MARITIME CULTURAL HERITAGE ASSESSMENT

OF

COVE SAILING CLUB MARINA DEVELOPMENT

AT COBH, CO. CORK

ON BEHALF OF

CRONIN MILLAR CONSULTING ENGINEERS



Moore Marine Services

Job Number: M10C02

Licence Numbers: 10D31 & 10R73

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TABLE OF CONTENTS

RELEVA	ANT ABBREVIATIONS	4
1 SC	COPE OF WORKS	
1.1	Introduction	
1.2	Purpose of the Project	
2 CH	HARACTERISTICS OF THE PROJECT	
2.1	General	
2.2	Description	
2.3	Site Layout/Location details	3
3 DI	ESCRIPTION OF THE EXISTING ENVIRONMENT	5
3.1	Solid Geology	
3.2	Soil Type	
3.3	Landscape	5
4 AF	RCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
4.1	Mesolithic Period	
4.2	Neolithic Period	6
4.3	The Bronze Age	
4.4	The Iron Age/Early Historic Period	8
4.5	Early Christian Period	9
4.6	Later Historic Period	9
4.7	Site Specific Background	10
5 BA	ASELINE DATA	12
5.1	Record of Monuments and Places	
5.2	Topographical Files of the National Museum of Ireland	
5.3	Previous archaeological fieldwork in the area	16
5.4	Place-name evidence	
5.5	Ports and Harbours Archive	
5.6	National Shipwreck Inventory of Ireland	20
5.7	Record of Protected Structures	
5.8	Lewis Topographical Dictionary	35
5.9	Historic Maps	37
5.5	9.1 First Edition Ordnance Survey, 1845	38
5.	9.2 Second Edition Ordnance Survey, 1898	38
5.10	Aerial Image	39
6 UI	NDERWATER ARCHAEOLOGICAL SURVEY	41
6.1	Field Survey Methodology and Strategy	41
6.2	Site Conditions	42
6.3	Survey Results	42
7 DI	ISCUSSION & RECOMMENDATIONS	46
7.1	Discussion of Proposed Development	46
7.2	Assessment of Potential Impacts	
7.3	Recommendations	
APPEN	IDIX 1 BIBLIOGRAPHY	48
APPEN	IDIX 2 LEGISLATIVE BACKGROUND	49
APPEN	IDIX 3 IMPACT ASSESSMENT & THE ARCHAEOLOGICAL RESOURC	F52

TABLE OF FIGURES

Figure 1:	Extract from Discovery Series Map # 87 with site location highlighted in red	
Figure 2.	Location map of proposed marina at White Point, Cobh4	
Figure 3.	Detail of proposed marina development at White Point, Cobh4	
Figure 4.	Solid Geology of Cork Harbour (Devoy, 2005 and MacCarthy, 2002)5	
Figure 5.	Extract from County Cork RMP Map CO087 with site location highlighted12	
Figure 6.	Extract from First Edition Ordnance Survey, 184538	
Figure 7.	Extract from Second Edition Ordnance Survey, 189839	
Figure 8.	Dive transects at development site41	
	TABLE OF PLATES	
Plate 1.	Close up of aerial image of site taken in 2005 with site location highlighted40	
Plate 2.	Aerial image of site taken in 2000 with site location highlighted40	
Plate 3.	Survey area viewed from the south43	
Plate 4.	Survey area viewed from the west43	
Plate 5.	Old and existing outfalls at beach north of survey area44	
Plate 6.	Seabed at a mooring block44	
Plate 7.	Seabed at rocky escarpment in survey area45	
Plate 8.	Seabed in deep water section of survey area45	
	TABLE OF TABLES	
Table 1.	Location details3	

RELEVANT ABBREVIATIONS

CCDP Cork County Development Plan

cSAC Candidate Special Area of Conservation

CSO Central Statistics Office

DCMNR Department of Communications, Marine and Natural Resources

DoEHLG Department of the Environment, Heritage and Local Government

EA Environmental Assessment

EIA Environmental Impact Assessment
EIS Environmental Impact Statement
EPA Environmental Protection Agency

GIS Geographic Information System

GPS Groundwater Protection Scheme

GSI Geological Survey of Ireland

IAP Integrated Area Plan

ING Irish National Grid

LAP Local Area Plan

MMS Moore Marine Services

NBP National Biodiversity Plan

NDP National Development Plan

NHA Natural Heritage Area

NRA National Roads Authority
NSS National Spatial Strategy

PDA Planning and Development Act

PDR Planning and Development Regulations

pNHA Proposed Natural Heritage Area

RBDMP River Basin District Management Plan

RWSS Regional Water Supply Scheme

SAC Special Area of Conservation

SDS Sustainable Development Strategy
SEA Strategic Environmental Assessment

SPA Special Protection Area

WWS Wastewater Scheme

WWTP Wastewater Treatment Plant

NON TECHNICAL SUMMARY

Moore Marine Services Ltd. was commissioned by Cronin Millar Consulting Engineers to carry out a maritime cultural heritage impact assessment of a proposed marina development at White Point, Cobh, Co. Cork.

The assessment took place on 14th June 2010 under Licence to Dive No: 10D31 and Consent to Use a Detection Device Licence No: 10R73. The timing of the survey coincided with a spring tide and therefore the maximum foreshore was visible at low water. Water visibility at the time of the survey was moderate and the maximum recorded water depth was 13.8 m.

The underwater archaeological assessment was commissioned in order to locate, define and ascertain the character, condition and extent of any archaeological features, deposits or objects which may be affected by the development.

The area in the vicinity of the harbour development has a rich and varied history which has been intrinsically influenced by the surrounding seascape. The area today is an urban seascape. The Record of Monuments and Places record the presence of a number of monuments in the wider area dating as far back as the Neolithic and there is also evidence for Mesolithic activity in the area.

The desktop assessment for proposed development indicated that the subject site was of moderate archaeological potential. The National Shipwreck Inventory recorded a considerable number of shipwrecks in the general area; however none of these were specific to White Point. The Record of Monuments and Places indicated that there has been little or no recorded human activity in the survey area.

The results of the diver visual and metal detection survey recorded that there were no archaeological deposits or features on the seafloor in the development zone.

Based on the results of the desktop assessment and the diver survey, it would appear that the subject site is of low to moderate archaeological potential. Given the relatively minor impact of the mooring chain and anchor method proposed for the marina development it is recommended that the project proceed without further archaeological constraints.

