

Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

SITE DETAILS

Site: AMS Little Island Cork

Address: Wallingstown, Little Island, T45VP40, Cork, IRELAND

Contact Person: Carlos Sullivan

AWS Reference Number: AWS-000529

Site Structure: Single Site

CERTIFICATION DETAILS

Certification status: Certified Core

Date of certification decision: 2024-Jan-23

Validity of certificate: 2027-Jan-23

AUDIT DETAILS

Audited Service(s): AWS Standard v2.0 (2019)

Audit Type(s): Initial Audit Audit Start Date: 2023-Jul-04 Lead Auditor: Tanya Christensen

Audit team participants:

Wicki Nielsen

Site Participants:

Carlos Sullivan, Other Adam McCarthy, Other Pat O'Connor:, Other

Frank Molloy:, Quality manager

Jerry Curtin:, Director



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

ADDITIONAL INFO

Summary of Audit Findings: A total of 32 findings were raised during the certification audit, 0 major non-conformities, 29 minor non-conformities, and 3 observations.

The Client is requested to perform a root cause analysis and define corrective actions for each of the non-conformities and to submit these to WSAS within 60 days of receipt of the audit report by 20 January 2024.

Minor non-conformities must be closed out by the time of the next annual audit.

The audit team recommends certification of AMS Little Island Cork at Core level pending approval of the corrective actions plan.

CLOSURE OF FINDINGS AND CORRECTIVE ACTION PLAN:

The Client has successfully resolved the corrective action plans addressing all findings. Proof of implementation has been requested for the Minors and this will be evaluated during the Surveillance Audit. The client is requested to upload evidence of implementation prior to the Surveillance Audit.

Scope of Assessment: The scope of services covers the Initial certification audit for assessing conformity of AMS Cork against the AWS International Water Stewardship Standard Version 2.

AMS is Ireland's only independently owned manufacturer of extruded aluminium profiles and they specialise in aluminium extrusion, powder coated aluminium, sheet metal fabrication and have been operating the only fully automated Anodising Plant in Ireland (and the UK), since the summer of 2022. The site is located on a 250,000 sq. ft. facility and they operate the following lines: Horizontal Paint Line, Vertical Paint Line, Anodising Line, Extrusion Lines and Die Cleaning Shop.

AMS is based on the banks of Lough Mahon in Little Island, Co. Cork. in the Wallingstown Industrial Estate, Little Island, County Cork. Little Island has been defined as the Physical Scope of the site, and the site sits on the shore of Lough Mahon (Mahon Lake), which is a sea loch and part of the tidal estuary, in the north-western part of Cork Harbour. Lough Mahon falls within the Cork Harbour "Special Protection Area".

The site is located within the Lee, Cork Harbour and Youghal Bay Catchment, and the Tibbotstown Sub-catchment. The catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork. The Lee, Cork Harbour and Youghal Bay catchment is divided into 18 sub-catchments, with 92 river waterbodies, three lakes (Inniscarra, Carrigdrohid, Allua) 13 transitional, six coastal and 22 groundwater bodies.

The audit was conducted onsite on the 4-6.07.2023.

The onsite site visit included the assessment of all AMS Cork Production facilities and all relevant water-related infrastructure.

FINDINGS

NUMBER OF FINDINGS PER LEVEL

Observation 3 Minor 29

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Audit Number: AO-000622

FINDING DETAILS

Finding No: TNR-005305

Checklist Item No: 1.1.1
Status: Open

Finding level: Observation

Checklist item: 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.

Findings: The company has provided sufficient information and documentation for

Site boundaries, Water related infrastructure, Discharge points and ultimate receiving water body, Wastewater service provider, and

Catchments.

However, further information should be collected and documentation

provided for Ultimate source and Wastewater treatment plant.

Corrective action: Further documentation on the ultimate source and waste water

treatment plant will be documented.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005559

Checklist Item No: 1.2.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: For identification of stakeholders, the company has made a good start in

identifying and categorising stakeholders. However, more work can be

done on engagement of the most relevant stakeholders.

Corrective action: We have reviewed our stakeholder identification process to engage

additional stakeholders and we will be holding a stakeholder

engagement event on-site on 8 February 2024, at which we will engage

in discussions regarding stakeholders' water-related concerns and

challenges.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005560

Checklist Item No: 1.3.3

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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 indication of annual high

and low variances shall be quantified.

Findings: For site water balance, there is currently no established on-site

monitoring of water usage on site. Water balance calculation is based on monthly averages from the amounts on the bills from Irish Water and trade effluent flows however, no monitoring within production areas. There is a plan to install meters in six areas of the plant, as well las improving measuring of intakes and outflows. As amounts are currently based on monthly averages from the bills, it is not possible to establish

annual variance.

Corrective action: We are in the process of implementing:

1. Installation of water meters at Anodising, VPL and HPL processes.

This will include monitoring of Main Incoming water meters.

2. Upgrading existing M&T System to electronically collect metered data

from proposed water meters.

Variances and Water related challenges are very low for our supply

region.

Finding No: TNR-005505

Checklist Item No: 1.3.4 Status: Open

Finding level: Observation

Checklist item: 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.

Findings: Quality of water source and effluent has been monitored and reported /

quantified. A water related challenge has been identified together with other companies on the island and boreholes have been dug on the AMS site by the EPA, as part of a monitoring program of this. This could be used by the company to monitor "annual, and where appropriate,

seasonal, high and low variances."

Corrective action: This will be discussed at Water Stewardship Ireland CoP event held at

our site in Feb' 2024.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005507

Checklist Item No: 1.3.5

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Potential sources of pollution shall be identified and if applicable,

mapped, including chemicals used or stored on site.

Findings: No document listing the types of pollutants on site was provided.

Corrective action: We will develop and supply a full list of all chemicals currently used on

site, including storage locations. Any other potential sources of pollution

will also be identified and included on the list.

Finding No: TNR-005561

Checklist Item No: 1.3.7

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: For the annual water related costs and revenues, the company has

made a good start with the in-house costs, having started the exercise for mapping true cost of water for whole site. However, they still have a way to go, looking at the wider social, cultural, environmental, or economic water-related value generated by the site as not included yet.

Corrective action: We are working with a consultant to begin collating and analysing this

data. In addition, we hope to gather feedback on the environmental and

societal aspects as part of our stakeholder engagement work,

specifically the event on the 8th Feb 2024.

Finding No: TNR-005562

Checklist Item No: 1.4.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The embedded water use of primary inputs, including quantity, quality

and level of water risk within the site's catchment, shall be identified.

Findings: On identification of embedded water use, there is a record that includes

includes supplier, type of products/materials, origin (location), priority,

WWF water risk. However, quantities have yet to be added.

Corrective action: We are continuing to engage with our supply chain to determine

embedded water and will also use the WWF Water Risk Filter to identify

supply chain risks. This work remains ongoing.

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Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005598

Checklist Item No: 1.5.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: Regarding water governance initiatives, the company has not sufficiently

identified Water governance initiatives, 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.

Corrective action: A desktop review will be undertaken to improve our understanding of

water governance. We will also be engaging with peer organizations through our participation in the Water Stewardship Ireland Community of

Practice to better understand water governance best practice.

Finding No: TNR-005563

Checklist Item No: 1.5.3

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The catchment water-balance, and where applicable, scarcity, shall be

quantified, including indication of annual, and where appropriate,

seasonal, variance.

Findings: For catchment water balance, the company has initiated the process of

establishing a catchment water balance but does not have any

documentation or other evidence for this as of yet.

Corrective action: A desktop review will be undertaken to improve our understanding of

water catchment balance using the available information.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005564

Checklist Item No: 1.5.4

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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 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.

Findings: For water quality data, nothing has been provided in relation to water

related challenges or variances, also, aside from external reports on water quality, no documentation has been provided from AMS Cork on

this.

Corrective action: A desktop review will be undertaken to improve our understanding of

water quality using the available information.

Finding No: TNR-005520

Checklist Item No: 1.5.5

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: The IWRA analysis includes name, description (link to the two reports

listed above that contains descriptions), status of each, however it does

not include details of any water related risks.

Corrective action: The existing analysis will be updated to include water related risks, using

available data.

Finding No: TNR-005599

Checklist Item No: 1.5.6

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Existing and planned water-related infrastructure shall be identified,

including condition and potential exposure to extreme events.

Findings: The company should obtain details of any infrastructure related to water

supply on a catchment level.

Corrective action: We will attempt to gather data on infrastructure related to water supply;

however, we are very aware that there is limited data available in many

of Irish Water's service areas.

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Audit Number: AO-000622

Finding No: TNR-005525

Checklist Item No: 1.5.7

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The adequacy of available WASH services within the catchment shall be

identified.

Findings: No evidence has been submitted that contains information about WASH

in the catchment.

Corrective action: We will conduct a WASH survey of our suppliers to source relevant

catchment data. WASH services within the catchment are supplied by the national water utility provider, Uisce Eireann (UE, formerly Irish Water). Under the Water Services (No. 2) Act 2013, UE are responsible for the provision of public water utility for all public water supply in the area. UE recently brought water and wastewater services of the 31 local

authorities together under one national service provider. UE are

responsible for the operation of all public water and wastewater services which include the management of national water and wastewater assets and the maintenance of the water and wastewater system. For further information about Uisce Eireann current activities please refer to the Irish Water homepage, https://www.water.ie/about-us/our-company/. SAMS Ltd also engage with the local council (Cork County Council) on WASH-related matters. Their remit is available at the following website as reference: https://www.corkcoco.ie/en/resident/environment/.

