

Appendix 1.1 – List of EIAR Consultant Competencies

Name	Competency	Qualification	Affiliations
Brian Keenan <i>Golder Associates</i>	Engineering	BEng. Civil Engineering MS, Civil Engineering	CEng MIEI
Faith Bailey <i>IAC</i>	Archaeology	BA. Archaeology MA. Cultural Landscape Management	M.CifA
Gavin Fennessy <i>Ecology Ireland</i>	Ecology	BSc. Zoology PhD. Ecology	CIEEM
David Watson <i>RSK</i>	Marine Ecology	BSc. Marine and Freshwater Biology PhD. Marine Chemistry	CIEEM
Jason Weeks <i>IEH Consulting</i>	Marine Ecology	BSc Aquatic Biology & Zoology PhD Marine Ecophysiology	CIEEM
Fergal Callaghan <i>AWN Consulting</i>	Environmental Health	BSc. Industrial Chemistry PhD. Chemical Engineering	MRSC CIWM AMiChemE
Theresa Repaso-Subang <i>WSP</i>	Toxicology	BSc. Biomedical Toxicology Cert. Analyzing Risks: Science, Assessment and Management	Member of European Register of Toxicologists
John Kelly <i>BSM</i>	Landscaping	BArch. Architecture	MRIAI
Kevin McGillycuddy <i>Golder Associates</i>	Hydrology	BA. Botany MSc. Environmental Science	IEMA
Stephen Smyth <i>AWN</i>	Noise + Vibration	BA. Mechanical Engineering PhD Acoustics	
Edward Porter <i>AWN</i>	Air + Climate	BSc. Chemistry PhD Environmental Chemistry (Air Quality)	MIAQM MIEnvSc C Chem MRSC
Avril Challoner <i>AWN</i>	Air + Climate	BEng. Environmental Engineering HDip. Statistics PhD. Environmental Engineering (Air Quality)	MIAQM
Eoin Munn <i>Transport Insights</i>	Traffic	BSc. Engineering MSc. Business Analytics	MEng MIEI
Stephen Barrett <i>TPA</i>	Planning	BSc. Spatial Planning, Environmental Resources Management	MIPI
Gavin Lawlor <i>TPA</i>	Planning	B.Soc.Sc. Sociology MRUP Regional & Urban Planning	MIPI
Sam Wallace <i>TPA</i>	Planning	MSc. Human Geography MRUP Regional & Urban Planning	MIPI

Appendix 1.2 – Example of Letter Issued to Prescribed Bodies

Minister's Office
Department of Housing, Local Government and Heritage
Custom House
Dublin 1
D01 W6X0

14th June 2021

Dear Sir/Madam

Re: PROPOSAL TO ACCOMMODATE EXTENSION OF FACILITY AT AUGHINISH ALUMINA, AUGHINISH ISLAND, ASKEATON, CO. LIMERICK

1.0 INTRODUCTION

Aughinish Alumina Ltd.¹ (AAL) has retained Tom Phillips + Associates, Town Planning Consultants² in respect of a Strategic Infrastructure Development (SID) planning application at their facility at Aughinish Island, Askeaton, Co. Limerick. A description of the proposed development is set out in Section 3 of this letter. This application will be made to An Bord Pleanála (ABP) as an SID planning application and we are contacting your organisation further to a list of Prescribed Bodies identified by ABP to be consulted on this project.

1.1 The Applicant: Aughinish Alumina Ltd is a Long Established and World-Class Industrial Operator

The AAL plant is the largest alumina extraction plant in Europe and is permitted to produce up to 1.95 million tonnes of alumina annually through the treatment of bauxite ore. AAL's operations represent over 30% of the total alumina production in Western Europe. AAL is a critical link in the aluminium supply and manufacturing process in Western Europe.

The alumina extracted is exported to smelters in other countries, for processing into aluminium. The importation of bauxite and the exportation of alumina is undertaken by ship, via a dedicated jetty located in the Shannon Estuary.

The alumina extraction plant commenced operations in 1983, and has been the subject of considerable expansion and investment since then. The plant is one of the most efficient facilities for alumina extraction globally, and the state-of-the-art facilities provide a total of 460 permanent employees as well as others such as 250 long term contractors, and considerable further employment for local service industries.

AAL is owned by RUSAL, who have interests throughout the aluminium production process – from bauxite ore mines to alumina extraction plants, to aluminium smelters.

¹ Aughinish Island, Askeaton, Co. Limerick.

² 80 Harcourt Street, Dublin 2.

2.0 SITE LOCATION AND CONTEXT

2.1 Aughinish Alumina Ltd Landholding

AAL operates a long-established alumina extraction plant, located on Aughinish Island on the southern side of the Shannon Estuary near the village of Foynes, Co. Limerick. The site is located c. 6 km north west of Askeaton and c. 30 km west of Limerick City Centre.

As can be seen in the enclosed Site Location Plan and the aerial photograph below, the AAL site is significant in scale and exhibits a general industrial character, characterised by silos, tanks, stacks, storage buildings and miscellaneous items of plant and machinery. The alumina refinery facility (including BRDA) currently operates under an IE Licence (No. P0035-06) issued by the EPA.



Figure 2.1: Site Context (source: Google Maps, Annotated by Tom Phillips + Associates, June 2021).



Figure 2.2. Aerial View of Aughinish Alumina Limited (Source: Geohive Aerial Premium Map)



3.0 OVERVIEW OF PROPOSED DEVELOPMENT

3.1 Location and Context of Proposed Development

Bauxite residue from the alumina production process is deposited within the Bauxite Residue Disposal Area (BRDA) which is located to the south-west of the plant. The BRDA was constructed in two principal phases and comprises two disposal areas which are currently merging.

