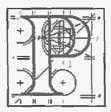
#### An Bord Pleanála



Ref.:

01JA0032

**Development:** 

Continued operation of landfilling activities and an increase in waste acceptance at Powerstown Landfill,

Powerstown, Co Carlow.

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Local Authority:

Carlow County Council

Type of Application:

S.175 of the Planning and Development Act 2000-2010.

Pat Purcel Rings of the Planning and Development Act 2000-2010.

Observers:

Eddie Galway

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**Prescribed Bodies:** 

Inland Fisheries Ireland National Roads Authority

Consentan Taisce **EPA** 

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Inspector:

Conor McGrath

**Date of Site Inspection:** 

14/06/2012

#### 1.0 INTRODUCTION

Approval is sought by Carlow County Council for the continuation of existing landfill operations at Powerstown landfill, and for an increase in the annual waste acceptance at the facility. The application, made under Section 175 of the Planning and Development Act, 2000, was submitted to the Board on 20th February 2012.

The proposal consists of the continued landfilling of the remaining landfill void space and an increase in the authorised annual waste acceptance from 40,000 to 50,000 tonnes per annum. No new infrastructure or construction works are proposed.

The application is accompanied by an EIS, which was made available for public inspection at Carlow County Council offices. Public notice of the application was published in the Nationalist newspaper on 14th February 2012. It has been indicated that the EIS was circulated to the following bodies:-

- The Arts Council.
- The Heritage Council.

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Pante Ireland.

Dept. of Arts, Heritage and the Gaeltacht.

Inland Fisheries Ireland.

National Roads Authority.

Environmental Protection Agencya partering for the Health Service Executive.

uent to the public notices and given the Signs from the Signs Subsequent to the public notices and circulation of the EIS, the Board received submissions from the following parties:

- Inland Fisheries Ireland.
- National Roads Authority.
- An Taisce.
- Mr. Pat Purcell
- Mr. Eddie Galway

In accordance with Section 175(10) of the Planning and Development Act, 2000, the Board requested the observations of the EPA on specified matters relating to site suitability, and the likelihood of contamination of groundwater during the construction and operation phases. A response was received on May 8th.

Two third party observations have been received and a third party request for an oral 40 hearing in this case was turned down.

Page 2 of 42

#### 2.0 SITE LOCATION AND DESCRIPTION

The site is located to the southeast of Junction 6 on the M9 Motorway, approximately 8 kilometres south of Carlow town and approx. 3.5km north of Leighlinbridge. Access to the site is from the south off local road L-3045, approximately 500m east of its junction with the R448 / old N9. This local road was upgraded circa 2006 and includes a footpath and public lighting. The surrounding area is rural and predominantly agricultural in character and has a dispersed settlement pattern. There are a number of sand and gravel operations in the area.

There is a sand and gravel extraction site to the southwest of the overall site, fronting local road L-3045, while there are two larger pits within the wider surrounding area. Local Road L-3045 continues east past the site from the R448 / old N9 toward Garyhundon Crossroads. The road crosses a relatively narrow railway bridge adjacent to a sharp bend in the road to the east of the site.

Powerstown Stream, which is a tributary of the River Barrow, flows west along the northern boundary of the site. Beyond the stream, agricultural lands are traversed by the M9 motorway. The River Barrow (SAC) lies between approximately 300 and 500 metres west of the site boundary.

The existing Carlow County Council landfill facility, has been operational since circa 1975, and is the subject of a waste licence. The site is irregular in shape and comprises three phases of activity. The original phase phase I of landfill activities took place in the southwestern corner of the overall site, within a disused sand and gravel extraction site. This unlined landfill operation sized in 1990 and has since been capped. Phase 2 of landfill operations occurred centrally on the site and comprised 14 no. lined cells. Landfilling in this area ceased in 2006 and capping was completed in 2008.

Phase 3 of development on the site comprised the construction of four lined cells, no.'s 15-18, with capacity of 240,000m<sup>3</sup>, and associated works including

- · A split level civic amenity.
- Leachate holding tank and installation of floating cover to existing leachate lagoon.
- Green waste composting area
- Conversion/renovation of an existing dwelling house into a site office
- · Weighbridges and weighbridge office
- · Perimeter fencing

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- Surface water management comprising pipework, settling pond, swales etc.
- Foul drainage system and treatment unit
- 40 At time of inspection, landfilling operations had ceased. Cells 15 and 16 have been largely filled, while cells 17 and 18 remain unused to date. On-going site operations include LFG and leachate management, site offices, civic amenity site and green waste facility.

There is a 50 m wide 'buffer zone' to the east of the landfill, which is currently being farmed by third parties. The EIS indicates that there are 13 no. dwellings within 500m of

PL01.JA0032 An Bord Pleanala Page 3 of 42

the site and 41 no. within 1km. The nearest dwelling is located to the southeast of the application site and is bounded on three sides by the red line boundary. There is a cluster of houses close to Garryhundon Crossroads and other houses to the southwest on the R448 / old N9. One recently constructed residential property lies to the northwest of the site, on the opposite side of the realigned R448.

#### 3.0 DESCRIPTION OF PROPOSED DEVELOPMENT

The proposed development involves the continued operation of landfilling activities on the site. The EIS states that a decline in the amount of waste received at the facility between 2006 and 2010 has resulted in two of the four cells constructed as part of phase 3 not being filled prior to the end of the life of the planning permission in January 2012. The extension of the operating life of the facility will permit the filling of the remaining constructed void space within Phase 3, with municipal solid waste and the achievement of the contours permitted by the waste licence. When the cells are filled, a permanent cap will be constructed in accordance with the requirements of the waste licence for the facility. The remaining void in January 2012 is estimated in the EIS to be 165,000m<sup>3</sup> (or 140,250 tonnes), most of this being within Cells 17 and 18.

The development also proposes an increase in annual waste intake at the facility form 40,000 tonnes to 50,000 tonnes per annum. The proposed development does not require the development of any new infrastructure or increase in the footprint of the landfill. It is not proposed to implement changes to the environmental controls or monitoring currently undertaken at the site in accordance with the waste licence (W0025-03). The waste licence currently restricts annual waste intake at the facility to 40,000 tonnes pa and a review of the licence is to be sought to facilitate an increased intake to 50,000 tonnes per

annum.

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### 4.0 RELEVANT PLANNING HISTORY

#### ABP ref. 01.EL2020

Approval granted to Carlow County Council under Section 175 of the Planning and Development Act, 2000 for an extension to the existing landfill at Powerstown and other infrastructure including

- Four lined cells.
- Stormwater settlement ponds.
- Leachate collection system and leachate lagoon.
- Recycling area for the reception of individually separated waste.
- Weighbridge and weighbridge hut.
- · Wheelwash.
- Waste inspection / quarantine area.
- · Landfill gas control system.
- Perimeter fencing.
- Haul roads and car parking.

PL01.JA0032

An Bord Pleanala

Page 4 of 42

The three attached conditions included the following:

- 1. This approval relates only to an 8 year period from the date of this order. At the end of this period the landfill shall be capped and the lands reinstated to grassland, unless approval has been granted for an extension of landfilling on the site.
- 2. The proposed upgrading of the public road to the south of the site and from which it is proposed to gain access, shall be completed before landfilling commences on the proposed extended site. The upgrading shall include the provision of a footpath and public lighting along the stretch between the N9 road junction and the site entrance.
- 3. The operator of the facility shall-
  - (a) employ a suitably qualified archaeologist who shall monitor all topsoil stripping and earthmoving associated with the construction phase, and
  - (b) provide satisfactory arrangements for the recording and removal of any archaeological material which may be considered appropriate to remove.

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PA ref. cw5786: Permission granted in 1980 to Sean Nolan for the erection of a bungalow with private water and sewerage facilities within the subject site. This house has been incorporated into site offices and facilities within the development.

#### Adjacent development:

PA ref. 11/105: Permission refused to Kilcarrig Quarries Ltd. for continuance of use of 3.93 Ha of quarry along the southern side of the landfill site, for the following reason:

1. Having regard to the nature of development proposed and the current unauthorised status of existing adjoining quarrying activities on the site, with which the subject development is associated, it is considered that the proposed development comprising of the part retention of a scheme that is unauthorised in its entirety and for which permission cannot be granted in accordance with the terms of the European Court of Justice decision Case Number C-215/06 and Circular PD 6/08 and would constitute haphazard development, would seriously injure the amenities and be contrary to the proper planning and sustainable development of the area.

#### 40 PA ref. QY29 ABP ref. QC2170

This case relates to the registration of lands to the east of the waste management site for extraction purposes. Conditions attaching to the planning authority decision included the following:

No. 2: Restricting the area of extraction. No. 13(d): Treatment of roadside boundary. No. 15: Restricting the life of the quarry.

PL01.JA0032

An Bord Pleanala

Page 5 of 42

An appeal against these conditions was rejected. The area excluded from quarrying activity under condition no. 2 includes lands along the eastern boundary of the subject site, within the identified buffer zone.

PA ref. 93/173: Outline permission granted to Gerry Berry for the erection of a bungalow, garage, septic tank and new entrance on the western side of the subject site.

#### ABP ref. PL01.238679 10 PA ref. 10/130

This is an application by Dan Morrissey Ltd. for the continued use and development of a quarry, comprising an extraction area 123.8 ha, at Clonmelsh, Garryhundon to the northeast of the subject site. This application was submitted in accordance with the requirements of Section 261 and was accompanied by an EIS. The planning authority decision to grant permission is currently the subject of first and third party appeals.

#### POLICY CONTEXT 5.0

#### 5.1 20 **National Policy**

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#### 5.1.1 Changing Our Ways 1998

and different other tree This document was primarily concerned with the management of municipal waste and the orientation of local authority waste management plans. The "integrated waste management" policy approach was based on the waste hierarchy, which places greatest emphasis on prevention, followed by minimisation, re-use, recycling, energy recovery and, finally, the environmentally sustainable disposal of residual waste.

It emphasised the need to reduce reliance on landfill in favour of a range of waste treatment options that better reflect the waste hierarchy and the need for environmental sustainability. It strongly endorsed a regional approach to waste management planning.

It set ambitious targets for recycling and recovery and diversion from landfill. It also proposed the rationalisation of municipal landfills leading to an integrated network of some 20 state-of-the-art facilities incorporating energy recovery and high standards of environmental protection

Section 9.2 noted that local authorities should utilise a proportion of income from waste charges and gate fees to mitigate the impact of such facilities on these communities through appropriate environmental improvement projects.

# 5.1.2 Waste Management: Preventing and Recycling Waste - Delivering Change

This policy statement set out objectives for the development of recycling and recovery facilities and an agenda of initiatives designed to achieve progress at the top of the waste hierarchy, in terms of preventing waste and achieving improved levels of recycling.

