ALLIANCE FOR WATER STEWARDSHIP
Audit Report

Client name	ABP Food Group – Bandon
Audit date/s	10-and 11 August 2021
Audit location	1 Kilbrogan, Cork, Bandon, Ireland – Audit was conducted remotely.
Audit report completed by	Kevin OGrady
Proposed date of next audit:	10/08/2022

Introduction to the Alliance for Water Stewardship

The AWS Standard ("the Standard") is intended to drive water stewardship, which is defined as *the use of water that is socially equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions.* Good water stewards understand their own water use, catchment context and shared concerns in terms of water governance, water balance, water quality and Important Water-Related Areas, then engage in meaningful individual and collective actions that benefit people and nature.

The Standard outlines a series of actions, criteria and indicators for how one should manage water at the site level and how water management should be stewarded beyond the boundaries of a site. In this Standard, the "site" refers to the implementing entity that is responsible for fulfilling the criteria. The site includes the facility and the property over which the implementer that is using or managing water (i.e., withdrawing, consuming, diverting, managing, treating and/or discharging water or effluent into the environment) has control.

The current AWS Standard is Version 2.0 launched on 22nd March 2019.

Disclaimer

The BM TRADA audit was based on a sampling approach and therefore non conformities may exist which have not been identified. A copy of this report shall be distributed to the certified client and to BM TRADA. The ownership of this audit report is maintained by BM TRADA. BM TRADA shall keep confidential all information relating to the audit and your organisation and shall not disclose such information to any third party except as required by law of by Accreditation Bodies. BM TRADA assumes no responsibility (legal or otherwise) or accepts no liability to any person(s) for any loss, damage or expense caused by reliance on information provided in this audit report.

Guidance on BM TRADA nonconformities issued against the AWS standard requirements

Details of all nonconformities issued at the audit are contained in separate nonconformity reports and should have been presented to you at the closing meeting.

Please send all nonconformity responses to your auditor for review. We will contact you if further submission is required.

Audit finding shall be assigned (or 'graded') into one of three categories: major non-conformity, minor non-conformity, and observation.

Major Non-Conformities

A major non-conformity is raised if:

- The issue represents a systematic problem of substantial consequence;
- The issue is a known and recurring problem that the client has failed to resolve;
- The issue fundamentally undermines the intent of the AWS Standard; or
- The nature of the problem may jeopardize the credibility of AWS.

All major non-conformities must satisfactorily address by the client within thirty **(30)** days.

Minor Non-Conformities

Where the audit team has evaluated an audit finding and determines that the seriousness of the issue does not meet the any of the criteria for major non-compliance the audit team shall grade the finding as a minor non-conformity.

All minor non-conformities must satisfactorily address by the client within thirty **(90)** days unless an alternative timeframe, supported by written justification, has otherwise been agreed with the CAB.

2.9.3 For certificate holders, the CAB shall require that minor non-conformities are satisfactorily addressed within ninety **(90)** days

If corrective actions are inadequate to resolve a minor non-conformity by the time of the next scheduled audit, the CAB shall upgrade the audit finding to a major non-conformity.

All other finding that are not major or minor non – conformities can be raised as observations.

BM TRADA is unable to issue an AWS certificate of approval until all non-conformities are verified and closed.

Failure to address and close nonconformities within required timescales will result in suspension of certification.

Your auditor will clarify at the closing meeting if you require a follow up audit to verify correction and corrective action implementation or if documentary evidence will be acceptable to close the nonconformity.

Note: non-conformity will hereinafter be referred to as NCR.

1. Client and Certificate Details

Address of certified operation	1 Kilbrogan, Cork, Bandon, Ireland		
Management representative	Simon.Callanan	**Job title**	Environmental and sustainability office ABP Bandon
Email address	Simon Callanan	**Phone number**	
AWS Registration #	AWS-000337		
Certificate Number	Initial audit	**Date of first certification**	Initial audit
Current Certificate start date:	Initial audit	**Current Certificate expiry date**	Initial audit

2. Details of Audit & Scope of Certification

Audit type:	☒ Certification
Audit team and roles:	Kevin OGrady – Lead Auditor and Local auditor. Alasdair McGregor – Auditor Dónal Neville Chartered Geologist/Hydrogeologist/GIS Analyst BSc. (Hons) MSc. PGeo EurGeol FGS – Catchment Expert.
Standard:	The AWS International Water Stewardship Standard Version V 2.0
Scope of certification:	Water Stewardship in Meat Production
Operations covered by scope of certification:	Pre-Slaughter livestock management, Slaughter, Boning, further processing, packaging, bi products.
Other certification scheme/s this company is certified for:	

Outsourcing:

Does the client outsource operations or activities within the scope to independent third parties? *

*Activities of suppliers to the operation are not considered outsourcing.

☐ Yes ☒ No

3. Executive Summary

Main items / Critical Control Points / Places inspected (including names & affiliations of people consulted)	**Number of NCRs**
Step 1 – Gather and Understand	0
Step 2 – Commit and Plan	2 MINOR
Step 3 - Implement	0
Step 4- Evaluate	0
Step 5 – Communicate and disclose	0

Were there any NCR(s) issued at the previous audit? ☐ Yes ☒ No

Allocation of points and Lead Auditor Recommendations

Total number of points awarded to site ***collated number from end of report**	113
Recommended level of certification	Platinum

Note: the above recommendation is subject to review and (continued) Certification / Recertification decision.

Allocation of Points

The audit team shall complete the allocation of points within thirty **(30)** days of completion of the on-site audit and, in any event, before finalizing the assessment report.

Where a client has one or more unresolved major nonconformity, the audit team shall not allocate points to any advanced-level indicators.

Prior to allocating points, the audit team shall review the assessment results to confirm that the client has met all core indicators.

Where one or more minor non-conformity has been raised against core indicators, the audit team should consider the adequacy of corrective action plans submitted by the client when applying.

Audit teams shall award points in accordance with the indicator-specific point allocation system given in the AWS Standard.

Certification level shall be determined based on the total sum of points awarded, in any combination, to all advanced-level indicators.

Thresholds for the three (3) AWS certification levels are given below.

Thresholds for AWS Certification Levels.

Point Total	AWS Certification Level
0 to 39	AWS Core Certified
40 to 79	AWS Gold Certified
80 or greater	AWS Platinum Certified

4. Audit Observations, Findings and Conclusions

Description of Operation and Catchment

Company History	ABP is Ireland's leading beef processing company and operate six beef processing sites located in Clones, Waterford, Cahir, Nenagh, Rathkeale and Bandon. The Bandon plant is located at 1 Kilbrogan, Cork, Bandon, Ireland, it is a Privately owned. ABP Food Group was founded in Ireland in 1954 and made its first venture into the UK food industry in 1981. Since then, they have been working with some of the biggest names in retail and food service, and experts from across the agricultural industry. The plant daily count is 350 head of cattle per day slaughter and deboned. Facilities include Stock yards, Slaughter and dressing line, chilling and boning facilities, cold storage, primary and secondary water treatment. As a major food manufacturers ABP uses the very latest ideas in innovation, animal welfare and sustainability The plant has been on a journey to Advance sustainability since 2008 and grown rapidly since then over 55 sites. Originally energy and carbon were the focus. https://www.farminglife.com/news/research-shows-significant-dairy-beef-carbon-reduction-potential-1387844 https://www.irishtimes.com/business/agribusiness-and-food/dairy-cattle-emissions-could-be-cut-without-reducing-herd-study-finds-1.4097131 They have since set a 50% reduction in water against a 2008 benchmark. Beef sites high use of water due to hygiene requirements. Water is 65 degrees for washing and 90 degree for sterilisation. For Ireland ABP are part of the "community of practice for large water users" driven by the EPA. ABP has 15 sites certified to EWS.
Processes	Slaughter processing and further processing of Beef Cattle. Boning on site, Fat harvest for Tallow, packaging and retail packaging.
Facilities	Single site comprising:

