

This is a formal document that alerts our stakeholders to a change in the way that we regulate the water sector in England and Wales.

Draft water resources management plans 2019: Overview of Ofwat's responses

This information note provides an overview of the individual representations produced for each company's draft water resources management plan 2019 (WRMP) in our role as a statutory consultee and identifies the common response themes and areas of challenge.

Executive summary

WRMPs provide an overview of water companies' resilience to drought and the investment required to improve or maintain that resilience. The plans are a key input to water company business plans which we assess through our price review. The most recent set of plans (WRMP19) were released for public consultation in spring this year and we reviewed the draft plans as a statutory consultee. Our responses are available on our [website](#).

While aspects of most company plans are in line with our expectations and good practice, there are a number of areas where companies fall short. In our responses to company plans we set out a clear challenge in areas where more evidence is required to convince us that plans deliver in the best interests of customers. Our challenges broadly fall into the following eight areas:

1: Customer participation – some companies need to do more to involve their customers in the WRMP process

2: Resilience – some draft plans did not sufficiently convince us that they will meet future drought and non-drought hazards effectively

3: Leakage – while short term leakage reduction ambition for most is good, there needs to be greater consideration of long term ambition

4: Water efficiency – there has been no step change in ambition for water efficiency over previous plans (WRMP14)

5: Third party options – some draft plans did not sufficiently convince us that third party options have been treated appropriately

6: Water trading – trading in the short term falls and larger trades are frequently delayed until later in the planning period

7: Regional solutions – some progress but regional solutions are typically delayed and this may be a missed opportunity

8: Assurance – for some companies the quality of the draft plans, and information provided to support them, did not instil sufficient confidence in their plan

This notice is structured as follows:

- **Background** – we explain what a WRMP is, the key drivers for WRMP19 and our assessment approach.
- **Key areas of challenge** – we provide further detail on our areas of challenge.
- **Next steps** – we set out the timeline for WRMP19 and principles that could be embedded in future frameworks for water resources planning.

Background

What is a WRMP

A WRMP is a plan setting out how a water company will manage and develop water resources in its area, so as to be able to achieve a secure supply of water for its customers over a period of at least 25 years. The focus of WRMPs is on drought events where available water is at its lowest, but demand at its highest.

If a company identifies it cannot meet demand during a forecast drought event, then there is a potential supply-demand balance deficit. This means new options are required to maintain the balance between demand and supply. Options can be either supply-side, which increase the amount of water available, or demand-side, which reduce the amount of water required.

To optimise their programme companies identify a range of feasible options and then apply decision making techniques to identify a

preferred programme. This programme should ensure that, in the long term, supply and demand balance and customers have a resilient supply. Companies that do not forecast a deficit also consider options for improvement, for example, to achieve wider objectives such as leakage reduction or to increase their surplus to enable water trading.

The WRMP process is statutory and plans are prepared every five years and kept under review annually. WRMP19 is the fifth round of the plans and, working with the other regulators, we contributed to the [water resources planning guideline](#) companies follow in preparing them. Each government (Defra/Welsh Government) also set out policy expectations for companies to address in their guiding principles for water resources planning documents.

Key drivers for WRMP19

Across company plans we identified the following key drivers that result in the need for considered and effective action to ensure security of supply:

- **Abstraction licence changes** – these are identified by the environmental regulators, Environment Agency and Natural Resources Wales, to protect the local environment and ensure sustainable abstraction. These changes typically reduce available supplies for companies and this can be significant for some. The timing of these changes is also a key factor.
- **Forecast climate change impacts** – this reduces the volume and quality of water available and has the potential to increase the frequency of droughts. The impact of climate change is not a constant and varies by season, location and source types.

- **Population growth** – will increase the demand for water unless offset by reduced levels of personal usage. As with the other factors population growth varies across the companies. However, areas of the highest growth include the south and east of England, areas of existing water stress.

Preparing for a drier future

The drivers above are consistent with those identified by the National Infrastructure Commission (NIC) in its [report](#) published May 2018. This identified a need for significant step up in demand management and the development of significant new supply infrastructure to increase drought resilience in England.