PL01.JA0032

An Bord Pleanala

Page 6 of 42

#### 5.1.3 Waste Management: Taking Stock and Moving Forward (2004)

Chapter 3.5.3 notes that in the absence of timely delivery on recycling and thermal treatment objectives there will be increased pressure for an extension of landfill capacity requiring local authorities to provide further short-term solutions without prejudicing the achievement of the longer term goal of achieving maximum diversion from landfill. Section 4.1 notes that notwithstanding a focus on waste prevention and the achievement of re-use and recycling objectives, there will still be waste remaining which must be managed in the most environmentally appropriate way.

Section 4.3 notes that that while waste management facilities must serve primarily the waste management needs of that region, they do have to be used exclusively for the region/county concerned. That is consistent with the concept of regional waste management planning where each region has to take responsibility for its own waste. This section identifies a need to consider whether the imposition of blanket prohibitions on all cross-regional movements of waste is an appropriate and measured interpretation of the philosophy underlying regional waste management planning.

Section 4.5.7 notes that while landfill is the least preferred waste management option it nevertheless has a role, and will continue to have a role to play in providing an outlet for residual waste. Sufficient landfill capacity for this purpose should be made available, particularly in the short to medium term until the roll, out of alternative facilities for the recycling, composting and thermal treatments of waste can be more significantly advanced. A balance should be struck between

- having sufficient landfill capacity available in the short to medium term; and
- guarding against the over provision of landfill which would be incompatible with its "residual" role in the integrated waste management mix.

### 5.1.4 DOEHLG Circular WIR 04/05

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Taking Stock and Moving Forward' reflects the acceptance that facilities provided in a region must deal primarily with waste from that region. However, it also recognises that an unnecessarily restrictive approach may not be in keeping with the philosophy underpinning the regional approach to waste management planning and the rational use of waste management infrastructure. A fundamental component of policy in regard to the regulation of the movement of waste is the application of the proximity principle. However, the application of the proximity principle does not entail interpreting administrative waste management planning boundaries in such a manner as to inhibit the development of infrastructure which will support the attainment of national waste management policy objectives through the rational development and use of such infrastructure.

#### 5.1.5 National Strategy on Biodegradable Waste (2006)

This strategy is designed to secure the diversion of biodegradable municipal waste (BMW) from landfill and aims to prevent waste, maximise the recovery of useful

PL01.JA0032 An Bord Pleanala Page 7 of 42

materials and energy from residual waste, in accordance with the EU Waste Hierarchy. Chapter 8 identifies targets the treatment of source-separated food and garden waste.

#### 5.1.6 The National Development Plan 2007 – 2013

The plan notes that a sustainable approach to dealing with waste management requires the integration of a number of elements — reducing the extent of waste generation through waste prevention strategies, maximising the recycling and recovery of waste and minimising the environmental impacts of the final disposal of waste, particularly through reducing the reliance on landfill.

#### Waste Management Sub-Programme

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Some €753 million will be invested in dealing with the problem of legacy landfills and in supporting the recycling and recovery effort. The changing nature of the waste management industry in Ireland means that the private sector has been initiating waste infrastructure projects to a degree unforeseen in 1999.

Recycling and Recovery: Improvement in the recycling rate will continue to be a priority. The challenge of meeting the Landfill Directive targets will be significant; maximising production of high value compost through biological treatment of biodegradable waste has been identified as a priority targets.

Thermal Treatment: There is a need to continue to reduce reliance on landfill as a method of waste disposal. In line with national policy on the integrated approach to waste management, thermal treatment with energy recovery will be the preferred option for dealing with residual waste after achieving ambitious targets in respect of waste prevention, recycling and recovery. This is reflected in the regional waste management plans for which the local authorities have statutory responsibility.

5.1.7 Towards a New National Waste Policy Discussion Document (August 2011)

Policies and measures must be put in place to deal with future municipal waste of almost 4 million tonnes by 2025. Recovery processes will have a role to play as Ireland develops a range of alternatives to landfill and seeks to maximise the value of material which has previously been discarded.

Ireland remains unacceptably over-dependent on disposal, continuing to landfill over 60% of our municipal waste. Addressing this over-dependence must be one of the core priorities of the new waste policy framework. It will take some time to develop fully the alternative infrastructure necessary to achieve sufficient diversion of waste from landfill. Therefore, in the short term, the continued focus must be on the prevention, diversion and recycling of waste which might otherwise end up in landfill and the management and pretreatment of those wastes which must continue to be sent to landfill pending the delivery of alternative infrastructure.

Waste Management Planning is currently carried out on a regional basis. While it is not anticipated that there will be a requirement for a national waste management plan,

PL01.JA0032 An Bord Pleanala Page 8 of 42 regions will be guided in the development of future waste management plans by strong national policy and co-ordination arrangements.

Further consideration will be given to existing policy flexibilities in relation to interregional movements of waste, as highlighted in the EPA's National Waste Report 2009, so that regional boundaries do not operate in a rigid manner, preventing the most efficient use of infrastructure in pursuit of overall national targets/obligations.

#### **5.1.8** National Waste Report 2010 (EPA 2012)

Nationally, municipal waste generation decreased 3.6% between 2009 and 2010 to 2,846,115 tonnes, continuing the downward trend in waste generation since 2007. The tonnage of future streams of municipal waste is intricately linked to the performance of the economy and its ability to move out of recession. The ESRI ISus model projects future tonnages of municipal waste generation for the period up to 2025 depending on the economic recovery possibilities. The model predicts a reduction in the growth rate (-0.8%) in 2011, and a growth rate not exceeding 1% per annum until 2015 and beyond. It is anticipated that the total tonnage of municipal waste generated will increase by c. 825,000 t within the next 15 years. While there may be sufficient management capacity in the immediate future, the predicted growth of municipal waste within the coming decade will necessitate investment in waste management infrastructure.

Total MSW to landfill decreased by 13% to 1,495,565t between 2009 and 2010. M. The national recovery rate is 43%, in excess of the national target of 35%, while landfill disposal rate is 58%.

If disposal to MSW landfill were to continue at the 2010 rate of approximately 1.5 Mt per annum, there is approximately 12 years consented municipal waste landfill capacity remaining, i.e. 18 Mt nationally to 2. 2022. This capacity is not distributed evenly around the State. If the Cork County Council Bottlehill landfill does not proceed to development stage, then the available MSW void nationally will last for c. 8 years at current waste generation and landfill disposal rates.

The number of landfills is expected to continue to decline, with 15 of the currently 28 active facilities expected to close in the next three years (unless extensions are applied for and then granted). It is likely that this contraction will lead to significant inter-regional movement of waste. Regional capacity is identified in the report as 11 years.

Landfill facilities identified in the southeast region include:

Site	Capacity remaining	Life expectancy
Powerstown, Co. Carlow	132,524 t	16
Dunmore, Co, Kilkenny	0	0
Donohill, South Tipperary	30,000 t	3
Holmestown, Co. Wexford	827,201 t	25

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#### 5.2 REGIONAL

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#### 5.2.1 Joint Waste Management Plan for the South East Region 2006 -2011

The plan chose 2011 as the design year, such that waste arisings in 2011 were used for waste planning purposes, such as sizing facilities. In this way, the plan notes that planned facilities will be of a reasonable size with little redundancy. Facilities should be sized for economies of scale and on a value for money basis. This may require inter-regional waste movements to achieve these objectives.

#### 6.1.1. Short Term Requirements

The plan identified an immediate / short term requirement for disposal of between 338,377 tpa to 352,822 tpa between 2005 and 2011, while recycling increased from a low level to required levels by 2011. This was projected to reduce to between 159,350 tpa and 168,965 tpa by 2011 with the provision of an integrated waste facility, (comprising thermal treatment, associated transfer systems, biological and dry material recovery facilities) and less than half of this range again thereafter.

To cater for this short term deficiency within the region, landfill capacity should be maintained and/or developed either by extension and/or development of landfill capacity of minimum 150,000 tpa. It may also be prudent to progress a second new facility to preconstruction stage (in the event of delays in the procurement process of the regional integrated facility) and to ensure the region is self-sufficient in this transition period.

A number of waste management scenarios were examined. The landfill-only option was not considered to comply with the landfill directive and accordingly further treatment of residual waste is required. Solutions involving thermal treatment were identified to achieve higher diversion from landfill and higher recovery target rates, while the financial calculations showed that the thermal treatment option was the most cost effective.

A Scenario with thermal treatment of the residual waste stream as part of an integrated waste management approach in the South East Region is the preferred option.

#### 8. Specific policy and objectives for the region

#### 8.5 Residual Waste Treatment

Short term Requirements: It is the policy of the Region to ensure adequate residual landfill capacity in the region particularly in the short term.

It is a specific policy to recover and beneficially reuse the energy from the combustible residual waste stream. The Region will promote the recovery of energy from residual MSW by means of thermal treatment with energy recovery either for electricity generation or combined heat and power. The Region will promote the recovery and utilisation, where practicable, of landfill gas generated at existing landfills within the Region.

Treatment of Residual Waste Stream: The Region will arrange for the provision of an integrated waste management system with associated waste transfer, biological and material recovery facilities and including thermal treatment with energy recovery by

PL01.JA0032 An Bord Pleanala Page 10 of 42

2011. The thermal treatment facility would have capacity to meet residual waste disposal needs of the region while taking cognisance of economies of scale and value for money.

Final Disposal: Even after maximum recycling and recovery efforts, a residual waste stream will remain. The specific policy for final disposal details necessary actions to be undertaken by the Region as follows:

- Non-combustible residual waste is to be disposed of in residual landfills.
- Non- hazardous bottom ash from the thermal treatment process to be disposed of in residual landfills.
- Untreated fly ash (hazardous waste) from the thermal treatment process to be managed in an environmentally secure manner at an appropriate facility.
  - Excess residual waste which cannot otherwise be dealt with is consigned to residual landfill, pending provision of alternative or additional treatment/recovery facilities in accordance with the Landfill Directive.
  - The Region will promote the provision of residual landfill capacity to deal with either inert, non-combustible waste streams, bottom ash or excess residual waste by the public and/or private sector.
  - Provision of other residual waste disposal facilities must demonstrate compliance with the diversion targets set out in the Plan and the Landfill Directive.

[Note: In February 2012 notice was published of the commencement of an evaluation of the Joint Waste Management Plan for the South East Region 2006 and, it consequent review or replacement to comply with the Waste Framework, to be completed by Dec. 2012].

## 5.2.2 Regional Planning Guidelines for the South East Region 2010 - 2022

The regional profile (P. 38) notes that the Joint Waste Management Plan for the South-East Region requires that maximum realistic reduction, reuse and recycling targets are achieved and that the balance of materials is treated or disposed of in accordance with the Joint Waste Management Plan and subject to the application of BAT. Regional capacity to accept municipal refuse at local authority landfills is approximately 2 years in the case of local authority landfills at Powerstown, and Donohill, Co. A new landfill at Holmestown, Co. Wexford was provided in 2008 with a capacity of 20 years.

Section 5.3 notes the necessity that the major integrated facility, which will incorporate thermal and biological treatment, will be in place by 2013. In the shorter term, it is an objective of the Plan that local and central biological treatment, material recovery facilities, and construction and demolition (C&D) waste recovery facilities would be in place by 2011.

