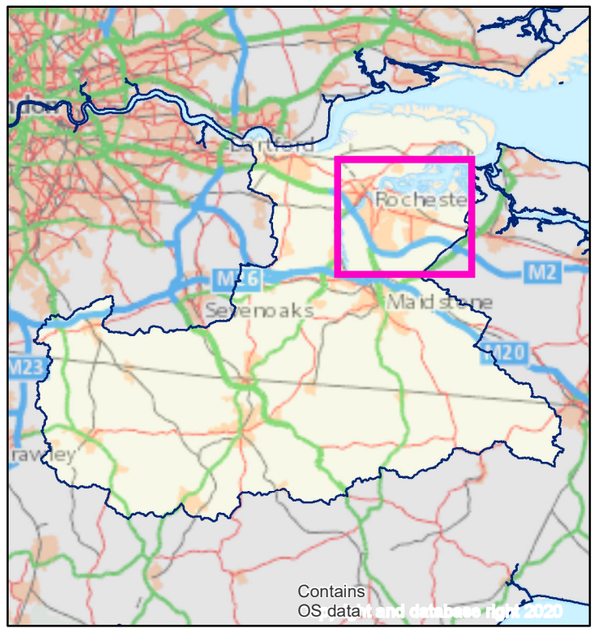
Drainage and Wastewater Management Plan

Motney Hill
Wastewater System Plan

Contents

Motney Hill wastewater system: map and key facts



Population Equivalent (PE)	**263,577**
Discharge Waterbody	**Medway estuary**
Number of Pumping Stations	**62**
Number of Overflows	**68**
Length of Sewer (km)	**1731.4**
Catchment Reference	**MOTN**

BRAVA Results Table

	Planning Objective	2020	2050
1	Internal Sewer Flooding Risk	1	
2	Pollution Risk	1	
3	Sewer Collapse Risk	0	
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	0	0
7	Risk of flooding due to Hydraulic Overload	1	2
8	Dry Weather Flow Compliance	1	2
9	Good Ecological Status / Potential	0	
10	Surface Water Management	1	
11	Nutrient Neutrality	2	2
12	Groundwater Pollution	2	
13	Bathing Waters	NA	
14	Shellfish Waters	NA	

Drivers of Risks

- Customer
- Hydraulics
- Operational
- Quality
- Unknown

Catchment Strategy: IMPROVE

MOTNEY HILL WTW

N

0 0.5 1 2 3 4 Kilometers

Problem Characterisation

Motney Hill (MOTN)

This document describes the causes of the risks identified by the Baseline Risk and Vulnerability Assessment (BRAVA). The BRAVA results for this catchment are summarised in Table 1. The results indicate that flooding, pollution and water quality are the main concerns in this wastewater catchment. 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 Motney Hill wastewater system

Planning Objectives		2020	Driver	2050
1	Internal Sewer Flooding Risk	1	Customer	
2	Pollution Risk	1	Operational	
3	Sewer Collapse Risk	0	-	
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	0	-	0
7	Flooding due to Hydraulic Overload	1	Hydraulic	2
8	WTW Dry Weather Flow Compliance	1	Quality	2
9	Good Ecological Status / Good Ecological Potential	0	-	
10	Surface Water Management	1	Hydraulic	
11	Nutrient Neutrality	2	Unknown	2
12	Groundwater Pollution	2	Operational	
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

Catchment Investment Strategy

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

Improve

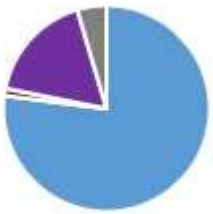
This means that we consider that the current performance of the drainage and wastewater system needs to be improved to reduce the impacts on our customers and/or the environment. We will plan investment to reduce the current risks by actively looking to invest capital funding in the short term to address 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 between 1.68 and 3.35 incidents per 10,000 connections per year (a threshold set by Ofwat) so the risk is in the 'moderately significant' band.

The primary driver for internal sewer flooding in this wastewater system is 'Customer'. Blockages caused 76% 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.

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



Blockage 76%
Pumping Station/ Treatment Work issue 0%
Sewer / Rising Main issue 1%
Hydraulic Overload 17%
Cause could not be Identified 5%

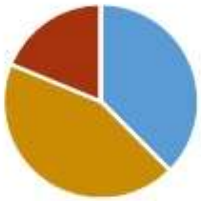
2017/18	2018/19	2019/20
26	24	38

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.

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 44% of all incidents recorded in this wastewater system.

Figure 2: Number of pollution incidents per annum and causes



Blockage 38%
Pumping Station/ Treatment Work issue 44%
Sewer / Rising Main issue 19%
Hydraulic Overload 0%
Cause could not be Identified 0%

2017	2018	2019
3	4	9

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

Sewer Collapse	2017/18	5
	2018/19	2
	2019/20	3
Rising Main Bursts	2017/18	2
	2018/19	0
	2019/20	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 moderately significant in 2020 and 2050. This is because our computer model of the sewer network indicate for 2020 that approximately 5100 - 5200 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 8100 - 8200 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
Shellfish Waters	0 Medium	0 Medium	Less than 8	Between 8-10	10 or more
Bathing Waters	0 Medium	0 Medium	Less than 3	Between 3-10	10 or more
Freshwater	4 High	4 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 not significant for both 2020 and 2050. This is because the wastewater treatment works has no record of compliance failure during the last three years (2018-2020).

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 and increases to very significant in 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	394	697	249	441
1 in 2	542	1177	213	463
1 in 5	1580	2860	286	518
1 in 10	2589	3969	246	378
1 in 20	3522	5699	172	278
1 in 30	4269	6442	140	211
Total Annualised			**1307**	**2289**

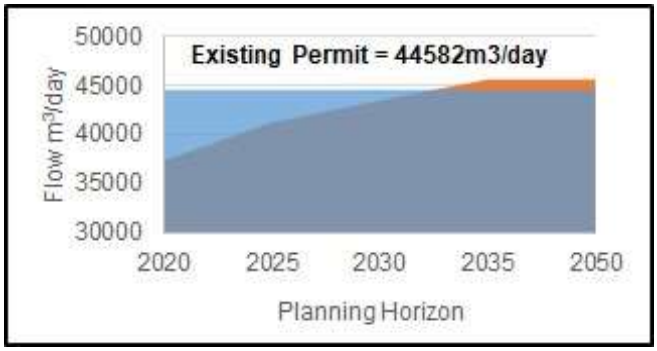
This indicates that the existing capacity of the wastewater network can be exceeded during 1 in 30 year storms (or more frequent events), and that the risk will increase due to future growth, creep and/or climate change by 2050.

