

The Wessex area Drainage and wastewater management plan (DWMP) – Non-technical report



May 2023

The Wessex area DWMP introduction

Wessex Water has a privileged position as a provider of essential sewerage services to 2.8 million customers and to protect the highly sensitive environment within the Wessex area. We are proud to provide a service for customers, communities and the environment, and we desire to be an exemplar company, trusted to protect the environment and leave it in a better condition for future generations, while keeping services affordable and satisfying for customers.

This drainage and wastewater management plan (DWMP) sets out how, over the next 25 years, we will continue to invest more in our assets and the environment to ensure we have an effective sewerage system and ensure great river and coastal water quality.

Sewerage undertakers are preparing DWMPs on a five-yearly cycle in line with the [DWMP framework¹](#) and guidance provided from the government (Defra), the Environment Agency, our environmental regulator, and from Ofwat, our financial regulator.

This is the first time the sewerage undertakers have produced DWMPs. Our draft DWMP was published in June 2022 and was subject to a 3-month consultation period to receive feedback from our customers, regulators, and other stakeholders. Annex H in our full plan report contains our statement of response, which has all the feedback and our responses. Your feedback is much appreciated and has helped improve this final plan.

This final DWMP will inform our investment programme for 2025 to 2030 and will set the line of sight to achieve our 25 year ambition also set out in our [strategic direction statement²](#).

This report is ‘non-technical summary’ which summarises our DWMP, supported by the other documents listed below. It describes why the plan has been developed, what it represents, how it has been produced. This non-technical summary explains at a high-level what we are proposing to deliver in the near, medium and long-term to maintain agreed levels of service.

We have produced the following final DWMP documents (which increase in complexity and level of detail) which can be downloaded from our website:

- a customer summary
- **a non-technical summary**
- a technical summary
- the full plan (with annexes and links to technical appendices)

The technical appendices include the DWMP data tables and commentary.

The Wessex Water [DWMP website³](#) hosts these reports and a geospatial [portal⁴](#) (Figure 1) that contains a wealth of information, including storm overflow performance and almost 200 drainage and wastewater strategy summary reports. Drainage and wastewater strategies

¹ <https://www.water.org.uk/wp-content/uploads/2018/12/Water-UK-DWMP-Framework-Report-Main-Document.pdf>

² <https://www.wessexwater.co.uk/corporate/strategy-and-reports/our-strategic-direction>

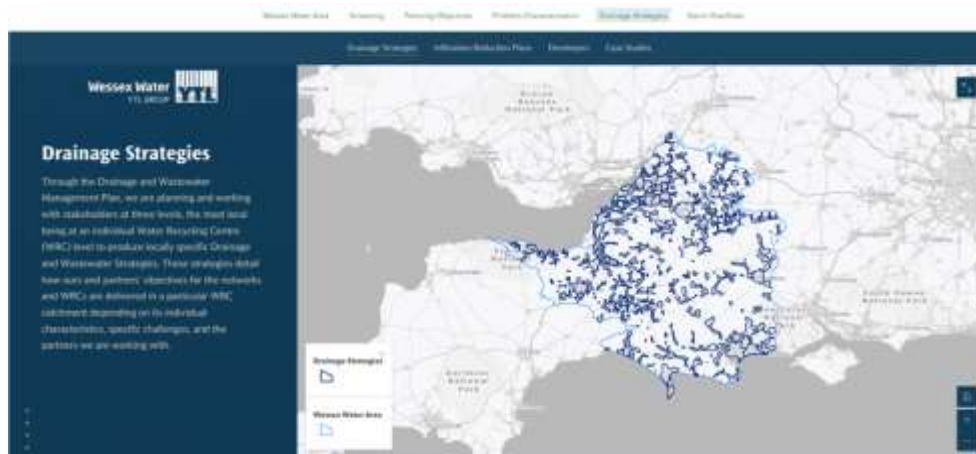
³ <https://www.wessexwater.co.uk/environment/drainage-and-wastewater-management-plan>

⁴ <https://arcg.is/1K8GaH>

summarise our plans for the short, medium and long-term for each of the major towns and cities and explain what we are planning near you.

In response to the welcomed consultation feedback, the majority of these reports have been updated from the draft version to this final plan. Our plan has changed in response to the consultation and customer and other stakeholder engagement.