The Government is currently considering its response to the NIC recommendations. We are also considering the NIC's analysis and expect companies to reflect on them as they finalise their WRMPs.

Our assessment approach for WRMP19

We have actively participated with the WRMP process. During 2017 we met all companies at least once to gain early insight into their plans.

We have worked closely with other regulators, including the Environment Agency and Natural Resources Wales. These close relationships have allowed us to share expertise, intelligence and avoid duplication in our work.

For the assessment of the draft plans we appointed Mott MacDonald to provide technical support and assurance. Working together we developed a risk based approach that aimed to ensure we were proportionate, targeted and consistent.

This approach was tailored to account for differences between companies whose areas are wholly or mainly in England and companies whose areas are wholly or mainly in Wales. Alongside the difference between larger companies and new appointees and variations (NAVs).

Our approach was framed around:

- consistency with the water resources planning guideline and the Defra and Welsh Government guiding principles for water resources planning; and
- how the draft plan helps achieve our vision of ensuring trust and confidence in the sector through the delivery of our key themes for the 2019 price review (PR19) of great customer service, affordable bills, resilience in the round and innovation.

Our assessment was structured around the nine areas shown in the box below.

Our nine assessment areas

1. **Plan building blocks:** The overall approach to the development of the draft plan in line with the technical guidance.
2. **Customer participation:** The type and quality of interaction with customers and the impact this has had on the draft plan.
3. **Demand forecast:** Consideration of the impacts of population growth, leakage and water efficiency on demand.
4. **Supply forecast:** Consideration of climate change, abstraction licences changes and transfers on supply.
5. **Forecast uncertainty:** Robustness of the draft plan in accounting for uncertainties in the demand and supply forecasts.

- 6. Supply-demand balance:** Robustness of the overall need for water, if any, and the scenario testing applied to this output.
- 7. Options:** Approach taken to identifying both supply and demand options, including trades and third party options.
- 8. Decision making:** Robustness of decision making, preferred programme development and assurance processes.
- 9. National and regional considerations:** The interaction and consistency with national studies and regional groups.

Key areas of challenge

The key areas of challenge identified from our assessment of the company plans and reflected in our individual consultation responses are explained further in this section.

1: Customer participation

Customers should be active participants in the development and delivery of their water and wastewater services and this includes WRMPs. Customer actions can directly affect system resilience and affordability and great customer service starts with an in-depth understanding of customer preferences and priorities.

Across company plans there were a number of examples where customers were able to fully participate in WRMP development. This was often facilitated by innovative approaches, such as an interactive video, the use of gamification and the development of online communities.

However, across a number of areas more could have been done to engage customers:

- A number of companies stated their intention to undertake further customer engagement on the WRMP. However, we expected this to have already taken place to support the development of the draft plans. For the final plans all companies should demonstrate the customer's role and how this has shaped their plan.
- WRMPs are long, complex and include numerous technical appendices. While some companies have prepared non-technical summaries to increase accessibility, a number have not. Similarly only some companies actively sought out responses with targeted questions.
- WRMPs cover complex areas and it was often unclear how customer research was framed. This includes how resilience discussions were positioned, with respect to comparative levels with other companies, and how bill impact work was tailored to address the various different options and decisions to be made.

2: Resilience

Long-term drought resilience should account for environmental pressures, demographic change, customer behaviours and the impacts of climate change. Demand restrictions placed on customers during times of drought are defined as the levels of service set by companies. These activities can range from hosepipe bans to severe restrictions such as standpipes. Resilience is wider than drought and resilience in the round includes operational, corporate and financial resilience.

Resilience has always been important to customers, but there is an increased focus on it through our additional duty with respect to resilience, introduced by the Water Act 2014. There is an emphasis on resilience in the

strategic policy statements of both the UK and the Welsh Government and the recent report by the NIC. Increasing resilience is also identified as a driver for significant new supply-side options by companies.

