



# Drainage and Wastewater Management Plan

## Guide to the structure and content of our DWMP

June 2022

## Introduction

Our DWMP is on our website: [www.southernwater.co.uk/dwmp](http://www.southernwater.co.uk/dwmp)

Long-term investment planning is an ongoing process so we have created a series of webpages on our company website to enable us to present and share our DWMP with partner organisations and customers. We want our DWMP to be open, accessible and transparent so that our customers and partners are clear about how the risks associated with our drainage and wastewater systems may affect them. The website has all the materials and information developed as we produced our first DWMP.

Our DWMP webpages are the basis for our public consultation in Summer 2022. We want to share our plans for the future and hear from our customers about their concerns and priorities.

Our website has been updated as we have developed our DWMP and we will continue to use it as a platform for sharing information with customers and partners into the future.

This Guide is intended to explain the structure and content of our DWMP on the website.

## The structure of our DWMP

The DWMP national guidance '[Framework for the production of Drainage and Wastewater Management Plans](#)' (Water UK, 2021) provides all water companies with a common structure and framework for developing their DWMPs. The guidance sets out the suggested steps, processes and management structures to develop an effective plan for the current and future management of our drainage and wastewater systems. Our DWMP is structured at three levels, outlined in more detail below.

### *Level 1 Regional Planning*

Our draft [Level 1 DWMP](#) sets out our approach for how we will manage our drainage and wastewater services into the future, as well as our needs-led long term investment plans that will secure the outcomes and resilience expected by our customers and the environment.

### *Level 2 River Basin Catchment Planning*

We have 11 River Basin Catchments (RBCs) within our region. The sub-section for each RBC on our website forms the Level 2 DWMP – see [River Basin Catchment Information](#) further below in this Guide.

Our RBCs are fully aligned with the River Basin District catchments defined in the river basin management planning legislation, and also used for Flood Risk Management Planning. RBCs therefore form ideal existing planning districts for collaborative partnership working and the co-creation of solutions to meet the future challenges to drainage and wastewater management.

### *Level 3 – Wastewater System Planning*

We have 381 separate wastewater systems in our region. Each system covers a specific local geographical area within each of the river basin district catchments. Ultimately we will have an



individual Level 3 DWMP for all our wastewater systems. In this, our first DWMP, we have focused efforts to develop Level 3 DWMPs for our 61 highest risk wastewater systems that cover 78% of our customers.

Level 3 DWMPs investigate specific current or future local operational problems or issues to identify local solutions that align with the broader policies for the regional Level 1 plan and the strategic issues considered in the Level 2 planning.

The table below sets out the number of wastewater systems with a level 3 DWMP in each RBC (see [River Basin Catchment Information](#) further below in this Guide for more details).

RBC	Number of systems
Adur and Ouse	4
Arun and Western Streams	10
Cuckmere and Pevensey Levels	4
East Hampshire	2
Isle of Wight	1
Medway	9
New Forest	5
North Kent	3
Rother	2
Stour	9
Test and Itchen	12

## Content on our website

### *Website landing page*

There are three core areas on the main website landing page:

1. The main central area has an introduction and welcome to our DWMP. There are three main links where you can find:
  - a. this guide to the structure and content of our DWMP
  - b. the [Draft Regional DWMP and five supporting documents](#)
  - c. the link to [respond to our consultation](#)

There is also a map and some key facts about our wastewater systems across our region

2. At the top right hand side of the website landing page there are links to information and materials that explain technical aspects of the DWMP – see below [Right hand links](#) for more details.
3. Further down the website landing page there are 12 subsections:
  - The top, [left hand box](#) is where you can find our draft Drainage and Wastewater Management Plan, five supporting Investment Plan documents and a short, plain English summary of our Plan.
  - The remaining 11 boxes, one for each River Basin Catchment (RBC) in our operating area, hold all the information about the wastewater systems within the river basin. This includes what the challenges are, our proposed solutions and what our investment plans are to address the challenges. See [River Basin Catchment Information, below](#).