Planning Objective 8: Wastewater Treatment Works Dry Weather Flow Compliance

The risk of Wastewater Treatment Works Dry Weather Flow Compliance is moderately significant for 2020 but is predicted to increase to very significant in 2050. This is because the average annual dry weather flow for 2017, 2018 and 2019 has been between 80% and 100% of the current permit, shown in Figure 3. This is because the predicted DWF in 2050 is might exceed the current permit.

The primary driver is 'Quality' due to the permit and capacity at the treatment work.

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



Planning Objective 9: Good Ecological Status / Good Ecological Potential

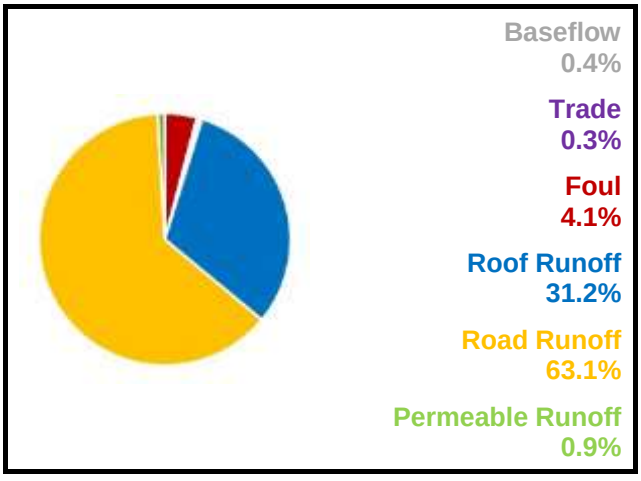
This wastewater system is not hydraulically linked to a waterbody where wastewater operations are contributing to not achieving GES/GEP, therefore the risk is not significant.

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 95.2% of the flow in the sewers. The total contribution of foul water from homes is 4.1% with business contributing 0.3%. The baseflow is infiltration from water in the ground and makes up 0.4% 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 (hydraulically linked to our wastewater catchment) shown in Table 5.

Table 5: Habitat Sites hydraulically linked to wastewater system

Habitat Sites	
Medway Estuary & Marshes	Condition Assessment after 2025
The Swale	Phosphate and Nitrate permit review required Overflow Spills

Planning Objective 12: Groundwater Pollution

The risk of Groundwater Pollution is very significant. The wastewater system network of sewers extends across geographical areas that are designated as a Source Protection Zone (SPZ) for water supply. Sewer survey data indicates that parts of the sewer network are in poor condition and are likely to leak sewage.

The primary driver is 'Operational' due to condition of our assets.

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: Motney Hill (MOTN)

Planning Objectives		2020	Driver	2050
PO1	Internal Flooding	1	Customer	-
PO2	Pollution Risk	1	Operational	-
PO3	Sewer Collapse	0	-	-
PO4	Risk of Sewer Flooding in 1 in 50 yr	1	Hydraulic	1
PO5	Storm Overflow Performance	2	Hydraulic	2
PO6	Risk of WTW Compliance Failure	0	-	0
PO7	Annualised Flood Risk/Hydraulic Overload	1	Hydraulic	2
PO8	DWF Compliance	1	Quality	2
PO9	Achieve Good Ecological Status	0	-	-
PO10	Improve Surface Water Management	1	Hydraulic	-
PO11	Secure Nutrient Neutrality	2	Unknown	2
PO12	Reduce Groundwater Pollution	2	Operational	-
PO13	Improve Bathing Water Quality	NA	-	-
PO14	Improve Shellfish Water Quality	NA	-	-

Type of Measures	Generic Option Categories	Icon	Take Forward?	Reasons	Examples of Generic Options
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
	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
	Improve **quality** 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
	Reduce the **quantity** / demand		Y	-	Water efficient appliances; water efficient measures; blackwater and/or greywater re-use; treatment at source
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.
	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
	Wastewater Transfer to treatment elsewhere		Y	-	Transfer flow to other network or treatment sites; transport sewage by tanker to other sites
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
	Improve Land and Soils		N/A	Not included in first round of DWMPs	Sludge soil enhancement
	Mitigate impacts on receiving waters		Y	-	River enhancement, aeration
	Reduce impact on properties		Y	-	Property flood resilience; non-return valves; flood guards / doors; air brick covers
Other	Study / Investigation		N	No further studies are required at this stage	Additional data required; hydraulic model development; WQ monitoring and modelling