Finding No: TNR-005600

Checklist Item No: 1.6.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Shared water challenges shall be identified and prioritized from the

information gathered.

Findings: Regarding shared water challenges, the ones listed are deemed suitable

and relevant however, have not been prioritised.

Corrective action: We will update and prioritise the list of shared water challenges in terms

of their significance and urgency.



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Audit Number: AO-000622

Finding No: TNR-005601

Checklist Item No: 1.6.2

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Initiatives to address shared water challenges shall be identified.

Findings: Regarding initiatives to address shared water challenges, the company

should provide details of the content or purpose of the initiatives listed in

'Water_Stewardship_System_V.1.

Corrective action: We will add an additional column to the Shared Water Challenges TAB

to include details of the 'Content' and 'Purpose' of the listed initiatives.

Finding No: TNR-005550

Checklist Item No: 1.7.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: In relation to water risks, the company has provided a copy of their

document 'Water_Stewardship_System_V.1', which does have infographics about some potential risks however, these have not listed with their likelihood and severity of impact within an identified timeframe. Furthermore, they have not been prioritised with potential costs, and

business impact.

Corrective action: Potential risks listed in the Water Stewardship Risks TAB will be

reviewed and incorporated into a table to be assessed for their likelihood and severity of impact within an identified time frame (where applicable).

Risks will be prioritised to include potential costs and business

impact(s).

WSAS STEWARDSHIP ASSURANCE SERVICES

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Audit Number: AO-000622

Finding No: TNR-004930

Checklist Item No: 1.7.2

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Water-related opportunities shall be identified, including how the site

may participate, assessment and prioritization of potential savings, and

business opportunities.

Findings: In regards to water related opportunities, the company has provided a

table that includes objectives, some of which are listed as opportunities. However, only site related opportunities are included, none in the wider catchment. Also, the opportunities listed are not prioritised with details of

participation, potential savings or business opportunities.

Corrective action: Water related opportunities for the wider catchment shall be identified

and prioritised to include details of participation, potential savings and/or business opportunities. Identified opportunities shall be incorporated into the table of Environmental Objectives within the water related risks TAB.

We will also be engaging with peer organizations through our

participation in the Water Stewardship Ireland Community of Practice to

better understand water-related opportunities in the catchment.

Finding No: TNR-005553

Checklist Item No: 1.8.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Relevant catchment best practice for water governance shall be

identified.

Findings: In regards to catchment best practise for water governance, the

company could extract best practise from identified sources and documentation, to make it more clear which are relevant to their

activities in the catchment.

Corrective action: We will explore best practice options for water governance identified

through desk research and in consultation with organizations in the Water Stewardship Ireland Community of Practice and identify which are

relevant to our catchment.

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005555

Checklist Item No: 1.8.3

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Relevant sector and/or catchment best practice for water quality shall be

identified, including rationale for data source.

Findings: Regards sector and/or catchment best practise for water quality; the

company has provided copies of two Irish Water Annual Environmental Reports (2021 and 2022, and another Irish Water document that outlines water testing practises in Ireland. These are all legal requirements, that are obligatory, so cannot be considered as best

practice in this context.

Corrective action: We will investigate relevant water quality best practice and undertake an

analysis of water capture reuse opportunities to match water quality to

its intended purpose, as per best practice.

Finding No: TNR-005556

Checklist Item No: 1.8.4

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Relevant catchment best practice for site maintenance of Important

Water-Related Areas shall be identified.

Findings: No relevant information has been provided in relation to best practice for

site maintenance of Important Water-Related Areas.

Corrective action: AMS is within a Special Protection Area and we have identified three

proposed off-site Natural Heritage sites within the catchment. We will conduct research (desk and stakeholder consultation) regarding best practice for relevant site maintenance for the SPA as well as the proposed Natural Heritage sites once the specific habitats to be

protected there have been defined.

WSAS STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005557

Checklist Item No: 1.8.5

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Relevant sector and/or catchment best practice for site provision of

equitable and adequate WASH services shall be identified.

Findings: No details about WASH best practise in the catchment has been

provided.

Corrective action: Following up on our efforts to understand WASH-related catchment

data, we will identify practices and projects that can be implemented on site that are considered best practice for WASH, expecially those related to how existing facilities can be further enhanced to reduce water

consumentian in line with our water belongs activities

consumption in line with our water balance activities.

Finding No: TNR-007556

Checklist Item No: 3.7.1
Status: Open

Finding level: Observation

Checklist item: Evidence that indirect water use targets set in the water stewardship

plan, as applicable, have been met shall be quantified.

Findings: It is recommended that AMS Cork include a target for indirect water use

in future versions of the water stewardship plan.

Corrective action: We are continuing to engage with our supply chain to determine

embedded water. This work remains ongoing.

Finding No: TNR-007340

Checklist Item No: 3.7.2

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: The site has not supplied any evidence of engagement activities with

their suppliers.

Corrective action: We will seek to provide evidence of engagement with our suppliers as

part of the work on embedded water and risks.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-007341

Checklist Item No: 3.8.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Evidence of engagement, and the key messages relayed with

confirmation of receipt, shall be identified.

Findings: The site has not supplied any evidence of engaging with Irish Water on

their shared water-related infrastructure, despite undertaking activities to

improve it.

Corrective action: We will identify a stakeholder within Irish Water with whom engagement

of shared water related infrastructure can be communicated.

Finding No: TNR-004970

Checklist Item No: 4.1.3

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The shared value benefits in the catchment shall be identified and where

applicable, quantified.

Findings: Although the site has set in place potential projects to engage

stakeholders in the catchment, this has not led to a development of any

meaningful shared value benefit to date.

Corrective action: We have reviewed our stakeholder identification process to engage

additional stakeholders and we will be holding a stakeholder

engagement event on-site on 8 February 2024, at which we will engage in discussions with stakeholders regarding potential projects with shared

value benefits.

Finding No: TNR-007347

Checklist Item No: 4.3.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Consultation efforts with stakeholders on the site's water stewardship

performance shall be identified.

Findings: The site is at the early stages of their stakeholder engagement process,

but have not conducted any relevant consultation efforts since July

2022.

Corrective action: We have reviewed our stakeholder identification process to engage

additional stakeholders and we will be holding a stakeholder

engagement event on-site on 8 February 2024, at which we will engage in discussions with stakeholders about developing and implementing a

responsive feedback evaluation process.

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-004971

Checklist Item No: 4.4.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: 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.

Findings: The site has developed the processes for evaluating and updating their

water stewardship plan, but they have not executed an evaluation

process to date.

Corrective action: A full review of the WSP will be carried out to include use of method for

evaluating how actions are completed and closed, as well as the extent to which they have met the targets in the water stewardship plan and the

five AWS outcomes.

Finding No: TNR-007557

Checklist Item No: 5.1.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The site's water-related internal governance, including positions of those

accountable for compliance with water-related laws and regulations shall

be disclosed.

Findings: The new disclosure methods that the site intend to use going forward,

must be in place by the sites surveillance audit.

Corrective action: AMS Website to be updated to include Environmental section where

water stewardship activities and performance can be shared. This will

include internal governance.

Finding No: TNR-004973

Checklist Item No: 5.2.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The water stewardship plan, including how the water stewardship plan

contributes to AWS Standard outcomes, shall be communicated to

relevant stakeholders.

Findings: At this stage, the site has not communicated their WSP to relevant

stakeholders and no evidence is available to support this.

Corrective action: As part of our stakeholder engagement reboot, we will identify the

appropriate information and the best process by which to communicate

the information to relevant stakeholders.

WSAS WATER STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-004974

Checklist Item No: 5.3.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: A summary of the site's water stewardship performance, including

quantified performance against targets, shall be disclosed annually at a

minimum.

Findings: The site has not disclosed a summary of their water stewardship

performance.

Corrective action: An internal review of AMS's water stewardship performance will be

carried out annually, and an appropriate summary of performance will be

communicated to relevant stakeholders following that process.

Finding No: TNR-007351

Checklist Item No: 5.4.1

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: The site's shared water-related challenges and efforts made to address

these challenges shall be disclosed.

Findings: The site is proactively disclosing the shared water challenges that they

have identified, but have not yet engaged in any efforts to address them.

Corrective action: We have reviewed our stakeholder identification process to engage

additional stakeholders and we will be holding a stakeholder

engagement event on-site on 8 February 2024, at which we will engage in discussions regarding planning to progress efforts to address shared

water challenges.

Finding No: TNR-007350

Checklist Item No: 5.4.2

Status: In Progress - CA plan approved

Finding level: Minor

Due date: 2024-Jul-01

Checklist item: Efforts made by the site to engage stakeholders and coordinate and

support public-sector agencies shall be identified.

Findings: The site has undertaken some stakeholder engagement activities, but

they have not held an event since July 2022. There was no evidence supplied of the site supporting public-sector agencies, although they are

clearly taking steps to establish catchment activities.