Objectives PPO5.25 and 5.26 support the implementation of the Joint Waste Management Plan the provision of the majority of the recommended recycling and recovery infrastructure before 2013.

PL01.JA0032

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An Bord Pleanala

Page 11 of 42

## 5.2.3 South East River Basin Management Plan 2009

Section 2.2.2 Pressures, notes that 8 groundwater bodies in the South Eastern RBD are at risk of failing to achieve the required standards due to contamination from landfills. The status assessment by the EPA shows that the majority of groundwaters in the South Eastern RBD currently are at good status. Pollutants (mainly metals and fuel) from landfills and urban areas can seep into the ground and travel through groundwaters to enter surface waters, affecting their quality, damaging aquatic plants and animals and impairing water uses.

10 The River Barrow is defined as being of Good Status. Groundwater is defined as being of good status. Six designated freshwater pearl mussel populations in the South Eastern RBD did not meet their protected area objectives due to water quality conditions and therefore status has been downgraded.

#### 5.3 LOCAL

#### 5.3.1 Carlow County Development Plan 2009 - 2015

Chapter 6, Infrastructure, Environment and Energy.

The main source of water in Carlow is surface water abstraction. Surface Water:

· To protect, maintain, improve and enhance the quality of watercourses and rivers in 20 the County.

Groundwater: The Groundwater Protection, Scheme provides guidance on the location, nature and control of developments and activities in order to protect groundwater.

The major sources of nutrient loss waters are agriculture and municipal sewage discharges, with other sources also making a contribution. The Council will continue to take appropriate measures in relation to agricultural, industrial and residential development in order to prevent ground and surface water pollution.

30 Water Quality: The Council will "protect and to ensure an adequate supply of clean water". Carlow County Council is the lead authority for the south-east River Basin District.

#### WASTE MANAGEMENT (p.58)

The development plan is deemed to contain the policies and objectives of the Joint Regional Waste Management Plan.

Waste Infrastructure - The Landfill and Civic Amenity site is located at Powerstown. It is expected that the landfill element will close during the lifetime of this plan, to be 40 replaced by an integrated regional facility, as outlined in the JWMP.

The Waste Management Plan for the South East Region 2006-2011 sets out the policies in relation to energy from waste, and a key policy of that Plan is that an integrated waste facility incorporating thermal treatment and energy recovery will be developed in the region.

PL01.JA0032

An Bord Pleanala

Chapter 8 deals with Heritage and Culture. Policy objectives with respect to designated sites include:

- assess all proposed developments which are likely to impact on designated natural heritage sites or those sites proposed to be designated.
- consult with the prescribed bodies and relevant government agencies.
- ensure that any development in or near a designated natural heritage site will avoid any significant adverse impact.

The waterways and wetlands of Carlow (p.98) are of great importance, in terms of their influence on the landscape, as a wildlife habitat and as an amenity resource.

Protect and enhance the natural heritage and landscape character of waterway corridors and wetlands and to maintain them free from inappropriate development and provide for public access

#### Landscape (p.99)

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The site is located within the Central Lowlands as identified in the landscape character assessment, on the edge of the Broad River Valley. The Central lowlands character area is deemed to be moderately sensitive to development. It has capacity to absorb most types of development subject to the implementation of appropriate mitigation measures.

This area encompasses river valleys and ridges that are, however, more sensitive to 20 development than other locations within the area. These include the Barrow, Slaney and Douglas River Valleys.

#### 6.0

- o.1 PRESCRIBED BODIES For Helder The Treather The River Barrow is an implementation of the River Barrow is a superior of the River Barrow is a superior of the R • The River Barrow is an important spring salmon and sea trout fishery and supports several Annex II species It is designated as a cSAC.
  - If there is likely to be an increase in leachate production, there should be adequate treatment capacity at the receiving WWTP to treat such additional loading.
  - The construction phase has the potential to impact on the aquatic environment, including concrete and oil contamination of waters and the discharge of silt.
  - Mitigation measures should include:
    - o SUDS systems should be installed to ensure no deterioration in water quality.
    - Systems to prevent discharge of suspended solids.
    - o Best practice in the use of concrete or cement near watercourses.
    - Suitable bunding of oil and other polluting materials.
    - o Appropriate disposal of waste oil, containers or other hazardous wastes.

#### 6.1.2 NRA:

While the authority recommended at scoping stage that the development be subject to a Traffic and Transport Assessment (TTA), subject to meeting appropriate thresholds and criteria, no such assessment was submitted.

PL01.JA0032 Page 13 of 42 An Bord Pleanala

• The developer does not consider that a TTA is required and the Authority defers to the Board to assess and determine if a TTA is required.

#### 6.1.3 HSE

- The EIS does not contain evidence of meaningful public consultation undertaken.
- The EIS does not assess existing noise impacts nor predict noise arising from the increase in waste acceptance.
- A baseline noise survey is required without activities at the site, along with an
  assessment of the impact of current activities and the impact of the increase in
  activities on the site.

#### 6.1.4 An Taisce

- The status of the site for continued operation as waste transfer site is not explained.
- The waste licence requires that a Community Fund be established. This fund currently stands at €130,000.

## 20 6.1.5 EPA

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- No application for a revised waste licence has yet been submitted.
- The EIS appears to appropriately identify describe and assess the direct and indirect effects of the project including their interaction.
- Impacts on the receiving environment are addressed and, subject to the proposed mitigation measures, relevant parameters are met.
- The waste licence does not spesify a date for cessation of landfilling activities.
- If landfilling does not recommence, the existing licence will regulate the closure and aftercare of the site.
- In granting the current waste licence, the agency addressed the potential environmental impacts of the landfill cells.
- The waste licence controls the generation, management and containment of leachate.
   Any changes necessary to accommodate increase waste acceptance will be addressed by the agency.
- In granting any revised licence the agency would evaluate environmental impacts in greater detail in accordance with the requirements of the Landfill Directive.
- There have been significant reductions in odour complaints.
- Further investigations into elevated concentrations of conductivity, ammonia and chloride in ground water were requested by the Agency and a report on this matter is pending.
- A Final Draft BAT Guidance Note for landfill activities was published in December 2011.

#### 6.2 THIRD PARTIES:

#### 6.2.1 Patrick Purcell:

- The observer has resided on adjacent lands, which have been in family ownership since prior to establishment of the subject facility.
- The observer's residential amenities have been compromised since its establishment by reason of noise, dust and fly infestation.
- The facility was originally accepted on the basis of its limited life.
- The continued use and increased waste intake will result in a 25% increase in traffic.
- Road improvement works in the area have been the cause of concern to the observer.
- Increased traffic will have additional noise, dust and odour implications.
- Previous efforts to mitigate noise impacts have not been successful.
- The amenity value of his outdoor spaces is reduced by noise and dust emissions.

#### 6.2.2 Eddie Galway

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- The status of the leased buffer zone adjoining the landfill site should be clarified. Is it a quarry registered under S.261, ref. QY29?
- What provision is there that the buffer will remain in use as arable lands for the duration of the aftercare period and not used as a quarry?
- What is the nature and source of the daily cover material which is to be used?
- This cover material should be sourced from authorised sites only and not from sites which will require it for their own aftercare / restoration programme.
  - The cumulative effects of the facility and exhaust emissions should have been considered with emissions from quarties and their production processes in the surrounding area.
  - Was the cumulative risk of leachate leakage considered along with adjoining extraction sites, which activities increase risk to the underlying regionally important aquifer and Powerstown stream which flows to the adjacent SAC.
  - While the county development plan refers to a 500m sterilisation zone around landfill sites, there is an existing dwelling across the road from the old landfill.
  - An NRA funded salt barn, located adjacent to the old entrance from the N9, is not identified in the application.
    - The application does not identify the public opening hours of the site.
    - The transport assessment does not take into account use of the weighbridge for the weighing of vehicles under the Road Traffic Act.
    - No road upgrading works have been undertaken between the site entrance and Garryhundon Crossroads, in breach of the previous permission.
    - What mitigation measures are to be undertaken with regard to groundwater emissions from the original / phase 1 landfill?
    - Tree planting has been inadequate to screen the development from adjoining roads.
- Has the exposure of the installed landfill liner to the sun compromised its containment properties?
  - The civic amenity site should have a separate permission so that it can continue in operation beyond the life of the landfill.
  - Recent decreases in the rate of waste acceptance indicate that the requested increase in annual intake is not necessary.

PL01.JA0032 An Bord Pleanala Page 15 of 42

- How will compliance with conditions be ensured?
- · An oral hearing was requested.

## 7.0 LOCAL AUTHORITY RESPONSE TO THIRD PARTY SUBMISSIONS

Carlow County Council makes the following comments in response to submissions received from the following parties:

#### 10 NRA:

- The proposal will not require extra interchanges or modifications to road infrastructure and will have insignificant impact on traffic volumes.
- The development is sub-threshold with regard to the requirement of prepare a TTA.

#### **Inland Fisheries Ireland:**

- A greater rate of waste deposition will result in a reduction in leachate generation due to the absorptive capacity of the waste and the earlier capping of the cells.
- Pre-treatment of leachate now occurs at the site reducing the strength / loading before transport to Mortarstown WWTP.
- The increased intake of waste would not significantly increase BOD loading to the WWTP and the plant has adequate design capacity.
  - The precautions identified in the IFI submission are appropriate.
  - The settlement lagoon adequately deals with suspended solids and surface contaminants prior to discharge to surface waters.
  - Further specific measures during capping works, such as straw bales in swales, will prevent the transport of solids to watercourses.
  - The civic amenity site has appropriate reception facilities for waste oils.

#### Mr. Patrick Purcell:

- Since 2008 only three complaints regarding fly infestation have been received, none from Mr. Purcell. There is no history of fly nuisance at the site.
  - Daily management minimises potential nuisance
  - No complaint has been received from Mr. Purcell regarding dust, which is controlled by daily management and site infrastructure controls.
  - Dust monitoring indicates that the applicable limit values were not exceeded.
  - Other potential sources of dust include the main road adjoining the observer's house and the nearby quarry entrance.
  - Monitoring undertaken notes that landfill operations were not audible at the observer's property. Passing traffic is the primary noise source at this location.
- There have been no odour complaints since 2009 and this aspect is subject to ongoing site management.
  - An increase in tonnage acceptance will shorten the operating life and permit the final capping of the site.
  - The increase in traffic flow (3%) will not have significant impacts on households.

 Road upgrade works were carried out in accordance with the requirements of EL2020.

