Archaeological Underwater Inspection
Black Rock, Omeath, Co. Louth
17D0084, 17R0236
Archaeological Underwater Inspection
Black Rock, Omeath, Co. Louth
17D0084, 17R0236

Waste Water Treatment Plant project
Client: Moore Group for Irish Water

20/03/2018

Project Director
Niall Brady

Beverley Studios, Church Terrace, Bray, Co. Wicklow
www.adco-ie.com
# CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>2</td>
</tr>
<tr>
<td>LIST OF PLATES</td>
<td>2</td>
</tr>
<tr>
<td>1.0 INTRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>2.0 PROPOSED DEVELOPMENT</td>
<td>3</td>
</tr>
<tr>
<td>3.0 THE RECEIVING ENVIRONMENT</td>
<td>3</td>
</tr>
<tr>
<td>4.0 ARCHAEOLOGICAL METHOD</td>
<td>5</td>
</tr>
<tr>
<td>5.0 OBSERVATIONS</td>
<td>6</td>
</tr>
<tr>
<td>6.0 IMPACT ASSESSMENT</td>
<td>6</td>
</tr>
<tr>
<td>7.0 RECOMMENDATIONS</td>
<td>7</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Irish Water proposes to rehabilitate and extend the existing outfall in Omeath, Co. Louth that impacts with the seabed of Carlingford Louth beside the Black Rock, off Knocknagoran townland. ADCO was appointed by Moore Group to conduct an Underwater Archaeological Impact Assessment of the works location associated with the marine outfall element in advance of such works taking place.

The existing archaeological records do not indicate the presence of known archaeological sites or features in the area of the existing marine outfall or the footprint proposed for its extension.

The purpose of the archaeological work was to carry out an archaeological impact assessment of the proposed outfall extension location. Site work was carried out by diver survey on 22nd February 2018 under licence from the National Monuments Service at the Department of Culture, Heritage and the Gaeltacht, 17D0084, 17R0236.

The site was accessible, and inspection took place at the start of a filling tide. The work comprised an intertidal and a sub-tidal inspection.

A full record of the seabed was taken. No material of archaeological significance was observed.

The impacts arising from the proposed works carry low archaeological risk.

This report finds no archaeological reason why the proposed development should not proceed.

This report recommends that archaeological monitoring is conducted during ground and seabed disturbances associated with the scheme, with the proviso to resolve fully any material of archaeological significance observed at that point. The monitoring should be done by a licensed archaeologist experienced in marine archaeology.

Recommendations are subject to the approval of the National Monuments Service at the Department of Culture, Heritage and the Gaeltacht.
LIST OF FIGURES

Figure 1: Site location based on OS 1:50,000 Discovery Series mapping.
Figure 2: Extract from project drawing showing location of existing marine outfall and its proposed extension.
Figure 3: Extract from OS First Edition Map with location of existing marine outfall and proposed extension superimposed.
Figure 4: Extract historic and current map series.
Figure 5: Extract from project drawing showing location of existing marine outfall and its proposed extension, with extent of ADCO sub-tidal survey area superimposed.

LIST OF PLATES

Plate 1: Detail from Captain Greenville-Collins’ chart of Carlingford Lough in the mid-1600s, showing the area at Omeath.
Plate 2: View of project set-up operation conducted at Omeath Pier, showing SSDE used.
Plate 3: View from Southwest looking across intertidal foreshore towards the Black Rock at Low Water.
Plate 4: View looking North from the existing outfall towards the Black Rock, showing its bedrock extrusion and the navigation aid (Perch) positioned on it.
Plate 5: View looking West across intertidal foreshore showing the line of the existing outfall as a defined linear feature.
Plate 6: View looking East showing the existing outfall extending seawards as a defined linear feature.
Plate 7: View from West looking at surface of existing outfall, showing irregular rock protection over it.
Plate 8: Underwater view showing nature of seabed close by existing terminus of outfall.
1.0 INTRODUCTION

Irish Water proposes to rehabilitate and extend the existing outfall in Omeath, Co.Louth. The Archaeological Diving Company Ltd (ADCO) was appointed by Moore Group to conduct an Underwater Archaeological Impact Assessment of the works locations in advance of such works taking place, on behalf of TOBIN Consulting Engineers for Irish Water.

