



Archaeological Desk-Based Assessment

for the proposed

**Ring Helvick Water Supply Scheme,
Dungarvan,
Co Waterford**

Undertaken on behalf of

**Irish Water,
C/O J.B. Barry & Partners Limited,
Tramway House,
32 Dartry Road,
Dublin 6.**

Client Ref: Ring Helvick Water Supply Scheme – Archaeological Services
Magnus Archaeology Ref: MA 1601 Dungarvan Waterford

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Table of Contents

Table of Contents	iii
Executive Summary	1
1 Introduction	3
1.1 Overview.....	3
1.2 Site Location.....	3
1.3 Proposed Development.....	3
2 Methodology	5
2.1 Overview.....	5
2.2 Aim and Objectives of the Study.....	5
2.3 Structure & Layout.....	5
2.4 Sources Consulted.....	6
3 Heritage Planning & Policy	9
3.1 Heritage Legislation.....	9
3.2 Local Authority Development Plans & Other Plans.....	11
3.3 Heritage Plans & Guidelines.....	13
4 Cartographic Background	15
4.1 Overview.....	15
4.2 Down Survey Map of Waterford, Decies (1656-8).....	15
4.3 Taylor & Skinner's Map of Dungarvan & Ring (1783).....	15
4.4 1 st Edition 6" Ordnance Survey Map (1841).....	15
4.5 1 st Edition 1" Ordnance Survey Map (1860-3).....	16
4.6 1 st Edition 25" Ordnance Survey Map (1904).....	17
4.7 Aerial Photography.....	18
4.8 Summary of Cartographic Assessment.....	18
5 Archaeological & Historical Background	19
5.1 Prehistoric Period (c.7500 BC – AD 500).....	19
5.2 Historic Period (c. AD 500 – present).....	20
5.3 UNESCO World Heritage Sites.....	25
5.4 National Monuments.....	26
5.5 Recorded Archaeological Sites & Monuments.....	26
5.6 Zones of Archaeology.....	29
5.7 Previous Archaeological Excavations & Investigations.....	29
5.8 Previous Archaeological Finds.....	30
5.9 Townlands, Baronies & Boundaries.....	30
6 Field Inspection	33
6.1 Overview.....	33
6.2 Results of site visit.....	33
6.3 Summary of Field Inspection.....	35
7 Conclusions & Recommendations	37
7.1 General Conclusions.....	37
7.2 Potential Impact on Archaeology.....	37
7.3 Recommendations.....	40
BIBLIOGRAPHY	44
Figures	
Plates	

List of Figures

- Figure 1:** Map of the proposed scheme (after JB Barry Y13314) showing the proposed pipeline (red) and area for the reservoir sites. Recorded Monuments (RMPs) within 100m of the proposed development are shown (yellow stars) as are RMPs where the development crosses within their respective notification zones (red stars).
- Figure 2:** Taylor & Skinner's Map of 1783 showing Dungarvan. Note the Youghal road is not depicted, but a different road is marked for Youghal. This would suggest the Youghal road along the coast was built in the early 19th century
- Figure 3:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Shanacloon Church & Graveyard
- Figure 4:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Ballyharahan Holy Well
- Figure 5:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing area of Ballynagaul Souterrain
- Figure 6:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing River Brickey Bridge
- Figure 7:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Robert's Cross end of the Reservoir Site Area
- Figure 8:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing the Byrne's Cross end of the Reservoir Site Area
- Figure 9:** 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing the Robert's Cross / Byrne's Cross Reservoir Site Area. Slieve Grainn is open and unenclosed, with only some small field enclosures along the periphery.
- Figure 13:** Archaeological Mitigation Area 2 (blue) with the proposed pipeline (red)
- Figure 14:** Archaeological Mitigation Area 3 (River Brickey Bridge River Crossing) and Mitigation Area 4 (Holy Well - both in blue) with the proposed pipeline (red).
- Figure 15:** Archaeological Mitigation Area 5 (Robert's Cross / Byrnes Cross - in blue) with the proposed pipeline (red). The footprint of the reservoir within this area, when decided, is to be subject to archaeological testing. The original sites considered are highlighted in green
- Figure 16:** Archaeological Mitigation Area 6 (in blue) with the proposed pipeline (red)
- Figure 17:** Archaeological Mitigation Area 7 (in blue) with the proposed pipeline (red)

List of Plates

- Plate 1:** View of Springmount Pumping Station at the Spring Roundabout.
- Plate 2:** View of the N25 Dungarvan Bypass (1987) looking south. The pipeline will be laid within the eastbound carriageway.
- Plate 3:** View of the N25 Dungarvan Bypass Youghal Road section, looking north showing reclaimed foreshore. The pipeline will be laid in the north bound road verge.
- Plate 4:** View of the N25 Dungarvan Bypass Youghal Road section, looking north. Note how the road has been widened and the level lowered. The pipeline will be laid in the south bound road verge / hard shoulder.
- Plate 5:** View of the proposed River Brickey crossing from River Brickey bridge, looking north at the proposed crossing site. It is currently envisaged that the pipeline will be laid within the deck of the bridge, but if this is not possible the crossing will be made by directional drilling and will not impact on the river banks or channel.
- Plate 6:** View of the proposed River Brickey crossing site, looking east. If the crossing is by directional drilling, then it will be constructed from this field. The river Brickey is behind the trees to the right.
- Plate 7:** View of the proposed River Brickey crossing site, looking south. The river Brickey is behind the field boundary.
- Plate 8:** View of the R674 looking east. This road was built as part of the Dungarvan to Youghal trade route in the early 19th century, and has been widened in modern times. The pipeline will be laid within the road.
- Plate 9:** View of the R674 looking west. This road was built as part of the Dungarvan to Youghal trade route in the early 19th century, and has been widened in modern times. The pipeline will be laid within the road.
- Plate 10:** View of the R674 at Shanacloon. The graveyard is to the right. Note the retaining walls where the road appears to have been widened. The pipeline will be laid within the road.
- Plate 11:** View of the Graveyard RMP WA036-008002 at Shanacloon. The Church RMP WA036-008001 is located within the graveyard to the right. The pipeline will be laid within the road.
- Plate 12:** View of the R674 at Shanacloon. The Graveyard RMP WA036-008002 is to the right, out of picture. Note the recently restored structure which is shown on the 1841 Ordnance Survey. Holy Well RMP WA036-007 lies among the trees to the left. The pipeline will be laid within the road.
- Plate 13:** View of the R674 at Ballynagaul. Souterrain RMP WA036-025 is located close to the road (centre left). Note the modern footpath and street lighting, and the recently widened road. The pipeline will be laid within the road.
- Plate 14:** View of the area of the proposed reservoir looking from Robert's Cross towards Byrne's Cross (hidden behind the hill). The exact location is yet to be determined.
- Plate 15:** View of the area of the proposed reservoir looking northwest from Byrne's Cross towards Robert's Cross (hidden behind the hill). The exact location is yet to be determined.
- Plate 16:** View of the area of the proposed reservoir looking northwest from Byrne's Cross towards Robert's Cross (hidden behind the hill). The exact location is yet to be determined.
- Plate 17:** View of the Standing Stone at Gates. It has been assessed by the archaeological survey of Ireland to have been erected in modern times and is therefore not archaeologically significant.

Executive Summary

The Ring Helvick Water Supply Scheme, Dungarvan, Co Waterford development proposal is towards the provision of a new pipeline and reservoir areas, to be constructed within the study area. The pipes will be laid within the road for most of the scheme, and in the verge for the section along the N25. New reservoirs will be constructed on Greenfield sites.

Main Findings

- There are no National Monuments within the site or in the wider area. Ministerial Consent will not be required for the scheme.
- There are no Recorded Monuments (RMP) within the proposed scheme area. A number of other Recorded Monuments (RMPs) occur in close proximity to the proposed scheme and include Holy Wells (RMP WA036-003 & WA036-007), a Graveyard (RMP WA036-008002) and Souterrain (RMP WA036-025). These sites will not be directly impacted by the proposed development.
- Parts of the proposed scheme lies within the notification zone (immediate surrounding area) of four Recorded Monuments (RMPs); Shanacloon Church & Graveyard (RMP WA036-008001, 2 & 3) and Ballynagaul More Souterrain (RMP WA036-025). Written notification must be made to the National Monuments Service two months prior to the commencement of any works in these areas using the required form.
- No archaeological finds are recorded from the proposed scheme area or the immediate surrounding area. The proposed scheme area is not within a Zone of Archaeology.
- Seven areas have been identified by the assessment as having the potential to contain archaeological material. These are at N25 Youghal Road (Area 2), River Brickey Bridge (Area 3), Ballyharrahan (Area 4), Robert's Cross / Byrne's Cross Reservoir (Area 5), Shanacloon (Area 6) and Ballynagaul (Area 7).
- The cartographic & historical assessment has suggested that much of Regional Road R674 and Old Parish Road to Moanfoun was constructed in the early 19th century as a new trade route from Dungarvan to Youghal. The road around Ballynagaul, from Killinoorin to Rathnameneenagh and a short section to Helvick coastguard station also appear to be 19th century constructions.
- The N25 Dungarvan Bypass and Youghal Road upgrade was completed in 1987. Part of the scheme involved the reclamation of a stretch of foreshore from Dungarvan Bay.

Recommendations

- It is recommended that Pre-development Archaeological Test Trench Excavation on the footprint of the proposed Reservoir site at Robert's Cross / Byrne's Cross (Area 5) be undertaken prior to the commencement of any site works in these areas. The exact location of the reservoir has yet to be determined
- It is recommended that Pre-development Archaeological Test Trench Excavation on the footprint of the proposed River Brickey Crossing Tunnel Site (Area 3) be undertaken prior to the commencement of any site works in this area. This recommendation does not apply if the pipeline can be laid within the deck of the bridge and other options for the crossing are not necessary.
- It is recommended that Archaeological Monitoring be undertaken at Areas 2, 3*, 4, 6, & 7 for both the Site Investigation and Construction stages of the project. Area 3 only applies if it is not possible to lay the pipeline within the deck of the existing bridge.

Notes

- Further archaeological mitigation measures may be required depending on the results of the Test Trench and monitoring investigations.
- If the River Brickey Crossing is progressed as a pipeline laid within the deck of the bridge then no archaeological mitigation will be necessary in this area (Area 3).
- Further archaeological mitigation measures may need to be agreed with the National Monuments Service for the River Brickey Crossing if the directional drilling option is not progressed and other options are considered.

1 Introduction

1.1 Overview

Irish Water are currently progressing the Ring Helvick Water Supply Scheme. As part of this project, an agreement has been reached with Waterford City and County Council to provide a cohesive water network by interconnecting the existing individually fed zones, commencing at the Springmount pumping station and running to the Ring peninsula with new storage facilities at Roberts Cross / Byrnes Road reservoir. JB Barry and Partners Limited have been engaged by Irish Water to act as Employers Representative for the Project. Magnus Archaeology has been engaged to undertake a desk-based Archaeological Assessment of the proposed scheme. The scheme has seen a number of revisions and the assessment has been amended to follow these revisions.

1.2 Site Location

The site of the proposed new development stretches from the Springmount Pumping Station site next to the Spring Roundabout on the N25 in Dungarvan, south along the N25 to Killongford, then along the R674 to Ballynacourty and Helvick, and some local roads to the south finishing at Moanfoun.

1.3 Proposed Development

The development proposal primarily involves the construction of a 200mm trunk main from the Springmount pumping station site next to the Spring Roundabout on the N25 in Dungarvan to the proposed Roberts Cross / Byrnes Road reservoir site, the construction a new reservoir and the upgrading/laying of new distribution water mains along the routes as shown in the accompanying figures.

The pipe routes will be primarily within the road, however on the N25 from the Youghal Road Roundabout to the N25/R674 road junction, the works will be constructed within the road verge.

On the N25 the proposed 200mm trunk main is required to cross the River Brickey. While a number of options are being considered, at the time of this report it is intended to lay the pipeline within the deck of the bridge. If this is not possible, directional drilling under the River Brickey will be progressed as the preferred option.

2 Methodology

2.1 Overview

Magnus Archaeology has undertaken a desk based archaeological assessment of the site of a proposed development at Dungarvan, Ring and Helvick (see Figure 1). The site of the proposed new development stretches from the Springmount Pumping Station site next to the Spring Roundabout on the N25 in Dungarvan, south along the N25 to Killongford, then along the R674 to Ballynacourty and Helvick, and some local roads to the south finishing at Moanfoun. The scheme has seen a number of revisions and the assessment has been amended to follow these revisions.

2.2 Aim and Objectives of the Study

The aim of the study is to produce a desk based archaeological assessment of the proposed study area. The assessment looks to identify any archaeological features that may survive on site with a particular focus on the area identified for development. It is also intended to give a comprehensive understanding of the historical development of the site and to assess the potential for any unknown archaeological material. The main objective of the study is to identify and quantify any further archaeological work that may be deemed necessary prior to or during the planning and pre-construction phase of the project and to ensure that the works pay due cognisance to the archaeological heritage of the area it will impact upon.

'The services to be provided by the Archaeological Consultant are as follows: A. Carry out a desk study of the archaeology features present within the proposed works area for the proposed site investigation and main works contracts. B. Production of a report describing the archaeology of the area and identifying the archaeological constraints present. The report shall list any proposed mitigation measures or further archaeological works required for both the site investigation and main works contracts and comment on any necessary mitigation measures'.

Archaeological Studies Specification

The results of this assessment are seen as vital information for the proper planning of the development in that they will allow the client the opportunity to design a scheme that will have a minimum impact on any surviving archaeology on site.

2.3 Structure & Layout

The report has been designed to give a logical and structured account of the tasks that have taken place, allowing the reader to follow the processes in formulating an appropriate archaeological assessment for the site. The reader is initially given an overview of the project, the location of the site and a brief description of the proposed development. Chapter 2 outlines the reasons for the commissioning of the report, giving the aims and objectives of the study as well as explaining how it is structured and presented. The approach taken and the sources consulted are subsequently listed and explained. This allows the reader to get a clear knowledge of the tasks that were undertaken in coming to the final conclusions and allowing recommendations to be made. Chapter 3 introduces the reader to the various relevant legislation and statutory plans relating to archaeology and heritage that must be taken into consideration, including Development Plans and Local Area Plans. Chapter 4 commences the archaeological assessment of the site with an analysis of the available historic mapping, illustrating how the site changed over time. Augmented by an analysis of aerial photography, a clear picture of change in the last 175 years is presented. Chapter 5 provides an archaeological and historical background to the area, accompanied by an analysis of national monuments, archaeological monuments, archaeological artefacts (finds) and previous archaeological excavations that are within or occur in the vicinity of the site. The results of a field inspection in

Chapter 6 complete the baseline tasks and allow the assessment conclusions to be presented in Chapter 7 along with the recommendations.

2.4 Sources Consulted

Archaeological Sites and Monuments & National Monuments

The Sites and Monuments Records (SMR) files and Record of Monuments and Places (RMP) maps were consulted for the study area. These files contain details from aerial photographs, early maps, OS memoirs, OPW Archaeological Survey notes and other relevant publications, and are held in the Sites and Monuments Records Office, Dublin.

Archaeological Artefacts in the National Museum of Ireland

Archaeological artefacts ('finds') are housed in the National Museum of Ireland. The topographical files (a paper archive held by the Museum) were consulted to see if any archaeological artefacts have been discovered within or close to the study area.

Archaeological Artefact Catalogues & Other Published Sources

Previously published artefact catalogues (such as those from scholars George Eogan, Peter Harbison and Barry Raftery) provide a comprehensive resource and often provide clear geographical locations for archaeological artefacts. References in other important publications to artefacts recovered from the study area are also valuable sources, such as those in Samuel Lewis' 19th century Topographical Directory of Ireland.

Archaeological Excavations Bulletins

The Excavations.ie database was consulted for previous archaeological excavations in the study area. The database contains summary accounts of all the excavations carried out in Ireland – North and South – from 1970 up to and including 2016 (although recent years are not complete).

Shipwreck Inventory of Ireland

The Underwater Archaeology Unit (UAU) of the National Monuments Service is engaged in the compilation of an inventory of shipwrecks recorded in Irish waters. The Shipwreck Inventory of Ireland includes all known wrecks for the years up to and including 1945 and approximately 17,000 records have been compiled and integrated into the shipwreck database thus far. The Shipwreck Inventory is principally a desktop survey with information gathered from a broad range of cartographic, archaeological and historical sources, both documentary and pictorial.

Cartographic Research & Aerial Photography

Primary cartographic sources consulted included the early editions of the Ordnance Survey 6" and 25" maps as well as their revised editions. Additional earlier cartographic sources were also examined such the Down Survey (1657) and Taylor & Skinner (1783). Available aerial photographs of the study area were assessed, including the Ordnance Survey of Ireland orthophotos, the National Museum of Ireland collections and various internet photographic resources such as Google Earth and Bing Maps.

Local Authority Development Plan

The relevant sections of the Dungarvan Town Development Plan 2012 – 2018 & Waterford County Development Plan 2011-2017 was consulted to highlight significant sites within the study area as well as to recognise any policies or objectives that may be relevant to the project.

Journals, Newspapers & On-line resources

A wide range of other sources ranging from books, journals, newspaper articles and various on-line internet resources were consulted in compiling an appropriate archaeological and historical background for the assessment.

3 Heritage Planning & Policy

It is important to consider the study taking due cognisance of planning and policy for the area. The following planning policies, plans and legislation were considered during the course of this assessment.