- The Phase 1 BRDA is formed from two facilities, the original Phase 1 BRDA constructed in the early 1980s, covering an area of 72 ha., and the Phase 1 BRDA extension, constructed in the mid-to-late 1990s, covering an area of 32 ha. The initial design for the Phase 1 BRDA was to provide a disposal area to the year 2009 based on the facility constructed to Stage 7 (elevation 18 mOD), which equates to a central dome elevation of 27.5 mOD or 26m above original ground level.
- The Phase 2 BRDA is a southern extension of the Phase 1 BRDA that was permitted in 2007 (Limerick County Council Reg. Ref. 05/1836; ABP Ref. PL13.217976) to Stage 10 with a maximum perimeter elevation of 24 mOD and a maximum central elevation of 32 mOD. The Phase 2 BRDA merges with the southern extent of the Phase 1 BRDA. The Phase 2 BRDA covers an area of approximately 80 ha. and was commissioned in 2011.
- The already permitted BRDA will provide a disposal area for Bauxite at the Facility until c. 2031. The current level of the BRDA varies, from 21 mOD to 31mOD in Phase 1 to 8mOD to 20mOD in Phase 2.

As part of the overall permitted Phase 2 BRDA, a Salt Cake Disposal Cell (SCDC) was permitted to be constructed within the Phase 1 extension area. Organics enter the refinery caustic soda liquor stream when the bauxite is dissolved. These organics must be removed from the process to ensure optimum product quality and efficiency. The organics are precipitated out as a crystalline salt material of various sodium compounds. Salt Cake is a hazardous waste which is disposed in the SCDC which is a dedicated, specially engineered cell within the BRDA.

To the east of the BRDA, permission was granted in 2018 for the development of a Borrow Pit with an extraction area of c. 4.5 hectares to produce 374,000 m³ of rock, which will be used in the ongoing development of the BRDA (LCCC. Reg. Ref. 17/714; ABP Ref. PL91.301011). Initial blasts associated with the Borrow Pit are expected to take place later this year further to the issue of an Industrial Emissions Licence (IEL) by the Environmental Protection Agency (EPA). As noted above in Section 2.0 of this letter, the subject facility (including BRDA) currently operates under an IE Licence (No. P0035-06) issued by the EPA.



Figure 3.1: Aerial View of part of Aughinish Alumina Site – BRDA (Source: Geohive Aerial Premium Map).

3.2 Proposed Increase in Height of the BRDA to Accommodate Additional Disposal Area

It is proposed that the permitted height of the overall BRDA be increased to accommodate the further storage of bauxite residue at the Facility to provide an additional 9-year capacity beyond the current permitted capacity limit of 2031. It is proposed that the existing BRDA can facilitate an increase in height to Stage 16 (currently permitted to Stage 10) which would provide a perimeter elevation of 36mOD and a maximum central elevation of 44 mOD. The proposed development will provide for the disposal of c. 1 million cubic metres per year (c. 1.59 million tonnes per year) of Bauxite Residue on average and a total of c. 8 million cubic metres (c. 13.52 million dry tonnes) over the lifetime of the development.

The proposed method of raising the BRDA from Stage 10 to Stage 16 will be the upstream method, consistent with the construction methodology for the current BRDA and involves the construction of rock fill embankments (Stages), offset internally and founded on the

previously deposited and farmed bauxite residue³, in 2m high vertical lifts. This construction method is also consistent with Best Available Techniques (BAT) for the management of waste from extractive industries⁴. The overall stack is raised systematically as the Stages are filled with bauxite residue, farmed, carbonated and compacted, prior to deposition of the next layer.

The typical upstream construction methodology is illustrated in Figure 3.2 and Fig 3.3 below.

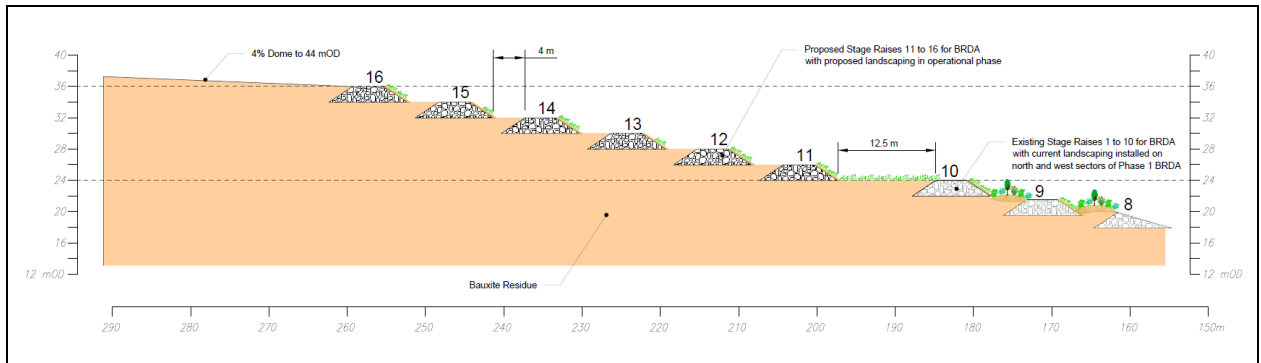


Figure 3.2: Typical Upstream Construction Method (Source: Golder, 2021)



Figure 3.3: Image of BRDA illustrating Upstream Construction Method

³ The bauxite residue has been intensively farmed since 2009 which involves the discharging of the bauxite residue into internal cells within the BRDA and then machinery is used to compress the surface of the bauxite residue, increasing density, reducing moisture and enhancing the drying process.

⁴<https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/best-available-techniques-bat-reference-document-management-waste-extractive-industries>



3.2.1 Vertical Extension of the Salt Cake Disposal Cell

The existing crest height of the SCDC is 29.00mOD which ties into the overall height of the permitted BRDA at 32.00mOD. The proposed development comprises the vertical extension of the existing SCDC to a crest height of c. 31.25mOD which will have a maximum overall height of c. 35.50mOD when capped at cell closure. The extension of the SCDC will accommodate disposal for an additional c. 22,500 m³ in total.

3.2.2 Extension of the Permitted Borrow Pit

It is proposed to extend the extraction area of the permitted Borrow Pit to the east of the existing BRDA. This extended borrow pit will provide a total of c. 820,000 m³ of rock and result in the borrow pit area increasing from 4.5 hectares to c.9.1 hectares. The quantum of rock to be extracted from the extension area will be used in the construction of the proposed BRDA extension. It is proposed that blasts will occur in line with that already permitted under LCCC Reg. Ref. 17/714; ABP Ref. PL91.301011.