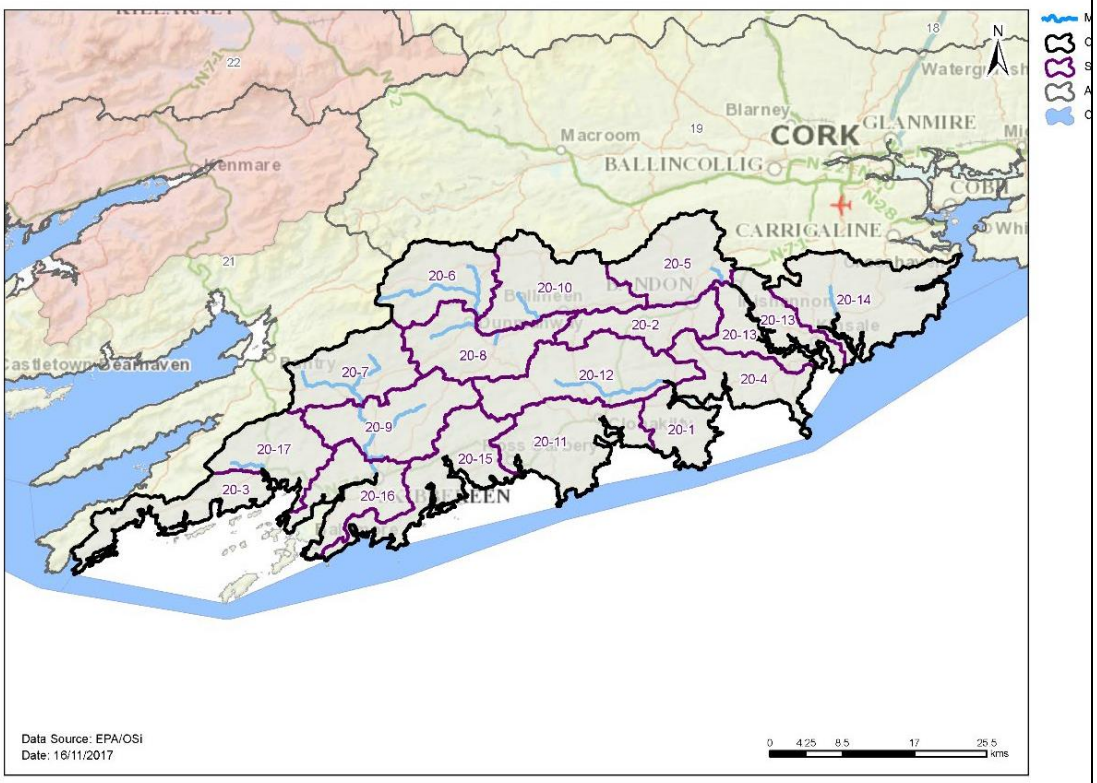
Number of employees	250 on site 11,000 in the ABP group.
Other Information	
Catchment Narrative (from discussions with catchment expert)	The ABP Bandon processing plant is situated in the Bandon-Ilen Catchment, an 1,800 km2 WFD Catchment, in the south of Ireland. The Catchment is divided into 18 No. WFD Sub-catchments, of which 5 No. 'Sub-catchments of Interest' have the potential to interact with the Plant The River Bandon flows west to east, on falling topographic elevations, within the Sub-catchments of Interest, to an ultimate point of discharge at Innishannon, before entering transitional estuarine water, and finally, the Celtic Sea Water. The Plant is underlain by Kinsale Formation Mudstones and classified as a 'Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones'. The Plant sits above an area of relative 'Extreme and High' groundwater vulnerability, recharged by rainfall through a superficial Glacial Till cover at a rate of between 151-200 mm/yr. Within the catchment there are Protected Areas, Natural Heritage Sites, and a Transitional Waterbody Shellfish area. The Bandon River 'Special Area of Conservation' (SAC) is hydraulically isolated from the Plant, being some c. 25km upgradient of the Plant's location. Of note, is the 'At risk' denotation for the river waterbody directly south of the Plant, and 'At risk' status of the estuarine water at the Sub-catchment's ultimate point of discharge. This 'At Risk' river waterbody could represent a shared challenge with the local authority to ensure all possible efforts to reduce the proposed Risk are made. The 'At risk' status of the estuarine water at the Sub-catchment's ultimate point of discharge, is likely a function of proximity (<10km) to urban waste discharge. The groundwater 'Review' denotation for the ground waterbody beneath the Sub-catchments of Interest should also be noted. The Plant's Operator have a challenge to ensure regulatory compliance through groundwater well abstraction registration with the Environmental Protection Agency; if required. Main stakeholders which have the potential to be affected by the Plant's activities are downgradient Angling and Agricultural economies reliant on the River Bandon. The OPW, who are responsible for the Bandon Flood Relief scheme, dredged the River Bandon. Some locals believe dredging has negatively impacted on the Annex II listed Lampreys, due to the disruption of their spawning pattern. Other issues include physical alterations to the Bandon River channel, where excess fine sediment and dredging activities have significantly impacted the morphological characteristics of the River Bandon.

Governance.

Cork County Council and the Environmental Protection Agency have the mandate of governing the Bandon-Ilen Catchment; an adaptation of the European Union Water Framework Directive. The Water Framework Directive states that a catchment located in the European Union must achieve specific quality criterium to preserve and enhance the status of aquatic ecosystems. The National Parks and Wildlife Services is responsible for the protection of the range of ecosystems found in the catchment. The Office of Public Works is the competent authority for the European Union Floods Directive.

Overview

Bandon-Ilen Catchment (20)



STEP 1: GATHER AND UNDERSTAND

Gather data to understand shared water challenges and water risks, impacts and opportunities

Intent: To ensure that the site gathers data on its water use and its catchment context and that the site uses these data to understand its shared water challenges as well as its contributions (both positive and negative) to these challenges, water risks, impacts, and opportunities. This information also informs the development of the site's water stewardship strategy and plan (Step 2) and guides the actions (Step 3) necessary to fulfil the site's commitments.

Criteria		Indicators	Response Area	Points Allocated
1.1 Gather information to define the site's physical scope for water stewardship purposes, including: • its operational boundaries; • the water sources from which the site draws; • the locations to which the site returns its discharges; the catchment(s) that the site affect(s) and upon which it is reliant.	1.1.1	The physical scope of the site shall be mapped, considering the regulatory landscape and zone of stakeholder interests, including: Site boundaries; Water-related infrastructure, including piping network, owned or managed by the site or its parent organization; Any water sources providing water to the site that are owned or managed by the site or its parent organization; Water service provider (if applicable) and its ultimate water source; Discharge points and waste water service provider (if applicable) and ultimate receiving water body or bodies; Catchment(s) that the site affect(s) and is reliant upon for water.	**Site is in the Bandon Ilen catchment.** **Drainage network Map** **Evidence: inspect and Site map in interactive format.** **Noted:** **Physical boundaries** **Water related infrastructure inc Stormwater and foul water drains directed to water treatment to avoid contamination. Surface water direct to the Bandon River.** **Extraction** **Dedicated Ground waters Well 1 2 and 3 with monitoring points.** **Well extraction directed to Softening plant iron filtration and chlorination.** **There is an on site wastewater treatment plant on the map.** **Wager Treatment processes include:** **Screen, Balance tank, Dissolved air floatation with flocculation and coagulant , scraper and solids recovery.** **There is a new Aeration and anoxic tanks that renders effluent that is capable of being discharged to water.** **Water treatment facilities were also confirmed by a Video virtual site inspection.**	

			During which the auditor inspected pump house, Monitoring points, Well monitoring points,. At the site inspection inspected: Water input well and pump. Input water softening and Iron filtering and Chlorination. There is a Colour coded system for drainage to distinguish between storm water a Foul water. There is a DAF unit and solids recovery unit, Bunded fuel containers and Bunded chemical containers (coagulants and flocculants) The new Aeration and anoxic tanks. With backup and additional aeration capacity. This has resulted I energy savings and improved effluents quality. Discharge is controlled within discharge permissible under licence. Discharge testing point with testing every 6 M cubed. This composite sample is retained to provide a 24 hour grab sample for EPA inspection. There are also grab samples representing perioding monitoring. The discharge pipe is underground leading to a stainless steel underwater discharge point 2 ft off the bottom of the river. The discharge Flow meter is recorded inspected every morning to confirm discharge is within the allowed maximum discharge flow. This is recorded as a perpetual record allowing monitoring and trend analysis. All monitoring equipment is subject to a calibration cycle. There is a recently installed mechanism to recycle discharge water to non-potable water sources which offers considerable savings of 7000 m cubed of water.	

