



# Drainage and Wastewater Management Plan

**Horsham New  
Wastewater System Plan**



from  
**Southern  
Water** 

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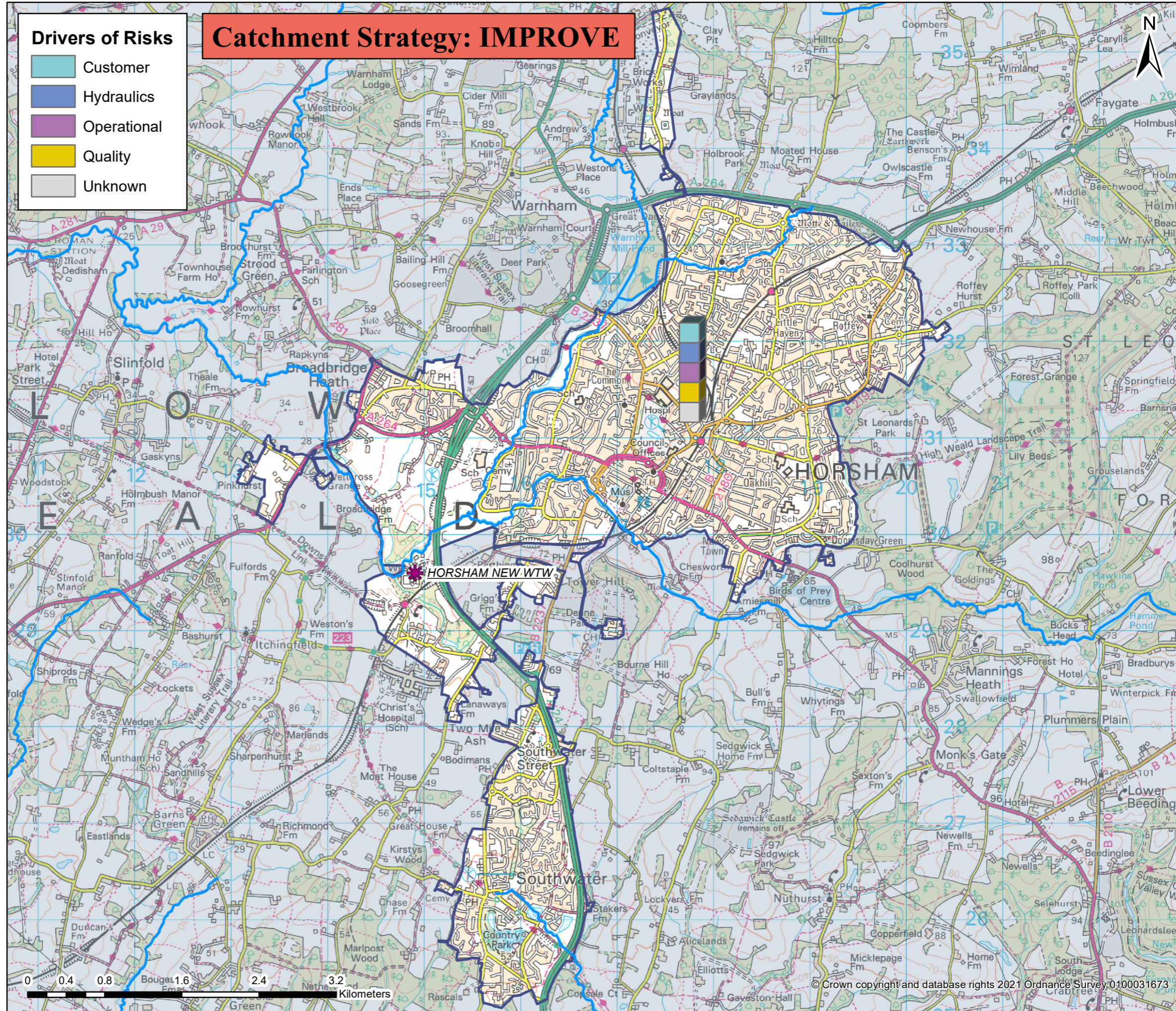
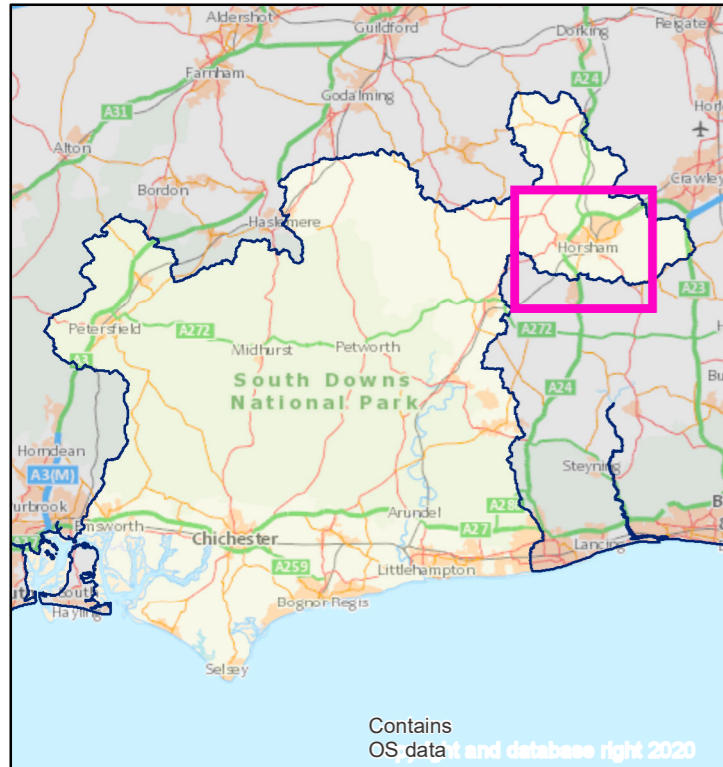
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# Horsham New wastewater system: map and key facts