4.0 PLANNING CONTEXT

4.1 Pre-Application Consultation with An Bord Pleanála

AAL made a pre-application request on 14th December 2020 (ABP Ref. PC91.308903) to consult with ABP in respect of the proposed development at their facility at Aughinish Island, Askeaton, Co. Limerick, in accordance with the provisions of section 37B of the *Planning and Development Acts 2000-2020* ('PDA'). A meeting was held with ABP to discuss the proposal on 19th February 2021, and a site visit undertaken by the ABP Inspector on 4th March 2021. A decision was issued by ABP on 1st April 2021 that:

'...the Board has decided that the proposed development would be strategic infrastructure within the meaning of Section 37A of the Planning and Development Act, 2000, as amended. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under Section 37E of the Act.'

4.2 Planning Policy Support

4.1 Limerick County Development Plan 2010-2016

The *Limerick County Development Plan 2010-2016* (as extended) sets out Limerick City and County Council's overall strategy for the proper planning and sustainable development of the County to 2016 and beyond. It seeks to develop and improve, in a sustainable manner, the social, economic, cultural and environmental assets of the County.

The *Limerick County Development Plan 2010-2016* will continue to have effect until a new Development Plan for the merged Limerick City and County is prepared.

The importance of industry to Limerick and the State is acknowledged in Section 5.4.1, which states that:



“Industry and enterprise together as sectors are crucial as drivers of economic growth. In this context, enterprise means small and medium scale businesses in light industry as well as in internationally traded services such as in software, telecommunications and financial services. These sectors play a leading role in improving Ireland’s versatility and technological advancement, giving it a greater competitive edge in international markets, and thereby creating revenue and employment. Businesses in other sectors such as in retail and property will rely on the capacity of manufacturing and enterprise to raise incomes and stimulate confidence locally.” [Our emphasis.]

The AAL plant is zoned as ‘Marine Related Industry’ in the Development Plan (refer to Figure 4.1). Objective ED 06 notes that the purpose of this zoning objective is as follows:

“Land zoned for Marine Related Industry, shall provide for marine related industry and large scale uses that create a synergy with the marine use. Marine related industry shall be taken to include the use of land for industry that, by its nature, requires a location adjacent to estuarine/deep water including a dependency on marine transport, transshipment, bulk cargo or where the industrial process benefit from a location adjacent to the marine area.”

The AAL plant relies upon the Shannon Estuary for the import of raw materials and the export of alumina by ship, and is therefore consistent with this zoning objective. The proposed development will also assist in fulfilling the following Development Plan Objectives.

“Objective ED 04: Safeguard Strategic Development locations along the estuary

It is the objective of the Council to safeguard the Strategic Development Locations at Foynes Port, Foynes Island and Aughinish Island for the sustainable growth and development of marine related industry and industrial development at Askeaton.

All proposed developments shall be in accordance with regional and national priorities and the SEA Directive, Birds and Habitats Directive, Water Framework Directive, Shellfish Waters Directive, Floods Directive and EIA Directive.

Buffer zones shall be incorporated into proposals for developments where necessary to preserve potentially valuable habitats, for example, areas of estuary, shallow bays and inlets, mudflats, lagoon, salt marsh and woodland habitat which occur at or surrounding these Strategic Development Locations. The extent of such buffer distances shall be established in consultation with relevant statutory bodies. Detailed botanical, faunal and ornithological surveys should be undertaken in relation to proposed developments at these Strategic Development Locations to fully consider the potential effects of the development and inform how to best avoid significant ecological effects.” [Our emphasis.]

“Objective SE O2: Promoting Development

The Council will seek to promote the economic and industrial development of the Shannon estuary in order to capitalise on its location in the Mid West

industrial and business region. Sufficient land will be zoned or identified for industrial and business use through the medium of Local Area Plans or zoning within this Plan including zonings in the Strategic Integrated Framework Plan for the Shannon Estuary.” [Our emphasis.]

