



# Drainage and Wastewater Management Plan

Hailsham South  
Wastewater System Plan



from  
**Southern  
Water** 

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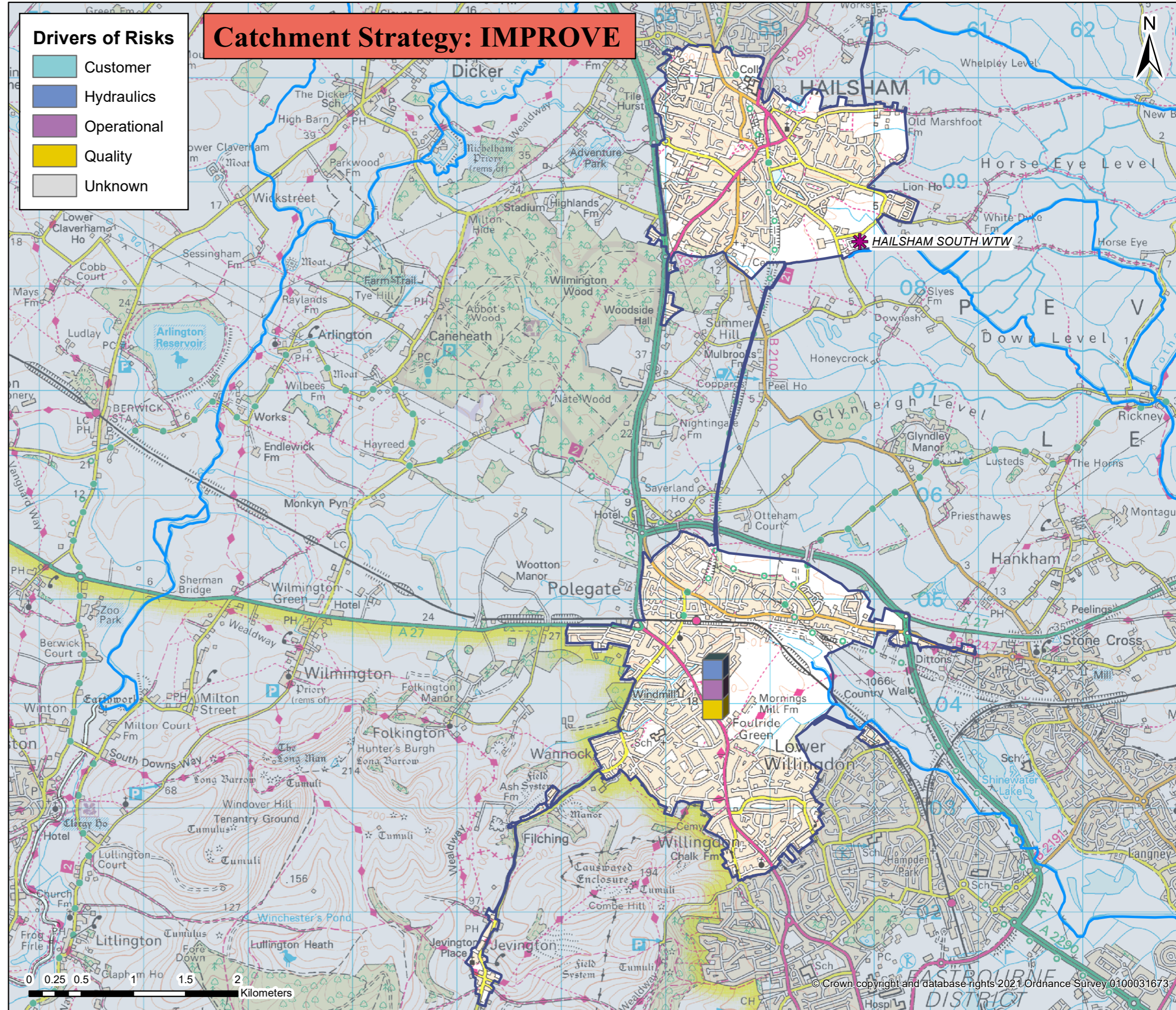
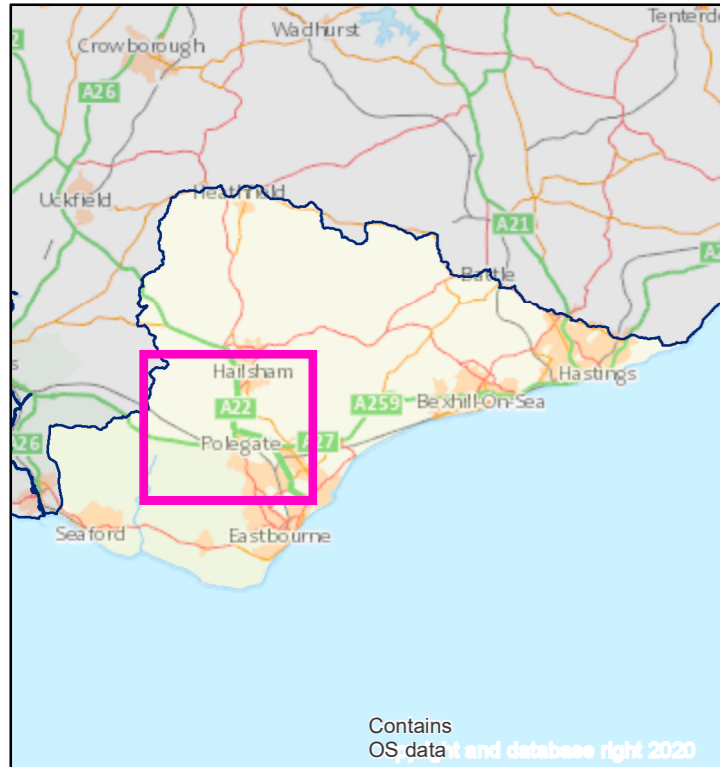
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# Hailsham South wastewater system: map and key facts



