Fullerton 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												
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												
Network Improvements (eg increase capacity, storage, conveyance)	Thruxton Racecourse	PO8, PO12	FULL.PW01.1	Sewer relining	Relining of sewers following electroscanning survey.	No						Deliver the required outcome and Risk and uncertainty - future resilience
Network Improvements (eg increase capacity, storage, conveyance)	Furzedown Lane Amport Wps, Furzedown Lane Amport Wps,	PO2- Pollution Risk	FULL.PW01.2	Maintenance Programme WPS	Improve resilience: Review operation and maintenance of Furzedown Lane Amport pumping station to improve resilience.	Yes	Yes	Yes	Minor Positive +	£235K	Yes	Best Value
Network Improvements (eg increase capacity, storage, conveyance)	Catchment Wide	PO2- Pollution Risk	FULL.PW01.3	Additional Storage	Additional Storage.	No						Risk and uncertainty - future resilience
Network Improvements (eg increase capacity, storage, conveyance)	Catchment Wide	PO8 (2050)- Dry Weather Flow	FULL.PW01.4	Pipe Rehabilitation Programme	Relining/improving structural grades of sewers across the catchment.	No						Cost Effective
Network Improvements (eg increase capacity, storage, conveyance)	Andover- Inner & Outer Zone TCZ	PO12- Ground Water Pollution	FULL.PW01.5	Pipe Rehabilitation Programme	Total length of sewer within protection zones- 91.	Yes	Yes	Yes	Minor Positive +	£5,595K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	FULLERTON WTW	PO6 (2050)- WTW compliance	FULL.PW02.1	Increase Capacity	Catchment was banded 0 in 2020 (however should be Band 1); ARM Risk = 5923 of which 99.	Yes	Yes	Yes	Minor Positive +	£35,100K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)	FULLERTON WTW	PO8 (2050)- Dry Weather Flow DWF Permit=19291m3 5739m3/day removal is required to achieve below 80% permit. The DWF is expected to exceed the current permit in 2050	FULL.PW02.2	Permit Review	Proposed permit-26464m3.	Yes	Yes	Yes	Minor Positive +	£2,970K	Yes	Best Value
Improve treatment (capacity and quality at existing works or develop new WTWs)												
Wastewater Transfer												
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	Truxton Racecourse	PO8, PO12	FULL.OT01.1	Electro-scanning of sewer	To identify leaks.	No						Deliver the required outcome and Risk and uncertainty - future resilience
Study/ investigation to gather more data	Catchment wide	PO8, PO12	FULL.OT01.2	sewer condition survey	Survey to identify sewer condition and potential repair locations.	No						Deliver the required outcome and Risk and uncertainty - future resilience
Study/ investigation to gather more data	Catchment Wide	PO2- Pollution Risk	FULL.OT01.3	Investigation into causes	Further investigation to identify the cause of the pollution incident.	No						Cost Effective and Deliver the required outcome
Study/ investigation to gather more data	Catchment Wide	PO8 (2050)- Dry Weather Flow	FULL.OT01.4	Infiltration Reduction Plan	Relining/improving structural grades of sewers across the catchment.	No						Deliver the required outcome and Risk and uncertainty - future resilience
Study/ investigation to gather more data	Solent Maritime Solent & Southampton Water Solent and Dorset Coast	PO11 - Nutrient Neutrality	FULL.OT01.5	Nutrient Budget	Catchment is Hydraulically linked to; Solent Maritime (Threat/Remedy Identified or Anticipated) Solent & Southampton Water (NO Threat/Remedy Identified or Anticipated) Solent and Dorset Coast (Threat/Remedy Identified or Anticipated).	Yes	Yes	Yes	Minor Positive +	£75K	Yes	Best Value
Study/ investigation to gather more data	Andover- Inner & Outer Zone TCZ	PO12- Ground Water Pollution	FULL.OT01.6	Study and Investigations	Total length of sewer within protection zones- 87.	No						Deliver the required outcome and Risk and uncertainty - future resilience
Study/ investigation to gather more data	Catchment Wide	PO1 PO2 PO12	FULL.OT01.7	Study and Investigations - Private Laterals	Study / Investigation: Identify locations of private lateral connections across the catchment, to better understand whose maintenance responsibility they are.	Yes	Yes	Yes	Minor Positive +	£TBC - With Partners	No	Best Value
Study/ investigation to gather more data	Catchment wide	PO1 PO5	FULL.OT01.8	Study and Investigations - NFMs	Study / Investigation: Identify suitable location/s for NFMs in the Fullerton catchment (update hydraulic model).	Yes	Yes	Yes	Minor Positive +	£TBC - With Partners	No	Best Value