

Regulators' Alliance for Progressing
Infrastructure Development

August 2021

RAPID

Annual progress review 2020-21



ofwat

 Environment
Agency

dwi

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1. About us

What is RAPID?

The Regulators' Alliance for Progressing Infrastructure Development (RAPID) was set up in 2019. It is a partnership made up of three water regulators – Ofwat, the Environment Agency (EA) and the Drinking Water Inspectorate (DWI).

[The National Infrastructure Commission](#) estimated that new water supplies equivalent to the water consumed by over nine million people would be needed by the mid 2030's. Responding to the scale of that challenge, RAPID was formed to help facilitate the development and funding of new large-scale strategic water supply solutions by the water companies.

We work with stakeholders, taking opportunities to improve regulation and remove barriers, helping the sector respond to long term water resources challenges while promoting the best interests of water users, society and the environment.

The RAPID programme is intended to benefit England and Wales.



The innovative nature of RAPID allows three regulators to come together, collaborate and work with water companies to better understand challenges and manage risks. Ultimately, we want the sector to drive forward solutions that contribute to resilient water supplies that enhance the environment, deliver value for money, meet the needs of public health and protect customers over the long term”

– Paul Hickey, Managing Director, RAPID

RAPID's role

Climate change is a present reality. Changes to weather patterns as a result of climate change mean that rainfall distribution is becoming less reliable across the country. The predicted shift to hotter drier summers and warmer wetter winters will affect overall water availability. And water is a basic necessity of our daily lives.

In Wales, the projected reduction in summer rainfall by 2050 significantly exceeds the projected increase in winter rainfall¹. In England, it's estimated that there is a 25% chance of the worst drought in recorded history within the next 30 years². Whilst water shortages are forecast to be most acute in the south and south east of England, widespread severe drought is a nationwide risk that needs to be managed.

RAPID has been set up to identify and address issues relevant to the development of joint infrastructure projects and to analyse the feasibility of nationally strategic supply solutions. 18 solutions have been proposed so far and we are encouraging more to be planned. These solutions have the potential to help meet the water needs set out in the National Framework for England.

We know that too much or too little rain has devastating effects on communities, businesses and the environment. RAPID will use the strategic supply solutions to identify opportunities to integrate approaches to water management, supporting sustainable development. This includes explicitly considering the potential to reduce flood risk alongside increasing resilience to drought. The options developed also need to aid nature recovery, deliver environmental net gain and use nature-based solutions where appropriate.

RAPID is working alongside the five regional water resources planning groups, to ensure that we have timely delivery of new infrastructure. Where necessary, RAPID will assist the regulators in identifying and overcoming potential regulatory and commercial barriers.

RAPID's people and governance

RAPID operates under a Memorandum of Understanding (MoU) between its partner regulators: Ofwat, DWI and the EA. The MoU provides for a RAPID Board, which is chaired by the CEO of Ofwat and comprises members from the senior leadership teams of the partner regulators. The RAPID Board approves RAPID's workplan and strategy and provides oversight and guidance of RAPID's programme of work.

RAPID also has an Advisory Group with membership drawn from the partner regulators and from Natural Resources Wales. It is also supported by other regulators including Natural England and the Consumer Council for Water (CCW) and by a number of technical groups.

The legal powers and responsibilities of the partner regulators remain with the regulators. RAPID provides advice and recommendations to the partner regulators, DWI, Ofwat, the Environment Agency, and to Natural Resources Wales.

¹ Welsh Government, '[Future Wales: The National Plan 2040](#)', February 2021, p. 45.

² National Infrastructure Commission, '[Preparing for a drier future: England's water infrastructure needs](#)', April 2018, p. 5.

RAPID is managed by the Managing Director, Paul Hickey, with support from three Directors. The rest of the RAPID programme is made up from colleagues from the partner regulators.

Specialist interim staff are employed on short-term contracts when required.

Purpose of this review

In line with Government best practice, within RAPID we are committed to transparency and evaluating the impact of our work to ensure we deliver value for money. Instilling a culture of evaluation also helps us evolve our approach to help deliver optimum outcomes. Whilst we are monitoring the impact of RAPID, this success is dependent on our influence and support of others – hence our focus on collaboration.

Our evaluation techniques include surveying our collaborators and stakeholders, as well as understanding what lessons have been learnt through the gated process. Where appropriate, we have developed our evaluation using external support to strengthen it through the life of our programme.

We published our [Forward Programme 2020–21](#) which detailed our delivery priorities for 2020–21 within the longer-term programme. This review will look at what we have achieved in terms of those priorities and provide examples where appropriate.

We intend to publish this review each year, evaluating the year's learnings and achievements from the relevant forward programme.

2. Foreword

The past 18 months have been unprecedented for us all, and those of us in the water industry are no exception. We've all had to adapt to new ways of working but also to maintain the high levels of output that the RAPID programme demands.

The innovative nature of RAPID has allowed three regulators to come together to ensure that we drive forward the water resilient solutions that will make a big positive impact on the environment and water customers in the long term. RAPID was established to enable the construction of large-scale water infrastructure projects by addressing any current barriers to development and encouraging collaborative working across regional boundaries. The collaboration we have seen across the water companies has been impressive, and we'll continue to work with them to understand the challenges and manage the risks throughout the process.

The year 2020–21 was the first year for the RAPID programme and we spent much of it planning and gearing up for the first gated deadline, accelerated gate one. Submissions for the proposed solutions were received back in September 2020 and we announced the final decisions in January 2021. This was a significant milestone for the programme, which tested our governance for the first time. This also enabled us to look inward at our own processes and adapt and flex for the remaining gated assessments.