<b>Population Equivalent (PE)</b>	<b>29,543</b>
<b>Discharge Waterbody</b>	<b>Horse Eye Sewer</b>
<b>Number of Pumping Stations</b>	<b>32</b>
<b>Number of Overflows</b>	<b>15</b>
<b>Length of Sewer (km)</b>	<b>265.0</b>
<b>Catchment Reference</b>	<b>HAIS</b>

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





# Problem Characterisation

## Hailsham South (HAIS)

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 Hailsham South wastewater system**

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

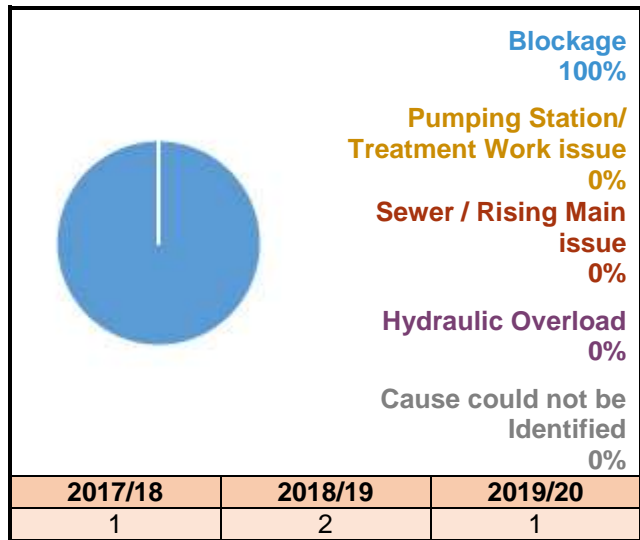
This means that we consider that the current performance of the drainage and wastewater system needs to be improved to reduce the impacts on our customers and/or the environment. We will plan investment to reduce the current risks by actively looking to invest capital funding in the short term to address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

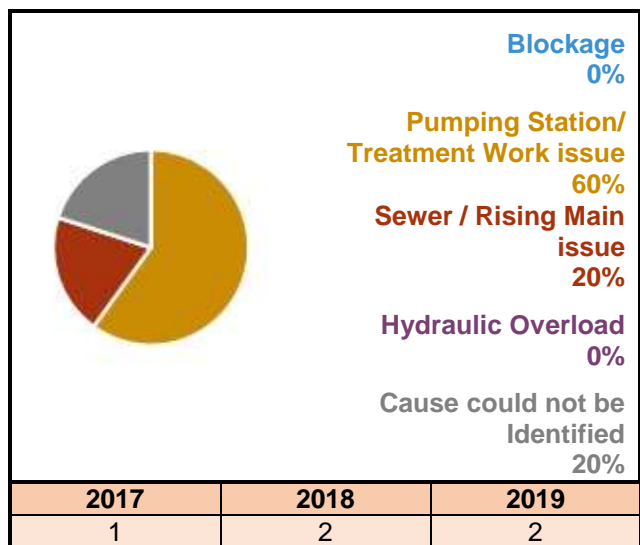
**Figure 1: Number of internal flooding incidents per annum and causes**



**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 more than 49.01 incidents per 10,000km per year (a threshold set by Ofwat) so the risk is in the 'very significant' band.

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



The primary driver for pollution is 'Operational' due to asset operational issues. Asset operational issues at our pumping stations and treatments works are the main cause of incidents, contributing to 60% of all incidents recorded in this wastewater system.