August 2021
Version 1

Motney Hill 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	Flooding Cluster MOTN FC03 - Canadian Rd / Gillingham Rd Chatham	PO1, PO4, PO7 & PO10 - Flooding	MOTN.SC01.1	Surface Water Separation	QUALIFICATIONS Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	No					Operational
Control/ Reduce surface water entering the sewers	Flooding Clustern MOTN FC04 - Maidstone Rd Rainham	PO1, PO4, PO7 & PO10 - Flooding	MOTN.SC01.2	Surface Water Separation	QUALIFICATIONS Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	No					Operational
Control/ Reduce surface water entering the sewers	Flooding Cluster MOTN FC05 - Luton Rd / Capstone Rd Luton	PO1, PO4, PO7 & PO10 - Flooding	MOTN.SC01.3	Surface Water Separation	QUALIFICATIONS Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	No					Operational
Control/ Reduce surface water entering the sewers	Flooding Cluster FC06 Prince Charles Ave Lords Wood-	PO4 and PO7 Flooding	MOTN.SC01.4	Surface Water Separation	QUALIFICATIONS Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	No					Operational
Control/ Reduce surface water entering the sewers	Flooding Cluster FC01 (High Priority) - High St / The Brooke Chatham	PO4 and PO7 Flooding	MOTN.SC01.5	Surface Water Separation	SEPARATION SOLUTION 2050 20% Separation = 44.	Yes	No					Operational
Control/ Reduce surface water entering the sewers	Flooding Cluster FC02 - Dock Rd Chatham	PO4 and PO7 Flooding	MOTN.SC01.6	Surface Water Separation	SEPARATION SOLUTION 2050 20% Separation = 21.	Yes	No					Environmental - Strategic Environmental Assessment
Control / Reduce groundwater infiltration												
Improve quality of wastewater entering sewers (inc reducing FOG, RAG, pre-treatment, trade waste)	Internal Flooding (FOC) Cluster MOTN IFC01 - High St / A2 Rochester, MOTN IFC02 - Best St / High St Chatham, MOTN IFC03 - Jeffery St / Canterbury St / Barnsole Rd Gillingham	PO1, PO2 - Sewer blockages causing internal flooding and pollution incidents	MOTN.SC03.1	Customer Education Programme	Target customers in the cluster with a campaign to improve their discharges to the sewer network.	Yes	Yes	Yes	Minor Positive +	£115K	Yes	Best Value
Control / Reduce the quantity / flow of wastewater entering sewer system	Motney Hill WTW	PO8 - Failing to meet WTW DWF Compliance	MOTN.SC04.1	Customer Incentive Programme	Customers incentivised to reduce their consumption rate through bill reductions or voucher schemes.	No						Deliver the required outcome
Control / Reduce the quantity / flow of wastewater entering sewer system	Motney Hill WTW	PO8 - Failing to meet WTW DWF Compliance	MOTN.SC04.2	Water Efficient Appliance / Measures	Southern Water aims to reduce water consumption to 100 l/h/d by 2040.	Yes	No					Environmental - Strategic Environmental Assessment
Control / Reduce the quantity / flow of wastewater entering sewer system	Motney Hill WTW	PO8 - Failing to meet WTW DWF Compliance	MOTN.SC04.3	Grey water Reuse	Reuse of wastewater from sinks, baths, washing machines and other kitchen appliances.	Yes	No					Performance and Sustainability
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Cluster MOTN FC03 - Canadian Rd / Gillingham Rd Chatham	PO1, PO4 and PO7 Flooding	MOTN.PW01.1	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 12707.	Yes	Yes	Yes	Minor Positive +	£9,445K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Clustern MOTN FC04 - Maidstone Rd Rainham	PO1, PO4 and PO7 Flooding	MOTN.PW01.2	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 1209.	Yes	Yes	Yes	Minor Positive +	£1,330K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Cluster MOTN FC05 - Luton Rd / Capstone Rd Luton	PO4 and PO7 Flooding	MOTN.PW01.3	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 169.	Yes	Yes	Yes	Minor Positive +	£2,325K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Cluster FC06 Prince Charles Ave Lords Wood-	PO4 and PO7 Flooding	MOTN.PW01.4	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 337.	Yes	Yes	Yes	Minor Positive +	£715K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	FERNDALE ROAD GILLINGHAM CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.5	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	LOWER TWYDALL WPS	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.6	Storage Tank	Conventional storage tank.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	WALDERSLADE ROAD CHATHAM OUTSIDE 149 CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.7	Storage Tank	Conventional storage tank.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Cluster MOTN FC04 - Maidstone Rd Rainham	PO4, PO7 & PO10	MOTN.PW01.8	MOTN018 DAP Option Separation	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	Gravesend Rd / Watling St Strood Rochester	PO4, PO7 & PO10	MOTN.PW01.9	MOTN019 DAP Option Storage & Conveyance	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	Flooding Cluster MOTN FC01 - High St / The Brooke Chatham	PO4, PO7 & PO10	MOTN.PW01.10	MOTN020 DAP Option Isolation	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	Forge Lane / Chaffes Lane Upchurch	PO4, PO7 & PO10	MOTN.PW01.11	MOTN023 DAP Option Storage & Conveyance	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	Glencoe Rd Chatham	PO4, PO7 & PO10	MOTN.PW01.12	MOTN028 DAP Option Separation	DAP Option.	Yes	No					Feasibility and Risk
Network Improvements (eg increase capacity, storage, conveyance)	LOWER RAINHAM WPS	PO2- Pollution Risk	MOTN.PW01.13	Maintenance Programme WPS	A WPS rehabilitation (capital maintenance) programme reliminate the risk of pollution incidents by increasing resilience to operational failures - M&E faults Link to the 'Pollution Reduction Programme'.	Yes	Yes	Yes	Minor Positive +	£465K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	THE STRAND GILLINGHAM WPS	PO2- Pollution Risk	MOTN.PW01.14	Maintenance Programme WPS	A WPS rehabilitation (capital maintenance) programme reliminate the risk of pollution incidents by increasing resilience to operational failures - M&E faults Link to the 'Pollution Reduction Programme'.	Yes	Yes	Yes	Minor Positive +	£465K	Yes	Best Value

Motney Hill 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
Network Improvements (eg increase capacity, storage, conveyance)	Canterbury Street, Balmoral Rd, King Street, High Street GILLINGHAM; High Street CHATHAM; A2 / High Street ROCHESTER; Luton Road LUTON	PO1 - Internal Flooding PO2- Pollution Risk	MOTN.PW01.15	Jetting Programme	Improved targeting and frequency of sewer jetting under MST (maintenance scheduled tasks) programme Link to improved jetting MST Programme for identified high risk locations.	Yes	Yes	Yes	Minor Positive +	£775K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Catchment Wide	PO8 (2050)- Dry Weather Flow	MOTN.PW01.16	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)	Gore- Inner Zone SPZ2 TCZ Strood (Priority Catchment)- Inner Zone SPZ2 TCZ Matts Hill- SPZ2 TCZ Snodhurst- Inner Zone SPZ2 TCZ Nashenden- Inner Zone SPZ2 TCZ Luton (Priority Catchment)- Inner Zone SPZ2 TCZ Capstone Chalk- Inner Zone SPZ2 TCZ Keycol- Inner Zone SPZ2 TCZ Capstone LGS- Inner Zone	PO12- Ground Water Pollution	MOTN.PW01.17	Pipe Rehabilitation Programme	Total length of sewer within protection zones- 618.	Yes	Yes	Yes	Minor Positive +	£78,440K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Catchment Wide	PO8 (2050)- Dry Weather Flow	MOTN.PW01.18	Infiltration Reduction	Relining/improving structural grades of sewers across the catchment.	Yes	No					Environmental - Strategic Environmental Assessment
Network Improvements (eg increase capacity, storage, conveyance)	MOTN FC01 (High Priority) - High St / The Brooke Chatham	PO4 and PO7 Flooding	MOTN.PW01.19	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 3048.	Yes	Yes	Yes	Minor Positive +	£2,630K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN FC02 - Dock Rd Chatham	PO4 and PO7 Flooding	MOTN.PW01.20	Storage Tank	SEPARATION SOLUTION 2050 0% Seperation = Residual flood Volume = 622.	Yes	Yes	Yes	Minor Positive +	£920K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F02 - Land off Forge Lane, Upchurch development	PO4 & PO7 - Growth	MOTN.PW01.21	New WPS at the Land off Forge Lane, Upchurch development and rising main	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F03 - Land Off London Road, Newington	PO4 & PO7 - Growth	MOTN.PW01.22	New WPS and rising main	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F04 - Lordswood to Motney Hill WTW	PO4 & PO7 - Growth	MOTN.PW01.23	New WPS and rising main, sewer upsizing, addittional WPS and rising main	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F05 - Church Green, Frindsbury	PO4 & PO7 - Growth	MOTN.PW01.24	Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F06 - Waterfront Way, Chatham	PO4 & PO7 - Growth	MOTN.PW01.25	Sewer upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F07 - Royal Mail Medway Centre	PO4 & PO7 - Growth	MOTN.PW01.26	A new diversion chamber/ An offline storage tank/New rising main\Additional sewer upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F08 - A231 Dock Road	PO4 & PO7 - Growth	MOTN.PW01.27	Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F09 - A231 The Brook	PO4 & PO7 - Growth	MOTN.PW01.28	A new diversion chamber\Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F10 - Pier Approach Road	PO4 & PO7 - Growth	MOTN.PW01.29	High box culvert \A hydraulic control device limiting flows	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F11 - A231 Dock Road	PO4 & PO7 - Growth	MOTN.PW01.30	Box culvert	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F12 - Amherst Hill, Brompton development	PO4 & PO7 - Growth	MOTN.PW01.31	New WPS and rising main	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F13 - Eastcourt Lane, Gillingham	PO4 & PO7 - Growth	MOTN.PW01.32	Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F14 - Rochester Avenue	PO4 & PO7 - Growth	MOTN.PW01.33	New diversion chamber/Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F15 - Rochester Airfield development	PO4 & PO7 - Growth	MOTN.PW01.34	Construct a new pumping station and rising main and new connections	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F16 - New Fire Station, Marconi Way development	PO4 & PO7 - Growth	MOTN.PW01.35	Construct a new pumping station and rising main and new connections	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F17 - Lower Twydall Lane	PO4 & PO7 - Growth	MOTN.PW01.36	Upsizing	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F18 - Chatham Hill Outside No.425 CSO	PO4, PO5 & PO7 - Growth	MOTN.PW01.37	Additional storage to maintain 2015 regime	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F19 - Corporation Street Rochester No.2 CSO	PO4, PO5 & PO7 - Growth	MOTN.PW01.38	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F20 - Dock Road Gillingham CSO	PO4, PO5 & PO7 - Growth	MOTN.PW01.39	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F21 - Hawthorne Avenue Gillingham CSO	PO4, PO5 & PO7 - Growth	MOTN.PW01.40	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value