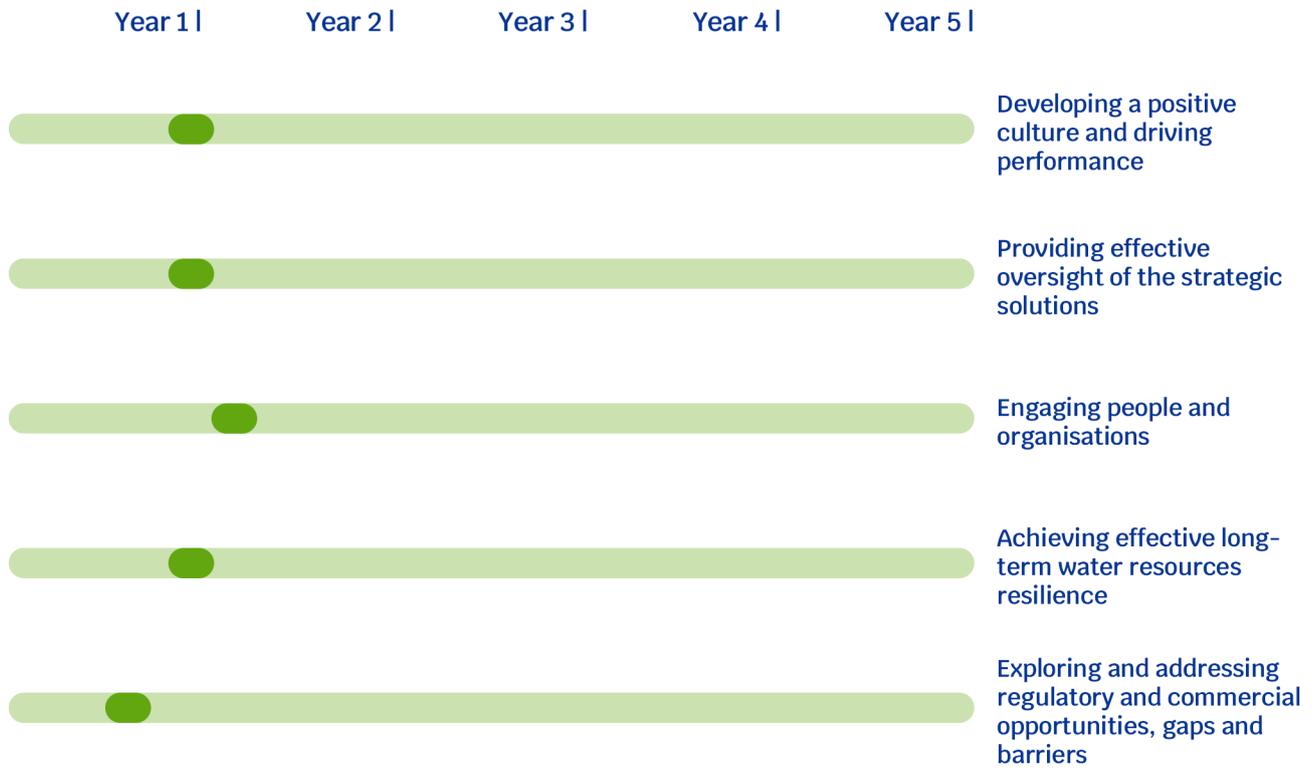
We started to move beyond identifying tricky issues in the regulatory and commercial framework to discussions both between the regulators and with the companies on next steps in identifying options to resolve them. I am very proud of the way that the RAPID team have conducted themselves throughout the pandemic. The team have continued to work hard, support each other, maintained their sense of humour, and demonstrated incredible spirit in the way we have had to change our working lives.

The RAPID programme is progressing well, and I am confident that we will help to deliver the major water resource solutions that are urgently needed to provide greater resilience for water supplies, deliver value for money, meet the needs of public health and helps to enhance the environment.

Paul Hickey
Managing Director
RAPID

3. Performance summary

Figure 1: RAPID's performance against the five delivery priorities



4. Performance analysis

In the [2020–21 Forward Programme](#), we grouped our delivery priorities into five themes:

- Developing a positive culture and driving performance
- Providing effective oversight of the strategic solutions
- Engaging people and organisations
- Achieving effective long-term water resources resilience
- Exploring and addressing regulatory and commercial opportunities, gaps and barriers.

Underneath each priority, we highlight some of the steps we have taken during the year to move forward to meet our ambitions.

Developing a positive culture and driving performance

Top achievements:

- Maintaining focus and progress through a global pandemic
- Showing compassion for staff and adapting to the new ways of working, while maintaining delivery
- Improved communications across the programme
- Changed the way we engage with stakeholders during the pandemic and ongoing
- Excellent support from the regulators with resources such as IT services

Culture

We began to build a RAPID culture that took the best from the three partner regulators. In common with others, RAPID has had to adapt to new ways of working in light of the pandemic. In embracing new tools, we have found more efficient ways to collaborate and interact with those we work with. A particular challenge has been forming a new team remotely. Most team members have not met each other in person, and we have been active in exploring innovative ways to build rapport and cohesion. Ongoing, we plan to do self-assessments once a quarter to determine how we continue to build RAPID culture and adapt as a team.

Our ongoing engagement with the water companies and other stakeholders has also had to change. A positive to come out of the lockdown rules was that we were all required to work from home, so meetings were much easier to arrange virtually. We were able to get excellent attendance numbers at meetings, ensuring that our engagement with stakeholders worked

well. Due to the success of online meetings with stakeholders, we will be continuing to use this method for many of our regular meetings in the future.

