Water resources planning – recommendations for the future

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WATER RESOURCES SOUTH EAST

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Introduction

Over the coming year, the first set of regional plans, developed under the Environment Agency's National Framework for Water Resources should be complete. This will mean that for the first time, the Water Resources Management Plans (WRMPs) of the 17 English water companies will be aligned with five regional plans, which have been reconciled to present a joined-up national picture of the challenge facing the country's water supplies and how it should be addressed.

This has been a collective success and the result of significant collaboration between water companies, regional groups, regulators, government and other key stakeholders. It has enabled the sector to respond positively to the recommendations of the National Infrastructure Commission's first National Infrastructure Assessment to increase the resilience of the nation's water supplies. And, for the first time, it has incorporated the long-term needs of the environment into water resources management plans, identifying a forward-looking programme of investment to help our rivers and streams adapt to climate change and replace abstractions which will not be sustainable in the future.

The investment needs to take a twin-track approach. In South East England, reducing leakage and customer consumption will make up over half the 2.7 billion litre per day shortfall that is projected by 2075, with significant progress needed in the first 10 years of the plan. Alongside this, a range of new water resources need to be built including reservoirs, water recycling schemes, transfers between water companies and desalination plants, many of which need to progress urgently to secure our future supplies. Delivery of this plan is not certain. There are many risks to delivery including the planning process, supply chain resources, low levels of public awareness about water challenges, public acceptance of the solutions and customers' willingness to change their behaviour.

As we come to the end of the first round of regional planning, Water Resources South East (WRSE) has reflected on its experience and has set out some recommendations for the future to support both the delivery of the current regional plans and drive enhancements to the future water resources planning process. These recommendations reflect the expectations of government and regulators, as set out in their joint letter from January 2023, and focus on two broad areas – governance and process.

For regional plans to evolve further, and be genuinely collaborative and multi-sector, there needs to be strengthened leadership at a national level and improved alignment between regulators. The current process needs to change and be resourced and governed appropriately so key stakeholders including all abstractors and catchment partnerships, are empowered to participate in the plans' development by providing data and inputs, have a formal role in decision-making and take ownership of the output for their respective sector as it moves into delivery.

The purpose of this paper is to inform strategic discussions between water companies, government, regulators and wider stakeholders about the future of water resources planning.

Summary of recommendations

Governance recommendations

1. Establish strategic national leadership for water resources planning

We recommend that Defra establishes and chairs a national Water Resources Forum (WRF) that centralises the approach to water resource planning across the country and oversees the future needs of all water users. This would ensure greater strategic alignment across government and regulators, supporting all industries with a high dependency on water by increasing resilience and enabling growth.

2. Produce centralised planning scenarios, upfront guidance and a national timeline

We recommend that the WRF defines the future planning scenarios for public and non-public water supply to ensure that the growth duty, which came into statutory effect on 29 March 2017, and other government duties are met. It should consult on the planning scenarios before publishing them for the industry to incorporate into its long-term water resource planning activities so there is a consistent and transparent approach to establishing the case for need.

We also recommend that the WRF sets a national timeline for the development of the next set of water resources plans with guidance and a framework for effective regulatory engagement in the process. This would allow water companies and regional groups to work in a co-ordinated way across England with clear expectations for when and how regulators engage in the process.

3. Formally integrate non-public water supply users into regional group governance with dedicated funding for all major water users

We recommend that there is formal incorporation of non-public water supply (non-PWS) users into the regional plan with an appropriate level of funding for all major water users. The governance structure for regional groups should be proportional to the scale of the non-PWS challenge and reflective of the nature of the water users most prominent in the region.

Process recommendations

4. We recommend that a formal review of the planning processes regarding WRMPs and regional planning is undertaken

We recommend that a formal review of the water resources planning framework is undertaken that reflects the benefits that the move to adaptive planning brings and eliminates the current duplication and inefficiency, in the regional and company water resource planning process.

