



Drainage and Wastewater Management Plan (DWMP)

Technical Summary: Selection of Wastewater Systems for the Options Development and Appraisal

March 2023
Version 2



1. Background

We developed our first Drainage and Wastewater Management Plan (DWMP) in accordance with the framework [published by Water UK](#), updated in September 2021, and to the timetable set by Ofwat, the water industry economic regulator.

There are three levels of planning for the DWMP:

- Level 1 – the corporate DWMP for our entire operating area
- Level 2 – the 11 River Basin Catchments within our area
- Level 3 – an investment needs plan for each of the 381 wastewater systems within our area.

This technical summary sets out our rationale and approach to selecting the wastewater systems that we progressed to Level 3 planning in the first cycle of our DWMP.

2. Selection process

The principle we followed for our selection process was to adopt a risk-based approach. We used the findings from the [Problem Characterisation \(PC\)](#) and the results from the [Baseline Risk and Vulnerability Assessment \(BRAVA\)](#) to ensure we focused on the wastewater systems with the highest number of complex risks. Under the BRAVA, the risks were banded as Band 2 - a 'very significant' risk, Band 1 - a 'moderately significant' risk, and Band 0 'not significant' risks.

The catchment selection was a three-stage process:

Stage 1: Assigning an investment strategy

The investment strategy for each wastewater system was determined by the Problem Characterisation (PC) process (see [Problem Characterisation technical summary](#)), based on the BRAVA results. 244 of our wastewater systems have an 'Improve' investment strategy (see table 1). These are systems where we most need to improve the performance of the system and reduce the risks to customers and the environment. The remaining 137 of our wastewater systems have "Prepare", "Enhance", "Sustain" and "Maintain" strategies, which are all strategies that represent much lower intervention needs compared to the "Improve" strategy. Our investment strategies approach to defining Problem Characterisation is explained fully in our Problem Characterisation technical summary.

We focused the selection on the wastewater systems with an 'Improve' investment strategy because these are where the BRAVA indicates there is a significant risk of failing to achieve our performance commitments or of causing an impact on the environment. We needed to target these systems for future investment to reduce the risks.

Stage 2: Assessment of complexity

The PC process also assessed the likely complexity of the risks (the range of factors and risks involved) and the strategic need (the importance to customers and the environment) for investment in each wastewater system. The results of this assessment were entered into a matrix which categorised the systems into complex, extended and standard. See Table 1 for the complexity categorisation of our wastewater systems.

Table 1: Number of wastewater systems by category

Problem Characterisation Matrix	Investment Strategy	Number of Level 3 Wastewater Systems
Complex	Improve	13
Enhanced	Improve	34
Standard	Improve	197
	Prepare	52
	Enhance	3
	Sustain	3
	Maintain	79

Stage 3: Catchment ranking

We ranked our wastewater systems according to the population each served and the overall number of significant risks in each system. This resulted in a list with the systems with the greatest number of Band 2 risks at the top, through Band 1 to Band 0 risks at the end.

3. Selection Outcomes

The three-stage approach resulted in a list of wastewater systems ranked by investment strategy, population served and category of problem characterisation. We shared and discussed the ranked list of systems for each river basin catchment in workshops with partner organisations in spring 2021. These workshops, and the following correspondence from partners, concluded with the decision to progress:

- All 13 of the systems that were identified in the complex category.
- All 34 systems that were identified in the enhanced category.
- 24 wastewater systems that were identified in the standard category.

Several of the systems in the standard category were included due to concerns and specific requests from external partner organisations. This created a list of 71 wastewater systems of different sizes and complexity to take forward and develop at Level 3 in the first cycle of the DWMP.

As we progressed through the ODA partnership workshops it also became clear that the timescale would not allow us to fully understand the risks and plan appropriate solutions in all of the 71 systems. We made a difficult decision to defer the ODA for 10 of the 71 systems until resources were available or until cycle 2. We updated our partner organisations to confirm that only 61 systems that would be progressed in cycle 1. As these catchments had the highest number of risks and covered 78% of our customers, the list was agreed. The 61 wastewater systems are a good representative mix of system sizes and differing treatment processes, This is discussed further in our [Programme Appraisal technical summary](#). The final list of 61 wastewater systems taken through to the ODA are listed in Appendix A of this technical summary.

The remaining 320 systems in our region, including the deferred 10 systems, will be taken through to the ODA stage in the next cycle of the DWMP.

Southern Water
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Appendix A: The 61 Wastewater Systems selected for the level 3 planning in the first round of DWMPs

Kent

River Basin	Wastewater System
Medway	TUNBRIDGE WELLS NORTH
	TUNBRIDGE WELLS SOUTH
	REDGATE MILL CROWBOROUGH
	MOTNEY HILL
	GRAVESEND
	HORSMONDEN
	PADDOCK WOOD
	STAPLEHURST
	TONBRIDGE
	North Kent
QUEENBOROUGH	
SITTINGBOURNE	
Stour	SWALECLIFFE
	WEATHERLEES HILL
	BROOMFIELD BANK
	MAY STREET HERNE BAY
	CANTERBURY
	CHARTHAM
	MARGATE AND BROADSTAIRS
	DAMBRIDGE WINGHAM
	WESTBERE

Sussex

River Basin	Wastewater System
Adur and Ouse	EAST WORTHING
	SHOREHAM
	PEACEHAVEN BRIGHTON
	NEWHAVEN EAST
Arun & Western Streams	HORSHAM NEW
	BOSHAM
	CHICHESTER
	LAVANT
	TANGMERE
	THORNHAM

	FORD
	LIDSEY
	PAGHAM
	SIDLESHAM
Cuckmere and Pevensey Levels	EASTBOURNE
	HAILSHAM NORTH
	HAILSHAM SOUTH
	BEXHILL AND HASTINGS
Rother	RYE
	FAIRLIGHT

Hampshire and Isle of Wight

River Basin	Wastewater System
East Hampshire	PEEL COMMON
	BUDDS FARM HAVANT
Isle of Wight	SANDOWN
New Forest	SLOWHILL COPSE MARCHWOOD
	ASHLETT CREEK FAWLEY
	BROCKENHURST
	LYNDHURST
	PENNINGTON
Test and Itchen	BARTON STACEY
	MILLBROOK
	PORTSWOOD
	WOOLSTON
	WHITCHURCH
	CHICKENHALL EASTLEIGH
	FULLERTON
	HARESTOCK
	KINGS SOMBORNE
	MORESTEAD ROAD WINCHESTER
	ROMSEY
	STOCKBRIDGE