



INTERNATIONAL

## Moneypoint Ash Storage Area Development

## ESB Power Generation and Wholesale Markets

## Environmental Impact Statement Appendices

QS-000132-01-R001

Date: 17/06/2014

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## APPENDIX 1A: SCOPING REPORT

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## Moneypoint Ash Storage Area Development

## ESB Power Generation and Wholesale Markets

## Scoping Request

Document No.: QS-000132-01-R-001

Date: 24<sup>th</sup> October 2013

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# 1 Introduction

## 1.1 Background

The ESB Power Generating Station at Moneypoint has had a long history of association with County Clare. The Moneypoint site was acquired by ESB in the late-1970s to develop a coal fired power plant as part of its strategy to diversify from oil dependent electricity generation. The station's three 305 MW rated units went into service in 1985, 1986 and 1987.

ESB is a strong, diversified, vertically integrated utility, operating across the electricity market: from generation, through transmission and distribution to supply. It holds a regulatory asset base (RAB) of approximately €8.3 billion, 43% of total electricity generation capacity in the all-island market and supplies electricity to approximately 1.5 million customers throughout the island of Ireland. ESB employs approximately 8,000 people.

As a company ESB contributed €1.8 billion to the Irish economy in 2012 through purchases from Irish suppliers, taxes, rates, wages and dividends.

Moneypoint Ash Storage Area will be developed by ESB Generation and Wholesale Markets (ESB G&WM), which is the part of the ESB organisation that is dedicated to energy generation.

Refer to Figure 1-1 Moneypoint Ash Storage Area Extension Facility 2013 Environmental Constraints and Site Location Map, Figure 1-2 Moneypoint Ash Storage Area Extension Facility 2013 – Environmental and Figure 1-3 Moneypoint Ash Storage Area Extension Facility 2013 – Ash Storage Area.



Figure 1-1 Moneypoint Ash Storage Area Extension Facility 2013 – Site Location Map