#### Mr. Eddie Galway

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- The buffer zone is a requirement of the Waste Licence. The carrying out of other, non-waste, activities within the zone is not prohibited.
- Enforcement action relating to adjoining extraction activity does not relate to the operation of the landfill site.
- The buffer zone is the subject of an agreement with the landowner, but no formal lease exists.
- The development plan makes no reference to the sterilisation of lands around the site.
- Daily cover material is ideally soil-like and relatively permeable. It is considered to be "end-of-waste" material.
- The concern of the Co. Co. is whether delivery vehicles are permitted for such waste transport. Only permitted hauliers are permitted access to the site.
- Final capping will be in accordance with the requirements of the waste licence.
- The EIS considers cumulative effects. On on-going monitoring in the area illustrates the effects of external activities. The effect of traffic noise on the M9 is noted.
- No elevated dust levels have been observed, while nearby quarries have been subject to separate complaints and monitoring.
- The design of the liner system was subject to rigorous assessment by the EPA. The presence of nearby quarries will not affect aquifer vulnerability to the landfill.
- The NIS concludes that there are no significant cumulative effects on the SAC.
- The EIS discusses opening hours (Section 3.2.2).
- Use of the weighbridge by Gardai has not resulted in significant traffic generation.
- Road upgrade works were sarried out in accordance with the requirements of
- On-going testing of groundwater quality, related to emissions from the unlined phase 1 landfill, is being carried out. A risk assessment is to be completed by end 2012.
- Further tree planting was carried out on the northern boundary in 2011and continued landscaping will be undertaken.
  - Exposed liner is a temporary odour suppression measure pending final capping.
- The nature and design of the HDPE liner is designed to resist degradation.
- The civic amenity site was not designed with the intention of being operated for a limited time period, while the landfill was to be filled within a time-period.
- Condition no. 1 of EL2020 did not include the civic amenity site.
- Closure of other facilities may leave Powerstown as the only operational landfill in the region, and it is more sustainable to fill this developed site intensively rather than fill it slowly over a long period with leachate and nuisance generation potential.

#### HSE:

- The environmental performance of this facility is a matter of public record.
- Public consultation was undertaken as part of the application process.

PL01.JA0032

An Bord Pleanala

Page 17 of 42

- The primary source of noise is infrastructure that is outside the scope of this application, e.g., flare, civic amenity site. No construction is required as part of this application nor additional machinery usage.
- A baseline assessment without any activity would require shutting down the gas flare and civic amenity site.
- The activity is licenced and subject to noise monitoring. The EIS addresses the impacts of noise.

#### An Taisce:

- Condition no. 1 of EL2020 requires that only landfilling activities cease after 8 years.
  - Household waste acceptance is part of the service being provided at the Civic Amenity Centre.
  - The present waste transfer activity is licenced under the allowable activities under W0025-03.
  - Storage pending collection (Class 13), is operated under the waste licence, does not therefore require planning permission under Article 80 (1)(h)(1).
  - A Community Liaison Group has been established. Applications for funds under the scheme have been received, which fund has been calculated to comprise €197,000.

#### 20 EPA:

- No increase in waste acceptance beyond 40,000 tpa will occur without EPA approval.
- Following auditing of the facility, groundwater investigations are being undertaken.
- A risk assessment, in accordance with EPA and Environment Agency Guidelines is to be completed by end-2012.
- The results relate to the original unlined phase I landfill operation. Waste therein can be expected to be reaching physical and biological stability given the lapse of time
- The Council are committed to aftercare and risk assessment.

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#### 8.0 ASSESSMENT

The proposed development comprises or is for the purposes of an activity for which a waste licence is required. In accordance with S. 257 of the Act, where the Board decides to approve the proposed development, it cannot attach conditions for the purposes of controlling emissions or controlling emissions related to or following the cessation of the operation of the activity. The Board may, however, decide to refuse the proposed development, where the Board considers that the development, notwithstanding the licensing of the activity, is unacceptable on environmental grounds or on habitats grounds.

In this context, it is proposed to consider the development under the following broad headings:

- Status of existing activity on the site
- Need and Policy Context.

PL01.JA0032

An Bord Pleanala

Page 18 of 42

- Nuisance / Amenity Impacts.
- Roads and Traffic.
- Water Quality.

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- Landscape and Visual Impacts.
- Other Matters Arising.

#### 8.1 STATUS OF EXISTING ACTIVITY ON THE SITE

Existing operations and infrastructure on the site were approved under ref. 01.EL2020. That approval expired on 21<sup>st</sup> January 2012, after the period of 8 years specified in condition no. 1 thereof;

1. This approval relates only to an 8 year period from the date of this order. At the end of this period the landfill shall be capped and the lands reinstated to grassland, unless approval has been granted for an extension of landfilling on the site

The condition does not differentiate between the landfilling activities and other activities on the site, including the operation of the civic amenity site. Despite the expiry of the approval under EL2020, the civic amenity site remains operational and open to the public. The EIS and submissions on the file outline the planning authority's understanding that this time limit applied only to landfilling activities. Notwithstanding this interpretation, I consider that the wording of the condition is clear that approval for all development and activity within the application site ceased at the end of the specified period.

The public notices describe this as an application for the continued operation of landfilling activities, which will allow the filling of the remaining constructed void space and for an increase in the maximum annual waste input from 40,000 tonnes to 50,000 tonnes per annum. The notices also identify other infrastructure on the site, including a civic amenity facility, site offices, leachate and gas management systems, weighbridge and ancillary structures, and these elements are described in the EIS.

The issue with regard to the civic amenity site is the continued operation and non-compliance with condition no. 1 of EL2020. Such activities are not in themselves of a scale which would require EIA. While other elements of site infrastructure, particularly the access, gas and leachate management systems, are directly related to the on-going management of the landfill facility, the civic amenity site can be seen as a stand-alone element, related to but not necessarily dependent on the continued operation of the landfill. There are many such stand-alone facilities operating across the country. The first party response to the observations of the HSE, indicates that the civic amenity site is outside the scope of the application.

PL01.JA0032

An Bord Pleanala

The Civic Amenity Facility is operated under the overall Waste Licence. I note that a civic amenity facility is defined in legislation as

"a purpose-designed facility operated by or on behalf of a local authority or a private sector operator which is provided for the efficient reception and temporary storage of recyclable and non-recyclable waste materials, including segregated waste electrical and electronic equipment arising from private households";

Activities currently carried out at the facility include the collection and transfer off-site of private household residual waste. It is not used by commercial contractors. Such use would appear to comply with the definition of a civic amenity facility and would not comprise a new use on the site. The first party argue that this use is authorised under the waste licence and that it is not subject to subject to S.179 of the Act, having regard to Article 80(1)(h)(i).

Notwithstanding this, the comments made above regarding the unauthorised continued operation of facilities in contravention of condition no. 1 of EL2020 still apply in this case. Having regard to the foregoing, the Board may consider it appropriate to exclude this element of activity on the site in the event of a decision to grant approval in this case.

The application, which is the subject of an EIS, relates to the continued operation of the facility and does not seek retention permission for any element on the site. While I refer to the judgement of the European Court of Justice ref. C215-06, I note that these facilities were approved and were previously the subject of EIA. In this regard, I do not consider that the Board is precluded from the consideration of the application on foot of this judgement.

The 2010 Act introduced provisions relating to Substitute Consent. S.177C provides for an application for leave to apply for substitute consent, where no notice under S.177B has been served, and where:

- development has been earlied out which requires EIA / screening for EIA or requires AA, and:
- a granted permission is flawed (including the omission of an EIS / NIS) or;
- other exceptional circumstances indicate that the regularisation of the development should be permitted by means of substitute consent.

In the present circumstances, I note that the development was previously the subject of EIA. The issue in this case relates to contravention of condition no. 1 of EL2020 in respect of the continued operation of the civic amenity site. Other relevant activities, in particular active landfilling of waste, have ceased on the site. The continued operation of the civic amenity site would not in itself give rise to the requirement for EIA or AA. It is not considered that exceptional circumstances arise, having regard to the provisions of S.177D(2). I do not therefore consider that the application of the substitute consent provisions of the act in this case would be appropriate.

PL01.JA0032

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An Bord Pleanala

Page 20 of 42

<sup>&</sup>lt;sup>1</sup> S.I. No. 355/2011 — European Communities (Waste Electrical and Electronic Equipment) Regulations 2011.

#### 8.2 NEED AND POLICY CONTEXT:

The needs analysis contained in the EIS notes the decline in the number of landfill facilities operating nationally since the previous approval relating to this facility under ref. EL2020. Three landfill facilities are identified in the South East region, including the subject facility at Powerstown, Donohill landfill in Co. Tipperary and Holmestown Wood in Co. Wexford. Donohill landfill is due to close in 2012 while the EIS noted that there was uncertainty regarding the future operation of the Holmestown Wood facility.

- 10 The needs analysis is based on the 2009 EPA National Waste Report. Appendix 1 of the EIS sets out estimates for regional MSW generation based on an average of three calculation methods.
  - When compared with the national MSW generation rate as reported in the 2009 National Waste Report, a proportionate calculation would indicate MSW generation in the SEWMR to be 320,398 tonnes, based on 2011 population figures.
  - The National Waste Report 2009 indicates that MSW generation per person equates to 0.66 tonnes. Applying this to the preliminary Census 2011 results would indicate MSW generation in the SEWMR as being 328,221 tonnes.
  - The annual returns from the local authorities of the South East Region to the EPA, based on waste collection permits annual returns, indicate a residual waste tonnage of 345,458 tonnes.

Based on an average of these figures, the Elscalculates MSW for the region as 331,359 tonnes. This is projected forward to 2020 using ISus generation rates. A recycling rate of 32% in 2009 rising to 45% in 2020 is applied to the overall MSW generation figures to estimate residual waste volumes and associated regional demand landfill.

The 2010 National Waste Report, published in March 2012, identifies reduced levels of MSW generation nationally however. Based on these revised figures, average MSW generation for the SouthEast region would be approx. 321,000 tonnes in 2010, a reduction of approx. 3.3% from that projected in the EIS. The 2010 EPA report also reduces the projected growth rates for MSW to a level which is lower than the sensitivity analysis identified in the EIS. It is not considered, however, that these reductions would have a material effect on the issue of regional waste management capacity in this case.

The Need Analysis, assesses national landfill capacity against national residual waste generation, however, similar figures are not identified specifically for the southeastern region or adjacent regions. The EIS does note, however, that given the uncertainty surrounding the future of Holmestown Wood landfill in Co. Wexford, it is possible that the South East Region will enter a "critical capacity shortage stage" when Donohill landfill closes. The application also indicates that as landfills close nationally, the arguments in support of regional self-sufficiency in terms of waste management are reduced as the remaining landfills, by default, must provide capacity to the country as a whole.

PL01.JA0032

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An Bord Pleanala

Page 21 of 42

The National Waste Report estimates that there is landfill capacity in the region of approx. 11 years, however, it is understood that since approx. April 2012 Holmestown Wood landfill facility has been largely and operates as a civic amenity facility only. This follows the privatisation of local authority refuse collection services in Wexford. While that facility may re-open in the future, having regard to the foregoing, it is evident that there will be a shortfall in waste management infrastructure in the South East region in the short-term, whereby Powerstown will be the only residual waste facility operating in the region.

