

	Ref	Action	Description	Owner / lead organisation	Timescale and Current Status	Sub Area Applicability
	Flood Risk Management Measures					
1	FR1	Repairs to Nant Jac High Street bridge	CCC have undertaken repairs to the mid-section of the Nant Janc culvert which incurred damage during the December-January flood events.	CCC	Short term	<ul style="list-style-type: none"> Upstream of The Green
		August 2024 Update	<p><u>Summary of Phase 1 Completion and Follow-up Inspection:</u></p> <p>Partial Collapse Incident:</p> <p>Following reports of a partial collapse in the culvert, Phase 1 of the repair work has been completed. Phase 1 included a comprehensive sectional replacement of the affected area including substantial repointing works and reclamation of the voided land above the culvert located within the grounds of the chapel.</p> <p>Structural Integrity:</p> <p>Post-repair assessment confirms that the structural integrity of the bridge is now in good condition.</p> <p>Follow-Up Inspection:</p> <p>A follow-up inspection, commissioned after Phase 1 completion, identified additional defects in the structure. These</p>			

			<p>defects are scheduled for remediation in Phase 2, upon available funding becoming available.</p> <p>Risk Assessment:</p> <p>The identified defects are currently classified as low to medium risk. The defects do not currently compromise the bridge's performance or capacity.</p> <p>For further information, please do not hesitate to contact me.</p> <p>Edward Rees, Senior Engineer,</p> <p>Action complete</p>			
2	FR2	Continued investigation into the surface water drainage system, the chamber and beach outfalls	<p>Investigations to confirm the current operational standards of the outfalls from the surface water drainage system chambers. Assessment to confirm if measures are required to improve the conveyance from the system and recommend any amendments to the chamber and/or outfalls.</p>	CCC	Short to medium term -	<ul style="list-style-type: none"> The Green Upstream of The Green
		August 2024 Update	<p>The CCTV surveys of the drainage systems have been largely complete.</p> <p>CCC are commissioning works to look at volume of water on the green and what the outfalls need to discharge and what rate.</p>			<ul style="list-style-type: none">

			<p>This will then inform a list of options which we will discuss with the community.</p> <p>Aim to submit a bid to WG to fund works from April 2025</p>			
		October 2024 Update	<p>Arcadis has been contracted to support CCC in the evaluation of the chamber and outfall and develop a list of options that would see a more robust and efficient discharge of surface water.</p>			•
		January 2025 Update	<p>Arcadis are still working on this. An initial optioneering report has fully evaluated the functionality of the outfalls and the impacts of climate change. We have a detailed understanding of how much water needs to be discharged and the tidal and climate change implication of that.</p> <p>3 initial options have been tabled of which 1 is being explored in a more detail.</p> <p>To support any capital works in 2025/26, CCC have submitted a bid to WG for £300k, 85% of which is grant funded.</p>			•
	FR3	Further investigate the sewage systems and pumping station	<p>Investigation to confirm connections between DCWW foul and CCC surface networks are underway. Once the connections are understood, measures can be assessed for effectiveness and implemented.</p>	DCWW	Short term / Medium term	•

		January 2025 Update from DCWW	<p>Initial investigations have been completed and no cross connections have been found.</p> <p>There are potential issues when the surface water system is tide locked that this backs up into the foul and compounds the issue. Keeping the outfall clear obviously manages this risk.</p> <p>Action complete</p>			
3	FR4	Continued investigation into Nant Jac catchment hydrology and land management	Studies to confirm the hydrological setting of the catchment and the potential impacts of upstream land management practises.	CCC		<ul style="list-style-type: none"> • The Green • Upstream of The Green
		August 2024 Update	<p>Not commissioned yet</p> <p>Upland land practices are an issue in many places across Carmarthenshire. There are no direct powers to compel landowners to operate or act in a certain way. NRW has guidance only.</p> <p>CCC are speaking to local universities to see if they are interested in collaborative work to research and highlight this issue.</p>			
		January 2025 Update	Arcadis have been commissioned to undertake a modelling exercise on the Nant Jac with specific goals to see where online			

