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Trust in water

Delivering Water 2020: Our methodology for the 2019 price review Appendix 4: Resilience

**Appendix to Chapter 5:
Securing long-term
resilience**

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1. Summary

This appendix sets out supplementary detail on our final methodology for the 2019 price review (PR19) with respect to securing resilience and the reasons for our policy decisions. This appendix focuses on three areas:

- our overall approach to securing resilience in the PR19 final methodology and more widely (section 2);
- our consideration of responses to the draft methodology proposals on the resilience planning principles and the resilience tests in the initial assessment of business plans (section 3); and
- our response to the [2015 Resilience Task and Finish Group recommendations](#), and how these recommendations are being delivered through the PR19 methodology (section 4).

Our PR19 final methodology has been determined following full consideration of the views expressed by respondents to our [draft methodology proposals](#), published in July of this year.

Applicability to England and Wales

Resilience is an important part of the strategic policy statements of both the UK and Welsh Governments. Our PR19 final methodology for securing resilience **applies to both** companies whose areas are wholly or mainly in England and companies whose areas are wholly or mainly in Wales.



2. Our overall approach to resilience

Our PR19 methodology, in combination with wider regulatory tools, provide a comprehensive and strongly incentivised approach to manage resilience in the round, including operational, financial and corporate resilience. While our approach is holistic, the sections below deal with operational, financial and corporate resilience in turn. It should be emphasised that these areas overlap and feed into each other.

Figure 1: Illustration of our overall approach to resilience



2.1 Operational resilience

Wider regulatory tools

There is a range of statutory requirements to help ensure operational resilience, particularly for water resources. Companies have a statutory duty to produce water resources management plans (WRMPs). This is a plan for how the company will

manage and develop water resources to consistently meet its water supply obligations. We are a statutory consultee on WRMPs, and will work closely with the Environment Agency (EA) and Natural Resources Wales (NRW) to provide input on WRMPs. Companies also have to produce drought plans. These plans set out the operational actions a company will take to make sure there are supplies during periods of drought

We expect improvements in long-term water planning for PR19. Specifically, we expect companies to integrate the development of their WRMPs into their business planning¹. We also expect them to take account of outputs from regional planning groups, such as Water Resources South East and Water Resources East. This wider perspective will be particularly important to ensure best value for customers in the long term with respect to cross-company, regional, and potentially, national options.

There is no equivalent to the WRMP process for wastewater services, although the drainage strategy framework² and the current work of the 21st Century Drainage Board, provide context and guidance for forward planning. Nevertheless, resilience planning for the long term in wastewater service provision, is less developed and less transparent to stakeholders, than water resources. Companies should take the lead on enhancing long-term wastewater planning. Companies should engage with stakeholders and ensure that they bring forward well-developed, long-term wastewater plans to support their business plans.

PR19 methodology

We address operational resilience in PR19 by our approach to the initial assessment of business plans, and by our approach to targeted controls, markets and innovation. Our approach makes sure that companies will deliver outcomes for customers and secure cost efficiency.

The initial assessment of business plans will help promote resilience, including operational resilience, specifically through two tests:

¹ See the extract of our joint letter to water companies, accompanying the draft WRMP guidance, on p23 of [Water 2020: Regulatory framework for wholesale markets and the 2019 price review](#), Ofwat, December 2015

² [Drainage Strategy Framework: Good practice guidance commissioned by the Environment Agency and Ofwat](#), Halcrow, May 2013

- How well has the company used the best available evidence to objectively assess and prioritise the diverse range of risks and consequences of disruptions to its systems and services, and engaged effectively with customers on its assessment of these risks and consequences?
- How well has the company objectively assessed the full range of mitigation options and selected the solutions that represent the best value for money over the long term, and have support from customers?

We expect companies to undertake a systematic and integrated assessment to understand the risks to resilience across the entire business, and mitigate these risks in the way that provides the best long-term value for money for customers. This assessment should consider the full range of diverse risks faced by companies. This includes risks to operational, financial and corporate resilience. This includes risks associated with infrastructure and assets and those associated with systems, processes and people. This includes drought resilience, where we note the UK SPS expectation that this should be lower in the long term for companies wholly or mainly in England.

