by a range of explanatory material that will be shared with customers and stakeholders to facilitate the sessions, including the pre-reading pack, visual and graphical prompts, and reference information.

**Milestone 2:** Completion of customer and stakeholder engagement materials

### **Task 1.2 and Task 2.2 Online groups (customer and stakeholder)**

The online groups will be led by experienced moderators who will present materials and answer/ask questions and nudge all respondents to participate fully. We present three options for implementing the online groups, differing in terms of the total number of groups and their format (Table 3.1). Participants will be recruited to ensure representation across age, SEG, disability, ethnicity, housing tenure (renters/homeowners) and geography. We will also ensure that a range of occupations are covered across the participants, such that issues for non-household customers can also be reflected in the groups – for example the impact that emergency drought measures would have on customers’ livelihoods as well as their domestic circumstances.

**Table 3.1: Online group options**

Option	Household customers	Non-household customers and stakeholders
Bronze	6 extended groups (1 session; 2 hours): 1 future customers; 1 older generation; 1 Bristol Water; 1 South West Water; 1 Wessex Water; 1 mixed	2 extended groups (1 session; 2 hours): 1 non-household; 1 stakeholder <u>or</u> 2 mixed non-household and stakeholders

Option	Household customers	Non-household customers and stakeholders
Silver	9 extended groups (1 session; 2 hours): 1 future customers; 1 older generation; 2 Bristol Water; 2 South West Water; 2 Wessex Water; 1 Bournemouth Water	3 extended groups (1 session; 2 hours): 1 non-household; 2 stakeholder <u>or</u> 2 non-household; 1 stakeholder
Gold	8 reconvened groups (2 sessions; 1.5 hours each) 1 future customers; 1 older generation; 2 Bristol Water; 2 South West Water; 2 Wessex Water;	8 reconvened groups (2 sessions; 1.5 hours each): 1 non-household; 1 stakeholder

For household customers we suggest that in each option one group is recruited for future customers (young people, currently non-bill payers), and one group is recruited for older generation customers (+65 years). The remaining groups will be recruited by company area with a further group containing a mix of customers across companies. These groups will have mixed age groups and SEGs – since this has found to be an effective dynamic for online groups (as opposed to in-person focus groups).

Groups for non-household and stakeholders can either be separate or mixed. We will confirm the preferred approach with WCWRG. For stakeholders in particular, we will draw on our experience. For PR19 we supported the development of the stakeholder workshops at South West Water. There were a sessions across the region (inviting councils, community groups, tourism bodies, other utilities such as Western Power Distribution, etc.) to understand their requirements for the Business Plan. More recently we were involved in the briefing and engagement of policy makers, MPs, and senior industry stakeholders, following our customer research into decarbonisation of heat for National Grid.

**Milestone 5:** Customer and stakeholder groups complete

**Task 1.3 and Task 2.3 Analysis and initial findings (customer and stakeholder)**

Once the online groups are complete, the findings will be documented in a summary presentation. This will present the topline findings from customers and stakeholders, including reasons for their views. We will present consistent and contradictory messages across customer segments, including majority and minority views. The results will be presented through key findings, responses to the voting polls, and written quotations that provide colour to the customer feedback We will present the findings to WCWRG help to disseminate the results to the companies.

A full report containing a summary of how the research was conducted and the scripts used will be prepared. A draft report will be produced, followed by a final report taking into account feedback and comments from ECB.

**Deliverable 1a and 1b:** Findings from qualitative research

**WORK PACKAGE B: Quantitative research**

The purpose of Work Package B is to estimate customer preference weights for the best value criteria for the regional plan and test levels of customer support in terms of affordability and the acceptability of proposed outcomes. We will design, test, implement, and analyse data from an online 15 – 20 minutes survey for customers that will be developed around these requirements. A key component of the survey will be a formal “choice task” that will quantify customer preferences for the best value criteria. The specific format for the choice tasks will be determined as part of the survey design task – i.e. paired comparison, max-diff (best/worst), or choice experiment. Each of these formats will provide fit for purpose results in terms of numeric weights for the best value criteria.

**Task 3.1. Survey design.**

The household customer version of the survey – the questionnaire and accompanying material, including descriptions of the regional planning process and objectives (best value criteria) - will be developed first.

This will include a range of graphic design materials to convey the explanatory material and contextual information in a visually engaging way (Box 3.1). The non-household customer version will be adapted from the household version once the design task is completed. The basic structure for the survey will be:

- A. Screening and sample representativeness – upfront questions to ensure the respondent profile is consistent with the sampling frame.
- B. Experience, perceptions and attitudes – ‘warm-up’ questions that introduce the respondent to the regional plan and objectives (e.g. broader policy context for WCWRG and familiarity with resilience and water resource planning issues).
- C. Choice task – exercise to capture customer preferences for the best value criteria (i.e. their relative importance).
- D. Follow-ups – a sequence of questions the reasons for respondents’ choices and probe acceptability and the level of customer support for different levels of risk, environmental ambition, supply and demand measures, bill impact, etc. for the regional plan.
- E. Other respondent profile information – a final set of questions that obtain the socio-economic and demographic characteristics of the respondent (households) or business profile (non-households) to support the segmentation of results.

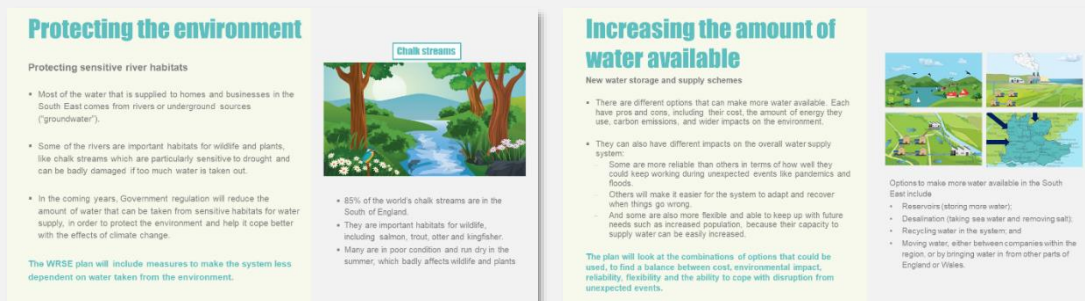
The survey will be scripted and hosted online by Watermelon, our market research agency partner for this project.

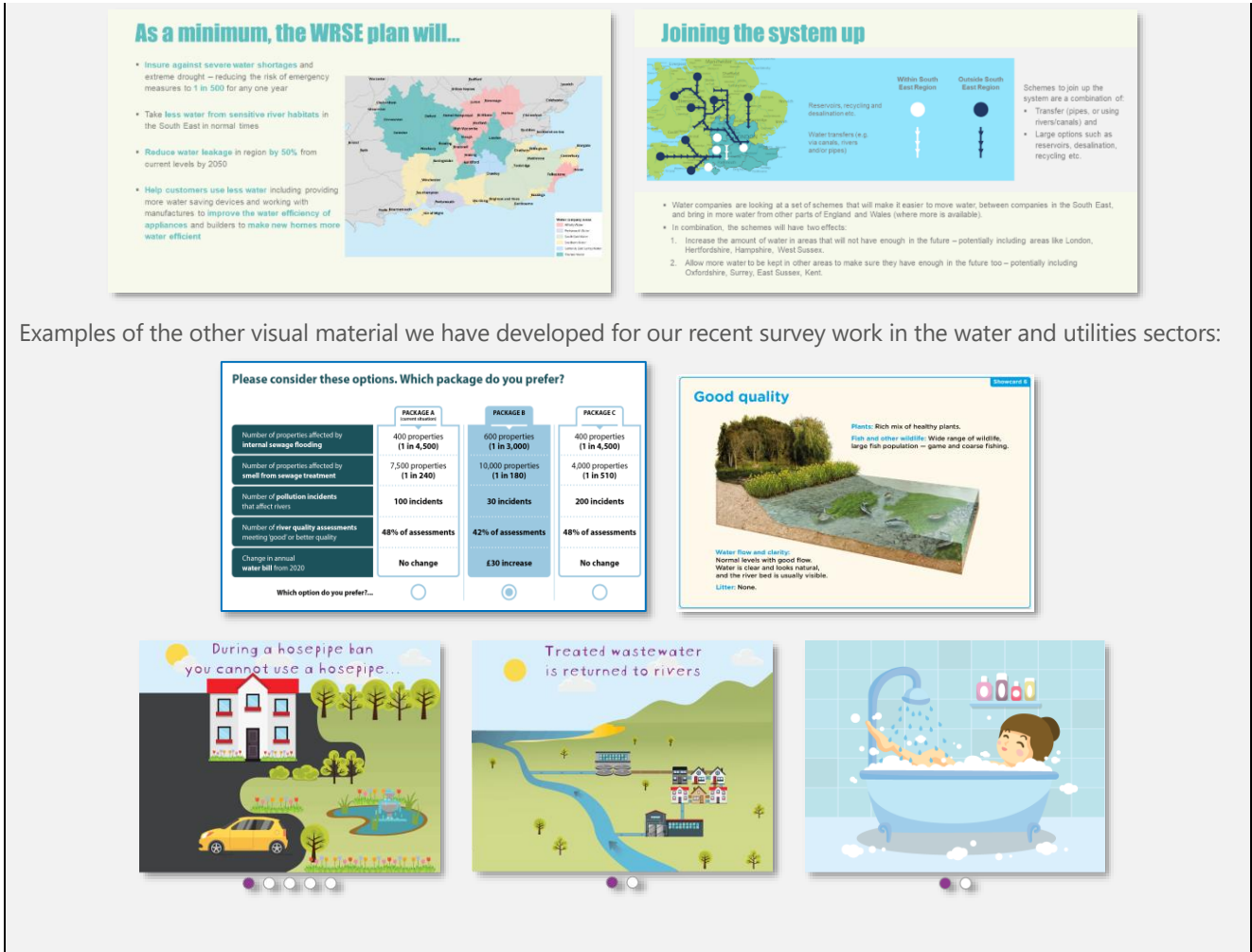
**Milestone 6: Draft questionnaire produced**

**Box 3.x: Examples of recent visual material for quantitative research with customers**

Within our costing for the survey development task, we include a provision for graphic design input to develop tailored visual material for the survey. This will be an essential part of the survey design, with the aim being to describe to respondents the best value criteria via a combination of descriptive text and visual content in order to ensure understanding.