Corrective action: As part of our stakeholder engagement reboot and participation in the

Water Stewardship Ireland Community of Practice, we are working more

closely with the public sector and supporting their water-related

initiatives and activities.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Report Details		
Report	Value	
Report prepared by	Tanya Christensen	
Report approved by	Ruth Wandera	
Report approved on (Date)	21 November 2023	
Surveillance		

Proposed date for next audit

2024-Jul-01

Stakeholder Announcements

Date of publication	Location
23/06/2023	Company LinkedIn Page
05/05/2023	The Examiner Newspaper
28/03/2023	WSAS Website
28/03/2023	AWS Website



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Catchment Information



AMSC catchment.png

Catchment Information

All water catchment and sub-catchments have been mapped and defined by the EPA, Local Authority Waters Programme and the Department of Housing, Local Government and Heritage. Please reference: https://www.catchments.ie/. The site is located within the Lee, Cork Harbour and Youghal Bay Catchment, and the Tibbotstown Sub-catchment. There is a good level of information available on the environmental status of the catchment, as the data is collated by the EPA, there is less information available on the hydrogeology of the catchment.

This catchment includes the area drained by the River Lee and all streams entering tidal water in Cork Harbour and Youghal Bay and between Knockaverry and Templebreedy Battery, Co. Cork, draining a total area of 2,153km². The largest urban centre in the catchment is Cork City. The total population of the catchment is approximately 328,854 with a population density of 153 people per km². The Lee, Cork Harbour and Youghal Bay catchment is divided into 18 subcatchments, with 92 river waterbodies, three lakes (Inniscarra, Carrigdrohid, Allua) 13 transitional, six coastal and 22 groundwater bodies.



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Client Description and Site Details



site map.png



site plan.png

Client/Site Background

AMS is based on the banks of Lough Mahon in Little Island, Co. Cork. in the Wallingstown Industrial Estate, Little Island, County Cork. The company moved to the site in 2001 and the operational footprint has tripled since then from 3,500 square feet (sq, ft.) to 250,000 sq ft, from the initial three warehouses and an office building. AMS is Ireland's only independently owned manufacturer of extruded aluminium profiles and they specialise in aluminium extrusion, powder coated aluminium, sheet metal fabrication and have been operating the only fully automated Anodising Plant in Ireland (and the UK), since the summer of 2022. The site is located on a 250,000 sq. ft. facility and they operate the following lines: Horizontal Paint Line, Vertical Paint Line, Anodising Line, Extrusion Lines and Die Cleaning Shop. The site is supplied water from Uisce Eireann (Irish Water) and there is a small on-site borehole, supplying water to the AMS House for the HVAC system only, the site has also installed a rainwater harvesting system. Site has installed 3 groundwater monitoring boreholes around the site, to monitor water quality, in order to meet an EPA requirement. AMS Cork operate three Effluent Treatment Plants onsite, undertaking primary treatment of water from the Vertical Paint Line, Horizontal Paint Line and Anodising Plant. The Anodising Plant has an additional treatment unit to take the sulphuric acid out, before it is discharged for tertiary treatment.

Little Island has been defined as the Physical Scope of the site, and the site sits on the shore of Lough Mahon (Mahon Lake), which is a sea loch and part of the tidal estuary, in the north-western part of Cork Harbour. Lough Mahon falls within the Cork Harbour "Special Protection Area", as designated under the EU Birds Directive, and is an important habitat for a number of bird species and migrating waders in particular. The River Lee runs through Cork and extends into Lough Mahon. The water source of the site is the Glashaboy River, which is supplied by Irish Water, who also manage all waste water that is taken to the Carrigrenan Waste Water Treatment Plant, before it is discharged into Lough Mahon.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Summary of Shared Water Challenges

Summary of Shared Water Challenges

The site has compiled their shared water challenges in the 'water stewardship system' (v.1) , tab 'Water Related Challenges'

- Hydro morphology
- Urban Run Off
- Agriculture
- Urban Wastewater
- Domestic wastewater
- Forestry
- Industry
- Ground water
- Other significant pressures

0.1	General Requirements for Single Sites, Multi-Sites and Groups	
0.1.1	Eligibility Criteria	
0.1.1.1	The site(s) occupy one catchment OR an exception has been granted.	⊘ Yes
Comment	The site occupies a single catchment.	
0.1.1.2	The scope of the proposed certification shall be under the control of a single management system.	₹ Yes
Comment	The scope of certification is under the control of a single management system.	
0.1.1.3	The scope of the proposed certification shall be homogeneous with respect to primary production system, water management, product or service range, and the main market structures.	Yes
Comment	The site has a homogenous primary production system.	



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

STEP 1: GATHER AND UNDERSTAND

- 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; and 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.

Q Obs.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

Site boundaries

The document 'Site Plan 2023 @A1' is the new site boundaries maps that has been updated to include the recently procured warehouse in the top left corner of the site. Also shows water intake and discharge points within site.

This is complimented by the image 'Site Map June 2023', which is a Google Earth image used to show the same boundaries.

Water related infrastructure

'Site Plan Water supply @A1 rev. 0', is a comprehensive to scale map that uses different coloured lines to show the flow of water around the site, from intake through to services, water treatment plants, rainwater harvesting storage tanks and discharge to the three types of discharge points: sewers, Lough Mahon and off-site disposal (stored on site and taken away for treatment). Also shows bund locations, storage tanks, and chemical storage locations, as well as meter locations, which are both Irish water inflow meters and internal meters (aside from monitoring outflow no other data is currently collected).

Also, the Water Map on the 'Description of Site' tab on the document

'Water_Stewardship_System_V.1' is a very good flowchart of facilities and processes within the factory, also have locations for in and outflow, meter locations (including newly installed meters not yet in use) in relation to the different processes.

No water sources owned or managed by site.

Water service provider & ultimate source

- Water service provider is Irish Water. There are no other water service providers in The Republic of Ireland.

Irish Water has verbally confirmed that Glashaboy River is the water source however, they have not provided any written documentation to confirm this. AMS have tried several times to get this information from Irish Water but have not had any success so should therefore continue communicating with Irish Water on this.

However, thanks to a great website called 'Catchments.ie' and EPA maps, the company were able to demonstrate the ultimate water source Glashaboy River, Co. Cork. See document 'Water_Supply-Glashaboy_River'.

- The document 'Water_Bill_Meters_2+3_Period_21.09.22_to_17.02.23' is an example bill from service provider with breakdown per meter cube in and out 21/09/22 - 17/02/23

Discharge points and ultimate receiving water body

- 'Site_Plan-Underground_Services' clearly show discharge points for Lough Mahon and sewer
- Site Plan Water supply @A1 rev. 0 to scale map also shows discharge points.

Wastewater treatment plant

The service provider is Irish Water. The company methodology classifies outputs the same as inputs. So, intake volumes are metered but discharge aren't.

- The map 'Carrigrenan_WWTP' shows location of wastewater treatment plant.
- The document D0033-01_2021' is an annual environmental report by Irish Water (from 2021) that include details about the activities of Carrigrenan WWTP. However, during the audit, AMS were not able to locate information about treatment processes, quality and discharge point(s). The company should look for a 2022 report and the relevant information.

Catchments

- The excel sheet 'Water Stewardship System V.1' has a section that shows all relevant catchment maps and the individual maps were also shown at audit but have not been provided individually as altogether in the excel sheet.

The maps provided show sufficient details about catchment 19 and sub catchment 19.2, that are relevant to AMS.

For this indicator the company has provided sufficient information and documentation for Site boundaries, Water related infrastructure, Discharge points and ultimate receiving water body, Wastewater service provider, and Catchments.

However, further information needs to be collected and documentation provided for Ultimate source and Wastewater treatment plant.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

- 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:
- in progress
- 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.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

Stakeholder groups

The document 'AMS_Stakeholder_Engagement_and_Tracker-AMS_Review_24.05.22' Excel document containing details of 103 stakeholders. Includes details of: stakeholder type, stakeholder name, tier 1, 2 and 3 (importance), power (influence), interest, outlook, include in stakeholder engagement, contacted, method of contact, dates of first and second contact, stakeholder contact person, attendance at June 2023 stakeholder event. The list shows that stakeholders have been identified based on physical scope (including on WASH, which was investigated using the WWF water risk tool) and includes representative of the site's ultimate water source and ultimate receiving water body (Irish Water, Environmental Protection Area (EPA) and County Cork Council).

'AMS_Stakeholder_Engagement_and_Tracker-AMS_Review_24.05.22' also includes SoP for method of identifying, classifying and communicating with stakeholders. Not totally clear how the company determines who should be considered as tier 2 and 3, SoP only describes that tier 1 can be upgraded to 2 and that tier 2 can be upgraded to 3, but not based on what grounds.

The stakeholder list is very long and could do with being further analysed for applicability and importance of stakeholders as not clear who are- the most important to engage with.

Evidence of stakeholder consultation

'AMS_Stakeholder_Engagement_and_Tracker-AMS_Review_24.05.22' details who has been individually contacted and social media engagements (LinkedIn)

'- AMS_AWS_Stakeholder_Event_Slide_Deck-FINAL_26th_July_2022' shows the content of the presentation and information provided at the stakeholder consultation in July 2022, which included discussion on interests and shared water challenges.

Four companies accepted invitation, as well as some representatives from 20FIFTY Partners, a company that has provided consultancy to AMS.