1 SCOPE OF WORKS

1.1 Introduction

Moore Marine Services Ltd. was commissioned by Cronin Millar Consulting Engineers, to carry out a maritime cultural heritage impact assessment of a proposed marina development at White Point, Cobh, Co. Cork.

This assessment addresses the location, nature, character, condition and extent of any cultural heritage which may be affected by the proposed marina development and assesses the likelihood of the project impacting previously unrecorded archaeological deposits or features. The following report documents the proposed project, the existing environment at the site, survey methodologies, results of the surveys, potential impacts and subsequent recommendations.

1.2 Purpose of the Project

The aim of the underwater archaeological impact assessment was to:

- Ascertain the character, condition and extent of any archaeological areas, features or objects
 likely to be affected by the proposed works, including any associated temporary works and to
 ascertain the potential impact of the works on archaeological remains outside the immediate
 area of the proposed works as these may be vulnerable to impacts arising from consequent
 changes in hydrology and sediment formation
- Accurately locate these archaeological areas, features and objects and present the findings in map form
- Describe same and discuss their likely provenance
- Ascertain the potential impact of the proposed works on these remains
- Recommend appropriate measures for the avoidance of these remains or, where this cannot be achieved, to recommend measures to mitigate the impact of the works
- Incorporate all the above into a report



Figure 1: Extract from Discovery Series Map # 87 with site location highlighted in red

2 **CHARACTERISTICS OF THE PROJECT**

2.1 General

The site is located at Whitepoint, Cobh, Co. Cork adjacent to the 'Five Foot Way' (Figures 1 & 2). The marina will be located at the existing swing mooring field.

2.2 Description

Cove Sailing Club proposes to develop a 74 berth marina at Whitepoint, Cobh, Co. Cork (Figure 3). The marina will be an all tide access marina in Cork Harbour with all marina components comprising floating pontoons. Access to the marina will be via a fixed platform and gangway extending from the quay wall at the 'five foot way'. The marina will be restrained in position with a chain and anchor system. Dredging at the site is not envisaged.

2.3 Site Layout/Location details

County	Cork
Townland	Cobh
OS Sheet number	CO087
RMP number	N/A
NGR	178777, 66016
Height	+/- 10m O.D

Table 1. **Location details**

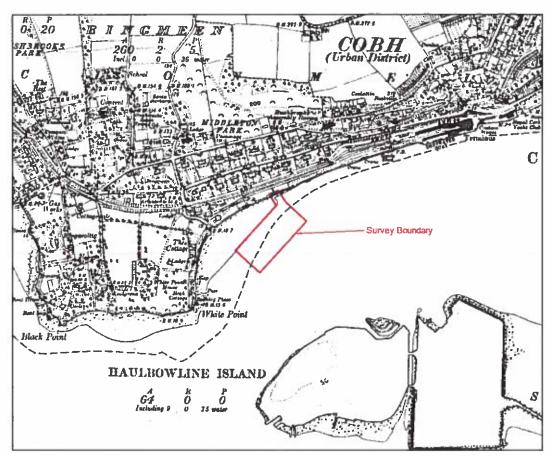


Figure 2. Location map of proposed marina at White Point, Cobh



Figure 3. Detail of proposed marina development at White Point, Cobh

DESCRIPTION OF THE EXISTING ENVIRONMENT 3

3.1 Solid Geology

The present River Lee floodplain overlies a buried valley or "gorge", which was formed in the Carboniferous and Devonian rock 20,000 to 16,000 years B.P during the Pleistocene glaciations. This occurred when sea level fell to about -130 m OD and glacier action, together with melt water release, cut down to the new base level to meet these low sea-level positions. The result was the creation of a classic U-shaped glacial trough (Devoy, 1983). The Lee Buried Valley runs from Crookstown in the west towards Youghal in the east, a distance of about 60 km. The bedrock falls in irregular steps towards the harbour from about 10 m depth west of the city to an estimated 60 m depth in the harbour area.

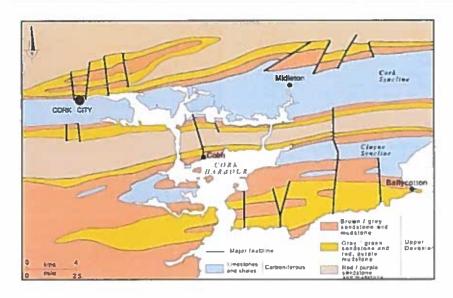


Figure 4. Solid Geology of Cork Harbour (Devoy, 2005 and MacCarthy, 2002)

3.2 Soil Type

The Geological Survey of Ireland records the broad physiographic division of this area as rolling lowland. It records that the principal material is brown podzolics with acid brown earths (20%) and gleys (20%) from a parent material of sandstone and lower avonian glacial till.

3.3 Landscape

The subject site is on the southern side of Great Island, the largest island within the natural harbour of Cork. The area is composed of several inlets and small islands and is one of the largest natural harbours in the world by navigational area. A number of rivers drain into this harbour including the Lee. The topography of the landscape is gently undulating, with a mixed coastline consisting of built infrastructure, shallow cliffs, intertidal mudflats, reed beds, shingle and rocky foreshores. The western extent of the harbour is characterised by estuarine influences where the Lee discharges to the complex estuary zone.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The following data were collected by Moore Marine. They indicated that the study area is located within a very rich archaeological landscape.

4.1 **Mesolithic Period**

The Mesolithic (middle stone age) people were the first inhabitants of Ireland, arriving about 9000 years ago. They were a mobile society relying on wild resources for food, which was hunted and gathered using stone tools as well as boats, nets and traps. Settlement was in temporary and semi permanent groups of huts constructed of wood slung with hide, which may have operated as seasonal or hunting camps.

The earliest evidence for human settlement within the Cork Harbour area dates to the Late Mesolithic (c.5500 - 3500 BC). According to Rynne (1993) at least three large stone tools dating to this period, known as Bann flakes, have been found in the vicinity of the harbour, two near Gyleen on the south coast to the east of the harbour entrance and one on Fota Island to the north of the proposed development site. Other stone tools have also been found in the Gyleen area and at Dunpower (ibid). A polished stone axe was discovered during archaeological monitoring for the Cork Main Drainage project at Carrigrenan, Little Island, located to the north of Great Island. The axe is of baked mudstone or shale, 0.12 m in length, and possibly dates to the Late Mesolithic period.