RAPID recruitment

With the RAPID programme starting to move forward towards the end of 2020–21, we have needed to increase our staff numbers to meet our objectives.

Many of our staff are made up from the three regulators either on permanent contracts, secondments or loans. But we have also recruited externally to ensure that we are getting the right talent for the roles in RAPID.

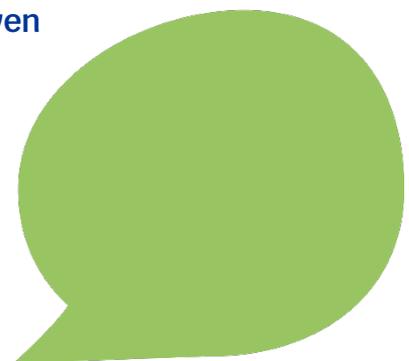
As a team, we are committed to learning and development. We have invested time developing our team with the changing skills they need and to ensure their continued professional development. Working virtually has created its challenges, so we have arranged training as a team on relevant collaboration software and pro-actively agreed how to use it to increase productivity.

We have had a focus on development across the year, with the first secondee returning to an interesting job with one of the partner regulators, that was enabled by time in RAPID.

“I joined RAPID in the middle of the very first lockdown. Even though it wasn’t ideal joining a team where you couldn’t meet face to face the good IT (and brilliant IT team) helped, and the RAPID team was very supportive, organising introductory meetings with everyone.

Initially the work was similar to my job in the Environment Agency, but I’ve recently had an opportunity to step up to the role of Principal for a short time and have led on an area of work that is new to me. This has been a great opportunity and I have very much enjoyed learning new things and working closer with different people inside and outside my team. When I get back to my original role, I’ll continue to look for ways to extend my network and learning and I know my manager will support me in my development.

I find Ofwat and the RAPID team a friendly and supportive place to work. I’m very pleased to be here for another year, and hopefully in that time I’ll be able to meet some of my team in person!”



Job title: Senior Associate
On secondment from: Environment Agency
Length of time: 2 years

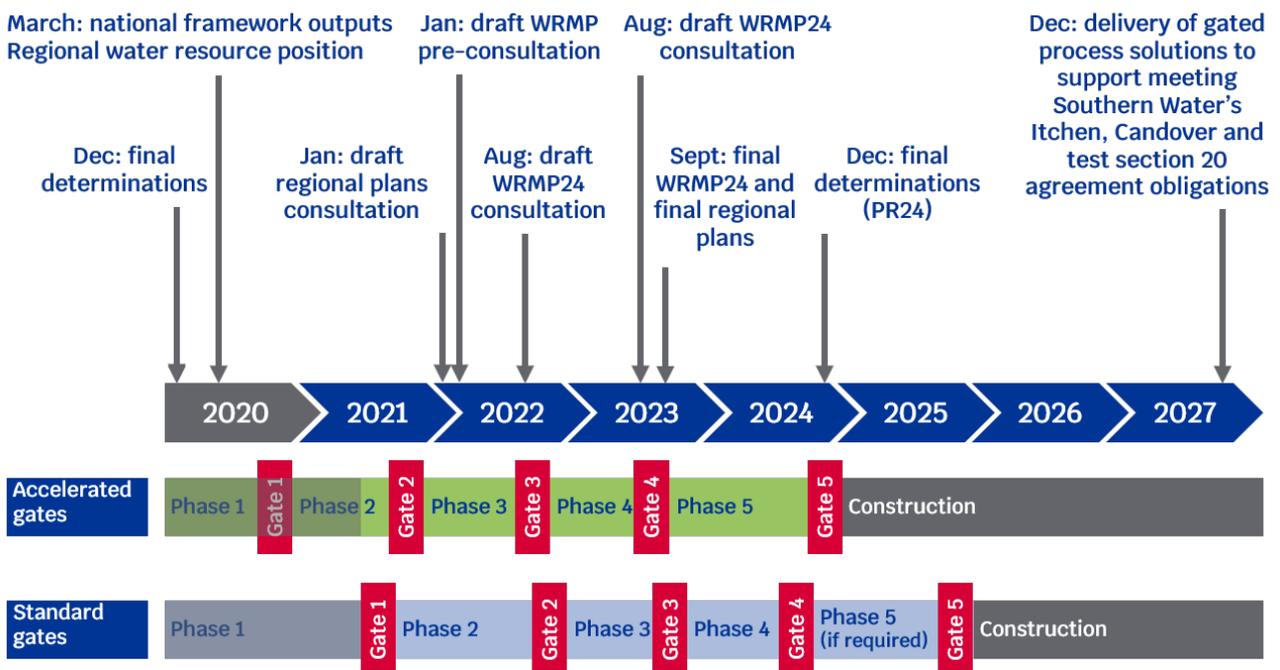
Providing effective oversight of the strategic solutions

Accelerated gate process

Each of the strategic solutions will pass through a gated process where decisions are made on solution progression and delivery penalties. The gated process ensures that companies complete the activities expected for the additional funding. The process allows for cross-comparison of solutions at regular intervals to identify the best opportunities for optimum results.

The role of RAPID in the gated process is to provide advice and recommendations to Ofwat and the other regulators, to enable them to make decisions. The assessment was undertaken by the three partner regulators and by Natural England, who contributed their assessment through the Environment Agency's National Appraisal Unit.