The extant waste licence imposes a tonnage restriction of 40,000 tonnes. This was not specifically stated as a planning condition under EL2020, although intake of 40,000 tpa was identified in the EIS submitted in respect thereof. Based on the maximum existing licenced annual waste intake and the proposed increased waste intake, the facility has the capacity to operate for a further 2.8 - 3.5 years approx. based on an identified void capacity of 165,000m<sup>3</sup> / 140,250 tonnes. The proposed increase in the level of waste intake from 40,000 tpa to 50,000 tpa is not regarded as significant and would facilitate the closure of the facility within a shortened timeframe.

The volume of waste acceptance at the facility in recent years has, however, fallen from a level of approx. 43,100 tonnes in 2007 to approx. 13,700 tonnes in 2010. Waste acceptance in Holmestown Wood in 2009 and 2010 was approx. 30,000 tonnes per annum. The 2010 National Waste Report indicates that the three landfills in the South East region accepted a total of 62,716 tonnes of waste in 2010. As the report identifies total collected and brought household black bin / residual waste alone in the region in 2010 to be 87,154 tonnes, it is apparent that there are already significant movements of waste out of the region. The proposed increased intake would off-set some, but not all, of the loss of capacity due to closure of Holmeswood and Donohill landfill facilities.

While National guidelines provide for inter-regional movement of waste, the development will contribute to the preferred approach for the treatment / disposal of waste within the region in which it is generated.

The regional waste management plan places an emphasis on the provision of thermal treatment facilities for residual waste. Such facilities have not been provided to date and it does not appear likely that such facilities will be likely in the medium term. The EIS assumes that any thermal treatment facility provided in accordance with the provisions of the regional waste management plan will not operational before 2017, and the short-term objective of otherwise disposing of waste to landfill is therefore identified as applicable.

Section 3.5.3 of Taking Stock and Moving forward notes that due to delays in the delivery of recycling and thermal treatment objectives, there will be increased pressure for an extension of landfill capacity, which will require local authorities to provide further short-term solutions without prejudicing the achievement of the longer term goal of achieving maximum diversion from landfill. In this regard, the continued operation of the existing landfill until constructed capacity is filled is regarded as being in accordance with national policy. The continued filling of the constructed facility, rather than the provision of a new facility, also makes sense from an economic point of view, give previous levels of investment in the site.

PL01.JA0032

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An Bord Pieanala

Page 22 of 42

The approval granted under EL2020 provided for an 8 year life for the facility, unless approval was otherwise granted to extend landfilling on the site. The stated reason was to enable a reassessment of the development in the light of circumstances then prevailing, including the implementation of an integrated waste management strategy for the region. In this regard, I note that the waste management environment has changed significantly in the past number of years. A number of the objectives of the waste management plan for the region have not been achieved. Waste management capacity within the region has also reduced in recent times. With the exception of the completion of the M9 motorway, there have not been any significant changes to the site or surrounding area which would now render the site unsuitable for the continued operation of a landfill facility.

A review of the regional plan has commenced, to be complete by the end of 2012, and a new national waste policy is to be published shortly. Having regard to the capacity of waste infrastructure in the region, I conclude that the continued operation of the landfill until existing constructed capacity is filled and for an increase in annual waste intake, is acceptable and is in accordance with current regional and national waste policy

#### 20 8.3 NUISANCE / AMENITY IMPACTS

The proposed development relates to the continuation of waste acceptance at the facility and an increase in the annual waste intake. As the proposed development relates to an operational facility, there is historic monitoring data available against which to assess the impacts of the proposed development. The site is the subject of a Waste Licence, however, such that the Board cannot attack conditions for the purposes of controlling emissions related to the activity.

#### 8.3.1 Surrounding area

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The EIS identifies 13 no. dwellings within 500m of the site. (See map 7.1 of the EIS). The closest dwelling is located immediately east of the facility, on the L-3045. This dwelling is located approx. 60m from the civic amenity site and approx. 270m from the landfill cells the subject of the application. The entrance to the facility is approx. 100m to the west of the dwelling, which dwelling is bounded by the buffer zone to the east of the facility. There is one other recently constructed dwelling within 350m of the active filling area, to the west of the R448.

The EPA Landfill Site Selection Manual (2006) notes that the principle purpose of a buffer zone is to assist mitigation of environmental problems. Buffers or 'cordon sanitaires' are intended to provide space or distance between an activity and a sensitive receptor for the purpose of mitigating an actual or potential environmental risk to that receptor. The manual notes that for many existing facilities wishing to extend or develop landfilling there can be constraints posed in relation to proximity of housing and similar public use. In such cases a minimum distance of 100m should be provided between the area to be landfilled by mixed waste and any occupied dwelling (and other sensitive receptors. A distance of 250m between housing (and similar sensitive receptors) and a

PL01.JA0032

An Bord Pleanala

Page 23 of 42

landfill footprint should be maintained for new 'greenfield' landfills that are handling potentially polluting/odorous wastes

The 2011 BAT manual indicates that 750m separation is desirable for greenfield development / significant new expansion on an existing landfill facility, accepting a significant proportion of potentially odour forming wastes. This reduces to approx. 200m for facilities accepting pre-treated / stabilised wastes. In the context of the existing operational facility, and subject to on-going management of the facility, I do not consider the application of such separation distances to be appropriate or necessary in this instance.

#### 8.3.1 Odour:

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Waste licence W0025-03 was issued by the EPA in December 2009, which required the preparation and submission of an Odour Management Plan (condition 8.1.4) for the facility and set out detailed requirements for the monitoring of emissions from the site. The Annual Environmental Report for the facility, dated May 2011, notes that there was a significant reduction in odour complaints between 2009 and 2010. The EIS reports only 3 odour complaints received in 2010 and none in 2011, in contrast to some 19 no. odour complaints in 2009, 29 no. in 2008 and over 300 no. in 2006. Three of the four complaints received in relation to the facility, related to odour. Monitoring of the facility during 2010 identified two areas of surface gas emissions which were addressed through mitigation works. Works included final capping of cells 6-13, installation of a new gas collection system and operation of new gas flare along with upgrading of the gas collection system in the active landfilling area.

At time of inspection there was no on-going landfilling activity on the site. I did not detect the presence of any odour around the perimeter of the site or within the surrounding area. The requirements of the landfill directive with regard to the volumes of biodegradable municipal waste going to landfill will also reduce the odour generating potential of the facility. Having regard to the foregoing, I do not consider that odour issues constitute a significant factor in the consideration of this appeal sufficient to warrant a refusal of permission.

#### 8.3.2 Noise and Dust:

Noise and dust emissions are subject to controls under the waste licence and regular monitoring is required. Results of previous monitoring indicate that dust emissions were within the licence limit values. There are no night-time operations at the facility so that only day-time noise emissions are monitored. Noise values were generally below the licence limit values. Recorded exceedences were attributed to passing traffic rather than landfill activities.

The nearest dwelling is located approx. 60-70m from the civic amenity site. The presence of glass recycling collection bins within close proximity to this dwelling is likely to give rise to impact on the amenities of that property and their relocation further away from that property would be considered appropriate. This matter lies outside the remit of the board in this instance, in the context of a Waste Licence controlling activities on the site.

PL01.JA0032 An Bord Pleanala Page 24 of 42

Having regard to the foregoing, I do not consider that noise issues constitute a significant factor in the consideration of this appeal sufficient to warrant a refusal of permission.

#### 8.3.3 Conclusion

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While the completion of filling at this existing waste management facility will give rise some impacts on the residential amenities of properties adjacent to the facility, those effects must be weighed against the wider regional benefits arising, particularly in the context of a shortfall in infrastructure in the region. In this regard, I note the conditions of the Waste Licence with regard to the establishment and operation of a community fund. There does not appear to be any basis on which to consider that the development would be unacceptable on the basis of environmental impacts due to dust, noise or odour.

#### 8.4 ROADS AND TRAFFIC:

The facility is sited adjacent to the old N9 now the R448. The site is accessed via local road L-3045 which has been upgraded in recent times between the site entrance and the junction with the R448 to the west. To the northwest of the site is Junction 6 on the M9, which provides high quality motorway access to the southeast and north towards Dublin.

In general access to the site is considered to be of a high-quality and was the subject of detailed evaluation under ref. EL2020. Since that decision, the old N9 has been downgraded and the M9 has been constructed. The EIS reports that due to the opening of the M9, traffic using the R448 in 2011 has reduced by approx. 41% from 2007, when the Powerstown facility was at its busiest. Approx. 6.6% of these reduced traffic volumes on the R448 are HGV's compared with approx. 10% in 2007. Such changes have the effect of reducing the impacts, and improving traffic safety aspects, of the proposed development.

The only significant operational change arising from the proposed development relates to the increase in the rate of annual waste acceptance. I note the submission of the NRA on the file regarding submission of a TTA. The worst case recorded vehicle movements associated directly with the landfill activity is identified as 32 vehicles per hour in 2008, prior to the development of the M9 motorway. An increase in waste intake is conservatively estimated to give rise to 1 no. additional HGV visiting the site or 2 no additional vehicle movements, per hour. This is not regarded as a significant increase in traffic, having regard to the nature of the adjoining road network. The proposed development does not exceed the thresholds for submission of a TTA and no additional mitigation measures are proposed. I do not consider that the submission of a TTA is necessary in this instance.

The EIS prepared in respect of EL2020 described traffic volumes arising on the L-3045 as significant and proposed improvements to the road to accommodate increased loading. The current EIS indicates that most vehicles accessing the facility travel along L3045 from the R448 to the west, while very few vehicles arrive at the facility along the R3045 from the east. The volumes of traffic travelling from the east are not quantified. It is

PL01.JA0032

An Bord Pleanala

Page 25 of 42

indicated that while there is a possibility that such movements may continue from the east, they will be no more than at present.

The width and alignment of the L-3045 to the east of the site, at the bridge over the railway, is not suited to HGV movements. While I note that HGV traffic from nearby quarry sites uses this road it is considered that a restriction of HGV movements to / from the landfill facility from the east along this road would be appropriate.

#### 8.5 WATER QUALITY

### 10 8.5.1 Surface Water

The appeal site is located approx. 300m east of the River Barrow at its closest point. Powerstown Stream, flowing west along the northern boundary of the site to the river, is within the Clonmesh waterbody as defined under the RBMP. The report for this waterbody indicates that it is of poor status (ecological). It is not identified as being at risk from point sources including WTP's, Mines, Quarries or Landfills. A delayed timescale to restore good status by 2021 is identified to allow for delayed recovery from nitrogen losses. The Garryhundon waterbody, to the south, has similar characteristics to the Clonmesh waterbody.

The River Barrow waterbody is identified as being of Good status (macroinvertebrate, chemical and ecological). The waterbody is identified as being at risk of not achieving good status by 2012, however, landfills are not identified as a Point Source Risk. The overall objective is to protect the status of the waterbody.

The facility is served by an attenuation esettlement pond on the northern side of the site, which discharges to the Powerstown Stream, which flows west to the River Barrow. The original unlined landfill (Phase 1) to the west of the site is capped and surface water run-off drains to soakaways. Clean surface water from Phase 2 of the landfill which is lined and provided with an engineered cap, drains to the attenuation pond at the northern end and to soakaways at the southern end. Clean surface water run-off from the empty cells in Phase 3 of the landfill drains to the attenuation pond.