4.2 **Neolithic Period**

Farming was first adopted in the Middle East but spread gradually across Europe in succeeding centuries, arriving in Ireland about 4000 BC. Tending of crops and animals required a more sedentary lifestyle and larger permanent settlements were built. The megalithic (from the Greek mega – large and lithos – stone) monuments of the Neolithic people built as communal tombs or for ceremonial purposes, are relatively common in the landscape. New methods were adopted for shaping stone tools and the first long distance trade networks were established.

A number of shell middens are located around the area. Shell middens are mounds or spreads of discarded sea-shells generally found close to the seashore. The shell fish were used mainly as a food resource but also for bait and to make dye. Available dates from excavated shell middens show that they were in use from the Mesolithlc/ Neolithic period (in Ferriter's Cove near Dingle in Co. Kerry), through the Bronze Age and Iron Age and on up until the 18th -19th century. There is one recorded shell midden (CO087-054) at Ringaskiddy and many others in the surrounding area at Carrigrenan, Curraghbinny, Corkbeg, Rathcoursey East, Rossmore and Rostellan. Also in the area and dated to the Neolithic period is a cairn (CO099-023) at Curraghbinny.

4.3 The Bronze Age

As stone tools were replaced by the use of copper, later combined with tin to make bronze, the structure of society also changed over centuries. While some communal megalithic monuments, particularly wedge tombs continued to be used, the Bronze Age is characterised by a movement towards single burial and the production of prestige items and weapons, suggesting that society was increasingly stratified and warlike.

The Bronze Age in Cork is unique in both its monumental record and its metal producing heritage. The earliest copper mines in Ireland (and indeed northeast Europe) are located in the southwest of Cork. A series of 9 mines span the west Cork peninsulas, the most famous of which is the Mount Gabriel complex near Schull. At Mount Gabriel, copper was mined from as early as 1800-1400BC (O'Brien, 2004) and would mark out the west of Cork as a focal point for metal mining throughout the Bronze Age; a number of exceptional early copper hoards in the Cork region (Killaha and Castletownroche to name two) bear testimony to this early pre-eminence. While Co. Cork appears to have been a largely peripheral region in the megalithic tradition, during the later Bronze Age there appears to have been a population explosion (mirrored all over the country), indicated by a massive increase of metal production for prestige goods and the appearance of a more densely settled landscape, indicated both by increased domestic settlement and a varied sacred monumental landscape. Unique to Cork at this time was the continued use of the wedge tomb into the Bronze Age, apparently used in conjunction with a number of new styles of interment and sacred monument. From the Later Bronze Age, single interment within a barrow or ditch (either alone or in a cemetery) became the norm, while the use of recumbent stone circles and single standing stones - used either to mark burials or places of sacred significance - became widely popular in the Cork and Kerry region. The vast majority of recumbent stone circles found in Munster are located in Cork and Kerry (over 90 in total), with a 17 stone example found near Baltimore at Glandore, Co. Cork and a 13 stone example found at Rosscarbery, in Co. Cork.

In 1992 a multi-period settlement site was excavated on Fota Island, north of Great Island. A structure of possible Bronze Age date was uncovered and finds included pottery dating to the Late Neolithic/ Early Bronze Age. To the west of Fota Island a temporary settlement site of possible Bronze Age date was uncovered during archaeological monitoring at Ballinure on the Mahon Peninsula (Purcell, 2004). Also of possible Bronze Age date is a megalithic structure on the shoreline at Rostellan to the northeast.

Fulachtaí fia are enigmatic features and amongst the most common archaeological site in Ireland. They usually date from the Bronze Age and are frequent in Co. Cork. They are often recognised as horseshoe or oval shaped mounds which on excavation are found to consist of burnt material, ash and shattered stone. In the centre a wooden trough will sometimes survive, possibly lined with clay or leather, and one or more hearths may be present in the immediate area. Fulachtaí fia are almost always found in marshy areas or by a stream and it is thought that their location was chosen to allow the trough to be filled with water. Hot stones from the hearths were then placed into the water to heat it. The function of the hot water remains unclear and is the subject of intense debate in Ireland. It has been suggested to have been used for dying, cooking, brewing or washing.

A fulacht fiadh has been excavated at Scartbarry, between Rathcormac and Fermoy. On this site a substantial stone lined trough was found near a large hearth. A house with an entrance to the south straddling this trough has been interpreted as a sweathouse or sauna. An identical structure has been excavated at Carrignafoy, near Cobh. Despite the uncertainty of its purpose, these two structures are unique in the county.

4.4 The Iron Age/Early Historic Period

In late Bronze Age Ireland the use of the metal reached a high point with the production of high quality decorated weapons, ornament and instruments, often discovered from hoards or ritual deposits. The Iron Age however is known as a 'dark age' in Irish prehistory. Iron objects are found rarely, but there is no evidence for the warrior culture of the rest of Europe, although the distinctive La Tène style of art with animal motifs and spirals was adopted. Life in Iron Age in Ireland seems to have been much as it was in the early historic period - mixed farmers living in or around small defended settlements known as ringforts or stone cashels.

The ringfort is the most numerous archaeological monument in the Irish landscape and they are generally believed to have been the defended farmsteads of a free farming class in the early Medieval period. Ringforts, hilltop enclosures and other large enclosures are common across the county, both as raths (defended settlements defined by an earthen bank) and cashels (defined by a bank of stone). The smaller ringfort settlements are common monuments in Cork and are thought to be small farmsteads, enclosing houses, farm buildings and animal pens, enclosed as protection against raiders or wild animals. Excavations of the interiors suggest that the houses were small circular huts, built of stakes with a double skin of wattle and a thatched roof. Their distribution in the region is dispersed and widespread.

Many coastal sites in Ireland were defended by the erection of earthen or stone ramparts across the necks of headlands, forming promontory forts. These forts were built primarily for defence or refuge purposes, rather than for habitation and vary greatly in size. Though generally assigned to the Iron Age, they can vary widely in date from c.1000 BC to 1700 AD and usually have the prefix 'dún' in the names. Other defensive forts are hillforts and cliff-edge forts. Like coastal promontory forts, some forts were built on the edges of inland cliffs, utilising the natural defences of the cliffs.

Crannógs are ancient Irish lake dwellings on artificially constructed islands on which houses were built. Crannógs were constructed of layers of material such as mud, brushwood and stones set inside a

palisade of closely-set wooden stakes which consolidated the structure and acted as a defensive barrier. There are approximately 2000 crannogs in Ireland (Fredengren, 2002).