5. Implement a robust and evidence based environmental planning framework

We recommend that the Environment Agency implements an environmental planning framework that supports cross sector decision-making at a catchment level and integrates effectively with the water resources planning framework.

6. Review of demand management targets

We recommend that as part of its review of the Environment Improvement Plan, government urgently considers the targets for household and business consumption. This should consider the contribution of all sectors that have the potential to change their own or the public's water use behaviour with a view to the target becoming a societal one, fairly and equitably distributed across key sectors.

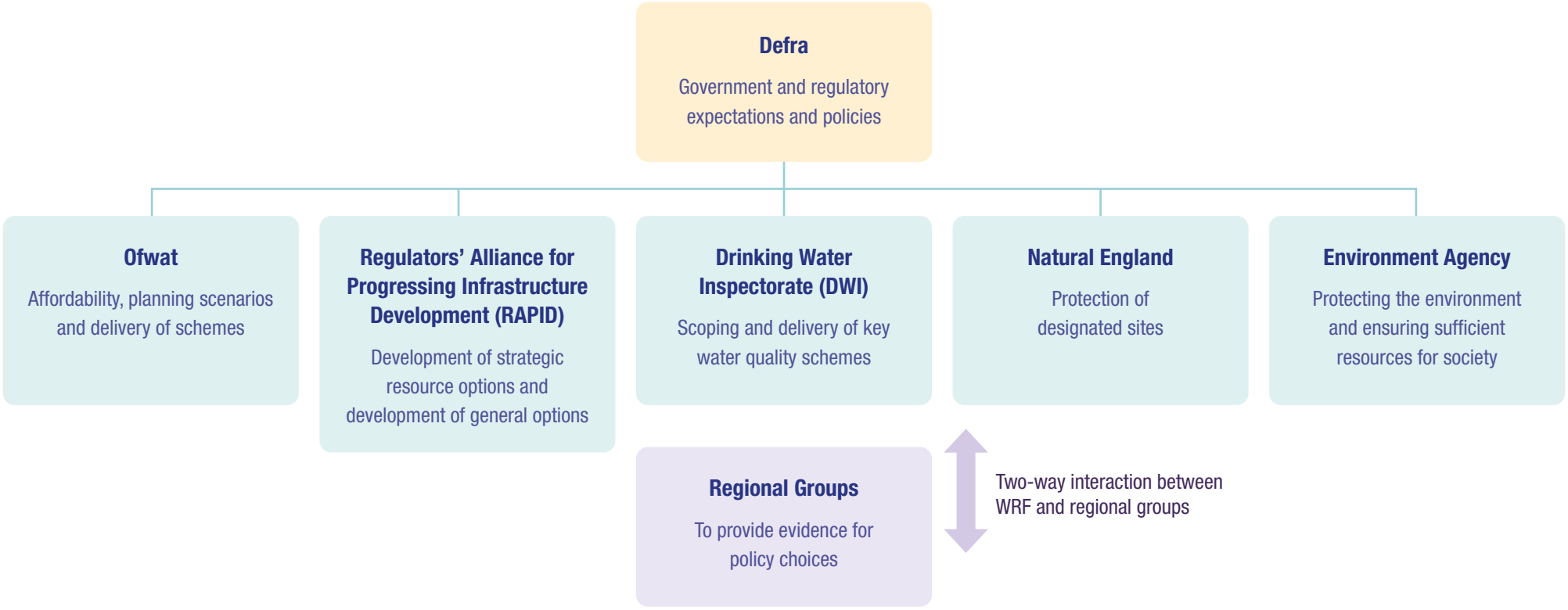
Governance recommendations

Recommendation 1 - Establish strategic national leadership for water resources planning

We recommend that Defra establishes and chairs a national Water Resources Forum (WRF) that centralises the approach to water resource planning across the country and oversees the future needs of all water users. This approach would ensure greater strategic alignment across government and regulators, supporting all industries with a high dependency on water by increasing resilience and enabling growth.