**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 between 5.72 and 9.44 incidents per 1,000km per year (a threshold set by Ofwat), the risk is in the 'moderately significant' band.

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

<b>Sewer Collapse</b>	<b>2017/18</b>	1
	<b>2018/19</b>	0
	<b>2019/20</b>	2
<b>Rising Main Bursts</b>	<b>2017/18</b>	2
	<b>2018/19</b>	0
	<b>2019/20</b>	0

The primary driver is 'Operational' as the cause of these collapses and bursts is due to the age and condition of the sewers.

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

The risk of flooding in a 1 in 50 year storm is moderately significant in 2020 and 2050. This is because our computer model of the sewer network indicate for 2020 that approximately 1000 - 1100 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 1700 - 1800 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 very significant for both 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 High	1 High	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 2018 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 very significant in 2020 and 2050. 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.**

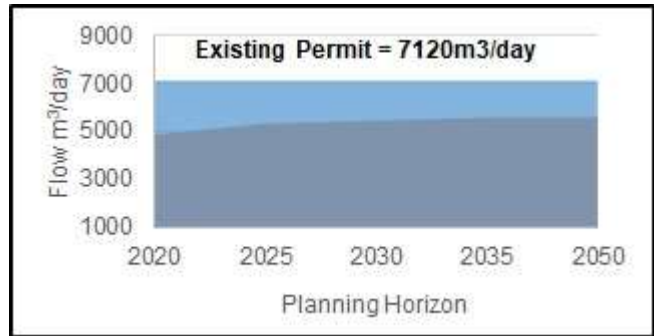
Rainfall Return Period (yr)	Number of Properties at Risk		Annualised per 10,000 connections	
	2020	2050	2020	2050
1 in 1	222	416	140	263
1 in 2	306	544	120	214
1 in 5	642	1286	116	233
1 in 10	1138	1752	108	167
1 in 20	1550	2384	76	116
1 in 30	1782	2856	58	94
<b>Total Annualised</b>			<b>619</b>	<b>1087</b>

This indicates that the existing capacity of the wastewater network can already be exceeded during 1 in 30 year storms (or more frequent events).

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

The risk of Wastewater Treatment Works Dry Weather Flow Compliance is not significant for 2020 but is predicted to increase to moderately significant in 2050, shown in Figure 3. This is because the predicted DWF in 2050 is expected to be between 80% and 100% of the current permit.

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



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

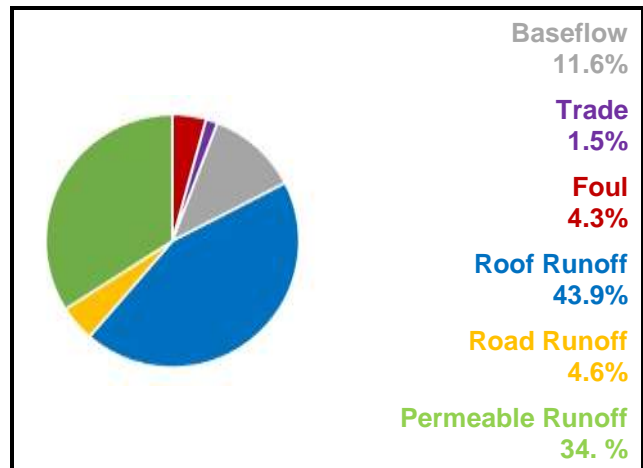
This wastewater system is not hydraulically linked to a waterbody where wastewater operations are contributing to not achieving GES/GEP, therefore the risk is not significant.

**Planning Objective 10: Surface Water Management**

Our initial high level assessment indicated that there is moderately 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 82.5% of the flow in the sewers. The total contribution of foul water from homes is 4.3% with business contributing 1.5%. The baseflow is infiltration from water in the ground and makes up 11.6% 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**

This wastewater system is not hydraulically linked to Habitat Sites noted as under threat by Natural England.

### **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.



# Generic Options Assessment for: Hailsham South (HAIS)



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	2	Operational	-		Reduce groundwater levels		N	Reducing groundwater levels would reduce the risks from infiltration into the network. However, in practice, reducing groundwater levels will be detrimental to the environment, ground conditions and is prohibitively too costly to implement. For these reasons, this generic option has been discounted.	Reduce leakage from water supply pipes; pump away schemes to locally lower groundwater near sewer network
PO3	Sewer Collapse	1	Operational	-		Improve <b>quality</b> of wastewater		N	None of the significant risks are caused by the quality of wastewater entering the wastewater system.	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	1	Hydraulic	1		Reduce the <b>quantity</b> / demand		Y	-	Water efficient appliances; water efficient measures; blackwater and/or greywater re-use; treatment at source
PO5	Storm Overflow Performance	2	Hydraulic	2	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	2	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	-	1	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	0	-	-		Improve Land and Soils		N/A	Not included in first round of DWMPs	Sludge soil enhancement
PO10	Improve Surface Water Management	1	Hydraulic	-		Mitigate impacts on receiving waters		N	The receiving waters are not adversely impacted by our wastewater operations. Hence, offsetting any adverse impacts on receiving waters will not reduce any of the significant risks in this catchment.	River enhancement, aeration
PO11	Secure Nutrient Neutrality	NA	-	NA		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	-	-						