There are examples of companies improving their resilience to droughts reflected through their levels of service, including many adopting a 1-in-200 year frequency or better for severe restrictions. This reflects the Defra reference level of service and our drought resilience performance commitment. Some companies have also identified non-drought hazards and incorporated them into their decision making.

However, across a number of areas there is a lack of clarity on how resilience has been fully considered and influenced plans:

- Across the different levels of restrictions there is a wide range of differences in the levels of service. While this may be appropriate it is not always clear customer views have been sought, or that full justification is provided for the levels selected.
- The testing of the reference level for severe restrictions of 1-in-200 years, both in the modelling and with customers, was not always presented transparently in the draft plans.
- The assessment of non-drought resilience in many plans is generally limited, with often limited consideration of how the plan can mitigate risk of non-drought hazards such as the impact of flooding and freeze thaw.

3: Leakage

Leakage is the water lost through the distribution system of pipes from water

company water treatment works to customer properties. In 2016/17 leakage accounted for approximately 22% of all water used for public water supply. This figure has remained relatively static since the early 2000s.

Managing leakage is an important factor for delivering a resilient network in the long term, and leakage reduction is often a top priority for customers. In our final methodology for the 2019 price review we set a challenge for companies to reduce leakage by 15% by 2025. This was supported by the UK Government's 25 Year Environment Plan.

A number of company plans have demonstrated ambition with respect to leakage reduction. A significant number meet the 15% reduction challenge and some go significantly beyond this by 2025. To deliver the reductions innovative options have been identified, including using satellite imagery and smart meters to locate customer supply pipe leakage.

While companies have broadly stepped up to the leakage challenge there are areas which could be improved:

- The companies that do not meet the 15% challenge by 2025 need to further reflect on their customers' preferences for leakage reduction and their comparative performance across the industry.
- A number of companies chose their leakage targets late in the planning process. This means company ambitions are not fully represented in their draft plans and it is difficult to understand the costs and impacts on the companies preferred programmes.
- For a number of companies after 2025 there is limited ambition for further leakage

reductions. This includes some who plan to keep leakage flat for the remaining planning period.

4: Water efficiency

In 2016/17 household demand accounted for approximately 55% of all water used for public water supply. Water efficiency activities aim to reduce this by helping customers identify and implement water saving technology and behaviours in their homes. This also applies for businesses as non-household demand accounts for 20% of all water used.

Water efficiency activities are positive ways of engaging customers with water to get them thinking about their water service and to play their role in delivering a resilient network. Support in becoming more water efficient is a priority for many customers. The UK Government's 25 Year Environment Plan also states they want to see water use in England fall from the current average of 140 litres per person per day. The NIC recommend reducing demand to 118 litres per person per day.

Several companies have shown ambition in their targets for water efficiency, including the use of innovative approaches and partnership working. Examples of new approaches include trialling schemes that aim to reduce consumption rates on a community basis, including blocks of flats, where individual metering is difficult. Smart metering can also allow companies to provide customers with more information about ways to reduce usage.

However, given the scale of the challenge there is more to be done on water efficiency:

- Some companies' short term reduction targets are very low and do not show evidence that lessons have been learned

from previous experience. Over the past decade there has been some reduction in the amount of water used from a high of 155 litres to 140 litres per person per day.

- Long term ambition is modest, this is particularly true of companies with high consumption rates that then stay high during the planning period. These companies frequently have large supply-demand challenges.
- Recent research identifies there is scope for more ambition in reducing individual water usage, with achievable long term levels identified as 105 litres per person per day by 2065. For context the current minimum requirements for new build homes is 125 litres per person per day.

The long term potential for household demand management

We commissioned Artesia Consulting to investigate the long term potential for deep reductions in household water usage over the next 50 years. The [report](#) considered future scenarios with different drivers, responses and impacts, including new technologies and regulatory changes.

Individual consumption levels for 2065 were determined, ranging from 50 to 105 litres per day. The 105 litres per day scenario represents a gradual reduction following the current path of personal use reductions. For more ambitious scenarios, the report highlighted the importance of the use of innovative approaches and coordinated action to realise these savings.