Population Equivalent (PE)	66,861
Discharge Waterbody	Arun Horsham
Number of Pumping Stations	53
Number of Overflows	3
Length of Sewer (km)	617.8
Catchment Reference	HONE

BRAVA Results Table		
Planning Objective	2020	2050
1 Internal Sewer Flooding Risk	0	
2 Pollution Risk	1	
3 Sewer Collapse Risk	0	
4 Risk of Sewer Flooding in a 1 in 50 year storm	2	2
5 Storm Overflow performance	1	1
6 Risk of WTW Compliance Failure	1	1
7 Risk of flooding due to Hydraulic Overload	1	2
8 Dry Weather Flow Compliance	0	0
9 Good Ecological Status / Potential	1	
10 Surface Water Management	2	
11 Nutrient Neutrality	2	2
12 Groundwater Pollution	0	
13 Bathing Waters	NA	
14 Shellfish Waters	NA	



# Problem Characterisation

## Horsham New (HONE)

This document describes the causes of the risks identified by the Baseline Risk and Vulnerability Assessment (BRAVA). The BRAVA results for this wastewater system are summarised in Table 1. The results indicate that flooding, pollution and water quality are the main concerns in this wastewater system. We have completed risk assessments for 2050 where we have the data and tools available to do so. For the other planning objectives, we will explore how we can predict future risks for the next cycle of DWMPs. All the risk assessment methods need to be reviewed after the first DWMPs have been produced with a view to improve the methods and data for future planning cycles.

**Table 1: Results of the BRAVA for Horsham New wastewater system**

Planning Objectives		2020	Driver	2050
1	Internal Sewer Flooding Risk	0	-	
2	Pollution Risk	1	Customer	
3	Sewer Collapse Risk	0	-	
4	Sewer Flooding in a 1 in 50-year storm	2	Hydraulic	2
5	Storm Overflow Performance	1	Hydraulic	1
6	WTW Water Quality Compliance	1	Quality	1
7	Flooding due to Hydraulic Overload	1	Hydraulic	2
8	WTW Dry Weather Flow Compliance	0	-	0
9	Good Ecological Status / Good Ecological Potential	1	Quality	
10	Surface Water Management	2	Hydraulic	
11	Nutrient Neutrality	2	Unknown	2
12	Groundwater Pollution	0	-	
13	Bathing Waters	NA	-	
14	Shellfish Waters	NA	-	

### Key

BRAVA Risk Band	
NA	Not Applicable*
0	Not Significant
1	Moderately Significant
2	Very Significant

\*No issues relevant to planning objective within Wastewater System

### Investment Strategy

The risks identified in this wastewater system mean that we have assigned the following investment strategy:

**Improve**

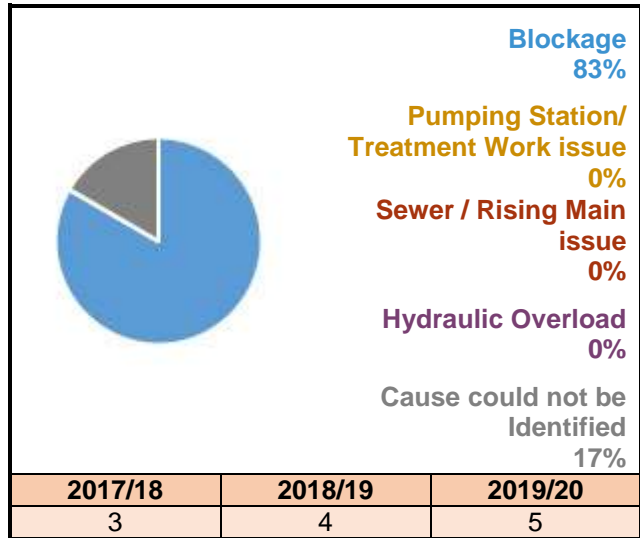
This means that we consider that the current performance of the drainage and wastewater system needs to be improved to reduce the impacts on our customers and/or the environment. We will plan investment to reduce the current risks by actively looking to invest capital funding in the short term to address current performance issues (and consider future risks when implementing improvements).