3.1 Heritage Legislation

National Monuments Act 1930 (amended)

The principal legislative instrument in Ireland for the protection of archaeological heritage is the National Monuments Act 1930 (amended). Under the Act, different levels of protection apply to a monument depending on which category it falls under. A monument is protected in one of four ways:

- If it is a **National Monument** in the ownership or guardianship of the Minister for Arts, Heritage and the Gaeltacht or a Local Authority.
- If it is a **National Monument** subject to a preservation order (or temporary preservation order).
- If it is a **Recorded Monument** in the Record of Monuments and Places (RMP).
- If it is a **Registered Monument** in the Register of Historic Monuments (RHM).

When works are planned in or around a National Monument, under Section 14 of the Act written consent from the Minister for the Arts, Heritage & Local Government must be obtained for such works. There are currently c.1,000 National Monuments in the country in State care.

National Monuments

'For National Monuments in the ownership or guardianship of the Minister or a local authority or which are subject to a preservation order, the prior written consent of the Minister is required for any works at or in proximity to the monument.'

National Monuments Service

The Record of Monuments and Places (RMP) is the most widely applying provision of the National Monuments Acts. It comprises a list of recorded monuments and places and accompanying maps on which such monuments and places are shown for each county. This Record, along with the Register of Historic Monuments (RHM) is contained within the Sites and Monuments Record (SMR) of the National Monuments Service. The National Monuments Act 1930 (amended) gives a level of protection to RMPs and RHM within the Sites and Monuments Record (SMR). These sites are known as Recorded Monuments. There are currently c.135,000 designations within the country.

Recorded Monuments

'When the owner or occupier of a property, or any other person proposes to carry out, or to cause, or to permit the carrying out of any work at or in relation to a Recorded Monument they are required to give notice in writing to the Minister 2 months before commencing that work. This is to allow the National Monuments Service time consider the proposed works and how best to proceed to further the protection of the monument.'

National Monuments Service

Heritage Act, 1995

The Heritage Act 1995 is the primary piece of legislation in Ireland governing heritage, essentially an Act to promote public interest in, and knowledge, appreciation and protection of, the National Heritage. It was an Act “to promote public interest in and knowledge, appreciation and protection of the national heritage, to establish a body to be known as an *Chomhairle Oidhreachta* (The Heritage Council), to define its functions, to provide for the exercise by the Minister for Arts, Culture and The Gaeltacht of functions in relation to the national heritage and to provide for other matters connected with the matters aforesaid”. The Act provides a definition of ‘heritage’ which is truly comprehensive and includes: monuments; archaeological objects; heritage objects such as art and industrial works; documents and genealogical records; architectural heritage; flora and fauna; wildlife habitats; landscapes and seascapes; wrecks; geology; heritage gardens; parks and inland waterways (Heritage Council).

National Cultural Institutions Act, 1997 (amended)

The National Cultural Institutions Act sets the framework within which the Cultural Institutions within the state must operate, such as the National Museum of Ireland, The National Library of Ireland, The National Gallery of Ireland and many more. Among the more important elements of the act is its definition of a ‘museum heritage object’ as any object in the collection of the Museum on the Museum Establishment Day, any object (including archaeological objects, objects relating to the decorative arts or natural sciences or to history or industry or folk life) over 25 years old considered appropriate by the Board for inclusion in the collection of the Museum concerning human life in Ireland, the natural history of Ireland, and of the relations of Ireland with other countries, and any other similar objects.

Planning and Development Acts 2000-2014

The principal legislative instrument for the protection of architectural and cultural heritage in Ireland is the Planning and Development Acts 2000-2014. The Planning and Development Act 2000 requires each planning authority to compile and maintain a Record of Protected Structures (RPS). The RPS is a mechanism for the statutory protection of the architectural heritage and forms part of each planning authority's development plan.

Granada Convention on the Protection of the Architectural Heritage of Europe, 1985

The European Convention on the Protection of the Architectural Heritage of Europe (Granada Convention) was agreed in 1985 and ratified by the Irish Government in 1997. It provides the basis for the protection of the architectural heritage in Ireland. It states conservation principles and includes definitions of what is meant by architectural heritage such as monuments, groups of buildings and sites. It aims to achieve a European-wide standard of protection for architectural heritage while emphasising the importance of preserving the architectural heritage for future generations. Among the more important elements of the convention is the definition of architectural heritage allowing for the inclusion of structures, groups of structures and sites which are considered to be of significance in their own right, or which are of significance in their local context and environment

Valetta Convention on the Protection of the Archaeological Heritage, 1992

The European Convention on the Protection of the Archaeological Heritage was ratified by Ireland in 1997. The aim of the Convention is to ‘protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study’ (Article 1). The State is obligated to provide statutory protection measures for the archaeological heritage and designate protected monuments and areas; Regulate excavations and other archaeological

activities; Provide measures for the physical protection of the archaeological heritage; Provide for consultation between archaeologists and planners so as to ensure that full consideration is given to archaeological requirements; Provide public financial support for archaeological research and public or private financial support (as appropriate) for rescue archaeology; Facilitate the study of archaeological discoveries and educate the public in relation to the value of the archaeological heritage and the threats to it, promoting public access to important elements of this heritage, and encouraging public display of selected archaeological objects (NMS 1999).

UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972

UNESCO's Convention Concerning the Protection of the World Cultural and Natural Heritage was drawn up in 1972 and ratified by Ireland in 1991. It recognises that the cultural and natural heritage is threatened with increasing destruction and places a duty on individual countries to ensure identification, protection, conservation, presentation and transmission for future generations.

UNESCO Convention on the Protection of the Underwater Cultural Heritage, 2001

UNESCO's Convention Concerning the Protection of the Underwater Cultural Heritage was drawn up in 2001 and is in the process of being ratified by Ireland. The Convention sets out basic principles for the protection of underwater cultural heritage and provides a detailed State cooperation system along with widely recognized practical Rules for the treatment and research of underwater cultural heritage. The main principles are an Obligation to Preserve Underwater Cultural Heritage; Preservation as first option before allowing or engaging in any activities; No Commercial Exploitation of underwater cultural heritage and Training and Information Sharing, encourages training in underwater archaeology, the transfer of technologies and the sharing of information (UNESCO)

3.2 Local Authority Development Plans & Other Plans

Waterford County Development Plan 2011 – 2017

Policies and Objectives within the Waterford County Development Plan 2011 – 2017 aim to protect and enhance archaeological heritage within the council area. The following are a list of policies that are directly relevant to the study;

- Policy AH 14 - It is the policy of the Council to protect, conserve and preserve the integrity of archaeological monuments and their settings and archaeological objects within the County, and those buildings and sites which have been identified on the RMP.
- Policy AH 15 - It will be an objective of the planning authority to secure the preservation (ie: preservation in-situ or, as a minimum, preservation by record) of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of site features and objects of archaeological interest generally. In securing such preservation the planning authority will have regard to the advice and
- recommendations of the Department of Environment, Heritage and Local Government, both in respect of whether or not to grant planning permission and in respect of the conditions to which permission, if granted, should be granted.
- Objective AH 3 - It is an objective of the Plan to ensure that development in the vicinity of a site of archaeological interest shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing. When considering development in the vicinity of all archaeological sites including town defences, the planning authority will require the preparation of an archaeological assessment detailing the potential impact of any development on upstanding structures, buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains.

Dungarvan Town Development Plan 2012 – 2018

Policies and Objectives within the Dungarvan Town Development Plan 2012 – 2018 aim to protect and enhance heritage within the council area. The following are a list of policies that are directly relevant to the study;

- Policy BH 1 It is a policy of Dungarvan Town Council to protect the built heritage and to encourage sensitive development or reuse of buildings to promote economic growth and regeneration.
- Policy BH 2 It is the policy of the Dungarvan Town Council to administer incentives for the protection of the built heritage of the County through administration of the Conservation Grant Scheme or provide information on other relevant schemes
- Policy BH 3 It is the policy of the Council to maintain a Record of Protected Structures within the Town to protect all the structures or parts of structures which are of historical, architectural, artistic, archaeological, social, scientific, technical and cultural interest.
- Policy BH 4 Demolition of a Protected Structure can only be considered in exceptional circumstances and the onus will be on the developer to provide the strongest justification for such an action.
- Policy BH 5 It is the policy of the Council to promote and retain original building fabric such as the original walls, lime mortar, slate, thatch, ironwork and joinery details such as timber sash windows, shopfronts, doorways and bargeboards. Where traditional features such as sliding sash windows have been removed, their reinstatement shall be encouraged
- Policy BH 6 Within Architectural Conservation Areas , it is the policy of the Council to: Identify, protect and enhance the unique character of a streetscape by providing guidelines on appropriate development to retain its distinctive character; Protect elements of the streetscape such as rubblestone boundary walls, and street furniture such as paving, post boxes, historic bollards, basement grills, street signage/plaques, etc. which make a positive contribution to the built heritage; Promote sensitive reuse and/or alterations of buildings of historic character. Proposed works shall not detract from the building and shall make a positive contribution to the character of the building/streetscape or setting; Ensure that the design of new buildings within such a streetscape respects the established character of the area in height, scale and massing.
- Policy BH 7 It is the policy of the Council to promote a high standard of civic amenity and design and to respect existing open spaces, urban spaces, vistas and streetscape. The Council shall consider the receiving environment when erecting signage, undertaking road markings, parking spaces, planting and road and footpath access works, and ensures that all such works are sensitive to the character of the public realm
- Policy BH 8 It is the policy of the Council and to encourage the sensitive redevelopment of vacant or derelict sites in the streetscape. Objective BH 1 Establishing Grattan Square as a civic and amenity space for the town while integrating it with other main retail area and areas of visitor interest. Objective BH 2 Promote the sustainable reuse and refurbishment of vacant upper floors of town centre buildings for residential use.
- Policy BH 9 It is the policy of the Council to protect, conserve and preserve the integrity of archaeological monuments and their settings and archaeological objects within the county, and those buildings, sites and which have been identified on the RMP.
- Policy BH 10 It is the policy of the Council to secure the preservation 'in situ' of archaeological remains and settings in accordance with government of all archaeological monuments included in the Record of Monuments (Amendment) Act, 1994 and sites, features and objects of archaeological interest generally. In securing such preservation, the Planning Authority will fully take into account the advice and recommendations of the Department of Environment, Heritage and Local Government, both in respect of whether or not to grant permission and in respect of the conditions to which permission, if granted, should be subjected.
- Policy BH 11 It is a policy of the Plan to ensure that development in the vicinity of a site of archaeological interest shall be designed and sited sympathetically and shall not be detrimental to the character of the archaeological site or its setting by reason of its location, scale, bulk or detailing.
- Policy BH 12 When considering development in the vicinity of all archaeological sites including remnants of the town walls, the planning authority will require the preparation of an archaeological assessment detailing the potential impact of any development on upstanding structures, buried structures and deposits. The report will also include a visual impact assessment to ensure adequate consideration of any potential visual impact the proposed development may have on any upstanding remains.
- Policy BH 13 Promote public awareness of the rich archaeological and architectural heritage of Dungarvan by providing signage

- Policy BH 14 It is the policy of the Council to apply best practise in the care and management of historic graveyards as detailed in the guidance document on the “ Care, Conservation and Recording of Historic Graveyards in County Waterford” published by Waterford County Council in 2009 and the department of Arts, Heritage and the Gaeltacht website

3.3 Heritage Plans & Guidelines

The National Heritage Plan (2002)

The National Heritage Plan (NHP) was published by the Department of Arts, Heritage, Gaeltacht and the Islands in 2002. It is an objective of the government to ensure the protection of Ireland’s heritage and to promote its enjoyment by all. The NHP notes that ‘the protection of heritage represents an ongoing commitment by the people of Ireland’ and that the planning code and the EIA process are valuable tools that can be used to protect national heritage. According to the plan, in seeking to meet this objective, the government will place the protection and enjoyment of heritage at the heart of public life, promote the measures required for the protection of our heritage, encourage the accumulation of the knowledge necessary to protect our heritage, promote awareness and enjoyment of our heritage and play an active role in heritage protection in a cross-border and international context.

County Waterford Heritage Plan 2006 - 2010

The County Waterford Heritage Plan was published by Waterford County Council in 2006. The Plan covers all of Waterford (the administrative area of Waterford County Council). The aim of the Plan is ‘*Collect and disseminate information on the heritage of County Waterford and make it available, Raise the level of awareness of heritage in County Waterford, Promote cooperation between various groups and individuals interested in heritage and Promote best practice with regard to our heritage.*’

Office of Public Works Statement of Strategy, 2005-2008

The Office of Public Works is responsible for the operational management of a large number of key heritage sites and buildings nationwide. Providing access and visitor facilities for the public at these sites is an integral part of this role. It is stated that the OPW will ‘*continue to develop the presentation and protection of Heritage sites under our care....will maximize public access where possible and build on [the OPW’s] strong reputation for sites management to ensure continued visitor interest and support.*’ It is a Key Objective to maximize the opportunities to provide greater public access to heritage sites and present them to visitors.

Guidelines on the information to be contained in Environmental Impact Statements, 2002

The Guidelines prepared by the Environmental Protection Agency (EPA) were published with the primary objective of improving the quality of Environmental Impact Statements in Ireland as it was believed that quality improvements would result from better scoping and a closer integration of EIA into both the design and development control processes. The 1992 Environmental Protection Agency Act provided for the preparation by the EPA guidelines on the information to be contained in an Environmental Impact Statement. Those preparing and evaluating Environmental Impact Statements must have regard to the guidelines.

Advice notes on Current Practice (in the preparation of Environmental Impact Statements), 2003

The Advice Notes published by the Environmental Protection Agency (EPA) were designed to accompany the Guidelines on the information to be contained in Environmental Impact Statements (2002). They contain greater detail on many of the

topics covered by the Guidelines and offer guidance on current practice for the structure and content of Environmental Impact Statements.

The Framework and Principles for the Protection of the Archaeological Heritage, 1999

This publication is a comprehensive statement of national policy on the protection of the archaeological heritage. It sets out to guide through the body of protective legislation built up over the years (such as the National Monuments Act 1930, the Heritage Act 1995 and the National Cultural Institutions Act 1997) as well as to illustrate the State's broad central administrative and professional structures which oversee the protection of the archaeological heritage.

4 Cartographic Background

4.1 Overview

Ireland is well served with accurate historic mapping, and an international first was achieved with the Ordnance Survey 6" survey of the whole island in the early 19th century setting the standard globally. Up until that point, no country had been systematically covered using the most modern survey techniques. Subsequent editions and surveys have allowed scholars the opportunity to assess and record the changes in the Irish landscape from the beginnings of the industrial revolution up to the present. In addition to the Ordnance Survey some earlier works also stand out, but tend to be limited to the major urban areas. Taylor & Skinner (1783) produced a set of road maps for the entire country that can be compared to the Ordnance Survey of the early 19th century. In addition modern mapping is rapidly becoming based on aerial photography, allowing almost constant updating where previously 40 years may have elapsed between editions. These resources combined together provide a timeline in the development of the land at Dungarvan, Ring and Helvick, County Waterford.

4.2 Down Survey Map of Waterford, Decies (1656-8)

The Civil survey was carried out in the aftermath of Oliver Cromwell's conquest of Ireland as a tool with which land could be transferred to those who had financially supported Cromwell's campaign. It is 'a collation of landowner records, standardized to townland level. The value of each townland was determined as at 23 October 1641, the outbreak of the Rebellion. The valuations, collated and assembled in Dublin, were based on rents and improvements; buildings, mills and market days. The Civil Survey did not involve the making of maps, but a detailed boundary description was made for each barony and parish' (Down Survey Project, TCD). The Down Survey was commissioned due to complaints about the accuracy of the Civil Survey. Undertaken by William Petty, it included maps of land holdings made by placing chains 'Down' on the ground – hence the name. While produced at a small scale, it often depicts important information. Dungarvan town is depicted in the County, Barony and Parish maps without much detail. Only the Barony maps survive for Ring and Helvick, but the church site at Seanchluain is depicted.

4.3 Taylor & Skinner's Map of Dungarvan & Ring (1783)

Taylor & Skinner's Road Map of Ireland of 1783 shows Dungarvan and the general surrounding area, but does not depict anything south to Killongford, Ring and Helvick (see Figure 2).

4.4 1st Edition 6" Ordnance Survey Map (1841)

The 1st edition 6" Ordnance Survey map (WD031) of the area was surveyed in 1841. The area of the proposed development can be broken down into sections for ease of clarity.

Springmount Pumping Station & N25 Dungarvan Bypass

The Dungarvan bypass opened in 1987 and occupies an area originally depicted as large open fields on the edge of a flood plain along a drainage channel leading to Dungarvan Bay. The road runs roughly along the line of a townland boundary to a roundabout on the coast, part of which is shown as foreshore.

N25 Youghal Road to N25/R674 Junction

Upgraded in 1987, a substantial stretch (c.350m) of this road is shown as foreshore in the early Ordnance Survey maps. The remaining section is shown as a narrower road with buildings sporadically located along the length to River Brickey Bridge. The bridge appears as a short narrow structure with causeways leading from both sides to the narrow span over the river. From River Brickey bridge the N25 veers west through undeveloped fields, as is the N25/R674 junction and first c250m of the R674.

Regional Road R674 to Helvick

The road from the N25/R674 junction at Ballyharahan to Robert's Cross was in the early 19th century the principal route from Dungarvan to Youghal. Lewis states that the road was constructed specially for this trade route in the early years of the 19th century. The present road follows the route apart from a small realignment at the boundary of Ballyharahan and Shanbally. From Robert's Cross to Helvick the road appears as it is today, apart from a small realignment at Crows Point. The road appears to cut across existing field patterns, supporting Lewis' claim about its construction. At Robert's Cross the road joins an earlier road, and continues into Ballynagaul and on to Helvick, where the final stretch appears to have been built specially for the coastguard station. At Shanacloon, the church site is shown in ruins, and a number of structures line the road. A Holy Well and mound are also depicted to the north. The area also sees a convergence of townland boundaries.