Examples of the visual material prepared for our work with WRSE in 2020:





**Task 3.2. Sampling strategy.**

The overall requirement will be to ensure that the survey results are representative of customer households in South West England and that we are able to provide reliable results by customer segments, including company, socio-economic and demographic splits.

Our minimum scope option is for a total sample of approx. 1,350 household respondents. This will allow a stratified sampling approach by company, with 300 respondents each for South West Water and Wessex Water and 200 respondents each for Bristol Water and the Bournemouth Water area. Sampling quotas will be specified according to respondent age, gender, and socio-economic group (SEG). Soft quotas will be applied for ethnicity and disability for the overall pooled sample. A series of customer profile questions will be included to identify customers in potentially vulnerable circumstances (age, water dependency and financial). A supplemental sample for future customers (18-24-years; Millennial/Generation Z; current non-bill payers) is also included.

The proposed minimum scope sample size for non-household customers is 200 respondents, representative of the WCWRG on economic sector. This is based on the coverage of available online panels for the South West. With this sample size it will not be possible to stratify the sample to provide reliable results by company region. The sample size will though be sufficiently large to provide a robust comparator to the household customer results.

**Milestone 3:** Sampling strategy produced

**Task 3.3. Survey testing.**

Pre-testing of the survey will be focused, using one-to-one online interviews with a small sample of household customers to gain feedback on their overall understanding, the ease/difficulty of completion, and perceived credibility of the survey. The findings from the pre-testing will confirm the specific choice task format that will be applied in the survey. This will take into account a number of considerations, including the complexity of the choice task for respondents, the number of repeated choice (i.e. potential for fatigue), and the richness of the customer preference data that is generated (which has implications for the precision of the customer preference weight estimates).

The survey will be tested quantitatively in an online pilot with household and non-household samples. The sample size for each will be approximately 5-10% of the overall target sample size. Following the pilot, the survey will be updated based on any final requirements, including a final review by WCWRG. If there are no other changes to the survey material, the pilot survey can be treated as a 'soft launch' of the main fieldwork and the pilot data can be included in the final analysis.

**Milestone 7:** Testing complete

**Task 4. Survey implementation**

The main survey will be implemented in accordance with the sampling strategy. Table 3.2 summarises the alternative options in terms of sample size. Respondent recruitment will be managed through Watermelon. The online sample will be quality controlled with any 'speeders' or incomplete responses screened out. Data management processes are highlighted in Section 4. We will provide progress updates to WCWRG, detailing the number of completes and fulfilment of target quotas.

**Table 3.1: Online group options**

Option	Household customers	Non-household customers
Bronze (Minimum)	200 Bristol Water; 300 South West Water; 300 Wessex Water; 200 Bournemouth Water; 150 future customers (WCWRG overall)	200 respondents – WCWRG overall
Gold (Enhanced)	300 Bristol Water*; 500 South West Water; 500 Wessex Water; 300 Bournemouth Water; 150 future customers (WCWRG overall)	300 respondents – WCWRG overall

Note: \*target number of respondents – this is dependent on high response rate from online panel.

**Milestone 8:** Main survey complete

**Task 5.1: Statistical and econometric analysis**

We will conduct a thorough analysis of the survey data, providing a topline statistical summary of the data and a breakdown by key segments (e.g. company area, age, socio-economic group). The descriptive statistics will include the sample representativeness and respondent profile questions, along with the results for attitudinal questions and customer support/level of acceptability for different aspects for the regional plan.

Customer preference weights for the best value criteria will be estimated through appropriate econometric analysis of the choice task data. Our analysis will have the robust theoretical underpinning for choice modelling.

This is a well-established framework that provides testable predictions about choice behaviour and the estimation of preference weights. In our analysis we will test a range of model specifications (e.g. conditional logit models, mixed logit models). We consider this to be best practice for understanding customer preferences (rather than relying on a single specification). We will scrutinise the results to recommend the model that provides the 'best fit' to the data, and most reliable customer preference information for regional plan (e.g. in terms of the precision values and 95% confidence intervals). Statistical tests will be used to determine if customer preference weights differ across customer segments.

**Milestone 9:** Econometric analysis complete

#### **Task 5.2: Validity testing**

We will extend the analysis of the survey data to provide an assessment of the consistency and reliability of the results. The purpose will be to provide more qualitative assurance of respondent understanding and the reliability of the results. There is no single test of survey validity and the analysis is based on the interpretation of a range of factors. This includes: respondent feedback to diagnostic and follow-up questions concerning the credibility of the survey and ease of completion; evidence of strategic or systematic (e.g. always opting for the same response) answers by respondents; significant numbers of outlier responses to questions (e.g. high or low amounts); and high non-response rates to questions. The validity testing assessment will be summarised in the reporting output for the survey.

**Milestone 9:** Validity testing complete

#### **Task 5.3: Quantitative research report**

The quantitative research report will be provided as a supporting annex to the Synthesis Report (Work Package 3). It will describe the methodological approach, the development of the customer survey material, statistical results and econometric analysis. The overall format and structure of the quantitative research report will be confirmed with the WCWRG ahead of its submission.

**Deliverable 2:** Findings from quantitative research

### **WORK PACKAGE C: Synthesis**

The purpose of Work Package C is to prepare the synthesis of findings that draws together the results from the qualitative and quantitative research, along with insights from existing evidence compiled by the WCWRG companies (PR19; WRMP19).

#### **Task 6. Review existing research findings from WCWRG companies**

We will ensure that the research and engagement is targeted to meet the needs of WCWRG by first reviewing the previous insight developed by the companies. This will feed into the research materials for Work Package A and B. By doing this task early, we can ensure that we identify areas that need to be refreshed as well as gaps in the understanding. We note this approach was undertaken in the recent WRSE project and worked well. For this task we will review the main water resource engagement and look for common and differences in customer and stakeholder views across the research topic areas (Section 2.2).

If each company can provide the key insight reports or synthesis reports, we will review and collate into a common narrative. This early output can be used quickly by the companies to support the development of the regional plan and to review Strategic Resource Options.

### **Task 6.2 Review other readily available relevant material**

We will also look to wider industry research and engagement reports that provide additional insights, such as publicly available engagement or synthesis reports of other water companies or industry stakeholders. Given our experience in the industry, we do not consider this to be a significant task for our team. But we consider it to be a high value part of the process, which will ensure the subsequent research is targeted and efficient.

**Milestone 4:** All water company and other available material reviewed

### **Task 7.1: Analyse qualitative and quantitative findings**

To produce the synthesis of findings we will develop an overall structure for summarising the existing insight (Task 6.1; 6.2) and findings from the qualitative research (Task 1.3; 2;3) and quantitative research (Task 5.3). This will be framed around the main topic areas (Section 2.2) and the key segmentations across customers and stakeholders. For the most part, the purpose will be to identify areas of consistency and differences in preferences and views. The basis for the analysis will be mainly qualitative interpretation, accounting for the context in which the customer/stakeholder evidence was elicited, and the extent to which the findings can be generalised across all customers or certain groups of customers and stakeholders. The main outputs of the analysis will be key extracts that provide insight on the main research topics with respect to understanding what the best value plan is for customers and stakeholders and the main drivers of support. The extracts will be featured in the synthesis report.

**Milestone 10:** Synthesis analysis complete

### **Task 8. Synthesis report**

The project will conclude with the preparation of the synthesis report. We will discuss and agree the structure for the report with WCWRG including the format and requirements of the target audience(s).

#### **Task 8.1: Draft report and Task 8.2: Final report**

The synthesis report will develop the qualitative and quantitative customer and stakeholder research findings, building an overarching narrative by summarising the key points, drawing out commonalities as well as any discrepancies, demonstrating links and themes, and providing interpretation. We will submit a draft version of the report for feedback and discussion, a final version of the report will then be produced.

#### **Task 8.3: Presentation**

The project will conclude with a presentation, outlining the approach taken, key findings, and interpretation for policy and planning. The specific contents of the presentation, including key findings and messages to highlight, will be agreed with WCWRG following submission of the draft synthesis report.

**Deliverable 3, 4, and 5:** Draft report, Final report, and Presentation

## **3.3 Workplan**

Figure 3.4 provides a GANTT chart detailing the work programme, with the timescale for each project task. The interim findings that will be available for the end of May 2021 will be based on the qualitative research results (Work Package A) and the review of existing research (Task 6.1; 6.2).