**Planning Objective 1: Internal Sewer Flooding Risk**

The number of internal sewer flooding incidents reported during the three years considered by the risk assessment are shown in Figure 1. The total number of connections in this wastewater system means there have been less than 1.68 incidents per 10,000 connections per year (a threshold set by Ofwat) so the risk is in the 'not significant' band.

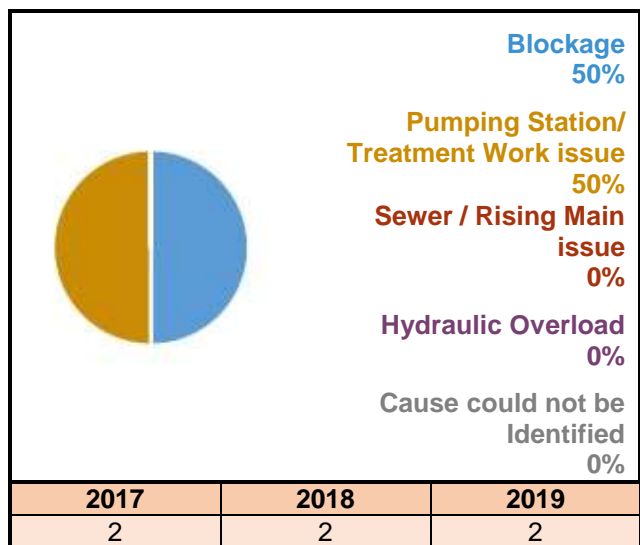
**Figure 1: Number of internal flooding incidents per annum and causes**



**Planning Objective 2: Pollution Risk**

The number of pollution incidents reported during the three years considered by the risk assessment are shown in Figure 2. The length of sewer in this wastewater system means there have been between 24.51 and 49.01 incidents per 10,000km per year (a threshold set by Ofwat) so the risk is in the 'moderately significant' band.

**Figure 2: Number of pollution incidents per annum and causes**



The primary driver for pollution is 'Customer'. Blockages caused 50% of all incidents recorded in this wastewater system. Blockages are often caused by fats, oils, grease, nappies, wet wipes and sanitary products within the system. These items are non-flushable and should not be disposed of into wastewater systems.

**Planning Objective 3: Sewer Collapse Risk**

The number of sewer collapses reported during the three years considered by the risk assessment are shown in Table 2. The length of sewer in this wastewater system means there have been less than 5.72 incidents per 1,000km per year (a threshold set by Ofwat) so the risk is in the 'not significant' band.

**Table 2: Sewer collapses and rising main bursts**

<b>Sewer Collapse</b>	<b>2017/18</b>	1
	<b>2018/19</b>	1
	<b>2019/20</b>	0
<b>Rising Main Bursts</b>	<b>2017/18</b>	0
	<b>2018/19</b>	0
	<b>2019/20</b>	1

### Planning Objective 4: Sewer Flooding in a 1 in 50 Year Storm

The risk of flooding in a 1 in 50 year storm is very significant in 2020 and 2050. This is because our computer model of the sewer network indicate for 2020 that approximately 2200 - 2300 properties within this wastewater system are in areas that could flood by water escaping from sewers. This model prediction increases the number of properties in areas at risk from flooding to approximately 3200 - 3300 by 2050.

Our wastewater networks are generally designed with capacity for up to a 1 in 30 year storm, hence flooding is expected to occur during more severe storms such as a 1 in 50 year event. Flooding will occur due to insufficient capacity of the drainage system either on the surface before it enters the drainage system, and/or from manholes, in people's homes or at a low point elsewhere in the system.

### Planning Objective 5: Storm Overflow Performance

The storm overflow performance risk has been assessed as moderately significant in 2020 and 2050. Table 3 shows the overflows that discharge above the low threshold set for storm overflow discharges to Shellfish Water, Bathing Water and inland rivers.

The primary driver for the Storm Overflow Performance is 'Hydraulic.'

**Table 3: Overflows exceeding discharge frequency threshold per annum**

	Number of overflows		Threshold for number of discharges per annum		
	2020	2050	Low	Medium	High
<b>Shellfish Waters</b>	0 Medium	0 Medium	Less than 8	Between 8-10	10 or more
<b>Bathing Waters</b>	0 Medium	0 Medium	Less than 3	Between 3-10	10 or more
<b>Freshwater</b>	1 Medium	1 Medium	Less than 20	Between 20-40	40 or more

### Planning Objective 6: Wastewater Treatment Works Water Quality Compliance

The risk of non-compliance with our wastewater quality permit has been assessed as moderately significant for both 2020 and 2050. This is because the compliance status of the wastewater treatment works in 2019 and 2020 was Sub Critical and Critical respectively. Future forecast growth for 2050 was assessed to not have an adverse affect for the risk score.

### Planning Objective 7: Flooding due to Hydraulic Overload

This is an assessment of the risk of flooding from sewers during a 1 in 30 year storm, and more frequent rainfall, to understand where flooding could occur. The risk of sewer flooding due to hydraulic overload is moderately significant in 2020. The risk The annualised number of properties in areas at risk of flooding is shown in Table 4.