Robert's Cross / Byrnes Cross Reservoir Site Area

This area is dominated by a steep hill, known as Slieve Grainn (Sliabh gCruinn). It is bounded by the 19th century Dungarvan to Youghal road which defines it to the north, east and south sides. Some small peripheral settlement is depicted at the Robert's Cross end, as well as at Byrne's Cross. The roads to the east follow sunken gullies. Not much field enclosure has taken place and much of the high area is open land. A number of isolated structures are depicted (see Figures 7 & 8).

Local Roads at Byrne's Cross

The road from Robert's Cross to Byrne's cross, orientated in a north-south direction, was built as part of the new road from Dungarvan to Youghal in the early 19th century.

Local road from Killinoorin to Rathnameneenagh

The road from Killinoorin south along the coast to Rathnameneenagh is an early 18th century construction, as it appears to cut across many of the established field boundaries. No archaeological features were observed.

Old Parish Road from Robert's Cross to Moanfoun

The road was in the early 19th century the principal route from Dungarvan to Youghal. Lewis states that the road was constructed specially for this trade route in the early years of the 19th century. A 'dispensary' is shown at Barranastook.

4.5 1st Edition 1" Ordnance Survey Map (1860-3)

The 1st edition 1" Ordnance Survey map of the area was published between 1860-3 and shows the proposed development site much as it was depicted twenty years earlier.

4.6 1st Edition 25" Ordnance Survey Map (1904)

The 1st edition 25" Ordnance Survey Map of the area was completed in 1904.

Springmount Pumping Station & N25 Dungarvan Bypass

There is little difference between the 1st edition map. The Dungarvan bypass opened in 1987 and occupies an area originally depicted as large open fields on the edge of a flood plain along a drainage channel leading to Dungarvan Bay. The road runs roughly along the line of a townland boundary to a roundabout on the coast, part of which is shown as foreshore.

N25 Youghal Road to N25/R674 Junction

Very little difference is shown between the 1841 and 1904 Ordnance Survey maps. As described above, a substantial stretch (c.350m) of the N25 is shown as foreshore. The remaining section is shown as a narrower road with buildings sporadically located along the length to River Brickey Bridge. The bridge appears different to that depicted in 1841, and has had a quay constructed beside it. From River Brickey bridge the N25 veers west through undeveloped fields, as is the N25/R674 junction and first c250m of the R674.

Regional Road R674 to Helvick

The road is depicted mostly similar to that in the 1841 Ordnance Survey. Some new structures have appeared bordering the road, including the Ringville Dispensary to the west of Shanacloon.

Robert's Cross / Byrnes Cross Reservoir Site Area

There is very little change to the area from that depicted in 1841. Some field enclosure has started to eat into Slieve Grainn on the eastern side, but the same structures are still present at Robert's Cross, and most of the hill is still unenclosed lands.

Local Roads at Byrne's Cross

The cross roads at Byrne's Cross will see sections of pipeline laid in all four roads. The road from Robert's Cross to Byrne's cross, orientated in a north-south direction, was built as part of the new road from Dungarvan to Youghal in the early 19th century. It consists of a roadway flanked by earthen banks. The road has been widened in places in more modern times. The road running east-west, from the Byrne's Cross Reservoir Site is similar in nature but much narrower, suggesting an earlier date for establishment. It is similarly flanked by earthen banks but also by open ditches either side. No archaeological features were observed.

Local road from Killinoorin to Rathnameneenagh

The road is depicted in much the same way as it was in 1841.

Old Parish Road from Robert's Cross to Moanfoun

The road is depicted in much the same way as it was in 1841, The Ringville dispensary is still present at Barranastook, and some of the stone lay-bys are shown, though not beyond Keane's Cross.

4.7 Aerial Photography

An examination of aerial photography from the present time back gives an idea of the modern development and landscape change that has occurred. Images from 2010, 2005, 2000 and 1995 reveal little change to the site as it is found today.

4.8 Summary of Cartographic Assessment

A summary of the cartographic assessment can be seen in the table below

Location	Down Survey	Taylor & Skinner	1841 Ordnance Survey	1904 Ordnance Survey
N25 Dungarvan Bypass	Not depicted	Not depicted	Large open fields Roughly along Townland boundary	Some field boundaries removed
N25 Youghal Road to N25/R674 Junction	Not depicted	Not depicted	Road running along coast. Cuts pre-existing field patterns. Joins earlier road at Boherard. River Brickey Bridge, narrow span with extended causeway.	Mostly similar to 1841 OS. Some new structures to east of road in Boherard. River Brickey Bridge appears replaced. Quay at River Brickey Bridge.
Regional Road R674 to Helvick	Not depicted	Not depicted	Cuts pre-existing field patterns. Uses some earlier stretches of road Holy Well at Ballyharahan shown to south Robert's Cross to Ballynagaul earlier road Shanacloon shown with a number of structures close to road. Souterrain not depicted.	Mostly similar to 1841 OS. Some new structures off road Ringville Dispensary at Shanacloon
Robert's Cross / Byrnes Cross Reservoir Site Area	Not depicted	Not depicted	Collection of small fields on periphery Structures to northeast and south Most of area unenclosed land	More field enclosure to the east. Land shown as marshy
Local Roads at Byrne's Cross	Not depicted	Not depicted	Depicted.	Mostly similar to 1841 OS.
Local road from Killinoorin to Rathnameneenagh	Not depicted	Not depicted	Cuts pre-existing field patterns.	Mostly similar to 1841 OS.
Old Parish Road Robert's Cross to Moanfoun	Not depicted	Not depicted	Depicted. Dispensary at Barranastook	Mostly similar to 1841 OS. Ringville Dispensary at Barranastook

5 Archaeological & Historical Background

5.1 Prehistoric Period (c.7500 BC – AD 500)

The earliest evidence for human colonisation/habitation in Ireland can be attributed to the Mesolithic (c.7500-4500 BC). Up until relatively recently it was thought that human settlement in Ireland started sometime in the Neolithic. However more and more early evidence has firmly pushed this back to an earlier period, called the Mesolithic. Following the retreat of the glaciers the climate improved and dense woodland covered the island.

The Neolithic period in Ireland is defined by a transition from hunter-gather type society to that of settled farming and year round crop cultivation. Settled agricultural communities became widespread, and the transition constituted a major social change. The physical landscape changed, forests were cleared and field boundaries constructed. One famous example is at the Céide Fields, Co. Mayo, where Neolithic stone field boundaries survive beneath the bog. Large communal ritual monuments such as megalithic tombs, which are characteristic of the period and may represent territorial boundaries.

The Bronze Age saw the widespread introduction of metal into Ireland. Much of our knowledge about the Bronze Age period comes from burial. Megalithic tomb building (wedge tombs) continued from the Neolithic but started to die out. Radiocarbon dating puts the latest examples at no later than 2000 BC. A new culture of burial started to take hold and new types of burial monuments appear in the landscape, such as cists, boulder burials and pit graves. Cairns of stones were constructed (boulder burials) along with earthen barrows or ring ditches. The new monuments were often monumental in scale. Burnt mounds (also known as Fulacht Fiadh), are the most common type of prehistoric site in the country generally date to the Bronze Age. They are multifunctional sites, and have often been seen just as cooking places. However more recent evidence suggests they should be seen as bathing, industrial processing (including brewing), extraction of grease, dyeing and leather treatment (Barfield & Hodder 1987; Buckley 1990; Ó Drisceoil 1990; Ó Néill 2000, 2004; Cross May et al. 2005; Monk 2007; Quinn & Moore 2007). They are often found near water sources, and frequently on the wetland dry land margins. While they largely date to 1800-800 BC, some have produced dates earlier than 2000 BC and also into the Iron Age. The occurrence of burnt mounds suggests other Bronze Age occupation may be present which has yet to be recognised. A number of examples survive in the wider general area Ballynacourty (WA030-022), Garranbaun (WA031-016001 & WA031-016002), Clonea Lower (WA031-066), Mountodell (WA030-082 & WA030-083) and Dungarvan (WA031-040023) while evidence for Bronze Age activity in the area can also be seen in the presence of sites such as Fulacht Fiadh at Garrynageragh East (WA031-034). Standing stones, often erected in prominent locations date from the Early Bronze Age. Their exact function is unclear, they may be associated with ceremony and ritual, however they may equally represent territorial division. Standing Stones occur at Coolnasmea Lower (WA022-053) and Mapestown (WA031-069).

The Iron Age in Ireland marks the transition from bronze to iron working. It was also the High period of the Royal centres at Tara, Rath Croghan and Armagh. Route ways linking the royal centres of Tara, Rath Croghan and Armagh (Slíghte Mhór, Assail and Midhluachra) are likely to have their origins in this period; the construction of linear earthworks and the continued use of hillforts are all aspects of Iron Age Ireland. A hillfort survives at Cloncoskoran & Garranbaun (WA031-019001) and may date to this period. Burial practices included cremation and inhumation interred in pits or in pre-existing tumuli. Burial monuments associated with the period include ring barrows, ring-ditches and embanked enclosures. Not much evidence for the iron age survives within the general area of the proposed development site, but this absence does not necessarily represent a true reflection of human settlement in the area for this period.

5.2 Historic Period (c. AD 500 – present)

Early Medieval Period (c.500 – 1170)

Ireland in the Early Medieval period is believed to have been rural society characterised by the basic territorial unit known as *tuath* (from which the modern townland system is believed to have derived). It is estimated that there could have been up to 150 petty kings in Ireland at any given time each ruling over his own *tuath* (Byrne, 1973). The most common settlement form during the early medieval period is the ringfort or rath. They represent individual family homesteads, sometimes defended and primarily date to the period 500 - 1000 AD (Lynn 1975). It has been estimated that there is a total of 45,119 potential ringforts or enclosure sites throughout Ireland (Stout, 1997), however others have suggested up to 200,000 originally existed. Typically they consist of an area enclosed by an earthen bank and exterior ditch, and range from 25m to 50m in diameter. Sometimes the interior is raised, seen in about 10% of the surviving examples. Ringforts occur in many different variations such as single banked types (univallate – possibly the home to the lower ranks of society) to those with more than one bank (bivallate/trivallate – perhaps housing the more powerful kings and lords). Studies have shown that within local distributions there can be a wide variety in terms of size, morphology and setting, ranging from large multivallate enclosures in prominent locations, to larger raised raths and well defended forts in strategic locations, to smaller univallate forts either clustered around the large sites or located in isolated places. Ringforts built with stone are called Cashels and their construction more likely relates to the local geology and the easy availability of stone. The predominant monument surviving from all periods in the general area around the study area is the early medieval ringfort. Numerous upstanding examples survive close within 5km of the study area, including both single and multivallate examples illustrating the intensive settlement that the surrounding area had in this period. They can be seen at Coolnasmear Upper (WA023-021), Coolnasmear Upper (WA023-022), Currabaha (WA023-023, WA023-024 & WA023-025), Ballyknock Upper (WA023-026), Ballintoor (WA023-028), Knockaun (WA030-025), Garraunfadda (WA030-026), Ballyduff (WA030-028), Carriglea (WA030-045 & WA030-047), Ballyduff More (WA030-049), Kilnafrehan West (WA031-008), Ballyknock Lower (WA031-002, WA031-005, WA031-003001, WA031-004001 & WA031-004002), Kilnafrehan Middle (WA031-009), Kilnafrehan East (WA031-010 & WA031-011), Balleighteragh East (WA031-012), LACKEN (WA031-013), Cloncoskoran, Garranbaun (WA031-019002), Killadangan (WA031-025), Knockateemore (WA031-027 & WA031-028), Knocknagranagh (WA031-030), Garrynageragh East (WA031-032), Luskanargid (WA031-042), Middlequarter (WA031-046001) and Knockaunagloon (WA023-075).

Christianity was introduced to Ireland during the late 4th century, became widely established by the 6th century AD. The great monasteries such as Glendalough, Co. Wicklow, Clonmacnoise, Co. Offaly were established during this period and became centres of trade, education and political power. More and more they are becoming to be viewed upon as 'proto-towns', a new emerging urbanisation that previously had not existed within the country. Dungarvan is reputed to have been called after St. Garvan who founded an abbey in the 7th century (Lewis 1837). Ecclesiastical sites would have functioned as the focus of significant settlements, and often had a market as well as religious and educational functions. Some examples within the wider area of churches from this period can be found at Colligan Beg (WA022-045 & WA022-046001), Kilnafrehan East (WA023-048), Kilgobnet (WA031-001001), Clonea Lower (WA031-037001), Dungarvan (WA031-040004), Shandon (WA031-041), Glebe (WA031-043001), Kilgrovan (WA031-045), Kilminnin North (WA031-044001), An tSeanchill (WA035-016001) and Middlequarter (WA036-001001). These churches often sit on the site of earlier foundations, frequently replacing wooden structures with those of stone. Secular rural settlement for this period can be seen in the form of ringforts, which functioned as enclosed farmsteads (see above). Often associated with ringforts are souterrains, underground structures with passages connecting multileveled chambers. Examples are known at Kilnafrehan East (WA023-070), Ballyknock Lower (WA031-003002), Ballyknock Upper (WA031-004003), Dungarvan (WA031-040014) and Mountodell (WA030-081). Enclosures are another type of monument typically dating to this period and some survive at Kilnafrehan

West (WA023-027), Ballynacourty (WA030-024), Ballyduff (WA030-027), Killadangan (WA030-029002), Ballygagin (WA030-050), Mapestown (WA030-051), Ballyknock Lower, Carrowncashlane (WA031-007), Cloncoskoran (WA031-018), Garrynageragh East (WA031-033), Ballycullane More (WA035-002), Middlequarter (WA036-002), Shandon (WA031-072) and Ballyduff Beg, Ballymacmague East (WA030-089).

Later Medieval Period (c.1170 – 1540)

The start point for the Late Medieval period in Ireland is usually marked by the arrival of the Anglo-Normans in 1167, although continental religious orders had already established a presence in many parts of Ireland by this time. One such Anglo-Norman adventurer, Raymond le Gros, was at Dungarvan in 1174 with *'the plunder he had taken in Offaly and Lismore, which he put on board some vessels he found lying at anchor'* (Lewis 1837). Stranded due to bad weather, he found himself under attack from the Irish Kings of Munster and Cork, but following a brief naval battle managed to get away with the loss of eight of the assailants vessels (Lewis 1837). The town was on the border of the Anglo-Norman dependencies of Waterford, and a castle was built by King John in the 13th century. He was reputed to have surrounded the town with a defensive wall with mural towers. The town defences are centred on the 13th-century castle and formed a square extending from the castle along the seafront to Jacknell Street, west to St Augustine Street, north to the seafront and east to the castle (Fraher 1995). A fosse has been uncovered by recent archaeological excavations outside the walls. The town along with the territories of Desmond and Waterford were granted to Thomas FitzAnthony at a yearly rent of 250 marks (Lewis 1837). Dungarvan existed by 1175 when it became a Royal town, although it is possibly of Viking origin since there are references to Ostmen as late as 1250 (Curtis 1929-31, 14). The construction of the castle (WA031-040001) had begun by 1215 and the Fitzgeralds (Earls of Desmond) were granted custody of it from 1260, although title to the town was disputed in the 14th century when the town went into decline. The Normans arrival saw the religious orders flourish in Ireland. Examples of religious houses established in the area include Augustinian friars at Abbeyside (WA031-040005). The Anglo-Normans introduced a new settlement system which was imposed on the pre-existing Gaelic system, and new monument types appear in the landscape such as Motte & Bailey castles, ringwork castles, moated sites, manorial villages, rural boroughs, towns and tower houses. Motte & Bailey castles are invasion fortifications, designed to be constructed swiftly but ultimately temporary structures. Examples can be seen at Gallowshill (WA031-067) while the masonry castle at Dungarvan (WA031-040001) probably replaced an earlier Motte structure. Moated sites are generally square or rectangular enclosures defended by a bank and wide, often water filled external fosse. They functioned in a similar manner to ringforts and would have protected a house and outbuildings, generally constructed of timber (Power 1992). A deserted medieval settlement survives at Carriglea (WA030-044001). In 1463 a new grant of the town was made to the Earl of Desmond, with a daily market, the customs from which were spent on the town walls which were repaired or possibly built at this time (Berry 1914, 55-9).

The period of the late 14th century and 15th century saw a backlash against English authority in Ireland in a period known as the 'Gaelic Resurgence'. Slowly Anglo-Norman settlers began to intermarry with Gaelic Chieftains and adopt many Irish customs, including the wearing of Irish dress and speaking the Irish language. They stayed Catholic after the reformation, and challenged the authority of the English crown to interfere in their affairs. From an architectural perspective the period was characterised by the re-emergence of fortified farmsteads, or Tower houses, designed to protect the occupants from hostile raids. These structures are testimony to the widespread violence that perpetuated for some time. There are a number of unclassified castles in the general area which may be Tower Houses dating to the 15th / 16th century. Tower houses were essentially defended farmsteads, seen as an emergency place of refuge in the event of a raid by hostile forces (nearly always Gaelic Irish tribes). By the start of the 15th century the Gaelic resurgence saw both settler and native

construct these structures, and many were also a place of status, symbolising wealth and power. Examples within the area can be found at Carrowncashlane (WA031-006), Cloncoskoran (WA031-031) and Abbeyside (WA031-040006) while others were later incorporated into estate houses of the 16th and 17th century where the need for more comfortable accommodation overcame the necessity for security. Examples of buildings dating to this period within the general area can be seen at Mountodell (WA030-056).