Motney Hill 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
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F22 - Magpie Hall Road Chatham Outside No.60 CSO	PO4, PO5 & PO7 - Growth	MOTN.PW01.41	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F23 - The Strand Gillingham CEO:	PO4, PO5 & PO7 - Growth	MOTN.PW01.42	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	MOTN F24 - William Street Rainham CSO:	PO4, PO5 & PO7 - Growth	MOTN.PW01.43	Additional storage in order to meet the Shellfish Water consent	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,915K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	DOCK ROAD GILLINGHAM CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.44	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	ASQUITH ROAD WIGMORE CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.45	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	HAWTHORNE AVENUE GILLINGHAM CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.46	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	THE STRAND GILLINGHAM WPS	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.47	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	WILLIAM STREET RAINHAM CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.48	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	CHATHAM HILL CHATHAM OUTSIDE 425 CSO	PO5, PO11 - Storm Overflow Performance impacting The Swale and Medway Estuary Marshes	MOTN.PW01.49	Storage Tank	Convetional storage tank.	Yes	Yes	Yes	Minor Positive +	£1,000K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	MOTNEY HILL WTW	PO8 (2050)- Dry Weather Flow	MOTN.PW02.1	DWF Permit Increase	Increase Capacity at WTW for New DWF Permit Proposed permit-62496m3.	Yes	Yes	Yes	Minor Positive +	£3,850K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	Motney Hill WTW	PO8 - risk of WTW DWF Compliance Failure	MOTN.PW02.2	De-centralisation of Treatment	New WTW to treat flows from New Brook WPS and The Strand WPS Subcatchments to reduce pressure on DWF compliance and treated effluent quality at Motney WTW.	No						Cost Effective
Improve treatment (capacity and quality at existing works or develop new WTWs)	Motney Hill WTW	PO11 - risk of WTW discharges on Nutrient Neutrality	MOTN.PW02.3	Install P removal tertiary plant	New WTW tertiary plant to improve treated effluent quality and permit conditions.	No						Risk and uncertainty - future resilience
Improve treatment (capacity and quality at existing works or develop new WTWs)	Motney Hill WTW	PO11 - risk of WTW discharges on Nutrient Neutrality	MOTN.PW02.4	Install N removal tertiary plant	New WTW tertiary plant to improve treated effluent quality and permit conditions.	No						Risk and uncertainty - future resilience
Improve treatment (capacity and quality at existing works or develop new WTWs)	MOTNEY HILL WTW	PO2- Pollution Risk	MOTN.PW02.5	Maintenance Programme WTW	An efficient maintenance programme for the treatment works to elimate the risk of a pollution incident due to an operational failure.	Yes	No					Operational
Wastewater Transfer	MOTNEY HILL WTW	PO8 (2050)- Dry Weather Flow	MOTN.PW03.1	Construct New WPS & Rising Main	No other WTWs are within a 20km radius of MOTNEY HILL WTW with spare capacity to take DWF.	No						Technically feasible, Cost Effective and Risk and uncertainty - future resilience
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	Dock Rd Gillingham CSO	PO5, PO11 - High frequency of spills affecting The Swale and Medway Estuary Marshes	MOTN.RC03.1	Catchment permits	Improve environmental permit thresholds / limits for storm overflows.	No						Do customer support it and Risk and uncertainty - future resilience
Mitigate impacts on Water Quality	Ferndale Rd Gillingham CSO	PO5, PO11 - High frequency of spills affecting The Swale and Medway Estuary Marshes	MOTN.RC03.2	Catchment permits	Improve environmental permit thresholds / limits for storm overflows.	No						Do customer support it and Risk and uncertainty - future resilience
Mitigate impacts on Water Quality	Maidstone Rd Rainham CSO	PO5, PO11 - High frequency of spills affecting The Swale and Medway Estuary Marshes	MOTN.RC03.3	Catchment permits	Improve environmental permit thresholds / limits for storm overflows.	No						Do customer support it and Risk and uncertainty - future resilience
Mitigate impacts on Water Quality	Motney Hill WTW	PO5, PO11 - High frequency of spills affecting The Swale and Medway Estuary Marshes	MOTN.RC03.4	Catchment permits	Improve environmental permit thresholds / limits for WTW storm overflow and treated effluent discharges.	No						Do customer support it and Risk and uncertainty - future resilience
Reduce consequences Properties (e.g. Property Flood Resilience)	Flooding Cluster MOTN FC01 - High St / The Brooke Chatham	PO4, PO7 & PO10 - Sewer flooding at 4 Internal DG5s and 13 External DG5s	MOTN.RC04.1	Property Flood Mitigation / Resistance	Short-term property level protection ahead of flood alleviation scheme - Non-return valves and flood mitigation doors / gates.	No						Risk and uncertainty - future resilience
Reduce consequences Properties (e.g. Property Flood Resilience)	Flooding Cluster MOTN FC03 - Canadian Rd / Gillingham Rd Chatham	PO4, PO7 & PO10 - Sewer flooding at 8 Internal DG5s and 35 External DG5s	MOTN.RC04.2	Property Flood Mitigation / Resistance	Short-term property level protection ahead of flood alleviation scheme - Non-return valves and flood mitigation doors / gates.	No						Risk and uncertainty - future resilience
Reduce consequences Properties (e.g. Property Flood Resilience)	Flooding Cluster MOTN FC05 - Luton Rd / Capstone Rd Luton	PO4, PO7 & PO10 - Sewer flooding at 2 External DG5s and 3 reported incidents (2017-2019)	MOTN.RC04.3	Property Flood Mitigation / Resistance	Short-term property level protection ahead of flood alleviation scheme - Non-return valves and flood mitigation doors / gates.	No						Risk and uncertainty - future resilience
Study/ investigation to gather more data	Internal Flooding (FOC) Cluster MOTN IFC01 - High St / A2 Rochester	PO1 - Sewer blockages causing internal flooding incidents	MOTN.OT01.1	CCTV Survey and Smart Monitoring of System in Cluster	Extensive CCTV survey of sewer condition within cluster and smart monitoring of system performance to trigger early warning when surcharging.	Yes	No					Feasibility and Risk
Study/ investigation to gather more data	Internal Flooding (FOC) Cluster MOTN IFC02 - Best St / High St Chatham	PO1 - Sewer blockages causing internal flooding incidents	MOTN.OT01.2	CCTV Survey and Smart Monitoring of System in Cluster	Extensive CCTV survey of sewer condition within cluster and smart monitoring of system performance to trigger early warning when surcharging.	Yes	No					Feasibility and Risk
Study/ investigation to gather more data	Internal Flooding (FOC) Cluster MOTN IFC03 - Jeffery St / Canterbury St / Barnsole Rd Gillingham	PO1 - Sewer blockages causing internal flooding incidents	MOTN.OT01.3	CCTV Survey and Smart Monitoring of System in Cluster	Extensive CCTV survey of sewer condition within cluster and smart monitoring of system performance to trigger early warning when surcharging.	Yes	No					Feasibility and Risk