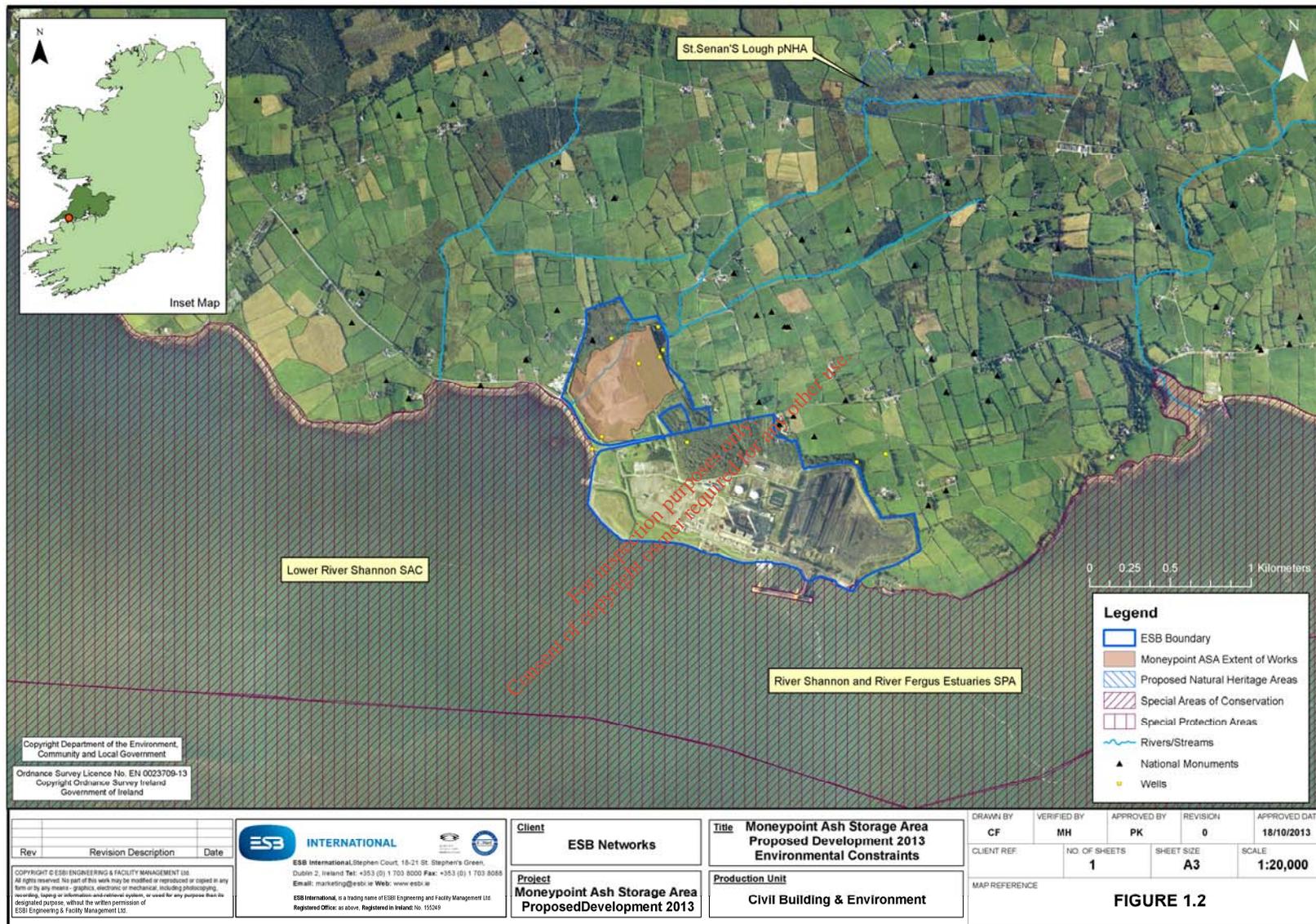


Figure 1-2 Moneypoint Ash Storage Area Extension Facility 2013 – Environmental Constraints