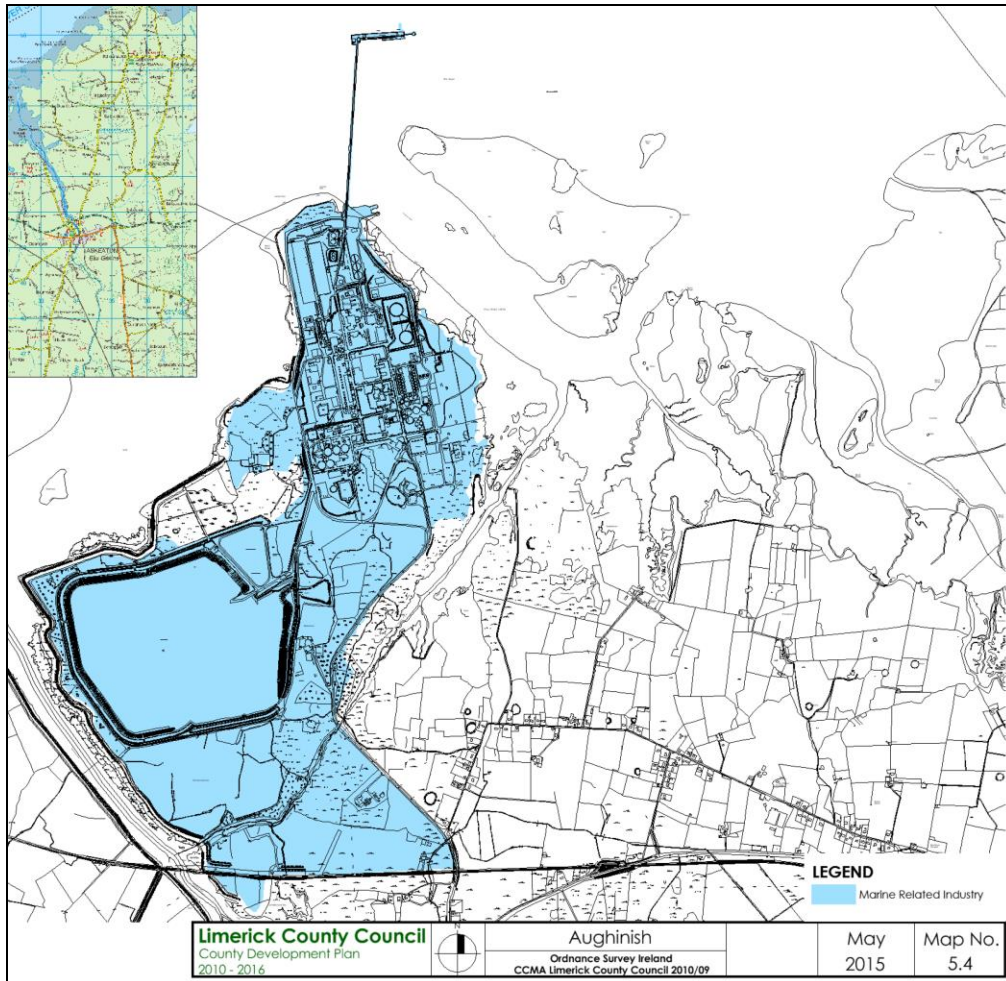


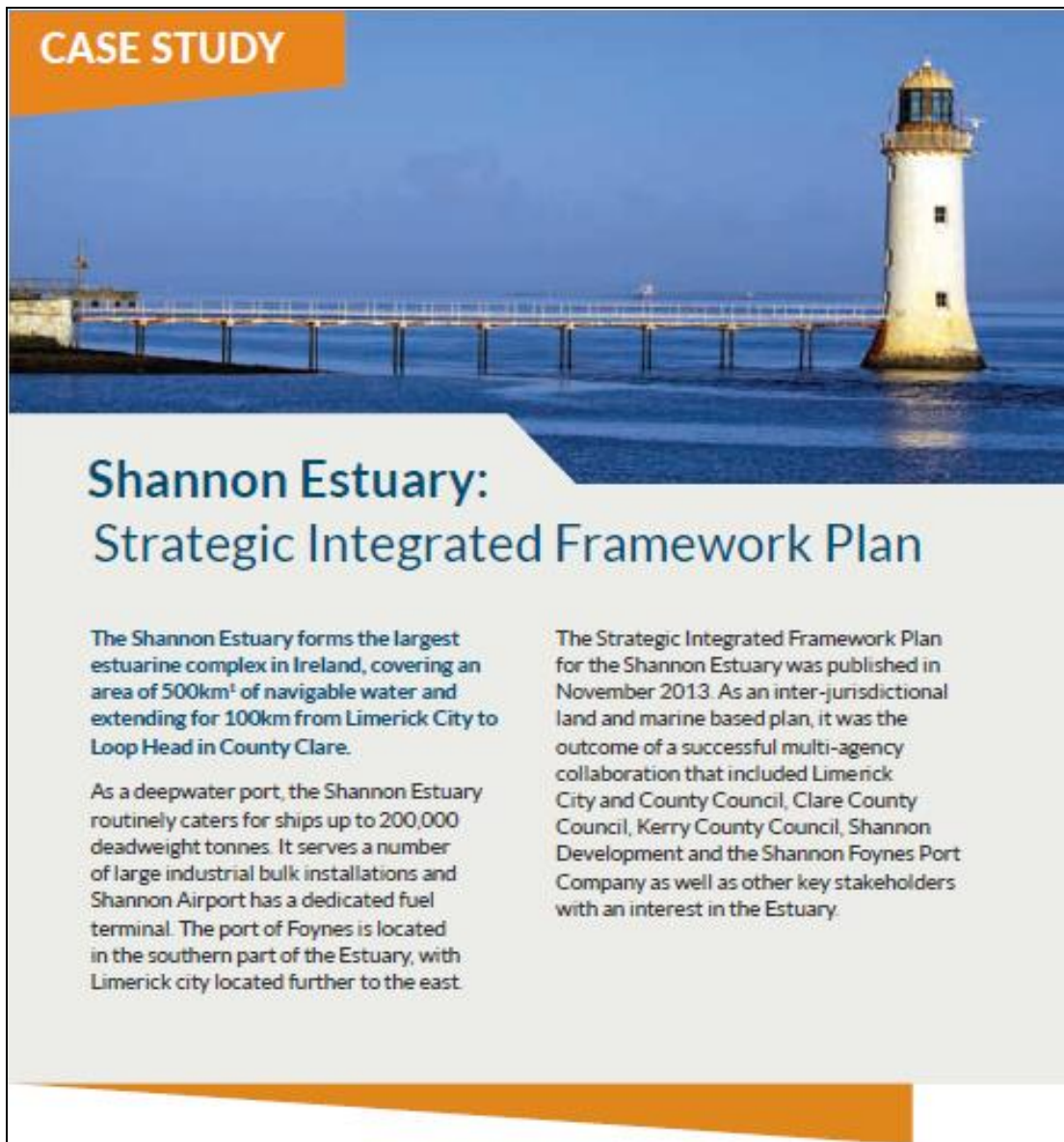
Figure 4.1: Marine Related Industry Zoning of Aughinish Island

Source: Extract from Map 5.4 of the *Limerick County Development Plan 2010-2016*


4.2 National Planning Framework: Project Ireland 2040

The National Planning Framework (NPF) is a high-level strategic plan shaping the future growth and development of Ireland out to the year 2030. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment.

The Shannon Estuary Strategic Integrated Framework Plan is identified as a case study within the NPF and is therefore considered to be fully supported at national planning level. The further development of AAL is strongly supported in the SIFP (section 4.4 below refers).



CASE STUDY



Shannon Estuary: Strategic Integrated Framework Plan

The Shannon Estuary forms the largest estuarine complex in Ireland, covering an area of 500km² of navigable water and extending for 100km from Limerick City to Loop Head in County Clare.

As a deepwater port, the Shannon Estuary routinely caters for ships up to 200,000 deadweight tonnes. It serves a number of large industrial bulk installations and Shannon Airport has a dedicated fuel terminal. The port of Foynes is located in the southern part of the Estuary, with Limerick city located further to the east.

The Strategic Integrated Framework Plan for the Shannon Estuary was published in November 2013. As an inter-jurisdictional land and marine based plan, it was the outcome of a successful multi-agency collaboration that included Limerick City and County Council, Clare County Council, Kerry County Council, Shannon Development and the Shannon Foynes Port Company as well as other key stakeholders with an interest in the Estuary.

Figure 4.2: Shannon Estuary SIFP identified as a Case Study in the National Planning Framework (Source: National Planning Framework, pg 105).