Greater use of markets can help ensure resilience. For example, we are promoting markets in bioresources and water resources. Our proposals to promote water trading and bioresource markets can increase the diversity of water sources and the bioresource processing capacity a company can draw on. This reduces the risk of a single point of failure, and dependence upon resources or processing in a particular area. Water trading will also increase the options available to deal with long-term pressures, such as population growth and climate change. Interconnectivity, with companies, between companies and with third parties, will improve resilience by allowing companies to target abstraction in areas of low environmental impact – for example, when flows are low.

As set out in chapter 4 (delivering outcomes for customers) resilience will also be supported by our improvements to the outcomes framework. All companies must measure and have incentives on certain critical service failures. This includes internal sewer flooding and supply interruptions, as well as four asset health metrics. These common performance commitments will motivate management to identify and mitigate relevant risks to service. We expect to continue using these or similar service metrics in the future. This will incentivise companies to deliver good quality services to customers in the long term. Our customer experience metric will support this by incentivising firms to minimise the impact on consumers when supply is disrupted. Companies will need to have operational, financial and corporate resilience to meet these challenges.

We have introduced two new common resilience performance commitments, to incentivise long-term resilience. These common metrics should make it easier to compare the relative resilience of different companies. Companies will need to propose stretching performance commitment levels on these metrics, following engagement with their customers and stakeholders. Companies should also cover resilience in their bespoke performance commitments, to reflect their own specific resilience challenges and customer views.

Finally, our cost assessment approach includes a framework for assessing new investment schemes, including those driven by resilience. Appendix 11 (securing cost efficiency) sets out the type of evidence we will require for the assessment of such investment schemes. Among other things, the company will need to demonstrate the incremental improvement of the proposed investment, that it considered a range of options, and that the proposed solution delivers outcomes that reflect customers' priorities, identified through customer engagement. We will make an efficient allowance for resilience investment where companies present strong evidence to support it.

When companies put forward their plans for resilience, they should also bear in mind that previous price controls funded firms for the efficient cost of meeting their legal obligations and maintaining serviceable assets. Where companies' actual costs of meeting their obligations exceeded their funding, investors bore this risk and should have ensured the company was funded to deliver its obligations. In PR19 we only expect to allow companies to recover from their customers the efficient costs of activities which are additional to the investment they should have undertaken in previous periods, so that customers are not paying for the same activity twice.

Where the need for investment arises because of historical issues in a company's approach to resilience, we will also consider the extent to which those issues relate to evolution in best practice or simply result from companies not having done what they should have done in earlier periods. We will also consider whether companies have provided credible assurance that processes, structures and governance would avoid similar situations reoccurring in future.

2.2 Financial resilience

Our PR19 methodology will facilitate water companies' financial resilience by complementing and consolidating our wider regulatory tools.

Wider regulatory tools

Companies need to meet their statutory and licence obligations, and financial (and other aspects of) resilience is important to their ability to deliver against a wide range of obligations. Licence conditions ring-fence against wider risks associated with activities outside the regulatory business to protect customers. And most companies have licence conditions relating to maintaining an investment grade credit rating – a marker that incorporates an independent assessment of elements of financial resilience. Where companies do not meet such a condition, they may be prevented from making certain payments (including dividends) outside the ring fence.

We use the financial monitoring framework to gather, analyse and report on information on the regulated companies. This gives us a broad view of their solvency, liquidity, and risk management. It also helps us identify emerging risks and decide when we need to intervene to protect customers' interests.

Since 2015/16, water companies have been required to produce long-term financial viability statements (LTVS), reflecting the 'UK corporate governance code' (September 2014). Companies are required to include a statement about their long-term financial viability in their statutory accounts and annual performance report. We provided additional guidance to companies last year on the information we would like to see companies include in their statements. Having reviewed the statements for 2016/17, we will be issuing further guidance to companies to improve the clarity and consistency of reporting for future years.

PR19 methodology

Chapter 11 (aligning risk and return: financeability), sets out our PR19 methodology on financeability. This will assist financial resilience through our assessment of a company's ability to finance its business plans. We are asking companies to provide Board assurance on their notional and actual financeability. Company Boards will be required to set out the level of investment grade credit rating they are targeting, and the reasons why they consider that level to be appropriate. Our assessment of financeability will be carried out for the appointee with the notional capital structure and an efficient level of expenditure and cost of debt.