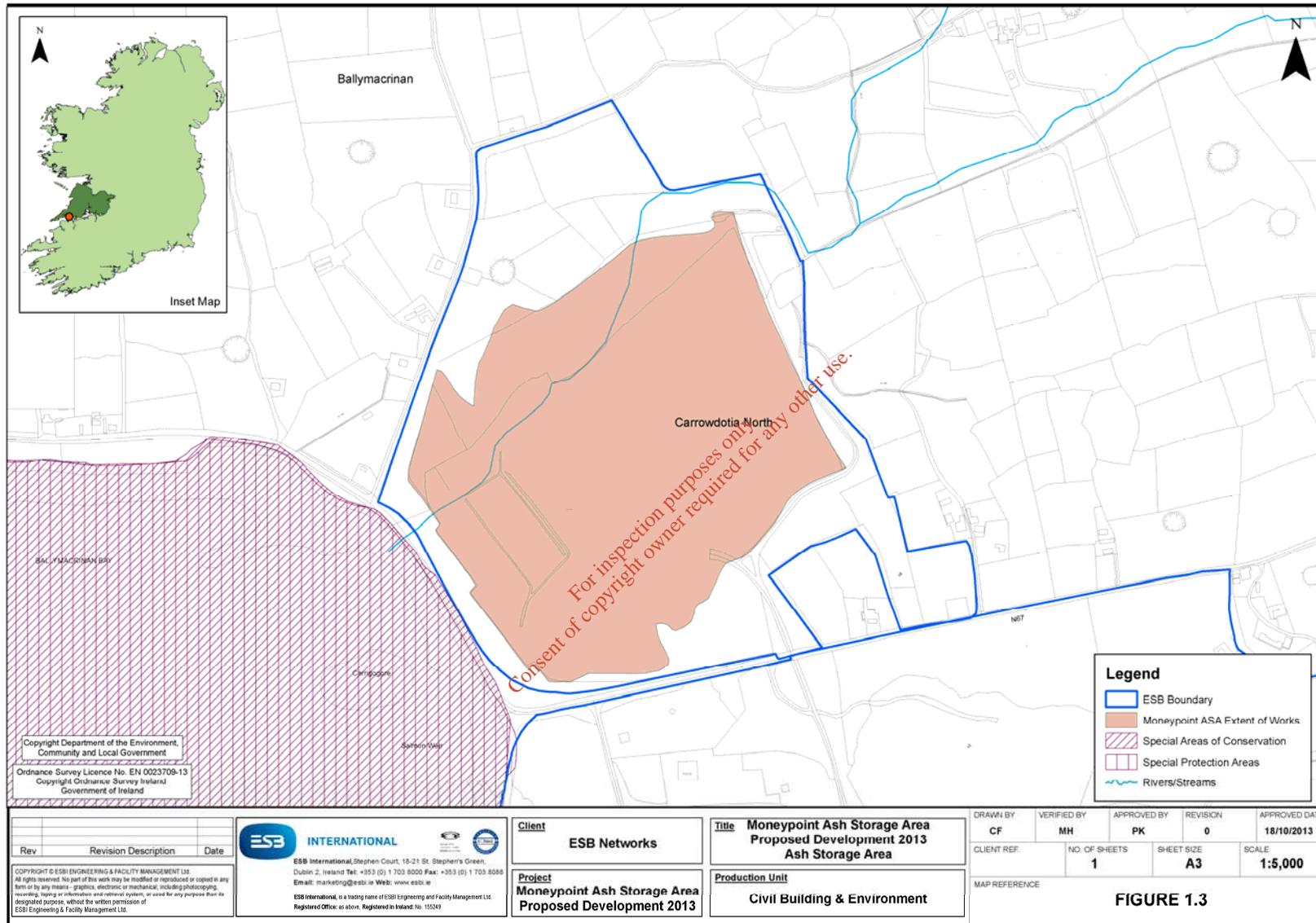


Figure 1-3 Moneypoint Ash Storage Area Extension Facility 2013 – Ash Storage Area

## 1.2 Planning Context

The planning history at Moneypoint that is relevant to the proposed development at the site is as follows:

**Table 1-1 Planning Permissions at Moneypoint (Clare County Council References only)**

Ref.	Description
P8/13759	To erect an electricity generating station & ancillary works.
P8/23179	To retain the construction quay and change of use of part of the coal store to allow screening and grading of coal and transport of coal by water
P8/22368	To change use of part of the coal store to allow screening and grading of coal and transport of coal from the site by road.
P8/24408	To construct a reception building, security building and car park.
P8/27018	To change use of part of the ash handling facility to allow transport of ash from the site by road for sale in bulk.
91/1102	To construct single storey security building and stores
92/777	To construct single storey extension to existing administration building
P93/860	To construction of an extension to the administration block
93/659	To construct a Conveyor Housing and Vehicle Building
99/797	To construct an Ash Beneficiation Process Plant, ash storage silos, compressor building, access roadway
99/1390	To erect an anemometer mast at the site
01/1538	To erect a wind farm development comprising nine wind turbines at the site
03/625	To construct an Environmental Retrofit Project
06/935	To construct a new canteen building
07/2701	To erect a chain link fence at Mechanical and Electrical Workshop Building
08/1849	To erect a 30 m high, free standing lattice type communication structure
11/457	To develop the electrical transmission infrastructure at and adjacent to the 400kV substation
12/74	To develop a five wind turbine project in substitution of a previously permitted nine wind turbine project

## 1.3 Scoping

This Scoping document has been prepared with specific reference to the Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2002), and Advice Notes on Current Practice in the preparation of Environmental Impact Statements, (EPA, 2003) (EPA guidelines).