At the on-site audit, the following documents were also shown however, copies of these have not been provided post audit:

- 'Irish Examiner page 7' public stakeholder notice in national newspaper
- 'AMS_Ltd_Water_Stewardship_Stakeholder_Engagment_Event_Poster' stakeholder event information including agenda for the day
- 'Stakeholder_Engament_Event_July_2022' photos from event.

The only communication on challenges was from neighbour company Cara Partners who flagged up the groundwater contamination on Little Island. No documentation provided with this information.

Aside from this, there has not been a lot of engagement, AMS have struggled to get people involved. And the ones who attended the stakeholder event (aside from the 20FIFTY representatives) knew little about the issue of water sustainability.

The company has made a good start in identifying and categorising stakeholders. However, more work can be done on identifying levels of influence and engagement of the most relevant stakeholders.

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.



Comment

No action had been taken by AMS on this indicator prior to the audit as they were unsure how to approach it. They were referred to the AWS Guidance document for more information on this section.

Post audit, the company provided a copy of the document

'AMS_Stakeholder_Engagement_and_Tracker-AMS_Review_24.05.22'. Column F in the document records the influence of the stakeholder,. It is noted that there are numerous stakeholders that are designated as medium and high, but they have not engaged with the site to date. With this being the initial certification it is understood that the site is at the early stages of their stakeholder engagement process, and progress with engaging stakeholders will be reviewed in detail at the surveillance audit.

WSAS

2 Quality StreetNorth Berwick, EH39 4HW, UNITED KINGDOM

Finding No: TNR-005559



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

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.



Comment

The document 'AMS_Emergency_Procedure_rev.2.0-_WHOLE_SITE' provides a documented system of preparedness for dealing with emergencies at AMS.

One of the objective of this is to protect the environment and under the scope is "Spillage of hazardous material to land and/or water". The document includes a list of related license, safety sheets and contact details. Also a list of the chemicals used, together with a map of where they are stored.

Within the document is a section on actions for a Major Spill, with a definition of this and the procedures to be followed, should one occur.

1.3.2 Site water balance, including inflows, losses, storage, and outflows shall be identified and mapped



Comment

1.3.3

'Site Plan Water supply @A1 rev. 0' clearly shows location of water meters, both Irish Waters and AMS Corks. It also shows inflow points, where losses can occur, storage and outflows. Also, the Water Map on the 'Description of Site' tab on the document 'Water_Stewardship_System_V.1' is a very good flowchart of facilities and processes within the factory, also have locations for in and outflow, meter locations (including newly installed

meters not yet in use) in relation to the different processes. These locations were also verified during audit site visit.

The site supplied a 'Water Bills and Balance' spreadsheet, that provides a simplified water balance calculation, purely based on water coming into the site and the output of the three onsite Waste Water Treatment plants.

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 indication of annual high and low variances shall be quantified.





Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

'Site Plan Water supply @A1 rev. 0' is a to scale map that shows location of water meters, both Irish Waters and AMS Corks. The location of these were also verified during audit site visit.

'Water Bills+Balance' shows billed amounts from Irish Water (tab W.Bills), trade effluent discharge readings (tab TE Values), and a comparison between Irish Water metered amounts (based on monthly average) and self-monitored trade effluent amounts, accounting for domestic use (W.Balance).

As Irish Water only meters intake and don't monitor outflow (as billing is based on intake equals output), AMS only have their own meter readings based on the monitored trade effluent amounts, they cannot access the Irish Water input meters.
'Water_balance_and_metering_proposed_programme" includes details of where meters will be installed.

- Example bill from service provider with breakdown per meter cube in and out 21/09/22 17/02/23. Shows that the company received documentation on use based on billing from service provider.
- During interviews at the audit it was explained that the water usage at the company has tripled since starting to do their own anodizing process last June, however, no documentation was provided to show this.

It is currently not possible for the company to show accurate data on site water balance, due to lack of meter monitoring. It is therefore not possible to identify any annual variance. Data is collected on the amounts that are sent for off-site disposal however, also no documentation provided for this.

As the company hasn't been able to start the monitoring process as part of the addressing of findings for the AWS audit, they have developed an action plan (Water_balance_and_metering_proposed_programme) detailing what they plan to carry out and implement going forward. This includes details of what has been done, what is planned however, without a timeline for actions.

Finding No: TNR-005560

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.

Q Obs.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

During the site visit, a document called 'UE Water Quality Summary Glashaboy 2022# was provided, this was a Water Quality 2022 Indicator Report from Irish Water.

The report did not have detailed data on content and quality of water in the Glashaboy River. The only information in it was that "Twenty one of the 103 (20%) estuarine and coastal water bodies assessed were in unsatisfactory condition for dissolved inorganic nitrogen. One of these were Glashaboy Estuary (Co. Cork), which was 124% above threshold value." No details of other potential contaminants. A copy of this document was not provided post audit.

'IEL License Final Determination 28.01.22' is an EPA license detailing allowed emissions to sewer: daily flow, pH, temperature, metals and other mineral content. 'UE-WAT_1' is an EPA analysis of water quality from the source water (drinking quality analysis).

There is an automated sampler that takes a sample reading of effluent water bodies once every 24 hours and generates certificate of analysis from independently accredited provider Complete Laboratory Solutions (CLS). The sampler monitors compound volumes suspended solids), pH and temperature *the reports from CLS does not include temperature). The only major variance found from monitoring the effluent discharge is changes in temperature, which amounts to around 21 Celsius during the winter and 31 Celsius during the summer (30c is their upper limit). The discrepancy had been registered on the EPA website. However, none of the documents provided included details of this.

'06_Trade_Effluent_1_Report_June_2023' shows the results of a reading from an automatic monitoring station at the trade effluent outflow with compounds included and a final conclusion of "good condition".

'SW1_Report_May_2023' is a certificate of another reading, with less compound details. 'AMS_Hourly_Flow_Average_Data_from_Autosampler_2022' shows average outflow. 'AMS_pH_Data_from_Autosampler_2022' shows pH readings. 'AMS_Temperature_Data_from_Autosampler_2022' shows temperature readings.

The only water-related challenge identified, that would be a threat to good water quality status for people or environment, is the general knowledge by businesses on Little Island that the groundwater is contaminated from past industrial activities. In collaboration with the EPA, 3 boreholes have been dug within the AMS perimeter, to assist with monitoring the quality of the groundwater. No samples or analysis has been made of this year. No documents provided for this

1.3.5 Potential sources of pollution shall be identified and if applicable, mapped, including chemicals used or stored on site.

in progress

Comment

'Site_Plan-Chemical, _Gas_&_Water_Storage' shows where all potential on=site contaminants are located. These were also shown during the site tour.

No document listing the types of pollutants on site was provided.

As mentioned in 1.3.4, there is groundwater pollution on the Island due to past industrial activities. In particular, monitoring is taking place at a neighbouring site previously belonging to Mitsui Denman that closed in 2003. This site produced Electrolytic manganese dioxide and had stored wastewater from this in lagoons on site. The following four documents show results from monitoring and analysis carried out on the Mitsui Denman site by independent consultant companies:

'Goldenville-Ground_&_Surface_Water_Monitoring_Report_2021' 'Goldenville-Report_on_Capping_&_Restoration_06.09.2022' 'Lagoon_11-Surface_Water_Retention_Pond_Oct'_2022' 'Goldenville Ltd-Independent Closure Audit-P0389-01 Jan 2023'

Finding No: TNR-005507

1.3.6 On-site Important Water-Related Areas shall be identified and mapped, including a description of their status including Indigenous cultural values.



WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The site is adjacent to the Cork Harbour Special Protection Area (SPA) (SPA Site Code 4030). The document 'Limosa-EIA_Report_RP19-GW152-10-B-0_March_2020' both maps this and includes details of the bird species under protection. The report is an EIA that was generated as part of a planning application for an extension to a building on the AMS site. See Figure 6a. and Figure 6b for maps and Table 2 for Waterbird Special Conservation Interest (SCI) species for Cork Harbour SPA.

'Water_Stewardship_System_V.1' also includes details of this, within the Catchment Analysis and Water Stewardship Risks tabs.

The status of the SPA is Moderate for 'Ecological status' and Good for 'Chemical water status' (19_Lee,_Cork_Harbour_and_Youghal_Bay_Catchment_Summary_WFD_Cycle_3 and Water Stewardship System V.1)

'19_2_Tibbotstown_SC_010_Subcatchment_Assessment_WFD_Cycle_2' also lists Cork Harbour Special Protection Area (SPA) under Protected Areas intersecting River and Lake Waterbodies.

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.



in progress

Comment

'Water_Bills+Balance' includes costs of water services based on bills from service provider, chemicals used and examples of consultation fees.

- Anodising-RO cost of water – the beginnings of a good document mapping costs of water from the production activities. This includes the cost of water, energy (electrical), service/labour and chemical use. So far it includes costs related to the Reverse Osmosis and Demineralisation systems.

However, there are no data for activities "beyond" processing, such as the ones outlines in the ASW Guidance document, such as:

- Provision and maintenance of water-related infrastructure (started for RO and Demin, needs to be added for other processes).
- · Fees for supply, permits and taxes
- Risk mitigation actions
- Stakeholder engagement and associated activities
- Contributions to restoration and protection of an IWRA which may have added benefits such as recreation, cultural, biodiversity, etc
- Free or subsidised provision of water or treated wastewater to other users. For example, treated wastewater may be donated to farmers for irrigation.
- Treated wastewater contributing to local aquifer recharge

So the company has made a good start with the in-house costs, having started the exercise for mapping true cost of water for whole site. However, they still have a way to go, looking at the wider social, cultural, environmental, or economic water-related value generated by the site.