**Table 4: Annualised number of properties at risk per 10,000 connections.**

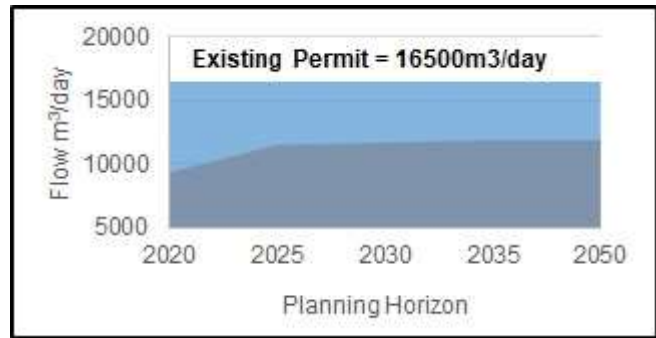
Rainfall Return Period (yr)	Number of Properties at Risk		Annualised per 10,000 connections	
	2020	2050	2020	2050
1 in 1	108	291	68	184
1 in 2	139	454	55	179
1 in 5	641	1161	116	210
1 in 10	1130	1754	108	167
1 in 20	1503	2338	73	114
1 in 30	1809	2645	59	87
<b>Total Annualised</b>			<b>479</b>	<b>941</b>

This indicates that the existing capacity of the wastewater network can be exceeded during 1 in 30 year storms (or more frequent events), and that the risk will increase due to future growth, creep and/or climate change by 2050.

**Planning Objective 8: Wastewater Treatment Works Dry Weather Flow Compliance**

The risk of Wastewater Treatment Works Dry Weather Flow (DWF) Compliance is not significant for both 2020 and 2050. This is because the average annual DWF for 2017, 2018 and 2019 has been below 80% of the current permit. The predicted DWF in 2050 is also expected to remain below 80% of the current permit, shown in Figure 3.

**Figure 3: Recorded and predicted dry weather flow with existing permit**



**Planning Objective 9: Good Ecological Status / Good Ecological Potential**

Table 5 shows the waterbodies connected to this wastewater system are not achieving Good Ecological Status or Potential (GES/GEP). The Environment Agency has attributed the 'reasons for not achieving good status' to water company operations. Our risk assessment has been assessed based on the worst assigned status (Poor) and is moderately significant. This is because we are might not be complying with our permit from the Environment Agency, or the permits need to be tightened to reduce the risk.

The primary driver is 'Quality'.

**Table 5: Waterbodies not achieving GES/GEP**

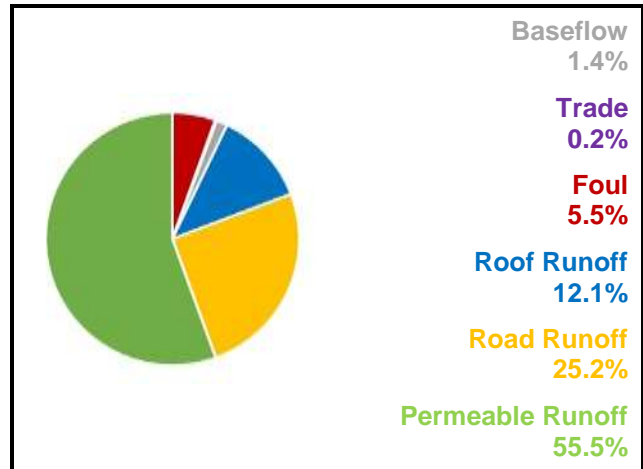
Waterbody	Classification	EA-Status	Activity
Arun Source	Phosphate	Moderate	Sewage discharge (continuous)
Boldings Brook	Phosphate	Moderate	Sewage discharge (continuous)
Arun Horsham	Invertebrates	Moderate	Sewage discharge (continuous)
Arun Horsham	Macrophytes and Phytobenthos Combined	Poor	Sewage discharge (continuous)

**Planning Objective 10: Surface Water Management**

Our initial high level assessment indicated that there is very significant interaction between surface water flooding and flooding from sewers in this wastewater system. The cause of this localised flooding is the capacity of the drainage network in these areas to convey both wastewater and surface water run-off.

Figure 4 illustrates the sources of water flowing in the wastewater system during a 1 in 20 year storm. It shows that surface water runoff from roofs, road and permeable surfaces constitutes more than 92.8% of the flow in the sewers. The total contribution of foul water from homes is 5.5% with business contributing 0.2%. The baseflow is infiltration from water in the ground and makes up 1.4% of the flow in the system.

**Figure 4: Sources of water flowing in sewers during a 1 in 20 year storm**



**Planning Objective 11: Nutrient Neutrality**

The risk to internationally designated habitat sites from this wastewater system is very significant in 2020 and 2050. This is because Natural England have advised that there is a risk to condition for the habitat sites that are hydraulically linked to our wastewater system, listed in Table 6.