			<p>storage would be most effective and to clarify when and where the Main River section over tops.</p> <p>Council officers met with a number of landowners in January 25 to discuss land use practices and to investigate a number of interventions aimed at minimising the impact of changes to land practices on local water courses.</p> <p>CCC have submitted an NFM bid to WG for £300k to support any potential works in 2025/26.</p>			
4	FR5	Continue to explore the potential for improvements to Ferry Point watercourse	Explore the improvements which could be implemented to the watercourse to improve conveyance and reduce the risk of the watercourse/ditch overtopping.	Riparian Owners / CCC	Short term	<ul style="list-style-type: none"> Ferry Point
		August 2024 Update	<p>Multiple meetings held with residents and many emails exchanged.</p> <p>Confusion as to what CCC can do to support this work and the terms of that support – that has been clarified and the action is back with the residents and riparian landowner.</p>			<ul style="list-style-type: none">
		January 2025 Update	<p>No change, there is no funding to undertake this works and the benefit to cost ration would rule out any future WG grant funding. This is a private road, sea defence and culvert on the banks of the Towy which has multiple environmental constraints. As</p>			<ul style="list-style-type: none">

			such there is considerable risk and cost associated with that risk in breaching and repairing a private sea defence.			
	FR6	Reduce surface water ingress into the sewage system	Post FR2	DCWW	Medium	•
		January 2025 Update	Need more in-depth investigation to find possible cross connections (will be reviewed after April 2025 when evaluating budgets).			•
	FR7	Investigate the conveyance of the Nant Jac stream from High Street Bridge to the sea.		NRW	Medium	•
		January 2025 Update	Met with landowner. No maintenance programme in place but post a site meeting with CCC, NRW do not believe that there is a need for shoal removal (dredging). Lester Fulcher, Operations Manager Land and Assets, 17 Feb 2025 Action closed			•
5	FR8	Assess effectiveness of improving conveyance of the Nant Jac from northern end of Llansteffan to High Street Bridge	Potential to improve the conveyance of the existing watercourse or provide a diversion to route water away from the receptors more effectively. Maintenance of culvert system to reduce the risk and impact of blockages.	CCC	Medium term	<ul style="list-style-type: none"> • The Green • Upstream of The Green

			<p>We need to understand if improving conveyance is a good thing. Do we store water or get it out?</p> <p>Wider piece of work to be done</p>			•
		September 2024 Update	A hydraulic modelling study has been commissioned to accurately understand what options would work the best			•
		January 2025 Update	As above, the hydraulic modelling works will direct this accordingly. Works are ongoing, should be complete by end of March 2025			•
	FR9	Explore potential to re-cambers the DCWW access road		DCWW		•
		January 2025 update	DCWW only own a small section of the lane and CCC own the rest. We are waiting for estimate from contractor to look at regarding the lane with stone and once we get the price, we will share that with CCC. Any works are obviously cost dependant. Richard Davies, DCWW,			•
6	FR10	Explore the potential to repurpose the Morfa to retain water during heavy rainfall	CCC could assess the benefits of repurposing the Morfa as flood storage. There is also a raised embankment into the Morfa which prevents water flowing from the back access road into the Morfa where it would drain into the surface water drainage. This could be modified to allow drainage into the Morfa.	CCC	Medium term	• The Green

			<p>Medium term.</p> <p>Could fall out of the other actions FR2 but we have concern about the impacts of ground water. Further work needed.</p>			
		January 2025 update	<p>Piezometer has been installed in the green, but no works undertaken as to the effectiveness or practicality of this.</p> <p>Application for grant funding to produce a strategic outline business case (SOC) have been submitted to WG for 2025/26. We see this as the mechanism to further evaluate this option.</p>			
7	FR11	Explore the potential for Natural Flood Management (NFM) upstream to reduce flood flows into watercourses, drainage and sewer networks.	Studies to confirm the hydrological setting of the catchment and the potential impacts of NFM on downstream flood risk.	CCC	Longer term	<ul style="list-style-type: none"> The Green Upstream of The Green Ferry Point
		January 2025 Update	A bid has been submitted to WG for £300k funding for 2025/26. If successful, work on FR4 will feed into this.			
	Community Resilience Measures					
8	CR1	Continue to improve response coordination and flood event contact procedures	There have been multi-agency meetings to understand capabilities, roles and processes. All responders and stakeholders identified within this report are to continue to work together to ensure that there is a collective understanding of	CCC / NRW / DCWW / Fire Service	Short term	<ul style="list-style-type: none"> The Green Upstream of The Green