The attenuation pond functions as a settlement pond and also acts as an oil interceptor. If contaminants are detected in the pond above the allowable emission limits, an automatic valve on the outlet pipe from the attenuation / settlement pond to the stream closes. Monitoring of surface water discharges from the site have been undertaken in accordance with the requirements of the waste licence and results indicate that discharge from the site does not impact on water quality.

Dirty water (leachate) from filled calls and hard surfaced areas is diverted by pumping to an on-site leachate holding tank, from where it is transported by tanker to a municipal wastewater treatment plant. It is indicated that the increase in waste acceptance from 40,000 tpa to 50,000 tpa would result in a slight net decrease in leachate generation. An uncovered leachate pond on the western side of the site was observed to be holding only small volumes at time of inspection. This appeared to be mainly composed of surface water.

PL01.JA0032

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An Bord Pleanala

Page 26 of 42

The EIS indicates that there are no hydrological impacts from the proposed development in terms of either an increase in run-off or an increase in suspended solids in the surface water run-off from this site as a result of the proposed development. The application does not propose any new construction on the site and the capacity of the attenuation pond remains adequate. There will be no decrease in water quality in the receiving waters of the River Barrow catchment as a result of the proposed development, subject to the maintenance of existing mitigation measures.

#### 8.5.2 Groundwater

According to the GSI mapviewer, the site overlies Barrow Gravels a regionally important extensive sand and gravel aquifer. It also overlies a Regionally Important Karstified Diffuse Aquifer (Rkd), which due to previous sand and gravel extraction on the site, is classified as being of Extreme vulnerability. While landfill development is generally not acceptable in such locations, that EIS notes that in consultation with the EPA, Phase 3 of the landfill facility was developed with a double liner, providing the aquifer with protection of up to five times that required by the Landfill Directive for non-hazardous landfills, such that the EIS describes the risk of leachate from Phase 3 reaching the bedrock as negligible.

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The Water Framework Directive Ireland Mapviewer indicates that the facility overlies a relatively small groundwater body – Barrow Valley A, which waterbody is identified as being of good status. This is identified as *Brobably at Risk* due to landfill sites / old closed dump sites. Groundwater body Barrow Valley S surrounds waterbody A above. It is also identified as being of good status and is described as Not at Risk due to landfill sites / old closed dump sites.

The application for approval before the Board relates to the continued landfilling of phase 3. Leachate production from the facility has the potential to pollute the underlying aquifer. The water balance calculation conducted in Section 3 of the EIS indicates that an increase in waste acceptance from 40,000 tpa to 50,000 tpa will result in a slight reduction in annual leachate generation as the additional waste input will increase the absorption values of the placed waste and due to the earlier closure and capping of the cells.

The EIS advises that monitoring has identified impacts on groundwater quality down-gradient of the landfill, which impacts are attributed to leachate percolating from the original (phase 1) unlined landfill. An EPA audit of the site in July 2011 noted elevated levels of conductivity, ammonia and chloride in GW1 and GW2 and requested an investigation into the nature, source and cause of the elevated levels. Submissions on the file indicate that It is indicated that this investigation and a risk assessment are due for completion by end-2012, with new groundwater wells having being installed to the west of Phase 1.

These groundwater impacts appear to have been occurring over some time and the 2010 Annual Environmental Report (AER) refers to historical observations in downgradient

PL01.JA0032

An Bord Pleanala

Page 27 of 42

monitoring wells. Assessments dating from 2001 indicated that a leachate plume beneath the unlined landfill was likely to be attenuated by through-flow in the aquifer. The 2003 EIS prepared in respect of ref. 01.EL2020 also identified contamination of downstream groundwater. The EIS states that the old unlined landfill area was substantially capped in 2006 with the remaining 10% capped in 2008. It is indicated that the nature of the capping installed on should significantly reduce infiltration through the capping system, reducing the potential for future leachate generation.

The conclusion of the EIS that groundwater contamination originates from the earlier / phase 1 landfill activity, which is unlined, is generally supported by historic monitoring data. The development of Phase 3, which this application seeks to continue filling, does not appear to have generated or contributed to the contamination. Such emissions from Phase 1 are subject to control under the Waste Licence. Notwithstanding the continued operation of the landfill facility, contamination from Phase 1 is likely to continue for some time. In this regard, there does not appear to be adequate basis on which to consider that the development would be unacceptable on environmental grounds or is unacceptable on habitats grounds.

#### 20 8.6 LANDSCAPE AND VISUAL AMENITY

The facility occupies a relatively elevated position in this area and is particularly visible from the old N9 / R448 and at Junction 6. While the facility is visible from the M9, particularly travelling southbound, it does not detract from the amenities of the area to a significant extent or interfere with views of interest. Site infrastructure, including netting around active faces comprises the more visible aspects of the development. These are temporary features on the site while the permanently capped and grassed areas of the site tend to blend into the background, notwithstanding their elevation.

The River Barrow is the primary amenity feature in the area. While the overall site is visible from sections of the row path, there is no significant intrusion into the visual character of this linear amenity site. The proposed development, comprising continued filling of the site, will not give rise to additional impacts on the character or visual amenities of the area. The long-term capping and restoration of the site will adequately mitigate the residual impacts of the development.

#### 8.7 OTHER MATTERS ARISING:

#### 8.7.1 Adjoining Buffer Zone:

Third parties have queried the status of the buffer zone located to the east of the waste management site, having regard to the registration of those lands as a quarry under QY29 / QC2170. I note that these lands are in the ownership of Philip Morrissey and there is an agreement with the County Council that no development in respect of waste will take place thereon. Consent to the inclusion of these lands within the application for approval is evidenced in accompanying correspondence. While these lands were the subject of a quarry registration application, the buffer zone lies outside the area within which quarrying activity was permitted. Any activity on these lands would therefore be subject

PL01.JA0032

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An Bord Pleanala

Page 28 of 42

to normal planning requirements. Having regard to the foregoing, I do not consider that concerns arise regarding the use of the buffer zone.

#### 8.7.2 Capping materials:

I note the third party comments regarding the source and nature of capping materials used on the site. The nature and make-up of the final capping layer is set out in condition no. 4 of the waste licence applying to this facility. The EIS indicates that capping materials will be imported to the site, however, I do not regard it as feasible or reasonable to condition the source of such materials. Operations at the sites of origin of capping materials will be subject to normal planning requirements the enforcement of which lie outside the remit of this report.

#### 9.7.3 Salt Barn

I note the presence of a recently constructed structure adjacent to the R448 on the western side of the site, identified by third parties as an NRA salt barn. This is not identified on the site plans, however, I do not regard such omission as a fundamental flaw in the drawings such as to invalidate the application, having regard to the scale and location of the structure. The subject application will not alter the status of this structure.

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#### 9.0 APPROPRIATE ASSESSMENT

#### 9.1 Introduction

The site is located to the southeast of Junction from the M9 Motorway, approximately 8 kilometres south of Carlow Town and approximately 3.5km north of Leighlinbridge. Access to the site is from the south off a local road L-3045 approximately 500m east of its junction with the R448 / old N95 This local road was upgraded circa 2006 and includes a footpath and lighting.

The application site is located to the east of the River Barrow and River Nore Special Area of Conservation (code 002762). This European site extends to the western side of the R448. Surface water from Powerstown Landfill is discharged to the Powerstown Stream approx. 450m upstream of its confluence with the Barrow. The application is accompanied by a Natura Impact Statement (Stage 2, Appropriate Assessment), which states that the screening process could not rule out the possibility of a significant negative impact on the SAC, in accordance with Article 6(3) of the EU Habitats Directive.

The purpose of the Stage 2 Appropriate Assessment is to establish whether there will be adverse effects on the integrity of a Natura 2000 Site. The effect of the project is considered with regard to the conservation objectives of the site.

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## 9.2 Description of the Proposed Development

9.2.1 The development comprises the continued operation of an existing landfill facility, utilising existing operational mitigation and management systems. The landfill facility is operated by Carlow County Council and is the subject of a waste licence. The facility has been operational since circa 1975 and has occurred in three phases. The proposed development relates to the continued operation of Phase 3.

PL01.JA0032

An Bord Pleanala

Page 29 of 42

The original phase / phase 1 of landfill activities on the site took place in the southwestern corner of the overall site, within a disused sand and gravel extraction site. This unlined landfill operation closed in 1990 and has since been permanently capped. Phase 2 of landfill operations occurred centrally on the site and comprised 14 no. lined cells. Landfilling in this area ceased in 2006 and capping of the filled cells was completed in 2008. Phase 3 of development on the site comprised the construction of four lined cells (no.'s 15-18) with capacity of 240,000m<sup>3</sup>, and associated works including:

- A split level civic amenity site.
- Leachate holding tank and installation of floating cover to existing leachate lagoon.
  - · Green waste composting area
  - · Conversion / renovation of an existing dwelling house into a site office
  - · Weighbridges and weighbridge office
  - Perimeter fencing
  - Surface water management comprising pipework, settling pond, swales etc.
  - · Foul drainage system and treatment unit

Cells 15 and 16 have been largely filled, while cells 17 and 18 remain unused to date.

The landfill is the subject of a waste licence (code W0025-02), which specifies that there are to be no direct emissions to groundwater and that no raw leachate, treated leachate or contaminated surface water shall be discharged to the Powerstown Stream. All leachate is transported off-site for treatment and disposal. The surface water discharge to the Powerstown Stream is monitored chemically by Carlow Co. Co. and the Powerstown Stream is monitored both chemically and biologically, upstream and downstream of the discharge point. Baseline monitoring has been undertaken over a number of years which enables the effects of the continued operation of the facility to be assessed.

The submitted NIS assesses the site of the proposed development in terms of:

- the presence of any Annex I habitats downstream of the discharge point;
- the presence of any Annex II species downstream of the discharge point;
- the quality of water in Powerstown Stream and the River Barrow;
- existing ecological records.

#### 9.2.2 Relevance to Management of the SAC Site

The Powerstown Landfill is not directly connected with, or necessary for, the management of the SAC.

#### 40 9.2.3 Natura Impact Statement

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The NIS notes that the status of protected species was assessed as follows:

- The presence of freshwater pearl mussel was checked.
- The habitat quality for salmon was assessed for spawning, nursery and adult habitat.
- The habitat quality for the three species of lamprey was assessed, for spawning, nursery and adult habitat.
- The habitat quality for crayfish was assessed.

PL01.JA0032 An Bord Pleanala Page 30 of 42

- The presence of otter was checked for and the habitat quality for this species was assessed.
- The floating river vegetation habitat was assessed.

Available records on the distribution of other protected species and the proximity of protected terrestrial habitats were checked. Available chemical and biological water quality data were examined.