**Figure 3.4: Project programme**

	April				May				June				July				August				September							
w/c	5	12	19	26	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30	6	13	20	27		
<b>PROJECT MANAGEMENT</b>																												
Task 0.0 Progress reporting		U1		U2		U3		U4		U5		U6		U7		U8		U9		U10		U11		U12		U13		
Task 0.1 Project inception	M1																											
<b>WORK PACKAGE A: QUALITATIVE RESEARCH</b>																												
Task 1. Customer engagement																												
Task 1.1 Prepare research materials				M2																								
Task 1.2 Customer focus groups						M5																						
Task 1.3 Analysis and initial findings								D1a																				
Task 2. Stakeholder engagement																												
Task 2.1 Prepare research materials				M2																								
Task 2.2 Stakeholder focus groups						M5																						
Task 2.3 Analysis and initial findings								D1b																				
<b>WORK PACKAGE B: QUANTITATIVE RESEARCH</b>																												
Task 3. Survey design and testing																												
Task 3.1. Sampling strategy				M3																								
Task 3.2. Draft stated preference questionnaire								M6																				
Task 3.3. Testing (cognitive testing and piloting)												M7																
Task 4. Survey implementation																												
Task 4.1: Main survey																												
Task 5. Analysis																												
Task 5.1: Statistical and econometric analysis																												
Task 5.2: Validity testing																												
Task 5.3: Quantitative research report																												
<b>WORK PACKAGE C: SYNTHESIS</b>																												
Task 6. Research existing materials																												
Task 6.1 Review material from WCWRG Water Companies				M4																								
Task 6.2 Review other readily available relevant material				M4																								
Task 7. Analysis results																												
Task 7.1 Analyse qualitative and quantitative findings																												
Task 8. Synthesis report																												
Task 8.1 Draft report																												
Task 8.2 Final report																												
Task 8.3 Presentation																												

**Milestones**

- M1: Project inception meeting (w/c 05 April)
- M2: Completion of customer and stakeholder engagement materials (w/c 26 April)
- M3: Sampling strategy produced (w/c 26 April)
- M4: All water company and other available material reviewed (w/c 26 April)
- M5: Customer and stakeholder focus groups complete (w/c 17 May)

- M6: Draft questionnaire produced (w/c 31 May)
- M7: Testing complete (w/c 14 June)
- M8: Main survey complete (w/c 26 July)
- M9: Econometric analysis complete (w/c 09 August)
- M10: Synthesis analysis complete (w/c 23 August)

**Deliverables**

- D1a: Findings from customer engagement (w/c 31 May)
- D1b: Findings from stakeholder engagement (w/c 31 May)
- D2: Findings from quantitative research (w/c 23 August)
- D3: Draft final report (w/c 6 September)
- D4: Final report (w/c 20 September)
- D5: Presentation of results (w/c 27 September)

## 4. Project management

### 4.1 Roles and responsibilities

**eftec** will be the lead contractor for the project. Overall project delivery will be managed in accordance with eftec's Quality Policy (available on request). We adhere to the principles of good business practice and good project management and our procedures are certified to the requirements of ISO 9001:2015. eftec is highly experienced at managing complex projects with project teams comprising both eftec team members and partners to ensure that the best available expertise is assigned to each project requirement. Our project managers are experienced in managing and leading projects. Their role is to ensure the work is coordinated and delivered on time within the available budget and includes scheduling and responding to internal quality assurance (QA) procedures. Regular in-person and virtual meetings with the project team ensure consistency between different strands of work and all outputs go through a rigorous review process before submission to clients.

**Jake Kuyer** will be the Project Manager, responsible for overall running of the project, coordination of the project team, and first point of first contact with the client project manager. **Allan Provins** will be the Project Director, responsible for overall delivery of the project to specification, technical oversight, and a secondary point of contact.

### 4.2 Progress reporting

We will confirm a schedule of regular progress updates to WCWRG project manager via web-conference at project inception. We suggest that the progress reporting reviews the current project resources, actions, risks and deliverables, along with any specific issues arising in relation to tasks and input from the steering group. Jake (Project Manager) will be responsible for progress reporting and will lead the web-conferences. Key team members will also participate in the web-conferences as required. Ahead of the teleconferences we will submit via email a progress update summary, based on our standard template for regular progress reporting to clients. The template is available on request. The progress updates will be supplemented by regular telephone and email contact with the WCWRG project manager to inform on project developments, seek clarification as appropriate, and address issues arising.

### 4.3 Quality assurance

The project will be implemented in accordance with eftec's overall quality management and assurance process (ISO 9001:2015 certified procedures), including risk management assessment, data protection (including confidential and commercially sensitive information), sustainability and health and safety policies. eftec is audited on an annual basis by The British Assessment Bureau. The ISO certification includes explicit identification and management of business risks.

### 4.4 Risk management

We have a project risk management approach which enables ongoing review of the project and facilitates pre-emptive action as required to maintain project schedule and outputs. Potential risks to this project, and mitigating actions, are set out in Table 4.2. We suggest that these are reviewed with the WCWRG project manager as part of the project inception meeting.

**Table 4.2: Project risks and mitigation**

Risk	Likelihood	Impact	Mitigation	Action / Recovery Plan	Residual impact
Unable to meet contract terms and conditions - professional liability	Low	Low	The project terms and conditions have not been provided as part of the ITT issued by WCWRG. Aside from liability arising from death, injury caused by negligence, and fraud, which are unlimited, eftec indemnify and/or accept liability to the limitations of its insurance cover - £10m employers' liability, £5m public liability and £2m professional liability. We can confirm that this level of cover has been considered sufficient for projects of a similar nature.	Professional liability capped at limit of insurance cover.	Low
Misunderstanding project requirement (ITT)	Low	Medium	The project inception meeting will review and discuss the scope of the project, our approach and how these meet the requirements to ensure that all parties are in agreement of the way forward. The purpose and outputs are clearly defined, and we are highly experienced in applying stated preference methods.	Our team consists of subject matter experts – meaning this risk is low. We will review and revise our approach in accordance with the discussion and agreement at the project inception meeting. Amendments to scope and approach will be recorded as required.	Low
Delays in access to data from previous research	High	Medium	The project team will set out a timeline of key points at which input is requested from companies at the project inception meeting, in order to provide sufficient notice to companies. This timeline of inputs will be reiterated at points of contact with the WCWRG project manager and the companies.	We will follow-up with the WCWRG project manager through the inception meeting and progress updates regarding the data requirements and timeline, and ensure that all meetings and	Low
Meeting key deliverables on time	Medium	High	The project will be implemented in a constrained timescale. The work plan has been constructed to set out a feasible scope of work that has sufficient time for the quantitative and qualitative research components. We will continually review the delivery timescale through the fortnightly progress updates (web-confs) and frequent telephone calls and emails with the WCWRG project manager as necessary.	Potential for delays will be identified as soon as possible and the WCWRG project manager notified, along with our proposed course of action, including prioritising the essential tasks and results that will input to the customer dataset	Low
Continuity of personnel – e.g. unexpected staff illness or unavailability	Low	Medium	Staff resource requirements have been carefully determined, and the project manager will actively manage resources and schedule tasks accordingly.	The project team have a range of equally skilled staff available, and therefore would be able to provide alternative staff in the event of a key individual becoming unavailable.	Low
Challenge from stakeholders	Medium	High	The project will support WCWRG's engagement with external stakeholders and will discuss the strategy for engagement on the development, progress and outputs of the project. The project team has experience working closely with water companies to engage with these stakeholders.	We will fit our approach into the broader stakeholder engagement work being undertaken by WCWRG for the regional resilience plan. The project team will support engagement and communication with the stakeholders throughout the project.	Low
Data collection and communication under Covid-19	Medium	High	The research will be conducted using online (and telephone) approaches, meaning that social distancing measures (if still in place) will not impair the implementation of the research. The potential for responses to be influenced by the impact of COVID-19 will be addressed in our approach to the design of research materials.	We will carefully monitor the potential impact of the knock-on effects of Covid-19 restrictions on the research results (e.g. effect on household/business budgets) as the project progresses and ensure that we are able to respond appropriate and include mechanisms to test and validate research findings in this context.	Low - Medium

Changes to project risks are an explicit part of project management updates provided by eftec to its clients. Should any significant risks arise during the project they would first be addressed by the Project Manager or Project Director. In the case a sufficient conclusion is not reached, the matter can be escalated to eftec’s Managing Director, Ece Ozdemiroglu.

## 4.5 Data management policy

The security of personal data and client data – including any data and information deemed to be confidential - is a high priority for eftec and the project delivery will follow our Data Management Policy (DMP) and ensure appropriate measures in place to manage data. The DMP and measures are part of the eftec company manual which each employee is asked to read on their induction into eftec and keep up to date with additions over time. All eftec staff, associates and subcontractors have to comply with the rules of the full quality assurance and data management policies. Our full policy is available on request. eftec is Cyber Essentials certified (Certificate Number: IASME-A-015381).

Survey respondents will be recruited by Watermelon. As a data processor Watermelon will be 100% compliant with the provisions of GDPR. Watermelon is an established market research agency with an extensive track record working with financial services providers, central government and local authorities. Their accreditations include membership of the MRS Company Partner Service and membership of the MRS Fair Data scheme (to show that an organisation is trusted to use personal data in an ethical way). They are registered with the Information Commissioner’s Office, as well as the Interviewer Quality Control Scheme (IQCS), Cyber Essentials certified and adherent to ISO 20252 and ISO 27001.

## 5. Project team

As previewed in Section 1.1, we have assembled a highly qualified team to undertake the project that will successfully deliver all aspects of the work (**Table 5.1**).

