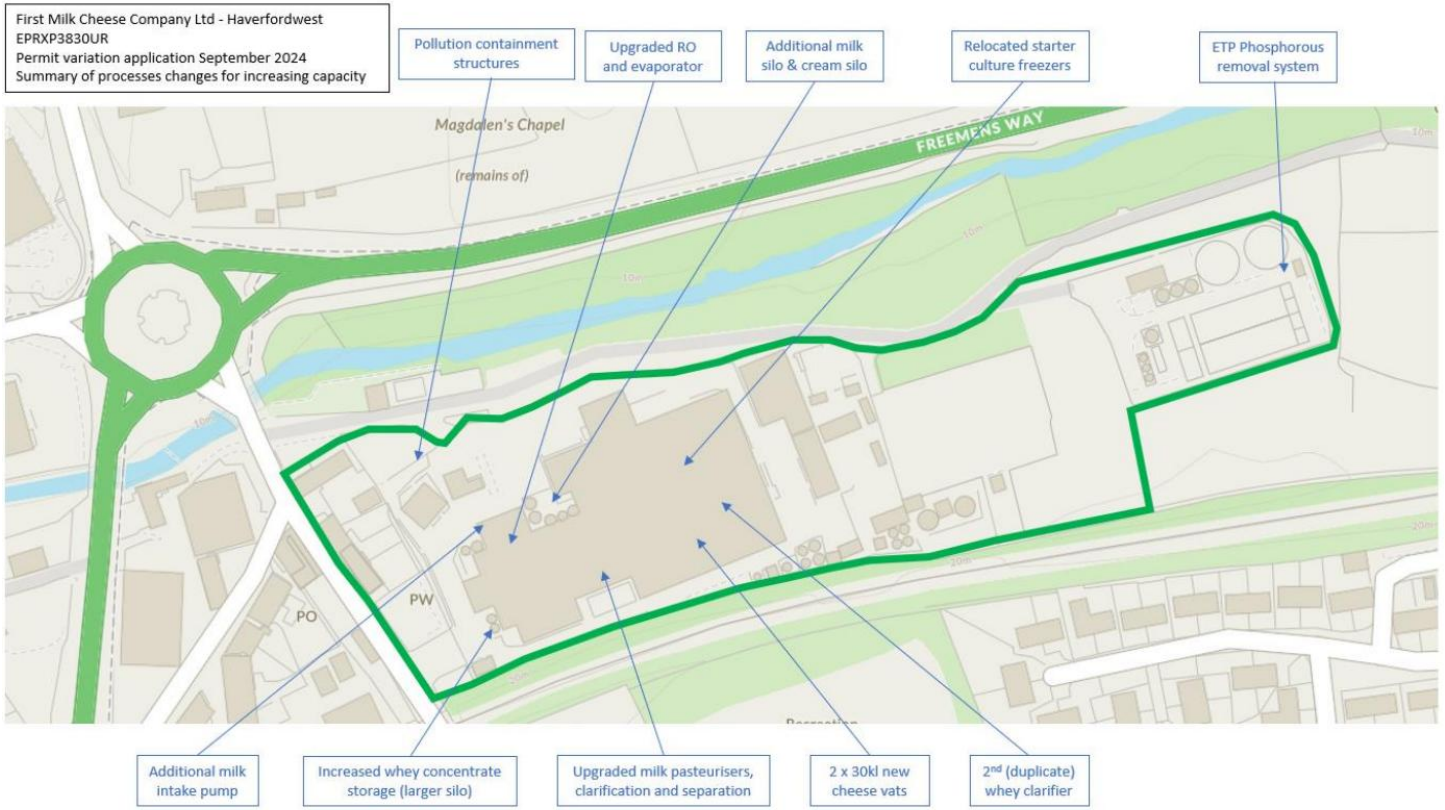
WFD Compliance Assessment of PAN-027140

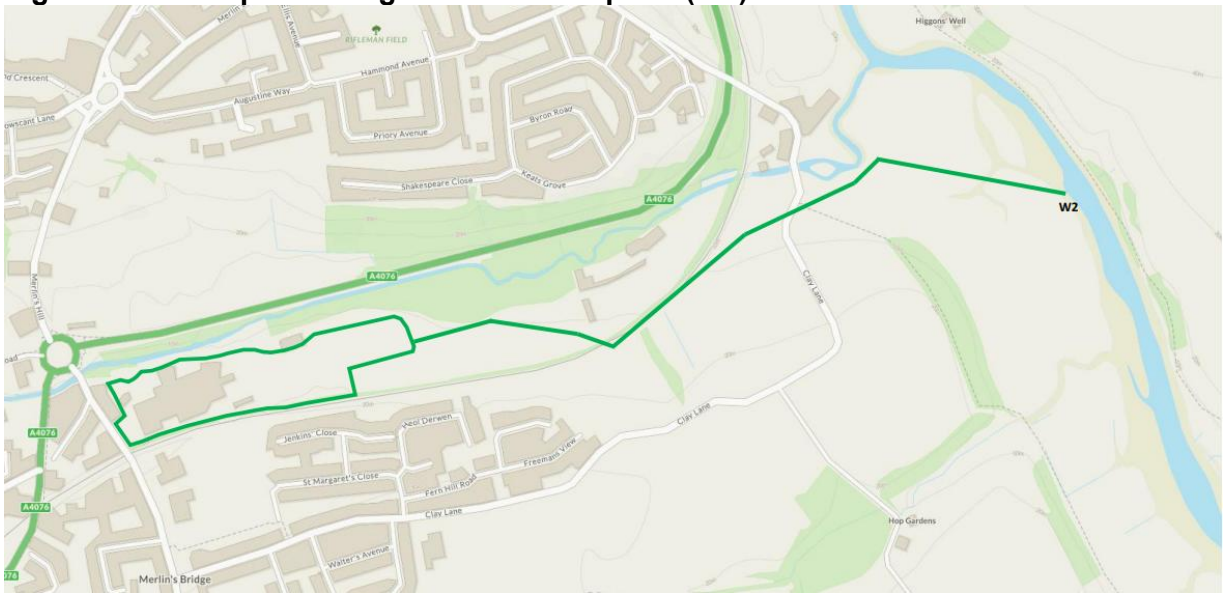
Stage 1 step 1: proposal details.

Project details where an external party has applied to NRW for any form of authorisation	
Application reference number & link to documents	PAN-027140 (EPR/XP3830UR/V007) Haverfordwest Creamery. Site location: Haverfordwest Creamery, Pembroke Road, Merlins Bridge, Haverfordwest, Pembrokeshire, SA61 1JN NGR: SM 94890 14500. Documents can be accessed internally on the DMS here. The First Milk Cheese Company Ltd have applied for a variation to their permit for Haverfordwest creamery (permit number EPR/XP3830UR) to increase the maximum production capacity by 227 tonnes per day (specifically from a total of 1260 tonnes per day to 1487 tonnes per day). The increase in capacity will also result in the expansion and upgrade of their facilities including silos for milk products. The Effluent Treatment Plant (ETP) will also be upgraded with the addition of Polyaluminium Chloride (PAC) dosing to aid meeting phosphorus consent limits.

	Figure 1 - Site Plan with summary of proposed changes and proximity to Merlin's Brook 
Date application received	07/10/24
Applicant details	The First Milk Cheese Company Limited
Activity proposed	The First Milk Cheese Company Ltd have applied for a variation to their permit for Haverfordwest creamery (permit number EPR/XP3830UR) to increase the maximum production capacity by 227 tonnes per day (specifically from a total of 1260 tonnes per day to 1487 tonnes per day). The increase in capacity will also result in the addition to the site of • 2 new cheese vats (each with 30,000 litre capacity), taking the total to 10. • 1 additional milk intake bay • 1 additional milk storage silo (increasing volume by 300,000 litres (total volume on site will increase to 1,678,000 litres))