#### 9.2.4 Site Assessment

10 Powerstown Stream is described as a mainly shallow, eroding watercourse, with riffle over stones but with some areas of deposition of finer material. Some dredging close to the confluence with the River Barrow has taken place. Cattle have access to the stream along most of its course downstream of the R448. Downstream of the confluence with Powerstown Stream the river Barrow is deep and slow-flowing.

The following characteristics are identified:

- Riffle areas are suitable for lamprey spawning, while the depositions of finer material are suitable for burrowing ammocoetes (juveniles).
- The habitat is very suitable for crayfish.
- While the stream is a better habitat for trout than salmon it could be used by salmon for spawning and nursery, if the water quality was good enough.
  - Freshwater pearl mussel does not occur in the Powerstown Stream and is apparently now extinct in the main channel of the River Barrow.
  - While no otter spraints were found, the habitat is suitable and there is evidence of a good supply of prey.
  - The main channel of the River Barrow can be classified as a habitat with floating river vegetation.

Biological Water Quality Datas Since 2005, the Q-value recorded downstream of the discharge point has been the same as that recorded upstream. Since 2007, Q3-4 was recorded at both the upstream and downstream site. Sampling by the EPA (2003, 2006 and 2009), recorded Q4 downstream of the landfill. Biological monitoring of the River Barrow indicates that Powerstown Stream is not negatively influencing water quality in the river.

Chemical Water Quality Data: Quarterly chemical analysis indicates that apart from suspended solids, none of the results exceed the limits for Salmonid Waters, although the River Barrow is not a designated Salmonid Water. Suspended solids levels were generally higher upstream of the surface water discharge. The results do not indicate any enrichment or any significant negative impact on the Powerstown Stream due to surface water discharge from the landfill.

#### 9.2.5 NATURA 2000 Site

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The Site Synopsis for the River Barrow and River Nore SAC is appended herewith. The NIS considers the Generic Draft Conservation Objectives for the SAC. I note, however,

PL01.JA0032 An Bord Pleanala Page 31 of 42

that Conservation Objectives for the site were published in July 2011 and that while the NIS is dated July 2011, the EIS was not lodged until February 2012.

Qualifying interests in the site are as follows:

- 3260 Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.
- 6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels.
- 1130 Estuaries.
- 1140 Mudflats and sandflats not covered by seawater at low tide.
  - 7220 Petrifying springs with tufa formation (Cratoneurion), a priority habitat.
  - 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae), a priority habitat.
  - 91A0 Old sessile oak woods with Ilex and Blechnum in the British Isles.
  - 4030 European dry heaths.
  - 1310 Salicornia and other annuals colonizing mud and sand
  - 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae).
  - 1410 Mediterranean salt meadows (Juncetalia maritimi).
  - 1016 Desmoulin's whorl snail (Vertigo moulingiana).
  - 1421 Killarney fern (Trichomanes speciosum).
    - 1990 Nore freshwater pearl mussel (Matgaritifera durrovensis).
    - 1029 Freshwater pearl mussel (Margaritifera margaritifera).
    - 1103 Twaite shad (Alosa fallax).
    - 1095 Sea lamprey (Petromyzon marinus).
    - 1096 Brook lamprey (Lampetra planeri).
    - 1099 River lamprey (Lampetra fluviatilis).
    - 1106 Atlantic salmon Salmo salar) (only in fresh water).
    - 1092 White-clawed crayfish (Austropotamobius pallipes).
    - 1355 Otter (Lutra lutra).

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### 9.3 NATURA IMPACT STAGE TWO - APPROPRIATE ASSESSMENT

The submitted NIS identifies the potential effects of the proposed development on SAC Qualifying Interests, as follows.

#### 9.3.1 Annex I Habitats.

Floating River Vegetation (Code 3260):	As monitoring results do not indicate an increase	
Eutrophic Tall Herbs (Code 6430):	in plant nutrients or any recent deterioration in	
Estuary (Habitat Code 1130)	biological water quality downstream of the	
Tidal Mudflats & Sandflats (Code 1140):	discharge, the NIS concludes that there is no	
	evidence of any negative impact on these	
	Qualifying Interests	

Page 32 of 42

Petrifying Springs (Code 7220):	These habitats are not present close to the area of
Alluvial Wet Woodlands (Code 91E0):	the landfill and the NIS concludes that they
Old Oak Woodlands (Code 91A0)	could not be negatively affected.
Dry Heath (Code 4030):	
Salicornia and other annuals colonizing mud	
and sand (Code 1310)	
Atlantic salt meadows (Code 1330)	
Mediterranean salt meadows (Code1410)	

9.3.2 Annex II Species.

7.5.2 Attitex II opecies.	
Desmoulins' Whorl Snail ( (Code 1060):	As these species are not present close to the
Killarney Fern (Species Code 1421):	area of the landfill the NIS concludes that
	they could not be negatively affected.
Freshwater Pearl Mussel (Code 1029):	As no viable pearl mussel population is
	present in the River Barrow, the NIS
	concludes that this species could not be
	affected.
Nore Freshwater Pearl Mussel (Code 1990):	This species is not in any part of the River
	Barrow and therefore the NIS concludes that
	it could not be affected.
Twaite Shad (Code 1103):	As monitoring results do not indicate an
	increase in plant nutrients or any recent
	19180
Sea Lamprey (Code 1095), Brook Lamprey (Code 1096) Consent River Lamprey (Code 1099):  Atlantic Salmon (Code 1106):	downstream of the discharge, the NIS
· OI P. rel	concludes that there is no evidence of any
action in the same of the same	negative impact on this Qualifying Interest.
instito	Similarly, given the distance to spawning area
Fotovite	at Saint Mullins the NIS does not consider
& COR	impacts on this species to be possible.
Sea Lamprey (Code 1095)	As the biological results do not indicate any
Brook Lamprey (Code 1096)	recent deterioration in biological water quality
River Lamprey (Code 1099):	downstream of the discharge, the NIS
Tarter Buttipley (Cour 1077).	concludes that there is no evidence of any
	negative impact on these Qualifying Interests.
Atlantic Salmon (Code 1106):	While there is some suitable salmon spawning
Attaille ballion (Code 1100).	and nursery habitat in the Powerstown
	Stream, the NIS notes that the suitability of
	the biological water quality is in question. As
	there is no deterioration in the biological
	water quality downstream of the discharge,
	the NIS concludes that there is no evidence of
	any negative impact on this Qualifying
	Interest.
White-Clawed Crayfish (Code 1092):	Crayfish are present in the Powerstown
White-Clawed Crayhsh (Code 1072):	Stream and are fairly well distributed in the
	Barrow catchment. As the biological results
	1
	do not indicate any recent deterioration in
	biological water quality downstream of the
	discharge, the NIS concludes that there is no

	evidence of any negative impact on this Qualifying Interest.
Otter (Species Code 1355):	As the surface water discharge is not negatively affecting ofter habitat quality nor availability of prey species, the NIS concludes that there is no evidence of any negative impact on this Qualifying Interest.

#### 9.3.3 Assessment of Significance

The Powerstown Landfill is not resulting in any loss or fragmentation of habitats for which the SAC is designated. The results of on-going monitoring indicate that the landfill is not causing significant disturbance to, or affecting the population density of, any of the species for which the SAC is designated. Similarly, Powerstown Landfill is not causing any significant change to the water resource or to water quality.

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### 9.3.4 Potential Cumulative Impacts.

The NIS notes that point sources, diffuse runoff and inputs from tributaries of unsatisfactory water quality are affecting the biological water quality of the River Barrow along the course of the river.

There are a number of facilities in the catchment of the River Barrow between Athy and New Ross which are subject to waste licences, however, I note that the status of the Barrow is defined as Good. Subject to compliance with the terms of their licences, the NIS concludes that these facilities will not add to cumulative impacts on the biological water quality of the River Barrow, or on the Conservation Objectives of Natura Site.

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#### 9.4 MITIGATION MEASURES

NPWS publication, "Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities" defines mitigation measures as follows:

"...... measures aimed at minimising, cancelling out or ideally avoiding the negative impact of a plan or project before, during or after its completion or implementation. Mitigation measures may be an integral part of the specifications of a plan or project, or an add-on. They may be proposed by the plan or project proponent and/or required by the competent authorities.

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If mitigation is possible that enables a risk to be avoided fully, then subject to other necessary approvals, the project or plan may proceed."

Monitoring of the existing landfill operation indicates that no negative impacts on the qualifying interests of the SAC arose, due to the operation of the designed mitigation measures on the site, including surface water and leachate management measures. The NIS states, with *full confidence*, that the Powerstown Landfill is not contributing to any significant cumulative impacts on Conservation Status of the Qualifying Interests of the SAC and is not affecting the sites Conservation Objectives and no mitigation measures, additional to those already in place, are necessary. This statement would appear to be reasonable and acceptable.

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PL01.JA0032 An Bord Pleanala

Page 34 of 42

#### 9.5 CONCLUDING STATEMENT:

I consider it reasonable to conclude, on the basis of the information available that the proposed development, individually and in combination with other plans or projects would not adversely affect the integrity of the European site (River Barrow and River Nore SAC, (Code 002162)) in view of the site's conservation objectives.

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#### 10.0 ENVIRONMENTAL IMPACT ASSESSMENT

10.1 Compliance with the requirements of Articles 94 and 111 of the Planning and Development Regulations 2001-2012.

The development requires an EIS under Part 1 and 2 of Schedule 5 of the Planning and Development Regulations 2001 – 2012. Part (11)(b) refers to installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of that Schedule.

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On the basis of all of the information submitted in relation to this file, I conclude that the proposed development, in overall terms, is in compliance with Articles 94 and 111 of the Planning and Development Regulations, 2001, 2012. In this regard, I note the following:

- The EIS, and supporting information, contain the information specified in paragraph 1 of Schedule 6 of the Regulations, as follows:
  - Describes the proposal, including the site and processes, and the development design and size;
  - Describes measures to avoid, reduce and, if possible, remedy significant adverse effects;
  - Provides data to identify and assess the main effects the project is likely to have on the environment;
  - Identifies alternatives studied and the reasons for the choice of site and development, taking into account the effects on the environment.
- The EIS, and supporting information, contain the information specified in paragraph 2 of Schedule 6 of the Regulations. This includes:
  - a description of the physical characteristics of the project and its land use requirements;
- a description of the processes;
  - estimates of the emissions and residues arising;
  - a description of the aspects of the environment likely to be significantly affected by the proposal;
  - a description of the likely significant effects on the environment arising from the development, the use of natural resources, the emission of pollutants and creation of nuisances, and a description of the forecasting methods used; and

PL01.JA0032

An Bord Pleanala

Page 35 of 42

- an indication of any difficulties encountered in compiling information.
- There is an adequate summary of the EIS in non-technical language.

#### Identification of the likely significant direct and indirect effects of the project 10.2 on the environment

The main likely effects arising can be identified as follows:

#### 10 **Human Beings**

- Employment.
- Nuisance Air and Noise.
- Impacts on tourism.
- Community facilities.