Figure 1: Wessex Water’s DWMP portal showing availability of local drainage strategies



1.1 Why the plan has been developed

Climate change, population growth, increases in awareness of storm overflows (SO), tightening of environmental standards and changes in customer behaviours and expectations are putting increased pressures on drainage assets.

Drainage and wastewater management plans (DWMP) are to give visibility on how we are addressing these pressures on our drainage and wastewater systems for current and future risks. This is in line with the [DWMP framework⁵](#) which the water industry collaboratively produced in 2018.

1.2 What is a DWMP

The DWMP framework was developed by the water industry and key stakeholders to provide a consistent approach across water companies in England and Wales for sewerage long term planning.

It is a plan that identifies how we will extend, improve and maintain a robust and resilient drainage and wastewater system considering facing the pressures of climate change, population growth and growing customer and regulator expectations.

The strategic plan sets out the levels of investment required to achieve our outcomes, such as having an effective sewerage system and environmentally good water quality. It includes more investment than our draft so that we can achieve the new and tighter requirements

⁵ <https://www.water.org.uk/wp-content/uploads/2018/12/Water-UK-DWMP-Framework-Report-Main-Document.pdf>

regarding the Governments' [Storm Overflows Discharge Reduction Plan](#)⁶ requirements and nutrient neutrality.

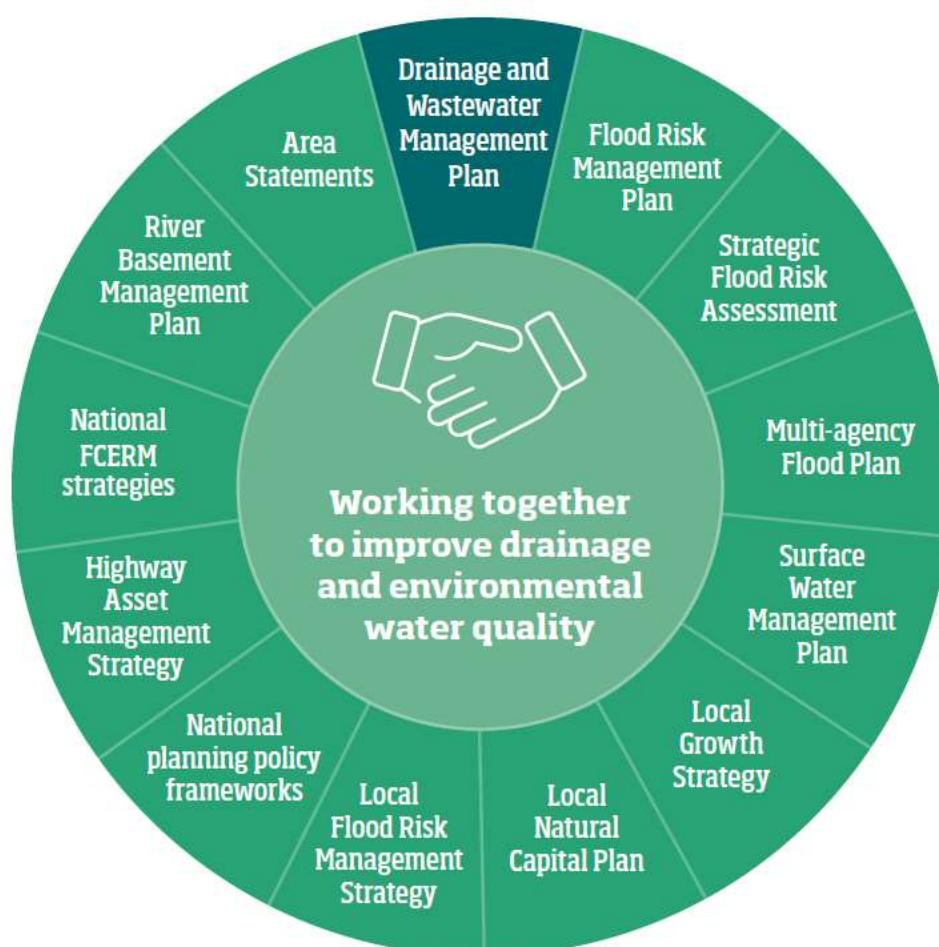
1.3 How we produced the DWMP

Throughout the development of the DWMP we have been working and engaging with numerous stakeholders, including customers, regulators (Ofwat, Environment Agency and Natural England) and flood risk management authorities (RMA), like Lead Local Flood Authorities (LLFA).