			All of this is sampled and tested. **2 water storage tanks. Pre treatment and Post treatment. Both have a preventative maintenance schedule including pre start checks.** **There is a system of automated text bring ups that alert management when limits are reached detected and some attention or maintenance required.** **There is a temperature limit on the discharge. All water discharge is equilibrates regardless of its in process use.** **Best available technology BAT and BAT reference documents are used under an EU IED legislation** **This has recently been changed to require the plant to comply with the BAT reference documents within 3 years.** **This was developed with a cross stakeholder process inc NGOs.**	
1.2 Understand relevant stakeholders, their water related challenges, and the site's ability to influence beyond its boundaries.	1.2.1	Stakeholders and their water-related challenges shall be identified. The process used for stakeholder identification shall be identified. This process shall: Inclusively cover all relevant stakeholder groups including vulnerable, women, minority, and Indigenous people; Consider the physical scope identified, including stakeholders, representative of the site's ultimate water source and ultimate receiving water body or bodies; Provide evidence of stakeholder consultation on water-related interests and challenges; Note that the ability and/or willingness of stakeholders to participate may vary across the relevant stakeholder groups; Identify the degree of stakeholder engagement based on their level of interest and influence.	**Evidence: There is a Cork County Council and the Environmental Protection Agency have the mandate of governing the Bandon-Ilen Catchment; an adaptation of the European Union Water Framework Directive. The Water Framework Directive states that a catchment located in the European Union must achieve specific quality criterium to preserve and enhance the status of aquatic ecosystems. The National Parks and Wildlife Services is responsible for the protection of the range of ecosystems found in the catchment. The Office of Public Works is the competent authority for the European Union Floods Directive.** **The WSP outlines the water related challenges.** **The site provides a list of stakeholder. Inspected Stakeholder engagement matrix with includes both the stakeholder and links to a log of communications with the stakeholders. ,**	

			Angling and local agriculture land use are the most involved stakeholders. **There is a process and provided rationale for identifying stakeholders. This was inspected as follows:** **There was a questionaries (inspected) and a follow up phone call that gauged the level of interest and this informed the shared challenges and priorities and asked about other interested stakeholder. This created a snowballing sampling methodology that identified further stakeholders.** **Ob There is an opportunity to formalise the document "Stakeholder Identification Methodology" as an SOP.**	

	1.2.2	Current and potential degree of influence between site and stakeholder shall be identified, within the catchment and considering the site's ultimate water source and ultimate receiving water body for wastewater.	**Inspected a random sample of communications.**	
1.3 Gather water-related data for the site including: • water balance • water quality • important water related areas • water governance • WASH (water related costs, revenues and shared value creation)	1.3.1	Existing water-related incident response plans shall be identified.	**Evidence Inspected Emergency response plan which is part of the ISO 14001 system. 8.1 General emergency response plan 15/10/18.** **This includes all water related incidence e.g. Foods, spills. contamination of treatment water. This identifies the responsible person and the appropriate response which is documented in a relevant SOP.** **EPA. Fisheries and Council are informed for water related incidents.** **Interview with Collette Carter (compliance officer). As part of the process Colette is contacted and informs the EPA immediately and kept them upto date on immediate actions to contain the incident and corrective actions.** **Evidence: An incident with Ammonia and nitrogen levels was outlined as it was related to the EPA.**	
	1.3.2	Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped.	**Water abstraction is recorded by means of water meters connected to the site's SCADA system. This can record inflows, losses and outflows. This is for all water and temperatures.** **Evidence Inspected site water map showing inflows, losses, storage, and outflows shall be identified and mapped.** **This map will be integrated into the SCADA system in the future.**	
	1.3.3	Site water balance, inflows, losses, storage, and outflows, including indication of annual variance in water usage rates, shall be quantified. Where there is a water-related challenge that would be a threat to good water balance for people or environment, an	**Water abstraction is recorded by means of water meters connected to the site's SCADA system.** **The system captures meter readings on a ten-minute basis and records the same. This information is downloaded by the receptionist on a daily basis and distributed to relevant staff. This allows for water usage onsite, current and past to be graphed, analysed and reported on to site management** **Evidence: Inspected the "true cost of water sheet" with monthly hourly, daily and monthly data. This is for all aspects not just inflows, losses, storage, and outflow.**	

		indication of annual high and low variances shall be quantified.	**There are no local water availability issues (confirmed by the catchment expert)**	
	1.3.4	Water quality of the site's water source(s), provided waters, effluent and receiving water bodies shall be quantified. Where there is a water-related challenge that would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be quantified.	**The inflow quality is monitored Evidence: Inspected Annual Certificate of analysis 29/06/21 as required by the licence. For Well 1.** **Discharge is controlled within discharge permissible under licence.** **Discharge testing point with testing every 6 M cubed. This composite sample is retained to provide a 24 hour grab sample for EPA inspection.** **There are also grab samples representing perioding monitoring.** **Evidence: Inspected Effluent Monitoring record 2020** **(EMR) Seasonal variations of extraction and discharge are highlighted.** **QA well samples are more frequent. Water needs to be potable for any product contact water.** **Interview with QA manager Joshua Desmond for sampling procedure for potable (inflow) water at point of entry. Here is testing twice a week and the wells on a monthly schedule.** **Evidence: inspected sampling records 03/08/2021 and 06/08/2021 test certificates by ALT testing and are I NAB approves for ISO 17025.** **All were within limits.** **Inspected a monthly report showing results and trend vs targets.** **There is a monthly and annual report to the EPA which are monitored as a condition of continuing licences.** **Evidence: inspected Annual Environmental Report (AER)** **ABP Bandon Licence Number: P0188-02** **This report uses the data from the plants Effluent Monitoring record 2020**	

	1.3.5	Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.	**The site map shows water pollution sources.** **There is also a specific map showing risk areas including on site chemical storage.** **There is a risk matrix for all pollution sources.** **Chemical sites and bunded areas were inspected at the site tour.**	
	1.3.6	On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.	**Inspected an IWRA Matrix and Map for both onsite and offsite outlining IWRA.** **A biodiversity Pond was identified as an onsite IWRS for environmental values.** **Surface water drain – Environmental values due to its discharge to the River Bandon.** **Abstraction - for community values.** **Evidence inspected ABP Biodiversity policy by Mairead O'Donnell including the status of the Biodiversity pond.**	
	1.3.7	Annual water-related costs, revenues, and a description or quantification of the social, cultural, environmental, or economic water-related value generated by the site shall be identified and used to inform the evaluation of the plan in 4.1.2.	**There is a cost revenue and value creations spread sheets (inspected).** **This shows cost and revenues, Opex and Capex, costs and salary of water related costs.** **The costs revenues and value creation also identifies and priorities environmental and social value creation.**	
	1.3.8	Levels of access and adequacy of WASH at the site shall be identified.	**WASH is not an unmet need.** **However there was an assessment of onsite WASH facilities and services.** **There is also a employee survey.** **This resulted in an upgrade to toilet facilities**	
1.4 Gather data on the site's indirect water use, including: its primary inputs; the water use embedded in the production of those primary	1.4.1	The embedded water use of primary inputs, including quantity, quality and level of water risk within the	**Inspected a supply chain matrix for inputs. This concentrates on cattle Packaging, trays chemicals, labels and wax liners.** **This shows contact with suppliers to determine the water footprint of the inputs.**	

inputs the status of the waters at the origin of the inputs (where they can be identified); and water used in out-sourced water-related services.		site's catchment, shall be identified.	**Much was not within the sites catchment.** **For cattle 40% is in the catchment,** **There is a range of water footprint assessments.** **Water Resources and Industry1–2 (2013)25–36** **"The water footprint of poultry, pork and beef:** **A comparative study in different countries and production systems"** **P.W.Gerbens-Leenes n, M.M.Mekonnen,A.Y.Hoekstra** **The Water Footprint of Irish Meat and Dairy Products 29 February 2012. The Irish Food Board. (Bord Bia)** **The site has used both to estimate a benchmark.**	
	1.4.2	The embedded water use of outsourced services shall be identified, and where those services originate within the site's catchment, quantified.	**There is one outsourced service is a laundry service. With an estimate 11.56 lts per Kg = 3005.6 litres annually.**	
	1.4.3	**Advanced Indicator** The embedded water use of primary inputs in catchment(s) of origin shall be quantified.	The plant has referenced 2 different studies to establish embedded water in primary inputs (Livestock) 1.Water Resources and Industry1–2 (2013)25–36 "The water footprint of poultry, pork and beef: A comparative study in different countries and production systems" P.W.Gerbens-Leenes n, M.M.Mekonnen,A.Y.Hoekstra The Water Footprint of Irish Meat and Dairy Products 29 February 2012. The Irish Food Board. (Bord Bia)	**7**