### [Right hand links](#)

There are 12 links on the top right hand side of the website landing page which contain all our supporting information. These links explain how we have developed the DWMP, how we have interpreted the national guidance and describe the methods we've used to develop technical aspects. These are:

1. What are DWMP's: background information about what DWMPs are:  
<https://www.southernwater.co.uk/dwmp/what-are-dwmps>
2. Developing our DWMPs: the processes and steps we've followed to develop the DWMP:  
<https://www.southernwater.co.uk/dwmp/developing-our-dwmps>
3. Who we are working with: the partner organisations we are working with and how this has influenced our plan: <https://www.southernwater.co.uk/dwmp/who-we-re-working-with>
  - This page also contains our Register of Stakeholder Comments which sets out what you have told us since we began developing the DWMP at both a strategic level and about the individual RBCs, and how we have taken this into account.
4. Why develop DWMPs: why we are preparing our DWMP:  
<https://www.southernwater.co.uk/dwmp/why-develop-dwmps>
5. Risk Based Catchment Screening: the criteria for the initial screening of wastewater systems: <https://www.southernwater.co.uk/dwmp/risk-based-catchment-screening>
6. Planning Objectives: how and why we developed our Planning Objectives:  
<https://www.southernwater.co.uk/dwmp/planning-objectives>

7. [Baseline Risk and Vulnerability Assessment: the development of our risk assessments: https://www.southernwater.co.uk/dwmp/baseline-risk-and-vulnerability-assessment](https://www.southernwater.co.uk/dwmp/baseline-risk-and-vulnerability-assessment)

- The methodologies used to develop the Baseline Risk and Vulnerability Assessments for all 14 Planning Objectives are listed separately. The links to each of these are provided in the table below.

DWMP methodology	Web links
<b>Bespoke Planning Objectives</b>	
Internal sewer flooding risk	<a href="https://www.southernwater.co.uk/media/4544/brava-methodology_internal-flooding.pdf">https://www.southernwater.co.uk/media/4544/brava-methodology_internal-flooding.pdf</a>
Pollution risk	<a href="https://www.southernwater.co.uk/media/4553/brava-methodology_pollution-risk.pdf">https://www.southernwater.co.uk/media/4553/brava-methodology_pollution-risk.pdf</a>
Sewer collapse risk	<a href="https://www.southernwater.co.uk/media/4548/brava-methodology_sewer-collapse.pdf">https://www.southernwater.co.uk/media/4548/brava-methodology_sewer-collapse.pdf</a>
Sewer flooding in a 1 in 50 year storm event	<a href="https://www.southernwater.co.uk/media/4545/brava-methodology_50yr-flooding.pdf">https://www.southernwater.co.uk/media/4545/brava-methodology_50yr-flooding.pdf</a>
Storm overflow performance	<a href="https://www.southernwater.co.uk/media/4549/brava-methodology_storm-overflows.pdf">https://www.southernwater.co.uk/media/4549/brava-methodology_storm-overflows.pdf</a>
Risk of WTW Compliance (Quality)	<a href="https://www.southernwater.co.uk/media/4593/brava-methodology_wtw-water-quality-compliance.pdf">https://www.southernwater.co.uk/media/4593/brava-methodology_wtw-water-quality-compliance.pdf</a>
<b>Bespoke Planning Objectives</b>	
Annualised flood risk (hydraulic overload)	<a href="https://www.southernwater.co.uk/media/4555/brava-methodology_annualised-flood-risk.pdf">https://www.southernwater.co.uk/media/4555/brava-methodology_annualised-flood-risk.pdf</a>
WTW Dry Weather Flow (DWF) compliance	<a href="https://www.southernwater.co.uk/media/4550/brava-methodology_wtw-dwf-compliance.pdf">https://www.southernwater.co.uk/media/4550/brava-methodology_wtw-dwf-compliance.pdf</a>
<b>Partner proposed Planning Objectives</b>	
Achieve Good Ecological Status / Potential	<a href="https://www.southernwater.co.uk/media/4552/brava-methodology_good-ecological-status.pdf">https://www.southernwater.co.uk/media/4552/brava-methodology_good-ecological-status.pdf</a>
Improve surface water management	<a href="https://www.southernwater.co.uk/media/4542/brava-methodology_surface-water-management.pdf">https://www.southernwater.co.uk/media/4542/brava-methodology_surface-water-management.pdf</a>
Secure Nutrient Neutrality	<a href="https://www.southernwater.co.uk/media/4551/brava-methodology_nutrient-neutrality.pdf">https://www.southernwater.co.uk/media/4551/brava-methodology_nutrient-neutrality.pdf</a>
Reduce groundwater pollution	<a href="https://www.southernwater.co.uk/media/4547/brava-methodology_groundwater-pollution.pdf">https://www.southernwater.co.uk/media/4547/brava-methodology_groundwater-pollution.pdf</a>
Improve Bathing Water quality	<a href="https://www.southernwater.co.uk/media/4546/brava-methodology_bathing-waters.pdf">https://www.southernwater.co.uk/media/4546/brava-methodology_bathing-waters.pdf</a>
Protect Shellfish Waters	<a href="https://www.southernwater.co.uk/media/4556/brava-methodology_shellfish-waters.pdf">https://www.southernwater.co.uk/media/4556/brava-methodology_shellfish-waters.pdf</a>