Figure 2: The RAPID gated process timeline



The solutions received additional funding in Ofwat’s price review (PR19), to help accelerate their development in response to the challenge of ensuring water resource supplies are resilient while protecting the environment and benefiting wider society.

Due to the increased demand for water in the South East of England, there is an accelerated track for proposals from Southern Water. This allows solutions to be developed at a faster pace than the standard gates. The submissions for four potential strategic regional water resource solutions were received on 28 September 2020, including one new solution not identified at PR19.

With water shortages forecast to be most acute in the South and South East of England, the solutions put forward by Southern are intended to address its very urgent need to plug the gap between supply and demand, and to end the use of drought permits and orders to keep taps running in all but the most extreme drought events.

The solutions proposed are as follows:

Figure 3: Desalination (proposed by Southern)



The desalination plant in Hampshire could provide up to 75 million litres of water per day and would be the largest seawater desalination system in the UK.

Figure 4: Water recycling (proposed by Southern)

An alternative to desalination that could also provide up to 75 million litres of water per day.

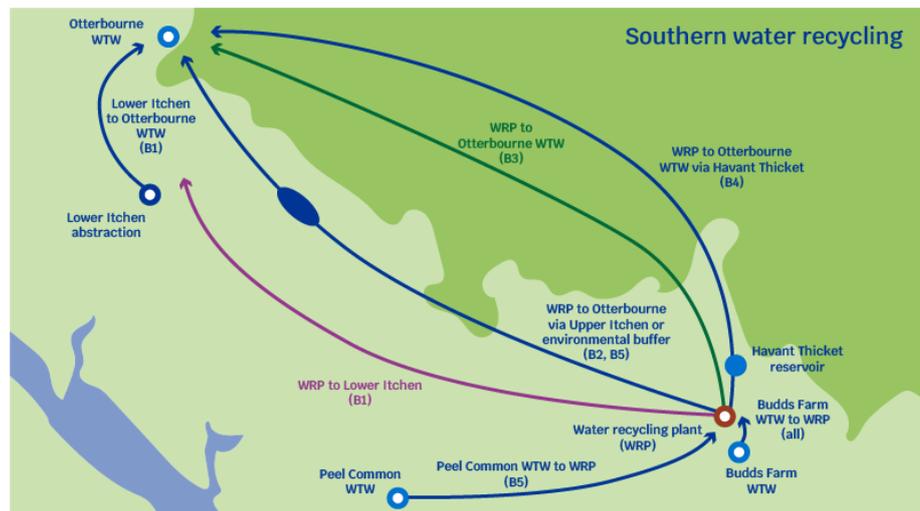


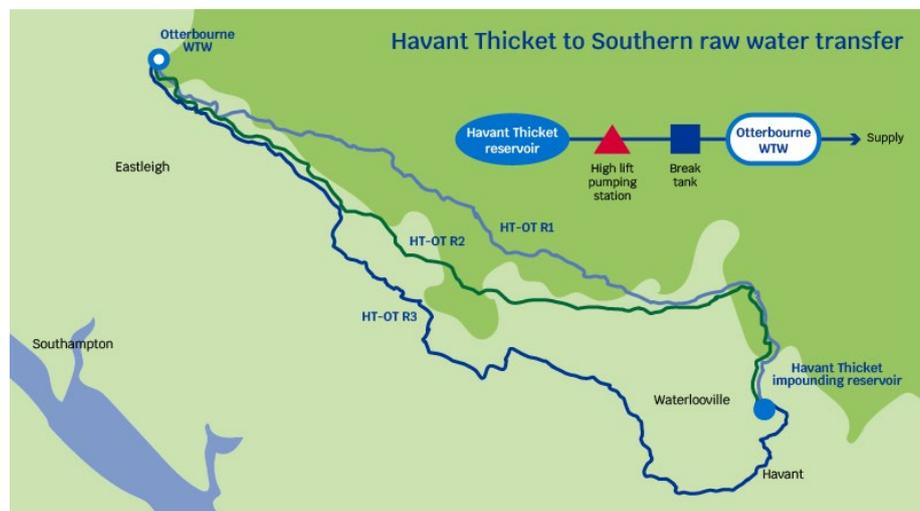
Figure 5: West Country North Sources (jointly proposed by Bristol Water, Wessex Water and Southern Water)



A reservoir in Bristol Water’s area and transfer through Wessex Water’s area to Southern Water.

Figure 6: Raw water transfer from Portsmouth Water’s proposed Havant Thicket reservoir to Southern’s Otterbourne Water Treatment Works (jointly proposed by Southern Water and Portsmouth Water)

This new proposal includes abstraction from the proposed reservoir, a new high lift pumping station and around a 40km pipeline to Otterbourne Water Treatment Works.



Lessons learnt

The accelerated gate one was the first checkpoint in the gated process for strategic regional solutions. Even though the processes and materials were designed in full collaboration with companies, the process highlighted areas for improvements. We agreed with the companies to tackle this part of the lessons learnt early to minimise any potential impact on the programme for solutions entering gate one in 2021.

We combined the feedback from solution owners and other interested parties, alongside our own internal reviews. We wanted to learn from our collective experiences of the accelerated gate one and use them to improve the gated process going forward.

The review allowed us to consider how well the processes worked in enabling the acceleration of the solutions. We were also able to reflect on how well we worked together to make this happen.