1.5 Gather water-related data for the catchment, including: water governance, water balance, water quality, Important Water-Related Areas, infrastructure, and WASH	1.5.1	Water governance initiatives shall be identified, including catchment plan(s), water-related public policies, major publicly-led initiatives under way, and relevant goals to help inform site of possible opportunities for water stewardship collective action.	**Numerous plans data initiatives are applicable.** **Of these significant pressures in the catchment are identified and shared goals and challenges are identified.** **The main areas are Bandon River Quality and Flood control.** **The plant have conducted water testing of the Bandon River but the Cork City Council have suggested that this is not needed since CCC have extensive testing. Therefore company testing will stop.** **For Flood Amelioration there is a direct link to the UCC run off trail which seeks to contain "leaking farmyards" in remediation ponds with filter strips.** **Ob There is a link in the Flood plan to Climate change via increased flood events and severity. The plants work on the run off project shares the councils goals of flooding so there is a link to climate change policy.**	
	1.5.2	Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.	**3 main legislative instruments are identified. Links to Applicable EU IED legislation** **https://ec.europa.eu/environment/industry/stationary/ied/legislation.htm** **There are no legally-defined and/or stakeholder-verified customary water rights.**	
	1.5.3	The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate, seasonal, variance.	**There are catchment water balance report and river basement catchment plans.** **Inspected Bandon Ilen Catchment Assessment 2010-2015 (HA 20) Catchment.** **This document informs the final catchment management plan.** **Ground water balance is better quantified than surface water balance.** **Ob There is an opportunity to identify a more systematic and regular reporting framework or engage with the relevant authority to initiate this.**	
	1.5.4	Water quality, including physical, chemical, and biological status, of the catchment shall be identified, and where possible, quantified. Where there is a water-related challenge that	**The plant have identified sources for data.** **In an EPA report on Water Quality in Ireland for 2020 the River Bandon was highlighted in this report as being one of 13 catchments in Ireland with elevated nitrogen concentrations, and has been raised as an area for action as a result. The predominant reasons for these excess nutrient levels in river**	

		would be a threat to good water quality status for people or environment, an indication of annual, and where appropriate, seasonal, high and low variances shall be identified	**catchments under pressure, such as the Bandon, are untreated wastewater discharges and agricultural activities.** **Another report the Bandon-Ilen Catchment Assessment in 2015, highlighted excess phosphates as a concern for several water bodies, and can lead to eutrophication. Excess ammonia is also a concern for only a limited number of water bodies.** **Alteration of hydromorphological conditions is a significant issue in rivers in the Bandon/Ilen Catchment. This includes inputs of excess fine sediment and alteration of the morphology of the river channel, which in turn alter habitat conditions. This can occur as a result of, for example, implementing river and field drainage schemes, forestry activities, animal access, and discharge from quarries.** **There are concerns about a Listed species including, Lamprey and Fresh water pearl mussels based around impacts of dredging.** **Shared challenges identified include (but are not restricted to) work on impacts of suppliers cattle on water quality.** **These are detailed in the SWP and the shared challenges database.**	
	1.5.5	Important Water-Related Areas shall be identified, and where appropriate, mapped, and their status assessed including any threats to people or the natural environment, using scientific information and through stakeholder engagement.	**The company catchment description notes:** **According to the National Parks and Wildlife Service (NPWS) six areas designated with high conservation value (HCV) are mapped within a 25km radius of the subject site.** **Three of these sites are classified as Special Areas of Conservation (SAC) in accordance with the EU Habitats Directive, and five of the sites are Special Protection Areas (SPA) designated under the EU Directive on the Conservation of Wild Birds (two of the designated sites within a 25km radius are classified as both an SAC and SPA).** **The IWRA matrix shows these IWRAs and shows that None of these designated sites are considered to be water cycle related areas to the ABP Bandon plant given the nature of the sites, their distance, the intervening topography and lack of hydraulic connectivity with the subject site.** **Source - Baseline Geology and Hydrogeology for Groundwater Abstractions at ABP Plant, Bandon, Co. Cork. EurGeol Morgan Burke PGeo**	

			Hydrogeologist **The Single exception is the Bandon river. Stakeholder engagement eg Inisahhon drinking water scheme noted the social impact on drinking water extraction from the reiver. Stakeholder contact record with Jerry Creedon (Environmental Officer) Innishannon Drinking Water Supply (Cork County Council)** **This becomes a significant shared challenge in the WSP and EMS.**	
	1.5.6	Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.	**There is no external infrastructure. The extraction point is an onsite well, there are on site water treatment facilities and discharge of treated effluent is to the Bandon River direct from site to an underwater discharge.**	
	1.5.7	The adequacy of available WASH services within the catchment shall be identified.	**WASH is not an unmet need (ref Irish drinking water report 2020)** **"PROTECTING CRITICAL WATER RESOURCES FOR FOOD SUPPLY, FOR NATURE AND FOR LOCAL COMMUNITIES** **A ROADMAP TOWARDS WATER SECURITY FOR FOOD & DRINK SUPPLY"**	
	1.5.8	**Advanced Indicator** Efforts by the site to support and undertake catchment level water-related data collection shall be identified.	**There are numerous examples of support for water data collection.** **Farmyard Trial with UCC the aim is to** **1. Attenuate the flow of land drain so as to avoid hydro-morphological effects on river** **2. Create an initial infiltration of zone, mitigating nutrients reaching river directly** **3. Removal of certain nutrients through reaction with microbes in soil** **4. Removal of certain volume of nutrients through reaction with bacteria in alder tree nodules.** **There is baseline data but the work is ongoing and will yield more data.** **Ob There is a link in the Flood plan to Climate change via increased flood events and severity. The plants work on the run off project shares the councils goals o flooding so there is a link to climate change policy.**	**7**
	1.5.9	**Advanced Indicator** The adequacy of WASH provision within the catchments of origin of	**There are no unmet WASH needs in the catchment.**	**NA**

		primary inputs shall be identified.		
1.6 Understand current and future shared water challenges in the catchment, by linking the water challenges identified by stakeholders with the site's water challenges.	1.6.1	Shared water challenges shall be identified and prioritized from the information gathered.	**Catchment-Based challenges** **These are analysed in the shared challenges matrix.** **The stakeholder matrix analyses and priorities shared water challenges.** **Recommend. Challenge is a macro level is water quality in the catchment and related IWRA. The initiative and action are separate.** **Mitigating the agricultural pollution of rivers - 2022** **IWRA's River Bandon quality improvement** **This is identified from the shared challenges matrix.**	
	1.6.2	Initiatives to address shared water challenges shall be identified.	**a) Circulation of best practice newsletter to farmers with respect to mitigating the agricultural pollution of rivers - 2022** **b) Quarterly analysis of river quality upstream and downstream of discharge point** **6. IWRA's** **River Bandon quality improvement trial.** **Evidence: Response from the Cork Country Council Alan Costello response to newsletter and Bandon River quality improvement trial.** **ABP Is part of the Community of Practice for large water users.** **https://www.smartwater.ie/**	
	1.6.3	**Advanced Indicator** Future water issues shall be identified, including anticipated impacts and trends	**"Stakeholder Engagement matrix links to Catchment Documents.** **It contains a Shared Water Challenges Table.** **one the company web site it notes:.** **"Of particular importance in this regard are planning policy; future national climate change mitigation and adaption plans; the future implementation of recently-developed flood risk management plans;"**	**3**
	1.6.4	**Advanced Indicator** Potential water-related social impacts from the	**At the audit stakeholder recent engagement with the Innishannon drinking water authority raised the issue of social impacts on down stream drinking water extraction from the Bandon river,**	**4**