**Table 5.1 Project Team**

<b>Name</b>	<b>Position</b>	<b>Role</b>	<b>Expertise</b>
<b>Allan Provins</b>	Director (eftec)	Project director	Utility sector; consumer research; stated preference; policy advice
<b>Jake Kuyer</b>	Principal (eftec)	Project manager	Project management; economic analysis; qualitative and quantitative research
<b>Natalya Kharadi</b>	Consultant (eftec)	Researcher (WP-B; WP-C)	Literature review; quantitative analysis; summary reporting
<b>Lisa Gahan</b>	Director (ICS)	Technical lead (WP-A)	Utility sector; regulatory economics; statistics; investment appraisal
<b>Sandra Randall</b>	Consultant (ICS)	WP Manager (WP-A)	Project management; stakeholder engagement
<b>Sarah Williams</b>	Consultant (ICS)	Researcher (WP-A; WP-C)	Consumer research; market analysis; research design
<b>Kar Yee Dearing</b>	Technical director (ICS)	Technical advisor (WP-A)	Company decision appraisal; investment modelling; strategy
<b>Jo East</b>	Associate	Engagement (WP-A; WP-B)	Facilitating focus groups; interviews; stakeholder engagement
<b>Ali Chalak</b>	Associate	Econometrician (WP-B)	Econometric analysis; data interpretation; summary statistics

## Appendix A: Team CVs

## Allan Provins

### Project Director



Allan Provins is an economist who works with companies, government and NGOs to help them make better evidenced plans and decisions. The main theme in his work is choosing the right tool for the job (along with a healthy dose of pragmatism). His work has mainly focused on valuation of environmental and cultural goods and services and the use of this evidence in socio-economic analyses, including impact assessments, cost-benefit analysis, and policy and project decision-making. Recently he has assisted a number of UK water companies in their customer engagement and strategic investment planning activities for the 2019 Price Review. He Conducted over 50 revealed/stated preference studies, with results and findings published in peer-reviewed academic journals, including contributions to the literature concerning biases in responses to stated preference questions (loss aversion and status quo effects) and the reliability of revealed preference data.

## Education

- MA Environmental Economics (with Distinction), University of East Anglia (2003)
- BSc Hons Economics, University of Nottingham (2002)

## Experience

**Development of water company Business Plans** Project director and lead input to the design and analysis of customer preference studies (revealed preference and stated preference methods), business plan acceptability testing surveys and other customer priority exercises for PR19 and PR14 Business Plans (various companies 2012-19). Lead input to advisory projects for Ofwat (2018) and CCWater (2017) on the use of revealed preference, stated preference and subjective wellbeing methods by water companies in the development of their business plans. Lead author of guidance on the use of revealed preference methods for Ofwat (2011) and application of CBA and non-market valuation methods for UKWIR (2010). Advisory role on the application of cost-benefit analysis to support investment planning for several water and sewerage companies (2008-19).

**Revised Bathing Water Directive** Project director and lead input to disproportionate cost assessment for the Environment Agency, including design and analysis of revealed and stated preference surveys and application of cost-benefit analysis (2013/14). Project lead for water company studies valuing the benefits of improvements in bathing water quality using revealed and stated preference methods (South West Water, 2017; United Utilities 2016). Expert reviewer for bathing water valuation study for Scottish Government (2018).

**Water resource planning** Advisory role for Water UK project 'long-term pathways for achieving per capita consumption reductions' (2019). Project director for economic support contracts for the Environment Agency, including developing a framework for environmental valuation in water environment planning (2015), review of Water Resource Management Plans (2013), and update of the Benefits Assessment Guidance (2012). Project manager for 'Valuing Water' study for UKWIR testing the use of hydro-economic models to support water resource planning (2012/13).

**Valuation of biodiversity and ecosystem services** Project director and lead input to advisory projects for European Investment Bank (2018) and Forestry Commission (2019) on integrating biodiversity and ecosystem impacts into investment appraisal and decision-making. Lead author for guidelines on the use of value transfer for Defra (2010, 2015), valuation of environmental impacts in flood risk management for the Environment Agency (2010), forestry (Forestry Commission, 2011), and uplands (Natural England, 2009).

**Valuing the benefits of company incorporation** Project director and lead input to the design and analysis of the value of limited liability using stated preference methods for BEIS and Companies House (2020/21). Project director and lead input

to the design and analysis of the value of Companies House data using stated preference methods for BEIS and Companies House (2020/21).

**Training in economic valuation** Lead trainer for regular one-day training sessions for Defra-family economists on the concepts and terminology of economic values, overview of valuation methods, value transfer and using value evidence in policy and investment appraisal.

### **Selected publications:**

Lanz, B. and PROVINS, A. (2017) 'Using Avertive Expenditures to Estimate the Demand for Public Goods: Combining Objective and Perceived Quality' *Resource Energy Economics*, Volume 47 DOI: 10.1016/j.reseneeco.2016.09.004.

Lanz, B. and PROVINS, A. (2016) 'The Demand for Tap Water Quality: Survey Evidence on Water Hardness and Aesthetic Quality' *Water Resources Research*, Volume 16, DOI: 10.1016/j.wre.2016.10.001.

Lanz, B. and PROVINS, A. (2015) 'Using Discrete Choice Experiments to Regulate the Provision of Water Services: Do Status Quo Choices Reflect Preferences?' *Journal of Regulatory Economics*, Volume 47, Issue 3. DOI: 10.1007/s11149-015-9272-4.

Lanz, Bruno, and Allan Provins. "Valuing local environmental amenity with discrete choice experiments: Spatial scope sensitivity and heterogeneous marginal utility of income." *Environmental and Resource Economics* 56, no. 1 (2013): 105-130.

Lanz, Bruno, Allan Provins, Ian J. Bateman, Riccardo Scarpa, Ken Willis, and Ece Ozdemiroglu. "Investigating willingness to pay-willingness to accept asymmetry in choice experiments." In *Choice Modelling: The State-of-the-art and The State-of-practice: Proceedings from the Inaugural International Choice Modelling Conference*, pp. 517-541. Emerald Group Publishing Limited, 2010.

## Jake Kuyer

### Principal Consultant



Jake is an experienced consultant with professional and academic experience in the broad fields of economics, the environmental and social value. He is capable with technical approaches including both qualitative and quantitative methods of analysis, as well as business skills including project management, stakeholder engagement, and delivering training. Jake is able to conduct work both remotely and from client sites to be part of an interdisciplinary team to successfully deliver high quality and challenging projects. He is a member of the UK Network for Environmental Economics and holds a Prince2 Project Management Practitioner certification.

In Jake's current role at eftec he is involved with multiple aspects of Natural Capital Accounting, applying environmental economic techniques to the development of accounts for different scales, sectors and asset types, as well as a variety of other elements of applied environmental economics including Stated Preference techniques such as contingent valuation and choice experiment, and Cost-Benefit Analysis. In previous roles Jake has worked at a leading consultancy in social value impact assessment, and in the environmental department of a multi-national engineering firm. Jake is enthusiastic to use the strategic application of economics to issues around the environment and sustainability, to improve the understanding and management of the environment, the economy and society.

### Education

- MSc Ecological Economics (*distinction*), University of Edinburgh, UK
- BA Double Major (*distinction*): Economics; Environmental Studies, University of Victoria, Canada

### Professional Appointments

- UK Network for Environmental Economists (January 2018 to present)
- Prince2 Project Management Practitioner

### Selected Recent Projects

**Understanding the Reasons for Incorporation, BEIS, May 2020 – April 2021.** A large scale stated preference study to provide evidence on the reasons for incorporating a company. Design, testing, implementation and analysis of a choice experiment to investigate the value of different attributes of incorporation, and what drives business owners to choose different forms of business structure. Jake is the project manager.

**Amenity Value Benefits of a Deposit Return Scheme (DRS) for Drinks Containers, Defra 2020.** The purpose of the research project is to further develop the evidence base on the amenity benefits of a DRS for England. A stated preference methodology (a discrete choice experiment supplemented by a contingent valuation) will be applied to examine how the amenity benefits of a DRS varies according to aspects such as baseline levels of litter, composition, location, the scope of the reduction, as well as wider effects in terms of the impact on wildlife. The study results will provide a fuller reflection of the disamenity of litter and an understanding of how benefits vary across changes in a range of dimensions. The study results will be used to update the aggregate benefit estimates in a revision of the Impact Assessment for the expected second consultation phase. Jake is the project manager.

**Caribbean Overseas Territories Regional Natural Capital Accounting Programme, for The Darwin Initiative, June 2020 – ongoing.** eftec, with JNCC, NEF and local government partners, will establish a system of accounting for the benefits that the environment provides within five UK Caribbean Overseas Territories. The project aims to enhance other national statistics, providing robust evidence for environmental and economic management. The project includes capacity building with relevant government departments, supported by a regional practitioner's network with a dedicated coordinator. The work will act as an exemplar of the revised United Nations guidance on environmental accounting in the region. The eftec led programme of work implementing natural capital accounting processes on five UK Overseas



Territories in the Caribbean. Initiating natural capital accounting in Cayman Islands and British Virgin Islands, and building on previous NCA work in Anguilla, Montserrat and Turks and Caicos Islands. The project includes technical support for local government departments, practitioner training and regional outreach. A cross OTs practitioners' network with regional activities is being developed. The NCAs will follow UN SEEA guidance and be aggregated into a regional OT wide natural capital account. Jake is the project manager.

**KENT WT - NC Valuation, the Kent Wildlife Trust, 2019 – ongoing.** This project will develop catchment level natural capital accounts for the Stour (Kent) and Authie (Pas-de-Calais) river catchment. Stakeholder engagement methods will be employed to inform the design of the research. The evidence base will be used to develop the business case for the use of nature-based solution to address water management issues in the catchments (flooding, drought, diffuse pollution). An 'interactive' natural capital valuation tool will be developed to support stakeholder engagement activities, which includes natural capital training and guidance for project partners, land owners and other stakeholders in the catchments. Jake is the project manager.

**577. Thames Estuary Natural Capital Analysis Research, for the Ministry of Housing, Communities & Local Government (MHCLG), November 2019 – ongoing.** eftec, lead by JBA Consulting, to produce a natural capital analysis for the Thames Estuary to assess the various options to maximise the socio-economic and cultural value of the area's natural assets. The project will identify which assets may be depleted due to unsustainable overuse of particular ecosystem services. eftec will produce estimates on the measure and valuation of benefits provided by the Thames Estuary as part of the baseline natural capital assessment. Part of the work will also be to produce recommendations and their associated economic valuation, on how to achieve net gains in the area's natural capital. The final output of is a report that provides an overview of the findings of the study.

