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**Mayo County Council**

# Environmental Impact Statement Newport Sewerage Scheme

## Volume I: Non Technical Summary

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Job Nr. B8838  
April 2007



# Mayo County Council

## NEWPORT SEWERAGE SCHEME VOLUME I – NON-TECHNICAL SUMMARY APRIL 2007

### Issue and Revision Record:

Rev	Date	Originator	Checked	Approved	Description
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**MAYO COUNTY COUNCIL  
NEWPORT SEWERAGE SCHEME**

**VOLUME I – NON-TECHNICAL SUMMARY**

**APRIL 2007**

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# Mayo County Council

## NEWPORT SEWERAGE SCHEME

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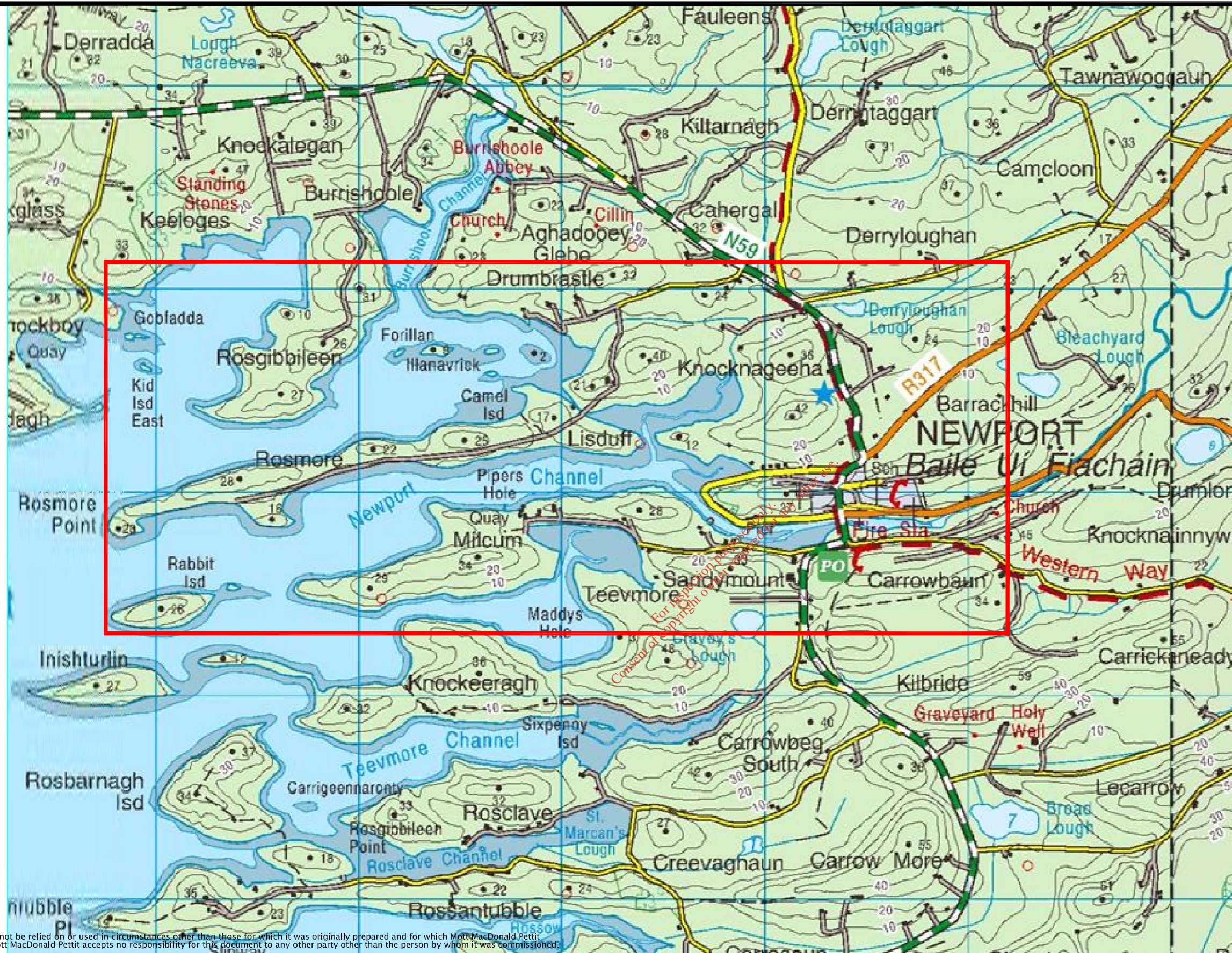
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## 1.0 INTRODUCTION