4.5 Early Christian Period

The Early Christian period marks the coming of Christianity to Ireland and it is at this time also that St. Finbarr founded his monastery at Cork which later developed into Cork city. The Early Christians worshipped in small churches of stone or wood. Very often these churches formed the centre point for a settlement of monks or a monastery. There is documentary evidence for such an ecclesiastical settlement (CO087-6502) on Spike Island. Cardinal Moran's 'Archdall' refers to an entry in the 'Life of St. Mochuda of Rahin in King's County and Lismore in the County of Waterford' which states that Mochuda built a monastery on Pick Island, where he remained a full year, He left behind 'two score of his brethren in his own stead' on the island which was stated to be a 'most holy place, and that most pious people reside in it perpetually'.

4.6 Later Historic Period

The entrance to Cork Harbour is narrow and therefore relatively easy to defend. Early maps show that there were defensive fortifications on the east side of the harbour entrance at Carlislefort in 1571 and directly opposite this, on the west side of the harbour, at Crosshaven Hill c.1690.

During the Post Medieval period (17th – 19th century) the harbour became more heavily defended with a large number of military fortifications being constructed which still stand today. Earlier fortifications at Carlislefort were replaced by Carlisle Fort (CO087-058) in 1798 and this in turn was renamed Dún an Dáibhisigh or Davis Fort when it was handed over to the Irish Government in 1938. It is now the property of the Department of Defence and is in use as an army training camp. Across the harbour from Carlisle Fort the fortifications at Crosshaven Hill were replaced by Camden Fort (CO099-024) c.1798. According to Lewis the excavations undertaken during the construction of this new fort is said to have destroyed 'a nearly perfect tumulus'. Camden Fort was likewise handed over to the Irish Government in 1938 and renamed Dún Uí Mheachair or Fort Meagher. It is no longer in use.

Further into the harbour star-shaped forts were built on Haulbowline Island and on Spike Island. Star shaped forts in Ireland date to the 17th century and were designed as a defence against an artillery attack with angled bastions at the corners to provide flanking fire and sloping earthen embankments or glacis to absorb artillery fire. The fort on Haulbowline Island (CO087-05903-) was begun in 1602 but abandoned in 1624 and remained out of use until 1813-15 when a Martello Tower (CO087-05902-) was constructed to the north of the old fort. Other military buildings, including barracks and large warehouses, were erected in the 18th and early 19th centuries and survive today.

4.7 Site Specific Background

The village on the large island known as Great Island in Cork Harbour was known as Ballyvoloon, overlooking "The Cove". It was first referred to as 'The Village on the Great Island' in 1750 by Smith who recorded that "it was inhabited by seamen and revenue officials". Lewis's Topographical Dictionary records Cove as being as small village as recently as 1786 "consisting of a few scattered houses inhabited by the tide-waiters and pilots of Cork, and some miserable cabins occupied by fishermen". The Water Club established at Haulbowline in 1720 was the progenitor of the present Royal Cork Yacht Club (now based in Crosshaven) and is the oldest in the world. The Cork directory of 1787 lists some thirty businesses in the town including a butcher and draper. The oldest recorded pub on the island is reputed to have been the "Anti Gallicon" situated in the Holy Ground, and apparently liable to flooding when the tide came in. This pub dated back to the 1780's and was named after opponents to the French "Gallicon" faction who opposed the powers of the Pope.

Cove underwent rapid development in the early 1800's assisted by world events. The Napoleonic Wars meant the town became a British Naval port with its own admiral and much of the present day buildings were built. The cessation of hostilities dented its prosperity for a time but it became widely known as a health resort and many convalescents came to Cove to avail of its temperate climate. Amongst these was Rev. Charles Wolfe who wrote the "Burial of Sir John Moore at Corunna" and is buried in the Old Churchyard.

The age of steam heralded famous achievements for Cobh, most notably to host the first steam ship to sail from Ireland to England (1821) and the first steam ship, Sirius, to cross the Atlantic in 1838 which left from Passage West. One of the major transatlantic Irish ports, Cobh was the departure point for 2.5 million of the six million Irish people who emigrated to North America between 1848 and 1950. In 1849 the name of the town was changed to Queenstown to honour Queen Victoria who visited Ireland in that year. In 1857 the Inman Line began to operate a regular transatlantic service from Queenstown when the steamer "The City of Manchester" took on passengers here. Cunard, White Star, United States, Greek and other Lines have since been associated with Queenstown. Cobh is famed for being the last port of call for the ill-fated "Titanic" which sank after striking an iceberg on Sunday 14th April 1912. Another tragedy which has entered popular mythology, the sinking of the "Lusitania" in 1915 is connected also with the town. Many of the 1198 who drowned were brought to Queenstown and buried here where their graves can be seen in the Lusitania plot in the Old Churchyard. The Americans as well as the British were stationed in Queenstown during World War One as their country entered the war in 1917.

After the War of Independence and with the signing of the Treaty in 1921 Queenstown became a Treaty Port along with Berehaven and Lough Swilly and this situation remained until 1938 when sovereignty was returned. The town changed its name once again in 1922 to the now familiar Cobh. The merchant naval trade ceased due to the outbreak of World War One and the town entered a depression. The forerunner of the Irish Naval service was set up in Haulbowline while Irish Shipping, the fledgling national shipping company set up a repair dockyard in Rushbrooke. Transatlantic sailings resumed after the war but competition from airlines meant they eventually ceased in 1963.

Today cruise liners call on a regular basis to visit Cobh as a Port of Call. In 1960 the Verolme Cork Dockyard was opened in Rushbrooke and operated successfully for 25 years before closing down in the mid 1980's. In 1988 the QE2 made a first visit to commemorate the 150th year since the Sirius transatlantic crossing. The dockyard is once again thriving as a business park facilitating light industry. In 1991 Cobh once more saw large sailing ships when the Cutty Sark Tall Ships race ended its first leg here. In 2008 the QE2 paid her last ever voyage to the Cobh Cruise Terminal before being decommissioned.