# Hailsham South 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
Control/ Reduce surface water entering the sewers	HAIS FC01_1 - Station Road	PO4 and PO7 Flooding	HAIS.SC01.1	Surface Water separation	DAP Option.	Yes	No					Performance and Sustainability
Control / Reduce groundwater infiltration												
Improve quality of wastewater entering sewers (inc reducing FOG, RAG, pre-treatment, trade waste)												
Control / Reduce the quantity / flow of wastewater entering sewer system	HAILSHAM SOUTH WTW	PO8 (2050)- Dry Weather Flow	HAIS.SC04.1	Water Efficient Appliance / Measures	Southern Water aims to reduce water consumption to 100 l/h/d by 2040.	Yes	No					Environmental - Strategic Environmental Assessment
Network Improvements (eg increase capacity, storage, conveyance)	Bolney Wood Hailsham Wps, Dittons Road No2 Wps,	PO2- Pollution Risk	HAIS.PW01.1	Maintenance Programme WPS	An efficient maintenance programme for pumping stations to eliminate the risk of a pollution incident due to an operational failure.	Yes	Yes	Yes	Minor Positive +	£465K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Foulride Green, Whiffens Close	PO3- Sewer Collapse	HAIS.PW01.2	Pipe Rehabilitation Programme	Targeted CCTV / electroscan surveys and proactive sewer rehabilitation to reduce risk of sewer collapse.	Yes	Yes	Yes	Minor Positive +	£395K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Catchment Wide	PO8 (2050)- Dry Weather Flow	HAIS.PW01.3	Pipe Rehabilitation Programme	Relining/improving structural grades of sewers across the catchment.	Yes	No					Environmental - Strategic Environmental Assessment
Network Improvements (eg increase capacity, storage, conveyance)	Polegate	PO2- Pollution Risk	HAIS.PW01.4	Pipe Rehabilitation Programme	Pipe Rehabilitation Programme.	Yes	Yes	Yes	Minor Positive +	£65K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC01 Wannock Mill Stream, Polegate	PO4, PO7 - Flooding	HAIS.PW01.5	Upsizing (HAIS009 Option 1)	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC02 Wannock Mill Stream, Polegate	PO4, PO7 - Flooding	HAIS.PW01.6	Storage (HAIS009 Option 2)	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC03 - Town Farm	PO4 & PO7 - Growth	HAIS.PW01.7	New pumping station and New rising main	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC04 - Dittons Road	PO4 & PO7 - Growth	HAIS.PW01.8	Upsizing and New sewer	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC05 - Dittons Rd/Golden Jubilee Way	PO4 & PO7 - Growth	HAIS.PW01.9	Upsizing (HAISGR001 Option 2)	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC06 - Bramley Road	PO4 & PO7 - Growth	HAIS.PW01.10	New Sewer (HAISGR001 Option 2)	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC07 - Polegate	PO4 & PO7 - Growth	HAIS.PW01.11	New Sewer (HAISGR001 Option 2)	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC08 - Dittons Road Polegate CSO	PO4, PO7 & PO5 - Growth	HAIS.PW01.12	Storage (HAISGR001 Option 2)	DAP Option.	Yes	Yes	Yes	Major Positive +++	£2,270K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC01 - HAILSHAM SOUTH STORM CEO	PO5 - Spill Assessments	HAIS.PW01.13	Storage ( FC01 - HAILSHAM SOUTH STORM CEO)	The DAP model has a confidence score of 1 and was last verified in 2005.	Yes	Yes	Yes	Major Positive +++	£1,200K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAIS FC01_1 - Station Road	PO4 and PO7 Flooding	HAIS.PW01.14	Storage	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,175K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	HAILSHAM SOUTH WTW	PO2- Pollution Risk	HAIS.PW02.1	Maintenance Programme WTW	An efficient maintenance programme for the treatment works to eliminate the risk of a pollution incident due to an operational failure.	Yes	Yes	Yes	Minor Positive +	£6,970K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	HAILSHAM SOUTH WTW	PO6 (2050)- WTW compliance	HAIS.PW02.2	Increase Capacity	Catchment was banded 1 in 2020 ;  Catchment was banded 1 in 2050 because; Biological Capacity= -1.	Yes	Yes	Yes	Minor Positive +	£1,010K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	HAILSHAM SOUTH WTW	PO8 (2050)- Dry Weather Flow	HAIS.PW02.3	Permit Review	Proposed permit-7308m3.	Yes	Yes	Yes	Minor Positive +	£1,360K	Yes	Best Value
Wastewater Transfer	HAILSHAM SOUTH WTW	PO8 (2050)- Dry Weather Flow	HAIS.PW03.1	Construct New WPS & Rising Main	Within 10km radius of HAIS is VINE which in 2050 will have approximately 208m3/day of headroom (until it is above 80% of its DWF permit)Within 20km radius of HAIS is BRIG which in 2050 will have approximately 7613m3/day of headroom (until it is above 80% of its DWF permit).	Yes	No					Environmental - Strategic Environmental Assessment
Mitigate impacts on Air Quality (e.g. Carbon neutrality, noise, odour)												Not included in the first round of DWMPs
Improve Land and Soils												Not included in the first round of DWMPs
Mitigate impacts on Water Quality												
Reduce consequences Properties (e.g. Property Flood Resilience)												
Study/ investigation to gather more data	Polegate	PO2- Pollution Risk	HAIS.OT01.1	Investigation into causes	Further investigation to identify the cause of the pollution incident.	No						Cost Effective
Study/ investigation to gather more data	Foulride Green, Whiffens Close	PO3- Sewer Collapse	HAIS.OT01.2	CCTV Investigation	CCTV Investigation.	No						Deliver the required outcome
Study/ investigation to gather more data	Catchment Wide	PO8 (2050)- Dry Weather Flow	HAIS.OT01.3	Infiltration Reduction Plan	Relining/improving structural grades of sewers across the catchment.	No						Cost Effective
Study/ investigation to gather more data	Catchment Wide	PO4- 1 in 50 year PO5- Storm Overflow PO7- Hydraulic Overload PO10- Surface Water Management	HAIS.OT01.4	Improve Hydraulic Model	Improve Hydraulic Model.	Yes	Yes	Yes	Minor Positive +	£200K	Yes	Best Value
Study/ investigation to gather more data	HAIS FC09 - Willingdon No 1 CSO	PO4, PO7 & PO5 - Growth and Spill assessment	HAIS.OT01.5	Storage	Growth solutions developed for the DAP have not been assessed for suitability.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	HAIS FC010 - Lynholm Road 1 Polegate CSO	PO4, PO5, PO7, PO13 & PO14 - Growth and Spill assessment	HAIS.OT01.6	Storage	Growth solutions developed for the DAP have not been assessed for suitability.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	HAIS FC011 - Southfield Polegate CSO	PO4, PO7 & PO5 - Growth and Spill assessment	HAIS.OT01.7	Storage	Growth solutions developed for the DAP have not been assessed for suitability.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value