Finding No: TNR-005561

1.3.8 Levels of access and adequacy of WASH at the site shall be identified.



Comment

The document 'WASH_Access_Register_Rev.0' includes details of: location, taps, drinking stations, toilets, showers, urinals, frequency of cleaning and no of employees served. A second tab shows the specifications of some of the the fittings used. The site has also included the tables from the Health and Safety Authority (HSA) regulatory requirements for the provision of sanitary and washing facilities. There is also a column recording the provisions meet the requirements.

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 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.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

1.4.1 The embedded water use of primary inputs, including quantity, quality and level of water risk within the site's catchment, shall be identified.

in progress

Comment The document 'Water stewardship system v.1' the tab called Indirect water use.

This includes supplier, type of products/materials, origin (location), priority, WWF water risk.

However, quantities have yet to be added.

Finding No: TNR-005562

1.4.2 The embedded water use of outsourced services shall be identified, and

where those services originate within the site's catchment, quantified.

Yes

in progress

Comment The site does not have any outsourced services.

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.

Comment The company were unsure how to approach this requirement. They have provided copies of

documents related to their catchment but have not listed the relevant water governance policies, plans, frameworks and institutions that affect the site, or summarised the main elements of those initiatives. The documents provided are by EPA and the Government of Ireland, which are two important institutions to include in their response to this requirement.

AMS Cork have been part of the Water Stewardship Ireland network since 2016 (see document 'Indicator_1.5.1+1.8.1-Evidence_of_Lessons_Learned_from_WSI').

The company also provided the following documents:

'19_Lee,_Cork_Harbour_and_Youghal_Bay_Catchment_Summary_WFD_Cycle_3', report generated by the EPA that provides an overview of the water quality status, risk, key issues and significant pressures for all waterbodies in the catchment.

 ${\tt 'DRAFT_River_Basin_Management_Plan_2022-2027'}, is the Draft River Basin Management$

Plan for Ireland (2022 - 2027) being developed by the government of Ireland

'Water-Quality-in-Ireland-2016-2021-Summary-Report' provides "summary information on the status of all rivers, lakes, estuaries, coastal waters (known collectively as surface waters) and groundwaters. It is based on information collected over a 6-year period from 2016 to 2021 under Ireland's national water quality monitoring programme from over 4,000 surface water bodies and 514 groundwater bodies." By the EPA.

Only the above documents provided with no information to explain how the documents address the requirement.

Finding No: TNR-005598

1.5.2 Applicable water-related legal and regulatory requirements shall be identified, including legally-defined and/or stakeholder-verified customary water rights.

Va

Yes



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The company has provided the following documents@ 'EU Drinking Water Regs 2023 S.I. No.99 of 2023

'EPA-IEL_Licence-Final_Determination_28.01.2022' - the AMS Cork annual emissions license

issued by the EPA

'AMS-AÉR_2022' - the 2022 Annual Environmental Report by the EPA 'D0033-01_2021_AER' - the 2021 Annual Environmental Report by the EPA

'Limosa-EIA_Report_RP19-GW152-10-B-0_March_2020' - the environmental impact

assessment for the planning application for the building extension on site.

'UE-WAT_1' Irish Water quality report.

The company has obtained and provided relevant documents and appear to have a good understanding of their duties in relation to legal and regulatory requirements.

It would however be beneficial to keep a record of all legal requirements related to water as not clear which parts of these documents (aside from the emissions permit) that are relevant to water use at AMS.

The 'Roles and Responsibilities' tab in the 'Water Stewardship System' spreadsheet, outlines how the site undertakes their regulatory reporting, including frequency, who does it and how it is done. It also lists all the water-related legal and regulatory requirements that the site has to report against.

1.5.3 The catchment water-balance, and where applicable, scarcity, shall be quantified, including indication of annual, and where appropriate,

in progress

seasonal variance

Comment

The site has engaged 20fifty Partners to help develop the catchment water balance, a member of staff from Water Stewardship Ireland joined the on-site meeting one day. However, nothing has been completed yet.

The company also provided the document 'Water_Stewardship_System_V.1', which has a

Catchment Analysis tab. However, there is nothing within this about water balance.

Finding No: TNR-005563

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 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.

in progress

Comment

The company has identified and provided copies of reports on water quality within the catchment. Documents provided:

Six reports showing "Detailed drinking water quality results for Water Supply Zone (WSZ) Glashaboy between 2019 and 2023:

'UE5DBE_1', 'UEA84C_1', 'UE-WAT_1', 'UE-WAT_2', 'UE-WAT_3' and 'UE-WAT_4'.

'D0033-01_2021_AER' provides seasonal data for all the measuring stations in Cork City Council. The company believes that the closest measuring station to them is the Mid Lough Mahon point, but did not confirm this. There is an opportunity for the site to map key WQ indicators over time to monitor the health of their immediate water resources.

The company also provided the document 'Legislation_for_water_testing', which is an Irish Water guide with details on how they test their water.

Nothing has been provided in relation to water related challenges or variances.

Finding No: TNR-005564

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

in progress

through stakeholder engagement.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

IWRA's have been identified and analysed in terms of status, in the Catchment Analysis tab on the document 'Water Stewardship System V.1'. Two have been identified:

1. Cork Harbour SPA (which is the one AMS Cork sits within) - important wetland for bird.

2. North Channel Great Island

Another three national heritage areas have been proposed and are included in the identification of IWRA's.

The IWRA analysis includes name, description (link to the two reports listed below that contains descriptions), status of each, and on the Water Stewardship Risks tab of the document are details of risks.

'19_Lee,_Cork_Harbour_and_Youghal_Bay_Catchment_Summary_WFD_Cycle_3' and '19_2_Tibbotstown_SC_010_Subcatchment_Assessment_WFD_Cycle_2' are the two EPA reports related to the IWRA's identified.

Finding No: TNR-005520

1.5.6 Existing and planned water-related infrastructure shall be identified, including condition and potential exposure to extreme events.

in progress

Comment

The Irish Water Annual Env Report ('D0033-01_2021_AER') contains a section (4.1) on 'infrastructural assessments and programme of improvements', which covers Storm Water overflow inspections as well as water treatment plant performances.

However, aside from this, no other documentation or records have been provided for this indicator.

The company should also obtain details of any infrastructure related to water supply on a

catchment level.

Finding No: TNR-005599

1.5.7 The adequacy of available WASH services within the catchment shall

be identified.

in progress

Comment The company referred to the documents 'Water_Stewardship_System_V.1' (Water

Stewardship Risks tab) however, there is no mention of WASH.

The document 'WASH_Access_Register_Rev.0' was also provided however, this relates to

the WASH on site, not in the catchment.

Finding No: TNR-005525

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.

in progress



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The site has compiled their shared water challenges in the 'water stewardship system' (v.1) , tab 'Water Related Challenges'

- Hydro morphology
- Urban Run Off
- Agriculture
- Urban Wastewater
- Domestic wastewater
- Forestry
- Industry
- Ground water
- Other significant pressures

Two topics have also been listed as Future Issues, of which flooding is one.

The challenges are deemed suitable and relevant however, have not been prioritised.

The document 'AMS_AWS_Stakeholder_Event_Slide_Deck-FINAL_26th_July_2022' is the presentation given to stakeholders during their stakeholder event on 26th July 2022. This includes a section on shared water challenges (slides 23 to 26). As already stated in 1.2.1: The only communication on challenges was from neighbour company Cara Partners who flagged up the groundwater contamination on Little Island. No documentation provided with this information.

Aside from this, there has not been a lot of engagement, AMS have struggled to get people involved. And the ones who attended the stakeholder event (aside from the 20FIFTY representatives) knew little about the issue of water sustainability.

The company also provided copies of five water quality monitoring reports however, they did not provide details of the relevant contents of these so not sure what was meant to be considered in these.

Finding No: TNR-005600

1.6.2 Initiatives to address shared water challenges shall be identified.

7

in progress

Comment

On the 'Water Related Challenges' tab in the document 'Water_Stewardship_System_V.1', column F titled '2023 Action' lists companies and initiatives to keep abreast of updates from. However, there are not further details of the content/purpose of the initiatives.

Finding No: TNR-005601

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.

in progress

Comment

In the document 'Water_Stewardship_System_V.1', the company has made two tabs related to risks: 'Water Stewardship Risks' and 'Water Related Risks'.

In 'Water Stewardship Risks' there are infographics about potential types of risks within the catchment, including; pollution, legal requirements related to water, emissions from sewer monitoring, quality, flooding, drought, special areas of conservation, special protection areas and a map from Aqueduct on water risk analysis that shows low risks in the area of AMS Cork. A wide variety of potential risks has been identified.

In 'Water Related Risks' there are two tables called '2023 Environmental Objectives Register {2023-2027}' and '2022 Environmental Objectives Register' with items listed based on the SMART method.

It doesn't list risks, instead it lists objectives and whether they pose a risk/issue/opportunity. The document includes great information including resources required, timeframes, costs and status however, it is about internal objectives and targets related to water stewardship and not wider risks.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Finding No: TNR-005550

1.7.2 Water-related opportunities shall be identified, including how the site may participate, assessment and prioritization of potential savings, and

n nroaress

business opportunities.

in progress

Comment

In the document 'Water_Stewardship_System_V.1', the company has made a tab called: "Water Stewardship Bisks' and "Water Belated Bisks'."