The water resources challenge we are facing in this country requires strategic leadership at a national level to ensure the future water needs of all users are being met and water scarcity is not a barrier to growth.

The current governance arrangements are not enabling this and need to be strengthened. The current National Framework Steering Group has helped to bring key sectors together with regulators and has highlighted the range of challenges we face. However, it has no delegated authority to set national policy or the planning scenarios that set the framework for multi-sector water resources planning, likewise this group is not accountable for tracking delivery of key schemes.



The formation of a national, strategic body, led by Defra, that oversees the nation's water needs across all users and makes evidence-based decisions on policy and regulation across all sectors could address this. Its work could be informed by the technical and engagement work of regional groups whose modelling and evidence will guide its decision-making. This group (referred to as the Water Resources Forum (WRF)) should be chaired by Defra and made up of senior representatives from the Department of Levelling Up, Ministry of Housing, Communities and Local Government (MHCLG), Ofwat, the Environment Agency (EA), the Drinking Water Inspectorate (DWI), the Regulators' Alliance for Progressing Infrastructure Development (RAPID) and Natural England (NE), and use regional groups to provide evidence for any potential future policies.

Such a body could look beyond the needs of current water users and take a strategic view of the water needed to boost long-term economic growth and support the needs of new industries. This would enable a shift in where anticipatory investment in water resources is delivered, aligning with government expectations and encouraging growth, rather than letting water scarcity be a barrier. This would inevitably drive greater innovation and promote investment in the development of new solutions which provide benefits to multiple sectors. These types of solutions could and should include multi-purpose cross sectorial options such as the twin use of desalination plants to produce water for water supply and hydrogen production, or catchment solutions that could benefit multiple sectors and flood schemes.

WRSE welcomed the inclusion of a holistic national assessment for water, energy and telecoms in the Smarter Regulation White Paper, produced by the Department of Business and Trade. The work carried out to date by the National Infrastructure Commission has been critical in highlighting the case for increased investment in water resource infrastructure and the need to reduce leakage and public consumption to increase the resilience of our water supplies and protect the environment.

The national infrastructure assessment will enhance regulatory accountability and empower other sectors, beyond the water industry, to act. It could guide the WRF's strategic direction and decision-making, with the actions of regulators, water companies and other sectors being monitored against it, with all held to account for their part in delivery.

Furthermore, such a group could help to forge a new national narrative on water resources and water availability issues to support both the delivery of vital new infrastructure and the ambitious reductions in demand that are needed to secure our water supplies. It could also include additional standards covering levels of service, resilience standards and localised supply/demand balance issues in a more effective way to avoid the risk of schemes not being funded as they progress into the Business Plan process. It would support water companies' individual promotion of schemes with a more forward-looking, joined-up narrative. This could focus on wider societal needs and the new, innovative solutions needed for water management in the future.

Recommendation 2 - Produce centralised planning scenarios, upfront guidance and a national timeline

We recommend that the WRF defines the future planning scenarios for public and non-public water supply to ensure that the growth duty, which came into statutory effect on 29 March 2017, and other government duties are met. It should consult on the planning scenarios before publishing them for the industry to incorporate into its long-term water resource planning activities so there is a consistent and transparent approach to establishing the case for need.

We recommend that the WRF sets a national timeline for the development of the next set of water resources plans with upfront guidance and a framework for effective regulatory engagement in the process. This would allow water companies and regional groups to work in a co-ordinated way across England with clear expectations for when and how regulators engage in the process.

Nationally co-ordinated water resources planning across different sectors needs to be underpinned by regulatory consistency, national policies, common planning scenarios and a realistic and robust timeline. This should be bought into and appropriately resourced by all, with risks identified and mitigated.

By producing centralised planning scenarios, the government can ensure alignment between all those involved in strategic water resources planning and set consistent expectations and ambitions. These could cover:

- Housing growth
- Climate change
- Environmental destinations (abstraction reduction)
- Policy delivery dates.

The WRF should consult on these planning scenarios and publish its requirements by March 2026 so they can be incorporated into the next round of water resource plans.