Engagement with other RMAs is essential for DWMPs because drainage responsibilities are complex - with several bodies responsible, often with some overlap. We need to continue working in partnership with our stakeholders to find opportunities to co-create water solutions for efficiencies in delivering our outcomes.

The DWMP therefore aligns with the other strategic plans, some are shown in **Figure 2**. The DWMP complements the other strategic plans by also giving visibility to Wessex Water's plans.

Figure 2: Alignment with other strategic plans



⁶ <https://www.gov.uk/government/publications/storm-overflows-discharge-reduction-plan>

1.4 Where are we planning improvements

Wessex Water invests to maintain and improve its assets and performance. Given the challenges associated with climate change, growth and urban creep we recognise a significant investment is required in our assets. We consider the wider catchment area when considering where to deliver improvements. Our preference is to promote nature-based solutions to increase the resilience of drainage and wastewater infrastructure given the multiple outcomes that can be achieved in delivering water quantity, water quality, biodiversity and amenity benefits. However we also recognise that in order to achieve ambitious regulatory requirements, hybrid solutions involving a combination of storage and nature based and separation will be required. Please also see our Biodiversity action plan^[Error! Reference source not found.].

Over the next 25 years we are likely to undertake some work on the sewers in the area near you, if you are connected to the public sewerage system. This is because blockages can occur anywhere across any of our 35,000km of sewers due to sewer misuse, for example customers flushing wet wipes. We are planning to undertake more campaigns to make customers aware of and more responsible regarding:

- non-flushable items (wet wipes, nappies etc),
- fats, oil and grease (FOG) that can cause blockages
- not connecting rainwater (directly or indirectly) into the foul or combined sewer.

Business-as-usual activities such as the wet-wipe campaigns are funded through base expenditure, and we will have targeted increases in certain areas. Base maintenance will be detailed in our business plan submission in October 2023. The DWMP mainly includes enhancement investment which is needed to improve our performance by having a step change from base expenditure.

Water recycling centres (WRC) will continue to need to treat the sewage effluent to a higher standard, particularly for reducing nutrients like phosphorus and nitrogen, to achieve good water quality outcomes. Indeed the plan has changed considerably since the draft. WRC investment in the draft DWMP was £500m by 2030, but with the tightening of Phosphorus limits, the final plan includes £1,400m by 2030.

We are looking to use nature-based solutions rather than traditional grey infrastructure, where this is cost beneficial or best value. We recognise the multiple benefits that green solutions can deliver, such as biodiversity and reducing the amount of electricity and chemicals used.

Storm overflows are currently an important part of our drainage system – preventing flooding of properties and roads. There are 1300 storm overflows in the Wessex area, and many of these will need improvements to comply with the Government's storm overflows discharge reduction plan (SODRP)⁷. A large programme of storm overflow improvements has begun. This final DWMP contains more detail than the draft DWMP contained, because the SODRP