'Water Stewardship Risks' and 'Water Related Risks'.

There are two tables called '2023 Environmental Objectives Register {2023-2027}' and '2022

Environmental Objectives Register' with items listed based on the SMART method. It doesn't list opportunities, instead it lists objectives and whether they pose a

risk/issue/opportunity. The document includes great information including resources required,

planning, timeframes, costs and status.

The tables do include some water related opportunities, such as rainwater harvesting, catchment excellence (a reputational opportunity), recycling of trade effluent. However, there are no wider opportunities listed, beyond the site itself and the ones listed are not prioritised

with details of participation, potential savings or business opportunities.

Finding No: TNR-004930

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.

7

in progress

Comment

In the document 'Indicator_1.5.1+1.8.1-Evidence_of_Lessons_Learned_from_WSI', the company has explained that they are a member of Water Stewardship Ireland since 2016, WSI "supports over 300 businesses from all industry sectors to collaborate, benchmark and share best practices at their facilities and across global supply chains."

In addition, the company has provided the documents:

'19_Lee,_Cork_Harbour_and_Youghal_Bay_Catchment_Summary_WFD_Cycle_3', an EPA report providing "an overview of the water quality status, risk, key issues and significant pressures for all waterbodies in the catchment." However, no information about management practises.

'Water-Quality-in-Ireland-2016-2021-Summary-Report', reports on water quality in the catchment between 2016 and 2021 but includes no details about management practises.

'DRAFT_River_Basin_Management_Plan_2022-2027', a document by the Government of Ireland that includes details of water governance, such as; the EU Water Framework Directive, national directives and management measures, public consultation and engagement, government implementation structural levels, policy integration, environmental assessments. This document outlines governance practises laid out on a government level however, it is not clear which of these the company wants to highlight for identification.

Finding No: TNR-005553

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.





Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

On a catchment level, the company has provided documentation for something called the Catchment Excellence Programme, which is a training programme developed and implemented in collaboration with Water Stewardship Ireland and Rivers Trust to "underpin stakeholder engagement and provide a

practical catalyst for longer term partnerships in the river basins in which they operate."

On a sector / site level, the company has installed rainwater harvesting system facilities to all buildings aside from one (admin building). See document

'AMS-RWH-Best_Practice-Rev.1_21.09.2021', which is an application document for the installation. If this system works as anticipated and the water can be used in their manufacturing processes, the company wants to use their setup as an example to educate other companies on the benefits of this opportunity.

Also, in the document 'Water_Stewardship_System_V.1', on the tab called 'Water Stewardship Policy 2023', there is a section called 'Best Practice Initiatives Completed to date', which lists what the company considers to be best practises completed to date.

1.8.3 Relevant sector and/or catchment best practice for water quality shall be identified, including rationale for data source.

in progress

Comment

The company has provided copies of two Irish Water Annual Environmental Reports (2021 and 2022, and another Irish Water document that outlines water testing practises in Ireland. These are all legal requirements, that are obligatory, so cannot be considered as best practice in this context.

Finding No: TNR-005555

1.8.4 Relevant catchment best practice for site maintenance of Important Water-Related Areas shall be identified.

in progress

Comment

The company has provided the document 'EXT-3_First_Grant_of_Permission_14.10.2022' which is a planning application with permission however, it is not clear how that relates to this indicator.

Aside from this, the documents 'Catchment_Excellence_Programme-Brochure' and 'CATCHM_1' provide details about the catchment excellence programme and AMS's interest in participate in this going forward.

However, no other information has been provided in relation to best practice for site maintenance of Important Water-Related Areas.

Finding No: TNR-005556

1.8.5 Relevant sector and/or catchment best practice for site provision of equitable and adequate WASH services shall be identified.

in progress

Comment

The company has provided the document 'WASH_Access_Register_Rev.0', which details all WASH facilities on site. In addition, specification documents have been provided for seven of the sanitation products used (toilets, sinks, tabs etc).

However, no details about WASH best practise in the catchment has been provided.

Finding No: TNR-005557



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

2 STEP 2: COMMIT & PLAN - Commit to be a responsible water steward and develop a Water Stewardship Plan

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.

Comment

Pat O'Hara (MD) signed the Water Stewardship Policy on the 07.12.22 and it is publicly displayed in reception (picture attached). The document meets the commitment requirements of the indicator.

- **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.

Comment

The 'Water Stewardship System' (v.1) spreadsheet contains a 'Roles and Responsibilities' tab, and it contains the following information: Core environmental team, Quality & Environmental Roles, Responsibilities and Authorities Register, Regulatory Reporting, EPA Industrial Emissions Licence (IEL) Activities 2023 and the Organisational Chart.

The site stated that both Carlos Sullivan and Adam McCarthy are responsible for reporting on the EPA license requirements and the Irish Water annual submission, and Carlos Sullivan is formally listed in the spreadsheet. The frequency of reporting to the EPA is stated in the License, reporting is done through the EPA Eden Portal. The Regulatory Reporting section outlines how reporting is done, and constitutes a simplified 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.



Comment

The 'Water Stewardship System' (v.1) spreadsheet contains a 'Water Stewardship Policy 2023' tab. and the Materiality Statement on the Water Stewardship Charter, constitutes the site's water stewardship strategy. It states the site's mission and vision and the Key Business Drivers are the Goals of the AMS water stewardship strategy.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

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.

Comment

The 'Water Stewardship System' (v.1) spreadsheet now contains a 'WS Action Plan' tab, the last tab on the spreadsheet. When an Action is entered a Target completion date is proposed. Once this date is reached a review of the action is carried out to determine whether everything is completed. If everything is completed then a review/evaluation of effectiveness is carried out after which the action will be Closed. WSAS will monitor the effectiveness of this process at the next surveillance audit.

The site has listed 38 Actions in their WSP and these are now linked to AWS Outcomes and shared water challenges. The Actions have timeframes against them, who is responsible for delivering it and project cots. The site intends to combine their WSP with Objectives, Targets and Action Plan Register M01-01D within the EMS to include SMART functionality.

- 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.



Comment

AMS is directly adjacent to Cork Harbour Special Protection Area (SPA) and the site has identified a number of measures that will mitigate against the following risks: uncontrolled surface water run-off, accidental spillage of fuel, oils and greases, and noise pollution. These are listed on the Water Stewardship Risks tab in the Water Stewardship System spreadsheet.

The Environmental Emergency Response plan addresses water risks, under the Major Spills section, including notification details to relevant public-sector agencies. The site tour verified the site's preparedness to any potential incident, including spill kits onsite near any chemical storage area, wheelable spill kits, wheelie bin with pads, socks, disposable PPE and sacks. All staff have undertaken a chemical spill training exercise, mock clean-up and response.

The EPA Fire Water Risk Assessment Report, determines the requirement for a fire water retention pond on-site to include volume to be contained due to the site's close proximity to cork harbour SPA and SAC. The site has also installed boreholes, in line with their EPA license to monitor quality of groundwater.



Alliance for Water Stewardship (AWS)

3	STEP 3: IMPLEMENT - Implement the site's stewardship plan and improve impacts
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.
Comment	The site is proactive in the Water Stewardship Ireland community, having done training, participating in capacity building events and now being the fourth site going for certification in Ireland. The site attends quarterly meetings, sample agenda. The presentation the site delivered at the Sustainability Practitioners Conference held at University of Limerick on 29/06/2023 is attached for reference.
	The site has put in an expression of interest to take part in the Catchment Excellence Training Programme, for their catchment.
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.
Comment	There isn't an indigenous community in Ireland, and the site is located on a mainly industrial estate. AMS Cork has put in an expression of interest to participate in the Catchment Excellence Training Programme for their catchment. The site is also proposing a project to speak at schools within their catchment on water stewardship. Discussing their water stewardship journey, educating kids on good water stewardship and practices both at home and in the school.
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.
Comment	The site utilises Legislation Update Service (LUS) to maintain an up-to-date understanding of all their legal and regulatory compliance requirements. The record of this can be located on tab 14 in the 'EMS Context Register' (M01-01D).
	The Annual Environmental Report 2022 form the EPA was supplied, submitting an Annual Environmental Report (AER) is a requirement of all EPA licences. The site also provided a copy of their annual self-assessment submission to Irish Water. The site uploads all compliance submissions on the EDEN Portal and the audit team had view of it during the audit.
3.2.2	Where water rights are part of legal and regulatory requirements, measures identified to respect the water rights of others including Yes Indigenous peoples, shall be implemented.
Comment	Water rights are not part of the site's legal and regulatory requirements, as water is supplied by Irish Water.
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. Yes



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The site has four targets in their Action Plan that are linked to the AWS Outcome Sustainable Water Balance. Progress is clearly recorded and the targets are:

- Condition and water use survey of existing sanitary fittings
- Reverse Osmosis for Anodizing Process
- Design and implementation of rainwater harvesting system
- Anodizing Filter Press to decrease water to off-site disposal

The site is also implementing a programme of works for water balance and metering. There are currently about 6 new water meters installed, with an additional 10 meters to be fundraised for and installed. The site is looking at linking them all up to a new building management style system. Water meters will be provided to Anodising, Vertical Paint Line, Horizontal Paint Line, Extrusion Caustic Cleaning, Office Buildings, Extrusion Cooling Towers. These will be connected to the proposed upgrade works on the Meter Data Collection System which will include connection to the existing Irish Water Main Incoming water meters and other existing water meters on site.