Motney Hill 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	Catchment wide	PO11 - Nutrient Neutrality	MOTN.OT01.4	Nutrient Budget	Catchment is Hydraulically linked to; The Swale (Threat/Remedy Identified or Anticipated) Banding 2020 - 2; No Phosphate or Nitrate permit Banding 2050 - 2; Due to baseline assessment There are more than 2,000 homes are anticapted to be built.	Yes	Yes	Yes	Minor Positive +	£75K	Yes	Best Value
Study/ investigation to gather more data	Flooding Cluster MOTN FC05 - Luton Rd / Capstone Rd Luton	PO4, PO7 & PO10 - Sewer flooding at 2 External DG5s and 3 reported incidents (2017-2019)	MOTN.OT01.5	Flooding Investigation	Link to Southern Water's investigation into surface water flooding in Capstone Road / Nelson Terrace and recommendations for improving hydraulic model to refine storm water attenuation options in the cluster.	Yes	Yes	Yes	Minor Negative -	£645K	Yes	Least Cost
Study/ investigation to gather more data	London Road, Windsor Road, Church Lane	PO1- Internal Flooding 4.5% of internal flooding incidents by unknown causes (4 from 88 incidents)	MOTN.OT01.6	Flooding Investigation	Further investigation to identify the cause of the internal flooding incident.	Yes	Yes	Yes	Minor Positive +	£645K	Yes	Best Value
Study/ investigation to gather more data	Catchment Wide	PO1, PO4, PO5, PO7 & PO10 - Sewer Flooding PO5 - Storm Overflow Performance	MOTN.OT01.7	Improve Hydraulic Model	There is a Low confidenence between Storm Overflow spill frequencies measured by EDM sensor and model data.	Yes	Yes	Yes	Major Positive +++	£415K	Yes	Best Value
Study/ investigation to gather more data	MOTN F25 - Charles Street Strood CSO	PO4, PO5, PO7 & PO10 - Growth	MOTN.OT01.8	Study/Modelling Investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£415K	Yes	Best Value
Study/ investigation to gather more data	MOTN F26 - Second Avenue Chatham No.2 CSO	PO4, PO5, PO7 & PO10 - Growth	MOTN.OT01.9	Study/Modelling Investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£415K	Yes	Best Value
Study/ investigation to gather more data	MOTN F27 - Northgate Rochester CSO:	PO4, PO5, PO7 & PO10 - Growth	MOTN.OT01.10	Study/Modelling Investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£415K	Yes	Best Value
Study/ investigation to gather more data	MOTN F28 - Pump Lane Gillingham Tank CSO:	PO4, PO5, PO7 & PO10 - Growth	MOTN.OT01.11	Study/Modelling Investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£415K	Yes	Best Value
Study/ investigation to gather more data	MOTN F29 -Motney Hill WTW:	PO4, PO5, PO7 & PO10, PO11, P013 - Growth/CSO BRAVA	MOTN.OT01.12	Study/Modelling Investigation	DAP Option.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	ORCHARD STREET GILLINGHAM CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.13	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	FURRELLS ROAD ROCHESTER CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.14	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	MAGPIE HALL ROAD CHATHAM OUTSIDE 33 CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.15	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	WOODCHURCH CRESCENT GILLINGHAM CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.16	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	MAIDSTONE ROAD RAINHAM CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.17	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value
Study/ investigation to gather more data	MELBOURNE ROAD CHATHAM CSO	PO5, PO11 - Flooding and spill assessments	MOTN.OT01.18	Study/Modelling Investigation	Model Risks Statement: The model has a risk DAP confidence score of 1 and was last verified in 2006.	Yes	Yes	Yes	Major Positive +++	£1,000K	Yes	Best Value