		site shall be identified, resulting in a social impact assessment with a particular focus on water.	**This has not been incorporated into the shared challenges.** **Ob Now this is identified it should become part of the shared challenges.**	
1.7 Understand the site's water risks and opportunities: Assess and prioritize the water risks and opportunities affecting the site based upon the status of the site, existing risk management plans and/or the issues and future risk trends identified in 1.6	1.7.1	Water risks faced by the site shall be identified, and prioritized, including likelihood and severity of impact within a given timeframe, potential costs and business impact.	**Evidence: Inspected a Risk matrix identifies risks including likelihood severity and impact. There is also a general risk map** **An extensive spreadsheet analysis outlines costs revenue and value creation.**	
	1.7.2	Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and business opportunities.	**Water related opportunities are developed and incorporated into the WAS. Inspected a Risk matrix identifies risks including likelihood severity and impact. There is also a general risk map** **An extensive spreadsheet analysis outlines costs revenue and value creation.**	
1.8 Understand best practice towards achieving AWS outcomes: Determining sectoral best practices having a local/catchment, regional, or national relevance.	1.8.1	Relevant catchment best practice for water governance shall be identified.	**The river basement management plans and catchment assessments consider best practice.** **Evidence: National approach River Basin Management Plan for Ireland - 2018 – 2021** **For Bandon: Bandon Ilen Catchment Assessment 2010-2015 (HA 20)** **These demonstrate best practice in catchment management**	
	1.8.2	Relevant sector and/or catchment best practice for water balance (either through water efficiency or less total water use) shall be identified.	**Sector best practice and benchmarks are established.** **Evidence:** **Best available technology BAT and BRef reference documents are used under an EU IED legislation** **This has recently been changed to require the plant to comply with the BAT reference documents within 3 years.** **https://eippcb.jrc.ec.europa.eu/reference/food-drink-and-milk-industries** **This was developed with a cross stakeholder process inc NGOs.**	

			This includes best practice within the plant operations with best practice water use benchmarks.	
	1.8.3	Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.	**Best available technology BAT and BAT reference documents are used under an EU IED legislation** **This has recently been changed to require the plant to comply with the BAT reference documents within 3 years.** **This was developed with a cross stakeholder process inc NGOs.** **This includes best practice within the plant operations with best practice water quality benchmarks.**	
	1.8.4	Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.	**The EPA and the national parks and wildlife service have identified IWRA and targets. The fisheries board have responsibilities for Fisheries.** **Standards e.g. for water quality reflect best practice for IWRA.** **Cork County Council and the Environmental Protection Agency have the mandate of governing the Bandon-Ilen Catchment; an adaptation of the European Union Water Framework Directive. The Water Framework Directive states that a catchment located in the European Union must achieve specific quality criterium to preserve and enhance the status of aquatic ecosystems. The National Parks and Wildlife Services is responsible for the protection of the range of ecosystems found in the catchment. The Office of Public Works is the competent authority for the European Union Floods Directive.**	
	1.8.5	Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.	**There is no unmet need WASH.** **There is an EU drinking water potable water standards for product contact water.** **The Covid environment has re defined best practice for WASH in the plant.** **Interview with Covid Administrator. Covid has made changes to procedures and basic levels of sanitation and health this includes:.** **Masks** **Sanitizers** **Temperature checks.**	

			Internal environment is monitored by staff. **Rapid tests weekly.** **Surface test.** **Hand washing is monitored by Covid martials and entry into production is conditional on following strict hand washing procedures.** **ABP are also involved in Covid detection and prevention eg detection of Covid in waste water.**	

STEP 2: COMMIT AND PLAN

Commit to be a responsible water steward and develop a water stewardship plan

Intent: To ensure there is sufficient leadership support, site authority, and allocated resources for the site to implement the AWS Standard. It focuses on how a site will act on shared water challenges and improve its performance and the status of its catchment in terms of the AWS water stewardship outcomes. Step 2 links the information gathered in Step 1 to the actions implemented in Step 3, by describing who will do what and when.

Criteria		Indicators	Response Area	Points Allocated
2.1 Commit to water stewardship by having the senior-most manager in charge of water at the site, or if necessary, a suitable individual within the organization head office, sign and publicly disclose a commitment to water stewardship, the implementation of the AWS Standard and achieving its five outcomes, and the allocation of required resources.	2.1.1	A signed and publicly disclosed site statement OR organizational document shall be identified. The statement or document shall include the following commitments: That the site will implement and disclose progress on water stewardship program(s) to achieve improvements in AWS water stewardship outcomes; That the site implementation will be aligned to and in support of existing catchment sustainability plans; That the site's stakeholders will be engaged in an open and transparent way ; That the site will allocate resources to implement the Standard.	**Inspected site commitment 24 May** **That the site's stakeholders will be engaged in an open and transparent way** **That the site implementation will be aligned to and in support of existing catchment sustainability plans.** **Inspected the website. www.abpsustianbilitystory.com** **NCR 01/21 In the commitment the following were Implied but not specific:** **That the site's stakeholders will be engaged in an open and transparent way** **That the site implementation will be aligned to and in support of existing catchment sustainability plans.**	
	2.1.2	**Advanced Indicator** A statement that explicitly covers all requirements set out in Indicator 2.1.1 and is signed by the organization's senior-most executive or governance body and publicly disclosed shall be identified.	**The group manager for Environment and sustainability and has signed the commitment statement.** **There was a change in CEO but the intention is for the CEO to sign the commitment as well.**	**1**
2.2 Develop and document a process to achieve and maintain legal and regulatory compliance.	2.2.1	The system to maintain compliance obligations for water and wastewater management shall be identified, including: Identification of responsible persons/positions within facility organizational structure; Process for submissions to regulatory agencies.	**The ISO 14001 system maintains compliance obligations.** **This includes compliance obligations for water related issues.** **Inspected Manual 5 Legislation lists relevant legislation.**	

			Also inspected the legislative amendment register. **Interview with Group environmental division there is a quarterly update and if there are immediate changes, they contact the plant.** **They are responsible for submissions to regulatory authorities as required.** **Evidence inspected an example.** **Emission Monitoring reporting is compiled and Checked before submission to EPA.** **Water ,surface water, rainwater, waste water etc. Colletee controls the document and the whole process.**	
2.3 Create a water stewardship strategy and plan including addressing risks (to and from the site), shared catchment water challenges, and opportunities	2.3.1	A water stewardship strategy shall be identified that defines the overarching mission, vision, and goals of the organization towards good water stewardship in line with this AWS Standard.	**Inspected AWS 10/03/2021 narrative document that has a strategy statement that meets the criteria.** **NCR 2/21 This is in draft and need to have a place in the system.**	
	2.3.2	A water stewardship plan shall be identified, including for each target: How it will be measured and monitored; Actions to achieve and maintain (or exceed) it; Planned timeframes to achieve it; Financial budgets allocated for actions; Positions of persons responsible for actions and achieving targets; Where available, note the link between each target and the achievement of best practice to help address shared water challenges and the AWS outcomes.	**The site has a water stewardship plan,15/5/2021 V0.** **Each target is identified with actions for monitoring details.** **Evidence from the WSP:** **Target: To reduce on-site water consumption by 10% by 2030. A reduction of 1% annually over the ten years will achieve this goal.** **Measurement/Monitoring Method: Water usage in the targeted areas of the facility as well as total water use for the site will be monitored via SCADA meter readings in order to identify if water consumption savings are occurring or not as a result of the various projects being carried out.**	
	2.3.3	**Advanced Indicator**	**Farmyard Run-off trial with University College Cork (UCC) aim to**	**4**