However, financeability on its own is not a measure of financial resilience. The resilience tests in our initial assessment of business plans, set out in section 2.1 above, focus on resilience in the round, including financial resilience. In making this assessment we expect companies to take into account the overall assessment of the risks that the company faces. This includes risks relating to their actual capital structure and financing arrangements as well as the impact of potential cost shocks

arising from, for example, underperformance against their plans or from additional financial liabilities which are not funded by customers.

We expect companies to demonstrate that they are financially resilient in their plans. In doing so they should take into account the most recent statements on long term financial viability that they have published and explain any factors that impact on their assessment since the date of those statements.

In confirming that they are financially resilient, companies will need to be open and transparent about their ownership and financial structures. We have included an additional initial assessment test on customer trust and confidence which will look at Board assurance on company transparency and engagement with customers, on issues that matter to customers. This includes customers' ability to understand both the company's corporate and financial structures and how they relate to its long-term financeability and resilience.

2.3 Corporate resilience

Our PR19 methodology will facilitate water companies' corporate resilience by complementing and consolidating our wider regulatory tools.

Wider regulatory tools

We expect companies to meet our [Board leadership, transparency and governance principles](#), published in January 2014. These principles help secure corporate (as well as financial and operational) resilience by making sure that Boards can provide independent challenge. They also make sure that Boards have the right mix of skills and experience, and are appropriately focused on the regulated business, rather than on other interests within a company's ownership structure.

We will be reviewing these principles to make sure that they continue to reflect best practice, are up to date, and remain relevant to the challenges within the sector. We will consult on the proposed changes in due course.

Companies have requirements in their licences which are dependent on them being resilient, including being corporately resilient. For example, the licences stipulate that companies should have adequate management resources, and systems of planning and internal control. They also include the requirement for water companies to operate as if they are independent from any wider group.

We also require companies to provide risk and compliance statements in their annual performance reports. Company Boards should confirm that the company has appropriate systems and processes in place, to allow it to identify, manage, mitigate and review its risks, as part of these statements.

PR19 methodology

Our PR19 methodology will support our wider regulatory tools, by incentivising corporate resilience through our initial assessment of business plan tests.

In our initial assessment test on resilience we expect companies' plans to demonstrate that they have the necessary capability, systems and processes. This is essential for an effective plan which gives confidence that the company will be able to meet its commitments and deliver resilience in the round.

3. Our consideration of responses to the draft methodology

In our draft methodology proposals, we asked two questions:

- Do you agree with our resilience planning principles?
- Do you agree with our approach to assessing resilience in the initial assessment of business plans?

We discuss our consideration of the responses to each of these questions below and provide reasons for our policy decisions for the PR19 final methodology. Further detail of our consideration of responses is set out in Appendix 15.

3.1 Resilience planning principles

Our draft methodology proposals

In our draft methodology proposals we set out a revised version of our resilience planning principles. The resilience planning principles form a key part of our overall approach to resilience. The resilience planning principles align with and build on the work of the resilience task and finish Group and the principles we published in our 2015 report [Towards Resilience](#) and our 2012 report: '[Resilience – outcomes focused regulation](#)').

The principles cover resilience in the round. That includes operational, financial and corporate resilience. Each of these factors are interdependent. This means that effective resilience requires companies to consider their systems as a whole, taking into account the relationship between different aspects of their business, as well as external factors.

Box 1: Draft resilience planning principles included in the draft methodology proposals

Principle 1: Considering resilience in the round for the long term

The assessment of resilience should show a systematic and integrated understanding of service and systems risk across the entire business. Companies should assess resilience of their systems, and the services they provide, in the round. They should show a clear understanding of the interdependencies across

corporate, financial and operational aspects of their business. This assessment should consider short, medium and long-term risks.

Principle 2: A naturally resilient water sector

Resilient ecosystems and biodiversity underpin many of the key services provided by companies. This should be considered as part of the decision-making process for ensuring resilient services, as far as this is consistent with companies' role as providers of water and wastewater services.

Principle 3: Customer engagement

Assessments of resilience should be informed by engagement with customers to help companies understand their customers' expectations on levels of service. This will also help companies understand their customers' appetite for risk, and how customer behaviour might influence approaches to resilience.