5 BASELINE DATA

5.1 Record of Monuments and Places

The Record of Monuments and Places (RMP) is a database recording all archaeological sites in Ireland known to the National Monuments Service established under Section 12 of the 1994 National Monuments (Amendment) Act. The Sites and Monuments Record (SMR) formed the basis for the establishment of the statutory RMP pursuant to that Act. The RMP is available in planning authority offices, public libraries, county and city / town museums and in the National Monuments Archive in Dublin. There is also GIS version of the RMP available online. The RMP records upstanding archaeological monuments, locations of previously existing monuments (i.e. monuments now destroyed) and the locations of possible archaeological sites. The RMP information is read in conjunction with Ordnance Survey (OS) 6" maps. Each file contains further documentary and photographic data or information relating to an archaeological event such as a site visit, survey or excavation. The record is constantly updated and focuses on monuments that pre-date 1700.

Descriptions of the recorded monuments could not be accessed in June 2010 due to the RMP archive moving location.

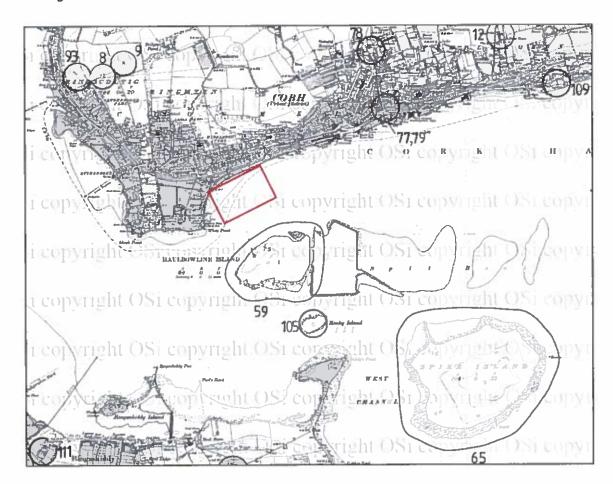


Figure 5. Extract from County Cork RMP Map CO087 with site location highlighted

The Record of Monuments and Places (RMP) for Co. Cork indicate that there are no recorded monuments on the subject site. There are a number of monuments within 2.0 km of the proposed development, including monuments on the islands of Haulbowline, Spike and Rocky. The proposed development is not anticipated to have any foreseeable potential archaeological impacts on these recorded monuments.

RMP No.:

CO087-008

Townland:

Ringacoltig

Classification:

Tree Ring

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-009

Townland:

Ringacoltig

Classification:

Possible Ring Fort (Possibly destroyed – see Section 5.3)

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-012

Townland:

Carrignafoy

Classification:

Possible Ring Fort

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-5901

Townland:

Haulbowline Island

Classification:

Military Barracks

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-5902

Townland: Haulbowline Island

Classification: Martello Tower

Distance to Development: < 1.0 km

Predicted Impact: None

RMP No.: CO087-5903

Townland: Haulbowline Island

Classification: Star-shaped Fort

Distance to Development: < 1.0 km

Predicted Impact: None

RMP No.: CO087-06501

Townland: Spike Island

Classification: Military Cemetery

Distance to Development: < 1.0 km

Predicted Impact: None

RMP No.: CO087-06502

Townland: Spike Island

Classification: Potential Site - Documentation

Distance to Development: < 1.0 km

RMP No.: CO087-06503

Townland: Spike Island

Classification: Military Fortification

Distance to Development: < 1.0 km

Predicted Impact: None

RMP No.: CO087-77

Towniand:

Kilgarvan

Ciassification:

Church

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-78

Townland:

Kilgarvan

Classification:

Graveyard

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-79

Townland:

Kilgarvan

Classification:

Graveyard

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-105

Townland:

Rocky Island

Classification:

Magazine

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-109

Townland:

Carrignafoy

Classification:

Battery

Distance to Development:

< 1.0 km

Predicted Impact:

None

RMP No.:

CO087-111

Townland:

Barnahely

Classification:

Country House

Distance to Development:

< 1.0 km

Predicted Impact:

None

5.2 Topographical Files of the National Museum of Ireland

The National Museum of Ireland Topographical Files is the national archive of all known antiquities recorded by the National Museum. These files relate primarily to artefacts but also include references to monuments and also contain a unique archive of records of previous archaeological excavations. The Museum's files present an accurate catalogue of objects reported to that institution from 1928. There is a computerised database of finds from the 1980's onwards. The locations of these artefacts can also be an important indication of the archaeological potential of the related or surrounding area.

The topographical files in the National Museum were consulted for the townlands Ringacolitg and Ringmeen in Co Cork. There were no records for these areas.

5.3 Previous archaeological fieldwork in the area

Previous archaeological fieldwork in an area can be found by searching journals, local authority or NRA publications or The Excavations Bulletin. This is a database containing summary accounts of all excavations carried out on the island of Ireland from 1970 to 2005, accounts to date are forthcoming. For the years from 1977 to 1984 the Excavation Bulletin was incorporated in the Irish Journal of Archaeology. Since 1986 it has been compiled by Isabel Bennett and published by Wordwell with support from the Office of Public Works. Concise accounts of excavations and testing works are submitted annually by archaeologists, edited, and then published in a book. This data is also uploaded to a searchable database on the internet at http://www.excavations.ie.

A search of the Excavations Bulletin (1970-2005) has revealed that two previous archaeological programs have been carried out in the vicinity of the proposed development, one on Haulbowline Island, the other in Ringacolitg, a townland to the north west of the subject site. These did not record any archaeological material in those areas and furthermore, it appears that monument CO087-09 in Ringacoltig no longer exists.

Cork

2004:0279

HAULBOWLINE ISLAND

Underwater

1790 06559

SMR 87:105, 87:59

04E1441

"Monitoring was undertaken of three separate areas within the Irish Naval Base, Haulbowline Island, Co. Cork. These areas comprised Rat Island, the Naval Basin and the approach channel to the basin. This work was completed in response to a request by the Underwater Archaeology Unit as part of the draft conditions of the dumping at sea permit granted by the Department of Communications, Marine and Natural Resources to the Department of Defence.

Two known monuments are within and adjacent to the proposed development site. These are a magazine fort and a military barracks, Martello tower and star-shaped fort on Haulbowline Island. There are also a number of listed shipwrecks in this area.

No archaeological features or artefacts were identified within the area of dredging."

Caitriona Gleeson, Headland Archaeology Ltd, Unit 4b, Europa Enterprise Park, Midleton, Co. Cork.