Scoping is a process that determines the particular issues which need to be examined in an Environmental Impact Statement. It is also based on:

- Site visits and local investigation; and
- The requirements of the Planning and EIA Regulations.

The purpose of the Scoping Report is to:

- Identify any concerns about the project and any recommendations to inform the preparation of the Environmental Impact Statement;
- Ensure that such concerns are effectively mitigated by design in the early stages of the project;
- Take account of the knowledge and expertise of statutory bodies, local expertise and interest groups and incorporate this in to the EIS; and
- Ensure the participatory process.

In order to accord with scoping best practice, when making a scoping request the developer is required to include:

- A plan sufficient to identify the land (Figure 1.1 – Figure 1-3);
- A brief description of the nature and purpose of the development (Section 2); and
- Section 3 provides a description of the development's possible effects on the environment.

These requirements are addressed in this Scoping Report as indicated above. Section 4 describes the procedure for making comments in relation to this scoping exercise.

This report provides the basis of the request for scoping opinion on the proposed Moneypoint Ash Storage Area.

## 1.4 Consultation

Preliminary consultation has been undertaken with the following key consultees:

- Clare County Council; and
- EPA.

On-going consultation will continue during the project development phase. A scoping opinion is being issued to the relevant consultees listed in Table 1.2.

**Table 1-2 List of Consultees**

SCOPING REQUEST LIST	ADDRESS
An Taisce, the National Trust for Ireland	Secretary An Taisce – The National Trust for Ireland Tailors' Hall Back Lane Dublin 8
Development Applications Unit	The Manager Development Application Unit Department of Environment, Community & Local Government Newtown Road Wexford
Inland Fisheries Ireland, Shannon IRBD	Inland Fisheries Ireland, Shannon IRBD Ashbourne Business Park Dock Road Limerick
Environmental Protection Agency	Office of Climate, Licensing and Resource Use, P.O. Box 3000, Johnstown Castle Estate, County Wexford
Department of Agriculture, Food & the Marine	The Minister for Agriculture, Food & the Marine Department of Agriculture, Food & the Marine Agriculture House Kildare Street Dublin 2

SCOPING REQUEST LIST	ADDRESS
Failte Ireland	Mr Paddy Matthews Manager of Environment & Planning Failte Ireland Environment Unit 88-95 Amiens Street Dublin 1
Shannon Foynes Port Company	Shannon Foynes Port Company Harbour Office Foynes County Limerick
Clare Tourist Council	Clare Tourist Council Ennis Tourist Information Office Arthur's Row Ennis County Clare
Irish Whale & Dolphin Group	Irish Whale and Dolphin Group Merchants Quay Kilrush County Clare
Irish Wildbird Conservancy	Irish Wildbird Conservancy Bullford Business Campus Kilcoole Wicklow
Irish Aviation Authority	Mr. Pieter Van Velzen Irish Aviation Authority The Times Building 11-12 D'Olier Street Dublin 2
Clare County Council	Clare County Council Environment Section I.A.P.E., Block B Gort Road Ennis County Clare
Clare County Council	Clare County Council Planning Section I.A.P.E., Block B Gort Road Ennis County Clare

SCOPING REQUEST LIST	ADDRESS
Kilrush Town Council	Secretary Kilrush Town Council Town Hall Kilrush County Clare
Limerick County Council	Limerick County Council Environment Section County Hall Dooradoyle County Limerick
Limerick County Council	Limerick County Council Planning Section County Hall Dooradoyle County Limerick
Limerick City Council	Limerick City Council Environment Section City Hall Merchants Quay Limerick City
Limerick City Council	Limerick City Council Planning Section City Hall Merchants Quay Limerick City
Kerry County Council	Kerry County Council Environment Section County Buildings Rathass Tralee County Kerry
Kerry County Council	Kerry County Council Planning Section County Buildings Rathass County Kerry

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## 2 Project Description

### 2.1 Moneypoint Site

Moneypoint is located on the northern shore of the Shannon Estuary in County Clare, approximately 3 km west of Killimer and 6 km south-east of Kilrush.