Principle 4: Broad consideration of intervention options

Companies' plans to manage resilience should consider a full set of mitigating actions and interventions that consider all of the components of resilience, including response and recovery. They should also explicitly consider options that involve cooperation and collaboration with other companies at a regional, or even national, level, where they offer best value (such as transfers and cross border planning).

Principle 5: Delivering best value solutions for customers

Companies' plans to manage resilience should consider the best value solutions for customers in the long term, which may involve long run solutions.

Principle 6: Outcomes and customer-focused approach

Companies' plans to manage resilience should inform the outcomes they propose. The proposed outcomes on resilience, and the associated stretching performance commitments they set, should also take into account future risks and customer preferences.

Principle 7: Board assurance and sign-off

Companies' Boards will need to assure us that companies' business plans have been informed by:

a robust and systematic assessment of the resilience of the company's systems and services;
customer views on managing resilience; and
comprehensive and objective assessment of interventions to manage resilience in customers' long-term interests

Responses to our draft methodology proposals

Respondents generally supported our proposed resilience planning principles. However, Thames Water, the EA and the Consumer Council for Water (CCWater) commented that Ofwat should emphasise engagement with a wider range of stakeholders than customers. CIWEM and WWF-UK felt that there should be a greater emphasis on the environment away from the focus on customers. WWF-UK and Blueprint for Water stated that Ofwat should do more to encourage waste water management plans, as well as water management plans.

Wessex Water and British Water were concerned that the methodology did not do enough to incentivise short and long-term resilience. Safe and SuRe, among others, emphasised that resilience options should consider cooperation and collaboration at a regional, or even national, level. Finally, it was suggested that the principles account for a socially and economically resilient water sector.

PR19 final methodology

We continue to consider that the resilience planning principles will provide a number of benefits. The principles should encourage companies to develop a thorough understanding of service risks and ensure a clear link between their resilience risk assessments and their business plans. The principles will ensure that the ownership and accountability for resilience planning sit with companies who are best placed to: build the relationships and partnerships necessary; develop the right level of understanding; and identify the most effective and efficient solutions. The principles also reflect the important role customers have in informing companies' approach to resilience, and in being part of the solution to greater resilience. Customers, after all, pay water bills and experience the outcomes provided by companies, and so are best placed to judge the appropriate level of resilience.

A potential drawback to the resilience planning principles approach is that it could limit a company's discretion to develop its own approach to resilience. However, we

consider that the resilience principles actually enable companies to develop an approach to resilience that best reflects their risk profile and their customers' preferences.

After considering all consultation responses (see appendix 15) we have amended the resilience planning principles to make the relationship between resilience and the natural environment and water efficiency clearer. We have done this in two ways:

- Amended principle 2 to make it clear that the natural environment underpins water and wastewater service provision; and
- Amended principle 3 to make explicit reference to water efficiency measures.

We have also amended principle 3 to make it clear that customers' expectations should inform company aspirations for the level of resilience, rather than company assessments of resilience.

In response to the concerns over short term resilience and collaboration, principle 1 already includes explicit reference to considering short, medium and long-term risks. Principle 4 also requires explicit consideration of options that involve cooperation and collaboration. We therefore do not consider the principles should require further amendment for these matters.

In response to concerns that we should do more to encourage wastewater planning, we consider that wastewater planning is already covered by the resilience planning principles and the initial assessment tests on resilience. We have amended the text in the PR19 final methodology under the initial assessment tests to make this clear.

The final resilience planning principles are set out in chapter 5 (securing long-term resilience).

3.2 Initial assessment of business plans

Our draft methodology proposals

In our draft methodology proposals we set out two questions, which we would consider when undertaking our initial assessment of business plans. We asked if there was agreement on the wording of these questions. These were:

- How well has the company used the best available evidence to objectively assess and prioritise the risks and consequences of disruptions to its systems

and services and engaged effectively with customers on the risks and consequences?

- How well has the company objectively assessed the full range of mitigation options and chosen the interventions that represent the best value for money over the long term and support from customers?

Responses to our draft methodology proposals

In response to our consultation question on our initial assessment of business plan tests, Blueprint for Water and CIWEM suggested that the tests should take into account the full range of mitigation options, and consider social and environmental factors. Blueprint for Water also suggested that the Water Framework Directive's good ecological status, could be used as an indicator of resilience.