**574. Literature Review and Scientific Report for the Ireland Wales Interreg Project: Bluefish, for the Marine Institute – Foras na Mara, November 2019 – ongoing.** eftec, and a wider team, are working to produce a literature review and scientific report on the consequences of climate change in the Irish and Celtic Seas. This involves providing clear and relevant information on key ecosystem goods and services, and their value to people to support debates on climate change adaptation strategies, ensuring long-run stability of and improving the health and well-being of these marine and coastal resources into the future. The project will identify and use the best available evidence on ecosystem goods and services provided by the region, estimates of their economic value, an overview of the potential impacts of climate change and their economic costs, and also a review of current Irish and Welsh climate change adaptation policies. This work forms part of a series of deliverables by the Marine Institute within the EU BlueFish Project and Fisheries Ecosystem Advisory Services (FEAS) collaboration. Jake was the project manager.

**Cost Benefit Analysis of the Marine Environmental Data and Information Network (MEDIN), for UKRI, 2019.** The objective of this project was to report on the costs and benefits that MEDIN brings to the UK economy to aid the delivery of MEDIN's next 5-year Business Plan. To do so an online survey was circulated to identify the time savings the users gain from using MEDIN along with qualitative data on the wider benefits the service brings. These were compared against the costs of running MEDIN as well as the time associated with uploading data, to give an overall Net Present Value (NPV) and Benefit Cost Ratio (BCR). Sensitivity tests were run on the final results as well as a round of stakeholder engagement to verify the survey results and provide further qualitative understanding of stakeholders' perspectives of the MEDIN and the broader, less easily quantified, impacts it has through building networks and representing marine data providers and users. The report is publicly available at:

[https://www.medin.org.uk/medin/sites/medin/files/documents/MEDIN%20Cost%20Benefit%20Analysis\\_Final%20Report.pdf](https://www.medin.org.uk/medin/sites/medin/files/documents/MEDIN%20Cost%20Benefit%20Analysis_Final%20Report.pdf)

Jake was the project manager.

**Pioneers Evaluation, for Defra, 2018.** Qualitative research undertaken includes analysis of project materials, interviews with local and national stakeholders, and workshop facilitation. Required engagement with multiple stakeholder groups to understand a variety of experiences on the successes and challenges of the intervention, and synthesis the findings in to a coherent narrative of the impact of the project. This high-level evaluation is designed to assess the progress made by the Pioneers to date, and to develop learnings for the future direction and implementation of their activities. Jake was part of a team conducting an evaluation of Defra's four Natural Capital Pioneers at both the local and national level.

## Natalya Kharadi

### Consultant



Natalya is an environmental economist and consultant at eftec since 2017 has undertaken research and development of the ecosystem service assessment of Montserrat and Anguilla and modelled the economic costs and social impacts of fisheries management strategies in Scotland. She has measured and valued ecosystem services in natural capital accounts for over 10 private sector companies, local and national Government and the Surrey Wildlife Trust. She has skills in economic appraisal and valuation methods applied across a variety of sectors.

### Education

- MSc Sustainable Development and Environmental Economics, University of St. Andrews (2016-2017)
- BSc Economics with Econometrics, University of Kent (2013-2016)

### Professional Appointments

- Member of the UK Network Environmental Economists (UKNEE) (2017-present)

### Selected Recent Projects

**North West Regional Natural Capital Account**, for *United Utilities, January 2020 – ongoing*. The purpose of the project is to develop a baseline natural capital account for the North West in partnership with key stakeholders. This baseline account will be used, inter alia, to inform United Utilities business strategy and operations by providing context for its current activities (e.g. management of its own estate), and a baseline against which to appraise individual investments options (e.g. in catchment management approaches) and regional outcome scenarios (e.g. of environmental net gain). To do so the account will have sufficient local detail within the region, disaggregated to key stakeholders and groups (e.g. agriculture, wider public), and be able to reflect changes with sufficient detail and timeliness. Natalya will quantify and monetise the identified benefits provided by natural capital assets in the North West region

**Corporate Natural Capital for Northumbrian Water – North**, for Northumbrian Water Limited, November 2020 – ongoing. This project aims to provide support to Northumbrian Water Limited's (NWL) in the development of a baseline natural capital account for the land managed in its northern operating area ('North') land. The account will identify the key natural capital assets of NWL's landholdings, the benefits they provide to NWL and wider society, and the economic value of these benefits. It will compare these benefits to an assessment of the costs of maintaining the natural capital assets of NWL into the future. eftec will provide support and guidance to NWL staff throughout the CNCA process. The main project outputs include a report and an excel accounting workbook. Natalya is the main point of contact for the NWL team and will provide support throughout the CNCA process

**WRSE Customer Valuation Framework**, for Water Resources South East (WRSE), May 2020 – ongoing. The purpose of this project is to produce the customer evidence base that will support the WRSE regional plan. It will

draw on the existing insight and evidence held by the six companies individually, produce a ‘triangulated’ synthesis of this evidence, and augment it with further qualitative insight and quantitative evidence that is tailored to the specific requirements of the regional planning context for WRSE. This includes: (i) a refined understanding of customers views and priorities on the broader water availability, climate and environment, and resilience policy objectives that the regional plan must address; along with (ii) their views on the acceptability of the alternative water resource schemes that may be implemented to balance supply and demand, including examining the consistency of customer views across companies, within company areas, and across customer groups in terms of socio-economic and demographic factors. Finally, the research will also (iii) test the extent to which customers want the regional plan to depart from the least cost planning principles and identify which enhancements to the plan offer the best value to customers. Natalya is reviewing evidence on supply-side solutions, and will help in preparing materials for stakeholder workshops.

**Corporate Natural Capital Account**, for Northumbrian Water, November 2019 – June 2020. This project provided support to Northumbrian Water in the development of a baseline natural capital account. The account identified key natural capital assets of Northumbrian Water’s landholdings, the benefits they provide to NWL and wider society, and the economic value of these benefits. The account also compared these benefits to the maintenance costs. eftec provided support to the NWL team throughout the CNCA process, including data collation, choosing assessment methods, data analysis and a final review of the completed workbook. Project outputs included a report and an excel accounting workbook. Natalya was the main support contact to the NWL team throughout the project by consulting on data sources and the benefits assessment methodologies.

**UKWIR Natural and Social Capital Accounting Tool Tests**, for UKWIR, August 2019 – December 2019. The purpose of this project was to support water companies’ use of a Natural and Social Capital Accounting Tool designed by eftec to help integrate natural and social capital into their appraisal and accounting processes. The project supported the use of the Tool through four core tasks: 1) a Webex tutorial on the design and functions of the Tool. The case studies used in the development of the Tool were demonstrated to participants to show its functionality and data entry processes; 2) a “help-desk” for the water companies for general guidance; 3) a seminar for participating companies at the end of the project to exchange experiences and 4) a report on the project with a draft specification for the next phase. Natalya provided support to water companies as they make use of the Tool (i.e. “help-desk” support).

**Water reduction intervention cost curves**, for WaterUK, March 2019 – December 2020. The aim of the project was to assess the cost-curves associated with interventions needed to meet the ambition on PCC reduction, to flesh out the demand implications of the extended and enhanced scenarios in Water UK’s 2016 Long Term Water Resources Planning Framework, and for going beyond them to very stretching levels. The project team included Artesia Idt, Doug Hunt and Bruce Horton. eftec lead the economic delivery modelling and developed marginal cost curves to identify which interventions are necessary to meet a given PCC target. The economic model included full cost models, linear programming optimisation models, etc. The outputs informed the policy interventions needed to address any constraints on achieving the PCC targets. Natalya undertook research into the environmental and social values estimated by water companies in the UK as part of their business plans, and assisted in putting together the excel based cost-benefit analysis for the interventions assessed.

## Jo East

### *eftec associate - Market Researcher*



Jo East is a strategic thinker and very experienced researcher at home with both qualitative and quantitative approaches. As a skilled mixed methodology researcher he is able to provide fully integrated solutions. Jo has 27 years market research and customer insight experience – 11 years client side and 16 years consultancy side providing a unique insight of each perspective. Much of this is grounded in the water industry. Jo also has extensive experience of qualitative and quantitative research approaches including paired depths, deliberative groups, online discussions, accompanied surfs, immersion and ethnographic techniques, as well as standard approaches such as focus groups, telephone and face to face depths. On the quantitative side, Jo has experience of CATI, CAPI, CAWI, mystery shopping and SMS/mobile app.

### Education:

- BA Hons. History and Geography 2(ii)
- CIM: Diploma in Marketing

### Expertise:

- **Qualitative experience** includes paired depths, deliberative groups, online discussions, accompanied surfs, immersion and ethnographic techniques, as well as standard approaches such as focus groups, telephone and face to face depths
- **Quantitative experience** includes CATI, CAPI, CAWI, mystery shopping and SMS/mobile app
- Online Panels/Platforms especially developed for a major energy supplier. A very flexible solution that enables quick polls, diaries, blogs, live chats, surveys, discussions, uploading of audio/video material, as well as other engagement activities

### Selected Recent Projects:

#### **Business Plan Acceptability – National Grid, 2019**

RIO-T2 plans needed to be value for money, affordable, deliverable, legally compliant, and ensure the health of the asset base for future generations. They also need to be acceptable to customers. As part of acceptability testing up front qualitative research was required. Jo conducted **10 consumer focus groups** and **15 cognitive interviews** across households and businesses to determine customers' understanding of the issues, as well as a qualitative assessment of their willingness to pay.