The Estuary area is a multi-functional zone, with the waters and adjoining lands supporting a range of functions, uses and activities. These include: port functions, aquaculture / fishing, marine tourism, recreation / leisure activities, industry / business, energy generation, fuel storage, aviation, agriculture, valuable habitats / landscape and architectural heritage.

The area of the Moneypoint site is approximately 180 hectares (ha) and comprises lands on either side of the Kilrush-Killimer road (N67). The two areas are interconnected by a service road running beneath the N67. The main station site (130 ha) is located on the south side and the ash storage area site (50 ha) is located to the north-west on the landward side of the N67 where it adjoins the shoreline of Ballymacrinan Bay. The footprint of the ash storage area for the proposed development is approximately 30 ha. Approximately 24 ha of the lands to the south of the N67 were created by reclamation from the Estuary during site development.

The power station layout arises from the functional relationship of the main elements of the plant to associated ancillary plant and buildings, adjacent to the deep sheltered water of the estuary.

### 2.2 Surrounding Area

The general surrounding area is gently rolling agricultural countryside with almost all land under grass. The landscape is predominantly rural, with small residential farms creating a relatively uniform pattern of low hedgerows and bank-enclosed fields. Additional residences, predominantly single-storey, are also dispersed throughout the area either clustered around original farms or as roadside ribbon development.

Labasheeda lies 12 km to the east of the site, Kilmihil 14 km to the northeast and Doonbeg 15 km to the northwest. Tarbert, County Kerry lies approximately 5 km to the southeast at Tarbert Bay on the southern shore of the River Shannon Estuary and Ballylongford 7.5 km to the southwest. Glin lies approximately 10 km to the southeast in County Limerick and the village of Loghill 15 km lies to the southeast.

The Shannon Ferry between Killimer Ferry Terminal and Tarbert Island links the N67 north and south of the River Shannon Estuary. The route continues south of the estuary on Tarbert Island and joins the N69 at Tarbert. Killimer village and the ferry landing are the only more concentrated settlements within the district around the site. A currently disused small concrete mixing and products plant just off the N67 at the west corner of the ash storage area and a caravan park at Moyne Bay 3

km west of the station are the only other obvious significant non-farming land uses, in addition to the generating station itself.

The Kilrush-Ennis road (N68) runs approximately 5km to the northwest and there is a network of regional roads comprising the R473, R483, R484, R485 and R486 at the north of the site. The R551 runs approximately 5km from the site towards the southwest. The R524 starts at Glin approximately 10km from the site and continues south. The R552 starts at Ballylongford approximately 7km from the site and continues south.

ESB has had a long history of responsible operation of power plants in the Shannon Estuary and is mindful of its obligations in regard to environmental protection.

### 2.2.1 Ash Storage Area

Moneypoint Ash Storage Area is located within the station property on the north side of the N67 Kilrush – Killimer road in a naturally occurring depression in the topography of the site. It occupies an area of 387,000 m<sup>2</sup>. The ash storage area has been in operation since the first 305 MW unit commenced power generation in 1985. The total estimated cumulative quantity of waste deposited on the site is 2.788 million m<sup>3</sup> (Section 10.7 of the AER 2012 relates to the Annual Landfill Report required by the EPA). The remaining capacity of the current ash landfill is estimated at 212,000 m<sup>3</sup> with an estimated total capacity of 3.0 million m<sup>3</sup>. The date in which the ASA will reach its full capacity cannot be predicted accurately as ash is sold commercially off site and hence quantity of deposited ash and therefore capacity usage is dictated by the ash market. However it is likely that the existing ash storage area capacity will be fully utilised within two years.

## 2.3 Description of the Proposed Development

The ESB Generating Station at Moneypoint generates electricity through thermal combustion of coal in accordance with its EPA IPPC operating Licence P0605-03. The licence covers both generation, flue gas delphurisation and FGD by-product landfills and ash storage area activities. It is a strategic electricity generating plant underpinning the country's energy security through fuel diversification and contributing significantly to the national and local economies.