		The site's partnership/water stewardship activities with other sites within the same catchment (which may or may not be under the same organisational ownership) shall be identified and described.	**1. Attenuate the flow of land drain so as to avoid hydro-morphological effects on river** **2. Create an initial infiltration of zone, mitigating nutrients reaching river directly** **3. Removal of certain nutrients through reaction with microbes in soil** **4. Removal of certain volume of nutrients through reaction with bacteria in alder tree nodules.** **Evidence Interview Roy Kingston the farmer in the trial.**	
	2.3.4	**Advanced Indicator** The site's partnership/water stewardship activities with other sites in another catchment(s) (either under same corporate structure or with another corporate site) shall be identified.	**ABK UK Partnership - Recently joined COP** **https://www.smartwater.ie/** **Inspected Best Practice Newsletter with ABP UK Agricultural Team** **Tamar"** **Learnings from another catchment are being used to extend Water Stewardship across the group.** **Inspected - South Western River Basin Management Plan (2009-2015).**	**3**
	2.3.5	**Advanced Indicator** Stakeholder consensus shall be sought on the site's water stewardship plan. Consensus should be achieved on at least one target. A list of targets that have consensus and in which stakeholders are involved shall be identified.	**Consensus on the WSP was sought records indicate consensus** **Evidence: Stakeholder Communications Log** **Stakeholder Engagement Matrix** **Employee Feedback** **Water Stewardship Plan Evaluation Form.**	**7**
2.4 Demonstrate the site's responsiveness and resilience to respond to water risks	2.4.1	A plan to mitigate or adapt to identified water risks developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.	**Risk from the site to the site and in the catchment are considered.** **The risk matrix established the risks developed in co-ordination with relevant public-sector and infrastructure agencies are identified.** **Because the plant abstracts water from an onsite Bore and has on site water treatment and discharge there are no shared infrastructure and risks**	

			The main risk is water quality. This is handled through compliance which in turn is handled by the compliance system within ISO 14001 but these are mainly on site risks eg maintaining bund system in conjunction with EPA requirements. **Interviews explained that on bunds are monitored and if contaminated are tinkered off site.** **The tanks and bunds are tested and certified every 3 year.** **This geos into the Annual Environmental Report to the EPA.**	
	2.4.2	**Advanced Indicator** A plan to mitigate or adapt to water risks associated with climate change projections developed in co-ordination with relevant public-sector and infrastructure agencies shall be identified.	**"** **Interview with Community relations officer CCC.** **There No predicted water shortage but there is a flood risk and a clear link to climate change.** **Plans and actions include:** **Farmyard Run-Off trial with UCC - water scarcity mitigation** **Best Practice Newsletter with ABP UK** **Re-routing of rainwater to biodiversity area** **Obs. There is a need to formalise its link of the run off project with the flood programme and its aims around climate change.** **There is no shared infrastructure, all the infrastructure is owned by the company and is on site.**	**5**

STEP 3: IMPLEMENT
Implement the site's stewardship plan and improve impacts

Intent: To ensure that the site is implementing the plan outlined in Step 2, mitigating risks and driving actual improvements in performance.

Criteria		Indicators	Response Area	Points Allocated
3.1 Implement plan to participate positively in catchment governance.	3.1.1	Evidence that the site has supported good catchment governance shall be identified.	**The stakeholder Matrix included evidence that there is engagement with catchment governance.** **Reports to the EPA based on data from the pant are required as part of catchment Governance.** **Evidence: Annual Environmental Report (AER)** **ABP Bandon Licence Number: P0188-02** **Interview with community relations for CCC indicated a superior level of engagement that is "not usual" with corporates in her experience.** **The Best Practice news letter in relation to Governance water quality Goals promulgated by the company is evidence that the site is supporting good water governance.**	
	3.1.2	Measures identified to respect the water rights of others including Indigenous peoples, that are not part of 3.2 shall be implemented.	**There are no indigenous water rights.** **The company has an enclosed system with extraction and discharge all on site. So other right are not impacted.**	**NA**
	3.1.3	**Advanced Indicator** Evidence of improvements in water governance capacity from a site-selected baseline date shall be identified.	**2020 has been selected as baseline. There are 2 main initiatives:** **Rainwater Harvesting** **Reycled reuse discharge** **An Outreach Best Practice news letter in relation to Governance water quality Goals is an extension of Governance Capacity.**	**2**
	3.1.4	**Advanced Indicator** Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the good	**Evidence stakeholder meetings with the auditor consensus that the site is seen as positively contributing to the good water governance of the catchment.** **Also inspected Stakeholder feedback forms showing general consensus. Eg Acorn water,**	**2**

		water governance of the catchment shall be identified.	**This engagement suggested that sampling of the Bandon river was a waste of time given the council sampling plans. He suggested other areas the plant could be involved in and this will be included in the next iteration of the plan.**	
3.2 Implement system to comply with water-related legal and regulatory requirements and respect water rights.	3.2.1	A process to verify full legal and regulatory compliance shall be implemented.	**The ISO 14001 system maintains compliance obligations.** **This includes compliance obligations for water related issues.** **Inspected Manual 5 Legislation lists relevant legislation.** **Also inspected the legislative amendment register.** **Interview with Group environmental division - there is a quarterly update and if there are immediate changes, they contact the plant.** **They are responsible for submissions to regulatory authorities as required.** **Evidence inspected an example.**	
	3.2.2	Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Indigenous peoples, shall be implemented.	**Clause not applicable, all water extractions and discharge occur on site and do not have an impact on any other party.**	
3.3 Implement plan to achieve site water balance targets.	3.3.1	Status of progress towards meeting water balance targets set in the water stewardship plan shall be identified.	**The WSP section 3 deal with site water balance. The WSP itself is the record of progress and is updated and identified.** **Evidence: The progress and timelines for Rainwater Harvest were demonstrated.** **The recycled discharge project was demonstrate and is now shown as completed as at July 2021** **Ob the iterations and progress are not clear a Gant chart or similar may better show the progress.**	
	3.3.2	Where water scarcity is a shared water challenge, annual targets to improve the site's water use efficiency, or if practical and applicable, reduce	**Water scarcity is not a shared challenge. Evidence the Irish River Basin management plan confirms no water stress.**	

		volumetric total use shall be implemented.		
	3.3.3	Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.	**Water is not re-allocated so clause is Not Applicable.**	
	3.3.4	**Advanced Indicator** The total volume of water voluntarily re-allocated (from site water savings) for social, cultural and environmental needs shall be quantified.	**There are on site vegetable allotments as a social initiative for employee benefits. Rainwater capture is diverted to irrigate these sites. Water harvest is estimated 616 gallons of collection annually.**	**4**
3.4 Implement plan to achieve site water quality targets.	3.4.1	Status of progress towards meeting water quality targets set in the water stewardship plan shall be identified.	**The WSP section 3 deal with site water quality as hard targets. The WSP itself is the record of progress and is updated and identified.** **Evidence the farmyard run off treatment and flood/flow attenuation is detailed in the plan with Phase 1 completed.** **In addition Environmental monthly report is a way of tracking compliance and this becomes part of a report to the EPA.**	
	3.4.2	Where water quality is a shared water challenge, continual improvement to achieve best practice for the site's effluent shall be identified and where applicable, quantified.	**Environmental monthly report is a way of tracking compliance and this becomes part of a report to the EPA.** **Best practice is linked to the EU BAT and BREF documents to identify best practice and targets.**	
3.5 Implement plan to maintain or improve the site's and/or catchment's Important Water-Related Areas.	3.5.1	Practices set in the water stewardship plan to maintain and/or enhance the site's Important Water-Related Areas shall be implemented.	**Run off from storm water to a Biodiversity is outlined in the WSP. Contracts are in place to manage the Biodiversity pond but has not yet commenced.**	
	3.5.2	**Advanced Indicator** Evidence of completed restoration of non-functioning or severely degraded Important Water-Related Areas including where appropriate cultural	**There is no severely degraded IWRA. The river Bandon is rated Poor status.**	**NA**

		values from a site-selected baseline date shall be identified. Restored areas may be outside of the site, but within the catchment.		
	3.5.3	**Advanced Indicator** Evidence from a representative range of stakeholders showing consensus that the site is seen as positively contributing to the healthy status of Important Water-Related Areas in the catchment shall be identified.	**Stakeholder comments from Communications logs and feed back forms and the stakeholder 360 survey done as part of the audit reflected consensus that the site has consensus view that they are contributing positively to IWRA.**	**2**
3.6 Implement plan to provide access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers at all premises under the site's control.	3.6.1	Evidence of the site's provision of adequate access to safe drinking water, effective sanitation, and protective hygiene (WASH) for all workers onsite shall be identified and where applicable, quantified.	**WASH is not an unmet need.**	
	3.6.2	Evidence that the site is not impinging on the human right to safe water and sanitation of communities through their operations, and that traditional access rights for Indigenous and local communities are being respected, and that remedial actions are in place where this is not the case, and that these are effective.	**There is no unmet need however it was noted that, as a result of feedback from an employee survey part of the WSP is to upgrade the toilet facilities on site.**	
	3.6.3	**Advanced Indicator** A list of actions taken to support the provision to stakeholders in the catchment of access to safe drinking water,	**Not applicable**	**NA**