We summarised the findings of our [lessons learnt review](#) into three areas. The first area covers practical improvements to processes and documentation we have already acted on. The second area covers learnings that reinforce the need for ongoing engagement and collaboration to help us achieve better outcomes. The final area of learning is that the gated assessment process has served to identify early some issues that may not have come to light until much later had the solutions been following a typical water resources management plan (WRMP) delivery route.

Table 1: Key lessons learnt

	Key lessons
Improvements to processes and documentation	<ul style="list-style-type: none"> • Improved gate submission templates • Updated guidance for 2021 gate submissions • Revised assurance needs and requirements
Working together to achieve better outcomes	<ul style="list-style-type: none"> • Collaborative working to avoid any surprises in the process • Balancing sufficiency of information and concise submissions • Maintaining focus on outcomes rather than the gate in itself • Clarification of the purpose of the gate submission assessments • Regulators working together to reach a shared view
Early identification of issues via the gated process	<ul style="list-style-type: none"> • Tackling policy issues revealed

Engaging people and organisations

Stakeholder engagement

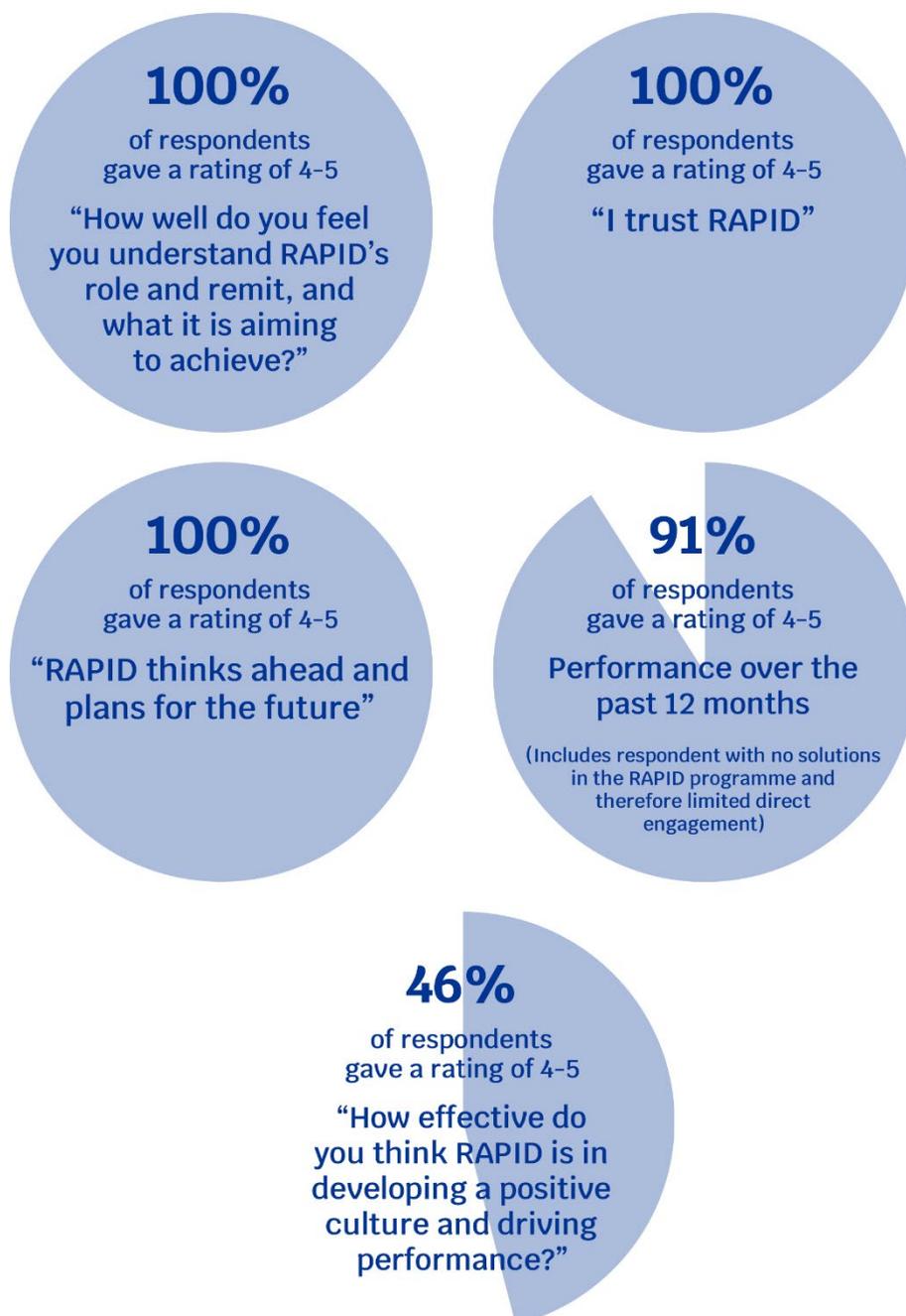
In our [Forward Programme 2020–21](#) we committed to conducting a survey with our stakeholders by the end of 2020.

We wanted to generate intelligence on what we were doing well and identify areas where we fell short and required improvement. In addition, we wanted to understand the impact of RAPID so that we could continue to ensure that the strategic planning of water resources takes a multi-sector, best value approach.

The survey contained 18 questions and provided us with a mixture of qualitative and quantitative data about our working relationships with our stakeholders. Although the response rate was low, particularly from water companies, the survey provided us with useful information, especially in the free-text responses. We are considering how to improve the response rate for future years.

Overall, there was good feedback on how RAPID have been working with stakeholders. But there were also some constructive comments that we recognised we need to work on.