**Table 6: Habitat Sites hydraulically linked to wastewater system**

Habitat Sites	
Arun Valley	Nitrate permit review required Overflow Spills

**Planning Objective 12: Groundwater Pollution**

The risk of Groundwater Pollution is not significant. This is because the wastewater network in this wastewater system does not overlap with any groundwater Source Protection Zones (SPZ) used for water supply.

**Planning Objective 13: Bathing Waters**

This wastewater system does not discharge into a designated bathing water.

**Planning Objective 14: Shellfish Waters**

The discharges from this wastewater system do not impact on any designated shellfish waters.

**Southern Water**

August 2021  
Version 1



# Generic Options Assessment for: Horsham New (HONE)



Planning Objectives		2020	Driver	2050	Type of Measures	Generic Option Categories	Icon	Take Forward?	Reasons	Examples of Generic Options
PO1	Internal Flooding	0	-	-	Source (Demand) Measures (to reduce likelihood)	Control / Reduce surface water run-off		Y	-	Natural Flood Management; rural land management and catchment management; SuDS including blue and green infrastructure; storm management
PO2	Pollution Risk	1	Customer	-		Reduce groundwater levels		N	None of the significant risks in this catchment are caused by high groundwater levels. Hence reducing groundwater levels will not impact any of the risks in this catchment.	Reduce leakage from water supply pipes; pump away schemes to locally lower groundwater near sewer network
PO3	Sewer Collapse	0	-	-		Improve <b>quality</b> of wastewater		Y	-	Domestic and business customer education; incentives and behaviour change (reduce Fats, Oils & Grease, wet wipes etc.); monitoring trade waste at source; on-site black water and/or greywater pre-treatment
PO4	Risk of Sewer Flooding in 1 in 50 yr	2	Hydraulic	2		Reduce the <b>quantity</b> / demand		N	None of the significant risks are caused by too much foul wastewater entering our systems from homes and businesses.	Water efficient appliances; water efficient measures; blackwater and/or greywater re-use; treatment at source
PO5	Storm Overflow Performance	1	Hydraulic	1	Pathway (Supply) Measures (to reduce likelihood)	Network Improvements		Y	-	Asset optimisation; additional network capacity; storage; separate flows; structural repairs; re-line sewer pipe and manholes; smart networks.
PO6	Risk of WTW Compliance Failure	1	Quality	1		Improve Treatment Quality		Y	-	Increase treatment capacity; rationalisation of treatment works (centralisation / de-centralisation); install tertiary plant; UV plant or disinfection facilities; innovation; improve Technical Achievable Limits; new WTWs
PO7	Annualised Flood Risk/Hydraulic Overload	1	Hydraulic	2		Wastewater Transfer to treatment elsewhere		N	The causes of risk are not due to where our systems discharge to the environment or our ability to increase the capacity to connect more homes. Transferring wastewater for treatment elsewhere will not reduce any of the significant risks in this catchment.	Transfer flow to other network or treatment sites; transport sewage by tanker to other sites
PO8	DWF Compliance	0	-	0	Receptor Measures (to reduce consequences)	Mitigate impacts on Air Quality		N/A	Not included in first round of DWMPs	Carbon offsetting; noise suppression /filtering; odour control and treatments
PO9	Achieve Good Ecological Status	1	Quality	-		Improve Land and Soils		N/A	Not included in first round of DWMPs	Sludge soil enhancement
PO10	Improve Surface Water Management	2	Hydraulic	-		Mitigate impacts on receiving waters		Y	-	River enhancement, aeration
PO11	Secure Nutrient Neutrality	2	Unknown	2		Reduce impact on properties		Y	-	Property flood resilience; non-return valves; flood guards / doors; air brick covers
PO12	Reduce Groundwater Pollution	0	-	-	Other	Study / Investigation		N	No further studies are required at this stage	Additional data required; hydraulic model development; WQ monitoring and modelling
PO13	Improve Bathing Water Quality	NA	-	-						
PO14	Improve Shellfish Water Quality	NA	-	-						