### 1.1 BACKGROUND

#### General

- 1.1.1 Mayo County Council appointed Mott MacDonald Pettit Limited, to prepare a Preliminary Report (PR) and an Environmental Impact Statement (EIS) for the construction of a new waste water treatment plant and upgrade of the waste water collection system at Newport in County Mayo (refer to *Figure 1.1.1- Development Area* and *Figure 1.1.2- Aerial Photograph of the Site of the proposed Waste Water Treatment Plant* included overleaf). It should also be noted that included in the proposed development is the construction of two new outfall pipelines (one for treated municipal waste water and treated landfill leachate, the other for storm water overflow). It is anticipated that the construction of the proposed waste water treatment plant will proceed as a Design/ Build/ Operate contract.
- 1.1.2 Newport town, County Mayo is located on a largely low-lying coastal area adjacent to Clew Bay. The dominant influence on drainage is the Newport River running through Newport town to Newport Channel and out to Newport Bay (part of the Greater Clew Bay complex). The proposed site of the waste water treatment plant is located on a coastal site in an area of undulating terrain in the townland of Caulicaun. To the west of the site is the Rosmore peninsula and Newport Channel and to the east the land rises to an upland area (42 metres above Ordnance Datum) west of the N59 national secondary road in the townland of Knocknageha.
- 1.1.3 The environmental impact of the proposed discharge of treated municipal waste water from the Newport Sewerage Scheme and treated landfill leachate (liquid that arises from the seepage of rain water and/or surface water through waste material) from Derrinnumera landfill (Mayo County Council operated landfill approximately 6 kilometres east of Newport town), via a common marine outfall, to Newport Bay is considered within this statement. The reason for the inclusion of the discharge of treated leachate from the landfill within the scope of this EIS is based on the opinion that the leachate treatment plant and pipeline transferring the leachate to a confluence point (manhole) on the site of the Newport waste water treatment plant are regarded as being secondary related developments to the Newport Sewerage Scheme and as such to fully evaluate the predicted impacts during the operational phase of both developments, the inclusion of the impact of the treated leachate discharge is also being addressed.
- 1.1.4 Tobin Consulting Engineers Limited have prepared an application on behalf of Mayo County Council for the Review of Waste Licence (and associated EIS) Application to the Environmental Protection Agency (hereafter referred to as EPA) and for planning approval from An Bord Pleanála for the specified works at Derrinnumera landfill. The Waste Licence Review, EIS and such further information relating to these applications will be available for public inspection and/or purchase at the offices of Mayo County Council, Aras an Chontae, The Mall, Castlebar, Co. Mayo, Westport Civic Offices, Ballinrobe Road, Westport, County Mayo during normal working hours (Monday to Friday excluding public holidays) and at the offices of the Environmental Protection Agency, Johnstown Castle Estate, Wexford.
- 1.1.5 The Newport Sewerage Scheme EIS will be submitted as part of an application by Mayo County Council to An Bord Pleanála (as the competent authority for development control purposes) under Part XV, Section 226 of the *Local Government Planning & Development Act 2000*, as brought into force by the *Planning and Development Regulations 2001 (S.I. 600 of 2001)*, for approval of the proposed development. The application is being made to An Bord Pleanála under *Section 226 of the Planning and Development Act, 2000* as the proposed development is being carried out wholly or partly on the foreshore.
- 1.1.6 This EIS and such further information relating to the application to An Bord Pleanála will be available for public inspection and/or purchase at the offices of Mayo County Council, Aras an Chontae, The Mall, Castlebar, Co. Mayo and Westport Civic Offices, Ballinrobe Road, Westport, County Mayo during normal working hours (Monday to Friday excluding public holidays).