Cork

1999:121

RINGACOLTIG

Possible enclosure site

17798 06679

SMR 87:9

99E0334

"A possible enclosure site is marked on the 1st edition OS 6-inch map in an area of a proposed residential development site on the north-western outskirts of Cobh. The precise location, nature and extent of the site had not been determined because it had been levelled sometime in the mid-late 19th century and the area had been constantly ploughed over a long period of time. A geophysical survey was

undertaken by GeoArc Ltd in the general area of the site in order to determine its extent, as well as to indicate whether any associated and/or additional features of archaeological interest might be discovered. It was believed that the enclosure may have been a ringfort with an external fosse and that this latter feature may still remain cut into the subsoil. However, no traces of the enclosure were found by the geophysical survey, although a number of subsurface anomalies were detected. It was suggested in the geophysical report that certain areas be subjected to investigation by intrusive excavation. In addition, it was decided to excavate more trenches to verify the results and conclusions of the geophysical report, as well as to determine the nature of the anomalies.

Testing was carried out at the site on 10 and 11 July 1999. This consisted of the combination of machineand hand-excavation of eight trenches. In general, it was found that the topsoil/ploughzone material was deepest to the west and south, which would be expected given the existing slope down to these areas. Furthermore, it was found that the ploughzone contained occasional metal items such as nuts, bolts and nails, which probably explain the 'dipolar anomalies' suggested by the geophysical report. In addition, the negative geophysical anomalies appear to have been caused by both a modern burning episode and the compaction and rutting formed by a track used by heavy vehicles and machinery. The positive geophysical anomalies all appear to have been caused by natural variations in the depth of both topsoil and subsoil.

None of the geophysical anomalies reflected features or deposits of archaeological interest or potential. In addition, no finds of archaeological or historical interest were recovered during the archaeological testing.

It is suggested that the site depicted on the map may have been a circular enclosure comprising only a bank. This bank was levelled, and all traces of the site were subsequently destroyed by constant ploughing."

Martin E. Byrne, 31 Millford, Athgarvan, Co. Kildare.

5.4 Place-name evidence

Most Irish place-names are English versions of Gaelic/Irish language place-names. These place names usually reflect the physical description of the place, be it natural or manmade. Ireland is divided into 32 counties, which are in turn divided into baronies and parishes. These parishes are made up of over 60,000 separate townlands each of which are named and some of which are themselves divided. There are also variations between the way certain places are spelled as civil parishes and as ecclesiastical parishes. Sources for place name evidence include the General Alphabetical Index to the Townlands and

Towns, Parishes and Baronies of Ireland, also known as the Townlands index. Also consulted for place name evidence are Joyce's Irish Names of Places. Vol. III (1913) and the Placenames Database of Ireland, developed by Fiontar (DCU) and The Placenames Branch (Department of Community, Rural and Gaeltacht Affairs) accessed at www.loganim.ie. O' Donovan's Letter Books and Name Books collected during the Ordnance survey of the 1830's are an additional resource used by Moore Marine Services.

The townland names of Ringacoltig and Ringmeen were examined for this study. Ringacoltig is a translation from the Irish 'Rinn an chabhaltig', which means Point of the Fleet, a maritime and possibly naval reference. Ringmeen, from the Irish 'Rinn mín' has been translated as 'Smooth Point', or 'Smooth Green Promontory' which, as Ringacoltig, is a maritime reference to a point. Neither place name appears to relate to the subject site.

5.5 Ports and Harbours Archive

The Ports and Harbours Archive contains information from State files relating to coastal Irish ports, harbours and landing stages. The archive, not yet completed, is held by the Underwater Archaeology Unit in the Department of Environment, Heritage and Local Government. 'Ports, Piers and Harbours of Ireland Underwater Archaeology Unit Dúchas – The Heritage Service Vol. 1' was consulted in the Underwater Archaeology Unit for Cobh (Queenstown), Co. Cork.

Site Name:

Queenstown

Description:

1854 - "New jetty at Seymour Quay"

Reference:

0228 Board of Trade, Black series, Harbour Improvements

Site Name:

Queenstown Division

Description:

"Although the fishing last year was better than the two previous ones, all accounts agree in saying that it was not as good as formerly, and the general reason given is the discharge of mud dredged up in the upper harbour outside."

Site Name

Queenstown

Description:

1911 – 1914 – "Right of way from Westbourne Place to Westbourne Pier."

Reference:

OPW Archives Piers and Harbours, OPW 14825/14

5.6 National Shipwreck Inventory of Ireland

The Shipwreck Inventory of Ireland includes all known wrecks for the years up to and including 1945. 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. Approximately 10,000 records have been compiled and integrated into the shipwreck database thus far. Wrecks over 100 years old and archaeological objects found underwater are protected under the National Monuments (Amendment) Acts 1987 and 1994. Significant wrecks less than 100 years old can be designated by Underwater Heritage Order on account of their historical, archaeological or artistic importance as is the case with the wreck of the RMS Lusitania located off Kinsale Head. Underwater Heritage Orders can also be used to designate areas of seabed or land covered by water to more clearly define and protect wreck sites and archaeological objects. Under the legislation all diving on known protected wreck sites or with the intention of searching for archaeological underwater material is subject to licensing requirements. The Shipwreck Inventory for County Cork was consulted in the Underwater Archaeology Unit offices for vessels lost in the survey area using the following place names; Cobh, Whitepoint, Queenstown, Ringacoltig, Ringmeen and Haulbowline Island. There were a large number of shipwrecks recorded in the area.

Site Name:

Advocate

Date of loss:

14 April 1852

Place of loss:

Robert's Head, near Queenstown.

Description:

None

Reference:

Bourke 1994,113

Site Name:

Agapemori Adelfo/ Agapinori Adelfo

Date of loss:

12 December 1849

Place of loss:

Near the lighthouse at Queenstown

Description:

This vessel was en route from Falmouth when she was lost.

Reference:

Bourke 1994,113. CSP, 1852 - 3 Vol. XCVIII, 3

Site Name:

Aileen

Date of loss:

8 June 1906

Place of loss:

The Chamber, Queenstown

Description:

This wooden schooner of Cork was a pilot boat. She was 11 years old and weighed 46 tons. She belonged to the Harbour Commissioners, Cork. She was lying in Chamber at Queenstown, Cork in ballast with 8 crew aboard, when

she fell over and bilged in calm conditions. The vessel was condemned.

Reference:

CSP, 1907, Vol. LXXV. Shipping Casualties, 154 (1294)

Site Name:

Alice & Elanor

Date of loss:

22 March 1906

Place of loss:

deepwater quay, Queenstown

Description:

Michael Aherne owned this ketch of Youghal. She was carrying 60 tons of

gravel when she sank suddenly whilst moored.