4.3 Regional Spatial & Economic Strategy for the Southern Region

The Regional Spatial & Economic Strategy (RSES) for the Southern Region provides the framework through which the NPF’s vision and the related Government policies and objectives will be delivered for the region. In line with International best practise, the RSES for the Southern Region adopts a territorially differentiated and place-based approach to regional planning and development.

The RSES identifies that across the region there are examples of smaller scale settlements or networks that have a significant role in employment provision in their surrounding communities, often in highly skilled and world leading innovative sectors. An example of this type of network of settlements includes:

*“North Kerry / West Limerick / Shannon Estuary / Clare
The RSES recognises and supports the economic role and potential of settlements including Listowel, Abbeyfeale Newcastle West (Key Town), Kilrush as economic drivers in a potential North Kerry/West Limerick/Clare network connected with the Shannon Estuary (and Shannon Foynes Port. Their attributes extend to include the Shannon Integrated Framework Plan (SIFP) area and strategic locations identified under the SIFP as a Shannon Estuary Coastal Network. Reference to the SIFP network is also included as an example of our region’s strategic marine and costal assets in Chapter 4.” [Our emphasis.]*

Aughinish Alumina (Aughinish Island) is identified as Strategic Development Location F in the Shannon Estuary SIFP and therefore the development of the site is fully supported in the RSES.

Furthermore, we refer to Regional Policy Objective (RPO) 79 and RPO 142 which further supports the overall Shannon Estuary SIFP and the development of the strategic development locations identified in the document, such as AAL.

RPO 79	
<p>Shannon Estuary and Other Harbour Plans</p> <p>a. The RSES recognises the national and international importance of the Shannon Estuary, its potential to attract multinational development and the significant work that has been undertaken to progress its promotion and development. It is an objective to support and promote the delivery of the Strategic Development Locations as set out in the SIFP for the Shannon Estuary subject to the implementation of mitigation measures outlined in the SEA and AA undertaken on SIFP and zoned in the Local Authority Development Plans.</p>	<p>b. It is an objective to promote the SIFP initiative as a good practice model for the Southern Region and to seek the preparation of similar initiatives for Cork Harbour and Waterford Harbour between the relevant stakeholders.</p> <p>c. It is an objective to support the promotion, marketing and seeking of financial and expertise support for the Strategic Integrated Framework Plan (SIFP) for the Shannon Estuary and specific projects emerging there from.</p> <p>d. Such initiatives shall be subject to the relevant environmental assessment requirements including SEA, EIA SFRA and AA as appropriate.</p>

RPO 142, in relation to Ports, states that:

“It is an objective to strengthen investment to deliver actions under National Ports Policy and investment in sustainable infrastructure projects that:

.....

e. Support the sustainable development of the 9 no. strategic development locations adjoining sheltered deep-water in line with the recommendations of the

SIFP for the Shannon Estuary and subject to the implementation of mitigation measures outlined in the SEA and AA undertaken on the SIFP.”

Having particular regard to the Shannon Estuary, the RSES also outlines the below.

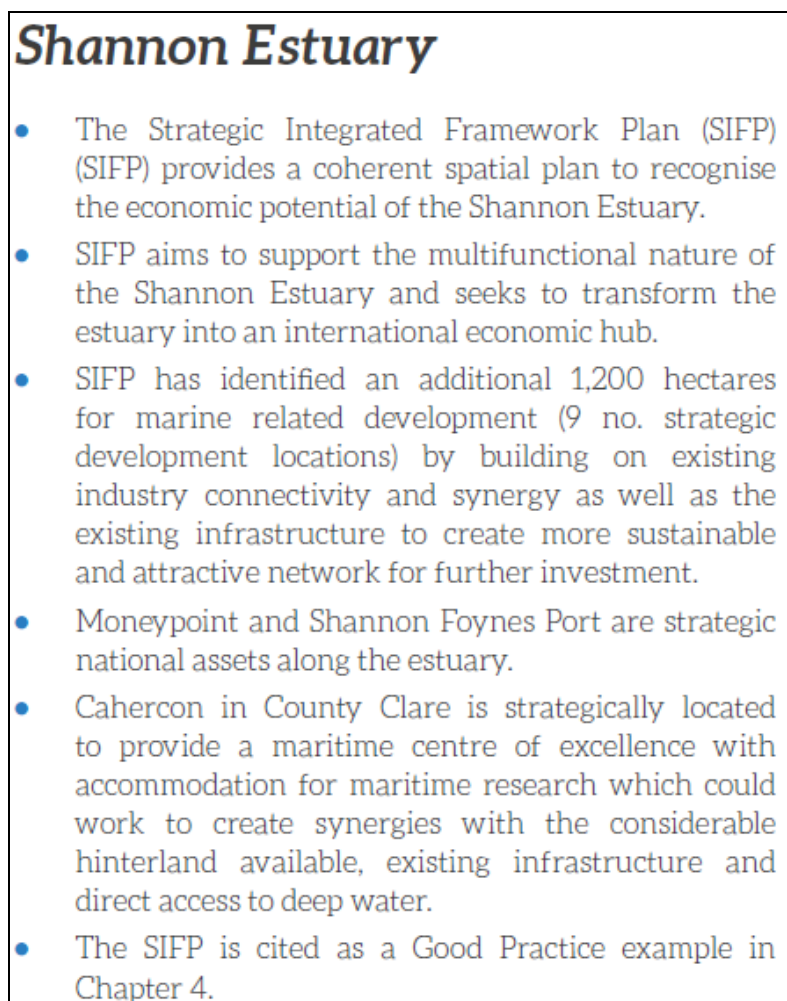


Figure 4.3: Extract from Regional Spatial and Economic Strategy for the Southern Region

AAL is identified as Strategic Development F in the Shannon Estuary SIFP and therefore the development of the site is fully supported through regional planning policy.

4.4 Strategic Integrated Framework Plan for the Shannon Estuary 2013-2020

The *Strategic Integrated Framework Plan for the Shannon Estuary 2013-2020* ('SIFP') is an inter-jurisdictional land and marine based framework plan to guide the future development and management of the Shannon Estuary. It was commissioned by Clare County Council, Kerry County Council, Limerick City and County Council, Shannon Development and the Shannon Foynes Port Company and was incorporated into the *Limerick County Development Plan* in 2015.