5: Third party options

To ensure best value for customers and the wider environment companies should consider

all possible options when developing their WRMP, including demand and supply-side options offered by third parties outside the water industry. Examples of third party options include: using canals as sources or to transfer raw water, obtaining abstraction licences from current holders; and demand management delivery such as water efficiency home visits.

Third party options can offer the opportunity to do things at lower cost. They can also have wider benefits as third party involvement can inform, enable and encourage innovation. Having a plurality of supplies also increases system resilience.

The most active third party participant is the Canal & River Trust and there is greater evidence of engagement with third parties than previous planning rounds. This includes the selection of third party options in some preferred plans. Examples of good practice to facilitate this include the use of an independent consultant to ensure fair screening of both third party and in-house options and a third party road show to highlight opportunities.

Although there has been progress, we are concerned third party options have not always been treated appropriately:

- How companies have engaged with third party providers is not always transparent and it appears some options are screened out due to a lack of information being provided by third parties. We expect companies to actively engage with third parties and provide support to ensure viable options are not unnecessarily screened out.
- Where third party options have been considered in decision making some appear to be chosen late in the planning period even when they are lower cost than

in-house solutions selected earlier. Further transparency is required on how the costs and benefits of these options have been incorporated into decision making.

- All companies should be careful to ensure their in-house options are not unfairly or unduly favoured and that the principles for company bid assessment frameworks are followed.

Company bid assessment frameworks

As part of our Water 2020 reforms we introduced the [company bid assessment frameworks](#) to increase confidence in decision making to encourage further third party involvement in water resources.

Companies are required to publish their own bid assessment framework to follow when assessing water resource bids. The framework should reflect the principles; transparency, equal treatment/non-discrimination and proportionality.

Company frameworks will be submitted as part of PR19 and will apply from 2020 onwards.

6: Water trading

Water trading is where a water company responsible for supplying water in an area buys it from another water company rather than developing its own water resources. Since privatisation, the level of trading has remained static at around 4 to 5% of water into supply, however, at the same time water companies have invested heavily in linking up their own networks and moving water internally.

Greater levels of water trading can benefit customers, through improvement to resilience

of supply and; the environment, by ensuring water is moved from areas of surplus to areas where water is scarce. In our impact assessment to support our Water 2020 reforms we identified that greater water trading between water companies could save up to £600 million over 30 years (2015/16 prices).

Our review of the plans have identified the following issues:

- There are only a few new trades in the first 10 years of the plans and in net terms the level of trading appears to fall slightly over this period before increasing again. The fall in trading is a result of a number of current trades either being stopped or reduced. The draft plans did not sufficiently convince us these changes are appropriate.
- Where trades are present there are generally mismatches in trades between company plans, for example trades appearing in one plan and not the other, having differing start dates or for different types of water.
- Potential large trades that are multi-company and multi-catchment have been delayed into the longer term or not been selected for company preferred plans. This includes the Severn-Thames transfer.

Severn-Thames transfer

This is an option to move water from the north-west to the south-east of England using a combination of existing river systems and new infrastructure. This has the potential to move significant volumes of water across multiple regions and involves United Utilities Water, Severn Trent Water and Thames Water.

While it is not included as preferred option by all companies involved we expect all

parties involved in this trading option to continue to actively engage on progressing its assessment prior to the final plans being published. If the uncertainty is not resolved by the final plan there may be merit in continuing to explore the option, given the option value and potential long term benefits to customers and the environment.

7: Regional solutions

Looking for solutions at a regional and national level can help unlock the best value solutions for customers and the environment. This means companies should not just consider their own areas but also investigate regional supply and demand-side options. For WRMP19 regional aspects were considered by Water Resources South East (WRSE) and Water Resources East (WRE).

A significant amount of work has been undertaken by these regional groups to support the plan development process. Alongside this, during the development of the draft plans, Water Resources North and West Country Water Resources have formed. These groups have the potential to provide focus to future trading opportunities which we welcome.