8. [Regional BRAVA risk maps: Our regional BRAVA risk maps https://www.southernwater.co.uk/dwmp/regional-brava-risk-maps](https://www.southernwater.co.uk/dwmp/regional-brava-risk-maps)

Individual regional risk maps for each of the 14 Planning Objectives are listed below.



DWMP methodology	Web links
<b>Bespoke Planning Objectives</b>	
Internal sewer flooding risk	<a href="https://www.southernwater.co.uk/media/4563/po1-internal-flooding-2020.pdf">https://www.southernwater.co.uk/media/4563/po1-internal-flooding-2020.pdf</a>
Pollution risk	<a href="https://www.southernwater.co.uk/media/4575/po2-pollution-2020.pdf">https://www.southernwater.co.uk/media/4575/po2-pollution-2020.pdf</a>
Sewer collapse risk	<a href="https://www.southernwater.co.uk/media/4564/po3-sewer-collapse-2020.pdf">https://www.southernwater.co.uk/media/4564/po3-sewer-collapse-2020.pdf</a>
Sewer flooding in a 1 in 50 year storm event	<a href="https://www.southernwater.co.uk/media/4573/po4-sewer-flooding-in-a-1-in-50-storm-2020.pdf">https://www.southernwater.co.uk/media/4573/po4-sewer-flooding-in-a-1-in-50-storm-2020.pdf</a>
Storm overflow performance	<a href="https://www.southernwater.co.uk/media/4565/po5-storm-overflow-2020_update.pdf">https://www.southernwater.co.uk/media/4565/po5-storm-overflow-2020_update.pdf</a>
Risk of WTW Compliance (Quality)	<a href="https://www.southernwater.co.uk/media/4566/po6-wtw-compliance-failure-2020.pdf">https://www.southernwater.co.uk/media/4566/po6-wtw-compliance-failure-2020.pdf</a>
<b>Bespoke Planning Objectives</b>	
Annualised flood risk (hydraulic overload)	<a href="https://www.southernwater.co.uk/media/4567/po7-hydraulic-overload-2020.pdf">https://www.southernwater.co.uk/media/4567/po7-hydraulic-overload-2020.pdf</a>
WTW Dry Weather Flow (DWF) compliance	<a href="https://www.southernwater.co.uk/media/4568/po8-dwf-compliance-2020.pdf">https://www.southernwater.co.uk/media/4568/po8-dwf-compliance-2020.pdf</a>
<b>Partner proposed Planning Objectives</b>	
Achieve Good Ecological Status / Potential	<a href="https://www.southernwater.co.uk/media/4569/po9-good-ecological-status-2020.pdf">https://www.southernwater.co.uk/media/4569/po9-good-ecological-status-2020.pdf</a>
Improve surface water management	<a href="https://www.southernwater.co.uk/media/4576/po10-surface-water-flooding-2020.pdf">https://www.southernwater.co.uk/media/4576/po10-surface-water-flooding-2020.pdf</a>
Secure Nutrient Neutrality	<a href="https://www.southernwater.co.uk/media/4570/po11-nutrient-neutrality-2020.pdf">https://www.southernwater.co.uk/media/4570/po11-nutrient-neutrality-2020.pdf</a>
Reduce groundwater pollution	<a href="https://www.southernwater.co.uk/media/4574/po12-groundwater-pollution-2020.pdf">https://www.southernwater.co.uk/media/4574/po12-groundwater-pollution-2020.pdf</a>
Improve Bathing Water quality	<a href="https://www.southernwater.co.uk/media/4571/po13-bathing-water-2020.pdf">https://www.southernwater.co.uk/media/4571/po13-bathing-water-2020.pdf</a>
Protect Shellfish Waters	<a href="https://www.southernwater.co.uk/media/4572/po14-shellfish-water-2020.pdf">https://www.southernwater.co.uk/media/4572/po14-shellfish-water-2020.pdf</a>

9. Technical Summaries: there are nine technical summaries setting out how we have approached particular processes.

<https://www.southernwater.co.uk/dwmp/technical-summaries>.