Figure 7: Feedback from the annual stakeholder survey



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It would be helpful if RAPID could describe more clearly how its activity aligns with its vision and Terms of Reference, to ensure that this is clear to all stakeholders (ensure RAPID maintains focus on its core purpose”

I am comfortable that engagement between government and RAPID is happening at several levels and is highly effective”

I’m interested in where the RAPID ways of working could be developed into new areas ripe for regulatory co-ordination (eg on the environment, nature-based solutions)”

We have good engagement – no need to change at the moment – as the regional plans develop, we may need to do a little more engagement”

Communicating with the water industry

Over the last year we have taken the opportunity to communicate with the water industry on RAPID's progress. This has been in the form of many industry led speaking events and also through proactive and reactive media enquiries in both trade and national media.

Engaging with Wales

When RAPID was set up, we recognised that it had an English focus. Over the past year we have actively engaged with Welsh Government, Natural Resources Wales (NRW) and companies with solutions in the programme to benefit both Wales and England.

We have strengthened our governance to formally include NRW in our Advisory Group which has helped ensure the policy priorities of Wales are reflected in our programme and approaches. We are exploring with companies, strategic solutions that may offer resilience

and wider benefits to Wales and cross border catchments and encourage further solutions to come forward. In 2020, Ofwat opened their Welsh office to manage Welsh relations. This has given RAPID another channel to aid the ongoing engagement with our colleagues in Welsh government.

NRW will be part of the assessment team for the standard gate, which includes solutions that could have impacts in Wales.

Moving forward, we are ensuring that all our key publications are translated in Welsh and published at the same time as the English versions.

Evolving effective long-term water resources resilience

Shaping strategic water resources planning

Engagement with the water companies is paramount to the success of the RAPID programme. Our 'business as usual' engagement includes regular check point meetings with solution-owners to ensure that the progress of the solutions are on track. This also allows all parties to raise issues, risks and concerns.

All the water companies involved in solutions in the RAPID programme attend quarterly liaison meetings with the RAPID team, this enables solutions to discuss and showcase some of their work which has helped to develop best practice across the programme. The water companies should also be commended for establishing the All Company Working Group which seeks to bring consistency in technical approaches and has brought greater collaboration within the sector.

Senior steering group

In October 2020, [Paul Hickey wrote to](#) all the water companies and the regional groups about the future of water resource management and how strategic water resource options can be delivered in a way that provides value beyond public water supply. We will continue to liaise with these groups to make sure that we are picking up on issues early and showing the joint regulatory position. We are continuing to liaise with Regulatory Directors, and we have further meetings planned for September 2021.

Over the year, RAPID hosted four quarterly senior steering group meetings, each attended by upwards of 30 experts. The steering group is made up of representatives of water companies and regional groups, other water using sectors, regulators, governments and environmental non-government organisations (NGOs). Members of the steering group have the opportunity to shape the implementation of the national framework.

The regulators also use the group to make sure those represented, particularly water companies and regional groups, are in a position to use the outputs of the work and achieve resilient water supplies. Part of this is in setting clear expectations of both the regional groups and the individual water companies on how we are looking to them to drive action to improve regional planning for water resources.

This year, the group steered the work across several themes including alignment across the five regional plans and regulatory processes, multi-sector planning, environment, strategic risk management and work to understand investment pressures. We also led discussions with experts on agricultural water use and power generation, including on water needs from Hydrogen.