		adequate sanitation and hygiene awareness shall be identified.		
	3.6.4	**Advanced Indicator** In catchments where WASH has been identified as a shared water challenge, evidence of efforts taken with relevant public-sector agencies to share information and to advocate for change to address access to safe drinking water and sanitation shall be identified.	**Not applicable**	**NA**
3.7 Implement plan to maintain or improve indirect water use within the catchment.	3.7.1	Evidence that indirect water use targets set in the water stewardship plan, as applicable, have been met shall be quantified.	**The plan outlines efforts to help farmers to management water more efficiently impacts on indirect water use.** **Targets are the numbers of suppliers contacted. The outreach newsletter is the primary vehicle for contacting suppliers.**	
	3.7.2	Evidence of engagement with suppliers and service providers, as well as, when applicable, actions they have taken in the catchment as a result of the site's engagement related to indirect water use, shall be identified.	**The only service providers with significant embedded water use is for laundry service provider 11.56 Ltr / KG 3006 Kg annually.** **Engagement has happened with cattle suppliers and with Laundry service providers.** **Targets are set for engagement** **Obs there has been engagement but there are no targets set yet for indirect water use in outsources Laundry services.**	
	3.7.3	**Advanced Indicator** Actions taken to address water related risks and challenges related to indirect water use outside the catchment shall be documented and evaluated.	**In The Tamar project for ABP UK is replicating the best practice updates for Livestock suppliers. The joint approach compares ideas relevant to the 2 catchments.** **ABP has membership of the "Community of best practice for large water users" CoP project is set to address areas of risk and challenges across a wide range of areas and a wide range of stakeholders. This has only just begun.** **https://www.smartwater.ie/**	**5**
3.8 Implement plan to engage with and notify the owners of any shared water-related	3.8.1	Evidence of engagement, and the key messages relayed with confirmation of	**There is no shared water related infrastructure. Water intake treatment and discharge are all withing the site boundaries.**	

infrastructure of any concerns the site may have.		receipt, shall be identified.		
3.9 Implement actions to achieve best practice towards AWS outcomes: continually improve towards achieving sectoral best practice having a local/catchment, regional, or national relevance.	3.9.1	Actions towards achieving best practice, related to water governance, as applicable, shall be implemented.	**Reporting to EPA is ongoing via the Environmental report and the Annual report and supports best practice governance.** **On site water Governance is demonstrated by a campaign of employee engagement and feedback that has resulted in projects.**	
	3.9.2	Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.	**Reporting to EPA is ongoing via the Environmental report and the Annual report and supports best practice** **Rainwater harvesting and recycled discharge project leads to achievement of best practice.**	
	3.9.3	Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.	**Reporting to EPA is ongoing via the Environmental report and the Annual report and supports best practice.** **The plant commits to the Best available Technology documents under and EU led scheme Seville process covering IED directive for emissions to Air and water.** **2019 BREFT Document Chapter 17.1.7 set Emissions and water target and Bandon is well within all targets.**	
	3.9.4	Actions towards achieving best practice, related to targets in terms of the site's maintenance of Important Water-Related Areas shall be implemented.	**Implementation of storm water diversion to a Biodiversity Pond is an example of vest practice for on site IWRA.** **Reporting to EPA is ongoing via the Environmental report and the Annual report and supports best practice for emission into the Bandon River.**	
	3.9.5	Actions towards achieving best practice related to targets in terms of WASH shall be implemented.	**WASH is not an unmet need. Despite this the toilet upgrade project sand Covid protocols shows best practice.**	
	3.9.6	**Advanced Indicator** Achievement of identified best practice related to targets in terms of good water governance shall be quantified.	**On site Governance "No.of survey responses - 5.5% of workforce** **No of site presentations aired on screens - 1 so far. Plan to make it weekly occurrence.** **Off site Governance meetings.** **Number of CoP (EPA funded) meetings attended= 10 Irish water also attend these meetings.** **Number of Industrial Water 4.0 meetings attended.**	**8**
	3.9.7	**Advanced Indicator**	**The following achievements contribute considerably to best practice in sustainable water balance:**	**8**

		Achievement of identified best practice related to targets in terms of sustainable water balance shall be quantified.	**Rainwater Harvesting Calculator for roof - 7.7 gallons / M2** **Volume of water to be recycled over 12 months based on monthly measurement extrapolated out over year - 7200m3**	
	3.9.8	**Advanced Indicator** Achievement of identified best practices related to targets in terms of water quality shall be quantified.	**The plant commits to the Best available Technology documents under and EU led scheme Seville process covering IED directive for emissions to Air and water.** **BREFT Document Chapter 17.1.7 set Emissions to water target and Bandon is well within all targets.**	**8**
	3.9.9	**Advanced Indicator** Achievement of identified best practices related to targets in terms of the site's maintenance of Important Water-Related Areas have been implemented.	**There diversion of rain water to a Biodiversity pond has been implemented and evaluated. Evidence inspected ABP Biodiversity policy by Mairead O'Donnell including the status of the Biodiversity pond.**	**8**
	3.9.10	**Advanced Indicator** Achievement of identified best practice related to targets in terms of WASH shall be quantified.	**WASH is not an unmet need.**	**NA**
	3.9.11	**Advanced Indicator** A list of efforts to spread best practices shall be identified.	**Newsletter** **Attendance at COP Meetings shares and exchanges best practice.** **The run off project, if successful will be incorporated into the best practice advice given to farmers.** **Involvement with ABP UK on the goals of South Western River Basin Management Plan (2009-2015) in the Tamar Valley.**	**3**
	3.9.12	**Advanced Indicator** A list of collective action efforts, including the organizations involved, positions of responsible persons of other entities involved, and a description of the role played by the site shall be identified.	**Farmyard Run-Off trial with UCC - water scarcity mitigation was initiated by Simon Callanan from the site thought old contacts at University College Cork (UCC) evidence: Interview with Dr Simon Harrison of UCC.** **COP ABK UK Partnership - Recently joined COP** **https://www.smartwater.ie/** **Head of Sustainability and Environment for ABP is responsible.**	**14**

			ABP is part of the Courtauld commitment. **https://wrap.org.uk/taking-action/food-drink/initiatives/courtauld-commitment**	
	3.9.13	**Advanced Indicator** Evidence of the quantified improvement that has resulted from the collective action relative to a site-selected baseline date shall be identified and evidence from an appropriate range of stakeholders linked to the collective action (including both those implementing the action and those affected by the action) that the site is materially and positively contributing to the achievement of the collective action shall be identified.	**UCC project but results are not yet collated.** **Company R and D related to water collaborative works and outcomes shared though Irish cattle Breeders federation and** **Teagasc – the Agriculture and Food Development Authority – is the national body providing integrated research, advisory and training services to the agriculture and food industry and rural communities.** **Confirmed by web search** **https://www.teagasc.ie/search/?q=ABP%7C#:~:text=ABP%20Food%20Group%20Animal%20By-Product%20Valorisation** **There were also numerous other collaborations** https://eippcb.jrc.ec.europa.eu/reference/food-drink-and-milk-industries - BREF Document https://www.farminglife.com/news/research-shows-significant-dairy-beef-carbon-reduction-potential-1387844 - R&D Farm work with Teagasc, ICBA https://www.irishtimes.com/business/agribusiness-and-food/dairy-cattle-emissions-could-be-cut-without-reducing-herd-study-finds-1.4097131 - R&D Farm work with Teagasc, ICBA https://hail.to/abacusbio/publication/WEGPTfj/article/1ocaFAi - R&D Farm work with Teagasc, ICBA https://www.smartwater.ie/ - COP funded by EPA-ABP a member	**8**

STEP 4: EVALUATE

Evaluate the site's performance

Intent: To review a site's performance against the actions taken in Step 3, learn from the results – both intended and unintended – and inform the next iteration of the site's water stewardship plan. This evaluation shall occur at least annually, but sites should consider more frequent evaluations.