Post Medieval to Modern Period (c.1540 – 1900)

The post-medieval period is defined for Dungarvan by a number of significant military events in the late 17th century, events that still resonate today. The start of this great upheaval was the confederate rebellion of 1641-49, where the Catholic ruling class rebelled against English and Scottish settlers, ultimately in a dispute over a growing influence of England in Irish affairs. The ensuing decade would leave the country devastated, resulting in localised famine, war and mass deportations. In the 16th century title to the town was again disputed between the Earl of Desmond and Piers Butler, Earl of Ossory, and in 1535 James Butler, with the Lord Deputy, besieged and captured Dungarvan. It was ruled directly by the Crown from 1543 onwards. Dungarvan received a Charter of Incorporation from James I in 1611 which established it as a parliamentary borough and in 1618 it was bought by Sir Richard Boyle, Earl of Cork. The 17th century was one of significant turmoil in Irish history. The Confederate Rebellion (and the resultant 11 years war) of 1641 followed by the Jacobite Wars a little over 50 years later caused massive upheaval and resulted in the dispossession of the Irish Catholic landowning class. Initially supportive of the Royalists, Dungarvan rebelled and aligned with the parliamentarians. The town was shortly captured by the Lord President of Munster for the Confederates in March 1642 and but later regained that year by William St Leger, where the English inhabitants were plundered (Lewis 1837). Lewis tells us that '*The insurgents, while in occupation of this place, exported merchandise to France, and in return received war like stores for fortifying the town and castle*' (Lewis 1837). In 1647 Lord Inchiquin retook the town with a force of 1500 foot soldiers and horse, and remained in control until it was besieged and captured by Cromwell's forces in December 1649. Cromwell is reputed to have ordered all the inhabitants to be killed, but recalled his mandate after seeing a woman drinking to his health as he entered the town. As a result Dungarvan, with the exception of the castle and the church, was not plundered by his troops (Lewis 1837). The castle at Dungarvan survived Cromwell's seige and continued in use as a garrison throughout the 17th century, and the barracks were built within it before 1746. It was used as a Garda station until 1987 (Bradley et al. 1989, vol. 1, 24).

Samuel Lewis published a series of topographical dictionaries and maps of both Britain and Ireland in the first half of the 19th century with the aim of giving a refined description of every place. First published in 1837, it drew on information provided by local contributors, earlier works and official government reports. In his preface he states:

'The numerous county histories, and local descriptions of cities, towns, and districts of England and Wales, rendered the publication of their former works, in comparison with the present, an easy task. The extreme paucity of such works, in relation to Ireland, imposed the necessity of greater assiduity in the personal survey, and proportionately increased the expense.'

The result is an extremely detailed and well informed account of an Ireland on the cusp of the Industrial revolution, and the Great Famine. Lewis describes Dungarvan with the following.

DUNGARVAN, a sea-port, borough, market and post-town, and a parish, in the barony of DECIES-WITHOUT-DRUM, county of WATERFORD, and province of MUNSTER, 22 miles (S. W. by W.) from Waterford, and 97 ¾ miles (S. W. by S.) from Dublin, on the road from Waterford to Cork; containing 12,450

inhabitants, of which number, 8386 are in the town and borough. This place, formerly called Achad-Garvan, of the same import as its present appellation Dun-Garvan, derived that name from St. Garvan, who in the 7th century founded an abbey here for canons regular of the order of St. Augustine, of which there are no vestiges. Raymond le Gros, one of the earliest English adventurers, in 1174, brought hither the plunder he had taken in Offaly and Lismore, which he put on board some vessels he found lying at anchor; but, being detained by contrary winds, was attacked by the men of Cork, whom he repulsed with the loss of eight of their vessels, with which he sailed away in triumph. Soon afterwards the town, which then formed the frontier barrier of the dependencies of Waterford, was, together with other territories, totally surrendered to Henry II. by Roderic, Sovereign of all Ireland; and a castle was erected for its defence by King John, who is also supposed to have surrounded the town with a wall strengthened with towers. The same monarch granted the custody of the castle, and of the territories of Waterford and Desmond, to Thomas Fitz-Anthony, at a yearly rent of 250 marks, but retained the fee in the Crown; during the minority of Edward I., it was granted to John Fitz-Thomas at a yearly rent of 500 marks, but was subsequently recovered by Edward in a judgment against Thomas Fitz-Maurice, his cousin and heir, and in 1292 given to Thomas Fitz-Anthony. In 1447, the castle, honour, lands, and barony of Dungarvan, together with other extensive territories, were granted to John Talbot, Earl of Shrewsbury; but the unsettled state of affairs during that period prevented the improvement of the town either in extent or importance. In 1463, an act was passed at Wexford, setting forth that, "whereas the lordship of Dungarvan was of old the greatest ancient honour belonging to the King in Ireland, and that by war and trouble, and want of English governance, it is for the most part totally destroyed; for the relief and succour whereof it is ordained that the portreeve and commonalty, their heirs and successors, may have and enjoy all manner of free grants, liberties, privileges, and customs as the tenants and inhabitants of the honourable honour of Clare in England enjoyed, with a further power to take customs of all kinds of merchandise bought and sold within the franchises, as the mayor and commons of Bristol did, to be yearly expended on the walls and other defences of the town, under the inspection of the Hon. Sir Thomas, Earl of Desmond, and his heirs." By another statute of the same parliament, the entire fee farm of the town was granted to the said Earl during his life. In the 4th of Henry VIII., an act was passed confirming the castle and all its dependencies to the Crown: but in the 26th of this reign the manor was granted to Sir Pierce Butler, who was likewise created Earl of Ossory, and appointed seneschal, constable, and governor of the castle and manor of Dungarvan, into which the Earl of Desmond had forcibly intruded. In the reign of Edward VI., Robert St. Leger, brother to the Lord-Deputy St. Leger, was confirmed in the government of the castle, to which he had been appointed in the preceding reign, on condition of keeping a proper ward in it; and other constables for the crown were subsequently appointed with extensive powers and emoluments, to one of whom, Henry Stafford, a commission of martial law, extending over the whole county of Waterford, was directed, in the first year of the reign of Elizabeth. In 1575, the Lord-Deputy, Sir Henry Sidney, came from Waterford to this place, where he was met by the Earl of Desmond, who, with great professions of loyalty, offered his services in reducing the country to obedience; but towards the close of the year 1579, when Sir William Pelham, then Lord-Justice, was at Waterford, the Earl led a large insurgent force to this place, with which the 400 foot and 100 horse, which had been sent against him, were unable to contend. In the 2nd of James I. the manor was granted to Sir George Thornton, but subsequently was with the castle, by act of parliament, vested in the Earl of Cork, from whom it descended to its present proprietor, the Duke of Devonshire. In the 7th of his reign, James, in reward of the loyalty of the inhabitants during the reign of Elizabeth, granted them a new charter of incorporation; but early in the rebellion of 1641, they broke their allegiance, and took part with the King's enemies; in March 1642 the town was, however, taken by the Lord President of Munster, who placed in it a royal garrison, but it was soon after retaken by surprise, and the English inhabitants were plundered. The insurgents, while in occupation of this place, exported merchandise to France, and in return received warlike stores for fortifying the town and castle, of which they kept possession till 1647, when they were taken by Lord Inchiquin with a force of 1500 foot and the same number of horse. The town remained in the possession of the Royalist party till December 1649, when Cromwell, having abandoned the siege of Waterford, advanced to besiege it; after a regular investment and a few days' siege, in the course of which several neighbouring fortresses were taken by detachments from his army, the town surrendered at discretion. It is said that Cromwell ordered all the inhabitants to be put to the sword, but recalled his mandate in consequence of a female drinking to his health as he entered the town, which, with the exception of the castle and the church, he saved from being plundered by his troops. The charter of the

inhabitants was renewed by Richard Cromwell in 1659, and in 1689 a new charter was granted by James II., which, on the accession of William, was annulled.

Lewis describes the parish of RINGAGONAGH with the following.

RINGAGONAGH, or RING, a parish, partly in the barony of DECIES-without-DRUM, but chiefly in that of DECIES-within-DRUM, county of WATERFORD, and province of MUNSTER, 5 miles (S. S. E.) from Dungarvan; containing 2425 inhabitants. This parish, which is called also Rineogonagh, is bounded on the north by Dungarvan bay and harbour, and on the north-west by the Bricky river; and comprises 28,385 statute acres, as apploited under the tithe act. It contains a portion of the Drum mountain, and stretching into Dungarvan bay are the long promontories of Helwick Head and Conygary. Part of the land, more especially that bordering on Dungarvan, is of good quality and in a high state of cultivation; the system of agriculture is improved, and, within the last few years, some of the highest hills have been brought into cultivation. The principal manure is sand and sea-weed, which are found in abundance in the bay and on the coast; during the greater part of May and June, from 40 to 50 boats are employed in collecting and conveying the weed to Dungarvan for sale. The surrounding scenery is bold and in many parts strikingly romantic and picturesque. Ring Mount is the residence of Thomas Anthony, Esq. The herring fishery is carried on here to a considerable extent; from 40 to 50 boats are engaged in taking the fish, which are found here in abundance and cured; not less than 200 persons are employed in that trade. Near Helwick Head about a dozen houses were built, in 1828, for the accommodation of the fishermen; and a pier was at the same time erected to form a harbour for their boats, by H. V. Stewart, Esq., the principal landed proprietor of the parish. A coast-guard station has been established here, which is one of the five constituting the district of Youghal.

Lewis, in his description of neighbouring parish of Ardmore, describes the road development in the Ring area.

Loscairne, the extremely neat modern residence of W. J. Carew, Esq., is pleasantly situated at the eastern verge of the parish, adjoining the new public road from Dungarvan to Youghal, by way of Ring. A new line of road has been made within the last few years from Dungarvan, through Ring, to Youghal, by which the distance to the Ferry point is 17 miles, and the construction of which has given a great impulse to agricultural improvement, by providing a convenient outlet for the produce of the district. It intersects the parish from N. E. to S.W.; and another road, in a N. W. direction, commencing at the upper bridge of Killongford, is now in progress, which will pass through the townlands of Ballyharrahan and Killongford, and over Slieve Grine mountain, and in its course will be shorter, by 2 ¾ miles, than the old road.

Ballynagaul

Ballynagaul (Baile na nGall) translates as 'Homestead of the Foreigners' (Power 1952). It is said that a local tradition attributes the 'foreigners' as the crew of a Turkish vessel called the Algerine Rover wrecked along the coast (Power 1952). No record of this vessel currently exists in the Shipwreck Inventory of Ireland Database. The village is divided into two distinct areas, Ballynagaul More and Ballynagaul Beg divided by a stream that flowed down to the sea. Most of the houses were thatched. The area is now generally referred to as 'Ringville', or just 'Ring', and includes Shanacloon to the west. The local landlords in the 19th century were Edward O'Dell and Thomas Anthony, who lived in Ring Mount House (Lewis 1837). In 1816 Scotch Engineer Alexandro Nimmo, was commissioned to draw up plans for a new village and pier, ultimately never implemented. He produced a cruciform street plan with smaller lanes intersecting, with room for 75 dwellings and stores (O'Donoghue 1985). Prior to the development of the road system in the early 19th century, access was through a series of laneways of rights-of-way called 'strápas' (Cantwell 2013). Ballynagaul was connected to the church at Shanacloon by a series of strápas which followed the undulating landscape. St Nicholas' Church at Shanacloon was the parish church for Ringagoragh, and has been so since at least the 17th century. Depicted on Down Survey barony maps, the original church is now a ruin, with its later replacement now gone. The site is used only as a graveyard. The local Roman Catholic Church was

constructed on a site to the south and is still extant. St Nicholas' Well, situated to the north of the graveyard at Shanacloon, no longer survives having been washed away during a torrent in 1841 (O'Donovan 1929). A pattern used to be held at St Nicholas' Well on 6th December every year until c.1830 when it was abolished (Power 1898). A new road system was constructed cutting across the peninsula in the early 19th century (Lewis 1837). This road greatly improved access for wheeled traffic from Dungarvan to Youghal, and the area benefited greatly as a result. The main industry for Ballynagaul was in herring fishing and seaweed exportation. Potatoes were also grown and sold once a week in the market in Dungarvan (Cantwell 2013). During the 19th century Lewis says between 40-50 boats were employed. The pier at Ballynagaul was built in 1848 as a famine relief project. Páirc na Reilge (Field of the Graveyard) is where some of the victims from the area of the famine of 1847 were buried. The local RIC barracks was burned in 1920 and never rebuilt. It was located where the public toilets are now (Cantwell 2013). The fishing industry suffered towards the end of the 19th and early 20th century but experienced a brief revival during WWI. The German U-boat threat to the British fishing fleet provided an opportunity to the small local community. Merchants came to Ballynagaul to purchase directly off the local fleet. This brief respite ended following the end of the war and the return of foreign trawlers better equipped than the small local boats. Emigration from the peninsula in the early 1920s gathered pace with departures almost every week (Cantwell 2013). An Rinn is the only Gaeltacht, or native Irish-speaking area in Ireland, other than those of the western seaboard (WPF). Ring Irish College, founded in 1906 provides courses for secondary school and other students.

Helvick

The name Helvick (Heilbhic) has an unknown meaning according to Power (1952). It is believed it is almost certainly not Irish in origin and is generally considered Scandinavian. The Norse presence in Dungarvan Bay and the south coast of Ireland during the 9th & 10th centuries is well documented, and no doubt Helvick Head would have served as a prominent landmark for navigation. Surrounded by steep cliffs and projecting into the sea, this exposed headland maintained a considerable fishing community in the 19th century, principally concerned in herring fishing. The collection of seaweed which was then sent to Dungarvan for export was also undertaken. In 1828 a dozen houses were built for the fishermen of Helvick along with the first pier creating the sheltered harbour at Helvick by the local landlord H. V. Stewart (Lewis, 1837). A coastguard station was also built beside the houses, and a new coastal road from Ballynagaul to replace the original access. In 1867 the ship Erin's Hope landed a number of men at Helvick with the intention of aiding a Fenian rebellion in Ireland. Most were Irish officers or privates working for the American government who had sailed from New York in the hope of meeting up with the rebels. However while the ship successfully returned to New York, the landed men were soon captured and imprisoned, charged with conspiracy to form an armed rebellion. In the 1890s the Dungarvan lifeboat, previously stationed across the bay at Ballinacourty, was transferred to Helvick (O'Donoghue 1985). The completion of the new quay at Helvick in the 1930s resulted in it taking over as the principal fishing centre from Ballynagaul. In 1979 there were 150 people employed supporting 12 boats operating out of Helvick.

5.3 UNESCO World Heritage Sites

The UNESCO World Heritage Committee is elected by the United Nations General Assembly, and oversees the World Heritage Programme. This includes the compilation of a list of UNESCO World Heritage Sites that are deemed by UNESCO to be of special cultural or physical significance. UNESCO catalogues, names, and conserves sites of outstanding cultural or natural importance to the common heritage of humanity. The programme was founded with the Convention Concerning the Protection of World Cultural and Natural Heritage, which was adopted by the General Conference of UNESCO on November 16, 1972. Over 189 states have ratified the convention.

- There are no UNESCO World Heritage sites within the vicinity of the proposed scheme or the surrounding area.

5.4 National Monuments

The principal legislative instrument in Ireland for the protection of archaeological heritage is the National Monuments Act 1930 (amended). The Minister has the power to designate a site a National Monument if they so wish. The term 'national monument' is defined in Section 2 of the National Monuments Act (1930) as a monument '*the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto...*' When works are planned in or around a National Monument, under Section 14 of the Act written consent from the Minister for the Environment, Heritage & Local Government must be obtained for such works.

- There are no National Monuments within the vicinity of the proposed scheme or the surrounding area. The closest is Dungarvan Castle, located c.1,425m away

RMP	Site Type	Townland	RMP	Irish Grid	Distance
569	Dungarvan Castle	Dungarvan	WA031-040001-	226343, 93060	c.1,425m

5.5 Recorded Archaeological Sites & Monuments

An inventory of archaeological monuments in Ireland has been compiled by the Archaeological Survey of Ireland. The information gathered is stored on a database (the Archaeological Survey Database) and in a series of paper files (commonly known as the Sites and Monuments Record) which are stored in the National Monuments Service Archive (ASI). The database and archive contain records of all known or possible monuments pre-dating AD 1700 that have been brought to its attention and also includes a selection of monuments from the post-AD 1700 period. There are in excess of 148,500 records in the database and over 136,800 of these relate to archaeological monuments (ASI). The information in the Archaeological Survey of Ireland Archive was issued on a county basis between 1984 and 1992 titled as the Sites and Monuments Record (SMR). The SMR, revised in the light of further research and fieldwork, formed the basis for the statutory Record of Monuments and Places (established under Section 12 of the National Monuments (Amendment) Act (1994)). Similar in format to the SMR, these were issued for each county in the State between 1995 and 1998. Additional detailed information on the monuments is contained in the original record (paper) files of the Archaeological Survey of Ireland (ASI). The Sites and Monuments Records (SMR) files, Record of Monuments and Places (RMP) maps and Urban Archaeological survey were consulted for the study area. These files, which contain details from aerial photographs, early maps, OS memoirs, OPW Archaeological Survey notes and other relevant publications, were studied in the National Monuments Service Archive office.

- There are no Recorded Monuments (RMP) directly within the proposed scheme area. Only 12 Recorded Monuments (RMPs) occur within c.100m of the development site. These are listed below, followed by the descriptive entry from the Archaeological Survey of Ireland Database.