#### **Environmental measures – Affinity Water, 2019**

A series of six focus groups centering on the environmental measures were undertake. They considered the form of the Outcome delivery incentives (ODIs) and appropriateness of the incentive rates, and the groups were required to further test the relevant environmental ODIs (Outcome Delivery Incentives), IAP Assessment - Bristol Water & Portsmouth Water, 2019

The business plans developed 2020-25 centered on outcomes that are all important to customers. Performance commitments (PCs) (also known as performance measures) allow Bristol & Portsmouth Water to track their performance against the outcomes; and outcome delivery incentives (ODIs) are designed to ensure a strong focus for delivering against the set of performance measures.

Both companies carried out qualitative research comprising six **focus groups** followed by a **survey of 500 customers** to ensure their ODIs best align with what customers want and need. The aim of the research was to ensure that each company had the information from customers it needed for its 1 April Business Plan. The research tested attitudes to existing ODIs and consider amendments in light of Ofwat's challenges. It was not a wholesale test of all ODIs. As such, in undertaking the research

it was important to build on previous findings, recognising that customers had already provided valuable insights around these key subjects.

#### **Qualitative lead for Outcome Delivery Incentives - Thames Water, 2019**

As part of its submission for PR19, Thames Water required research to understand more fully what support there was to have an incentive range for customer bills depending on out or underperformance of Thames Water's performance commitments. Five **customer workshops** (3 hours) and five **focus groups** (1.5 hours). The workshops were in a **deliberative** format where key facts, figures and other supporting information was presented, before being discussed in break out groups.

#### **Qualitative lead for North East London Resilience - Thames Water, 2019**

Thames Water was considering optioneering around the North East London Resilience scheme. It undertook integrated multi-AMP investment to address constraints in the current network and put in place improvements to allow our system to meet future demand and prevent disruption to customers. Jo undertook **10 focus groups** with customers (8 consumer groups and 2 business) to test options around the schemes – level of support for the options and rationale, and the potential impact of chosen scheme on 2020-25 targets (e.g. supply interruptions). He also carried **10 tele-depth interviews** with customers across a range of vulnerable circumstances including being medically dependent on water, immobility issues, low incomes and young families.

#### **Water resource management plan research - South East Water, 2018**

Jo project managed this research with South East Water (SEW). To support SEW's PR19 submission, **eight deliberative groups** were undertaken to explore and understand customer aspirations and willingness to pay for SEW's plans on leakage reduction, greater resilience and per capita consumption. This was followed by a **hall test** day of **cognitive interviews**, before finally moving onto the **pilot and main stage** of an online survey of 500 customers to determine customer priorities.

#### **Business plan acceptability research - Portsmouth Water, 2018**

Prior to carrying out a quantitative to test the acceptability of its business plan, Portsmouth Water wanted to make sure that customers understood the scope of its proposed investment as well explore any potential impacts of their proposals. A series of **focus groups** was carried out, these were followed by a quantitative survey of 500 people to quantify the acceptability of Portsmouth Water's business plan and whether they would be willing to accept the proposed levels of investment.

#### **Outcome Delivery Incentive (ODI) & Performance Commitments - South West Water, 2017**

South West Water was required to engage with its customers around the outcomes and performance targets it would commit to as part of its PR19 submission. Jo was the qualitative lead undertaking **16 focus groups** looking at the principles of ODIs within the framework set by Ofwat, and then to assess how they could be applied through the setting of performance commitments. Very similar was undertaken for Portsmouth Water in 2018.

#### **Water resource management plan research - South West Water, 2017**

Jo was the qualitative lead for the water resources management customer research, and supported the quantitative survey of assessing customer priorities and willingness to pay for various water resource solutions. This included **conducting individual cognitive interviews** in people's homes followed by **hall test days of cognitive interviews** which the client attended. Very similar research was also undertaken for Anglian Water and Thames Water.

Other clients Jo has previously worked for include:

- Energy – SSE, National Grid, npower, Scottish Power, Electricity North West & Energy Saving Trust
- Transport – DfT, Highways Agency & First Group
- Government – Scottish Government, Health Research Authority, Met Office, Ministry of Defence & FCO
- Miscellaneous – Santander, BSKyB, Vision Express, Post Office & ATS Euromaster
- Water: Yorkshire, Northumbrian, Severn Trent, United Utilities, Southern and Sutton & East Surrey

## **Dr Lisa Gahan**

### ***Director***

Lisa is a regulatory economist and Director of ICS Consulting. Lisa has 20 years of professional experience in the utility sector and a PhD in Energy Economics. Dr Gahan is an expert in the fields of econometrics and statistics; regulatory and utility economics; and has extensive knowledge of investment appraisal and the application of Cost-Benefit Analysis (CBA).

Lisa has worked with utilities on a range of subjects including: cost benefit analysis and willingness to pay, whole life costing, comparative efficiency assessments, competition policy, regulatory incentive mechanisms, and the economics of risk. Lisa has also supported the use of statistical techniques in service risk modelling. This has included the project and technical lead for a number of large degradation and reliability modelling contracts with utility clients.

Recently Lisa has lead an extensive customer and stakeholder research programme for a water and sewerage company that covered the whole of the business planning process. This covered customer priorities, valuation strategies, willingness to pay research, business plan acceptability testing, vulnerability, affordability and tariff strategies.

### **Education**

- PhD Economics, UMIST
- MA Econometrics, University of Manchester
- BA (Hons) Economics, 2(i), University of Manchester

### **Selected Recent Projects**

- Leading and delivering water company acceptability testing for PR19 and WRMP19, 2018-2019 – for South West Water
- Water resources plan validation testing, South East Water, 2018
- Willingness to pay and incentives customer testing, Affinity Water, 2019
- Valuation and Triangulation programme lead, Anglian Water, 2017-2018
- Developing a outcomes performance measurement framework to support the development of cost benefit analysis and customer acceptability research, for Heathrow Airport, 2018-2019
- Cost benefit and customer evidence specification and advice RII02, for Cadent Gas, April 2018 – ongoing
- Network Output Measures Project – development of performance measurement framework and estimation of willingness to pay (desk top), for National Grid Gas Transmission, 2017
- Engagement planning, customer segmentation, valuation strategy and research plan, South West Water 2016 –2018
- Technical and project lead for willingness to pay programme, for South West Water, 2017-2018
- Customer priorities and wider engagement lead - to ensure all current and future customers have a voice, for South West Water, 2018
- Application of willingness to pay research in business planning covering incentives, cost benefit analysis and scenario planning for Thames Water, 2017 – 2019
- Strategic review of essential services (transport, wastewater, waste management) – reviewing the business, engaging stakeholders through to the development of the business presented to the council of ministers, for States of Jersey, 2016-2017
- Lifecycle planning for CP5 and CP6, for Network Rail, 2012 to 2017
- Performance measurement framework development for high speed rail services, 2017.
- Previously, Northern Ireland regulator NIAUR expert panel member.

## Sarah Williams

### Consultant

#### Biography:

Sarah Williams is a consumer researcher, with a background in market research gained from 8 years of working for a large market research agency.

Sarah has experience in managing qualitative and quantitative projects, across a range of sectors (finance, technology, transport, utilities and charity sectors).

Sarah's skills include research design, script writing, data collection and analysis, managing the delivery of online, telephone and F2F surveys, data collection weighting and sampling techniques, management of CRM databases, and quality control.

Since joining ICS, Sarah has been supporting the development of research plans and delivery of research projects at water and transport companies.

#### Areas of expertise:

- Valuation research and strategies
- Customer & stakeholder engagement
- Qualitative and quantitative research
- Best practice reviews and assurance
- Sampling strategy

#### Selected Projects:

**Customer research synthesis for RIS3 renewals plan, for Highways England, 2021**

**Best practice research and collation for RIS3 renewals plan, for Highways England, 2020-21**

**Sampling strategy for RIS3 renewals plan, for Highways England, 2020**

**Customer research synthesis, for South West Water, 2020-present.**

**Copywriter, Proofreader & Publicist.** Freelance work: copywriting and proofreading for online publications. Including editing two novels, and organising promotional campaigns, running social media accounts, and management of events and tours.

**Kantar TNS UK, Senior Research Executive.** Managing qualitative and quantitative projects across finance, technology, transport and utilities sectors. Including, producing, checking and delivering infographic and interactive reports; pitching, research design, script writing, data collection and analysis; and advising on modelling, weighting and sampling techniques, with a major focus on quality control.

## Kar Yee Dearing

### Technical Director

#### Biography:

Kar Yee specialises in the conceptualisation and construction of logic and mathematical models for business decision methods, risk management and policy/strategy development in infrastructure industries. Kar Yee is an expert in understanding companies' long-term objectives and outcomes, and developing analytical frameworks to allow investment to be evaluated in line with those objectives and outcomes efficiently.

Kar Yee has considerable experience of applied investment modelling and water resource modelling, providing the technical direction for organisational business teams to develop and implement supporting business plans, processes and systems.

Kar Yee's experience in the utility sector spans twenty years.

#### Areas of expertise:

- Defining end to end strategic planning
- Water resources and drainage and wastewater resilience planning
- Use and development of decision support tools
- Leading asset and performance modelling programmes

#### Selected Projects:

**Development of Investment Planning Capability for Highways England, 2020 – ongoing.** Consultancy for enabling works to support Highways England in developing their capability for investment planning of Renewals for Road Period 3. The work includes investment scenario modelling and decision support as well as consideration of the broader implications and context that need to be considered when developing a compelling business case.

**Business case justification support, National Grid, 2020.** Technical Director in developing the written submission of the business plan to Ofgem for T2. This involved review and advisory support as well as specification and undertaking of analytics to develop robust and defensible elements of the business plan. A key requirement of the support was to ensure that business cases were sound and integrated across business functions.