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
Medway								
Motney Hill								
MOTN.SC03.1	Medway	Motney Hill	High Street & A2 Rochester; Best Street & High Street Chatham; Jeffery Street, Canterbury Street & Barnsole Road Gillingham	Customer Education Programme: Targeted campaign to reduce the amount of FOG (fats, oils and grease) and unflushables discharged into the sewer network	£115K	AMP8 onwards	-	PO1 PO2
MOTN.PW01.1	Medway	Motney Hill	Canadian Road & Gillingham Road Chatham	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)	£9,445K	AMP9	Medway Council (Local Lead Flood Authority), Kent County Council	PO1 PO4 PO7
MOTN.PW01.2	Medway	Motney Hill	Maidstone Road Rainham	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)	£1,330K	AMP9	Medway Council (Local Lead Flood Authority), Kent County Council	PO4 PO7
MOTN.PW01.3	Medway	Motney Hill	Luton Road & Capstone Road Luton	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)	£2,325K	AMP9	Medway Council, Kent County Council, Medway Swale Estuary Partnership / Rivers Trust	PO4 PO7
MOTN.PW01.4	Medway	Motney Hill	Prince Charles Avenue Lords Wood	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)	£715K	AMP9	Medway Council, Kent County Council	PO4 PO7
MOTN.PW01.13	Medway	Motney Hill	Lower Rainham WPS	Improve the operational resilience of wastewater pumping station (WPS) to reduce pollution incidents	£465K	AMP8 onwards	-	PO2
MOTN.PW01.14	Medway	Motney Hill	The Strand Gillingham WPS	Improve the operational resilience of wastewater pumping station (WPS) to reduce pollution incidents	£465K	AMP8 onwards	-	PO2
MOTN.PW01.15	Medway	Motney Hill	Canterbury Street, Balmoral Road, King Street, High Street GILLINGHAM; High Street CHATHAM; A2 / High Street	Enhanced Sewer Maintenance: Increase targeted sewer jetting to reduce the number of blockages in the network	£775K	AMP8 onwards	-	PO1 PO2
MOTN.PW01.19	Medway	Motney Hill	High Street & The Brooke Chatham	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)	£2,630K	AMP9	Medway Council (Local Lead Flood Authority), Kent County Council	PO4 PO7
MOTN.PW01.20	Medway	Motney Hill	Dock Road Chatham	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	Medway Council (Local Lead Flood Authority), Kent County Council	PO4 PO7
MOTN.PW01.21	Medway	Motney Hill	Land off Forge Lane Upchurch 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.22	Medway	Motney Hill	Land Off London Road, Newington	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.23	Medway	Motney Hill	Lordswood to Motney Hill 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.24	Medway	Motney Hill	Church Green, Frindsbury	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)	£1,915K	AMP9	-	PO4 PO7

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.PW01.25	Medway	Motney Hill	Waterfront Way, Chatham	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.26	Medway	Motney Hill	Royal Mail Medway Centre	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.27	Medway	Motney Hill	A231 Dock 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.28	Medway	Motney Hill	A231 The Brook	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.29	Medway	Motney Hill	Pier Approach 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.30	Medway	Motney Hill	A231 Dock 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.31	Medway	Motney Hill	Amherst Hill, Brompton 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.32	Medway	Motney Hill	Eastcourt Lane, Gillingham	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.33	Medway	Motney Hill	Rochester Avenue	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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.34	Medway	Motney Hill	Rochester Airfield 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.35	Medway	Motney Hill	New Fire Station, Marconi Way 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW01.36	Medway	Motney Hill	Lower Twydall 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)	£1,915K	AMP9	-	PO4 PO7
MOTN.PW02.1	Medway	Motney Hill	Motney Hill WTW	Increase capacity to allow for planned new development	£4,000K	AMP8	Environment Agency	PO8
MOTN.OT01.5	Medway	Motney Hill	Luton Road & Capstone Road Luton	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)	£645K	AMP9	Medway Council (Local Lead Flood Authority), Kent County Council, Medway Swale Estuary	PO4 PO7 PO10
MOTN.OT01.6	Medway	Motney Hill	London Road, Windsor Road, Church 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)	£645K	AMP9	-	PO1

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.OT01.7	Medway	Motney Hill	System Wide	Improve the Hydraulic Model: Surveys and reverification of model to improve confidence and accuracy	£415K	AMP8	-	PO1 PO4 PO5 PO7 PO10
MOTN.WINEP01.1	Medway	Motney Hill	THE STRAND GILLINGHAM CEO	Reduce the number of storm discharges from THE STRAND GILLINGHAM CEO by a combination of SuDS and storage options	£6,185K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.2	Medway	Motney Hill	WILLIAM STREET RAINHAM CSO	Reduce the number of storm discharges from WILLIAM STREET RAINHAM CSO by a combination of SuDS and storage options	£5,730K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.3	Medway	Motney Hill	CLOVER STREET CHATHAM CSO	Reduce the number of storm discharges from CLOVER STREET CHATHAM CSO by a combination of SuDS and storage options	£6,310K	AMP10	-	PO4 PO5 PO7
MOTN.WINEP01.4	Medway	Motney Hill	DIAL ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at DIAL ROAD GILLINGHAM CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.5	Medway	Motney Hill	PUMP LANE GILLINGHAM TANK CSO	Reduce the number of storm discharges from PUMP LANE GILLINGHAM TANK CSO by a combination of SuDS and storage options	£1,600K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.6	Medway	Motney Hill	BEECHINGS WAY GILLINGHAM NO 4 CSO	Reduce the number of storm discharges from BEECHINGS WAY GILLINGHAM NO 4 CSO by a combination of SuDS and storage options	£6,355K	AMP10	-	PO4 PO5 PO7
MOTN.WINEP01.7	Medway	Motney Hill	CHATHAM HILL CHATHAM OUTSIDE 425 CSO	Reduce the number of storm discharges from CHATHAM HILL CHATHAM OUTSIDE 425 CSO by a combination of SuDS and storage options	£2,705K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.8	Medway	Motney Hill	DOCK ROAD GILLINGHAM CSO	Reduce the number of storm discharges from DOCK ROAD GILLINGHAM CSO by a combination of SuDS and storage options	£2,400K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.9	Medway	Motney Hill	BEECHINGS WAY GILLINGHAM NO 2 CSO	Reduce the number of storm discharges from BEECHINGS WAY GILLINGHAM NO 2 CSO by a combination of SuDS and storage options	£4,305K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.10	Medway	Motney Hill	MAIDSTONE ROAD RAINHAM CSO	Reduce the number of storm discharges from MAIDSTONE ROAD RAINHAM CSO by a combination of SuDS and storage options	£2,310K	AMP10	-	PO4 PO5 PO7
MOTN.WINEP01.11	Medway	Motney Hill	MAGPIE HALL ROAD CHATHAM OUTSIDE 60 CSO	Reduce the number of storm discharges from MAGPIE HALL ROAD CHATHAM OUTSIDE 60 CSO by a combination of SuDS and storage options	£1,995K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.12	Medway	Motney Hill	PIER ROAD GILLINGHAM NO.1 CSO	Reduce the number of storm discharges from PIER ROAD GILLINGHAM NO.1 CSO by a combination of SuDS and storage options	£1,605K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.13	Medway	Motney Hill	SECOND AVENUE CHATHAM NO 2 CSO	Reduce the number of storm discharges from SECOND AVENUE CHATHAM NO 2 CSO by a combination of SuDS and storage options	£3,350K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.14	Medway	Motney Hill	HAWTHORNE AVENUE GILLINGHAM CSO	Reduce the number of storm discharges from HAWTHORNE AVENUE GILLINGHAM CSO by a combination of SuDS and storage options	£1,620K	AMP10	-	PO4 PO5 PO7