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Rev	Date	Drawn	Description	Ch'k'd	App'd
A	15.12.06	SODO	FINAL		

Title	<b>NEWPORT SEWERAGE SCHEME</b>
	<b>FIGURE 1.1.1</b>
	<b>DEVELOPMENT AREA</b>
Drawing No.	<b>B8838N012</b>

Drawn	SODO
Checked	PKEL
Approved	DSHE
Scale at A3	<b>N.T.S.</b>
Rev	A
Status	



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A	15.12.06	SODO	FINAL		

Title  
**NEWPORT SEWERAGE SCHEME**  
  
**FIGURE 1.1.2**  
**AERIAL PHOTOGRAPH OF SITE**  
**OF PROPOSED WWTP**  
  
 Drawing No.  
**B8838N006**

Drawn	SODO
Checked	PKEL
Approved	DSHE
Scale at A3	<b>N.T.S.</b>
Rev	Status
<b>A</b>	



## Context of the Receiving Environment

- 1.1.7 Clew Bay – a designated shellfish water (under the *European Communities [Quality of Shellfish Waters] Regulations, SI No 268 of 2006*) is also designated under the Water Framework Directive for transitional and coastal waters and is a candidate Special Area of Conservation. Many habitats and species in Clew Bay are listed under Annex I of the Habitats Directive and as such Clew Bay has been designated as a Candidate Special Area of Conservation under the Habitats Directive. Lough Furnace (adjacent to Newport and linked to Newport Bay by the Burrishoole Channel) contains an Annex I Priority Habitat under the Habitats Directive - one of the few permanently stratified lagoon lakes in Ireland and UK. Clew Bay is also protected under an Oyster Fishery Order that was granted to the Clew Bay Oyster Co-operative in 1979. A drawing indicating the extent of the Clew Bay Special Area of Conservation in the context of Newport Bay is included overleaf in addition to the extensive shellfish interests in the locality. The Newport River which discharges into Clew Bay (via Newport Bay) is designated as a Candidate Special Area of Conservation.
- 1.1.8 The Burrishoole catchment is a scientific area of conservation and local salmon stocks are protected under the EU Habitats Directive. The Burrishoole system is regarded as a world index site for Atlantic salmon and feeds into international assessments conducted by the International Council for Exploration of the Seas (ICES), the European Inland Fisheries Advisory Council (EIFAC) and the North Atlantic Salmon Conservation Organisation (NASCO). It should also be noted that eels are also a key species studied in the Lough Furnace/Burrishoole System. The natural and flat oyster beds in Clew Bay are of both national and international importance.
- 1.1.9 Based on the fact that it is proposed to treat the Newport Sewerage Scheme municipal waste water and the Derrinumera landfill leachate to the discharge standards specified in the *Urban Waste Water Treatment Regulations, 2001* with further treatment of the landfill leachate to ensure that the treated leachate attains the environmental quality standards specified in the *European Communities (Quality of Shellfish Waters) Regulations, 2006* and the *Water Quality Dangerous Substances Regulations, 2001* prior to discharge it is considered that the combined discharge will not have a significant effect on Clew Bay/Newport River cSAC or affect its overall integrity.