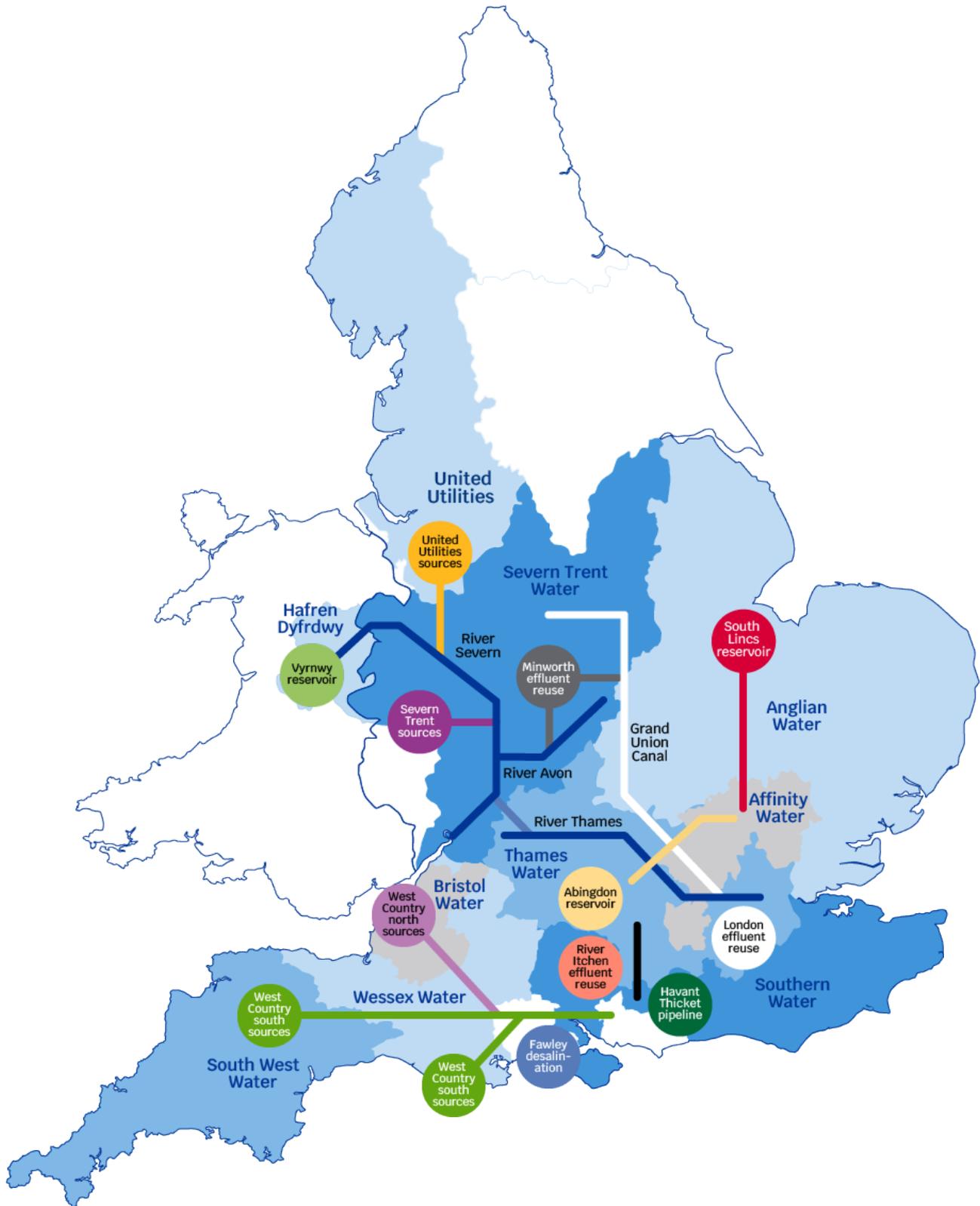
Regional co-ordination group

We also hosted 11 meetings of the monthly regional co-ordination group, which makes sure all the regional plans align and is an opportunity to surface and resolve issues at a working level. The membership of this group is made up from the leads of each of the five regional groups and governments/regulators.

Regional planning groups method statements were published by the groups in July 2020. These statements outline the approaches they will take when developing their regional water resources plan. The resource position statements explain the regional planning group's water resource position and the opportunities they have in the region. It also covers how they intend to work with stakeholders to develop a plan to deliver value for their region. These were updated by the groups in February 2021.

In addition to these we set up five meetings with senior representatives from RAPID's partner regulators and regulation directors from the water industry to highlight the importance of regional plans and surface any issues early.

Figure 8: The proposed strategic water resource solutions from PR19 and accelerated gate one



Evidence base

In October 2020, we [commissioned a report from Jacobs](#) to help understand opportunities for increasing the availability and sharing of water resources that are in the wider national and regional interest. The aim of the project was to explore and consider a full range of strategic water resources options to provide the best value and benefit to society now and in the future.

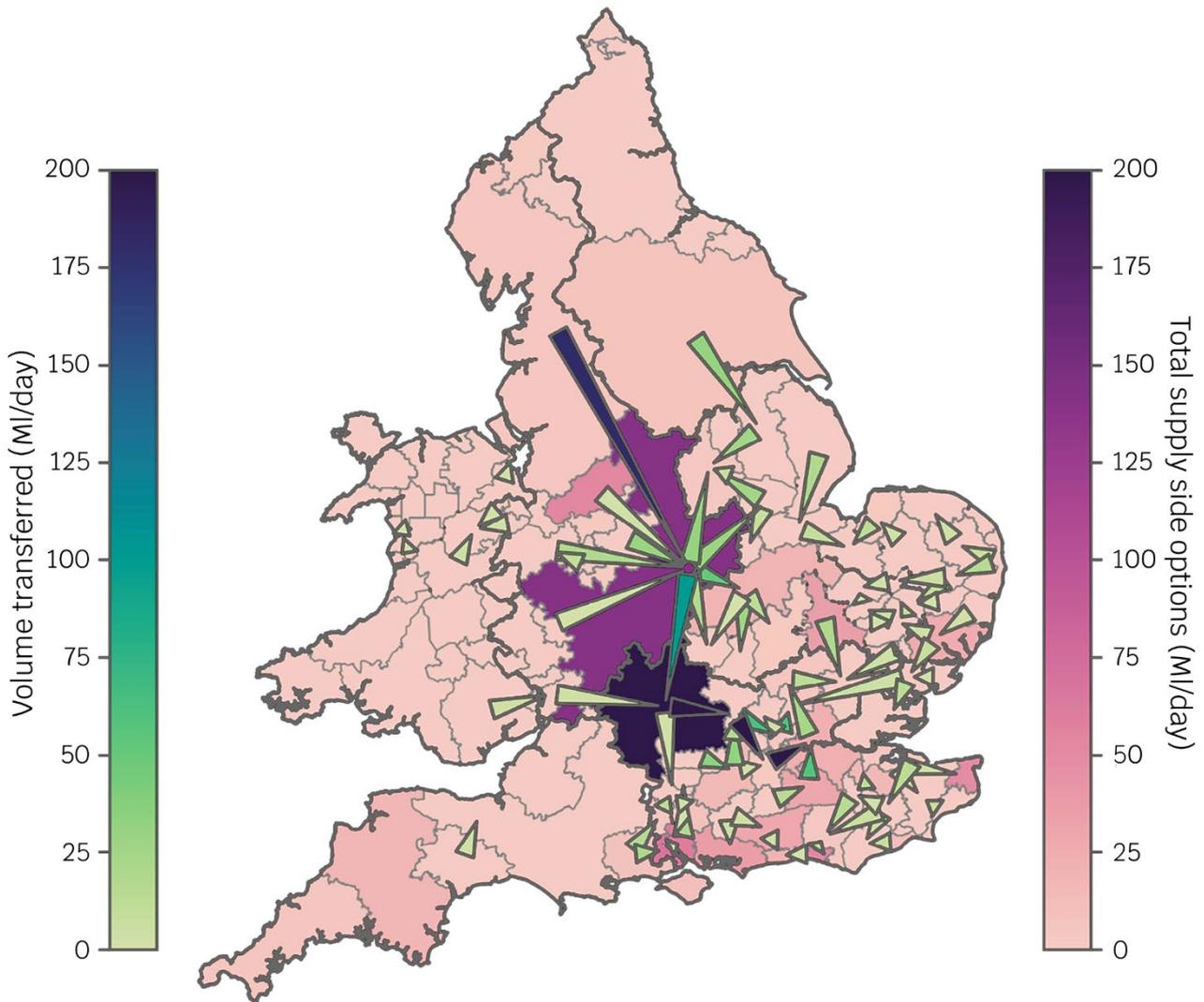
The report identified 30 options for the regional groups to explore further. These options were considered worthy of reconsideration when taking a regional and/or national perspective, as they had previously been rejected by individual water companies when developing their Water Resources Management Plans (WRMPs) for PR19. The regional groups are now investigating these options for their regional plans.