## Hailsham South 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	HAIS FC012 - Bramble Drive Hailsham CSO	PO4, PO7 & PO5 - Growth and Spill assessment	HAIS.OT01.8	Storage	Growth Risk Statement: Growth solutions developed for the DAP have not been assessed for suitability.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	HAIS FC014 - DITTONS ROAD NO2 WPS	PO5 - Spill Assessments	HAIS.OT01.9	Storage	The DAP model has a confidence score of 1 and was last verified in 2005.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	HAIS FC015 - BOLNEY WOOD HAILSHAM CEO	PO5 - Spill Assessments	HAIS.OT01.10	Storage	The DAP model has a confidence score of 1 and was last verified in 2005.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	POLEGATE SST	PO5 - Storm Overflow	HAIS.OT01.11	Storage	Storage.	No						Risk and uncertainty - future resilience
Study/ investigation to gather more data	WILLINGDON SST	PO5 - Storm Overflow	HAIS.OT01.12	Storage	Storage.	No						Risk and uncertainty - future resilience
Study/ investigation to gather more data	HAIS FC02_1 - High street	PO4 and PO7 Flooding	HAIS.OT01.13	Study/Model investigation	DAP Option.	No						

## 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>Cuckmere and Pevensey Levels</b>								
<b>Hailsham South</b>								
HAIS.PW01.1	Cuckmere and Pevensey Levels	Hailsham South	Bolney Wood Hailsham WPS Dittons Road No2 WPS	Improve the operational resilience of wastewater pumping station (WPS) to reduce pollution incidents	£465K	AMP8 onwards	-	PO2
HAIS.PW01.2	Cuckmere and Pevensey Levels	Hailsham South	Foulride Green, Whiffens Close	Sewer Rehabilitation: Targeted CCTV or electroscan surveys and sewer rehabilitation to reduce the risk of sewer bursts and collapses	£395K	AMP8 onwards	-	PO3
HAIS.PW01.4	Cuckmere and Pevensey Levels	Hailsham South	Polegate	Sewer Rehabilitation: Targeted CCTV or electroscan surveys and sewer rehabilitation to reduce the risk of pollution	£65K	AMP8 onwards	-	PO2
HAIS.PW01.7	Cuckmere and Pevensey Levels	Hailsham South	Town Farm	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)	£2,270K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW01.8	Cuckmere and Pevensey Levels	Hailsham South	Dittons 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)	£2,270K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW01.9	Cuckmere and Pevensey Levels	Hailsham South	Golden Jubilee 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)	£2,270K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW01.10	Cuckmere and Pevensey Levels	Hailsham South	Bramley 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)	£2,270K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW01.11	Cuckmere and Pevensey Levels	Hailsham South	Polegate	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)	£2,270K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW01.14	Cuckmere and Pevensey Levels	Hailsham South	Station 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)	£1,175K	AMP9	Wealden District Council East Sussex County Council	PO4 PO7
HAIS.PW02.1	Cuckmere and Pevensey Levels	Hailsham South	Hailsham South WTW	Improve the operational resilience of wastewater treatment works (WTW) to reduce pollution incidents	£6,970K	AMP8 onwards	-	PO2
HAIS.PW02.2	Cuckmere and Pevensey Levels	Hailsham South	Hailsham South WTW	Increase treatment capacity to allow for planned new development	£1,010K	AMP9	-	PO6
HAIS.PW02.3	Cuckmere and Pevensey Levels	Hailsham South	Hailsham South WTW	Increase capacity to allow for planned new development	£1,360K	AMP9	-	PO8