RMP	Site Type	Townland	ITM	Irish Grid	Distance	Notification Zone*
WA036-008002-	Graveyard	Seanchluain	628515, 588608	228571, 88550	0m	Yes
WA036-025----	Souterrain	Baile Na Ngall Mór	630015, 588755	230071, 88697	8m	Yes
WA036-008001-	Church	Seanchluain	628514, 588608	228570, 88550	20m	Yes
WA036-008003-	Headstone	Seanchluain	628515, 588608	228571, 88550	20m	Yes
WA036-003----	Holy well	Ballyharrahan	624171, 589777	224226, 89719	22m	No
WA036-007----	Holy well	An Móta	628564, 588670	228620, 88612	35m	No
WA036-011----	Ringfort	Baile Uí Raghallaigh	630185, 588778	230241, 88720	38m	No
WA036-002----	Enclosure	Middlequarter	624380, 591050	224435, 90992	65m	No
WA036-010001-	Ringfort	Baile Na Ngall Mór	629950, 588540	230006, 88482	79m	No
WA036-010002-	Souterrain	Baile Na Ngall Mór	629950, 588540	230006, 88482	79m	No
WA036-006----	Mound	An Móta	628577, 588736	228633, 88678	100m	No

*This is the immediate area surrounding an RMP. If any works are planned within this area, notification must be made to the National Monuments Service using the required form two months in advance of the commencement of site works.

RMP WA036-008002 (Graveyard)

Located towards the bottom of a N-facing slope. The parish church of Ringagoragh (WA036-008001-) is within a rectangular graveyard defined by masonry walls (dims c. 50m E-W; c. 45m N-S), although the graveyard is extended to the W and S (dims c. 100m E-W; c. 60m N-S). Archaeological testing (05E0329) over a large area (dims. c. 180m N-S; c. 160m E-W) immediately S of the graveyard failed to produce any related material (Janesa). (Power 1898a, 199)

RMP WA036-025 (Souterrain)

Situated on a N-facing slope overlooking Dungarvan Harbour. This is a souterrain consisting of two passages at right angles to each other connected by a creep and composed of small shale stones. It was discovered in June 1998 and closed after recording. The outer passage (min. L 3.45m N-S; Wth at base 1m; H 1.2m), which was open near the original ramp entrance at S, corbels in from the base to the lintelled roof (Wth 0.5m). The lintelled creep (L 0.95m; Wth 0.4m; H 0.5m) is oriented NW-SE and enters the E end of the inner passage (min. L 5.6m E-W; Wth 1.3m at base, 0.55m at roof; H 1.3m) just beneath the passage roof which is lintelled with Old Red Sandstone slabs. The W end of the inner passage is blocked with collapse (Moore 1998).

RMP WA036-008001 (Church)

Located towards the bottom of a N-facing slope. This is the parish church of Ringagoragh within a rectangular graveyard defined by masonry walls (dims c. 50m E-W; c. 45m N-S), although the graveyard is extended to the W and S (dims c. 100m E-W; c. 60m N-S). This is a nave and chancel church, of which only the pointed chancel arch (Wth 1.95m) and the adjacent part of the S nave wall (int. L 9.3m) survive. Opposing holes (dims. 14cm x 13cm) placed high on the piers of the chancel arch may have supported a rood screen. A round-headed sandstone window (H 0.68m; Wth 0.17-0.19m) in a lintelled embrasure with dressed sandstone ingoings is towards the E end of the S nave wall. The site of St Nicholas' Well (WA036-007----), where patterns were held on December 6th until c. 1830, is c. 70m to the NE and an earthwork site (WA036-006----) is c. 130m to the N. Archaeological testing (05E0329) over a large area (dims. c. 180m N-S; c. 160m E-W) immediatel S of the graveyard failed to produce any related material (Janes 2008e). (Power 1898a, 198-200)

RMP WA036-008003 (Headstone)

Power (1898a,) records a headstone of Fr. Richard Halahan dated 1770 in the graveyard (WA036-008002-) of Ringogoona church (WA036-008001-).

RMP WA036-003 (Holy well)

Located in pasture towards the bottom of a N-facing slope. It is described as Tobar na mBráthar - the Brothers' Well - on the 1840 and 1926 eds of the OS 6-inch map. This is a small drystone well (diam. 1.8m), which was venerated (OS Name Books) but is now almost completely back-filled. Traces of a channel (L 2.2m) run W from the well.

RMP WA036-007(Holy well)

Described as St Nicholas' Well on the 1840 and 1926 eds of the OS 6-inch map, it is situated on the S bank of a wide and deep W-E stream, c. 70m W of where the stream meets a larger S-N stream. The well had been surrounded by a wall until 1841 when it was swept away in a torrent, according to J. O' Donovan (O'Flanagan 1929, 45). A pattern had been held at the well on December 6th until c. 1830 when it was abolished, but the well was still venerated at the end of the century (Power 1898, 200). No evidence of a well survives now.

RMP WA036-011 (Ringfort)

Marked as a circular embanked enclosure (ext. diam. c. 30-35m) on the 1840 ed. of the OS 6-inch map. Situated in pasture on a gentle N-facing slope, it is not visible at ground level. Archaeological testing (01E0478) in the vicinity during 2001 (Tierney 2003) and during 2006 (06E0943) (Hackett 2009b) failed to produce any related material.

RMP WA036-002 (Enclosure)

Situated on a slight rise in a low-lying landscape with the estuary of the W-E Brickey River c. 350m to the SW and c. 700m to the S. Oval grass-covered area (dims. 38m E-W; 31m N-S) defined by a shallow fosse (Wth 6m) which is visible in places as a change in vegetation (Wth 6-7m generally to 11m at N), with traces of a second fosse (Wth c. 5m) visible as lush vegetation separated from the inner fosse by a parched area (Wth 5m) E-S. There is no identifiable entrance.

RMP WA036-010001 (Ringfort)

Marked as a circular embanked enclosure (ext. diam. c. 40m) on the 1840 ed. of the OS 6-inch map in association with a 'cave' which may indicate a souterrain (WA036-010002-). Situated in pasture on a gentle N-facing slope, neither feature is visible at ground level.

RMP WA036-010002 (Souterrain)

Marked as a 'Cave' inside the perimeter of a possible ringfort (WA036-010001-) at N on the 1840 ed. of the OS 6-inch map. Neither feature is visible at ground level in pasture.

RMP WA036-006 (Mound)

Depicted as a small mound (diam. c. 15m) described as a 'Moat' on the 1840 ed. of the OS 6-inch map, and as the site of a Mote on the 1926 ed. It gave the name Móta to the townland, which is recorded in the Civil Survey (1654-6) (Simington 1942, 50). Situated at the E end of a small E-W ridge in an area overgrown with scrub and c. 160m from the S shore of

Dungarvan Harbour. A small quarry (dims. of base 6.5m N-S; 16m E-W; max. D 1.5m) with upcast is on the site. Shanacloon church (WA036-008601-) is c. 140m to the SW.

5.6 Zones of Archaeology

A zone of archaeology is a pre-defined area where the likelihood of uncovering previously unknown archaeological deposits is regarded as high. Usually these zones have an RMP entry number (see *Recorded Archaeological Sites & Monuments* above), and are reflected on the Local Authority Development Plans.

- The site or the surrounding area is not within a Zone of Archaeology

5.7 Previous Archaeological Excavations & Investigations

The excavations summaries database was consulted as part of the assessment. This database contains summary accounts of all the excavations carried out in Ireland – North and South – from 1970 to 2013. The database was searched for the townlands of Ballynamuck West, Ballynamuck Middle, Bawnatanavoher, Ballinure; Ballyharrahan, Ballynacourty South, Ballynagaul Beg, Ballynagaul More, Ballyreilly, Bawnacarrigaun, Boherard, Carrigeen, Clogherane, Curraheen Commons, Gleanaleeriska, Gortnadiha Upper, Helvick, Killinoorin, Killongford, Knockanpower Lower, Knockanpower Upper, Lackenfune, Lagnagoushee, Leigh, Luskanargid, Mapestown, Middlequarter, Moanbrack, Moat, Mweelahorna, Newtown, Rathnameneenagh, Ringcrehy, Moanfoun, Gates, Barranastook, Loskeran, Knocknafreeny, Shanacloon, Shanakill, Shanbally, Spring (Duke) and Spring (Marquis).

- No excavations are recorded as having taken place within the limits of the proposed development.

Year	Reference	Licence	Location	Archaeologist	Site Type
2005	2005:1499	05E0329	Shanacloon	Tom Janes	No archaeological significance
2001	2001:1245	01E0478	Ballyreilly, Ring	John Tierney	Enclosure
2006	2006:1970	06E0943	Ballyriely	Liam Hackett	No archaeological significance

2006:1970 (Liam Hackett)

Topsoil-stripping of this site at Ballyriely, Ring, Dungarvan, was monitored in advance of the construction of a dwelling house. An enclosure, WA036-011, was located to the south-west of the site. The site consisted of a flat plateau to the south which dropped steeply to the main road at the north. Monitoring of the whole site took place but no features of archaeological significance were uncovered.

2005:1499 (Tom Janes)

Test-trenching took place at the site at Shanacloon, Ring, on 23 March 2005, using a 20-tonne excavator. Eight trenches were excavated. Testing revealed nothing of archaeological significance.

2001:1245 (John Tierney)

This site was tested for the presence of archaeology in advance of a planning application for eighteen new houses. An enclosure was located in the north-west corner of the field. Local folklore, place-name evidence and the topography of the site indicate that a possible ceallúnach is located in this field, more than likely within the enclosure. Nine test-trenches were excavated along the footprint of the proposed buildings. One possible drainage ditch was uncovered in Trench 8, but otherwise the site was archaeologically sterile. Subsequent to testing, the development was refused planning permission by An Bórd Pleanála.

5.8 Previous Archaeological Finds

Archaeological artefacts ('finds') are housed in the National Museum of Ireland. Their topographical files were consulted to see if any archaeological finds had been discovered within the study area and surrounding townlands of Ballynamuck West, Ballynamuck Middle, Bawnatanavoher, Ballinure; Ballyharrahan, Ballynacourty South, Ballynagaul Beg, Ballynagaul More, Ballyreilly, Bawnacarrigaun, Boherard, Carrigeen, Clogherane, Curraheen Commons, Gleanaleeriska, Gortnadiha Upper, Helvick, Killinoorin, Killongford, Knockanpower Lower, Knockanpower Upper, Lackenfune, Lagnagoushee, Leagh, Luskanargid, Mapestown, Middlequarter, Moanbrack, Moat, Mweelahorna, Moanfoun, Gates, Barranastook, Loskeran, Knocknafreeny, Newtown, Rathnameneenagh, Ringcrehy, Shanacloon, Shanakill, Shanbally, Spring (Duke) and Spring (Marquis). Other published artefact catalogues of prehistoric material were also studied. All the objects attributed to have come from the general area are listed below (all NMI unless otherwise stated).

- No Artefacts are recorded in the National Museum of Ireland as having been found within the limits of the site, or in the immediate area.
- No Artefacts are recorded in the published artefact catalogues as having been found within the limits of the site, or in the immediate area.

5.9 Townlands, Baronies & Boundaries

Ireland is divided into four provinces and thirty-two counties. These counties are subdivided into baronies and parishes which are in turn, divided into approximately 61,000 townlands. Land division in Ireland is based on this system of townlands, from the bottom up. It is unique in Western Europe for its scale and antiquity (O'Connor, 2001). All these various land-units have names and a study of the toponymy of an area can provide an immense amount of information about an area's cultural heritage. For example, the vast majority of names are fairly simple, describing natural features such as mountains, hills, lakes, rocks, rivers etc. The names reflect the impact of the natural environment on man and of man on the environment. There are names describing the use of the landscape by man: its division into fields, the addition of habitations, route ways, churches, burial monuments etc. Names may also contain a claim to a feature, man-made or natural, by an individual or a group of people. While the majority of these names are Irish in origin, many survive only in an Anglicised form and have been corrupted to some degree by the process of Anglicisation. Townland boundaries may present as manmade markers, such as earthworks, stone walls, hedgerows or drainage ditches and roads or alternatively the topography of an area may provide natural divisions in the landscape. Many of these land divisions are likely to be early historic in date. Irish historical documents consistently use townland names throughout the historic period to describe areas and locate events accurately in their geographical context. Townland names often provide evidence for past environment,

settlement and activity in the landscape. Existing land divisions were largely maintained in Ireland under Anglo – Norman control and this dispersed settlement pattern persisted into the later medieval period (Simms 1988). Christianity introduced the system of Parishes, while the Anglo-Normans introduced Baronies and Counties but the system of Townlands still formed the basis of these new geographical administrative units.

The development area lies within and adjacent to the townlands of Ballynamuck West, Ballynamuck Middle, Bawnatavoher, Ballinure; Ballyharrahan, Ballynacourty South, Ballynagaul Beg, Ballynagaul More, Ballyreilly, Bawnacarrigaun, Boherard, Carrigeen, Clogherane, Curraheen Commons, Gleanaleeriska, Gortnadiha Upper, Helvick, Killinoorin, Killongford, Knockanpower Lower, Knockanpower Upper, Lackenfune, Lagnagoushee, Leagh, Luskanargid, Mapestown, Middlequarter, Moanbrack, Moat, Mweelahorna, Moanfoun, Gates, Barranastook, Loskeran, Knocknafreeny, Newtown, Rathnameneenagh, Ringcrehy, Shanacloon, Shanakill, Shanbally, Spring (Duke) and Spring (Marquis). They are contained within the Parishes of Ringagonagh, Ardmore, Dungarvan and Kilrush and the Baronies of Decies Without Drum and Decies Within Drum. These names have been identified through review of the Ordnance Survey 1st edition 6-inch maps of the area.

List of Townland, Parish and Barony Boundaries

Boundary	Type	Comments
Clogherane / Curraheen Commons	Townland	Crosses road. No upstanding representation.
Clogherane / Spring	Townland	Under roundabout. No upstanding representation.
Clogherane / Ringcrehy	Townland Parish	Crosses road. No upstanding representation.
Ringcrehy / Ballinure	Townland	Crosses road. No upstanding representation.
Ballinure / Boherard	Townland	Crosses road. No upstanding representation.
Boherard / Middlequarter	Townland	Crosses road. No upstanding representation.
Bawnacarrigaun / Newtown	Townland	Centre of road. No upstanding representation.
Middlequarter / Bawnacarrigaun	Townland	Crosses road. No upstanding representation.
Bawnacarrigaun / Killongford	Townland	Centre of river channel. No upstanding representation.
Killongford / Ballyharrahan	Barony Parish Townland	Crosses road. No upstanding representation.
Ballyharrahan / Shanbally	Townland	Crosses road. No upstanding representation.
Shanbally / Leagh	Townland	Crosses road. No upstanding representation.
Leagh / Gortnadiha Upper	Townland	Crosses road. No upstanding representation.
Gortnadiha Upper / Ballynacourty South	Townland	Crosses road. No upstanding representation.
Mweelahorna / Gortnadiha Upper	Parish Townland	Crosses Reservoir. Earthen bank, much removed in places
Mweelahorna / Lagnagoushee	Townland	Crosses Reservoir. Earthen bank, mostly removed or degraded in places
Ballynacourty South / Mweelahorna	Townland	Crosses road. No upstanding representation.
Mweelahorna / Shanacloon	Townland	Crosses road. No upstanding representation.
Shanacloon / Moat	Townland	Centre of road. No upstanding representation.
Shanacloon / Knockanpower Lower	Townland	Centre of road. No upstanding representation.
Knockanpower Lower / Ballynagaul Beg	Townland	Crosses road. No upstanding representation.

Boundary	Type	Comments
Ballynagaul Beg / Killinoorin	Townland	Crosses road. No upstanding representation.
Killinoorin / Ballynagaul More	Townland	Crosses road. No upstanding representation.
Ballynagaul More / Ballyreilly	Townland	Crosses road. No upstanding representation.
Ballyreilly / Helvick	Townland	Crosses road. No upstanding representation.
Killinoorin / Knocknapower Upper	Townland	Crosses road. No upstanding representation.
Knocknapower Upper / Rathnameneenagh	Townland	Crosses road. No upstanding representation.
Moanbrack / Glenaleeriska	Townland	Northern boundary of road. Earthen bank with ditch.
Moanbrack / Lagnagoushee	Townland	Centre of road. No upstanding representation.
Knocknafreeny / Loskeran	Townland	Crosses road. No upstanding representation.
Barranastook / Loskeran	Townland	Crosses road. No upstanding representation.
Barranastook / Gates	Townland	Centre of road. No upstanding representation.
Barranastook, Gates / Moanfoun	Townland	Crosses road. No upstanding representation.
Barranastook / Ballynamona Upper	Townland	Southern boundary of road. Stone wall with hedgerow; Earthen bank with ditch.

6 Field Inspection

6.1 Overview

A field inspection of the proposed site took place on 21st October 2013, 5th February 2016 and 21st June 2016 in mostly wet weather. The field visit encompassed the entire area as stipulated in the study brief. The site has been divided into different areas and is described below.

6.2 Results of site visit

Springmount Pumping Station & N25 Dungarvan Bypass (Plates 1- 2)

The N25 Dungarvan bypass was opened in 1987 and joins local road L2020-72 at the Spring roundabout. The road was built on previously undeveloped land and is a modern development. Wide open grass verges will be used to take the pipeline along the length of the road. No archaeological features were observed. The Pumping station is currently shielded from the road by vegetation.

N25 Youghal Road to N25/R674 Junction (Plates 3-4)

Part of the N25 Dungarvan bypass scheme involved an upgrade of the Youghal road. The new section of road joined the existing road at the Youghal Road roundabout, and then the existing road was widened and upgraded. The original Youghal road does not appear on the Down Survey (1658) or Taylor & Skinner (1783) maps of Dungarvan, and it may be that it only dates from the early 18th century. The new road subsumed the older road but this also necessitated the reclamation of a stretch of foreshore, approximately c350m. The pipeline will be laid on the verge along this road, and as this will be reclaimed land, there is the possibility that previously unknown maritime archaeology may be encountered, depending on the depth of disturbance. The road from the coast to River Brickey Bridge has been widened for the most part along the western side, with wide grass verges on both sides and some 19th century structures to the east. The level of the road has been reduced to give a flat surface. At Killingford (see below) a modern bridge has replaced the mid 19th century structure. From River Brickey bridge the road veers off to the east, away from the original alignment, where it forms a junction with the R674. No archaeological features were observed.