This approach would ensure greater alignment across the regulators and industry, including New Appointments and Variations (NAVs). It would ensure that the planning scenarios used for water resources planning align with other strategic planning activities and policies, including the environmental destination scenarios being used to deliver long-term sustainable abstraction. Moving to a centralised approach, which includes consultation, would enable stakeholders to engage more effectively in the process by reducing the need for them to scrutinise multiple plans and increasing the transparency of the process.

Water resource planning has become increasingly complicated. It is not following a central timeline and guidance has been repeatedly changed throughout the process. This is creating confusion for stakeholders and customers and threatening the transparency and credibility of the process.

We recommend that a national timeline for the next round of water resources plans is set by the WRF to ensure greater co-ordination. By setting a national timeline, all parties can work together to ensure their detailed planning processes align, and to share up-to-date information with stakeholders and regulators as they are developed. This national timeline will allow co-ordination with RAPID's gated process, updates from other plans (where necessary) and regulatory input.

Guidance should be provided upfront with any change kept to a minimum to avoid delays, extensive reworking of plans and reduce the risk of stakeholder fatigue. New government policy that results in a material change to water resources plans should be evidence-based and consulted on by the WRF before implementation, with the impact fully understood.

A national timeline will also allow all stakeholders to plan their resources resources appropriately. For regulators in particular, we consider there could be value in government reforming the current regulatory system to address the current misalignment between the policies and planning approaches of different regulators and make engagement with them more efficient.

Considerable time and resource has been put into engagement with regulators throughout the planning process. The EA has consistently engaged and played a critical role in managing the interface between the regions and the companies with the wider agency, although there has been some misalignment between the national, regional and local teams. We have openly shared our technical work and key external communications with them as they have been developed, enabling ongoing review and challenge, alongside their formal feedback.

Likewise, the engagement with RAPID, both at a strategic and technical level, has helped improve the process. RAPID has driven consistency in scheme design standards and introduced a robust challenge process for key schemes, helping to improve the solutions. The All Company Working Group (ACWG) established across the Strategic Regional Options (SROs) has been an important forum to help the water industry work collaboratively with RAPID.

Having representation from RAPID on WRSE's Programme Management Board increased its interaction with our technical work and deepened its understanding of our plan. However, it wasn't consistent and RAPID's overlap with Ofwat is ambiguous. It is not always clear whether representatives were working on behalf of RAPID or whether their representation extends to Ofwat too, making it hard to assess the level of engagement with Ofwat directly. Greater direct engagement with Ofwat would have been welcomed.

Engagement with Natural England and DWI has been limited, primarily due to resource constraints for these regulators. This did pose some issues, particularly with NE, around scheme assessment and selection and environmental ambition, which would have benefitted from earlier intervention and a more open discussion.

Bringing all regulators, regional groups and companies together through the development of a national milestone programme, set by the WRF for the next plan would help deliver consistency in regulatory engagement and help regulators to plan their time and resources so they input into the process in a timely and effective way.

Recommendation 3 – Formally integrate non-public water supply users into regional group governance

We recommend that there is formal incorporation of non-public water supply (non-PWS) users into the regional plan with an appropriate level of funding for all major water users. The governance structure for regional groups should be proportional to the scale of the non-PWS challenge and reflective of the nature of the water users most prominent in the region.

WRSE has been entirely funded by its member water companies and its governance structure has reflected this. With the majority of the region's water being used for public water supply, this has been our focus to date.

We were the first regional group to appoint an Independent Chair and the WRSE Senior Leadership Team (SLT), made up of water company CEOs (contributory members) and regulators (advisory, non-contributory members), has overseen the regional planning process, ensuring alignment across companies. There has been a clear governance structure in place at all levels, so decision-making has been transparent and collaborative.