Wessex Water, Portsmouth Water and CIWEM were concerned that the draft methodology did not adequately account for past investments or incentivise additional investments to create a resilient water sector.

Portsmouth Water strongly disagreed that the proposed common performance commitments adequately reflected companies' long-term historical strategic investment to manage resilience risk of the water supply network.

Portsmouth Water suggested that there should be an aggregated performance commitment for resilience. However, Southern Water was concerned that low probability, high impact risks could be missed in an aggregated metric. Another suggestion by Safe and SuRe was that we should consider how a PC or outcome is met rather than the 'likelihood of a bad outcome occurring'.

Blueprint for Water and CCWater stated that the resilience risk assessment should be publicly available and should set out both the current and future level of risk. Safe and SuRe commented that it was often easy to conflate risk management with implementing resilience.

PR19 final methodology

We have clarified the initial assessment of business plan tests so that it is clear that companies should be considering resilience in the round and assessing operational, financial and corporate risks. We have also clarified what we mean by financial resilience.

We have considered the comments on the resilience metrics in appendix 2 (delivering outcomes for customers). Overall, we consider that our focus on a

combination of outcome and asset health based metrics, and longer-term risk-based metrics on resilience and long-term projections for all companies' performance commitments, provides an appropriate focus on customer outcomes, while incentivising longer term resilience. It should be emphasised that past investment does not mean that companies should not consider further improvements to resilience. Our focus on forward-looking metrics and long-term projections of performance commitments will continue to measure improved resilience and will not dis-incentivise future investment.

On aggregate performance commitments, based on industry work to date and our own analysis, it is unlikely that there is a single comprehensive measure of resilience. We have ruled out aggregated performance commitments as they do not hold companies to account as effectively as individual performance commitments and are less transparent to stakeholders.

We have also amended the text explaining our approach to the initial assessment of business plan tests. We have clarified that we support companies promoting environmental outcomes. The 'water industry strategic environmental requirements (WISER) from the EA and Natural England and the 'PR19 expectations and obligations' from NRW provide a framework for protecting and enhancing the environment. Companies will need to deliver environmental schemes where they have a legal duty to do so. Or where, consistent with the company's role as providers of water and wastewater services, it is the best value way of delivering an outcome in line with customers' preferences and priorities and is affordable.

There were concerns over whether companies have assessed all options and social and environmental impacts. We expect companies to be able to demonstrate that they have considered objective and robust mitigations, which are in line with customer priorities. They should also ensure that value for money and affordability is maintained. We have amended our discussion of the initial assessment test, to ensure that it encompasses resilience in the round and recovery and response options. We have also made explicit reference to the need for companies to adopt systems thinking, and consider the interactions and interdependencies between different parts of their business and the wider system in which these businesses operate. We have asked companies to publish their business plans which should include their resilience assessments.

In responses to concerns about the conflation of risk and resilience, we have made it clear that resilience is broader than risk management. Resilience is different from simply managing risk exposure. It requires a much broader range of options, often systems based ones, which not only reduce risk, but enhance the ability to cope with, and recover from, pressures and shocks.

4. Task and Finish Group recommendations

In early 2015, a Task and Finish Group was established by Ofwat, following the introduction of a new additional primary duty on resilience. The group provided a report, including ten recommendations designed to help the co-ordination of work on resilience. Ofwat’s response to the task and finish report, and to the consultation ‘Reliable services for customers’, is set out in “[Towards resilience: how we will embed resilience in our work](#)”.

We have updated our actions against the Task and Finish Group recommendations remain to reflect the final PR19 methodology.

Table 1: Responses to Task and Finish Group recommendations

Task and Finish Group recommendation	Ofwat action
<p>Agree a shared definition of resilience for the sector.</p> <p>When: During 2016.</p> <p>Lead: Water and Wastewater Resilience Action Group (see recommendation 10).</p> <p>Involved: All bodies involved in planning and delivering water resilience.</p>	<p>We recognise the ‘resilience objective’ has a specific legal meaning. However, we consider resilience thinking has a broader application in helping us understand risks to the systems and services that customers rely upon. We consider the definition adopted by the Task and Finish Group – now slightly amended – is a helpful starting point, although the wording of our resilience duty remains paramount for our work.</p>
<p>Increase public engagement and education.</p> <p>When: 2015-20.</p> <p>Lead: Water companies and governments.</p>	<p>Our strategy places customers at the heart of the sector. Our resilience planning principles emphasise the central role of customer engagement in resilience planning (see chapter 5: (securing long-term resilience), section 5.5). Our customer engagement policy statement for PR19 sets out the principles of good customer engagement, which includes engaging</p>