River Brickey Crossing Site (Plates 5-7)

This only applies should it not be possible to lay the pipeline within the deck of the existing bridge and it is decided to progress a directional drilling methodology. On the northern side of River Brickey Bridge an area has been identified for the pipeline to cross the river. It is currently expected that this would be a directional drilling technique, thereby minimising any impact on the river banks and channel. The site of these works is an irregular field set in pasture, with tall dense overgrown boundaries to the river and the road. The field is accessed from the N25 through a modern gateway. The field is flat pasture which gently slopes down towards the river. The River Brickey is a tidal river, opening out from Killongford onto the wide mud flats of Dungarvan Bay. The river banks are shallow and wide, with a deep channel in the centre. They are covered in a thick brown mud. No archaeological features were observed.

Regional Road R674 to Helvick (Plates 8-13)

Samuel Lewis, writing in 1837, tells us a road from Dungarvan to Youghal was built in the early 19th century via ring. This road is the R674 from the N25 to Robert's Cross. The road is wide, and bounded on both sides by high earthen embankments and trees. It rises gently but quite quickly to an elevated position overlooking Dungarvan bay, with smooth

curves, suggesting it was designed for carriage traffic. The road appears to have been widened in more modern times, with concrete fencing and crash barriers in places. Small stretches of stone rivetted earthen banks survive, but likely date to the construction in the early 19th century. At Robert's Cross the road veers south, and the road to Helvick becomes much narrower, suggesting it is earlier. At Shanacloon (Ringville) the road winds around the old church and graveyard. It would appear that some of the graveyard was taken to widen the road. Some structures adjoining the road to the north pre-date the Ordnance Survey. From Shanacloon to Ballynagaul the road has been widened in modern times, with modern field boundaries and crash barriers sporadically encountered. At the site of Souterrain WA036-025 a modern footpath with street lighting has been constructed, and the recorded monument lies in the front garden of a modern house. The road continues along to Helvick Harbour, although cartographic evidence suggests the final stretch, narrow with stone boundary walls, may have been built in association with the coastguard station. The pipeline will be constructed within the road. No archaeological features were observed.

Robert's Cross / Byrnes Cross Reservoir Area (Plates 14-16)

A large area is currently being considered for the location of a reservoir. The area runs from Robert's Cross to Byrne's Cross and encompasses a steep rise or hill, called Slieve Grainn. Modern houses have been built along the periphery of the area, mostly on the low lying slopes of the hill. Much of the centre (high point) of the area has been reclaimed for pasture in recent years, and field boundaries erected over what was once unenclosed land. There is no physical presence for the townland boundary which runs across the area. No archaeological features were observed.

Old Parish Road - Robert's Cross to Moanfoun (Plate 16)

The road from Robert's Cross to Moanfoun, orientated in a north-south direction, was built as part of the new road from Dungarvan to Youghal in the early 19th century. It mostly consists of a roadway flanked by earthen banks. Small stretches of stone rivetted earthen banks survive, but likely date to the construction in the early 19th century. The road has been widened in places in more modern times. A standing stone is located at Gates, but it has been adjudged to be modern by the Archaeological Survey of Ireland. No archaeological features were observed.

Byrne's Cross Roads

The cross roads at Byrne's Cross will see sections of pipeline laid in all four roads; North-south along Old Parish Road (see above), and on the local road running east-west for a stretch in both directions. This east-west road is similar in nature to Old Parish Road but much narrower, suggesting an earlier date for establishment. It is flanked by earthen banks but also by open ditches either side. No archaeological features were observed.

Local road from Killinoorin to Rathnameneenagh

The road from Killinoorin south along the coast to Rathnameneenagh is a narrow road flanked by open ditches either side. Cartographic evidence suggests that it too is an early 18th century construction, as it appears to cut across many of the established field boundaries. No archaeological features were observed.

6.3 Summary of Field Inspection

The table below summarises the finding of the field inspection.

Location	Comments
Springmount Pumping Station & N25 Dungarvan Bypass	No archaeological features observed
N25 Youghal Road to N25/R674 Junction	Verge of road is reclaimed foreshore. No archaeological features observed
River Brickey Crossing Site	No archaeological features observed
Regional Road R674 to Helvick	Road widened into Shanacloon Graveyard. Pre 1841 structures close to road. Souterrain (RMP WA036-025) close to road but not visible. No archaeological features observed
Robert's Cross / Byrnes Cross Reservoir Site Area	No archaeological features observed
Robert's Cross to Moanfoun	No archaeological features observed
Local Roads at Byrne's Cross	No archaeological features observed
Local road from Killinoorin to Rathnameneenagh	No archaeological features observed

7 Conclusions & Recommendations

7.1 General Conclusions

The Ring Helvick Water Supply Scheme, Dungarvan, Co Waterford development proposal is towards the provision of a new pipeline and reservoir areas, to be constructed within the study area. The pipes will be laid within the road for most of the scheme, and in the verge for the section along the N25. New reservoirs will be constructed on Greenfield sites.

There are no National Monuments within the site or in the wider area. Ministerial Consent will not be required for the scheme.

There are no Recorded Monuments (RMP) within the proposed scheme area. A number of other Recorded Monuments (RMPs) occur in close proximity to the proposed scheme and include Holy Wells (RMP WA036-003 & WA036-007), a Graveyard (RMP WA036-008002) and Souterrain (RMP WA036-025). These sites will not be directly impacted by the proposed development.

Parts of the proposed scheme lie within the notification zone (immediate surrounding area) of four Recorded Monuments (RMPs); Shanacloon Church & Graveyard (RMP WA036-008001, 2 & 3) and Ballynagaul More Souterrain (RMP WA036-025). Written notification must be made to the National Monuments Service two months prior to the commencement of any works in these areas using the required form.

No archaeological finds are recorded from the proposed scheme area or the immediate surrounding area. The proposed scheme area is not within a Zone of Archaeology.

Six areas have been identified by the assessment as having the potential to contain archaeological material. These are at N25 Youghal Road (Area 2), River Brickey Bridge (Area 3), Ballyharahan (Area 4), Robert's Cross / Byrne's Cross Reservoir Area (Area 5), Shanacloon (Area 6) and Ballynagaul (Area 7).

The cartographic & historical assessment has suggested that much of Regional Road R674 and Old Parish Road to Moanfoun was constructed in the early 19th century as a new trade route from Dungarvan to Youghal. The road around Ballynagaul, from Killinnoonin to Rathnameneenagh and a short section to Helvick coastguard station also appear to be 19th century constructions.

The N25 Dungarvan Bypass and Youghal Road upgrade was completed in 1987. Part of the scheme involved the reclamation of a stretch of foreshore from Dungarvan Bay.

7.2 Potential Impact on Archaeology

The assessment has shown that there are no National Monuments within the site or in the wider area. A number of Recorded Monuments are very close to the proposed works. No archaeological finds are recorded from the proposed development areas or the immediate area. The proposed development is not within a Zone of Archaeology. Site Investigation and Construction works have the potential to significantly impact any surviving archaeology encountered during the course of the works. Most of the impact will be through the excavation of deep trenches prior to laying the pipeline and in the construction of reservoirs.

Summary of Potential Impact on Archaeology

Area	Location	Potential Impact
1	n/a	n/a
2	N25 (Youghal Road)	Potential to uncover maritime archaeology Potential to uncover old sea wall
3*	River Brickey Crossing	Directional Drilling Tunnel option - Greenfield site (see note below) Potential for previously unknown archaeology, especially prehistoric
4	Ballyharahan	Road very close to Holy Well. Potential for associated archaeology. Potential to uncover old road surfaces
5	Robert's Cross / Byrnes Cross Reservoir Area	Pre-1841 structures & roadways depicted on Ordnance Survey Maps Greenfield site - Potential for previously unknown archaeology, especially prehistoric
6	Shanacloon	Road possibly widened into graveyard. Potential for burials, enclosure walls etc. Potential to uncover old road surfaces
7	Ballynagaul More	Road very close to Souterrain. Potential for further subterranean chambers to be uncovered Potential to uncover old road surfaces

*Area 3 relates to the tunnel crossing option of the River Brickey. Should it be possible to lay the pipeline within the deck of the existing bridge, then there will be no potential impact on archaeology at this location.

Area 2 - N25 from Youghal Road roundabout south for c.350m

This stretch of road was built in 1987 and encroached onto the foreshore area. The original road was also built on foreshore, and may date to as late as the early 19th century. With over 200 recorded wrecks in Dungarvan Bay and shoreline in the Shipwreck Inventory of Ireland Database (SIID), there is the potential for archaeological material to survive in the sands and mud below. The excavation of a trench for the pipeline along the verge of the road will remove any archaeological deposits should they survive.

Area 3 - N25 River Brickey Crossing Site (river crossing)

At the time of this report it is intended to lay the pipeline within the deck of the bridge at River Brickey. If this is not possible, then any works (such as a tunnel crossing) associated in this area will require some form of archaeological mitigation. The word 'Longford' derives from 'longphort', the name given to the temporary settlements or ship enclosures that were established by the Viking raiders in the 9th and 10th centuries (a Longphort was recently uncovered at Woodstown during construction of the N25 Waterford Bypass). Viking material is known further up-river at Knockmoan, and the name 'Helvick' is also probably Norse in origin. There is also the possibility of maritime archaeology being uncovered along the banks, as the river was navigable for a considerable stretch beyond the bridge. As much of the tunnel site at Killongford is greenfield, never previously built on, and has remained in agricultural use, principally pasture, there is the possibility of uncovering previously unknown archaeological (principally prehistoric) deposits surviving in-situ.

Area 4 - R674 - area close to RMP WA036-003 (Ballyharahan – Holy Well)

The proposed development touches against the notification zone for Holy Well RMP WA036-003 and comes within 22m of the monument. As the existing road was constructed in 1987, there is the possibility that other features associated with the

monument survive buried underneath. The excavation of a trench for the pipeline along the road will remove any archaeological deposits should they survive.

Area 5 – Robert's Cross / Byrne's Cross Reservoir Site

A large area is being considered for the site of a reservoir, to be situated somewhere between Robert's Cross and Byrne's Cross. Cartographic evidence has shown the general area from Robert's Cross to Byrne's Cross as being undeveloped and unenclosed, consisting of the hill known as Slieve Grainn. Some pre 1841 structures are shown within the area. At Robert's Cross there are three farmsteads with enclosed fields. These seem to be limited to the lower slopes of Slieve Grainn, and a sunken road meanders up a gully. Likewise at Byrne's Cross there are a number of isolated structures that predate the 1841 Ordnance Survey. Some field enclosure has started but much of the area is open. A townland boundary runs across the area but does not appear to have had any physical form. Modern development has seen field boundaries developed and much of Slieve Grainn turned into large open pasture fields. As much of the site is Greenfield, never previously built on, and has remained in agricultural use, principally pasture, there is the possibility of uncovering previously unknown archaeological (principally prehistoric) deposits surviving in-situ. The development of a reservoir at this location will remove any surviving archaeology.

Area 6 - R674 - area close to RMP WA036-008002 (Shanacloon - Graveyard)

The existing road curves around Shanacloon Church & Graveyard (both RMP monuments) and appears to have been widened. The retaining wall around the graveyard suggests land was taken from it to widen the road. There is therefore the potential for archaeological material, especially burials, to be uncovered during construction works. The excavation of a trench for the pipeline along the road will remove any archaeological deposits should they survive.

Area 7 - R674 - area close to RMP WA036-025 (Ballynagaul More - Souterrain)

In 1998 a souterrain was uncovered close to the road at Ballynagaul. It consists of two chambers connected by a narrow creep. The second chamber was partially blocked by collapse, leaving the possibility that further chambers may have originally existed. The excavation of a trench for the pipeline along the road will remove any archaeological deposits should they survive.

7.3 Recommendations

The following recommendations have been made based on the results of this desk-based assessment. As the detailed design of the project is still being finalised at the time of this report, recommendations are based on an assumption of full impact on the area of the proposed development, including all temporary works areas. The study has identified seven different areas where archaeological mitigation is recommended, and these are outlined below.

Recommendation 1 - Archaeological Monitoring at Areas Identified by this Study

It is recommended that Pre-development Archaeological Monitoring be undertaken at areas identified by this study for both the Site Investigation and Construction Phases of the Project.

Reason – Potential for unknown archaeological deposits

The study has identified a number of areas where archaeological material has the potential to occur. Archaeological Monitoring of invasive groundworks will allow the early identification and investigation of any archaeology and will minimise any delays that may otherwise occur in the event of an archaeological discovery. The locations recommended for monitoring are as follows;

Mitigation Area 2: N25 from Youghal Road roundabout south for c.350m

This stretch of road was built in 1987 and encroached onto the foreshore area. The original road was also built on foreshore, and may date to as late as the early 19th century. With over 200 recorded wrecks in Dungarvan Bay and shoreline in the Shipwreck Inventory of Ireland Database (SIID), there is the potential for maritime archaeological material to survive in the sands and mud below.

Mitigation Area 3: N25 River Brickey Bridge (river crossing)

At the time of this report it is intended to lay the pipeline within the deck of the bridge at River Brickey. If this is not possible, then any works (such as a tunnel crossing) associated in this area will require some form of archaeological mitigation. A directional drilling option is under consideration which would not impact on the riverbanks or channel, but impact areas either side. There are suggestions that the area at Killongford may be historically important. The word 'Longford' derives from 'longphort', the name given to the temporary settlements or ship enclosures that were established by the Viking raiders in the 9th and 10th centuries (a Longphort was recently uncovered at Woodstown during construction of the N25 Waterford Bypass). Viking material is known further up-river at Knockmoan, and the name 'Helvick' is also probably Norse in origin, so it appears there was a Viking presence in the past. There is also the possibility of maritime archaeology being uncovered along the banks, as the river was navigable for a considerable stretch beyond the bridge.

Mitigation Area 4: R674 - area close to RMP WA036-003 (Ballyharahan – Holy Well)

The proposed development touches against the notification zone for Holy Well RMP WA036-003 and comes within 22m of the monument. As the existing road was constructed in 1987, there is the possibility that other features associated with the monument survive buried underneath.

Mitigation Area 6: R674 - area close to RMP WA036-008002 (Shanacloon - Graveyard)

The existing road curves around Shanacloon Church & Graveyard (both RMP monuments) and appears to have been widened. The retaining wall around the graveyard suggests land was taken from it to widen the road. There is therefore the potential for archaeological material, especially burials, to be uncovered during construction works.

Mitigation Area 7: R674 - area close to RMP WA036-025 (Ballynagaul More - Souterrain)

In 1998 a souterrain was uncovered close to the road at Ballynagaul. It consists of two chambers connected by a narrow creep. The second chamber was partially blocked by collapse, leaving the possibility that further chambers may have originally existed.

Recommendation 2 - Archaeological Test Trench Excavation at Robert's Cross/ Byrne's Cross Reservoir

It is recommended that Archaeological Test Trench Excavation on the footprint of the proposed Reservoir at Robert's Cross / Byrne's Cross (Mitigation Area 5) be undertaken prior to the commencement of site development works.

Reason – Potential for unknown archaeological deposits

Cartographic evidence suggests that the remains of pre-1841 structures may be encountered at both the Robert's Cross and Byrne's Cross ends of the Reservoir Area, should the reservoir be sites in these locations. In addition as much of the site of Slieve Grainn is greenfield, and has remained in agricultural use (mainly pasture), there is the possibility of uncovering previously unknown archaeological (principally prehistoric) deposits surviving in-situ. Archaeological Test Trench Excavation will involve the excavation of trenches through the use of a mechanical digger with a toothless ditching bucket at specific locations across the area of the proposed development. The trenches are to be excavated to the depth of natural undisturbed subsoil. The aim of testing is to give an indication of the nature, depth and significance of any surviving archaeology. If archaeological deposits are uncovered, they will have to be cleaned, recorded, photographed and left in-situ until a decision on any further mitigation is approved by the National Monuments Service. Testing should be undertaken under license from the National Monuments Service of the Department of Arts, Heritage & Gaeltacht by a suitably qualified archaeologist.

Recommendation 3* - Archaeological Test Trench Excavation at Killongford*

It is recommended that Archaeological Test Trench Excavation on the footprint of the proposed River Brickey crossing site at Killongford be undertaken prior to the commencement of site development works.

**This recommendation is not necessary if the pipeline is laid within the deck of the bridge at River Brickey*

Reason – Potential for unknown archaeological deposits

There are suggestions that the area at Killongford may be historically important. The word 'Longford' derives from 'longphort', the name given to the temporary settlements or ship enclosures that were established by the Viking raiders in the 9th and 10th centuries (a Longphort was recently uncovered at Woodstown during construction of the N25 Waterford Bypass). Viking material is known further up-river at Knockmoan, and the name 'Helvick' is also probably Norse in origin, so it appears there was a Viking presence in the past. There is also the possibility of maritime archaeology being uncovered along the banks, as the river was navigable for a considerable stretch beyond the bridge. While it has yet to be determined exactly how the proposed river crossing will be constructed, any works associated in this area will require some form of archaeological mitigation. At time of writing the project was progressing a directional drilling option which would not impact on the riverbanks or channel but just the Greenfield site to the north and a reception area to the south. As much of this is greenfield, and has remained in agricultural use, mainly pasture, there is the possibility of uncovering previously unknown archaeological (principally prehistoric) deposits surviving in-situ. Archaeological Test Trench Excavation will involve the excavation of trenches through the use of a mechanical digger with a toothless ditching bucket at specific locations across the area of the proposed development. The trenches are to be excavated to the depth of natural undisturbed subsoil. The aim of testing is to give an indication of the nature, depth and significance of any surviving archaeology. If archaeological deposits are uncovered, they will have to be cleaned, recorded, photographed and left in-situ until a decision on any further mitigation is approved by the National Monuments Service. Testing should be undertaken under license from the National Monuments Service of the Department of Arts, Heritage & Gaeltacht by a suitably qualified archaeologist.