- Specific technical summaries are listed below.

DWMP Technical Summary	Web links
Our approach to uncertainty	<a href="https://www.southernwater.co.uk/media/6939/technical-summary-on-approaches-to-uncertainty.pdf">https://www.southernwater.co.uk/media/6939/technical-summary-on-approaches-to-uncertainty.pdf</a>
Our approach to modelling	<a href="https://www.southernwater.co.uk/media/4980/technical-summary-modelling-final.pdf">https://www.southernwater.co.uk/media/4980/technical-summary-modelling-final.pdf</a>
Scenario Planning	<a href="https://www.southernwater.co.uk/media/6951/technical-summary-on-scenario-planning.pdf">https://www.southernwater.co.uk/media/6951/technical-summary-on-scenario-planning.pdf</a>
How we factored in climate change	<a href="https://www.southernwater.co.uk/media/5256/technical-summary-climate-change-final.pdf">https://www.southernwater.co.uk/media/5256/technical-summary-climate-change-final.pdf</a>
How we have considered growth and urban creep	<a href="https://www.southernwater.co.uk/media/5257/technical-summary-growth-and-creep-final.pdf">https://www.southernwater.co.uk/media/5257/technical-summary-growth-and-creep-final.pdf</a>
How we selected the wastewater systems for full development in the first cycle	<a href="https://www.southernwater.co.uk/media/4983/technical-summary-catchment-selection-final.pdf">https://www.southernwater.co.uk/media/4983/technical-summary-catchment-selection-final.pdf</a>
Our approach to the Problem Characterisation	<a href="https://www.southernwater.co.uk/media/4981/technical-summary-pc-final.pdf">https://www.southernwater.co.uk/media/4981/technical-summary-pc-final.pdf</a>
Our approach to the Options Development and Appraisal:	<a href="https://www.southernwater.co.uk/media/4984/technical-summary-oda-final.pdf">https://www.southernwater.co.uk/media/4984/technical-summary-oda-final.pdf</a>
How we completed the Programme Appraisal	<a href="https://www.southernwater.co.uk/media/6940/technical-summary-on-programme-appraisal.pdf">https://www.southernwater.co.uk/media/6940/technical-summary-on-programme-appraisal.pdf</a>

10. DWMP Glossary: A glossary explaining our terminology and acronyms:  
<https://www.southernwater.co.uk/dwmp/dwmp-glossary>
  
11. Strategic Environment Assessment: Our draft Environmental Report and appendices: This section also contains the SEA scoping report and appendices that were used to develop our draft Environmental Report.  
<https://www.southernwater.co.uk/dwmp/strategic-environmental-assessment>
  
12. Our 'Have your say': Our consultations. This links to this current public consultation (June – September 2022) on our Draft DWMP and the report on our initial stakeholder consultation undertaken in September – October 2021.:  
<https://www.southernwater.co.uk/dwmp/have-your-say>

## River Basin Catchment Information

This is where most of the materials and information that present the outputs of our work in developing the DWMP are located. Each RBC has exactly the same structure but the information within each RBC section is relevant to that specific RBC. Details of the investment needs identified for each Level 3 wastewater system that were the focus for the first cycle of the DWMP are found within the relevant RBC section.

The links to each RBC are provided in the table below.