			roles and responsibilities before, during and after a flood event. Review of the contact details available for the public during flood events (phone numbers, online portals, etc) and whether the existing procedures are suitable. This is to include the contact procedures during out of office hours. Recommend and implement improvements as appropriate.			<ul style="list-style-type: none"> Ferry Point
		CCC Update	<p>CCC established and chaired a multi-agency working group immediately after the flood events;</p> <p>We organised and chaired community meeting and 1-2-1 meetings with residents</p> <p>Reviewed our Flood Incident Duty Officer (FIDO) duties and updated the guidance document accordingly. We now have more granular and formalised monitoring of weather during the working week.</p> <p>We have established a senior leader adverse weather group during which adverse weather risks and preparatory actions are discussed and agreed;</p> <p>We have delivered emergency planning refreshing training many middle and senior managers.</p> <p>We have delivered operational training exercises including pump deployment training;</p>			<ul style="list-style-type: none">

			<p>We have reviewed call handing procedures during extreme weather events. Online forms and dynamic messaging has been implemented to manage this.</p> <p>Contact cards have been given to all residents so they are clear who to contact, and how to contact them during extreme weather incidents.</p> <p>Flood barriers have been given to the community to help them manage the risk from the Nant Jack in the short term.</p>			
		DCWW Update				•
		NRW Update	NRW continue to work with multi-agency partners and attend meetings in respect of this matter. NRW operate a 24 hour incident line on Tel: 0300 065 3000.			•
9	CR2	Explore potential to establish Community Flood Plan and Community Flood Group	A voluntary group of local residents could be established to work on behalf of the wider community to help to try and reduce the impact of future flood events. Although the objectives and actions of the group are defined by the group, elder community members noted that they required support from more able-bodied people to help them with property flood resilience and clean-up measures – this could be taken into account when defining future community response mechanisms. More guidance around community flood action groups can be found from NRW and the National Flood Forum .	Llansteffan community with support from partner organisations	Short term	<ul style="list-style-type: none"> • The Green • Upstream of The Green • Ferry Point

			Needs to be taken forward by the community, with support for partners. It will not work if residents are mandated to do it.			
		January 2025 update	<p>Not aware of a formal flood group being established but community members are assisting with certain flood tasks.</p> <p>A 'Whats-App' group is being used to instigate actions and community amongst community members.</p> <p>Action lies with the Llansteffan community – action closed</p>			
10	CR3	Explore potential to implement a Pump Mobilisation Plan across Carmarthenshire	A new 8-inch pump has been purchased by CCC for the Carmarthenshire area. Determine a plan to mobilise pumps during flood events.	CCC	Short term	<ul style="list-style-type: none"> • The Green • Upstream of The Green • Ferry Point
		September 2024 Update	<p>A pump has been purchased.</p> <p>Telemetry monitoring water levels will be used to deploy the pump if needed.</p> <p>We will monitor the sand movement and surface water discharge and clear the outfall or deploy a pump accordingly. The cost implication of have a machine on the beach for every high tide is cost prohibitive, so a more responsive, evidence-based trigger using rainfall and tides has been formalised.</p> <p>This action is now BAU – action closed</p>			

11	CR4	Enhance community awareness of what to do before, during and after a flood	Many community members noted that they did not know what to do in a flood event or who to contact. It is recommended that all stakeholders come together to align their processes and develop a flood resilience workshop, which can be delivered to the community. This can cover property flood resilience, emergency preparedness and points of contact. CCC should also communicate their sandbag policy to the community effectively.	CCC with RMAs' support	Medium term– not yet started	<ul style="list-style-type: none"> • The Green • Upstream of The Green • Ferry Point
			<p>Contact cards produced for circulation and the need to report online emphasised as the best form of communication.</p> <p>Information added to web site and that communicated.</p> <p>Individual property owners have been visited and advised about PLP. Flood barriers loaned to some residents to trial.</p>			
		January 2025 update	<p>Post the 18th December floods, it is evident that the community are still not resilient and more work on this needs to happen both in terms of warning and informing and emergency actions.</p> <p>Flood barriers that will provide reliance from Nant Jac main river flooding are being purchased.</p> <p>X2 rows of sandbags have been placed on top of the wall along the Nant Jac to provide greater flood resilience.</p>			