Criteria		Indicators	Response Area	Points Allocated
4.1 Evaluate the site's performance in light of its actions and targets from its water stewardship plan and demonstrate its contribution to achieving water stewardship outcomes.	4.1.1	Performance against targets in the site's water stewardship plan and the contribution to achieving water stewardship outcomes shall be evaluated.	**There is an SOP for evaluating the WSP and a template for evaluating the plan. Including site evaluation, stakeholder evaluation and resulting amendments.** **1.2 Standard Operating Procedure for Evaluating Implementation of Site Water Stewardship Plan Date of Issue: 22/04/2021** **Revision No. 1** **Plan has not been active for a full year evaluation has not yet occurred. The evaluation is due end of 2021 when there will be a years' worth of data to evaluate. Currently there is only 6 months' worth of data to evaluate.** **Some areas are being continuously evaluated and reported via EMR and regulatory reporting.** **Some areas e.g. emergency response plans are evaluated as required e.g. as a result of incidents. 8/06/2020 involving Ammonia limits being exceeded.**	
	4.1.2	Value creation resulting from the water stewardship plan shall be evaluated.	**There is a value creation matrix (inspected) which outlines parameters for value creation and allows for a score after evaluation. This will be evaluated at a senior management level.** **Ob a value creation metric has not been developed. A rationale for a score needs to be developed.**	
	4.1.3	The shared value benefits in the catchment shall be identified and where applicable, quantified.	**There is a value creation matrix (inspected) which outlines parameters benefits to the catchment inc economic, social and environmental benefits.**	

			Ob a value creation metric has not been developed. A rationale for a score needs to be developed.	
	4.1.4	**Advanced Indicator** A governance or executive-level review, including discussion of shared water challenges, water risks, and opportunities, and any water-related cost savings or benefits realized, and any relevant incidents shall be identified.	**Not assessed** **A template of an executive level review has been developed**	**NA**
4.2 Evaluate the impacts of water-related emergency incidents (including extreme events), if any occurred, and determine the effectiveness of corrective and preventative measures.	4.2.1	A written annual review and (where appropriate) root-cause analysis of the year's emergency incident(s) shall be prepared and the site's response to the incident(s) shall be evaluated and proposed preventative and corrective actions and mitigations against future incidents shall be identified.	**There is an annual review or water related incidence. This is currently done and an example was demonstrated** **Elevated Ammonia and nitrogen in final discharge was reported in routine testing 9/6/2020.** **The discharge was stopped and Corrective action procedures followed. There was an investigation and the root cause was determined. There was a drop off of dissolved oxygen through the day below the levels for ammonia removal.** **The Corrective intervention (CI) was opened with more air provided to the tanks to with enhanced diffusers improve aeration. There were 10 days of sampling.** **The issue was closed on 27th June with the final discharge analysis, but analysis continued for all of July.**	
4.3 Evaluate stakeholders' consultation feedback regarding the site's water stewardship performance, including the effectiveness of the site's engagement process.	4.3.1	Consultation efforts with stakeholders on the site's water stewardship performance shall be identified.	**There is ongoing discussion with stakeholders on performance. This is largely around regulatory reporting which happens all the time.** **There is also consultation with stakeholders on performance. The consultation at the audit demonstrated that stakeholders were aware of performance and recognised best practice.**	
	4.3.2	**Advanced Indicator** The site's efforts to address shared water challenges shall be evaluated by stakeholders. This shall include stakeholder reviewing of the site's efforts across all five outcome areas, and their suggestions for continual improvement.	**Not Assessed**	**NA**

4.4 Evaluate and update the site's water stewardship plan, incorporating the information obtained from the evaluation process in the context of continual improvement.	4.4.1	The site's water stewardship plan shall be modified and adapted to incorporate any relevant information and lessons learned from the evaluations in this step and these changes shall be identified.	**Plan has not been active for a full year evaluation has not yet occurred. The evaluation is due end of 2021 when there will be a years' worth of data to evaluate. Currently there is only 6 months worth of data to evaluate.** **However the modification of the plan is ongoing as projects progress. Progress and in some cases completion is noted.** **Stakeholder feedback was inspected eg Cork City council have said that analysis of river water is not necessary. The site demonstrated that this has been taken into account and will be moved from the plan at the first review.**	

STEP 5: COMMUNCATE & DISCLOSE

Communicate about water stewardship and disclose the site's stewardship efforts

Intent: To encourage transparency and accountability through communication of performance relative to commitments, policies, and plans. The disclosure of relevant information allows others to make informed opinions on a site's operations and tailor their involvement to suit.

Criteria		**Indicators**	**Response Area**	**Points Allocated**
5.1 Disclose water-related internal governance of the site's management, including the positions of those accountable for legal compliance with water-related local laws and regulations.	5.1.1	The site's water-related internal governance, including positions of those accountable for compliance with water-related laws and regulations shall be disclosed.	**This was inspected and it was found that this is part of the ISO 14001 compliance and must be disclosed.** **The documents are held in the office which are publicly available on request.**	
5.2 Communicate the water stewardship plan with relevant stakeholders.	5.2.1	The water stewardship plan, including how the water stewardship plan contributes to AWS Standard outcomes, shall be communicated to relevant stakeholders.	**The WSP has been communicated in a video and presentation and copies sent to identified stakeholders.** **There is also a feedback form which will be fed int the water Stewardship plan update.**	
5.3 Disclose annual site water stewardship summary, including the relevant information about the site's annual water stewardship performance and results against the site's targets.	5.3.1	A summary of the site's water stewardship performance, including quantified performance against targets, shall be disclosed annually at a minimum.	**The plan is update continually. There are also an evaluation template.** **Annual Environmental report (to the EPA) include aspects that are targets in the water stewardship plan and is a public document.**	
	5.3.2	**Advanced Indicator**	**Not yet in the annual report. The next annual report will be Q1 2022.**	**NA**

		The site's efforts to implement the AWS Standard shall be disclosed in the organization's annual report.		
	5.3.3	**Advanced Indicator** Benefits to the site and stakeholders from implementation of the AWS Standard shall be quantified in the organization's annual report.	**Not yet in the annual report. The next annual report will be Q1 2022.**	**NA**
5.4 Disclose efforts to collectively address shared water challenges, including: efforts to address the challenges; engagement with stakeholders; and co-ordination with public-sector agencies.	5.4.1	The site's shared water-related challenges and efforts made to address these challenges shall be disclosed.	**This is detailed in the WSP which is continually update as efforts are made to address shared challenges.** **There are several projects and efforts that address shared challenges that are reported.** **DCU corporations in waste water treatment.** **UCC run off project.**	
	5.4.2	Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.	**Public disclosures comes when public sector agencies acknowledge projects.** **Eg Interview with Community Relations Officer CCC.**	
5.5 Communicate transparency in water-related compliance: make any site water-related compliance violations available upon request as well as any corrective actions the site has taken to prevent future occurrences.	5.5.1	Any site water-related compliance violations and associated corrections shall be disclosed.	**The ammonia level incident reported in (REF) was disclosed to the Cork County Council ,NSAI (owners of ISO 14001 for Ireland) and the EPA immediately and corrective actions were made clear to the regulatory bodies. There was a follow up compliance audit.**	
	5.5.2	Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.	**Corrective actions made were disclosed to the regulatory bodies as required by law. There is a full report of this incident. This then becomes a public documents on the EPA website. Evidence inspected the report on the web site.**	
	5.5.3	Any site water-related violation that may pose significant risk and threat to human or ecosystem health shall be immediately communicated to relevant public agencies and disclosed.	**The ammonia level incident reported in (REF) was disclosed to the Cork County Council NSAI (owners of ISO 14001 for Ireland) and the EPA immediately and corrective actions were made clear to the regulatory bodies. This the n becomes a public documents on the EPA website. Evidence inspected the report on the web site.**	
			TOTAL POINTS ALLOCATED	**105**

END OF REPORT