## Horsham New Wastewater System - Outline Options Appraisal

Generic Option	Location of Risk	Planning Objective and Description of Risk	Option Reference	Description	Further Description	Unconstrained Option?	Constrained Option?	Feasible Option?	Net Benefits	Estimated Cost	Preferred Option	Best value / Least cost or Reasons for Rejection
Study/ investigation to gather more data	Arun Source Baldings Brook Arun Horsham	PO9- GE Status / Potential Sewage discharge (continuous)	HONE.OT01.1	Study and Investigation- Phosphate Invertebrates Macrophytes and Phytobenthos Combined	Catchment was banded 1(moderated due to spare tertiary treatment capacity ) in because; Arun Source-Phosphate (Moderate Sewage discharge (continuous)) Baldings Brook-Phosphate (Moderate Sewage discharge (continuous)) Arun Horsham-Invertebrates (Moderate Sewage discharge (continuous)) Arun Horsham-Macrophytes and Phytobenthos Combined (Poor Sewage discharge (continuous)).	Yes	Yes	Yes	Minor Positive +	£75K	No	Best Value
Study/ investigation to gather more data	Arun Valley	PO11 - Nutrient Neutrality	HONE.OT01.2	Nutrient Budget	Catchment is Hydraulically linked to; Arun Valley (Threat/Remedy Identified or Anticipated)  Banding 2020 - 2; There is a Phosphate permit (1mg/l) but no Nitrate permit (Note there is an Ammonia permit (2.	Yes	Yes	Yes	Major Positive +++	£75K	Yes	Best Value
Study/ investigation to gather more data	Catchment Wide	PO4- 1 in 50 year PO5- Storm Overflow PO7- Hydraulic Overload PO10- Surface Water Management	HONE.OT01.3	Improve Hydraulic Model	Improve Hydraulic Model.	Yes	Yes	Yes	Minor Positive +	£250K	Yes	Best Value
Study/ investigation to gather more data	CATCHMENT FC12 Horsham New WTW	PO4, PO7 & PO5 - Growth and Spill assessment	HONE.OT01.4	Study/modelling investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£250K	Yes	Best Value
Study/ investigation to gather more data	Warnham Network	PO8 Drainage	HONE.OT01.5	Pumping Wastewater from Warnham	Investigate: Identify if pumping wastewater to Horsham from Warnham network is a viable option.	Yes	Yes	Yes	Minor Positive +	£TBC - With Partners	No	Best Value
Study/ investigation to gather more data	Catchment Wide	PO1 Internal Flooding - Blockages	HONE.OT01.6	Customer Education Programme (Not Significant Risk)	Enhanced maintenance: Customer Education (Although not flagged as a significant,implementing this would still have benefit).	Yes	Yes	Yes	Minor Positive +	£TBC - With Partners	No	Best Value
Study/ investigation to gather more data	Barns Green	PO12 - Water Supply	HONE.OT01.7	Study - Deep Borehole Water Supply	Study: Identify solution to protect the deep borehole water supply (growing transient population) .	Yes	Yes	Yes	Minor Positive +	£TBC - With Partners	No	Best Value

## Drainage and Wastewater Management Plan (DWMP)

# DWMP Investment Needs

1. The options listed in the DWMP Investment Needs below are the preferred options in our DWMP. They will need further refinement as we implement the DWMP to confirm the exact location and scope of action needed, and the cost.
2. The costs are indicative costs for planning purposes only. The basis for the cost estimates, including assumptions and uncertainties, are explained in our DWMP Investment Plans.
3. The table of Investment Need provides an indicative cost so we know what level of funding is needed to reduce the risks. It is not a commitment to fund or deliver any option.
4. The Indicative Timescale is when the investment is needed. Some options may take several investment periods to achieve the desired outcomes.
5. Potential Partners have been identified in the table of Investment Needs. This is to indicate where there may be opportunities for us to work with these partners when developing and delivering these options. It is not a commitment by any of the partners to work with us.
6. These options will inform our future business plans as part of the Ofwat periodic review process to secure the finance to implement these options.
7. The options listed are prioritised by the method stated in the [Programme Appraisal Technical Summary](#).