**Economics of Balancing Supply and Demand with Uncertainty for South West Water 2020 – ongoing.** Project Lead for development of the tool and process for the optimal selection of demand and supply options to ensure supply and demand is balanced whilst taking into account uncertainty.

**WRMP demand modelling, Thames Water.** Developing an integrated demand management model (IDM) to determine the impact of employing demand management intervention options to establish the most cost-effective means of achieving different demand reduction targets for households and non-households.

**Embedding Best Practice Asset Maintenance Decision Process, South West Water.** Project Lead to embed a state-of-the-art asset maintenance decision approach for treatment and pumping assets.

**Decision Making Framework Definition, Yorkshire Water.** Project Lead for a project to revise and define the decision-making process and capability linking operational and capital activities to deliver against business objectives in the short and long term.

**Asset Investment Indicators Definition.** Project Lead for a project to define and implement a framework of indicators that will allow the business to demonstrate that their short- and long-term expenditure plans with expected levels of performance are sustainable.

## Appendix B: Relevant project experience



We specialise in working in regulatory environments – e.g., water, energy, and transport. We also undertake projects for non-regulated clients, government departments, and economic regulators.

Our combined team has a proven track record in working across the whole of the investment planning, engagement and regulatory functions in the regulated network sector. We help companies to understand stakeholders' and customers' views, and how to integrate them into decision making, investment planning, and delivery.

Our team consists of experts from regulated industries, environmental bodies, regulatory bodies, market research organisations and academia. This unique mix of experts allows us to provide leading-edge services to our clients.



A summary of our experience is given below.

## Utility sectors industry research and willingness to pay

We are one of the key providers of stakeholder and customer research in the water industry, working together to provide support in PR14 and PR19. We have also provided support to the energy industry, to provide support in RII0-2, and more recently we have been engaged to develop the customer engagement plan for Highways England (for the forthcoming RIS3).

Key engagement topics with customers:

- Customer priorities – overall and differences across the customer base (segments)
- Long term vision – including the views of future customers

- Customer willingness to pay
- Tariffs, social tariffs and affordability strategies
- Corporate responsibility
- Supporting customers in vulnerable circumstances and vulnerability strategies
- Developing incentives to drive delivery, and getting the right risk and reward balance
- Business plan testing

We have designed, implemented and analysed various types of customer research studies for water companies including:

- Priorities studies - A mix of qualitative research (focus groups and hall tests) and quantitative surveys (ranking exercises) to understand customers' views and strength of feeling about current and target levels of service and wider issues.
- Stakeholder workshops - To share proposed investment plans and gain feedback, to test and challenge investment priorities, and understand what service commitments they support and value.
- Online forums (as an alternative to focus groups) - The main advantage is the ability to provide participants with information in an iterative way and observe how their views and understanding of the issues described to them changes, modifies and even solidifies. This approach provides useful evidence to contrast with the views of 'uninformed' respondents.
- Interactive personalised videos where respondents can choose what they view and hear about, and are asked questions on the information they ask to see. These responses are used to develop plans.
- Interactive investment plan simulators, whereby respondents develop their investment plans - understanding the impact that this can have on the bill and other issues.
- Deliberative research with customers – allowing more complex issues to be explored, and to see the impact of information and knowledge on choices.
- Development of valuation strategies and frameworks – Understanding what valuations are required by the business, including the valuation options and the most appropriate valuation source, and using this to develop a co-ordinated and integrated programme of customer and valuation research. Developing the framework in this way upfront ensures that the programme of customer research is effective and targeted.
- Customer 'willingness to pay' studies – in particular covering water, wastewater, environment, and customer service areas, and views on solutions.
- Business plan acceptability testing - testing draft and final business plan(s) with customers in order to understand customer priorities and preference for service improvements and the changes required to make the business plan more acceptable to customers.
- Revealed preference analysis – using observed data to estimate the valuation of recreational facilities, customer service improvements, and drinking water aesthetics, including three bathing water quality improvements studies (two water and sewerage companies, and the Scottish Government)
- Peer review – providing assurance to companies around their customer engagement approach and research studies.

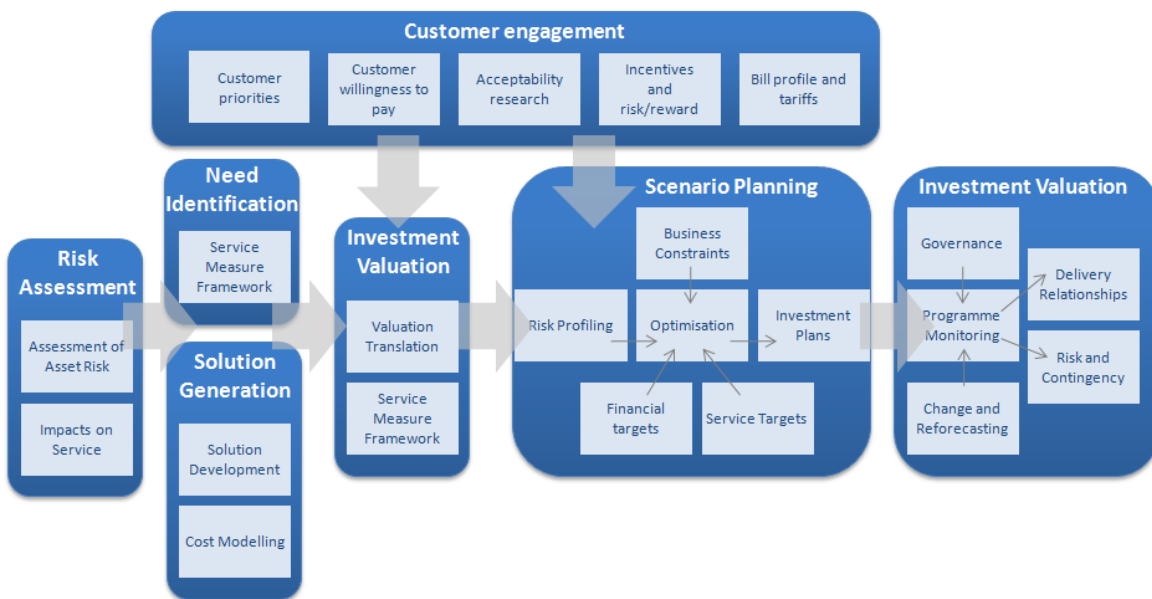
During PR19 we have worked with water companies, most notably Thames Water, South West Water, and Anglian Water, but also including Bristol Water, Affinity Water, and Severn Trent. This has been a mix of qualitative research, quantitative research (stated preference, revealed preference, value transfer), triangulation support, and stakeholder engagement. Similarly, for RIIO-2 we have primarily worked with the transmission operator National Grid around business plan acceptability, affordability, and energy policy development (e.g. the impact of decarbonisation). We have focused on providing tried and tested methods, as well as trialling new and innovative methods and materials to our clients.

We have also worked with Ofwat, CCWater and Water UK. For Ofwat, we undertook a project to provide expert advice to Ofwat on the use of customer valuation methods by water companies for the 2019 Price Review (PR19). We supported CCWater through a project to examine how stated-preference and revealed-preference methods can be used alongside other research methods to improve Willingness to Pay (WTP) evidence in the water sector. We also worked with Water UK to assess the cost-curves associated with interventions needed to meet the ambition on PCC reduction, to flesh out the demand implications of the extended and enhanced scenarios in Water UK’s 2016 Long Term Water Resources Planning Framework, and for going beyond them to very stretching levels.

## Using Customer Research in Decision Making

We recognise that customer research is maximised if it is used effectively in planning and delivery/operations, particularly when integrated into a consistent framework (Figure 1 below). We help companies put integrated investment plans together based on stakeholder evidence. We are at the forefront of the practical application of cost-benefit analysis (CBA) and investment plan balancing in the utilities sector.

**Figure 1: Exemplar customer research framework**



We recognise the importance of undertaking valuable research with customers that underpins the development and delivery of strategic plans, corporate objectives, and communication plans. We are experts at ensuring that customer engagement is effective and useful to the organisation, in both strategic decision making and business as usual activities.

We combine our practical experience in working with companies to use the results of stakeholder and customer engagement studies in CBA, investment plan development and the development of incentive mechanisms.

We work with a large number of network companies in the areas of investment justification and CBA, investment plan balancing and optimisation, and incentive development. This includes:

- Approach to CBA, recognising the need to align with regulatory requirements around planning horizons, discount rates, discounting/Spackman, treatment of unrecovered investment, optimisations, etc.
- Validation and interpretation of the outputs from the CBA assessment, and the alignment of CBA results with customer priorities and acceptability testing.
- Application and interpretation of uncertainty in CBA.
- Visualisation and presentation of the results.
- Investment case review and challenge.
- Feedback and lessons learnt for future customer engagement.

Given a number of our consultants have been directly involved in the development of water resource plans for and within companies, we fully appreciate the quality and types of evidence needed to develop the regional plans and WRMP24.

## Case studies

### South West Water

We have a long history of working with South West Water around investment planning. A key aspect of this support is around the development and implementation of customer engagement plans as part of business plan development and delivery.

Ofwat challenged water companies for PR19 to truly and genuinely understand customer views – through engaging customers effectively, innovating in customer research, and triangulating the findings. This was the brief and challenge from South West Water.

We have engaged customers on those aspects that are key to getting the right business plan for customers: customer priorities, customer segmentation, willingness to pay and acceptable trade-offs, social tariffs and funding affordable investment, corporate responsibility, supporting customers in vulnerable circumstances, incentives development, water resource and business plan testing and acceptability, and the views of future customers and the longer-term vision.

The research has involved engaging through a number of forums, such as quantitative surveys (face to face and online) and qualitative research (e.g., customer workshops, hall tests, focus groups, deliberative research, friendship groups, etc).