We established a multi-sector group to support engagement with the main water using sectors in the region which provided a useful forum for discussion and relationship building. However, their input was limited due to lack of funding and resources, limited expertise in long-term water resource planning and commercial sensitivities. Despite these challenges, we did produce a non-PWS forecast using existing data and following a similar trend to non-household growth, which enabled us to identify non-PWS needs in our regional plan.

Integrating the needs of other sectors who abstract directly from the same catchments as water companies is an important next step for regional planning, however, currently there is no statutory requirement for them to contribute, nor alignment with policies such as decarbonisation of energy or food security. Building a duty around water resilience into the policies that are governing other sectors, so they are required to derive simple water resources management plans that show how they will meet future environmental targets set out in the Environmental Improvement Plan, would support the wider alignment, and put multi-sector planning on a more formal footing. It would also maximise opportunities to deliver wider benefits such as biodiversity net gain.

Additional funding will be required to enable the non-PWS users to engage and participate in the process. For the South East this means funding sectors such as the paper industry, agriculture, power companies and minerals and aggregates. Different sectors will have different starting points, so it is important that funding is adequate to bring all up to an equal and appropriate level, but with the flexibility to support them with specific requirements and enabling them to enhance their approaches as needed. In some cases, such as agriculture where there are large numbers of abstractors operating independently, sector representatives will need to engage appropriately with a wide range of individuals to ensure their needs are represented appropriately in the regional plan.

Delivering this will require formal mechanisms to collect and administer funds. One approach is to use funding collected through the abstraction licence regime and administer it through the regional groups or the EA on behalf of the regional groups. A governance board would agree the scope of the regional plan and what the core funding would be used for. If a sector wanted additional work undertaken by the region, then its component of the regional pot could be developed to a scope it defines. For example, the regional board would agree to a basic level of work, but some sectors could invest more money for their specific needs to meet the WRMP guidance. This would provide all sectors with a basic level of planning but also allows other sectors to explore more sophisticated activity.

If multi-sector regional planning is not introduced carefully, there is a risk it could negatively impact the production of high-quality water company WRMPs. Development of the non-PWS plan must happen in parallel with the public water supply plan and be integrated where possible, particularly with regards to shared options and activities to improve water management within catchments and deliver wider benefits. However, it should not compromise our ability to derive a regional plan for public water supplies in line with the statutory timescales.

We believe that the incorporation of the non-PWS sector into the plan will take several planning cycles to mature and will only be driven through the EA's changes to the abstraction licences of the other abstractors. Once this issue has been resolved, the attention of other sectors might diminish. Therefore, unless additional funding can be found for the other sectors, the success of a regional plan should not be judged on the participation of the other sectors alone.

Process recommendations

Recommendation 4 – Review the timing and nature of the water resources planning process

We recommend that a formal review of the water resources planning framework is undertaken that reflects the benefits that the move to adaptive planning brings and eliminates the current duplication and inefficiency, in the regional and company water resource planning process.

The current regulatory framework means that water resource management planning has become an increasingly complex, almost constant activity resulting in key investment decisions being delayed.

Water companies are required to update and consult on their drought plans, WRMPs and business plans every five years. Regional plans need to inform WRMPs, so they too currently work in five-year cycles. Although not a statutory part of the process, they have also been subject to consultation.

In this planning round it has taken since early 2019 to develop the National Framework, update the Water Resources Planning Guideline (WRPG), develop methodologies, processes and data sets, produce and consult on the emerging and draft regional plan and company draft WRMPs, prepare regional and company Statement of Responses and produce revised draft plans. As of summer 2024, WRMPs have still not been finalised and published.

The current five-year frequency of review means it has become easy for decision makers to delay decisions about investment until the next update of the plan. The consequence of this is that the five-year cycles are now overlapping with one another, meaning water resource planning is an almost a constant activity, increasingly resource intensive and there are significant areas of overlap between regional groups and companies. This is creating uncertainty around the promotion of the critical, strategic infrastructure schemes making it more difficult for them to proceed.