Combustion of bituminous coals generates ash as a by-product, both furnace bottom ash (FBA) and pulverised fly ash (PFA). At Moneypoint PFA is sold as a substitute for other materials in the construction industry or is transferred to the Ash Storage Area (ASA). Bottom ash is transferred to the ash storage area.

The Ash Storage Area (ASA) at Moneypoint Power Generation Plant is an integral part of the power plant operational aspect storing coal combustion by-products in the form of bottom ash and pulverised fly ash. Ash deposition commenced at the site in 1985 when the first unit came into operation, with increasing annual quantities as additional units became operational in 1986 and 1987. The ASA has been in operation for approximately 28 years. Historically, up to 100,000 tons of fly ash have been sold annually off site to the cement industry with the balance

landfilled in the ASA. Fly ash is deposited in the ASA in a manner which allows recovery for future sale and is generally segregated from bottom ash which may also be recovered.

The ash storage area development and final closure must comply with the EPA's IPPC Licence Conditions (P0605-03 issued on the 8th March 2013). This requires the ash storage area landfill to be fully in compliance with the EU Landfill Directive (Directive 1999/31/EC on the landfill of waste) and the Landfill Operational Plan must incorporate all relevant requirements of the Directive regarding the design, construction, operation and aftercare management of the landfills. The capacity of the ash storage landfill also needs to be increased to ensure continued operation of the Moneypoint Power Generation Station which is strategic for fuel diversity of the country.

Compliance with the EPA IPPC Licence requirement and ash storage requirement will necessitate increasing the overall ash storage area capacity, providing details of its final contouring and design and stating its final capacity. The proposed change to the existing landfill design incorporates an increased capacity of the ash storage area but not its overall footprint, hence it will result in an increase in elevation of the ash storage area to an average height of 23 m AOD with an approximate maximum height of 28m AOD at the highest point of the proposed landfill. The landfill will be developed in cells and will be finally contoured and capped as required by the IPPC Licence. This proposed change will require planning permission from Clare County Council and an amendment to the existing IPPC licence.

The proposed development comprises an increase in storage capacity of the existing ash storage area serving the station with the provision of approximately 1.8 million m<sup>3</sup> of additional storage volume being provided.

## 3 Potential Impacts

### 3.1 Potential Impacts on Ecology

In general the main potential impacts on the site could occur from the proximity of the Lower River Shannon Special Area of Conservation (SAC) (site code 002165) to the proposed development.

This SAC forms the southern boundary of the site and extends along the Shannon valley from Killaloe to Loop Head/ Kerry Head, a distance of some 120 km.

The Shannon Estuary is one of the most important sites for the conservation of cetacean species (whales, dolphins and porpoises) in Ireland. It is home to the only known resident group of bottlenose dolphins, who breed there every year, with one of the two preferred critical areas within the Shannon being the area between Moneypoint and Killimer on the north shore and Tarbert on the south.

The Lower River Shannon designation is based on the presence EU Habitats Directive Annex I habitats and Annex II species. These include the bottlenose dolphin, sea lamprey, freshwater pearl mussel, Atlantic salmon and otter. The

Estuary also supports the harbour porpoise and a variety of whale species. Recent sightings around the mouth of the Estuary include bottlenose and common dolphin, harbour porpoise, minke whale and humpback whale (Irish Whale and Dolphin Group as of 09/09/2010). Other species that have stranded in the estuary in the past include striped dolphin (April 2010 at Poulnasherry) and pilot whale (July 2004 also in Poulnasherry Bay) (Shannon Dolphin and Wildlife Foundation <http://shannondolphins.ie>). It should be noted however, that Moneypoint operates in accordance with its EPA IPPC Licence and no impact on the Shannon Estuary has been identified by the EPA.

