

ASSET INVESTIGATION DETAILS						
SAP Asset Name:	Holt WwTW		Asset Template reference	CM0102003-HOLT STW-70631-Stage 1 - OC-Flintshire & Wrexham		
Investigation Type	SOAF (River)					
Year of breach:	2020	Spill Trigger cause:	OC Continuation Restriction (Maintenance)			
Year of Investigation:	2022	Investigation year performance:	2022			
Population of Asset	1142	Modelled Performance: (DESIGN) / (CALIBRATED)	38 / 38			
Permit Details						
Storm Permit ID:	CM0102003	Storm Permit Name:	HOLT STW			
Asset NGR:	SJ4036754461	Waterbody ID	GB111067057080			
Discharge NGR:	SJ4044054810	Water body Discharge location	Dee - Chester Weir to Ceiriog			
Brief description of asset (Screen, PFF flow control, Storage, outfall)						
<p>Inlet Spill point Incoming line: 385mm mm gravity; CSO Type: Single-sided weir; Screening: Static in the inlet (dimensions unknown); Flow Control: 225mm ; FFT Pipe: 225mm; Consent: 6.32<18.96 shall receive >1.4hrs storage (Tank rise rate shall be <1.1m/hr); SocA: 22.7 l/s. Storm tank spill point Volume: 67.42m3; Spill level: 12.289mAOD; Tank emptying philosophy: Unknown; Tank emptying Rate: Unknown</p>						
SOAF STAGE 1						
Details of assessment:	Asset condition surveys supported by hydraulic model assessment of the asset performance against available telemetry information (EDM and radar rainfall datasets). Additional flow and rainfall monitoring was undertaken to improve the baseline model accuracy and assist in defining the root cause of spills.					
Permit Compliance						
PFF	Compliant					
Storage	Compliant					
Screening	N/A					
Bespoke/Other	Compliant (The period of settlement shall not be less than 1.4 hours at the maximum rate of flow into the storm tank(s) (being the difference between the two flow rates quoted					
SOAF Stage 1 findings						
<p>Primary Cause: OC Continuation Restriction (Maintenance) Secondary Cause: None</p> <p>Following the hydraulic model assessment, the cause of high spills during previous EDM trigger years is concluded to be OC Continuation Restriction (Maintenance). The predicted pass-forward flow of 12.84l/s is within the range identified in the consent prior to the first spill during the 2022 assessment year. The limited FFT data available for 2022 suggested peak PFFs of 16-20l/s where a lower PFF was triggering spills in 2020 and 2021:</p> <p>The model is fit for use, based on the reported spill numbers and telemetry trends.</p>						
Cause of spill count :	Other Cause	OC Continuation Restriction (Maintenance)	Catchment Hydraulic	No	Infiltration & IRP required	No
Future Operational Management Proposal:	The primary cause of the spills are operational factors that have been assessed as deliverable in the short term. The asset has been added to the SOAF maintenance programme with the details outlined below.					
Operational intervention required:	Ensure assessment year (2022) PFF performance is maintained.					
SOAF Operational Intervention						
Start Date:	Jan-24	Completion Date:	TBC	Indicative future annual spill performance (less than 40 do not continue to stage 2)	38	
Intervention Description:	A continuation restriction due to maintenance has been identified as a factor in excess spills at this asset. A cleanse of the sewerage network is required to restore compliant flows. This asset will be highlighted for future Cyclic Maintenance based upon the review of the post intervention return.					
Proposed Completion Date:	Jan-25	Data years to be excluded from future SOAF triggers calculations	-	Request to hold stage 2 surveys for environment recovery		
SOAF STAGE 2						
Receiving Waterbody WFD Status			Moderate			
Stage 2a						

Aesthetic survey:	Spring	2022	Aesthetic Total score (inclusive of amenity classification, previous complaints & pollutions)	0	No Impact
	Autumn	2022		0	No Impact
Stage 2b				Yes / No unable due to culverted watercourse	
Invertebrate survey:	Spring	2022	Invertebrate survey score:	UTC	UTC
	Autumn	2022		UTC	UTC
Stage 2c Required:				Yes / No	
Stage 2c screening:	Not required	Progressed through screening?	Not required	Stage 2c water quality assessment Score: Not required	

SOAF STAGE 3 - STEP 1>3						
Options assessed	Rainscape		Traditional Storage	N	PFF Increase	N
Equivalent storage volume required	-	Rainscape Cost		N/A	CBR	N/A
Bespoke future trigger agreement	40	Traditional Storage		N/A	CBR	N/A
		Other		N/A	CBR	N/A
Key Constraints						
Future Active Management Proposal						

Conclusion and Future Spill Reduction Proposals					
Summary	<p><i>HOLT STW was Shown to have a other cause issue resulting in higher spills which are expected to reduce once a resolution has been implemented. Once the assets New spill performance is established, if this is shown to still be in excess of 10 the impact of the asset will be established as part of DCWW's Storm Overflow Water Quality Assessment Strategy (SOWQAS) in AMP8</i></p>				
Asset Prioritisation Level	-			Delivery Predicted Period	-
Asset NEP ID	N/A	Asset NEP Driver Code	N/A	Detailed Design Predicted Period	-
Progression to Stage 5 In AMP	No				

SOAF AGREEMENT					
	Date	SOAF STAGE	Name	Contact Details	Location of Output
DCWW Approval	05/01/2024	Stage 1 - OC	Christian Phillips Adams	christian.phillips@dams@dwrcymru.com	Email
Regulator Liaison Date	Click here to enter a date				
CSO Classification					
Satisfactory	N	Unsatisfactory	Y	Sub Standard	Y
		Any operation in dry weather conditions?	N	Does not meet modern standards of engineering and aesthetic control for storm overflow structures set out in the British standard BS EN 752:2017 drain and sewer systems outside buildings	Y
		Any operation in breach of permit conditions?	N	Does not have sufficient hydraulic capacity compared to accepted minimum design standards	Y
		Any significant visual or aesthetic impact due to solids or sewage fungus?	N	Risks becoming unsatisfactory because discharges have increased beyond the original design due to infiltration, growth and urban creep	N
		Cause or significantly contributes to a deterioration in the biological or chemical status of the receiving water?	-		
		Causes or significantly contributes to failures in bathing water quality standards for identified bathing waters?	N/A		
		Causes or significantly contributes to failures in shellfish quality standards for identified shellfish waters	N/A		

Causes or significantly contribute to failures in water quality standards in coastal and transitional waters?	N/A
Causes pollution of groundwater?	N/A