The move to adaptive water resources plans provides government and regulators with an opportunity to review and streamline the current process. The production of adaptive regional plans and associated WRMPs means that as well as identifying the core options to meet the WRPG requirements, alternative options for a wide range of scenarios have also been identified and consulted on. This makes future course adjustments easier to implement as they have already been set out and approved.

We therefore recommend that regulators review the timescales and nature of the five-year planning cycle, with a view to reducing the frequency that water companies are required to complete a full update to their WRMPs, including public consultation.

The annual monitoring plan should provide a comprehensive and transparent update on progress, including any changes from the reported pathway to an alternative, which requires the alternative options to be promoted. Regional groups and companies should proactively inform stakeholders of any changes that occur but should not be required to formally reconsult on them, provided the alternative options were included in the original adaptive plan.

In addition to the annual monitoring plan, companies could carry out a lighter touch five-yearly review where they update, where relevant, any key forecast information and confirm whether the current adaptive plan continues to address the shortfall in water supplies projected. This would be aligned with the five-year business plan cycle to secure funding for the investment required. Where material changes occur and the plan can no longer deliver the additional water required, a full update would be carried out to include consultation on the new adaptive plan.

Furthermore, we believe that regional modelling is the optimal level of investment planning for water resources as it strikes the right balance between incorporating sufficient granularity of local factors with more strategic co-ordination. WRSE was the only region to carry out centralised regional modelling at the level of detail required for WRMPs, from which the six companies in the South East derived their individual plans. We pioneered new technical methods and drove consistency and best practice across the data used and the approaches taken, resulting in a step change in how water resources are planned and managed**.** However, there were a number of areas of duplication, which added to the workload of companies and regulators and led to inefficiency and stakeholder fatigue.

With calls to do more in the regional planning space in the next round of plans, it is important to make the existing processes more efficient for regulators, stakeholders and companies. Therefore, the review should also consider how to reduce areas of duplication (particularly where the regional and company plans interact) and to streamline the process. Taking a staged approach, with clear decision points at key phases in the process would reduce the risk of late decisions causing significant reworking of plans and would formalise where regulatory sign-off is required during the development of the plan to increase accountability and transparency across the process, while making it more efficient for all.

Recommendation 5 – Implement an environmental planning framework

We recommend that the Environment Agency implements an environmental planning framework that supports cross sector decision-making at a catchment level and integrates effectively with the water resources planning framework.

The environmental planning and water resources planning frameworks are intrinsically linked and effective water management within catchments will contribute to increasing the resilience of our water resources. WRSE welcomes the inclusion of protecting the environment in the short, medium and longer term into the WRMP process. This is a marked improvement on the previous approach that took a shorter-term view.

Abstraction is one of many factors having an impact on the health or our rivers and water sources and implementing a sustainable abstraction regime for the future is a key objective of regional water resources planning. Protecting the environment by changing the abstraction regime so its sustainable for the future is now the biggest driver of investment in water resources – reductions to existing abstraction licences is driving around half of the £19 billion investment programme set out in WRSE's regional plan between 2025 and 2075.

In this round of plans water companies have adopted the longer-term planning approach and included a range of abstraction reduction scenarios within the adaptive plan. However, water company sustainability reductions alone should not be seen as the solution to resolve failing water bodies and future regional plans must consider the sustainability of all abstractions if they are to be genuinely multi-sector.

The wider abstraction reform process has been subject to several delays, and we consider that the current phased implementation of the abstraction reforms might lead to unfavourable solutions in the future. It has not yet been rolled out by the EA across the other sectors operating in the catchments so more work needs to be undertaken if the next round of plans are to incorporate other sectors' water needs.

The interaction between the EA's long-term abstraction strategy and the abstractors within the individual catchments can be facilitated by regional groups, with regional modelling identifying how best existing abstractions can be replaced and helping to inform decisions on the pace and timing of reductions. Doing this successfully will require much greater interaction with catchment partnerships and local abstractors, however, currently, there is nothing that formally integrates catchment level planning with the water resources planning framework.