Site work was carried out by diver survey on 22nd February 2018 under licence from the National Monuments Service at the Department of Culture, Heritage and the Gaeltacht, 17D0084, 17R0236, at Knocknagoran townland. The licensed area was centred on ITM 714546E 816783N (Figure 1).

2.0 PROPOSED DEVELOPMENT

The proposed Omeath Sewerage Scheme will include the rehabilitation of an existing 225mm-diameter marine outfall and a 50m-long extension beyond the low water mark (Figure 2).

3.0 THE RECEIVING ENVIRONMENT

An archaeological assessment of the wider project scheme has been carried out by Moore Group. That report has examined the principal archival sources and assembled a robust catalogue of known terrestrial archaeological and cultural heritage sites and assets within the project area and included a walkover inspection of the works area noting cultural heritage sites. It is sufficient here to observe that Omeath remains a village of cultural heritage importance with a collection of medieval and later buildings. None of these features occur on the foreshore.

The intertidal foreshore and sub-tidal areas were not the subject of Moore Group’s assessment, but the report recognized the potential of this environment by recommending pre-construction underwater archaeological survey be carried out for the scheme.

1 No name, Outline construction methodology, Omeath Sewerage Scheme, unpublished report by Tobin’s for Irish Water, October 2016.
2 Declan Moore, Cultural heritage assessment for the Omeath Sewerage Scheme, Co. Louth, unpublished report issued to Tobin’s, March 2016.
3.1 Topography

Carlingford Lough is a shallow waterbody with an average depth of between 2m and 5m below Chart Datum (CD) and a deeper narrow channel along the centre of the Lough. In some locations near the seawards part of the Lough the channel is up to 30m below CD. There is a dredged channel up to Warrenpoint Port with a depth of approximately 5.4m below CD. Omeath lies off the dredged channel to Warrenpoint, and the project area crosses a wide intertidal area at Black Rock, extending a short distance into the Lough’s sub-tidal zone of some 3m below Chart Datum (Figures 3, 4d).

The Black Rock lies 270m offshore and marks the outer edge of the shore bank on the western side of the Lough. The edge of this bank extends north-westwards for some distance and the north western end of which is known as Carlingford Bank. The Rock is marked with a perch and is a low-lying bedrock extrusion.3

Early maps do not highlight any features of interest along this section of foreshore. A seventeenth-century chart of the Lough merely outlines the shape of the shoreline (Plate 1), while the Ordnance Survey First Edition six-inch series of the 1840s records the Black Rock in some detail and indicates the build-up of intertidal sands and shingle around it (Figure 3). Later editions of the OS maps show the progressive development of the foreshore, with the ‘Landing Place’ recorded to the northwest of the Black Rock. The landing place is referred to today as Omeath Pier. Perhaps the most instructive view of the project area is provided by Google Maps, where detailed ortho imagery captured at Low Water gives a clear indication of the intertidal foreshore and the presence and extent of the existing outfall, which runs just south of the Black Rock (Figure 4).

3.2 Shipwreck

Carlingford Lough is recognised as an area of archaeological and historic potential with numerous documented instances of historic shipwreck. The foreshore at Omeath is also part of the designated Special Area of Conservation that applies to the Lough.

There are no historic shipwrecking events provenanced to Carlingford Bank but there are two such events recorded at Omeath (Table 1). Both events occurred in the nineteenth century, and the precise location along the village’s shoreline of either event is not known.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Name</th>
<th>Date of Loss</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>W00002</td>
<td>Ada</td>
<td>04/09/1883</td>
<td>Schooner, driven from its moorings, went ashore, broke up</td>
<td>Omeath</td>
</tr>
<tr>
<td>W00050</td>
<td>Isabella</td>
<td>26/11/1820</td>
<td>Cargo of flax and butter, wrecked</td>
<td>Omeath</td>
</tr>
</tbody>
</table>

Table 1: Recorded shipwreck events at Omeath, Co. Louth

Source: Karl Brady, Shipwreck inventory of Ireland. Louth, Meath, Dublin and Wicklow (Dublin, Stationary Office, 2010).

One may conclude from the existing archaeological record that there are no known sites or features of cultural heritage importance recorded at the location of the present development.