The proximity of the proposed development to the Lower River Shannon SAC requires an Appropriate Assessment under Article 6.3 of the EU Habitats Directive to be undertaken in order to identify any potential impact on protected habitats and species.

In addition selected intertidal areas in the locality have been designated as Special Protection Areas (SPA) under the EU Birds Directive because of their importance for wintering waterfowl. Although none of the species recorded at intertidal areas within 10 km of Moneypoint occur in nationally important numbers, the Lower Shannon River is the most important site for wintering waterfowl in Ireland.

Note that extensive ecology studies have already been undertaken on this site in recent years for a wind farm application (Ref 12/74), these studies will help inform the assessment for the proposed development and will be supplemented by additional surveys and water quality assessment.

### 3.2 Potential Impacts on Traffic

The majority of the traffic generated from the proposed development will be internal to the site boundary. The only traffic generated will be from topsoil being transported to site and this will be intermittent over an extended period.

### 3.3 Potential Impacts on Cultural Heritage

As the proposed development will be located on an existing ash storage area, it is not considered that there will be any impact to cultural heritage sites as a result of the proposed development.

### 3.4 Potential Impacts on Noise

This site is governed by its IPPC licence (P0605-03), section 6.13 of the licence states that “ *Activities on-site shall not give rise to noise levels off-site, at noise sensitive locations, which exceed the following sound pressure limits (Leq,30min) subject to Condition 4 of this licence: Daytime: 55 dB(A) and Night-time: 45 dB(A)*”.

It is considered that there will be no significant change expected in respect to noise impacts from the proposed development.

### 3.5 Potential Impacts on Landscape

The proposed change to the existing landfill design incorporates an increased capacity of the ash storage area but not its overall footprint, hence it will result in an

increase in elevation of the ash storage area to an average height of 23 m AOD m with an approximate maximum height of 28m AOD.

A visual impact on the landscape and visual character of the area will occur from the increase in elevation of this ash storage area.

A qualified landscape architect has been engaged to undertake the visual impact assessment.

### 3.6 Potential Impacts on Water Quality

The site is located on lands adjacent to the Shannon Estuary and therefore falls within the remit of the Shannon International River Basin District as identified under the Water Framework Directive. Surface water from the site drains specifically to the Lower Shannon Estuary transitional water body (SH\_060\_0300). Water quality and its requirements are governed by the Shannon International River Basin management Plan 2010 and by the Shannon River Basin District Transitional and Coastal Action Plan. The Lower Shannon Estuary is classed as being at Moderate status with an overall objective of restoration to at least good status by 2021.

Surface water and storm water discharges from the Moneypoint Power Generation site including the ash storage earea are controlled under Section 6.12 of the EPA IPPC Licence P605-03 and under Schedule B of the licence. The Moneypoint Power Generation Plant operates within the conditions of the IPC Licence and no water pollution issues have been identified to date.

An assessment of potential impacts to water quality in the Lower Shannon Estuary transitional water body will be undertaken.

### 3.7 Cumulative Impacts

Cumulative impacts are those that result from incremental changes caused by other (past, present or reasonably foreseeable actions) together with changes directly arising from the project.

Cumulative impacts may arise resulting from a combination of other projects in the general area or from the project components itself.

In particular cumulative impacts on ecology and landscape arising from the developments in this area will be assessed.

## 4 Consultation Responses

ESBI on behalf of ESB Power Generation and Wholesale Markets seeks a formal scoping opinion for the proposed development at the Moneypoint Ash Storage Area to be located at ESB Power Generating Station at Moneypoint near Killimer in County Clare in order to inform any ensuing EIA. All responses should be sent directly to Mairéad Hogan at the following address or sent via e-mail to the address below:

Mairéad Hogan,  
Environmental Consultant,  
ESB International  
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18 – 21 St. Stephens Green  
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Should any queries arise in relation to the contents of this report or the proposed scheme, the same contact details should be used accordingly.

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