Date : May 2023

Version : 1.0

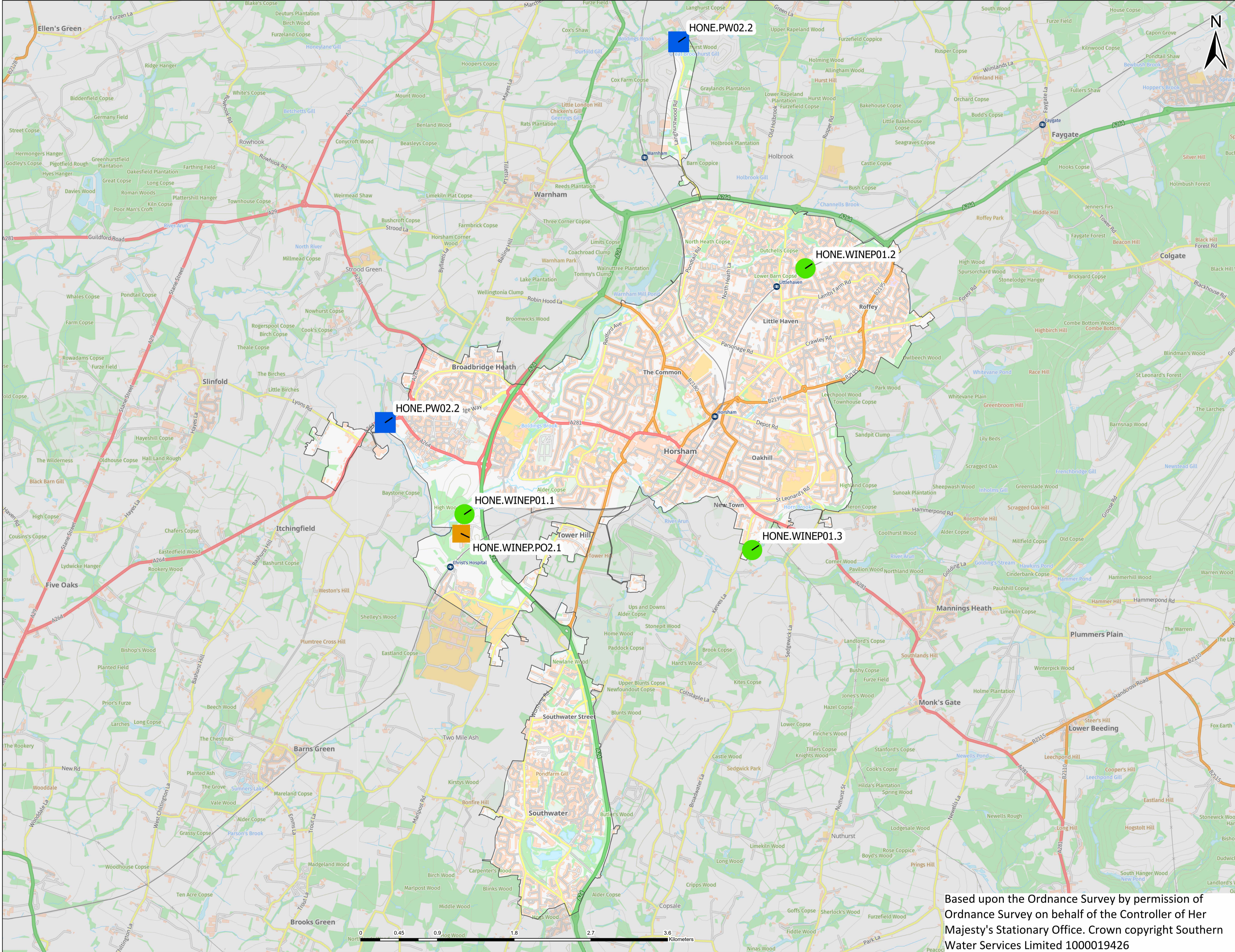
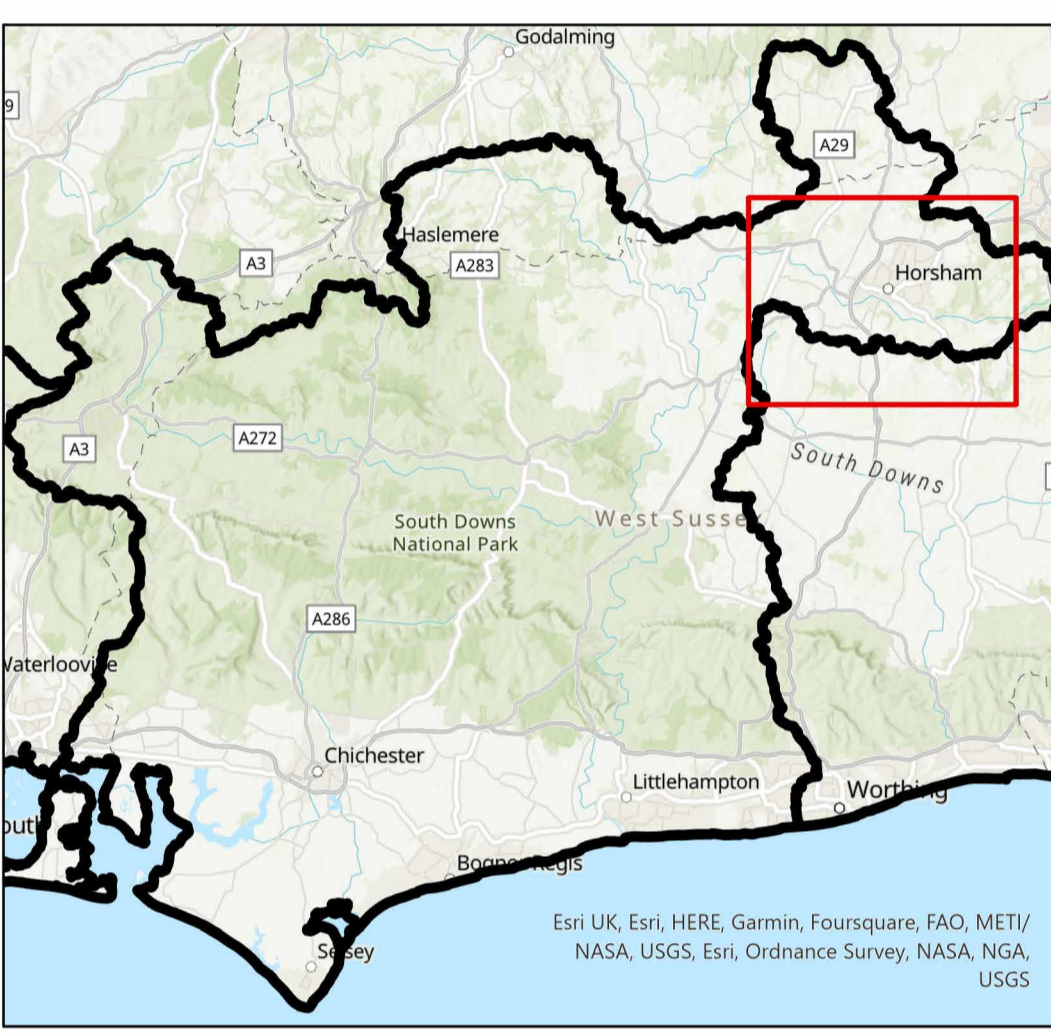
Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
<b>Arun and Western Streams</b>								
<b>Horsham New</b>								
HONE.OT01.6	Arun and Western Streams	Horsham New	System Wide	Customer Education Programme: Targeted campaign to reduce the amount of FOG (fats, oils and grease) and unflushables discharged into the sewer network	£TBC	AMP8 onwards	Horsham District Council	PO1
HONE.PW01.1	Arun and Western Streams	Horsham New	Five Oaks Road Broadbridge Heath Wps, Langhurstwood Road Horsham Wps	Improve the operational resilience of wastewater pumping station (WPS) to reduce pollution incidents	£465K	AMP8 onwards	-	PO2
HONE.PW01.6	Arun and Western Streams	Horsham New	Land North of Horsham development	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.7	Arun and Western Streams	Horsham New	West of Southwater development	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.8	Arun and Western Streams	Horsham New	Land Off Mill Straight development	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.9	Arun and Western Streams	Horsham New	Novartis Pharmaceuticals UK Limited, Parsonage Road development	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.10	Arun and Western Streams	Horsham New	Forest Road	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.11	Arun and Western Streams	Horsham New	Land South of Athelstan Way	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.12	Arun and Western Streams	Horsham New	Holbrook Club North Heath Lane	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.13	Arun and Western Streams	Horsham New	Horsham New WTW	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,670K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.14	Arun and Western Streams	Horsham New	Billingshurst Road	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£1,780K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.15	Arun and Western Streams	Horsham New	Hurst Road	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£1,495K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.16	Arun and Western Streams	Horsham New	Southwater	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£2,820K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7
HONE.PW01.17	Arun and Western Streams	Horsham New	Worthing Road	Flood Alleviation: Separate or attenuate excess rainwater in sewer network using Sustainable Drainage Systems (SuDS) to reduce risk of flooding (Costs based on storage solution but surface water separation is our preferred approach)	£920K	AMP9	West Sussex County Council Horsham District Council	PO4 PO7