River Basin Catchment	Web links
Adur and Ouse	<a href="https://www.southernwater.co.uk/dwmp/adur-and-ouse-catchment">https://www.southernwater.co.uk/dwmp/adur-and-ouse-catchment</a>
Arun and Western Streams	<a href="https://www.southernwater.co.uk/dwmp/aron-and-western-streams-catchment">https://www.southernwater.co.uk/dwmp/aron-and-western-streams-catchment</a>
Cuckmere and Pevensey Levels	<a href="https://www.southernwater.co.uk/dwmp/cuckmere-and-pevensey-levels-catchment">https://www.southernwater.co.uk/dwmp/cuckmere-and-pevensey-levels-catchment</a>
East Hampshire	<a href="https://www.southernwater.co.uk/dwmp/east-hampshire-catchment">https://www.southernwater.co.uk/dwmp/east-hampshire-catchment</a>
Isle of Wight	<a href="https://www.southernwater.co.uk/dwmp/isle-of-wight-catchment">https://www.southernwater.co.uk/dwmp/isle-of-wight-catchment</a>
Medway	<a href="https://www.southernwater.co.uk/dwmp/medway-catchment">https://www.southernwater.co.uk/dwmp/medway-catchment</a>
New Forest	<a href="https://www.southernwater.co.uk/dwmp/new-forest-catchment">https://www.southernwater.co.uk/dwmp/new-forest-catchment</a>
North Kent	<a href="https://www.southernwater.co.uk/dwmp/north-kent-catchment">https://www.southernwater.co.uk/dwmp/north-kent-catchment</a>
Rother	<a href="https://www.southernwater.co.uk/dwmp/rother-catchment">https://www.southernwater.co.uk/dwmp/rother-catchment</a>
Stour	<a href="https://www.southernwater.co.uk/dwmp/stour-catchment">https://www.southernwater.co.uk/dwmp/stour-catchment</a>
Test and Itchen	<a href="https://www.southernwater.co.uk/dwmp/test-and-itchen-catchment">https://www.southernwater.co.uk/dwmp/test-and-itchen-catchment</a>

## The structure and content of each RBC sub-section

There are 8 sections in each RBC subsection. The structure and content of these are as follows:

### 1. Strategic Context

We set out the strategic context for each RBC with key features of the area including its waterbodies, environmentally designated and important wildlife areas, the major urban settlements and land uses, the extent of our wastewater infrastructure in each RBC, and how these are performing.

## 2. Working with others

This sets out the full range of partner organisations we have worked with in the RBC and the dates and purpose of the meetings held. A full table of meetings and dates for the systems we completed in the RBC is available.

## 3. Risk Based Catchment Screening

Risk Based Catchment Screening (RBCS) is a high level, initial screening of the wastewater systems within the RBC to identify where there is a current risk or vulnerability to future changes, such as new residential development or changes in climate. It means that wastewater systems with no identified risks can be removed from the DWMP process and enables our effort to be focused the systems where there are identified risks.

## 4. Baseline Risk and Vulnerability Assessment

The Baseline Risk and Vulnerability Assessment (BRAVA) is an important step for the DWMP. It examines the performance of the wastewater systems for each of the 14 Planning Objectives and identifies the current the future risks that need to be addressed. The output of the BRAVA shows current risks and issues in each sewer catchment and how the risks may change in future, and when they may change.

## 5. Problem Characterisation

The Problem Characterisation (PC) uses the results from the BRAVA to explore the causes of risks and the primary drivers that are causing the risks. This page has links to individual maps of the wastewater systems and a narrative explaining the causes of the risks.

## 6. Options Development and Appraisal

The Options Development and Appraisal (ODA) identifies the options that will address the risks. It begins with a long list of generic options and narrows these down through a series of steps, taking into account issues such as location, technology and the environmental impact into account until only the possible options remain. Costs are assigned and assessed to identify which provides the best overall value in terms of the benefits to customers, communities and the environment. This then becomes the preferred option. This page has links to the investment needs for each wastewater system studied in the BRAVA and PC stages and maps showing where the proposed solutions would be implemented.

## 7. Programme Appraisal

Undertaken at an RBC level, the Programme Appraisal brings all the investment needs identified during the ODA stage together into a single investment programme for each river basin catchment and extrapolates them to quantify the scale of the overall investment needs for the entire RBC. It means the range of investments needed to meet our Planning Objectives and address the risks identified for the short, medium and long-term are aggregated to provide an overview of the needs and the costs.

**It is important to note that the options and investment needs are not committed funding but an identification of the needs for funding. We will include these options in our future**

**business plans as part of the Ofwat periodic review of Water Company funding to secure the investment needed to implement these options.**

## 8. Consultation

This section set out the main findings from our 2021 stakeholder consultations for each river basin. There is also a link back to our 2022 public consultation page:

<https://www.southernwater.co.uk/dwmp/have-your-say>

**Southern Water**

June 2022