A regional solution

Portsmouth Water proposed the construction of Havant Thicket reservoir to support increased exports to Southern Water. This is an example of a regional solution that is considered best value on a regional basis and is consistent with the outputs of most scenarios developed by WRSE.

However, while progress has been made there are still areas where more can be done:

- While draft plans do reference regional groups, only some companies have provided clarity on how their preferred programmes reflect the regional strategies or solutions.
- There are mismatches where inconsistent assumptions have been used by regional group members and in some plans regional solutions are excluded without explanation.
- Despite some progress, we are disappointed that the plans in the south east appear are still highly dependent on supply based solutions designed to serve individual company areas rather than developing integrated approach to secure the long term resilience of the region. While this is not an issue for individual companies alone, we expect companies across all regions to seize the opportunity of regional and national solutions to address future challenges.
- For some companies significant changes have been made since WRMP14 which are not adequately explained. There is a risk that at each round the plans represent a new starting point which reduces transparency and makes it difficult to track delivery of the previous plan.
- For several companies, including some who plan significant expenditure, it was unclear how the final programme was selected. This included the role of the Board, how scenarios influenced the decision, and how deliverability was taken into account.
- Draft plans were submitted to regulators early. However, since the initial submission there were multiple updates and corrections to the plans. The quality of the planning tables was mixed, with completion of cost information particularly poor. There were also issues with the quality of companies' market information which they published alongside their draft plans.

8: Assurance

WRMPs are a key input to water company business plans assessed in our price review. We expect companies to demonstrate strong ownership and accountability for their plan, to ensure it delivers on their strategic aims for customers and the environment.

Several draft plans provide evidence of Board involvement in the development and sign off of the plans, together with independent technical assurance. There is also evidence provided that Customer Challenge Groups (CCG) have provided independent challenge on the customer engagement material used.

However, we have concerns about the quality of assurance across some plans:

Water resources market information

As part of our Water 2020 reforms we introduced the [water resources market information](#) to provide greater transparency of key water resources information to encourage further third party involvement.

We reviewed the first set of this data published alongside the draft WRMPs and identified a number of areas that companies need to improve. This includes website signposting, prompt publication, inclusion of all files (the geographic data was often missing) and fully completing the Excel data template. To resolve the issues identified we contacted the affected companies directly.

When the final plans are published and market information updated we expect

companies to learn lessons from this and ensure information is in line with the requirements.

Next steps

The draft WRMPs are part of ongoing business planning activities and we set out key upcoming milestones below:

- **August 2018 onwards** – Companies will submit their statement of response to the consultation comments received on their draft WRMP and updated plan to the respective Government.
- **3 September 2018** – Companies submit their PR19 business plans to Ofwat. We expect companies to ensure consistency between the WRMPs and the business plans.
- **January – March 2019 onwards** - Final WRMPs are published and companies update their water resources market information within one month of publication.

Looking beyond WRMP19, in the longer term, we believe it will be necessary to review whether the existing statutory process for water resources and drought planning remains the most effective. This is in the context of the long term challenges that we, and other organisations such as the NIC, have highlighted.

We will continue to discuss with Government and regulators as to what the improved framework may look like. Below we set out our

initial views on principles that could be embedded in future frameworks.

Principles for water resources planning

- **Customer focused** – customers should be at the heart of the plan development from the start and participate in performance setting and option selection.
- **Integrated** – there should be a full consideration of regional and national level solutions within a broader geographical context. This should include consideration of wider environmental and societal benefits.
- **Tailored** – the process of developing a preferred plan should be proportionate to the company and regional situation/risk. This should also include a separate process for NAVs.
- **Transparent** – plan development and decision making should be simplified where possible and made easier to understand. This includes improved communication to customers and stakeholders and clear assurance.
- **Twin track** – companies should adopt the ‘twin track’ approach of reducing demand and increasing supply to improve water supply resilience. This should include greater consideration of water trading opportunities.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

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