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 volumetric total use shall be implemented.



Comment

Water scarcity is not a shared water challenge in the site's catchment, but the site has implemented a range of water use efficiency projects to reduce the volumetric total use. Status of progress towards targets in the Action Plan are clearly recorded.

3.3.3 Legally-binding documentation, if applicable, for the re-allocation of water to social, cultural or environmental needs shall be identified.



Comment

Water scarcity is not an issue and there is not a program in place for reallocating water to social, cultural or environmental needs.

- 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.



Comment

The site had 4 Quality targets in the WSAP presented during the audit, two of which have been completed. Including the installation of petrol/oil separators in the new site extension, there are currently two other interceptors that combine into a single line. The location of the petrol/oil interceptors were pointed out during the site visit.

The current WSP contains 4 targets against the Theme of Quality, these are:

- Installation of petrol/oil interceptor in car park area
- Review chemical list to reduce use of high toxicity chemicals, where feasible
- Diverting discharge from Horizontal Paint Line to New Trade Effluent line leading to Autosampler.
- Groundwater Monitoring Project

The plan also contains one target against the AWS Outcome of Good Water Quality Status, relating to cleaning up the shoreline. The status of progress is clearly recorded in the WSP, which has been uploaded numerous times.

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.





Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

Water quality is a shared water challenge in the catchment and the site is actively working towards improving the site's effluent. Best available technology is used for the anodising plant's Effluent Treatment Plant. With dual processes and a separate line for processing the sulphuric acid, before it is looped back into the WWTP for secondary treatment and then discharged for tertiary treatment.RO water is blended with potable water for the anodising pre-treatment, saving about 3000l/hr. Best available technology for filtering settlement sludge at the anodising WWTP, so it has a potential for being used as either a potential aggregate material for construction, is currently being explored.

Process flow charts for the HPL and VPL Waste Water Treatment Plants were supplied. as well as the pre-treatment process. The site effluent discharge limits apply through the EPA Industrial Emissions Licence which is currently achieved or better than the required limits. Lab Analysis of effluent discharge is submitted to EPA and Irish Water.

- 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.



Comment

The site has set a 'Little Island/Catchment' target in their WSP. to reduce litter in the SPA surrounding the site. The site has also submitted their expression of interest to participate in the Catchment Excellence Programme, which will encourage practices to enhance catchment IWRAs. This is the initial certification audit and catchment activities are still in the process of being developed.

- 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.



Comment

The site conducted a Domestic Fittings Audit in April 2022, that lists all WASH facilities on site. This is now presented in the 'WASH Access Register' and it also records the water efficiency of the facilities and records whether they are complaint with the Health and Safety Authorities (HSA) legislation. Hand sanitisers are still readily available at all locations post-pandemic, and drinking stations provision is recorded in the current spreadsheet.

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.



Comment

The site is a responsible operator, with three on-site WWTPs in place, to treat all effluent and production waste water. All discharged water is for secondary treatments, the sulphuric acid on the anodising line goes trough an additional treatment and gets discharged for tertiary treatment. The site also conducted a CCTV review of existing pipework, to ensure optimal and clean operations. Thereby minimising any impact on the surrounding communities.

- 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.

 Obs.

Comment

The site does not currently have an indirect water use target in their WSP. The 'Indirect Water Use' tab the Water Stewardship System spreadsheet lists all their suppliers, and organisations in their catchment have been identified and quantifying their indirect water use is ongoing. AMS Cork could include a target in future iterations of their WSP.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

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

in progress

result of the site's engagement related to indirect water use, shall be

identified.

Comment As stated in 3.7.1, the 'Indirect Water Use' tab the Water Stewardship System spreadsheet

lists all suppliers, and if they are located in their catchment. There is a column for 'Annual water Use' and 'Water Reduction Actions', but no evidence has been supplied to demonstrate how the site has engaged with any of their suppliers. The systems are in place to record any communications, but no evidence of actual engagements have been supplied by AMS Cork.

Finding No: TNR-007340

3.8 Implement plan to engage with and notify the owners of any shared water-related infrastructure of any concerns the site may have.

3.8.1 Evidence of engagement, and the key messages relayed with confirmation of receipt, shall be identified.

in progress

Comment

The site has water supply going in and water effluent going out, on Irish Water infrastructure. When the site undertook their water pipe review, they went an additional 30m out of the site boundaries, to get an understanding of the quality of the pipework, to have an understanding of the status of the water-related infrastructure owned by Irish Water.

Sulphates have been an issue in Ireland, in terms of corroding concrete pipes. The site puts the sulphuric acid utilised on the anodising plant through another round of treatment, in order for it to be inert and protect the effluent pipework. The site sends effluent samples out monthly to an external lab, to demonstrate how they keep sulphate levels down, from the acid treatment line in the anodising plant, to protect the Irish Water pipework main infrastructure. Although it is noted that this is also a discharge requirement.

The site is demonstrably engaging with the shared water-related infrastructure that they have with Irish Water, but they have not supplied any evidence of engagement with Irish Water, not what the key messages were.

Finding No: TNR-007341

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.

V Yes

Comment

Water Stewardship Ireland is the main governance best practice initiative that the site is engaging with, the audit team reviewed evidence of the quarterly meetings of the community of best practice. The site also supplied evidence of the presentation on water stewardship delivered by Carlos Sullivan as well as his training certificate from the Water Standard Programme.

The site has also confirmed an expression of interest to partake in the next stage of the Catchment Excellence Programme, which was confirmed by Colm Gaskin of 20fifty Partners, as he was present during Day 2 of the initial certification audit.

3.9.2 Actions towards achieving best practice, related to targets in terms of water balance shall be implemented.





Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The site has implemented two projects that can be seen as best practice and contributes towards improving water balance. These are:

- Reusing RO concentrate water for the pre-treatment process at the Anodising Plant (this will be metered). RO water is blended with potable water for the anodising pre-treatment, saving about 3000l/hr.
- Utilising rainwater harvesting water in the pre-treatment process at the anodising plant (this will be metered)

The site has supplied evidence explaining the two projects.

3.9.3 Actions towards achieving best practice, related to targets in terms of water quality shall be implemented.



Comment

The site uses Best Available Technology for the anodising plant's Effluent Treatment Plant (ETP). It uses dual processes as there is a separate line for processing the sulphuric acid, before it is looped back into the ETP/WWTP for secondary treatment and then discharged for tertiary treatment at the public WWTP. Schematics have been supplied for the Acid Recovery (Free-AL unit) system in the Anodising process.

The Horizontal Paint Line (HPL) and Vertical Paint Line (VPL) also have their own bespoke ETP.WWTP and the site has supplied process flow maps, for these processes. Reverse Osmosis water supplied for both VPL and HPL processes. Overall the site is committed to ensure that any process water is appropriately treated, before the discharge is released for secondary and tertiary treatment at the public WWTP. The site has established Chrome Free Pre-treatment on all processes for 20+ Years.

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.



Comment

The site has submitted an expression of interest to participate in the Catchment Excellence Programme with 20Fifty Partners, which will put the site on track to proactively engage with catchment stakeholders on catchment improvement activities. AMSC have also added an action to their WSP, for a proposed shoreline clean-up of the S.P.A. to reduce litter. Monitoring boreholes have been installed onsite for water quality monitoring, and their potential impact on the SPA, although this is in line with EPA License requirements.

The site is at the early stages of establishing catchment and IWRA initiatives, but evidence was presented that demonstrate that they are actively addressing this.

3.9.5 Actions towards achieving best practice related to targets in terms of WASH shall be implemented.



Comment

Overall, there are few WASH issues present in Ireland and mainly relating to the provision of adequate WWTPs. The site has undertaken a survey of all sanitary fittings onsite, and these have been benchmarked against the Health and Safety Authorities legislation. The WASH Access Register lists existing sanitary fittings and those currently being supplied to the Main Office Upgrade. The site is installing low flow fittings on all sanitary fixtures in the new office building, their specifications can be seen in the second tab in the WASH access Register spreadsheet. The WSP contains two WASH targets and these are Action 12 and 22.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

4 STEP 4: EVALUATE - Evaluate the site's performance.

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.

Yes

Comment

To date, the site has held regular meetings with 20Fifty Partners to discuss elements of the AWS standard,. Evaluation has been conducted in an informal way and not documented, with Carlos and Adam taking the initial WSP forward. The amended 'Water Stewardship System - Action Plan' now contain a status column and an 'AWS Outcomes' column.

When an Action is entered a Target completion date is proposed. Once this date is reached a review of the action is carried out to determine whether everything is completed. If everything is completed then a review/evaluation of effectiveness is carried out after which the action will be CLOSED. If action(s) have not been fully completed or have not achieved the intended outcome(s) then a new target date will be proposed."

Water issues have been built into the monthly QEOHS meetings and the WSP will be built into the 'Quality & Environmental Context Register' that is structured around SMART targets and records guarterly progress statements.