			CCC are also considering a pilot in terms of telemetry that could provide the community with an alert when the Nant Jac is in flood.			
12	CR5	Explore potential for installing Property Flood Resilience measures	Property flood resilience measures can be installed to help keep water out, reduce the impact of damage and allow faster recovery from flooding.	CCC / Llansteffan community	Medium term	<ul style="list-style-type: none"> • The Green • Upstream of The Green • Ferry Point
		October 2024 Update	Discussion held with some residents. 1 property has been 'built back better'. We have loaned flood gates to other residents to trial.			
		January 2025 Update	<p>No funding currently available for this and while there have been discussions with individual homeowners on PFR, no further works at this time.</p> <p>Some owners have purchased PFR measures privately.</p>			
	CR6	Explore potential to establish a localised flood warning system		NRW		
		August 2024 update	There was early feedback from NRW that this was never an option and that they did not have resources to implement this.			

		January 2025 update	<p>This is a very small catchment and not technically feasible to provide a reliable flood warning service for fluvial flooding in Llansteffan. The Nant Jac (also known as Cottage Stream) river is not gauged by NRW and there would be no lead in time to provide a warning to the community.</p> <p>ACTION CLOSED</p>			
	Maintenance & Operational Activities					
13	OM1	Complete repairs on the Nant Jac culvert at High Street	<p>Carry out an inspection of the culverted section of the Nant Jac at the High Street Bridge (the point at which it becomes a main river). Structural damage has been noted and is to be confirmed. Structural defects identified will be referred to the riparian owner or appropriate organisation to maintain / report.</p>	CCC	Short term	<ul style="list-style-type: none"> • The Green • Upstream of The Green
			<p><u>Summary of Phase 1 Completion and Follow-up Inspection:</u></p> <p>Partial Collapse Incident:</p> <p>Following reports of a partial collapse in the culvert, Phase 1 of the repair work has been completed. Phase 1 included a comprehensive sectional replacement of the affected area including substantial repointing works and reclamation of the</p>			

			<p>voided land above the culvert located within the grounds of the chapel.</p> <p>Structural Integrity:</p> <p>Post-repair assessment confirms that the structural integrity of the bridge is now in good condition.</p> <p>Follow-Up Inspection:</p> <p>A follow-up inspection, commissioned after Phase 1 completion, identified additional defects in the structure. These defects are scheduled for remediation in Phase 2, upon available funding becoming available.</p> <p>Risk Assessment:</p> <p>The identified defects are currently classified as low to medium risk. The defects do not currently compromise the bridge's performance or capacity.</p> <p>COMPLETE</p>			
	OM2	Operation of Pumping station		DCWW	Short	•
		January 2025 update	<p>We have reviewed the operational risk at the station and set up an action plan to dispatch tankers when required. All systems</p>			•

			have been updated with DCWW to trigger this plan. Richard Davies DCWW Review undertaken and plan in place. This is now BAU, action closed			
	OM3	Confirm pumping station capacity		DCWW	Short	•
		January 2015 update				
14	OM4	Continue to clear the sand from the duck bill valve and headwall of the Middle Outfall	CCC are regularly clearing the Middle Outfall to allow the surface water drainage system to discharge effectively. This will need to be undertaken until OM7 is complete, and will be done via catchment monitoring triggers, rather than on a peak high tide basis.	CCC	Short term-underway	<ul style="list-style-type: none"> • The Green • Upstream of The Green
		September 2024 update	Plan implemented and enacted			
		January 2025 update	This will continue as BAU until a solution for the long-term functionality of the beach outfalls is agreed and implemented. Action closed			
15	OM5	Continued maintenance of highways drains	Continued review and maintenance of the highway drains. CCC have increased the frequency of the clearance and maintenance	CCC	Short term-underway	<ul style="list-style-type: none"> • The Green • Upstream of The Green

			of the highway drainage system. Undertake this in conjunction with OM8.			<ul style="list-style-type: none"> Ferry Point
			I suggest weekly winter inspections and monthly summer inspections would be the most effective means for managing flood risk <i>and include the gullies alongside the drainage grid inspections</i> on a weekly basis through the winter. Maintenance visits can then be planned as necessary based on the inspection information – Darren King 16/8/24			
		January 2025 update	The most effective approach for management of the highway surface water gullies is to undertake an annual clean. However, due to the area being prone to flooding, then an enhanced inspection arrangement is deemed an effective management regime going forward. The Highway maintenance Cyclical Gangs will undertake a weekly inspection of the highway gullies at the same time they undertake their weekly drainage grid inspections. Should any substantial amounts of silt be discovered in the gullies during the inspection, then additional ad-hoc gully cleaning arrangements will be actioned. This cleaning and inspection regime is considered a pragmatic and effective approach for managing the highway surface water drainage infrastructure in this area – Darren King, Highways Services Manager (11 Feb 2025)			