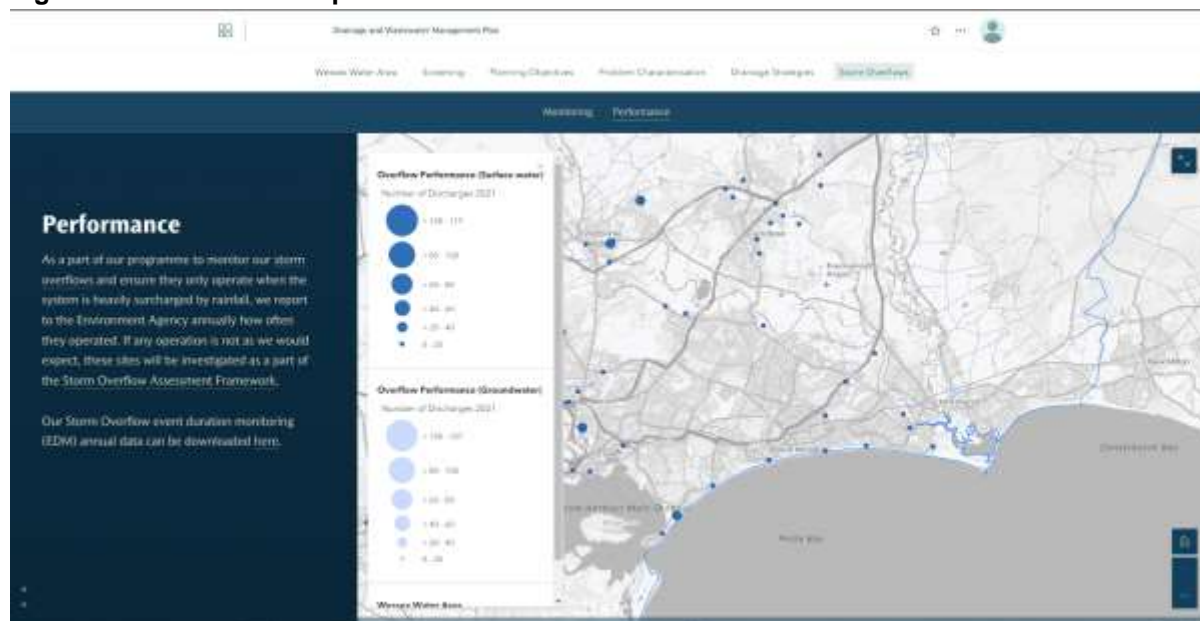
⁷ <https://www.gov.uk/government/publications/storm-overflows-discharge-reduction-plan>

has now been published and there is more certainty in the Water Industry Environment Programme (WINEP) for 2025 to 2030 requirements.

Why do storm overflows exist? Wet weather can increase the flow in a combined sewer, which conveys both wastewater from homes and businesses and storm water from roofs, yards and many highways. Storm overflows act as relief valves, allowing excess storm water to be released to the river or sea, to protect properties from sewer flooding during heavy rainfall. Discharges from storm overflows into the environment are very diluted due to the large volumes of rainwater in the sewer and the receiving river, which will also be swollen by the wet weather.

As well as rainfall storm events causing increased flows, during prolonged wet periods, high groundwater levels can inundate private drains and public sewers, causing flooding and overflow discharges. Our DWMP includes investment to make more drains and sewers watertight, to reduce the risk of seasonal groundwater inundation.

Figure 3: Storm overflow performance



Our draft DWMP contained four scenarios, with different levels of ambition. The draft DWMP explored a range of sewer overflow improvement scenarios for consultation – these scenarios would require different levels of investment and would have had a range of impacts on customer bills. The consultation questions were aimed to obtain customer and stakeholder views and preference these levels of ambition versus the indicative bill increases. This has informed our final plan.

The core plan in our final DWMP is a mix of the draft DWMP core scenario and unconstrained scenario. Following the consultation comments and subsequent statutory requirement regarding nutrient neutrality, our final plan exceeds the levels of investment that we included in the draft DWMP unconstrained scenario for water recycling centre improvements.

The core investment plan has also been increased from the draft plan to be sufficient to outperform delivery of the SODRP improvements to the Environment Act's requirements. This improves storm overflow performance to discharge no more than 10 times per year on average by 2050, with a prioritised programme. Overflows discharging to sensitive waterbodies (e.g. bathing water, shellfish waters, chalk streams, designated environmental sites) need improving by 2045 and may require a higher standard so that the overflow has no local ecological harm. There is still some uncertainty with this aspect until we undertake detailed investigations (due by 2027) and the Storm Overflow Assessment Framework⁸ (SOAF) is updated to reflect the new obligations.

We had ambition to go beyond the above improvements for storm overflows and included £250m extra on the PR24 WINEP, funded by savings from our proposed use of nature-based solutions for nutrient neutrality. Unfortunately, this was not agreed by regulators due to the specific wording of legislation, so this no longer forms our core plan.

Our DWMP core plan is our best value plan to achieve what we need to by 2030 and what we think is affordable beyond. There are many uncertainties, and we will need to adapt the plan in the future as these uncertainties materialise. We have applied adaptive planning to the core plan to consider the effects of uncertainty using Ofwat's common reference scenarios and other areas of uncertainty. This looks at the future needs, regulatory changes, our outcome to eliminate untreated discharges, and the need to have to adequately adapt to climate change and meet the demands of population growth. Our approach to adaptive planning is discussed in our full DWMP report.