The **Integrated Plan for Water** promotes taking a local, catchment-based approach with catchment action plans to drive action and investment. We support this ambition and agree that integrated water management is best planned and delivered at catchment level. It is an appropriate place for the long-term needs of the environment to be identified, taking into account all factors including water quality, water quantity and flood risk. However, localised, catchment and nature-based solutions alone will not address the challenges facing our water resources, so it's critical that there is interaction with regional planning so that the need for new infrastructure and demand reduction is fully understand and catchment groups can contribute more actively during the optioneering process.

However, to work effectively across all the sectors and stakeholders in a catchment we need to ensure that these groups have the funding, resources and governance to enable them to formally input into the regional planning process and work to a consistent framework. There is currently wide inconsistency in the operation and ambition of catchment partnerships, no common approach for environmental decision-making and no formal mechanism for them to integrate with regional planning.

It is critical that decisions around abstraction reduction are made in a collaborative and transparent way across all abstractors, using an evidence-based approach and alongside other interventions within catchments. Catchment groups should work closely with regional groups to understand the impact of abstraction reduction on water resources and identify integrated solutions across all sectors, which will increase the resilience of the catchment.

If regional plans are to successfully integrate the needs of the environment and other abstractors, we need to ensure there is a formal mechanism for their integration and that this process is open and transparent around decision-making, particularly where trade-offs are required. We also need to ensure there is adequate funding (see Recommendation 3). We therefore consider that government and regulators should introduce more robust requirements and consistent a framework for catchment-level decision-making and set clear expectations for how the process integrates with regional water resource planning, as well as the other strategic planning frameworks.

Recommendation 6 – Review of demand management targets

We recommend that as part of its review of the Environment Improvement Plan, government urgently considers the targets for household and business consumption. This should consider the contribution of all sectors that have the potential to change their own or the public's water use behaviour with a view to the target becoming a societal one, fairly and equitably distributed across key sectors.

The regional plan and company WRMPs include ambitious leakage and demand reduction programmes that, in theory, enable the water companies to achieve the highly ambitious targets and interim targets set out in the Government's Environmental Improvement Plan (EIP). This has led to nearly two-thirds of the shortfall in water supplies between 2025 and 2035 being addressed through demand management activity, the delivery of which is far from certain, and is dependent on government policy, regulatory support and consumer behaviour change.

The introduction of the interim EIP targets has driven a less cost-efficient regional solution overall and potentially increases the risk of supply failures in the future if these reductions cannot be delivered. Whilst customers support the role of demand management alongside development of new water resources that will safeguard service levels and the environment for future generations, they don't want us to take large risks that jeopardise water supplies.

We have seen limited evidence to show how these targets have been developed and whether they can be achieved. At present, it is only water companies that are being held to account for their delivery through Outcome Delivery Incentives for per capita consumption (PCC) and business demand in their business plans, despite there being many other sectors, organisations and external factors that will influence consumption reduction; including the implementation of new water efficiency policies by government.

We therefore consider it essential for evidence to be produced to show how these targets can be delivered that considers current consumption levels, smart meter data, climate change, the risks associated with delivery and the differences in climate and the demographics across the country. This should then inform a coherent national strategy for water efficiency which includes appropriate measures to manage uncertainty and sets targets for water companies, alongside government and others who have a role and responsibility to help consumers lower their water use.

Next steps

Development of the National Framework for Water Resources is already well underway and government and regulators have set clear expectations for the next round of regional plans. To enable regional groups to achieve these and enhance the water resources planning framework it is essential that action is taken quickly so the next set of plans can be developed more efficiently and effectively.

Given the advanced nature of regional planning in the South East, we would welcome the opportunity to explore these recommendations with government and regulators so together we can actively progress them over the next planning cycle, with a view that they inform future changes to the regulations from 2029 onwards. This could include the establishment of a national Water Resources Forum to provide leadership and enable collaboration, which could become active in autumn 2024 and act as a testbed for the recommendations we have put forward in this paper.

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