			Maintenance regime agreed and enacted – this is now BAU – Action Closed			
16	OM6	Continued maintenance of the Nant Jac (main river)	Continued maintenance and review of the Nant Jac. This includes removal of any vegetation, artificial obstructions within the stream. Inspection to remove any existing obstructions and regular maintenance and inspections going forward.	NRW	Short term	<ul style="list-style-type: none"> • The Green • Upstream of The Green
		February 2025 update	<p>Quarterly inspection and vegetation management accordingly.</p> <p>No shoal management activity is within NRW's programme of maintenance at Llansteffan, but meeting planned with CCC to review will be undertaken in February.</p> <p>NRW/CCC have reviewed during a site inspection dated 11/02 and concluded shoal management is not required – Lester Fulcher, Operations Manager Land and Assets, 17 Feb 2025</p> <p>The regime has been discussed; this is now BAU – ACTION CLOSED</p>			
17	OM7	Continued maintenance of the surface water drainage system outfalls	Continue the inspection regime and review of assets. Currently the Middle Outfall is excavated at peak high tides. Develop a sustainable maintenance regime for the beach outfalls to prevent them from becoming buried or blocked until a long-term solution is found to better manage the flows from the surface water chambers.	CCC	Short term-underway	<ul style="list-style-type: none"> • The Green • Upstream of The Green

			<p>Linked back to OM4 and CR3 – using telemetry and rainfall data we will be reactive and dig out the outfall when needed.</p> <p>This will continue as BAU until a solution for the long-term functionality of the beach outfalls is agreed and implemented – Action Closed</p>			
18	OM8	Continued maintenance of highways drains and surface water drainage system	<p>Continue and review the inspection regime of CCC assets. The surface water system has been jetted and a CCTV survey undertaken to understand connections, condition and capacity. Residents note a consistent blocking in highways drains along Water Lane and have reported it regularly. CCC to carry out regular checks and maintenance as required.</p>	CCC	Short term-	<ul style="list-style-type: none"> The Green Upstream of The Green
			<p>As OM5</p> <p>Maintenance regime agreed and enacted – this is now BAU – Action Closed</p>			
19	OM9	Investigation of land management practices	<p>Investigate land management practices and the potential to impact on runoff and sediment loads in the catchment.</p> <p>To be led by CCC with support from NRW. The local community or flood group could be involved in data collection.</p>	CCC / NRW / Llansteffan Community	Longer term	<ul style="list-style-type: none"> The Green Upstream of The Green
			<p>This is a national policy matter and there are no powers for partner organisation to compel land owners to act.</p>			

		January 2025 update	<p>The above statement has not changed.</p> <p>As FR4 - Council officers met with a number of main landowners in January 25 to discuss land use practices and to investigate a number of interventions aimed at minimising the impact of changes to land practices on local water courses</p> <p>NFM bid submitted to WG for £300k for 2025/26</p> <p>NRW clarified that they only have guidance and best practice.</p>			
	OM10	Explore potential to replace manhole covers	Works orders raised and works to be undertaken before end of Feb.	DCWW		
		January 2025 update	Instruction issued to contractor to complete this work. Should be completed by the end of February 2025.			
	OM11	Regular inspections and maintenance of the Ferry Farm / Ferry point watercourse		Riparian land owners		
		January 2025 update	<p>The residents and land owners have been keeping an eye on this during the winter and undertaking their riparian duties.</p> <p>CCC will continue to support the community with maintenance along the beach of the outfalls in the short to medium term. Not all beach outfalls are CCC assets and there is no statutory obligation on the Authority to manage private assets. However,</p>			

			<p>when we have a machine clearing the sand in front of our assets, we are willing to utilise that resource and unblocking the private outfalls along the beach and up to Ferry Point.</p> <p>Maintenance regime clarified– this is now BAU – Action Closed</p>			
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