SOAF Investigation Output Summary

Dŵr Cymru Welsh Water

Cyfoeth Naturiol Cymru Natural Resources Wales

Reference: SOAF.R 00001

Please see Audit Statement Technical Guidance for further information

ASSET INVESTIGATION DETAILS					
SAP Asset Name:	Lampeter - Showfield ditch		**Asset Template reference**	BP0208001-SHOWFIELD DITCH CSO-52907-Stage 4 - Non CBA-Ceredigion	
Investigation Type	SOAF (River)				
Year of breach:	*2020*	**Spill Trigger cause:**		*Hydraulic*	
Year of Investigation:	*2021*	**Investigation year performance:**		*32*	
Population of Asset	*290*	**Modelled Performance: (DESIGN) / (CALIBRATED)**		*26 / 30*	
Permit Details					
Storm Permit ID:	BP0208001	**Storm Permit Name:**		SHOWFIELD DITCH, LAMPETER	
Asset NGR:	SN5744248068	**Waterbody ID**		GB110062039210	
Discharge NGR:	SN5721047830	**Water body Discharge location**		Creuddyn - headwaters to confluence with Teifi	

Brief description of asset
(Screen, PFF flow control, Storage, outfall)

Incoming Pipe: 675mm; CSO Type: Single-sided, high-level weir; Screening: 6mm mesh - Huber Rotamat mechanical brush screen; Flow Control: 150mm throttle plate; PFF Pipe: 375mm; Storage Provision: None; Consent: 20 l/s.

SOAF STAGE 1						
Details of assessment:	Asset condition surveys supported by hydraulic model assessment of the asset performance.					
Permit Compliance						
PFF	Compliant					
Storage	N/A					
Screening	Compliant					
Bespoke/Other	N/A					
SOAF Stage 1 findings						
Primary Cause: Hydraulic Following the hydraulic model assessment, the cause of the high spills at the asset is concluded to be Hydraulic, with no secondary cause of spills. The predicted pass-forward flow exceeds consent prior to the first spill. The model is fit for use, based on the reported spill numbers and telemetry trends.						
Cause of spill count :	**Other Cause**	**No**	**Catchment Hydraulic**	**Yes**	**Infiltration & IRP required**	**-**
Future Operational Management Proposal:	*The primary cause of spills was found to be hydraulic, and as such the asset progressed through to Stage 2 of the SOAF process*					
Operational intervention required:	*None*					
SOAF Operational Intervention						
Start Date:	**Jan-00**	**Completion Date:**	*0*	**Indicative future annual spill performance** *(less than 40 do not continue to stage 2)*	*45*	
Intervention Description:						
Proposed Completion Date:	**Jan-00**	**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			Good		
Stage 2a					
Aesthetic survey:	Spring	2022	**Aesthetic Total score** (inclusive of amenity classification, previous complaints & pollutions)	0	No Impact
	Autumn	2022		5	Very Low Impact
Stage 2b				*Yes / No unable due to culverted watercourse*	

Invertebrate survey:	Spring	2022	**Invertebrate survey score:**	0	No Impact
	Autumn	2022		0	No Impact
Stage 2c Required:				*Yes / No*	
Stage 2c screening:	0	**Progressed through screening?**	0	**Stage 2c water quality assessment Score:**	0

SOAF STAGE 3 - STEP 1>3						
Options assessed	Rainscape		Traditional Storage	Y	PFF Increase	N
Equivalent storage volume required	1m3	**Rainscape Cost**		£1,755,760.00	**CBR**	0
Bespoke future trigger agreement	40	**Traditional Storage**		£73,711.56	**CBR**	0
		Other		0	**CBR**	-
Key Constraints	*None*					
Future Active Management Proposal	*The primary cause of spills was hydraulic and Stage 2 impact assessments have shown that the asset was not having a detrimental effect on the receiving waterbody. Assessment of the potential high-level solutions have indicated that the asset does not pass the SOAF cost benefit threshold for further investigation*					

Conclusion and Future Spill Reduction Proposals					
Summary	*Based on the direction from the Welsh Government led Better River Quality Task Force, DCWW Storm overflow spill reduction programme will target the elimination of ecological harm and prevention of adverse ecological impact of any SO.* *With a large programme of assets requiring improvement priority will be given to CSOs having the greatest impact in the most sensitive receiving waters.* *To ensure that the improvement delivered is long term, the improvements for each site will be based on the expectation that water quality upstream of the discharge meets good or high ecological status (GES) irrespective of the actual status of the water.* *This approach has formed the basis of DCWW's portfolio investment plan for Storm Overflows.* *SHOWFIELD DITCH, LAMPETER was Shown to have a No / Very low Impact therefor as set out above based upon our Long Term Delivery Strategy a spill reduction scheem to elimeite this level of impact is Profiled to be delivered between 2040-2050*				
Asset Prioritisation Level	*Priority 5*			**Delivery Predicted Period**	*AMP11/12*
Asset NEP ID	*N/A*	**Asset NEP Driver Code**	*N/A*	**Detailed Design Predicted Period**	*AMP10/11*
Progression to Stage 5 In AMP	*No*	*Proposed Solution yet to be taken through detailed design devloped*			

SOAF AGREEMENT					
	Date	**SOAF STAGE**	**Name**	**Contact Details**	**Location of Output**
DCWW Approval	03/01/2024	*Stage 4 - Non CBA*	**Christian Phillips Adams**	christian.phillipsadams@dwrcymru.com	*Email*
Regulator Liaison Date	Click here to enter a dat				

CSO Classification					
Satisfactory	**Y**	Unsatisfactory	**N**	Sub Standard	**N**

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	**N**
Any operation in breach of permit conditions?	**N**	Does not have sufficient hydraulic capacity compared to accepted minimum design standards	**N**
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?	**N**		
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**		