The SIFP notes in Section 2.1.1 that:



“The lower Shannon Estuary and its surrounding hinterland facilitate large scale, national industrial activities, and as such is considered by many as a key economic driver for the national and regional economy.

The presence of the deepwater port at Foynes, the Moneypoint ESB power station and the Aughinish Alumina plant demonstrate the critical role played by the Shannon Estuary, in facilitating economic development within the national context.” [Our emphasis.]

Aughinish Island is designated as a ‘Strategic Development Location’ (SDL) within the SIFP, and Section 5.4.4.6 of the SIFP describes the Aughinish Island SDL’s assets:

“The SDL incorporates a well established, strategic, industrial complex where further growth in the primary industry is anticipated. This is likely to include the potential extension to the existing deepwater berthing facilities, to take advantage of the potential for larger vessels and upgrading of loading machinery. The hinterlands of the SDL are relatively flat with good access to the N69, and also straddle the existing Limerick-Foynes rail network corridor. The area is connected via a spur line to the Bord Gais Natural Gas Ring Main, and is connected to the 110kV electricity transmission network with a number of substations located on site. The existing industrial development has permission to expand to the south, and is currently pursuing opportunities to increase production and storage capacity. The alumina facility anticipates remaining as a significant working industrial plant for the foreseeable future, generating considerable contributions and employment to the local and regional economy.” [Our emphasis.]

The SIFP sets out the following development objectives for the Aughinish Island Strategic Development Location:

“SIFP MRI 1.2.9: Aughinish Alumina

To safeguard the role and function of Aughinish Alumina as a key driver of economic growth in the region, encouraging its sustainable growth, expansion and diversification to facilitate greater and more competitive trade potential.

SIFP MRI 1.2.10: Aughinish Marine Related Industry

To support and facilitate the sustainable development of marine related industry on land within this Strategic Development Location, which harnesses the potential of the deep water, large hinterland and existing infrastructure. Other sustainable land uses may be acceptable where they are considered compatible or complementary with the level of flood risk, and where the ability to deliver the primary use (marine related industry) is not compromised. Development will be subject to compliance with the criteria set out in Objective SIFP MRI 1.2.” [Our emphasis.]

The proposed development will entail significant investment and enhancement of the AAL facility assisting the Planning Authority in achieving its Vision for the Shannon Estuary as set out in the SIFP.

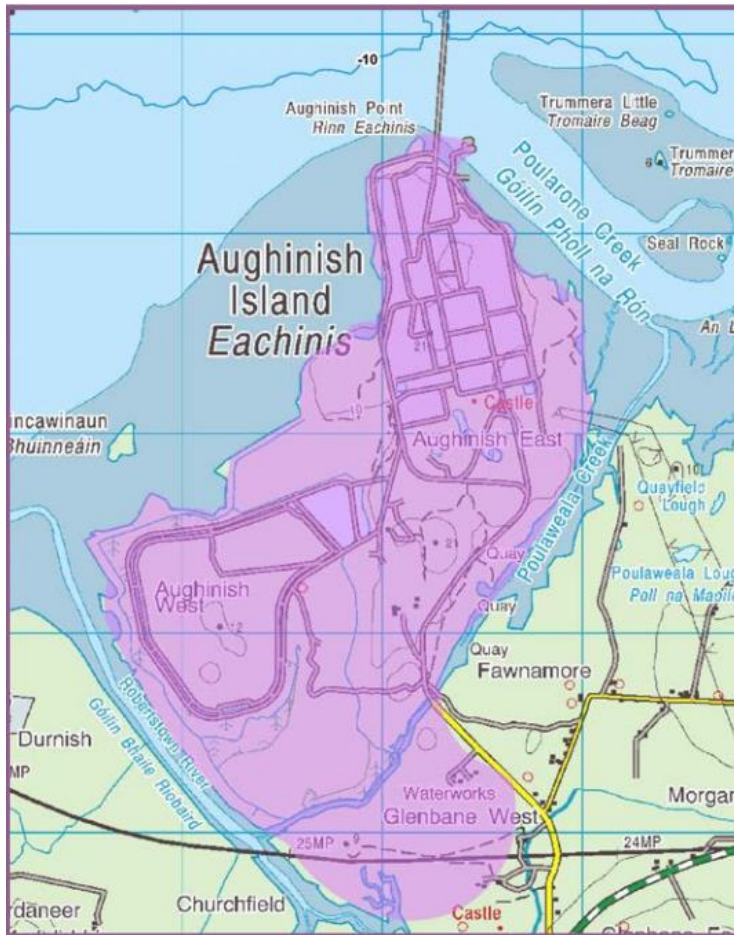


Figure 4.4: Extent of Aughinish Island Strategic Development Location F.
Source: *Strategic Integrated Framework Plan for the Shannon Estuary.*



5.0 Preparation of Planning Application, Environmental Impact Assessment Report and Nature Impact Statement

A planning application will be submitted directly to An Bord Pleanála as a Strategic Infrastructure Development as the development relates to an installation for the disposal of waste in excess of 100,000 tonnes per annum and the development is of strategic economic importance to the region and would contribute to the fulfilment of the National Planning Framework, Regional Spatial and Economic Strategy of the Southern Region and the Shannon Estuary Strategic Integrated Framework Plan.

An Environmental Impact Assessment Report and Natura Impact Statement will be prepared to accompany the planning application.

We write therefore seeking any comments, inputs or views which your organisation may have related to the proposed development. Any such comments received will be considered in the preparation of the application including the associated Environmental Impact Assessment Report and Nature Impact Statement prior to the lodgement of the application to An Bord Pleanála.

These comments can be provided in writing to address below or by email to stephen@tpa.ie by 12th July 2021.