Summary of Recommended Mitigation Measures

Mitigation Area	Location	Recommended Mitigation	When
1	n/a	n/a	n/a
2	N25	Archaeological Monitoring for c.350m along road verge	During SI & Main Works Contract
3*	River Brickey Crossing	1) Archaeological Testing either side of riverbank* 2) Archaeological Monitoring any invasive ground works* 3) Further mitigation if crossing not in directional drilling*	1) Prior to Main Works 2) During SI & Main Works 3) Prior to Main Works
4	Ballyharahan	Archaeological Monitoring 50m either side of monument	During SI & Main Works Contract
5	Robert's Cross / Byrne's Cross	Archaeological Testing of proposed reservoir site	Prior to Main Works Contract
6	Shanacloon	Archaeological Monitoring 100m either side of graveyard	During SI & Main Works Contract
7	Ballynagaul More	Archaeological Monitoring 50m either side of monument	During SI & Main Works Contract

**These recommendations not necessary should the pipeline be laid within the deck of the bridge.*

Please note the following;

- **All archaeological recommendations are subject to the approval of the National Monuments Service, Department of Arts, Heritage & Gaeltacht and the National Museum of Ireland.**
- **Further archaeological mitigation measures may be required depending on the results of the Archaeological Testing & Monitoring.**
- **Further archaeological mitigation measures may need to be agreed with the National Monuments Service for the River Brickey Crossing if the directional drilling option is not progressed and other options are considered.**
- **These measures are only recommended for the footprint of the proposed development, where there will be ground disturbance works associated with construction.**

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Select List of Local Authority Plans

Dungarvan Town Development Plan 2012 – 2018

Select List of Internet Resources Consulted and Reviewed

Archaeological Excavations in Ireland: www.excavations.ie

Chronology of Irish History 1919 – 1923: www.dcu.ie/~foxs/irhist/index.htm

Google Earth: www.google.com/earth/index.html

Bing Maps: www.bing.com/maps

Griffiths Valuation: www.askaboutireland.ie/griffith-valuation/index.xml

Irish Historic Maps: www.maps.osi.ie

National Monuments Service: www.archaeology.ie

Placename Database of Ireland: www.placename.ie

Townland Database of Ireland: www.seanruad.com

Ring Local History: www.ringcowaterford.blogspot.ie/

Waterford County Library Parish Files: www.snap.waterfordcoco.ie/collections/ebooks

Census of Ireland: www.census.nationalarchives.ie/

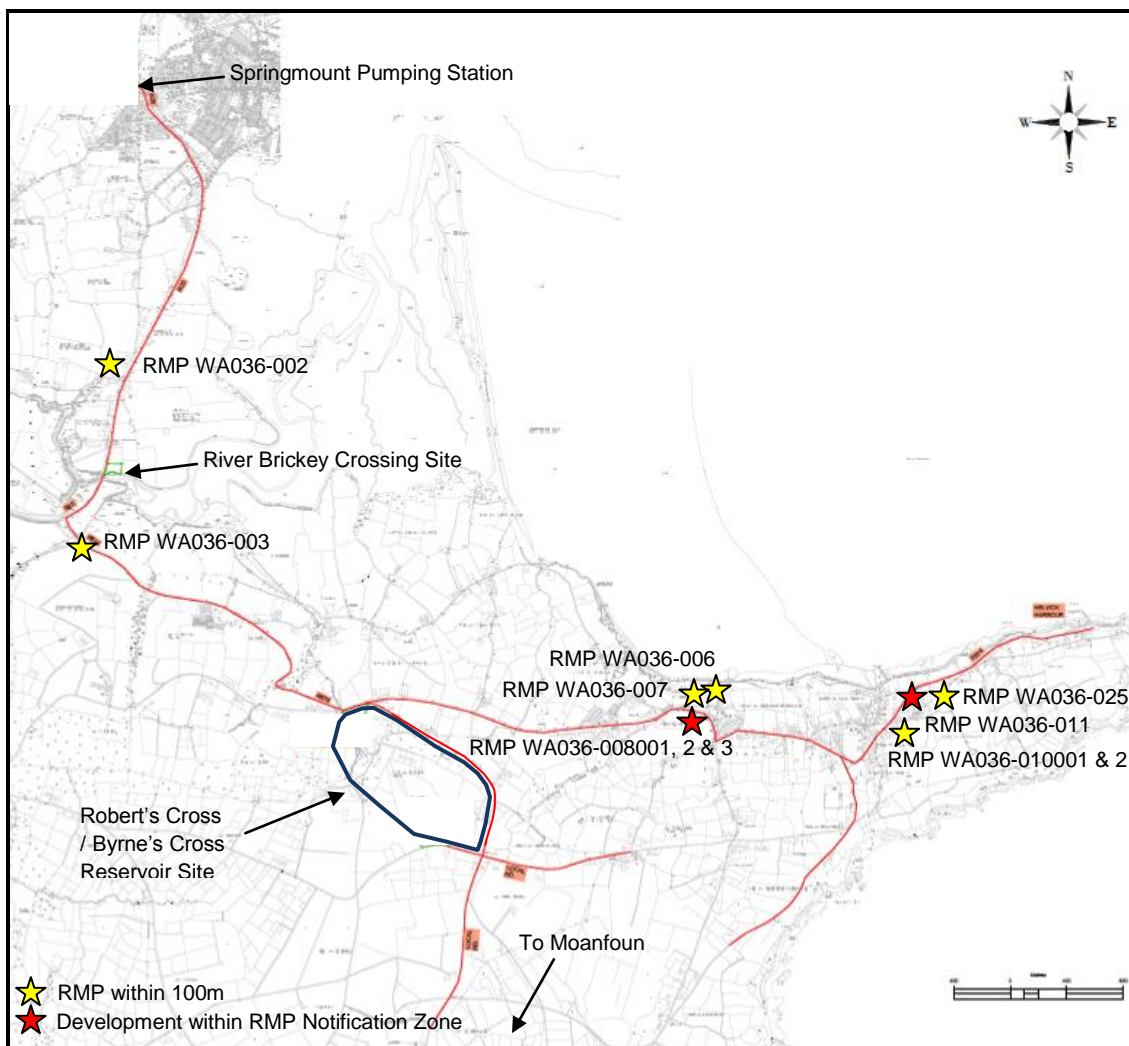


Figure 1: Map of the proposed scheme (after JB Barry Y13314) showing the proposed pipeline (red) and area for the reservoir sites. Recorded Monuments (RMPs) within 100m of the proposed development are shown (yellow stars) as are RMPs where the development crosses within their respective notification zones (red stars).

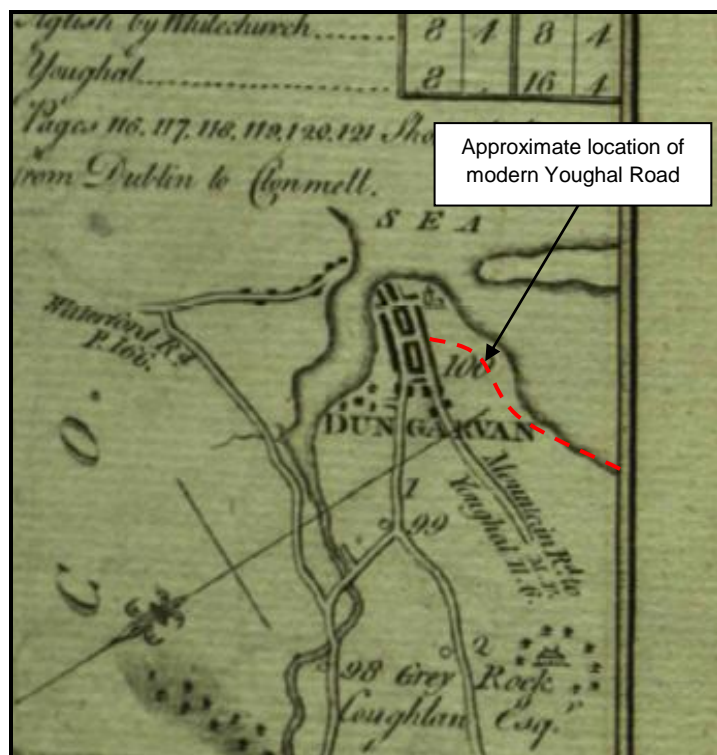


Figure 2: Taylor & Skinner's Map of 1783 showing Dungarvan. Note the Youghal road is not depicted, but a different road is marked for Youghal. This would suggest the Youghal road along the coast was built in the early 19th century



Figure 3: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Shanacloon Church & Graveyard

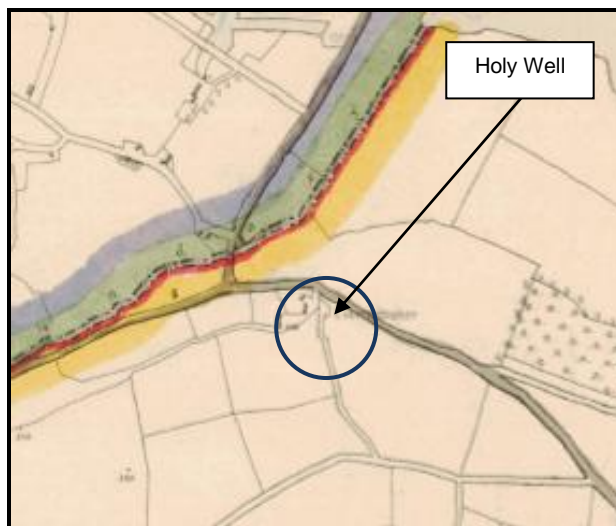


Figure 4: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Ballyharahan Holy Well

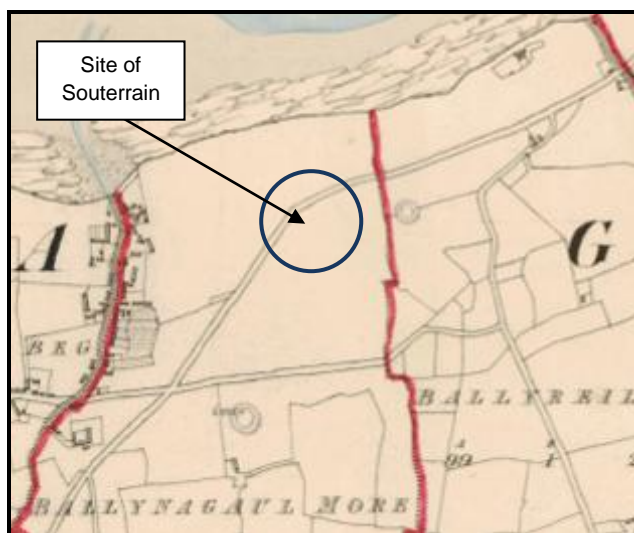


Figure 5: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing area of Ballynagaul Souterrain

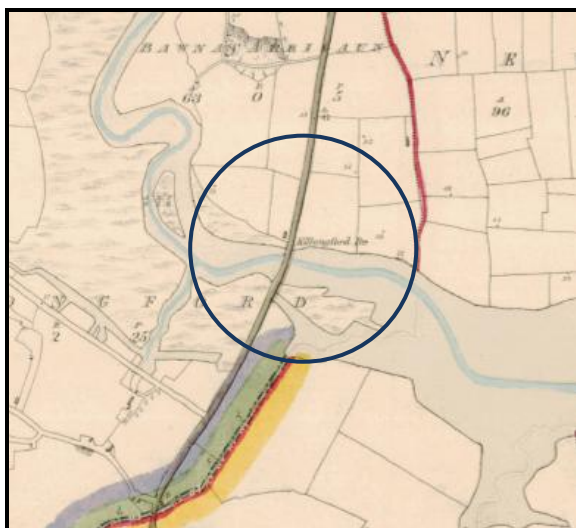


Figure 6: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing River Brickey Bridge

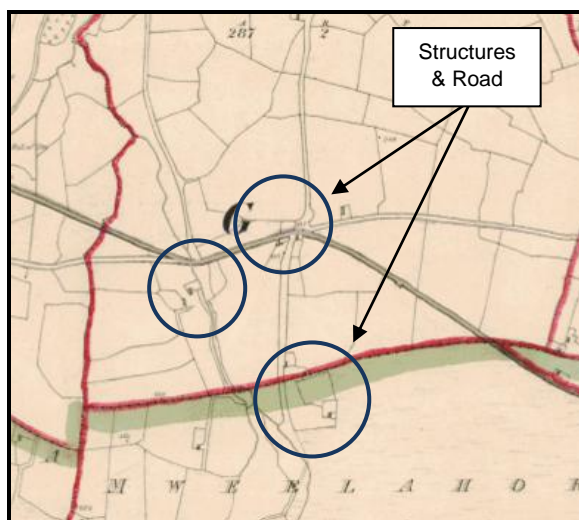


Figure 7: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing Robert's Cross end of the Reservoir Site Area

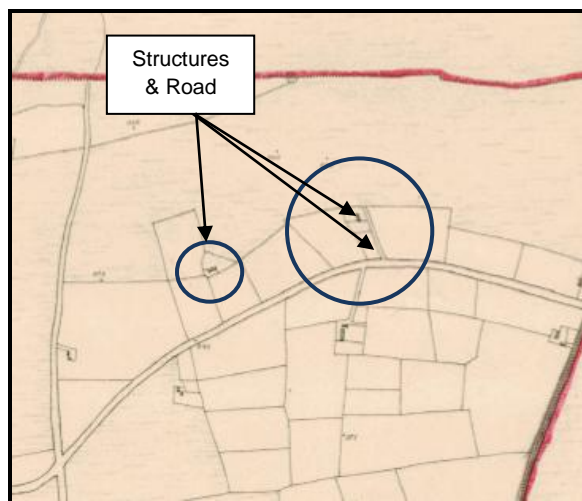


Figure 8: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing the Byrne's Cross end of the Reservoir Site Area



Figure 9: 1st Edition 6" Ordnance Survey Map, dating to the 1841 showing the Robert's Cross / Byrne's Cross Reservoir Site Area. Slieve Grainn is open and unenclosed, with only some small field enclosures along the periphery.

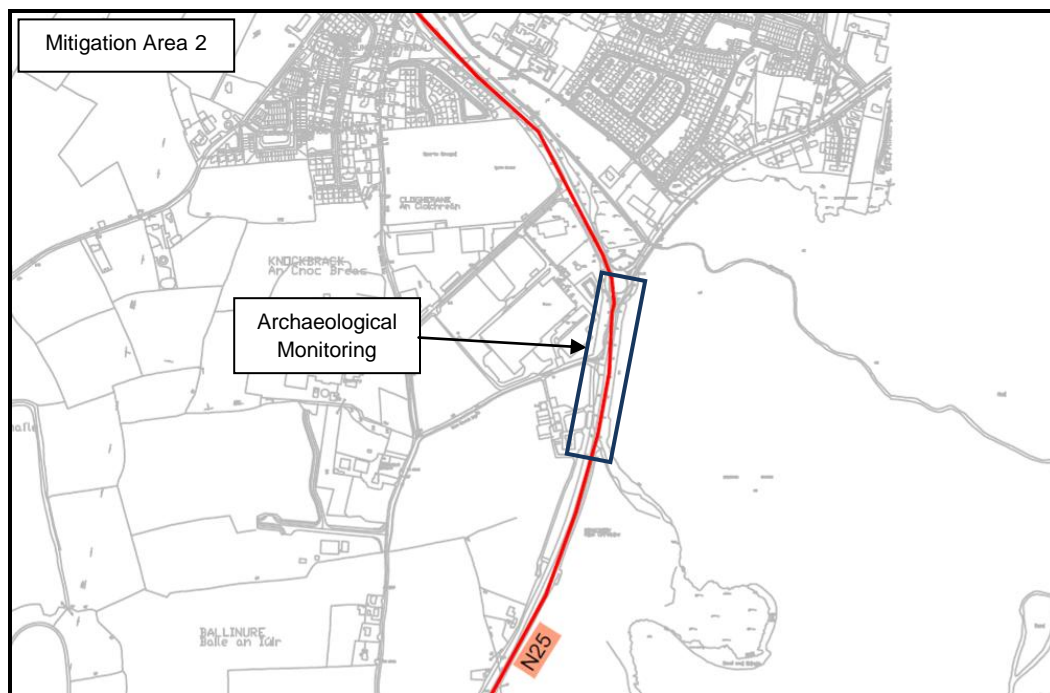


Figure 13: Archaeological Mitigation Area 2 (blue) with the proposed pipeline (red)

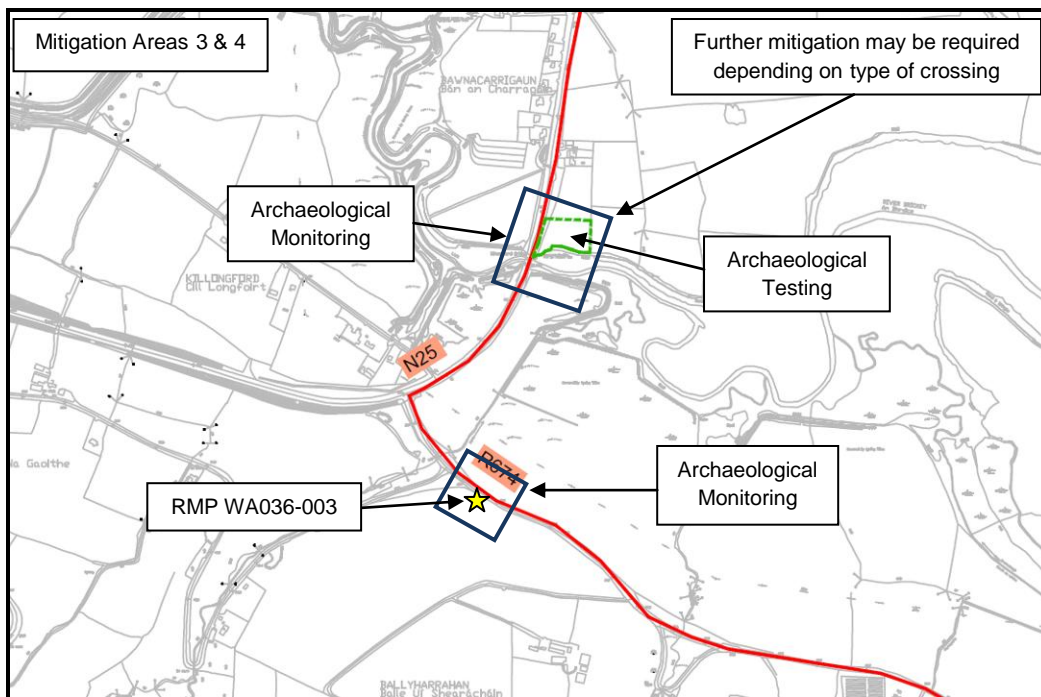


Figure 14: Archaeological Mitigation Area 3 (River Brickey Bridge River Crossing) and Mitigation Area 4 (Holy Well - both in blue) with the proposed pipeline (red).