4.1.2 Value creation resulting from the water stewardship plan shall be evaluated.



Comment

The site has developed a 'True Cost of Water' methodology that has been completed for the anodising line. This has benchmarked the 'value creation' figure for any targets going forward and will provide a clear breakdown of all the components that make up the true cost of water. The site has made a significant start to rolling out this methodology and progress will be seen year on year. With this being the initial certification audit it is deemed sufficient that the site has a target (32) in their WSP to 'Quantify the true cost of water at the site' and expand on it, when the metering programme is developed. The site has already implemented targets in their WSP that results in value creation, through water efficiency savings.

4.1.3 The shared value benefits in the catchment shall be identified and where applicable, quantified.



Comment

The site is still building up it's stakeholder community in the catchment and looking for opportunities to build in meaningful targets for catchment projects. There are currently no practical projects being delivered outside the factory area, but this will be an area of focus going forward. The site has included two catchment targets in the current WSP:

- Undertake a water stewardship awareness project with local primary school to engage pupils on the importance and relevance of water stewardship. (Target 28)
- Reduced litter etc. in Special Protected Area clean up of shoreline (Target 29)

The site has also submitted an expression of interest to join the Catchment Excellence Programme, which will support the achievement of shared value benefits in the catchment.

Finding No: TNR-004970

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.



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

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.



Comment

The site would report emergency incidents to the EPA, through the Eden online portal, and also notify the relevant authorities on any water-related incidents i.e. Irish Water and Cork City Council. The site has supplied an email and screenshot from the Eden portal, to confirm that there have been no incidents in 2022, or through 2023 so far. The process is in place through the Emergency Response Plan, as well as the protocol in the EPA License. Furthermore, the site supplied their Annual Environmental Report (AER) for 2022, that is a requirement under their EPA license.

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.



Comment

The site held a stakeholder engagement meeting on the 26.07.2022; the Agenda is in the powerpoint presentation and the site covered shared water challenges and water stewardship activities to date. The site has developed a 'Stakeholder Engagement and Tracker' spreadsheet, that captures relevant information.

The site expressed some frustration with securing any stakeholder engagement and interest in the process, but this is not uncommon in the early stages of adopting and implementing the AWS standard. The site is mindful that a process needs to be in place for stakeholder engagement going forward and this could be either another stakeholder engagement meeting as well as an annual written review. WSAS notes that taking part in the Catchment Excellence Programme will nurture stakeholder interactions and develop more meaningful stakeholder relationships.

Finding No: TNR-007347

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.



Comment

The site is in the process of modifying and migrating their initial WSP into the 'Quality & Environmental Context Register'. This will establish a robust annual evaluation and adaption of the WSP process for the site going forward. AMSC also supplied a copy of their Evaluation Plan Agenda, which will be carried out in December 2023.

Finding No: TNR-004971



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

5	STEP 5: COMMUNICATE & DISCLOSE - Communicate about water stewardship and disclose the site's stewardship efforts
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.
Comment	The 'Roles and Responsibilities' tab in the Water Stewardship System spreadsheet, contains the AMSC internal governance structure and lists the AWS Environmental team, the Quality& Environmental Roles, Responsibilities and Authorities Register, and the Regulatory Reporting requirements including whose responsibility it falls under, Carlos Sullivan.
	The site is restructuring their website and there will be a new environmental page, which the AWS team will use to disclose water stewardship activities and performance. Internal governance can be disclosed as well, with GDPR restrictions in place.
	Finding No: TNR-007557
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.
Comment	The site discussed potential ways to communicate their WSP going forward; they are minded to create a summary WSP that can be readily communicated to stakeholders via email. the website, stakeholder engagement events and noticeboards. The site has not communicated their current WSP to relevant stakeholders and was therefore unable to provide any evidence.
	The External Noticeboard at the site entrance is used for communicating EPA Licence requirements and will be utilised to communicate a Water Stewardship Plan Summary. A new Website is under development and will include Water stewardship communication within an Environmental Section.
	Finding No: TNR-004973
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.
Comment	Please see 5.2.1 in terms of disclosure mechanisms going forward, the requirements of this indicator will be addressed within the summary version of the site's WSP. It will also be disclosed on internal noticeboards to AMS staff.
	Finding No: TNR-004974
5.4	Disclose efforts to collectively address shared water challenges, including: associated 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.

WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

The site has amended their WSP to link their targets to shared water challenges and AWS outcomes, which makes it easier to track efforts to address the challenges. WSAS notes that the site has disclosed some of the shared water challenges, as evidenced in the presentation delivered by Carlos Sullivan at the Sustainability Practitioners Conference (29.06.23), but the presentation purely lists some of the challenges (not all from 1.6.1) and does not outline any efforts to address them, as AMSC have not yet delivered any catchment activities or projects. The site also stated that they have disclosed challenges through the WSI Large Water Users community of practice, although no evidence was supplied for this, but is likely due to their participation in the Water Stewardship Ireland processes.

The site has submitted and expression of interest to participate in the Catchment Excellence Programme with 20Fifty Partners, which will lead to the site in engaging in efforts to address shared water challenges. But at this stage, the site is unable to disclose any efforts to address the challenges.

Finding No: TNR-007351

5.4.2 Efforts made by the site to engage stakeholders and coordinate and support public-sector agencies shall be identified.

in progress

Comment

The site has delivered some stakeholder engagement activities, such as the Stakeholder Engagement event in July 2022, and the presentation delivered by Carlos Sullivan at the Sustainability Practitioners Conference. AMSC is also part of Water Stewardship Ireland and partakes in the quarterly meetings of the Large Water Users Community of Practice.

The site have outlined some of their intended disclosure activities, such as sharing their shared water challenges on the redeveloped website, and doing social media outreach. Evidence of social media posts and their reach, can be seen in the 'Stakeholder Engagement an Tracker' spreadsheet and confirmed by Claire Hannigan. The spreadsheet is an effective way to track any stakeholder engagement activities, but it input into the spreadsheet have been limited to recording social media activity, and no further stakeholder engagement has been recorded since the July 2022 meeting. The site does not produce an annual report, so that is not a potential disclosure route.

Finding No: TNR-007350

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.



Comment

The site has not had any water-related emergencies, but there was two minor exceedances on their effluent license limits. Any compliance violations are recoded on the Eden (environmental data exchange network) Ireland reporting portal, set up by the EPA. Only Carlos Sullivan and Adam McCarthy have access to the Eden Portal, and two of the Directors from an executive.

Incident No: INCI025542: monitoring equipment issue (20.06.23)

Incident No: INCI024606: Breach of CoA discharge requirements (11.01.23) Certificate of

Authorisation of the License

EPA uses a traffic light system on the Eden portal, to indicate the risk category of the site. The site is categorised as green, so low risk.

5.5.2 Necessary corrective actions taken by the site to prevent future occurrences shall be disclosed if applicable.



WSAS



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Comment

Incident No: INCI025542. There was a malfunction on the Autosamplers pH probe, the probe was brought back into function and range with subsequent calibration, it is recording higher pH than operations, but is still within emission limits. The autosampler was inspected and calibrated, and the pH probe replaced. The site now also has an additional spare probe onsite, should it happen again.

Incident No: INCI024606: External testing has identified an exceedance with an effluent discharge parameters. Chlorides were detected at 1238mg/L exceeding limit of 1200mg/L. The site knows that the issue has arisen from a surcharge of water to the WWTP creating an increase in hydrochloric acid being added into their effluent system. This was a one off occurrence and the site has put measures in place to ensure it can't happen in the future. The site has raised their bottom limits with the effluent system, preventing as much acid being added to the system.

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.

Comment There have been no water-related violations that pose a significant risks of the site and an email from Carlos Sullivan is attached.

Yes



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622

Photographic Evidence from Audit





Pretreatment chemical storage safety.jpg



Anodising line WWTP with separate acid treatment line.jpg

WSAS

WSAS STEWARDSHIP ASSURANCE SERVICES

Alliance for Water Stewardship (AWS)



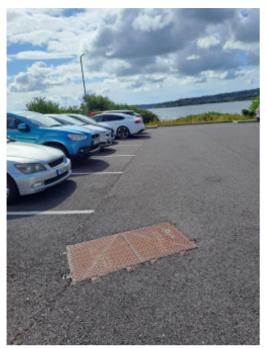
Chemical store safety example.jpg



Aluminium extrusion line 1.jpg



Alliance for Water Stewardship (AWS)



Onsite borehole AMS house.jpg



Vertical paint line.jpg



Alliance for Water Stewardship (AWS)



Anodising water pretreatment.jpg



water policy in ssitu.jpg



Alliance for Water Stewardship (AWS)



Anodising plant.jpg



Caustic water waste for external processing.jpg



Alliance for Water Stewardship (AWS)



Rainwater harvesting system.jpg



Dies to clean.jpg



Alliance for Water Stewardship (AWS)



Discharge point into Lough Mahon.jpg



Storage warehouse.jpg



Alliance for Water Stewardship (AWS)

Audit Number: AO-000622



External chemical store.jpg



Anodising plant chemicals storage.jpg



Powder coating pre-treatment and wwtp.jpg



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WWTP 1.jpg



VPL wwtp.jpg



Caustic cleaning area for dies.jpg



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EPA groundwater monitoring borehole.jpg



Anodising scrubber.jpg



Alliance for Water Stewardship (AWS)



Main site effluent exit with monitoring station.jpg



Water map.jpg