Task and Finish Group recommendation	Ofwat action
<p>Involved: All sector and non-sector partners, including stakeholders and third parties.</p>	<p>customers on longer-term issues, including resilience.</p> <p>We see CCGs playing a key role in challenging companies on the approaches they use for customer engagement on resilience and how they take the results into account in their plans. The CCGs will provide assurance to us on the quality of that engagement. Companies' engagement will cover the resilience of their systems and processes, as well as their services.</p> <p>Our initial assessment of business plans will consider the quality of a service provider's customer engagement – including the degree to which companies have effectively engaged with their customers on longer-term issues (chapter 2 (engaging customers)).</p>
<p>Ensure clear routes for funding legitimate resilience measures.</p> <p>When: By 2017, in time to inform PR19.</p> <p>Lead: Ofwat and water companies.</p> <p>Involved: Water companies, investor community, customer bodies, wider water sector stakeholders.</p> <p>The Task and Finish Group recommended, Ofwat should provide companies with a clear framework, and</p>	<p>The Task and Finish Group report, recognises the positive impact our approach to PR14 has had on longer-term planning (and funding) for resilience. This includes through the introduction of a total expenditure ('totex') approach, and a focus on outcomes. It also recognises the key role companies and customer groups have played in developing methods to test real customer acceptability of risks and costs, and to develop more partnership approaches.</p> <p>We have built on the PR14 approach at PR19 also setting clear expectations</p>

Task and Finish Group recommendation	Ofwat action
<p>that it is important that companies retain ownership of their plans within this framework. It states a need for:</p> <ul style="list-style-type: none"> • clear guidance from Ofwat on its treatment of resilience when it considers business plans; • flexibility to fund innovation against a wide assessment of costs and benefits, with future generational aspects factored into the assessment of business plans; and • a clearer framework for developing, regulating, funding and evaluating soft infrastructure (such as community-led projects or sustainable urban drainage systems) and community-based resilience. <p>It also says Ofwat should specifically look at how, and whether, its framework could enable water companies (or others) to fund distributed assets and/or to manage assets at a community level.</p>	<p>across our methodology on our approach to resilience.</p> <p>The initial assessment tests on resilience will challenge companies to identify, mitigate and manage risk to resilience (chapter 5 (securing long-term resilience), sections 5.7 and 5.8). We have been clear that companies should consider a full range of mitigation measures including investment, soft infrastructure such as catchment management, as well as demand management and response and recovery.</p> <p>The PR19 methodology provides a clear framework for incremental resilience investment through the special cost factor claim process. This framework will make allowance for appropriate resilience investment where it represents the best value for money for customers in the long term.</p> <p>Resilience schemes and programmes will need to be linked to outcomes that deliver real benefits to customers. This is so that customers get the maximum level of resilience and other benefits for the level of allowed costs.</p> <p>This will be supported by our outcomes framework which includes common metrics on day to day performance, asset health and forward looking resilience, helping to incentivise companies to deliver good resilience</p>

Task and Finish Group recommendation	Ofwat action
	<p>(see chapter 4 (delivering outcomes for customers)).</p> <p>The methodology will support innovation by building on the firm foundations of PR14, which through the totex and outcomes approach gave more space for companies to develop sustainable, innovative approaches in discussion with their customers.</p> <p>The PR19 methodology also provides direct incentives for innovation through the explicit consideration of the level of innovation and ambition in companies business plans.</p> <p>The PR19 methodology is clear that we will support investment by companies where this is consistent with their role as water and wastewater providers and is consistent with customer preferences.</p> <p>We consider our approach will enable service providers to:</p> <ul style="list-style-type: none"> • share costs as well as benefits with partners; • try out new approaches that allow them to tailor their services against a spectrum of customer preferences; and • provide a platform for other sectors, such as farming and energy, to play their part in solutions.