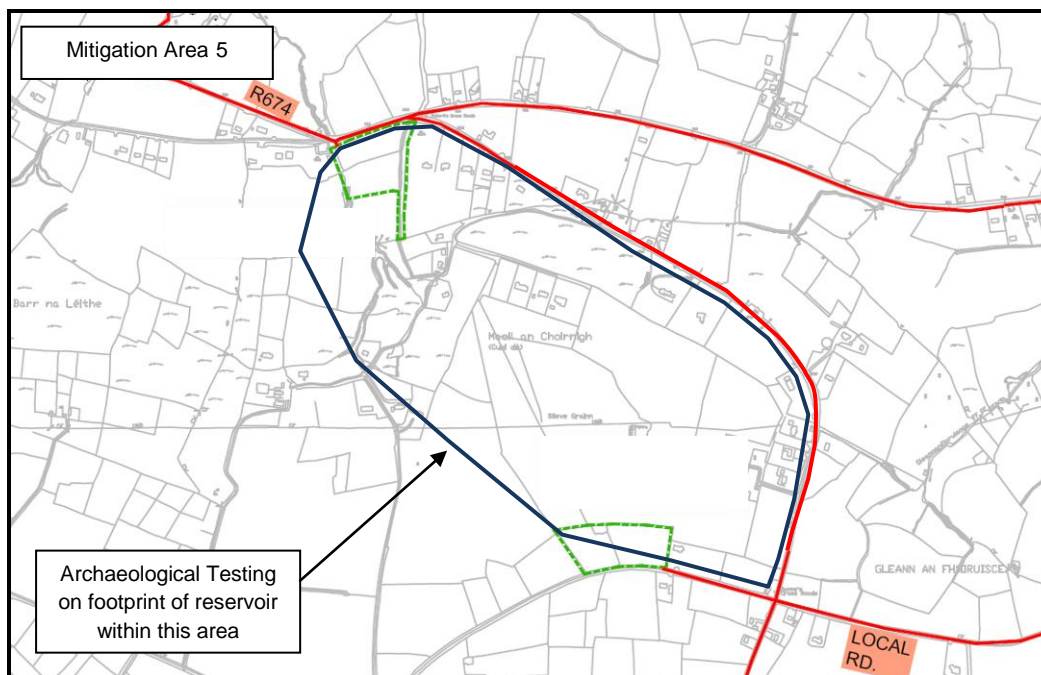


Figure 15: Archaeological Mitigation Area 5 (Robert's Cross / Byrnes Cross - in blue) with the proposed pipeline (red). The footprint of the reservoir within this area, when decided, is to be subject to archaeological testing. The original sites considered are highlighted in green

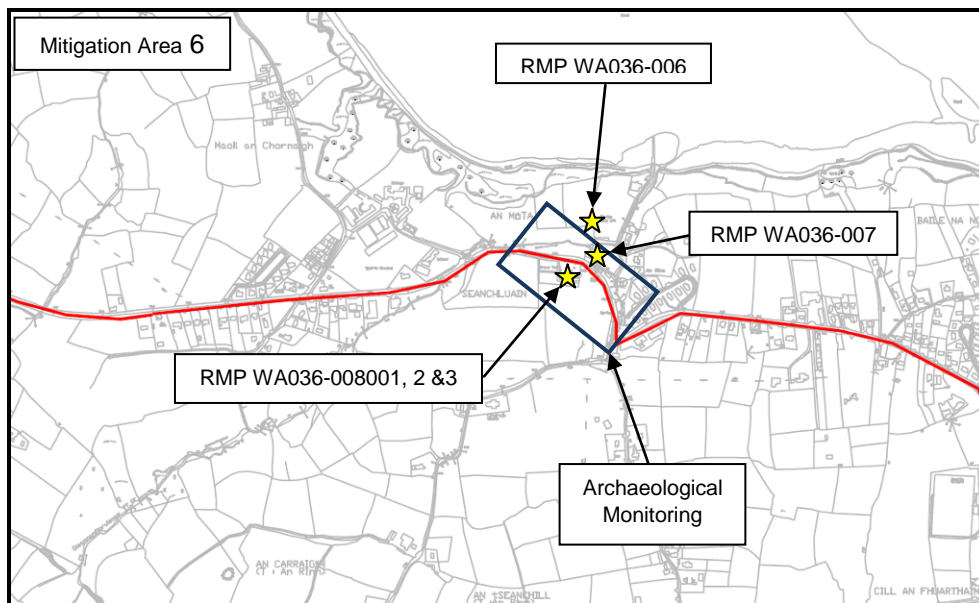


Figure 16: Archaeological Mitigation Area 6 (in blue) with the proposed pipeline (red)

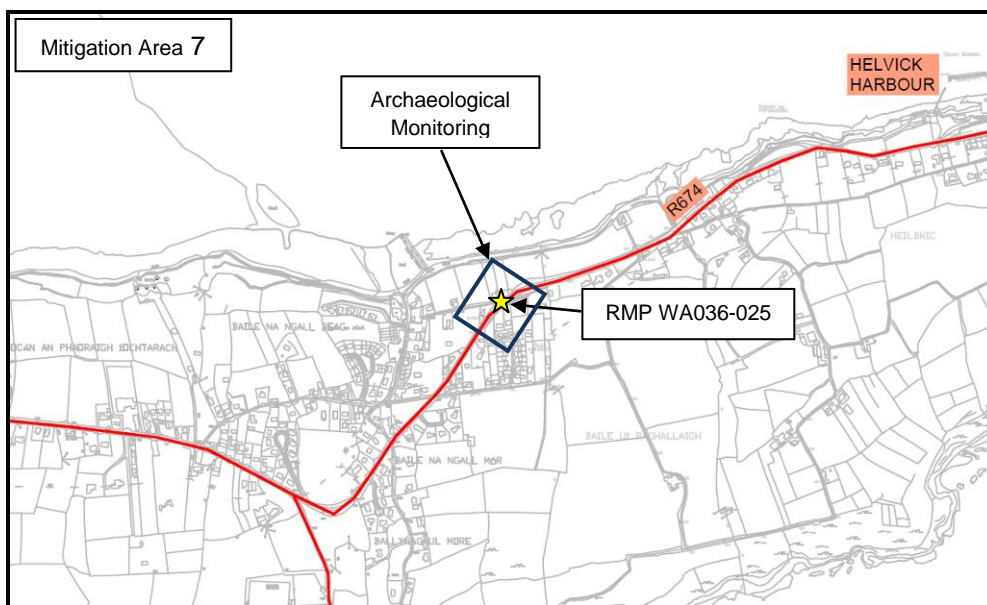


Figure 17: Archaeological Mitigation Area 7 (in blue) with the proposed pipeline (red)



Plate 1: View of Springmount Pumping Station at the Spring Roundabout.



Plate 2: View of the N25 Dungarvan Bypass (1987) looking south. The pipeline will be laid within the eastbound carriageway.



Plate 3: View of the N25 Dungarvan Bypass Youghal Road section, looking north showing reclaimed foreshore. The pipeline will be laid in the north bound road verge.

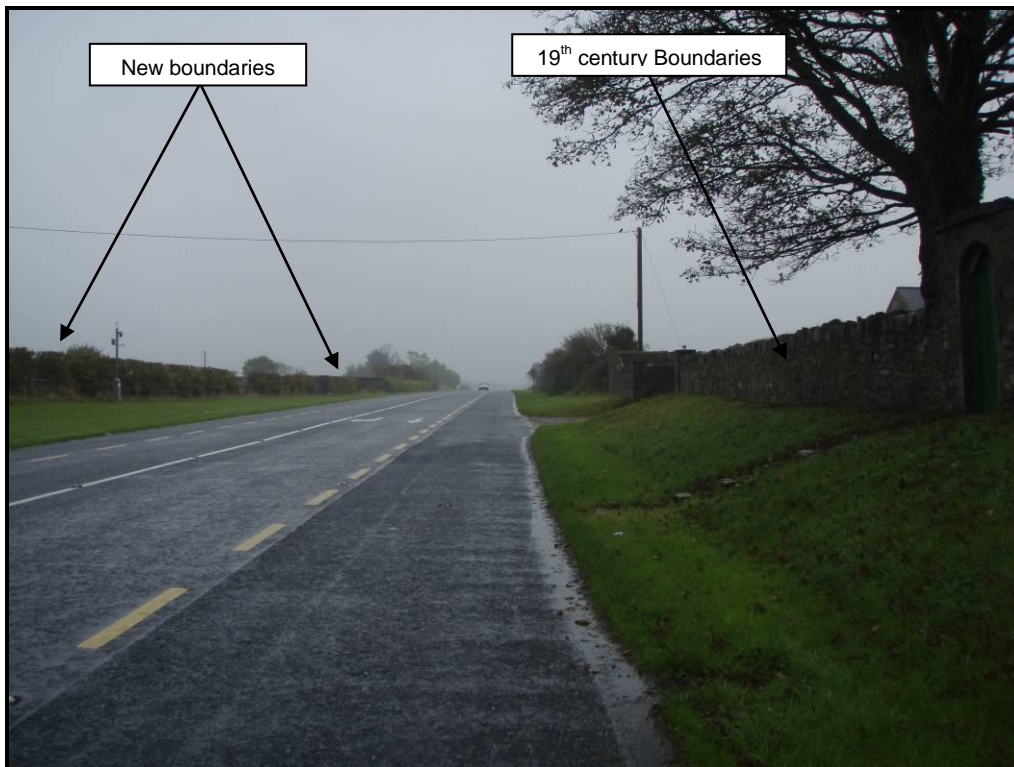


Plate 4: View of the N25 Dungarvan Bypass Youghal Road section, looking north. Note how the road has been widened and the level lowered. The pipeline will be laid in the south bound road verge / hard shoulder.



Plate 5: View of the proposed River Brickey crossing from River Brickey bridge, looking north at the proposed crossing site. It is currently envisaged that the pipeline will be laid within the deck of the bridge, but if this is not possible the crossing will be made by directional drilling and will not impact on the river banks or channel.



Plate 6: View of the proposed River Brickey crossing site, looking east. If the crossing is by directional drilling, then it will be constructed from this field. The river Brickey is behind the trees to the right.



Plate 7: View of the proposed River Brickey crossing site, looking south. The river Brickey is behind the field boundary.



Plate 8: View of the R674 looking east. This road was built as part of the Dungarvan to Youghal trade route in the early 19th century, and has been widened in modern times. The pipeline will be laid within the road.



Plate 9: View of the R674 looking west. This road was built as part of the Dungarvan to Youghal trade route in the early 19th century, and has been widened in modern times. The pipeline will be laid within the road.



Plate 10: View of the R674 at Shanacloon. The graveyard is to the right. Note the retaining walls where the road appears to have been widened. The pipeline will be laid within the road.



Plate 11: View of the Graveyard RMP WA036-008002 at Shanacloon. The Church RMP WA036-008001 is located within the graveyard to the right. The pipeline will be laid within the road.



Plate 12: View of the R674 at Shanacloon. The Graveyard RMP WA036-008002 is to the right, out of picture. Note the recently restored structure which is shown on the 1841 Ordnance Survey. Holy Well RMP WA036-007 lies among the trees to the left. The pipeline will be laid within the road.



Plate 13: View of the R674 at Ballynagaul. Souterrain RMP WA036-025 is located close to the road (centre left). Note the modern footpath and street lighting, and the recently widened road. The pipeline will be laid within the road.



Plate 14: View of the area of the proposed reservoir looking from Robert's Cross towards Byrne's Cross (hidden behind the hill). The exact location is yet to be determined.

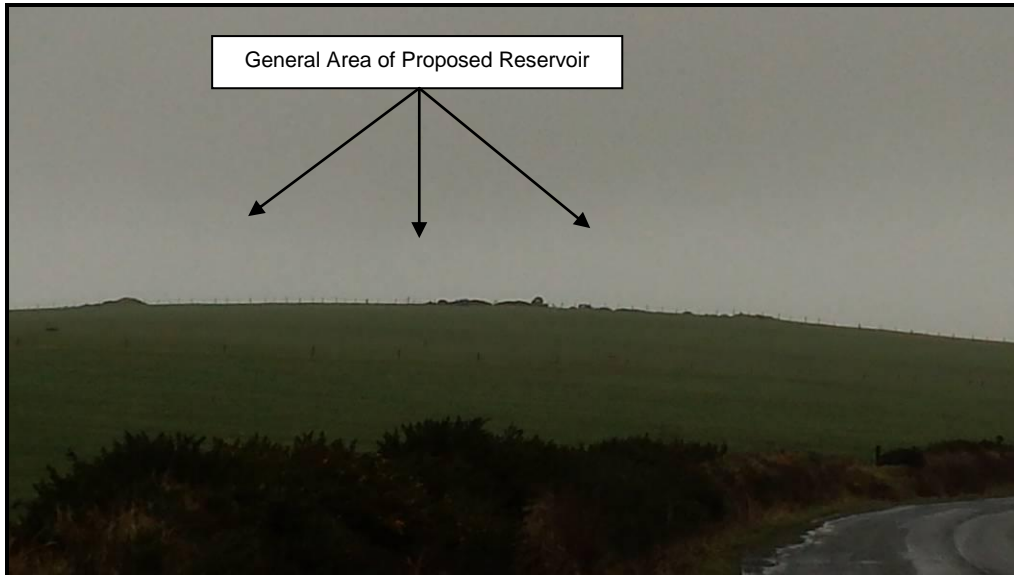


Plate 15: View of the area of the proposed reservoir looking northwest from Byrne's Cross towards Robert's Cross (hidden behind the hill). The exact location is yet to be determined.

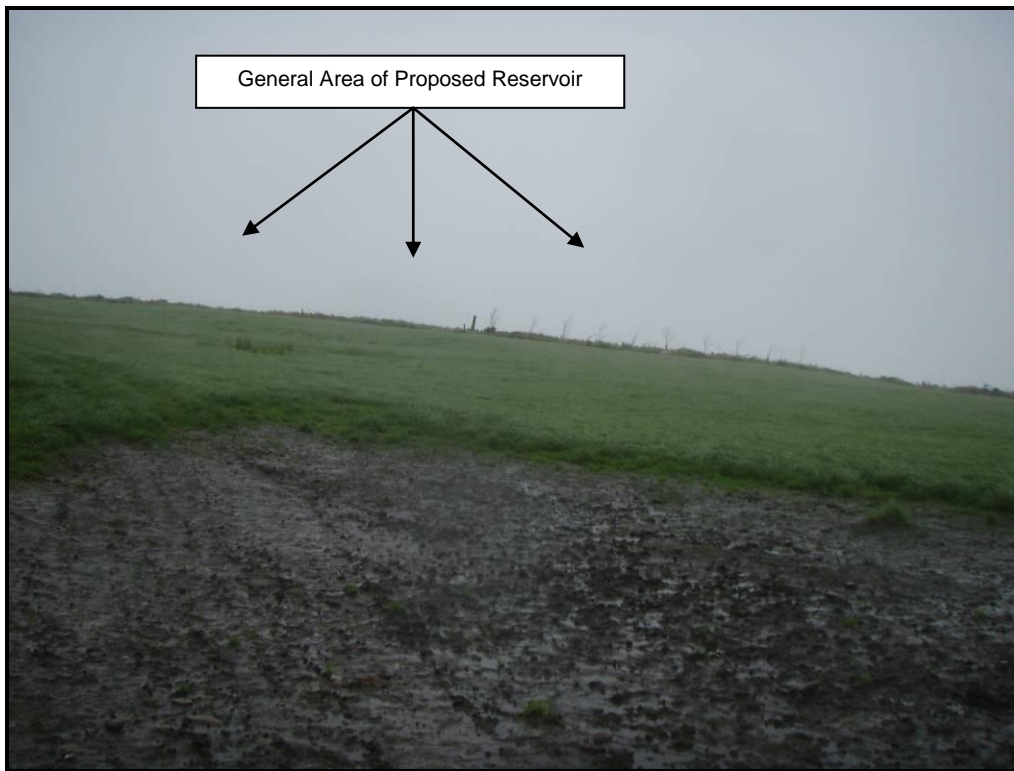


Plate 16: View of the area of the proposed reservoir looking northwest from Byrne's Cross towards Robert's Cross (hidden behind the hill). The exact location is yet to be determined.



Plate 17: View of the Standing Stone at Gates. It has been assessed by the archaeological survey of Ireland to have been erected in modern times and is therefore not archaeologically significant.