Yours sincerely,

Stephen Barrett
Tom Phillips + Associates
Town Planning Consultants
80 Harcourt Street
Dublin 2
D02 F449



- Drawings prepared by Golder Associates

Drawing No.	Drawing Title	Scale
01	Site Location Plan – Overall	1:7500
01a	Site Location Plan – Overall with Aerial	1:7500
02	Site Location Plan – BRDA	1:4000
02a	Site Location Plan – BRDA with Aerial	1:4000
03	Existing BRDA to Stage 10 with Dome	1:4000
04	Proposed BRDA Raises to Stage 16 & Salt Cake Disposal Cell Raise, both with Domes at Closure	1:4000
05	Cross Sections	A/S
06	Typical BRDA Side-Slope Profile	A/S
07	Proposed Salt Cake Disposal Cell Raise	1:1000
08	Permitted and Proposed Borrow Pit Extension - Plan	1:1250
08a	Permitted and Proposed Borrow Pit Extension – Cross Sections	A/S

Appendix 1.3 – Consultation Brochure



Aerial view of the Aughinish Alumina refinery

Aughinish Alumina is developing a project to secure the continued operation of the refinery

Project Summary

Aughinish Alumina Limited (Aughinish) will be applying for planning permission later this year and has prepared this leaflet to provide you with detail of the proposed project.

The planning application will include:

- ▶ An increase to the permitted height of the existing Bauxite Residue Disposal Area (BRDA), in six separate two-metre high rock terraces over time.
- ▶ A raise of the existing salt cake storage area.
- ▶ Extending the existing on-site quarry, known as the borrow pit.

Further details of the proposed project are outlined for you in this leaflet. An Bord Pleanála has decided this proposed project will come under the provisions of the Strategic Infrastructure Development (SID) planning process. This means Aughinish is required to submit its planning application directly to An Bord Pleanála. This is currently being prepared for submission later in 2021.

Thereafter the public may make submissions to An Bord Pleanála on the planning application.

Aughinish Key Facts

Aughinish, owned by RUSAL, has successfully operated within the community since 1983.



It employs over

710 people

with **460 direct employees** and **250 long-term contractors**, with further employment in local service industries.



It spends over

€185 million

in the Irish economy every year with much of that in the local Mid-West region.



It is the **largest alumina refinery in Europe**, producing over

30%

of Europe's alumina, which it exports to smelters across Europe to manufacture aluminium.

It is globally recognised as a benchmark alumina refinery and rated among the

TOP 10% of **alumina refineries in the world** in terms of energy efficiency.



Aluminium



has an **increasing range of important uses** including all transport types, buildings, food packaging, cooking products, medical applications and electrical/electronic devices such as computers and mobile phones.



CO₂

The European Commission recognises aluminium as a key raw material for a low carbon future. The alumina made at Aughinish has one of the **lowest carbon footprints in the world**, at less than half of the global industry average.

Bauxite Residue Disposal Area (BRDA)

Bauxite is a naturally dark red coloured earth which gets its colour from its iron content. The refining process removes alumina from bauxite leaving bauxite residue to be stored in the BRDA.

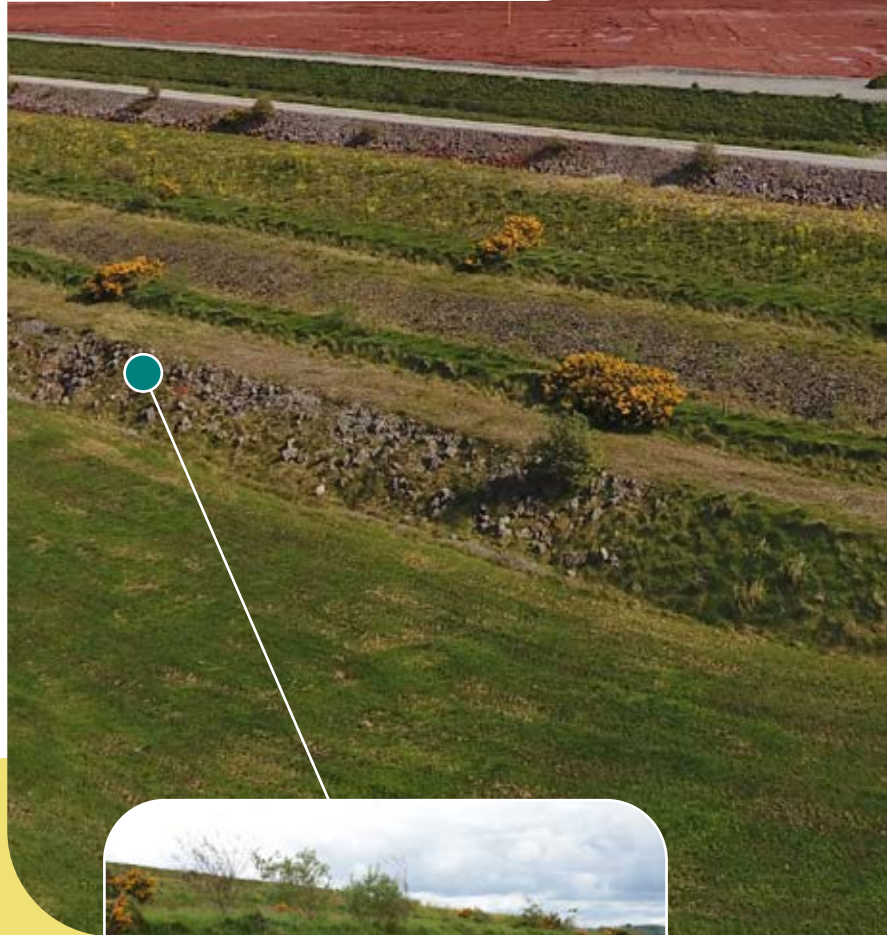
- ▶ It is stored as a solid non-hazardous material.
- ▶ The BRDA is designed, constructed and operated to the highest international safety and environmental standards.
- ▶ It is independently audited to confirm compliance with those standards.

The method of bauxite residue storage used at Aughinish is called dry stacking. It involves a system where the area is raised in two-metre stages by the construction of rock terraces, creating a gradual slope. This dry stacking technique is considered a Best Available Technique (BAT), as identified by the European Commission.

The bauxite residue is compacted in a process known as farming resulting in a solid structure upon which people can walk and heavy machinery can travel.

The proposed project will increase the permitted height of the existing BRDA, in six separate two-metre high rock terraces, to secure the continued operation of Aughinish.

Aerial photo of the north and west sides of the BRDA taken in April 2021, showing the two-metre high rock terraces and strong vegetative coverage



View of the rock terrace on the north side of the BRDA

Salt Cake

Salt cake is made as part of the alumina refining process where naturally occurring organics (plants/ roots) contained in the bauxite are removed. It is deposited in a dedicated area within the BRDA. In the short-term, additional capacity is required and therefore a vertical extension of the cell is proposed. As a result of extensive research and development, Aughinish has developed a process which will, in the coming years, eliminate salt cake production.