	• Increased size of outgoing whey concentrate silo (larger silo replacing an older, smaller silo and increasing the storage capacity by 40,000 litres to 90,000 litres in total. Overall the 6 whey silos/tanks will then hold a total site volume of 500,900 litres). • New cream tank holding 100,000 litres. • Expansion of existing milk pasteurisers & separators • Increased pipework size for various product routes • Replacement of the older whey clarifier • Expansion of the membrane plants and modifications to the whey evaporator to increase capacity for whey processing in line with the increase in milk processing and cheese production • Expansion of cleaning in place (CIP) set and removal of 2 others. The total volume of milk, whey and cream held in silos and tanks would increase from 1,730,900 litres to 2,170,900 litres. The applicant has proposed installation of containment measures to mitigate the pollution risk from the failure of the primary (milk, whey and cream) storage vessels. The Effluent Treatment Plant (ETP) was upgraded in 2024 with the re-installation of a Membrane Bio-Reactor (MBR) system to improve the quality and consistency of the final discharge. The applicant has stated the ETP has sufficient capacity to cope with the increase in effluent from the capacity uplift. Further improvements are planned for the ETP to deliver further Phosphorous removal by the installation of a precipitation process (coagulant dosing and mixing), with a Meccana cloth filter. The applicant has proposed the PAC (Polyaluminium Chloride) used for dosing, will be contained within a bunded IBC. The mixing/dosing unit and ancillary pipes will be over hard standing which drains to the site drainage system. The site drainage system is contained and circulates back to the ETP. In the event of a release of dosing substance the design has accounted for its capture to mitigate a pollution risk. The applicant has stated the current site services are already suitably sized to be able to cope with the increase in throughput due to the type of change to the production cycle not having a significant effect on loadings (i.e. longer production window followed by normal cleaning window rather than an overall increase of volumes through the system at one time). The proposal would not add any new point source emissions to air or water and emission limits will remain unchanged for the effluent treatment plant.
Relevant legislation	Environmental Permitting Regulations 2016

List other permissions that may be required where known	N/A
Location (include map where appropriate)	Site location: Haverfordwest Creamery, Pembroke Road, Merlins Bridge, Haverfordwest, Pembrokeshire, SA61 1JN NGR: SM 94890 14500. Site map provided as part of application documents on DMS here. **Figure 2: Site Map including surface water emission point (W1) to Merlin's Brook** 

	Figure 3: Site Map including ETP emission point (W2) into the Western Cleddau  The effluent discharge from the ETP is into the Western Cleddau, part of the Pembrokeshire Marine SACs with the Cleddau Rivers SAC just upstream. The point of discharge is also in an area classed as: UWWTD Eutrophic, Drinking Water Protected Area Groundwater, Nutrient Sensitive Marine SAC Catchment and just downstream of a Phosphorus Sensitive SAC Freshwater Catchment.
Application documents	Application documents on DMS here
Environmental Statement	N/A
List ongoing maintenance requirements. All structures will require maintenance	Effluent discharge from the ETP will be monitored in line with permit requirements. Maintenance of on-site equipment will be in line with the Environmental Management System.
Timing of works	Unknown.

Pre-application correspondence	N/A
NRW team responsible for drafting this WFD Compliance Assessment **report, and name of lead officer**	Emily Ingram, Permitting Officer Installations and RSR Permitting
Date of assessment	21/04/26

Stage 1, step 2 : Collate baseline information on all water bodies at risk from the proposal.

Date of classification information: *2021 cycle 3 classification*

Water body ID	Water body name	Water body type	HMWB	Overall water body status	Morphology status*	Relevance to the proposal
GB110061031300	Merlin's Brook – headwaters to conf with W Cleddau	River	No	Good	Not High	Proposal is in the water body (risk of release to the waterbody via surface water drainage).
GB531006114100	Milford Haven Inner	Transitional	No	Moderate	Not High	Proposal is in the water body (ETP / W2 outfall flows into this water body).

*where there is no information, or a null value then assume it is at good status for morphology (or hydromorphology for TraC water bodies) or, if the water body is designated HMWB the morphological status is **not applicable (please be aware that these water bodies are still sensitive to physical modifications).**

The potential for the proposal to affect the following water bodies was also initially considered, but can be ruled out without further consideration:

Water body ID	Water body name	Water body type	HMWB	Overall water body status	Morphology status*	Relevance to the proposal
GB110061031340	W Cleddau - Anghof conf to Cartlett Brook conf	River	No	Moderate	Not High	Proposal is hydrologically linked but is upstream of the discharges and unlikely to be affected
GB110061031330	Cartlett Brook - HW to conf with W. Cleddau	River	No	Poor	Not High	Proposal is hydrologically linked but is upstream of the discharges and unlikely to be affected
GB110061031170	Pelcomb Brook - headwaters to conf with W. Cleddau	River	No	Moderate	Not High	Proposal is hydrologically linked but is upstream of the discharges and unlikely to be affected

Stage 1, Step 3: Risk Screening

Complete for each water body listed above that is **either in the water body or hydrologically linked with potential risk**

Water body name: Merlin's Brook – headwaters to conf with W Cleddau Water body ID: GB110061031300			
Question number	**Risk screening questions**	**Name of activity**	**Screening decision – delete as appropriate**
Q1.1	**Is the proposal in a water body at high status or high status for morphology** or hydromorphology?	N/A	**No** – go to Q1.2