HAIS.OT01.4	Cuckmere and Pevensey Levels	Hailsham South	System Wide	Improve the Hydraulic Model: Surveys and reverification of model to improve confidence and accuracy	£200K	AMP8	-	PO4 PO5 PO7 PO10
HAIS.OT01.13	Cuckmere and Pevensey Levels	Hailsham South	System Wide	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)	£230K	AMP9	-	PO4 PO7

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
HAIS.WINEP01.1	Cuckmere and Pevensy Levels	Hailsham South	WILLINGDON NO 1 CSO	Reduce the number of storm discharges from WILLINGDON NO 1 CSO by a combination of SuDS and storage options	£5,280K	AMP10	-	PO4 PO5 PO7
HAIS.WINEP01.2	Cuckmere and Pevensy Levels	Hailsham South	LYNHOLM ROAD POLEGATE NO.2 SSO	Reduce the number of storm discharges from LYNHOLM ROAD POLEGATE NO.2 SSO by a combination of SuDS and storage options	£3,640K	AMP10	-	PO4 PO5 PO7
HAIS.WINEP01.3	Cuckmere and Pevensy Levels	Hailsham South	HAILSHAM SOUTH STORM CSO	Reduce the number of storm discharges from HAILSHAM SOUTH STORM CSO by a combination of SuDS and storage options	£2,465K	AMP8	-	PO4 PO5 PO7
HAIS.WINEP01.4	Cuckmere and Pevensy Levels	Hailsham South	WILLINGDON NO 2 CEO	Reduce the number of storm discharges from WILLINGDON NO 2 CEO by a combination of SuDS and storage options	£1,670K	AMP12	-	PO4 PO5 PO7
HAIS.WINEP01.5	Cuckmere and Pevensy Levels	Hailsham South	LYNHOLM ROAD POLEGATE NO.1 CSO	Reduce the number of storm discharges from LYNHOLM ROAD POLEGATE NO.1 CSO by creating below-ground storage	£840K	AMP11	-	PO5
HAIS.WINEP01.6	Cuckmere and Pevensy Levels	Hailsham South	DITTONS ROAD POLEGATE CSO	Reduce the number of storm discharges from DITTONS ROAD POLEGATE CSO by a combination of SuDS and storage options	£895K	AMP11	-	PO4 PO5 PO7
HAIS.WINEP01.7	Cuckmere and Pevensy Levels	Hailsham South	BRAMBLE DRIVE HAILSHAM CSO	Reduce the number of storm discharges from BRAMBLE DRIVE HAILSHAM CSO by a combination of SuDS and storage options	£840K	AMP12	-	PO4 PO5 PO7
HAIS.WINEP01.8	Cuckmere and Pevensy Levels	Hailsham South	TOWN FARM HAILSHAM CEO	New or improved screen to reduce aesthetics impacts from storm discharges at TOWN FARM HAILSHAM CEO	£130K	AMP12	-	PO5
HAIS.WINEP01.9	Cuckmere and Pevensy Levels	Hailsham South	OXENDEAN GARDENS WILLINGDON CSO	New or improved screen to reduce aesthetics impacts from storm discharges at OXENDEAN GARDENS WILLINGDON CSO	£130K	AMP11	-	PO5
HAIS.WINEP01.10	Cuckmere and Pevensy Levels	Hailsham South	BOLNEY WOOD HAILSHAM CEO	Reduce the number of storm discharges from BOLNEY WOOD HAILSHAM CEO by a combination of SuDS and storage options	£1,380K	AMP12	-	PO4 PO5 PO7
HAIS.WINEP01.11	Cuckmere and Pevensy Levels	Hailsham South	WANNOCK ROAD WANNOCK CSO	New or improved screen to reduce aesthetics impacts from storm discharges at WANNOCK ROAD WANNOCK CSO	£130K	AMP11	-	PO5
HAIS.WINEP01.12	Cuckmere and Pevensy Levels	Hailsham South	HIGH STREET POLEGATE CSO	Reduce the number of storm discharges from HIGH STREET POLEGATE CSO by a combination of SuDS and storage options	£1,550K	AMP12	-	PO4 PO5 PO7
HAIS.WINEP01.13	Cuckmere and Pevensy Levels	Hailsham South	STATION ROAD HAILSHAM CSO	Reduce the number of storm discharges from STATION ROAD HAILSHAM CSO by a combination of SuDS and storage options	£4,400K	AMP12	-	PO4 PO5 PO7
HAIS.WINEP.PO2.1	Cuckmere and Pevensy Levels	Hailsham South	Hailsham South WTW	Provision of additional primary settlement capacity and improved real time control to achieve 1 mg/l Ammonia (WINEP OAR 08SO104055)	£9,073K	AMP8	-	PO9