4.0  ARCHAEOLOGICAL METHOD

The archaeological work required an underwater impact assessment. To achieve this, an archaeological dive team was mobilized to conduct intertidal and underwater inspection and metal-detection survey. In addition to a walkover inspection along the route of the existing marine outfall at Low Water, site work focused on the area around the Black Rock that will see an extension to the existing outfall.

The footprint for underwater inspection is quite small. A full spread of Surface Supplied Diving Equipment (SSDE) was presented to facilitate the work (Plate 2). Site work was conducted by Niall Brady archaeologist, Fergal Morrissey dive supervisor, Andrea Cerelli and Alan Walsh standby diver and tender. The sea state was slightly choppy due to the presence of a southerly airflow. Dive work proceeded by dropping into the water on the alignment of the existing outfall and towing the diver both seawards and returning landwards on the same route (Figure 5). The diver was able to inspect the seabed and conduct pendulum searches to either side. In this way, the seabed was inspected comprehensively.
5.0 OBSERVATIONS

5.1 Intertidal
The intertidal foreshore around Black Rock forms a wide expanse of kelp-strewn shingle and sand that drops away from the current shoreline defined by the existing roadway (Plate 3). The Black Rock is a low elevation of bedrock (Plate 4). The most notable feature across the foreshore is the line of the existing marine outfall, which extends East-West out from the shoreline, passing south of the Black Rock (Plates 5–6, Figure 4d). The outfall in places has a rock protection over it (Plate 7).

5.2 Sub-tidal
The sub-tidal element presents a contrasting picture seaward of the Black Rock. While there remains some element of stone and rock (Plate 8), the seabed is principally a soft mud surface that has a continuous grade out seawards with no noticeable drops in slope. On penetration (arm’s length), the mud continued beyond 700mm in depth.

Metal detection did not record any targets of interest.

5.3 Conclusions
The archaeological intertidal inspection was thorough. No features of archaeological interest were observed.

6.0 IMPACT ASSESSMENT

The impacts arising from the proposed works carry low archaeological risk.

Rehabilitation of the existing outfall pipe proposes to insert a flexible pipe-lining compound into the outfall and to cure this compound to form a new solid inner sleeve.

It is envisaged that the extension of the outfall will require pre-cast concrete collars which will be applied to the pipe to weigh it down underwater; limited ground disturbance can be anticipated with this work. The associated works will be achieved across the intertidal foreshore using land-based equipment.
7.0 RECOMMENDATIONS

This report finds no archaeological reason why the proposed development should not proceed.

7.1 Pre-construction Measures
None.

7.2 Construction Phase Measures
This report recommends that archaeological monitoring is conducted during ground disturbances associated with the scheme, with the proviso to resolve fully any material of archaeological significance observed at that point. The monitoring should be done by a licensed archaeologist experienced in maritime archaeology.

PLEASE NOTE: All of the above observations and conclusions are based on the archaeological information and information supplied for the Omeath WWTP scheme. Should any alteration occur, further assessment would be required.

PLEASE NOTE: the above recommendations are subject to the approval of the National Monuments Service at the Department of Culture, Heritage and the Gaeltacht.
Figure 1: Extract from OS Map showing the location of proposed marine outfall extension, Carlingford Lough, Meath, Co. Louth. [Thumbnail: satellite image of outfall location]
Existing Outfall Pipe extended to bed levels that give adequate cover to proposed diffusers.
Plate 1: Detail from Captain Greenville-Collins’ chart of Carlingford Lough in the mid-1600s, showing the area at Omeath, published as no. 33 in his Great Britain’s coasting-pilot…being a new and exact survey of the sea-coast…, London, 1693. The chart shows the coastline of the Lough and highlights its various castles and shallows. It shows the coastline in the area of Omeath and but does not show any detail of archaeological interest.

Plate 2: View of project set-up operation conducted at Omeath Pier, showing SSDE used.
Plate 3: View from Southwest looking across intertidal foreshore towards the Black Rock at Low Water.

Plate 4: View looking North from the existing outfall towards the Black Rock, showing its bedrock extrusion and the navigation aid (Perch) positioned on it.
Plate 5: View looking West across intertidal foreshore showing the line of the existing outfall as a defined linear feature.

Plate 6: View looking East showing the existing outfall extending seawards as a defined linear feature.
Plate 7: View from West looking at surface of existing outfall, showing irregular rock protection over it.

Plate 8: Underwater view showing nature of seabed close by existing terminus of outfall.