We have collaborated with the University of Manchester to explore potentially efficient combinations of water supply and transfer options in England and Wales. As part of this work, we held three workshops with the sector to share interim outputs, including additional combinations of options for regional groups to explore further. The [England and Wales supply /demand modelling](#) report was published 20 July 2021.

The map below is an example of an output from the model which shows potentially efficient combinations of water supply options and water transfers under a medium demand scenario. The arrows show where transfers are selected and the darker the arrow the larger the volume. The shaded areas of the map show where supply options, such as reservoirs or groundwater sources, are selected and the darker the shading the greater the volume.

Figure 9: An indicative least-cost portfolio using water resource management plan 2019 data under a medium demand scenario

Total cost: £362.8 million/year



This national modelling is not intended to replace the more detailed modelling being led by the regional groups. However, by looking at the challenges from a national scale, it gives those groups a different perspective on the types of solutions that might be beneficial to explore further.

We are also exploring the drought resilience of the strategic resource solutions with the University of Oxford, on a national systems simulation model. This is a more detailed model that will help us to understand how each of the strategic resource solutions– or other options – work in a nationally realistic drought scenario.

Our vision is to combine these two approaches into an agile and robust national modelling framework, following a tiered strategy. This would provide regulators with an independent viewpoint with which to sense check the results from regional modelling as well as highlight potentially efficient transfer routes worthy of further investigation.

Key dates for 2021–22

- **August 2021** – The regional groups start comparing their plans to make sure they align
- **January 2022** – First draft of regional plans for consultation
- **August 2022** – Draft regional plans available

Exploring regulatory and commercial opportunities, gaps and barriers

The [national framework for water resources](#) was published by the Environment Agency in March 2020 and this framework set the context for RAPID's role. As part of the framework, EA identified the [barriers to collaboration](#) in water resources planning between individual water companies and water companies and third parties. It is essential that to manage water resources effectively, those who have responsibility for planning for water can work together.

The framework identified 20 barriers that would need to be resolved to enable water companies and other sectors to work together more effectively. We were asked to address several barriers. The technical barriers would be addressed through the water resource planning guidance (WRMP24).

NERA report

We undertook some further work to build on the framework and consolidate it. RAPID commissioned NERA Economic Consulting to conduct a study into the role of contract design in promoting the efficient bulk trading of water in England and Wales. The study focused on the trading of bulk supplies between the water companies. NERA were asked to evaluate the potential role for standardisation of contracts to support efficient bulk transfers. We also asked them to identify recommendations in relation to two important aspects of contract design in this study:

- The pricing of water transfers to promote efficient trade and infrastructure development, as parties will only trade when exchanges take place at a price above the supplier's costs of fulfilling the trade, and below the buyer's costs to obtain water from an alternative source; and

- The mitigation and allocation of risks in the contract such as the uncertain ability of the seller to deliver water as agreed in the contract, variation in water quality, or environmental risks associated with the transfer.

Once we had the [NERA study findings](#) in January 2021, we were able to undertake our own brainstorm. We knew we needed to look at co-ordination and system planning aligning to the [forward programme](#). The team were able to identify what were the key gaps, barriers, and opportunities off the back of the study, and collated them into several themes.

From there, we were able to take forward a list of priorities and create three working groups:

- Standardisation
- Pricing, incentives and risk
- Co-ordinated operations

The emerging themes focused around:

- How does the framework fund multi-party schemes?
- The challenge of the complexity of multi-sector schemes.
- Shifting the sector to more of a public value plan. How do you build best value in how you plan for water resources?
- How do you bring in the wider benefits, such as enhancing the environment, adding value to society etc, the things that can make a big difference when looking at large schemes?

Relationship with PR24

The key work for this year has been to identify the issues that needed to be resolved in order for us to focus on their resolution for the year 2021-22 and to link into the PR24 draft methodology due in the summer of 2022.

We are aligning to inform the development of the PR24 methodology recognising that some of the issues will need to be resolved to enable companies to business plan appropriately, as some of the issues will directly impact the price control. For example, where two water companies are working jointly on a solution, in the future it may only supply water to only one company's customers. How will this work in terms of their funding, incentives and liabilities for the future?



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