#### Air and Climate

- Dust.
- Vehicle emissions.
- Odour.
- Water Quality
  Impacts on designated sites. For inspection purposes only in any other ruse.

  ater
  Surface water quality.
  Ground water quality. 20

#### Flora & Fauna

- Disturbance.

#### Water

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## Soils & Geology

Use of natural resources.

### Landscape and Visual Impact

- Site activity and earth works on this elevated site.
- Impacts on adjoining national and regional routes.
- Impacts on amenity areas.
- Cumulative impact / intervisibility.

#### Noise and Vibration 40

- Nuisance / residential amenity.
- Vehicle Movements

#### **Cultural Heritage**

Impacts on sites and structures of architectural archaeological interest.

PL01.JA0032

An Bord Pleanala

Page 36 of 42

• Impacts on sites of geological interest.

#### **Material Assets**

- Property values.
- Road infrastructure.
- Interruption to utilities and services.
- Use of non-renewable resources.

#### **Interactions**

- Humans and noise, air quality, water, material assets, landscape, tourism, cultural heritage.
  - Flora and Fauna, and soils and geology, water quality, air quality, landscape and vegetation.
  - Soils and Geology, and flora fauna, water, landscape, material assets.
  - Water and humans, flora and fauna, soils and geology.
  - Air and Climate and humans and flora and fauna.
  - Cultural heritage and humans and landscape.
  - Landscape and humans, cultural heritage, flora and fauna, soils and geology.
  - Material Assets and human beings, flora and fauna, soils and geology, cultural heritage.

## 10.3 Description of the likely effects identified

The likely effects arising from the development proceeding are anticipated to include the following:

#### Human Beings

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- Employment continued employment at the site.
- Nuisance Air quality and odour impacts on nearby residents. Noise impacts from traffic and site activity.
- Impacts on tourism potential impacts on fishery tourism and landscape impacts.
- Community facilities further contributions to the community fund.

#### Air and Climate

- Dust generated by vehicle movements, capping activities and waste deposition resulting in soiling of buildings and vegetation over short distances.
- Vehicle emissions nitrogen dioxide and PM10 emissions.
- Odour emissions from waste acceptance, active cell management and landfill gas management.
- Greenhouse gases landfill gas from the original unlined landfill, gas leakage from the later phases and flare emissions.

#### Flora & Fauna

• Disturbance – increased activity and disturbance therefrom.

PL01.JA0032

An Bord Pleanala

Page 37 of 42

- Water Quality surface water discharge to Powerstown Stream and leachate impacting on groundwater.
- Impacts on designated sites River Barrow is an SAC, to which Powerstown Stream discharges.

#### Water

- Surface water quality leachate generation and management, and discharge of contaminants to Powerstown Stream.
- Ground water quality Leachate pollution of underlying aquifer.

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#### Soils & Geology

Use of natural resources: Importation of daily cover and final capping materials.

#### Landscape and Visual Impact

- Site activity and earth works— site infrastructure, temporary capping and vehicle movements will be visible on this elevated site.
- Impacts on adjoining national and regional routes Site visible from M9 and Junction 6 as well as the R448 / Old N9.
- Impacts on amenity areas. Visibility from the River Barrow.
- Cumulative impact / intervisibility impact with sand gravel extraction sites in the area.

#### Noise and Vibration

- Nuisance / residential amenity residence vehicle noise. Cumulative impacts with extraction activities.
- Vehicle emissions Traffic ravelling to and from the site and on-site vehicle movements.

#### Cultural Heritage

- Impacts on sites and structures of architectural archaeological interest. Indirect visual impacts. Cumulative impacts with road infrastructure.
  - Impacts on sites of geological interest removal or obscuring of features of interest.

#### **Material Assets**

- Property values decreases in value due to nuisance and emissions from the facility.
- Road infrastructure traffic generation on the surrounding road network.
- Interruption to utilities and services severance or disruption to services in the area.
- Use of non-renewable resources use of resources for final permanent capping.

#### 40 Interactions

 The effects of the interactions as identified above, are considered within the range of issues listed above.

PL01.JA0032

An Bord Pleanala

Page 38 of 42

# 10.4 Assessment of the likely significant effects identified, having regard to the mitigation measures

Relevant likely significant effects are identified and discussed above, in section 10.0 Assessment. Proposed mitigation measures to address the range of significant impacts are set out below:

#### **Human Beings**

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- Nuisance Air and Noise Compliance with licence emission limit values.
   Separation from the majority of residential properties in the surrounding area. Use of the Community Fund.
- Impacts on tourism No extension of the existing permitted landfill footprint and restoration in accordance with the site restoration plan. On-going controls on discharge to surface waters and containment of all leachate generated for transport off-site. Operational controls on vehicle movements on-site will mitigate noise emissions.

#### Air and Climate

- Dust separation from residential properties, standard site management and ongoing monitoring.
- Vehicle emissions no mitigation proposed.
  - Odour implementation of an odour management plan and operation of gas management systems, including flaring of gas. On-going monitoring.
  - Greenhouse gases operation of gas management systems, including flaring of gas, and on-going maintenance and monitoring.

#### Flora & Fauna

- Disturbance remain within footprint of existing development. Habitats and species on the site are of low ecological value.
- Water Quality Maintain surface water management systems and ensure the integrity of liner systems and leachate management systems.
- Impacts on designated sites Maintain surface water management systems and ensure the integrity of liner systems and leachate management systems.

#### Water

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- Surface water quality Maintenance and continued operation of surface water management systems. On-going monitoring of water quality.
- Ground water quality installation of double liner in existing cells. Management of leachate generated and transport off-site for treatment. Capping of cells on completion of filling, reducing leachate generation. On-going monitoring of water quality.

#### Soils & Geology

• Use of natural resources: completion in accordance with the requirements of the existing waste licence and approved phase 3 under ref. EL2020.

PL01.JA0032

An Bord Pleanala

Page 39 of 42

## Landscape and Visual Impact

- Site activity and earth works Remain within existing development footprint, although it's operational life is to be extended. Screen planting. Increased waste acceptance rate will hasten completion of the site.
- Impacts on adjoining national and regional routes Implementation of site restoration plan. Screen planting. Increased waste acceptance rate will hasten completion of the site.
- Impacts on amenity areas. Implementation of site restoration plan. Screen planting. Increased waste acceptance rate will hasten completion of the site.
- Cumulative impact / intervisibility Screen planting and implementation of the site restoration plan. Increased waste acceptance rate will hasten completion of the site.

#### Noise and Vibration

- Nuisance / noise emissions: Separation from sensitive receptors. Adherence to identified emission limits. Day time activity only. Controls on on-site vehicle movements. Development of a noise management plan for permanent capping works. Monitoring in accordance with waste licence requirements.
- Vehicle emissions Routing of traffic. Day time activity only. Monitoring in accordance with waste licence requirements.

# 20 Cultural Heritage

- Impacts on sites and structures of architectural archaeological interest. Remaining within footprint of constructed development. Separation from sites of interest.
- Impacts on sites of geological interest separation from sites of interest which themselves lie within active extraction sites.

#### **Material Assets**

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- Property values adherence to mitigation measures identified elsewhere in the EIS and as required under EC2020.
- Road infrastructure Routing of traffic primarily along national and regional routes.
  - Interruption to utilities and services As no construction is proposed, there will be no interference with services in the area.
  - Use of non-renewable resources completion in accordance with the requirements of the existing waste licence and approved phase 3 under ref. EL2020.

## 11.5 Conclusions regarding the acceptability or otherwise of the likely residual effects identified.

The assessment section of the report addresses the likely significant effects of the proposed development, relating primarily to emissions to air, noise, traffic and transport, water, flora and fauna. The acceptability of the likely residual effects of the development are identified therein.

Page 40 of 42

#### 11.0 SUMMARY AND CONCLUSIONS

Having regard to the nature of the application and the issue of compliance with condition no. 1 of EL2020, it is considered that any approval for development in this case should exclude the continued operation of the civic amenity site and should be restricted to the continued landfilling of the site and increase in waste acceptance. Having regard to the extent of constructed development on the site and the imminent shortfall in waste management infrastructure in the region, it is considered that the development is acceptable in principle. While some residual impacts on adjoining amenities are likely, the development is considered to be acceptable having regard to the historical use of the site and regional requirement for such waste management infrastructure.

Having regard to S.257 of the Act, it is not considered that the development would be unacceptable on environmental grounds or on habitats grounds, having particular regard to the monitoring data available for the facility and its surroundings. Emissions from the facility will be adequately controlled under the provisions of the waste licence. No significant additional impacts on the landscape or visual amenities of the area are anticipated.

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#### 12.0 RECOMMENDATION

July, suly other lies Having regard to the foregoing, I recommend that approval be granted in this instance for the reasons and considerations and subject to the conditions set out below:

## Reasons and Considerations:

Having regard to:

- (a) National policy in relation to waste management, including policy document "Waste Management: Taking Stock and Moving Forward" (April 2004).
- 30 (b) The provisions of the County Development Plan in relation to waste management,
  - (c) The Joint Waste Management Plan for the South East Region 2006-2011,
  - (d) The planning history of the site and the status of existing operations thereon,
  - (e) The character of the landscape and the pattern of development in the surrounding area, and
  - (f) The requirement to obtain and maintain a Waste Licence in place for the operation of the facility,

it is considered that, subject to compliance with the conditions set out in this order and to the facility being constructed and operated in accordance with a licence from the Environmental Protection Agency, the continued operation of existing landfill operations and an increase in annual waste acceptance at the facility would not seriously injure the amenities of the area or of property in the vicinity, would be acceptable in terms of traffic safety and convenience, would not be prejudicial to public health and would be in accordance with the proper planning and sustainable development of the area, and would not be likely to have significant adverse effects on the environment.

PL01.JA0032

An Bord Pleanala

Page 41 of 42

#### **Conditions:**

1. The development shall be carried out in accordance with the plans and particulars lodged with the application on the 20<sup>th</sup> day of February 2012, except as may otherwise be required in order to comply with the following conditions.

Reason: In the interest of clarity.

2. This approval relates to the continued filling of Phase 3 of the facility only. Landfilling operations shall cease when cells no. 15, 16, 17 and 18 are filled and the landfill site shall reinstated in accordance with the requirements of the Waste Licence.

Reason: In order to clarify the area to which this approval relates.

3. This approval does not relate to the continued operation of the civic amenity site.

Reason: The Board is precluded from considering the continued operation of the civic amenity site due to its continued operation in contravention of condition no. 1 of approval Ref. PL01.EL202.

4. The operators shall ensure that a waste beence from the Environmental Protection Agency for the operation of the facility is maintained in place at all times.

**Reason**: To ensure that the proposed development is operated in such a manner which would not adversely impact on the surrounding environment.

5. A traffic management plan shall be implemented which shall include provisions prohibiting landfill associated HGV traffic from travelling along County Road L-3045, between Garyhundon Crossroads to the east and the landfill facility.

Reason: In the interest of traffic and pedestrian safety.

40 Conor McGrath
Inspectorate

9/1/20n

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Page 42 of 42