Water body name: Merlin's Brook – headwaters to conf with W Cleddau Water body ID: GB110061031300			
Question number	**Risk screening questions**	**Name of activity**	**Screening decision – delete as appropriate**
Q1.2	**Is the activity listed in Annex D as a green activity?** Complete new row for each activity	Integral or stand-alone water quality discharges	**Yes** – go to Q1.3 Discharge is screened out by H1 assessment (confirmed by Water Quality Permitting).
Q1.3	Are there any potential cumulative/in combination impacts? Or is there Local Expert Override*?	**No**	**No** – go to Q1.4 There are no changes to permitted limits.
Q1.4	Is the water body at Good overall status?	**Yes**	**Yes,** no further WFD assessment needed - Go to conclusion and authorisation section

**Expert judgement may be required i.e. for complex or cumulative interactions; or a particularly sensitive site/activity (including target water bodies).*

Water body name: Milford Haven Inner Water body ID: GB531006114100			
Question number	**Risk screening questions**	**Name of activity**	**Screening decision – delete as appropriate**
Q1.1	**Is the proposal in a water body at high status or high status for morphology** or hydromorphology?	N/A	**No** – go to Q1.2

Water body name: Milford Haven Inner Water body ID: GB531006114100			
Question number	**Risk screening questions**	**Name of activity**	**Screening decision – delete as appropriate**
Q1.2	**Is the activity listed in Annex D as a green activity?** Complete new row for each activity	Integral or stand-alone water quality discharges	**Yes** – go to Q1.3 Discharge is screened out by H1 assessment (confirmed by Water Quality Permitting).
Q1.3	Are there any potential cumulative/in combination impacts? Or is there Local Expert Override*?	**No**	**No** – go to Q1.4 There are no changes to permitted limits.
Q1.4	Is the water body at Good overall status?	**No**	**No** – go to Q1.5 Water body is at Moderate overall status.
Q1.5	Record best practice measures that the works include to help achieve the objectives of the water body.	**Include all measures then proceed to Authorisation section** The proposal includes optimisation of cleaning cycles (to reduce discharges from this source which will help offset the increase in production) and installation of Polyaluminium Chloride dosing to further reduce Phosphorus levels. There will be frequent monitoring to ensure dosing levels are managed appropriately to avoid any (Aluminium) exceedances. There are no changes to permitted levels which currently meet BAT. Containment measures are proposed to reduce the risk of pollution should the milk product silos/tanks on the main site or the PAC dosing system at the ETP fail and result in product to be released.	

**Expert judgement may be required i.e. for complex or cumulative interactions; or a particularly sensitive site/activity (including target water bodies).*

Conclusion of WFD Regulations 2017 Compliance Assessment & Authorisation

WFD stage 1 screening has been completed and the activity/project have been ruled out as not requiring any further WFD Regulations 2017 assessment. Or, further assessment is **not required** because there is **no conceivable impact pathway** to any water body or Protected Area.	
Name of authorising officer	Emily Ingram
Job title and date	Lead Specialist Permitting Officer, 21/04/26
Technical specialist comments	Water Quality Permitting were consulted to review the H1 assessment submitted by the applicant, the result of which was that no further assessment was required as the proposal included no change to permitted limits, which were already in line with BAT.
Name, job title and date	James Wakeford, Lead Specialist Officer

Consultation with technical advisors/specialists

Relevant section of the WFD compliance assessment	**Date(s) of correspondence* and any meeting(s) with technical advisor(s) and include the name of the technical advisor**	**Description of how the comments from technical advisors have been considered**
Stage 1, Step 3: Risk Screening	James Wakeford Meetings on 13/03/26 and 24/03/26.	The following points were discussed: • The H1 assessment shows Chloride marginally failing, however, there is no set limit required for Chloride under BAT (only monitoring requirements) in line with what is currently in the permit, so no further action is required on this. We are also currently content with the

Relevant section of the WFD compliance assessment	Date(s) of correspondence* and any meeting(s) with technical advisor(s) and include the name of the technical advisor	Description of how the comments from technical advisors have been considered
		Aluminium and Phosphorus limits already in the permit, covering any changes related to PAC dosing and meeting Phosphorus limits. • There are no proposed changes to limits including flow, so no further assessment or mitigation is required. • There is no conceivable impact pathway if all the appropriate measures are put in place as proposed.