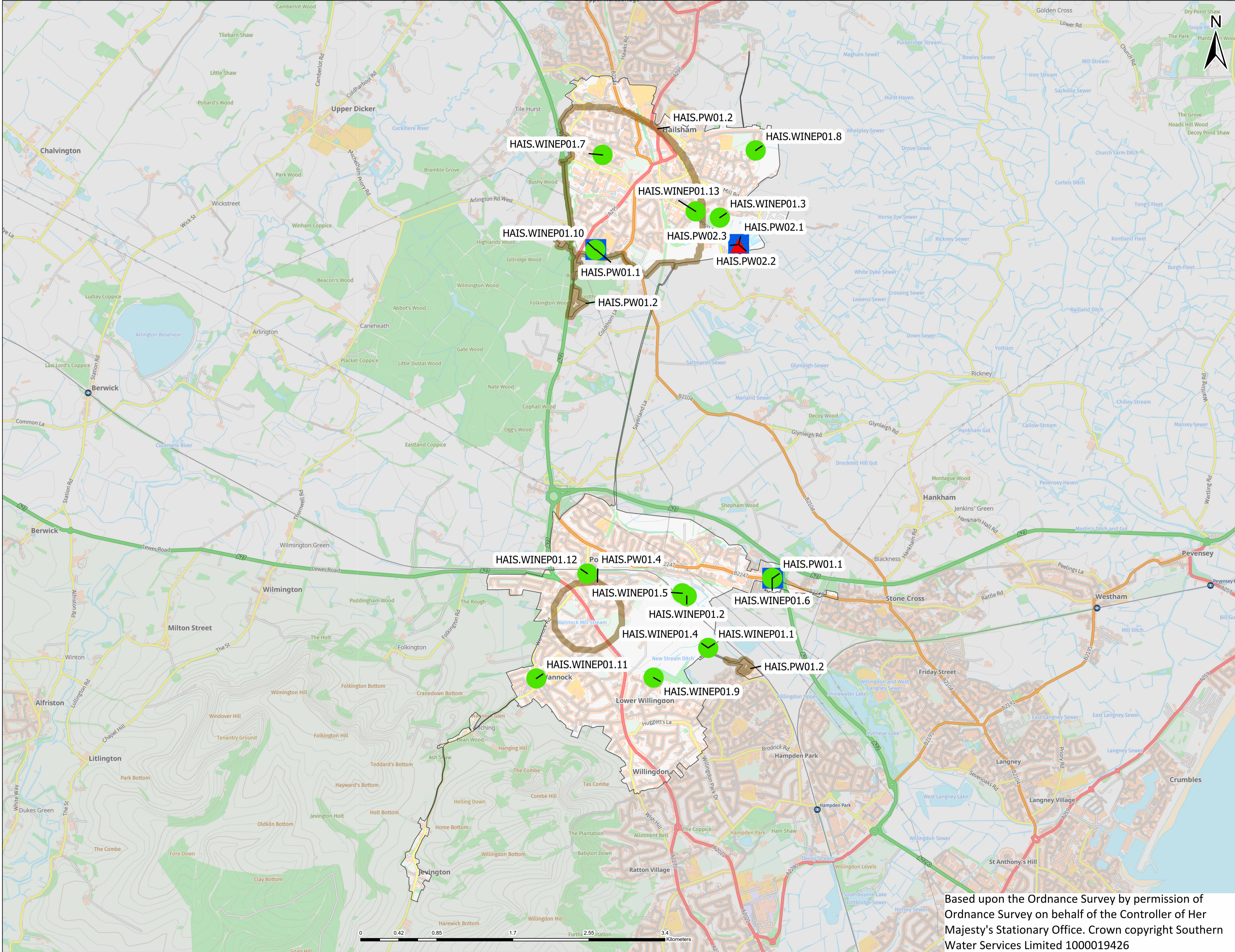
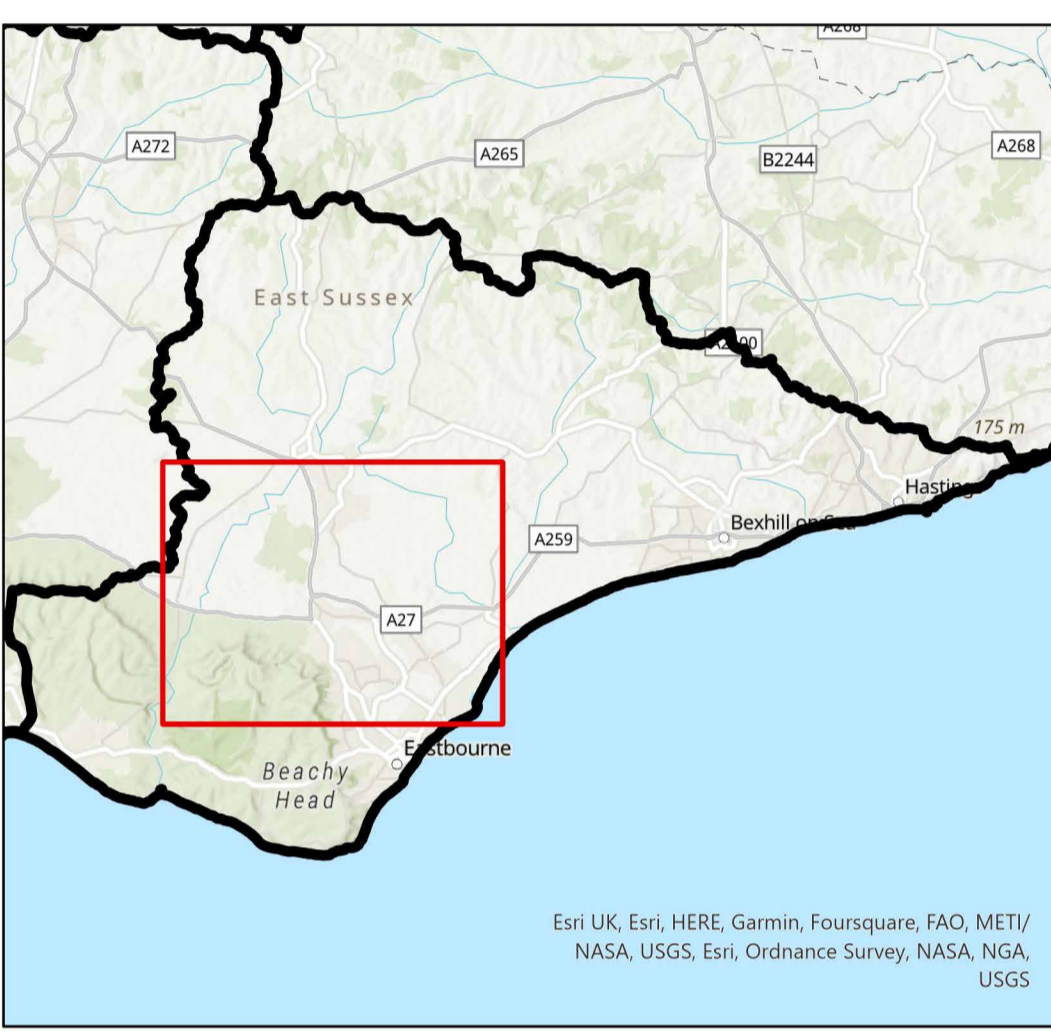


# Drainage and Wastewater Management Plan: Location of Potential Options HAILSHAM SOUTH

## Wastewater system in Cuckmere and Pevensey Levels 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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