There is also uncertainty about inland bathing waters, which are being promoted in waterbodies. Significant investment may be needed at water recycling centres and storm overflows for Wessex Water to improve assets, but farmers and private sewerage asset owners will also need to make improvements too. We are promoting all investment to be based on sound science, so are collecting more water quality data, and using artificial intelligence to innovate and make sure we invest wisely. In our final DWMP core plan, we have not included any improvement for inland bathing waters improvements, as the only currently designated inland bathing water in the Wessex area does not have any Wessex Water asset influence. We are however, planning to bring near real-time public health information to a number of popular riverine and coastal amenity locations.

To completely eliminate all storm overflows is an ambitious outcome. As set out in the plan there is a great deal that can be achieved through nature-based solutions, especially where groundwater inundation is a factor, or where surface water enters combined sewers. However, there are a large number of storm overflows where it would be very disruptive, may not be affordable (based on DWMP customer research, Appendix B, especially in the current cost of living crisis) and the carbon footprint would be enormous using current technology and approaches. For those reasons our level of ambition for improvements by 2030 is to comply with the SODRP, with a longer-term ambition to completely eliminate untreated discharges which will require innovative approaches to dealing with the issues as well as legislative and regulatory change to help deliver the best solutions.

⁸ <https://www.water.org.uk/wp-content/uploads/2018/12/SOAF.pdf>

1.5 Changes made in response to the consultation

Thank you to everyone who responded to the consultation on our first draft DWMP which was published in June 2022. Your feedback is much appreciated and has helped improve this final plan. The consultation closed in October 2022.

We have collated the responses to the consultation, and these are presented in Annex H (Statement of response) in our full plan report. This includes all comments received and refers to where these have been addressed in this final plan, or why they weren't addressed in this cycle 1 DWMP.

In summary, the notable changes are:

- Increased investment for **nutrient neutrality**, and other phosphorus-related improvements, which has increased investment by 2030 by £700m
- Investment in storm overflow by 2030 has been increased to ensure we deliver the government's **storm overflow discharge reduction plan**
- Updated the reports and drainage strategies to include more detail of the quantum of improvements on the **WINEP** for 2025 to 2030 improvements
- More focus on **nature-based solutions** where best value or best cost benefit ratio
- **Adaptive planning and common reference scenarios** have been incorporated, in a new chapter, including more detail on climate change sensitivity
- Explained **base expenditure** verses enhancement
- More detail on **partnership working** schemes
- Replaced the draft DWMP **scenarios** and replaced with **best value** (core) plan and adaptive plans.
- Updated the **environment report** (Strategic Environmental Assessment and Habitats regulations)
- Updated to include feedback from the draft DWMP consultation and included our responses
- Updated the final plan following more recent **customer and stakeholder engagement** which has informed this final DWMP and will inform our PR24 business plan submission.

Further details of updates between the draft and this final DWMP are provided in our full DWMP report.

1.6 Our plan

Our DWMP has ambitious plans to protect public health and enhance the environment, creating value for the people we serve. This is so we can continue to give all customers excellent standards of service by providing services that protects health, improves the environment and provides customers with good value for money, despite pressures of climate change and the tightening of environmental standards.

Our final DWMP includes the following investment by 2030:

- Continue to maintain and operate our assets to high standards
- Improving water recycling centres (WRC) by investing £1.4billion to ensure we treat the effluent to the tightening standards and accommodate growth
- Improving the performance of 148 storm overflows through a £550m investment programme
- Using nature-based solutions where best value
- Monitoring the water quality impact of WRC and storm overflow discharges which will cost almost £100m
- Increase investment to reduce groundwater from inundating sewers and manholes.

To achieve the above extra investment (£1.5 billion more than our current expenditure), bills may need to increase by £100 per average household per year. Our business plan will detail our improved affordability measures to help those that cannot afford this increase.

Our DWMP core plan is our best value plan to achieve what we need to by 2030 and what we think is affordable beyond. There are many uncertainties, and we will need to adapt the plan in the future as these uncertainties materialise.

We review our DWMP annually to check for adaptive path change requirements and whether large previously unknown developments are being proposed. We will fully update the DWMP in 2028 or before if needed.