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.WINEP01.15	Medway	Motney Hill	CORPORATION STREET ROCHESTER NO 2 CSO	Reduce the number of storm discharges from CORPORATION STREET ROCHESTER NO 2 CSO by a combination of SuDS and storage options	£1,495K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.16	Medway	Motney Hill	BEECHINGS WAY GILLINGHAM NO 1 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at BEECHINGS WAY GILLINGHAM NO 1 CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.17	Medway	Motney Hill	MOTNEY HILL NO.2 SSO	New or improved screen to reduce aesthetics impacts from storm discharges at MOTNEY HILL NO.2 SSO	£130K	AMP11	-	PO5
MOTN.WINEP01.18	Medway	Motney Hill	MELBOURNE ROAD CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at MELBOURNE ROAD CHATHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.19	Medway	Motney Hill	BRAMBLETREE CRESCENT BORSTAL CEO	New or improved screen to reduce aesthetics impacts from storm discharges at BRAMBLETREE CRESCENT BORSTAL CEO	£130K	AMP12	-	PO5
MOTN.WINEP01.20	Medway	Motney Hill	SAUNDERS STREET GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at SAUNDERS STREET GILLINGHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.22	Medway	Motney Hill	COWSTEAD LANE GILLINGHAM CEO	New or improved screen to reduce aesthetics impacts from storm discharges at COWSTEAD LANE GILLINGHAM CEO	£130K	AMP11	-	PO5
MOTN.WINEP01.23	Medway	Motney Hill	SECOND AVENUE CHATHAM NO 3 CSO	Reduce the number of storm discharges from SECOND AVENUE CHATHAM NO 3 CSO by a combination of SuDS and storage options	£6,505K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.24	Medway	Motney Hill	LOWER ROAD LOWER HALSTOW CEO	New or improved screen to reduce aesthetics impacts from storm discharges at LOWER ROAD LOWER HALSTOW CEO	£130K	AMP12	-	PO5
MOTN.WINEP01.25	Medway	Motney Hill	WALDERSLADE ROAD CHATHAM OUTSIDE 149 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at WALDERSLADE ROAD CHATHAM OUTSIDE 149 CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.26	Medway	Motney Hill	SECOND AVENUE CHATHAM NO 1 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at SECOND AVENUE CHATHAM NO 1 CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.27	Medway	Motney Hill	ORCHARD STREET GILLINGHAM CSO	Reduce the number of storm discharges from ORCHARD STREET GILLINGHAM CSO by creating below-ground storage	£2,255K	AMP10	-	PO5
MOTN.WINEP01.28	Medway	Motney Hill	ORDNANCE TERRACE CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at ORDNANCE TERRACE CHATHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.29	Medway	Motney Hill	WOODSIDE WIGMORE CSO	Reduce the number of storm discharges from WOODSIDE WIGMORE CSO by creating below-ground storage	£2,050K	AMP10	-	PO5
MOTN.WINEP01.30	Medway	Motney Hill	STURLA ROAD CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at STURLA ROAD CHATHAM CSO	£130K	AMP12	-	PO5

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.WINEP01.31	Medway	Motney Hill	FERNDALE ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at FERNDALE ROAD GILLINGHAM CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.32	Medway	Motney Hill	ST MARYS ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at ST MARYS ROAD GILLINGHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.33	Medway	Motney Hill	HERNE ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at HERNE ROAD GILLINGHAM CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.34	Medway	Motney Hill	FURRELLS ROAD ROCHESTER CSO	Reduce the number of storm discharges from FURRELLS ROAD ROCHESTER CSO by a combination of SuDS and storage options	£6,180K	AMP10	-	PO4 PO5 PO7
MOTN.WINEP01.35	Medway	Motney Hill	VICARAGE ROAD STROOD CEO	New or improved screen to reduce aesthetics impacts from storm discharges at VICARAGE ROAD STROOD CEO	£130K	AMP12	-	PO5
MOTN.WINEP01.36	Medway	Motney Hill	MAGPIE HALL ROAD CHATHAM OUTSIDE 33 CSO	Reduce the number of storm discharges from MAGPIE HALL ROAD CHATHAM OUTSIDE 33 CSO by a combination of SuDS and storage options	£2,630K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.37	Medway	Motney Hill	LOWER TWYDALL LANE GILLINGHAM CSO	Reduce the number of storm discharges from LOWER TWYDALL LANE GILLINGHAM CSO by a combination of SuDS and storage options	£2,905K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.38	Medway	Motney Hill	CONSTITUTION HILL CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at CONSTITUTION HILL CHATHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.39	Medway	Motney Hill	GROVE ROAD CHATHAM OUTSIDE 1 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at GROVE ROAD CHATHAM OUTSIDE 1 CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.40	Medway	Motney Hill	GROVE ROAD CHATHAM OUTSIDE 77 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at GROVE ROAD CHATHAM OUTSIDE 77 CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.41	Medway	Motney Hill	NORTHGATE ROCHESTER CSO	New or improved screen to reduce aesthetics impacts from storm discharges at NORTHGATE ROCHESTER CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.42	Medway	Motney Hill	WOODCHURCH CRESCENT GILLINGHAM CSO	Reduce the number of storm discharges from WOODCHURCH CRESCENT GILLINGHAM CSO by a combination of SuDS and storage options	£3,395K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.43	Medway	Motney Hill	BROOMCROFT ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at BROOMCROFT ROAD GILLINGHAM CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.44	Medway	Motney Hill	BERENGRAVE CHALKY BANK ROAD GILLINGHAM CSO	Reduce the number of storm discharges from BERENGRAVE CHALKY BANK ROAD GILLINGHAM CSO by a combination of SuDS and storage options	£6,715K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.45	Medway	Motney Hill	STATION ROAD RAINHAM CSO	Reduce the number of storm discharges from STATION ROAD RAINHAM CSO by creating below-ground storage	£1,415K	AMP11	-	PO5