## History of Leachate Generation at Derrinumera

- 1.1.10 Derrinumera Landfill has been receiving waste since 1974, and up until 1998 was best described as an un-engineered, dilute and attenuating landfill site. Due to the unlined nature of the waste, leachate could not be captured for treatment, however, the surrounding peat did offer a significant degree of attenuation to leachate migrating from the site. Following licensing of Derrinumera landfill (Licence No. W0021-01, granted December 1999) by the Environmental Protection Agency as per the requirements of the Waste Management Act, 1996 and associated regulations, a cut-off wall was constructed at Derrinumera. The main objective of the cut-off wall is to retain any leachate flowing from the permeable deposits in the enclosed area surrounding the wastebody, preventing its discharge into the surrounding lands. A substantial completion certificate for the bentonite cut-off wall was issued in September 2001.
- 1.1.11 With the installation of the cut-off wall, leachate captured within the enclosed area is diverted to a balancing lined lagoon (approximately 3,600 m<sup>3</sup>), and pumped from there to three on-site storage tanks (volume of each 297 m<sup>3</sup>). As a condition of the Waste Licence issued by the Environmental Protection Agency for Derrinumera, leachate is transported by tanker from Derrinumera to Castlebar waste water treatment plant for treatment. After arriving at the treatment plant, leachate is currently discharged to the head of the works for co-treatment with Castlebar Town's incoming municipal waste water. The leachate and municipal waste water is treated together prior to discharge to the Castlebar River. The Castlebar River flows into Lough Cullin and the Lough Conn System and from there eventually reaches the River Moy, south of Foxford. The River Moy ultimately discharges to the coastal waters of Killala Bay. It should be noted that the Moy Estuary/Killala Bay is a Candidate Special Area of Conservation.
- 1.1.12 The Moy is a designated salmonid water in its entirety, therefore the preservation of high standards of water quality on the Castlebar River is essential to its salmonid spawning grounds. The Castlebar River is designated 'sensitive' under the *Urban Waste Water Treatment Regulations, 2001* as amended, partly due to the particularly low flows in dry weather and seasonally variable assimilative capacity.

- 1.1.13 The Environmental Protection Agency monitor river water quality at various locations upstream and downstream of the Castlebar waste water treatment plant discharge, and regularly check the status of Lough Conn and Lough Cullin. Since leachate importation to Castlebar waste water treatment plant commenced, no additional negative environmental effects have been observed or recorded in the receiving waters having regard to the fact that the Castlebar River has a history of poor quality tracing back to the 1970s.
- 1.1.14 In November 2001, Mayo County Council's application for the upgrade and expansion of the Castlebar waste water treatment plant was certified by An Bord Pleanála. An Bord Pleanála, in certifying the application made it a condition of such expansion that the importation of leachate (and sewage sludge) is discontinued when the new Castlebar waste water treatment plant is in place. An Bord Pleanála stated that *"No sewage sludge or landfill leachate from outside the expanded Castlebar Waste Water Treatment Plant shall be transported onto the site for processing at this location having regard to the limited assimilative capacity of the River system relative to the likely demands arising from within the Castlebar area."* In December 2006, authorisation was received from the Environmental Protection Agency to temporarily transport untreated leachate from Derrinnumera landfill to Westport waste water treatment plant for treatment and subsequent discharge to Clew Bay.
- 1.1.15 To cater for future requirements, Mayo County Council must source an alternative means for the treatment and disposal of the leachate generated in Derrinnumera landfill. Following best environmental practice it has been considered that the treatment of leachate should be conducted at source and as such it is proposed to treat the leachate at Derrinnumera landfill. Once the leachate is treated (in accordance with the discharge standards as will be specified by the Environmental Protection Agency) it will need to be discharged to the receiving environment. There are three theoretical options, 1) discharge to groundwater, 2) discharge to the Glaishty River and 3) discharge to the nearest coastal waters (i.e. Newport). Option 1 is not considered appropriate due to the significant volumes of treated leachate required to be discharged (approximately 500 m<sup>3</sup> per day). Option 2 is not considered appropriate due to the very low flow conditions in the Glaishty River. Option 3 is considered to be the best alternative solution and has been demonstrated in this EIS to be an environmentally sustainable option.

## 1.2 METHODOLOGY

- 1.2.1 The primary objective of the EIS is to identify the baseline environmental conditions in the area of the proposed development, to predict the potential beneficial and/or adverse environmental effects arising from the proposed development, and to propose appropriate actions where necessary to prevent adverse effects where predicted.
- 1.2.2 Specialist contributions to the EIS were made as follows:
- Noise Assessment:  
*ANV Technology Limited*
  - Air Quality:  
*AWN Consulting Limited*
  - Flora and Fauna (Terrestrial Ecology):  
*Biosphere Environmental Services*
  - Flora and Fauna (Marine & Freshwater Ecology):  
*Ecological Consultancy Services Limited (Ecoserve)*
  - Hydrodynamic Modelling:  
*Hydro Environmental Limited and Aquafact International Services Limited*
  - Cultural Heritage:  
*Aegis Archaeology Limited*
  - Landscape and Visual Impact:  
*Tiros Resources Limited*