Borrow Pit

Rock is required to construct the BRDA terraces. The currently permitted on-site quarry, known as the borrow pit, will be used in the ongoing construction of the existing BRDA. This proposed project includes an increase of the borrow pit extraction area to meet the needs of the proposed BRDA raise. A benefit is that road trucking of rock from external sources will not be required for the proposed BRDA raise.

"The BRDA is designed, constructed and operated to the highest international safety and environmental standards"

"Aughinish continues year on year to invest in landscaping and vegetation"



View from the BRDA looking towards the refinery



Bauxite residue farming on the BRDA



View from the vegetated bauxite residue surface on the west side of the BRDA looking towards the operational surface

BRDA Landscaping

Aughinish continues year on year to invest in landscaping and vegetation on the BRDA by seeding and planting a wide variety of species resulting in dense green vegetation. Additionally, many other plant species have naturally grown, further improving the vegetative cover and biodiversity.

This combination of native trees, Irish grass and shrubs already established in large areas on the BRDA demonstrate its restoration. Ultimately, the grassed BRDA surface will incorporate hedgerows to look like traditional field patterns.

Safety and Environment

Effective management of safety and environment is central to Aughinish operations. The refinery operates to international standards for safety, environment and energy efficiency. Compliance is achieved through rigorous monitoring, a culture of continuous improvement and both internal and external independent auditing.

Aughinish is surrounded by and cares for thriving habitats and species protected by the EU Habitats Directive, including a bird sanctuary and lowland hay meadows. Aughinish is firmly committed to strengthening biodiversity and habitat creation around the BRDA and refinery through the continued implementation of its Biodiversity Management Plan.



Selection of plant species growing on a restored section of the BRDA

Planning Process

This information has been prepared to inform you of the proposed project and that Aughinish will lodge a planning application for this project to An Bord Pleanála later in 2021. As per An Bord Pleanála requirements the application will include a full Environmental Impact Assessment Report (EIAR), a Natura Impact Statement (NIS) and associated engineering drawings and detail.

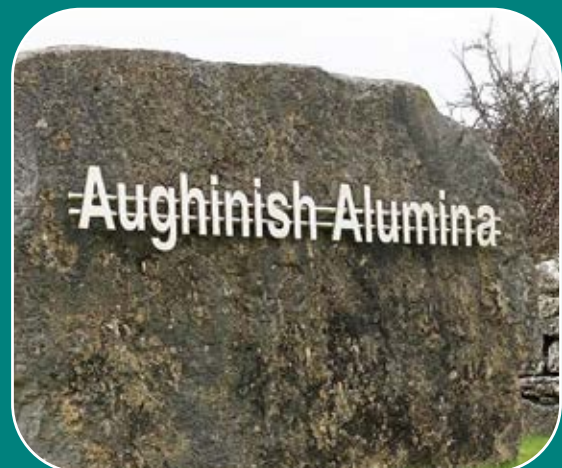
All the documents associated with the planning application will be posted on a dedicated planning application website, which will be accessible to all interested parties. Details of this website will be published in the statutory public notice for the planning application.



Feedback

If you have any queries in relation to the proposal please contact us by email to consultation@augh.com or by writing to the address below.

**Consultation Response,
Community Affairs Department,
Aughinish Alumina Limited,
Aughinish Island,
Askeaton,
Co. Limerick.
V94 V8F7.**



Appendix 1.4: Engagement with Local Politicians



AUGHINISH ALUMINA LIMITED

(Registered in Ireland No.59982)

04th June 2021

Dear ABC,

I enclose an information leaflet on a proposed project Aughinish Alumina are developing to secure the continued operation of the refinery.

Aughinish has been a major contributor to the local economy for almost forty years, employing over 710 people in high quality jobs in terms of salary, conditions and training opportunities. Aughinish Alumina spend over €185 million in the Irish economy every year, much of it in the local mid-west region.

An Bord Pleanála has decided that this proposed project falls under the Strategic Infrastructure Development (SID) planning regulations. We are currently working with our design team to prepare the planning application, which we will submit to An Bord Pleanála later in 2021. The SID process is highly transparent and members of the public can make submissions on the proposal once the application is submitted. As per An Bord Pleanála requirements, the application will be accompanied by a full Environmental Impact Assessment Report (EIAR), a Natura Impact Statement (NIS) and associated engineering detail and drawings.

We are currently distributing the enclosed information leaflet to our neighbouring community. This leaflet provides details of the proposed project and a framework through which any queries our neighbours might have can be raised.

As a local political representative, we wanted to provide you with this courtesy advance notice of our intention to lodge the planning application later this year and to make you aware of our engagement with our neighbouring community.

If you have any questions about or observations in relation to the proposed project, please do not hesitate to contact me.

Yours sincerely,

Michael O'Toole

Community Affairs Manager

061 604286

Name	Party	Party	District
Michael Collins - Mayor of the City and County of Limerick,	Michael Collins	Fianna Fáil	Newcastle West
Francis Foley - Cathaoirleach of the Municipal District of Newcastle West	Francis Foley	Fianna Fáil	Newcastle West
Liam Galvin	Liam Gavin	Fine Gael	Newcastle West
Tom Ruddle	Tom Ruddle	Fine Gael	Newcastle West
Jerome Scanlan	Jerome Scanlan	Independent	Newcastle West
John Sheahan	John Sheehan	Fine Gael	Newcastle West
Adam Teskey - Cathaoirleach of the Municipal District of Adare-Rathkeale	Adam Teskey	Fine Gael	Adare-Rathkeale
Emmett O'Brien - Leas-Chathaoirleach of the Municipal District of Adare-Rathkeale	Emmet O'Brien	Independent	Adare-Rathkeale
Bridie Collins	Bride Collins	Fianna Fáil	Adare-Rathkeale
Stephen Keary	Stephen Keary	Fine Gael	Adare-Rathkeale
John O'Donoghue	John O'Donoghue	Independent	Adare-Rathkeale
Kevin Sheahan	Kevin Sheehan	Fianna Fáil	Adare-Rathkeale