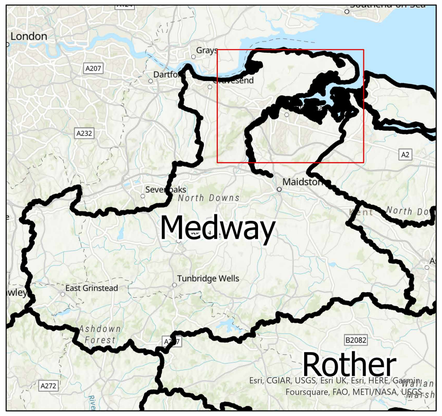
Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.WINEP01.46	Medway	Motney Hill	LOWER RAINHAM ROAD LOWER RAINHAM CEO	New or improved screen to reduce aesthetics impacts from storm discharges at LOWER RAINHAM ROAD LOWER RAINHAM CEO	£130K	AMP11	-	PO5
MOTN.WINEP01.47	Medway	Motney Hill	CHARLES STREET STROOD CSO	New or improved screen to reduce aesthetics impacts from storm discharges at CHARLES STREET STROOD CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.48	Medway	Motney Hill	BEECHINGS WAY GILLINGHAM NO 3 CSO	New or improved screen to reduce aesthetics impacts from storm discharges at BEECHINGS WAY GILLINGHAM NO 3 CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.49	Medway	Motney Hill	GILLINGHAM ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at GILLINGHAM ROAD GILLINGHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.50	Medway	Motney Hill	RIDGEWAY BANKS CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at RIDGEWAY BANKS CHATHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.51	Medway	Motney Hill	CONCORD AVENUE CHATHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at CONCORD AVENUE CHATHAM CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.52	Medway	Motney Hill	GODDINGTON ROAD STROOD CSO	Reduce the number of storm discharges from GODDINGTON ROAD STROOD CSO by a combination of SuDS and storage options	£3,415K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.53	Medway	Motney Hill	ROCHESTER AVENUE ROCHESTER CSO	New or improved screen to reduce aesthetics impacts from storm discharges at ROCHESTER AVENUE ROCHESTER CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.54	Medway	Motney Hill	FRINDSBURY ROAD STROOD CSO	New or improved screen to reduce aesthetics impacts from storm discharges at FRINDSBURY ROAD STROOD CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.55	Medway	Motney Hill	GROVE ROAD STROOD CSO	New or improved screen to reduce aesthetics impacts from storm discharges at GROVE ROAD STROOD CSO	£130K	AMP12	-	PO5
MOTN.WINEP01.56	Medway	Motney Hill	BRYANT ROAD STROOD CSO	Reduce the number of storm discharges from BRYANT ROAD STROOD CSO by a combination of SuDS and storage options	£2,590K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.57	Medway	Motney Hill	NEW BROOK CHATHAM CEO	New or improved screen to reduce aesthetics impacts from storm discharges at NEW BROOK CHATHAM CEO	£130K	AMP12	-	PO5
MOTN.WINEP01.58	Medway	Motney Hill	CHALKY BANK ROAD GILLINGHAM CSO	New or improved screen to reduce aesthetics impacts from storm discharges at CHALKY BANK ROAD GILLINGHAM CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.59	Medway	Motney Hill	CASTLE HILL ROCHESTER CSO	Reduce the number of storm discharges from CASTLE HILL ROCHESTER CSO by a combination of SuDS and storage options	£3,675K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.60	Medway	Motney Hill	CHATHAM HILL CHATHAM OUTSIDE 10 CSO	Reduce the number of storm discharges from CHATHAM HILL CHATHAM OUTSIDE 10 CSO by a combination of SuDS and storage options	£5,685K	AMP12	-	PO4 PO5 PO7

Reference	River Basin (L2)	Wastewater System (L3)	Location	Option	Indicative Cost	Indicative Timescales	Potential Partners	Applicable Planning Objectives
MOTN.WINEP01.61	Medway	Motney Hill	CORPORATION STREET ROCHESTER NO 1 CSO	Reduce the number of storm discharges from CORPORATION STREET ROCHESTER NO 1 CSO by a combination of SuDS and storage options	£3,970K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.62	Medway	Motney Hill	HIGH STREET RAINHAM CSO	Reduce the number of storm discharges from HIGH STREET RAINHAM CSO by a combination of SuDS and storage options	£3,045K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.63	Medway	Motney Hill	HOPEWELL DRIVE CHATHAM CSO	Reduce the number of storm discharges from HOPEWELL DRIVE CHATHAM CSO by a combination of SuDS and storage options	£3,915K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.66	Medway	Motney Hill	PLANTATION ROAD GILLINGHAM CSO	Reduce the number of storm discharges from PLANTATION ROAD GILLINGHAM CSO by a combination of SuDS and storage options	£3,485K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.70	Medway	Motney Hill	MOTNEY HILL NO.1 SSO	Reduce the number of storm discharges from MOTNEY HILL NO.1 SSO by a combination of SuDS and storage options	£6,995K	AMP8	-	PO4 PO5 PO7
MOTN.WINEP01.21	Medway	Motney Hill	ASQUITH ROAD WIGMORE CSO	New or improved screen to reduce aesthetics impacts from storm discharges at ASQUITH ROAD WIGMORE CSO	£130K	AMP11	-	PO5
MOTN.WINEP01.64	Medway	Motney Hill	MAIDA ROAD CHATHAM CSO	Reduce the number of storm discharges from MAIDA ROAD CHATHAM CSO by a combination of SuDS and storage options	£3,350K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.65	Medway	Motney Hill	MEDWAY ROAD GILLINGHAM CSO	Reduce the number of storm discharges from MEDWAY ROAD GILLINGHAM CSO by a combination of SuDS and storage options	£3,390K	AMP12	-	PO4 PO5 PO7
MOTN.WINEP01.67	Medway	Motney Hill	PUMP LANE GILLINGHAM NO 1 CSO	Reduce the number of storm discharges from PUMP LANE GILLINGHAM NO 1 CSO by a combination of SuDS and storage options	£3,970K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.68	Medway	Motney Hill	PUMP LANE GILLINGHAM NO 2 CSO	Reduce the number of storm discharges from PUMP LANE GILLINGHAM NO 2 CSO by a combination of SuDS and storage options	£3,970K	AMP11	-	PO4 PO5 PO7
MOTN.WINEP01.69	Medway	Motney Hill	SEATON ROAD GILLINGHAM CSO	Reduce the number of storm discharges from SEATON ROAD GILLINGHAM CSO by a combination of SuDS and storage options	£3,970K	AMP11	-	PO4 PO5 PO7
MOTN.PW01.17	Medway	Motney Hill	Groundwater Capture Zone & Source Protection Zones including hotspots Luton, Snodhurst, Strood, Nashenden, Gore and Capstone	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)	£15,690K	AMP9 to AMP10	Environment Agency	PO12

Drainage and Wastewater Management Plan: Location of Potential Options Motney Hill Wastewater system in Medway River Basin Catchment

WATER for LIFE from Southern Water

(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.



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