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
HONE.PW02.2	Arun and Western Streams	Horsham New	Horsham New WTW	Increase treatment capacity to allow for planned new development	£29,735K	AMP10	-	PO6
HONE.OT01.1	Arun and Western Streams	Horsham New	Arun Source Boldings Brook Arun Horsham	Study and Investigation to understand the impact of wastewater discharges on the local environment and identify measures required to achieve good ecological status in the receiving waterbody	£75K	AMP8	Environment Agency	PO9
HONE.OT01.3	Arun and Western Streams	Horsham New	System Wide	Improve the Hydraulic Model: Surveys and reverification of model to improve confidence and accuracy	£250K	AMP8	-	PO4 PO5 PO7 PO10
HONE.WINEP01.1	Arun and Western Streams	Horsham New	HORSHAM NEW SSO	Reduce the number of storm discharges from HORSHAM NEW SSO by creating below-ground storage	£7,000K	AMP10	-	PO5
HONE.WINEP01.2	Arun and Western Streams	Horsham New	FARHALLS CRESCENT HORSHAM CSO	Reduce the number of storm discharges from FARHALLS CRESCENT HORSHAM CSO by a combination of SuDS and storage options	£14,160K	AMP12	-	PO4 PO5 PO7
HONE.WINEP01.3	Arun and Western Streams	Horsham New	KERVES LANE HORSHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at KERVES LANE HORSHAM CSO	£130K	AMP12	-	PO5
HONE.WINEP.PO2.1	Arun and Western Streams	Horsham New	Horsham WTW	Provision of additional liquor treatment capacity and additional tertiary nitrification capacity to achieve 1.5mg/l Ammonia (WINEP OAR 08SO104035)	£5,444K	AMP8	-	PO9

# Drainage and Wastewater Management Plan: Location of Potential Options HORSHAM NEW Wastewater system in Arun and Western Streams River Basin Catchment



(i) This map should be read in conjunction with the list of Investment Needs for this wastewater system  
 (ii) The areas shown on this map are the potential locations for the options. The location of the risk may be elsewhere in the system.  
 (iii) Labels for each location are the option references in the list of Investment Needs  
 (iv) Drainage Area Plan (DAP) options on flooding and growth are not shown.



- Customer Education
- Pipe Rehabilitation
- Asset Resilience
- Wastewater Treatment
- WINEP Nutrient Neutrality
- WINEP Storm Overflows

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