Reference:

Bourke 1994,101.

Site Name:

Allison

Date of loss:

22 November 1928

Place of loss:

North of Hawlbowline

Description:

This iron steamer sank after colliding with the SS Lisa.

Reference:

Bourke 1994,114

Site Name:

America

Date of loss:

29 November 1893

Place of loss:

Queenstown

Description:

This mail and passenger tender was stationed at Queenstown. The vessel was at her moorings when she caught fire, for some unexplainable reason. Most

of her upper timber work was destroyed and considerable damage was done

to her machinery. She was repaired at passage.

Reference:

The Annual Register for 1893, 79: O Mahoney C., 94-5

Site Name:

Anna

Date of loss:

6 October 1852

Place of loss:

Queenstown

Description:

This vessel was en route from Galatz to Ballina, under High. She had set out

on the second but she put back in a leaky state. She was towed to the wharf

to discharge her cargo.

Reference:

CSP, 1852-53, Vol. LXI, 146-7

Site Name:

Annie

Date of loss:

16 August 1889

Place of loss:

near Rushbrook Dock, Queenstown Harbour

Description:

This 30 year old schooner of Penzance weighed 36 tons. The owner and

Master was D. Sliney of Youghal. She was en route from Rushbrook to

Passage when she was lost in a SW force 6 wind.

Reference:

CSP, 1890-91, Vol. LXXVI, Appendix C, 116

Site Name:

Annie McJannet

Date of loss:

8 March 1875

Place of loss:

Haggs Bay, Queenstown

Description:

This 3 year old wooden brigantine or 3 masted schooner of Irviceen weighed 219 tons. Her official number was 65,323. She was built in Ardrossan in 1871and was classed by Lloyd's as "A1" for 10 years from February 1875. The owner was W.D. McJannet and the master was G. Menzie. She was en route from Bristol to Troon, in ballast with 10 crew. She had put into Queenstown for shelter but sailed out again in thick foggy weather. Poor Head was sighted and the vessel was spotted at anchor there. The Annie Mc Jannet hove to and one of the crew asked the master if one of the men could take the vessel in as the weather was thick and the flood tide was setting in. One man stated that he was not a qualified pilot but he would take her in and he was given charge. The pilot ordered the aftersails to taken in and then began following a brigantine into the harbour. No cast of the lead was taken. The chequered buoy in the channel was passed on the port side. The brigantine which was being followed struck. Before Annie McJannet's anchors could be let go she took the ground at Neave's Point where she swung broad side onto the shore and broke up in a short time. The crew saved themselves by means of a rope on a jib boom onto the rocks. There was no loss of life. At the inquiry it was found that the vessel was lost through the negligent conduct of the master in not using the lead and in using an unqualified pilot. His cert was suspended for 6 months.

Reference:

Bourke 1994, 113; CSP, 1875, Vol. LXX, "Strandings", 64; Inquiries into Wrecks

& C, 180, 328

Site Name:

Britannia

Date of loss:

11/18 February 1806

Place of loss:

Cobh

Description:

This 600 ton Liverpool vessel was en route from Liverpool to Jamaica, under Leavy, with passengers and general cargo. She blew up in an accident said to have been caused by the careless use of a candle in the magazine. The whole aft part of the ship was blown away. 12 lives were lost but two of the crew and the ships papers were saved. Another report claims that a woman and 4 others were lost. The wreck was moved by government to Bar Rock, as it lay

in man of war route. In 1889 the wreck was moved onto bar by *Ensor* for entire removal was visible at low tide. The remains were 60 feet long and 8 feet high. Some ship's guns, machinery, hemp cable, timbers and ballast were

recovered.

Reference: Bourke 1994, 111; Coleman, 1890, 309 – 311; Cork Examiner, 14.9.1889; L.L.

no. 4298, 18 February 1806; O' Mahoney & Cadogan, 1988, 20;

Site Name:

Cardiff Lass

Date of loss:

4 October 1852

Place of loss:

Queenstown

Description:

This 131 ton vessel was en route from Ibrail to Donegal, under Davies, with seven men board. She had been out for eight days with damage and was towed to Queenstown to discharge her cargo. The estimated loss on the

vessel was £10.

Reference:

CSP, 1852-3, Vol. LXI, 142-3;

Site Name:

Cardross

Date of loss:

10 February 1874

Place of loss:

off Queenstown

Description:

This barque was en route to Liverpool when she encountered a severe S.E. gale. At 10 am the ship was hit by a squall and she was thrown on her beam ends. The decks were swept and she was dismasted. The Captain, his wife their child and 5 seamen were washed overboard. The remaining 8 crew took to the rigging but one by one the fell into the water from exhaustion. The coastguard crew from Skibbereen rescued the mate and one of the men.

Reference:

The Annual Register for 1874, 1875, 15

Site Name:

Caroline Pemberton

Date of loss:

18 February 1856

Place of loss:

Queenstown

Description:

This 3 year old barque weighed 309 tons. She was carrying a cargo of rice

when she became leaky and partially wrecked. 1 of the 14 on board was lost.

Reference:

CSP, 1861, Vol. LXIII, 37/E4

Site Name:

Cobden

Date of loss:

18 January 1851

Place of loss:

Queenstown

Description: This Austrian brig was en route from Odessa to Limerick. She was fouled by

> the St. Lawrence in a WSW variable to S wind with heavy gales. Her masts, bowsprit and almost everything else above the decks were swept off. She was

abandoned by the crew but they returned to her after daylight.

Reference: CSP, 1852, Vol. XLIX, 88-89

Site Name: Contest

Date of loss: 9 August 1904

Place of loss: off St. Ann's Head, Queenstown

This Torpedo Boat Destroyer collided with the Tiger also a torpedo boat Description:

> destroyer. It is said to have occurred due to the glare of the searchlights in a night attack. The Contest was damaged and spent 10 days in the dockyard for

repairs. An inquiry was held but no blame was attributed.

Reference: CSP, 1905, Vol. LXXI, "Casualties to Ships" 12-3 (456-7); CSP, 1908, Vol. LXV,

Navy Casualties, 1-5 (755-9), 4 (758)

Site Name: **Dorris**

19 March 1903 Date of loss:

Place of loss: Queenstown

Description: This second class cruiser sustained damage to her starboard screw after

touching moorings whilst leaving Queenstown. She spent 12 days in the

dockyard receiving repairs. There was no inquiry to the incident.