We have focused on ensuring the research materials are engaging and appealing to customers; we use a design agency to support our work in this area and follow a robust testing process for all customer materials, including stakeholder challenge.

We have also developed and trialed new, innovative engagement approaches such as alternative ways of assessing customer willingness to pay (both stated and revealed preference). We have also combined the outputs of customer and stakeholder engagement with other sources of customer insight (contact data, social media sentiment, tracking research, behavioural economic studies, visitor and site surveys, operational data, etc) to develop a genuine and consistent understanding of what customers want.

We have brought the customer and wider evidence into a single ‘triangulated’ viewpoint using an innovative triangulation process. This process was developed with South West Water and challenged and agreed with stakeholders.

We have also supported South West Water in developing the contents of consultation documents; and developing and delivering stakeholder workshops.

In 2019 we were commissioned by South West Water on behalf of the West Country Water Resources Group, to provide a short paper summarising the existing literature on the economic benefits of increased water resource resilience. The results were shared with the Regional Water Resources Planning Steering Group. The findings were based primarily on triangulation of the PR19 valuation literature.

Anglian Water

We worked with Anglian Water on a number of its customer engagement activities in PR19. Most notably we delivered a programme of qualitative and quantitative research to support WRMP19, which was then followed by a similar programme of work to support the wider PR19 business plan. This included a detailed triangulation approach, that brought together best practice guidance and our own triangulation process.

Ofwat commended the quality of the Anglian Water triangulation research in the January 2019 Initial Assessment of Plans feedback.

Test area	Overall test area grade	TQ#	Test question	Test question grade	Test question summary assessment
Engaging customers	A	EC1	What is the quality of the company's customer engagement and participation and how well is it incorporated into the company's business plan and ongoing business operations?	A	<p>Anglian Water's business plan provides a wide range of convincing evidence to demonstrate an overall high quality, ambitious and innovative approach to customer engagement and participation. It also provides convincing evidence of how customer engagement has been reflected in the business plan and in ongoing business operations.</p> <p>The company provides convincing evidence of the effective use of a wide range of customer engagement techniques, (both on triangulation and segmentation) including innovative multi-stage willingness to pay research for which assurance was provided. The business plan provides convincing evidence to demonstrate the very detailed triangulation process it has undertaken as part of its valuation research and that the triangulation approach was mapped to COWater guidance. External assurance of the triangulation process found no major shortcomings. The company provides convincing evidence to demonstrate on-going engagement via its tracking research, 'the My Account' portal and a customer panel. The CCG report states that it is satisfied that the company has "understood the needs and requirements of a range of customers" and commends the company's approach to engaging with vulnerable and hard to reach customers. The company conducted a segmentation which allowed it to meet the needs of a range of customers. The business plan provides insufficient explanation of the reasons for selection of particular groups of vulnerable customers for participation in research and why use of focus groups was the appropriate method of engagement. The CCG sets out that the company "has placed customers at the heart of the way the company does business and develops its plans" and an independent audit of the company's customer engagement explains that "the Synthesis Report had informed the company's business planning".</p> <p>The company demonstrates a clear line of sight from the results of its customer engagement to the outcomes its business plan will deliver for customers. Its package of performance commitments has been developed on the basis of robust customer valuation research which has been appropriately triangulated to set incentives that reflect customer preferences and priorities across its package of outcome delivery incentives. The company provides convincing evidence of high quality and innovative approaches to customer participation and adopting the four areas of action in the Tapped in report (i.e. increasing customer participation to improve the current and future sustainability of water, encouraging customer behaviour change actions, increasing community ownership of particular aspects of water as an essential resource, and increasing customer control of water in their home or of the customer service experience). This includes: engaging with customers on future facing issues across numerous projects as well as specific large scale engagement with future bill-payers; introducing the Smarter Drop campaign; behavioural nudging techniques being employed to help with debt management; significant community engagement to help regenerate the Wisbech community; introduction of community ambassadors and the community board; and the enhancement of the 'In Your Area' tool and the introduction of the My Account online account management tool. There is also convincing evidence of customer participation techniques used with a range of customers including customers in situations of vulnerability and future bill payers.</p> <p>Finally, the company demonstrates a high quality, innovative and ambitious approach to engagement with its customers on longer-term issues and its on-going operations. This includes acceptability and valuation research as well as specific research on resilience and intergenerational fairness. The CCG considers that the company has comprehensively engaged with its customers on longer term issues and has explained the impact of investment on future bills and long term affordability. The company shows how it has taken into account the needs and requirements of future customers in its business plan, such as conducting extensive in-school research with secondary school children on the longer term issues facing the company.</p>

**Ofwat: IAP feedback (highlights added)**

## Thames Water

We have worked with Thames Water across the whole of the investment planning and engagement processes in PR14 and PR19.

We have delivered annual willingness to pay studies to Thames Water since 2012. This has allowed them to build up a unique understanding of customer willingness to pay to support strategic and water resource plans, and the extent that it varies over time and in response to events (such as a hosepipe ban / dry summer).

We have developed a triangulation approach that combines this stream of stated preference research with other sources of evidence, such as revealed preference, simulator tools, and value transfer. These valuations have been used to develop the plans and develop a set of financial incentives based on customer valuations for failing to meet the proposed targets.

We have also support the WRMP demand modelling. The integrated demand management model (IDM) is used to determine the impact of employing demand management intervention options to establish the most cost-effective means of achieving different demand reduction targets for households and non-households. The options include metering, water efficiency initiatives, leakage management, pressure management, mains replacement and non-potable water re-use. The tool has been used to evaluate multiple scenarios defined to represent a range of demand targets and associated company strategies. The results across the scenarios provide the costs and benefits which feed into a separate Thames Water model for evaluating the most economic means to balancing supply and demand (EBSD). ICS developed the IDM model to support PR14 and PR19. Over this time, the model has been refined, extended and updated to ensure that the latest data, assumptions and strategic planning requirements are considered.

## National Grid

National Grid owns, manages and maintains the electricity transmission network in England and Wales and the high-pressure gas transmission system in England, Wales and Scotland. These operations are regulated by Ofgem, which sets price controls under the RIIO (Revenue = Incentives + Innovation + Outputs) framework.

We have delivered a study to test the acceptability of the Electricity Transmission (ET) and Gas Transmission (GT) Business Plans for RIIO-T2. This involved an iterative process of qualitative research (including cognitive interviews and focus groups), quantitative research (of household and business consumers), followed by a number of qualitative research playback and 'deep dive' sessions. This has covered understanding customer support for the business plan initiatives around resilience, asset health, climate change and decarbonisation, and the affordability of energy bills.

We have also worked with National Grid to develop its RIIO2 business case justifications for gas transmission asset health investment.

## Cadent Gas

We supported Cadent Gas through the development and embedding of its CBA based capability and the use and triangulation of customer evidence in developing its asset health and major project plans for RIIO2. Ofgem has

recently confirmed Cadent Gas to have achieved “Green” status around its approach to investment justification.

### Heathrow Airport, 2020 Business Plan

ICS has been working with Heathrow Airport on its approach to cost benefit in the current price setting process. The project involved developing the performance measurement framework used to track investment and ensure delivery against the company outcomes, airlines and other stakeholder requirements.

We developed the approach to cost benefit with a supporting tool to appraise investments.

We reviewed and synthesized the customer and external/publicly available willingness to pay evidence into a common value set. This was discussed and finalised with input from the Consumer Challenge Board (CCB), prior to be used to application in cost benefit analyses.

The approach was used to assess the cost beneficial level of performance, as well as the cost benefit of individually identified solutions.

## **Widespread review of industry developments and best practice**

We have expertise in developing and applying industry guidance for the water industry across a range of topics. For example:

- UKWIR: Review of Cost-Benefit Analysis and Benefit Valuation
- UKWIR: Intervention Options: When to Repair, Refurbish or Replace Non-Infrastructure Assets
- UKWIR: Common Framework 2014 - Framework for Expenditure Decision-Making
- UKWIR: Wholesale and Household Retail Charging Principles
- UKWIR: Deterioration of Long-Life, Low Probability of Failure Assets (contributor only)
- UKWIR: Implementing Ecosystem Services and Natural & Social Capital Accounting Approaches
- UKWIR: Natural and Social Capital Accounting Tool Tests
- UKWIR: Sustainable Regulation
- UKWIR: Review of Cost-Benefit Analysis and Benefit Valuation

Keeping up to date with developments within and without the industry sectors in which we operate, and synthesising these with our own innovations to is critical to our clients. We keep abreast of industry developments, changes to practices and methodologies through several mechanisms.

We subscribe to relevant journals. We regularly review the academic, regulatory and government publications. We purchase industry research studies, such as those published by UKWIR, WERF, IAM, etc. This is key to keeping abreast of changes in network industries and developing our best practice capabilities.

We attend a number of conferences each year to hear about network companies’ challenges and how they are adapting their processes and methodologies to meet these challenges. We have links to professional organisations, such as the Institute of Asset Management (IAM). In addition, our consultants are individual memberships of professional organisations. We review the publications, marketing materials, websites and presentations of other consultancies to see the developments they consider to be important for their clients.

We have been involved in a range of industry expert panels that give us visibility on a wide spectrum of regulatory developments and issues, including ensuring business plans reflect customer requirements around bills, affordability, service levels and incentives. For example:

- Ofwat's Advisory Panel PR14
- Ofwat's Affordability Panel PR14
- The Northern Ireland Utility Regulator's Expert Panel PC13

We have an ongoing dialogue with our clients. This gives us continual feedback on clients' views and how they would like to see our existing cost benefit-based tools/approaches develop.

In addition, we work in partnership with academia, so we can draw on their considerable expertise and support the work we do.



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