Task and Finish Group recommendation	Ofwat action
<p>Ensure coherent planning for resilience at both a regional and national level.</p> <p>When: By 2020.</p> <p>Who: Water companies, Environment Agency, Natural Resources Wales.</p> <p>Involved: Water sector bodies and NGOs.</p>	<p>We have worked collaboratively with Defra, the Welsh Government, the EA and NRW, to develop water resources management plan (WRMP) guidelines. We also published a joint letter setting out our expectation that companies should integrate the development of their WRMPs into their business planning. We have also set out our expectations for companies to work together with other companies and stakeholders to identify the most efficient and cost effective resilience solutions through groups like, Water Resources South East, Water Resources East and the 21st Century Drainage Board. Our PR19 methodology also makes clear that we will consider the extent of this integration in our initial assessment of business plans (chapter 5 (securing long-term resilience), sections 5.7 and 5.8).</p>
<p>Establish wastewater, sewerage and drainage plans.</p> <p>When: 2020-25, with a Drainage Road Map produced during 2015-20.</p> <p>When: Governments, water companies, local authorities.</p> <p>Involved: Regulators.</p>	<p>Wastewater services are not subject to a statutory planning framework. Defra’s strategic priorities statement makes clear the need for long-term wastewater planning. Our initial assessment of business plans in PR19 will encourage service providers to have long-term wastewater, sewerage and drainage strategies in place. We expect wastewater companies to demonstrate that they are adopting the principles and recommended best practice set out in the Drainage Strategy Framework. We also expect them to give us confidence</p>

Task and Finish Group recommendation	Ofwat action
	<p>that desired outcomes can be achieved in the long term.</p> <p>We also expect companies to take a risk based approach to wastewater planning, and go beyond the drainage strategy framework. For example using outputs from the 21st Century Drainage Board, where appropriate.</p>
<p>Improving the understanding of risk and failure.</p> <p>When: 2015 - 2020.</p> <p>Lead: Environment Agency, Natural Resources Wales, water companies.</p>	<p>Our PR19 final methodology makes clear that assessing risks is an essential component of being able to define best value resilience options in the long term. This forms an important part of our initial assessment of business plan tests on resilience (chapter 5 (securing long-term resilience), section 5.7).</p>
<p>Ensure services are resilient under different water sector structures.</p> <p>When: By 2017.</p> <p>Lead: Governments and Ofwat.</p>	<p>Our PR19 final methodology, together with our wider set of tools, is designed to help drive companies to ensure services are resilient. For example, companies must remain responsible for their statutory obligations where Direct Procurement for Customers is used. (see chapter 7 (targeted controls, markets and innovation: direct procurement for customers)).</p>
<p>Develop benchmarking, standards and metrics.</p> <p>When: By 2017.</p>	<p>The outcome delivery incentives regime in PR19 includes 14 common performance commitments. These include five on day-to-day resilience measures, four on asset health and two on forward-looking measures of</p>

Task and Finish Group recommendation	Ofwat action
<p>Lead: Ofwat, water companies and governments.</p> <p>Involved: Water companies and wider water sector stakeholders.</p>	<p>resilience, which incentivise long-term resilience.</p> <p>Further details on our approach in this area can be found in chapter 4 (delivering outcomes for customers).</p>
<p>Ensure existing plans are stress tested.</p> <p>When: 2015-20.</p> <p>Lead: Governments to set framework for work.</p> <p>Involved: Water companies, regulators, governments, civil society.</p>	<p>It is important for companies to consider the resilience of their plans the diverse range of risks. This includes risks associated with infrastructure and assets to those associated with systems, processes and people. This covers the full range of potential hazards and threats that could impact on service provision including natural hazards like flooding of water and wastewater infrastructure, burst water mains or other infrastructure failures or physical or cyber-attacks.</p> <p>In PR19 we will test company business plans on their identification and assessment of risks through our initial assessment test on resilience.</p> <p>This will be supported by the two new forward-looking resilience metrics. This measure company resilience to extreme events. The water service resilience measures the number of customers that would experience severe supply restrictions in a 1-in-200 year drought. The wastewater service resilience metric measures the percentage of the population at risk of sewer flooding in a 1-in-50 year storm.</p>

Task and Finish Group recommendation	Ofwat action
Establish a water and wastewater resilience action group.	We welcome the Water and Wastewater Resilience Action Group being established by Water UK.