Reference: CSP, 1905, Vol. LXXI, Casualties to Ships, 1-11 (433-43), 2-3 (434-5)

Site Name: Eliza

Date of loss: 16 November 1798

Place of loss: Cobh

Description: This vessel was en route from Liverpool to Martinico, under Grason when she

was driven ashore.

Reference: L.L no. 3043, 16 November 1798

Site Name: Favouite

Date of loss: 26 March 1851

Place of loss: Trabolgar Strand, Queenstown – Trabolgan Strand, Roche's Point?

Description: This vessel of St. Johns, N. B., was en route from Liverpool to New York, under

> Pickance, with salt. She went ashore to the east of the lighthouse and stayed there. Her foreyard was gone and part of her cargo was thrown overboard.

She tried to make it to Cork Harbour, in distress but she went into the rocks at Roche's Bay. She bilged and was expected to become a total wreck but the passengers and crew survived. She discharged a quantity of her cargo of salt on the 27th and was got off. She was towed into harbour.

Reference:

CSP, 1852, Vol. XLIX, 146 - 147

Site Name:

Fenella

Date of loss:

21 April 1852

Place of loss:

Queenstown

Description:

This vessel was en route from Liverpool to Alexandria, under Le Conteur. She

encountered a SE wind with stormy showery weather. She was making a lot

of water and put in.

Reference:

CSP, 1852-53, Vol., LXI, 66-67

Site Name:

Georges

Date of loss:

12 February 1882

Place of loss:

Weaver Point, entrance to Queenstown Harbour

Description:

This 35 year old wooden schooner of Padstow weighed 86 tons. The owner was H.A. Hawkey of Newquay, Cornwall and the master was J. Chappell. She was en route from Cork to Newquay, Mon. with 4 crew and a cargo of stone.

She became stranded and totally wrecked in a westerly force 5 wind but

there was no loss of life.

Reference:

CSP, 1883, Vol. LXIII, "Strandings", 123

Site Name:

Harlequin

Date of loss:

9 April 1850

Place of loss:

Queenstown

Description:

This vessel was en route from Barbados to Belfast. She went ashore

Carlisle Point, but was got off.

Reference:

CSP, 1852, Vol. XLIX, 40-41

Site Name:

Harreman

Date of loss:

7 December 1852

Place of loss:

Queenstown

Description:

This 641 ton ship of Rockland US, was one year old. She was en route from

Marseilles to New York, under Arey, with 20 crew and general cargo. She

encountered a force 10 wind with heavy squalls and put into Queenstown in a

leaky state. She had to discharge.

Reference:

CSP, 1852-3, Vol. LXI, 200-1

Site Name:

Hector

Date of loss:

9 October 1789

Place of loss:

Cobh

Description:

This vessel was en route from Cork to Antigua, under Captain Robinet, when

she was wrecked.

Reference:

Bourke, 1998, 103

Site Name:

Henrietta

Date of loss:

14 - 17 September 1776

Place of loss:

Cobh

Description:

This vessel was en route from Cobh with passengers and merchants goods,

under Captain Bastable. She sank due to a leak in her bottom caused by a rat

hole.

Reference:

Freeman's Journal, Reel: 2 Jan 1776 – 30 Dec 1977

Site Name:

Hoop Van Capelle

Date of loss:

12 September 1853

Place of loss:

Queenstown

Description:

This barque of Holland was en route to or from Akyab. She became leaky at

sea and put into Queenstown to discharge.

Reference:

CSP, 1854, Vol. LXVII, Copy "of the Admiralty Register of Wrecks 48-49"

Site Name:

Intrepid

Date of loss:

14 November 1852

Place of loss:

Queenstown

Description:

This barque of Belfast was en route from Liverpool to New York under

Phillips. She was in a leaky state and had to throw some of her cargo

overboard. She put into Queenstown.

Reference:

CSP, 1852-3, Vol. LXI, 186-7

Site Name:

Isabella

Date of loss:

4 January / November 1782

Place of loss:

Cobh

Description: This vessel was en route from Liverpool to St. Lucia, under Mr. Robinson,

when she went ashore. She was expected to have sustained some damage.

Reference: Bourke, 1994, 103; Bourke 1998, 106;

N.L.L. no.1324, 4 January 1782

Site Name: Jenny Armstrong

Date of loss: 15 February 1876

Place of loss: outside Queenstown Harbour

Description: This 7 year old wooden barque of St. Johns, New Brunswick, weighed 331

tons. She was owned by J. Armstrong of New Brunswick and her master was W. Gray. She was classed by Lloyds as "A1" for 8 years from February 1874. She was en route from Philadelphia to Gloucester with 8 crew and a cargo of

wheat when she was stranded in WSW force 5 wind. One life was lost.

Reference: CSP, 1876, Vol. LXVII, "Loss of Life", 61, 83

Site Name: Johanna Henrietta

Date of loss: 20 January 1856

Place of loss: Queenstown

Description: This 2 ½ year old brig weighed 200 tons. She was carrying a cargo of dyewood

when she became leaky and was partially wrecked. 3 of the 7 aboard were

lost.

Reference: CSP, 1861, Vol. LXIII, 37/4.

Site Name: Julia

Date of loss: 22 January 1904

Place of loss: off Queenstown

Description: This vessel was a Coastguard Cruiser. The dead plate in the port furnace burnt

and the fire bars collapsed. An enquiry heard this was due to the "peculiar nature of the coal burnt" repairs were made to her at Kingstown by a private

contract.

Reference: CSP, 1905, Vol. LXXI, "Casualties to Ships" 2-3 (446-7)

Site Name: Lynx

Date of loss: 9 June 1906

Place of loss: Queenstown

Description: This 275 ton Torpedo Ground Destroyer became grounded while entering the

harbour. An inquiry held found that the Lieutenant in command had practiced

careless navigation, and was told to be more careful in future.

Reference: CSP, 1907, Vol. L, "Casualties to Ships", 5 (829); CSP, 1908, Vol. LXV, "Navy

Casualties", 4 (758)

Site Name: Maid of Cove

Date of loss: 15 August 1887

Place of loss: Queenstown Harbour

Description: This 1 year old unregistered wooden yawl weighed 28 tons. The master was E.

Murphy and the owner was Rev. J.J. Barry of Queenstown. She was engaged in a pleasure cruise, in ballast, with 5 crew and 9 passengers. She was involved in a collision with SS Captain Barry of Dublin in a SE force 3 wind and

was partially wrecked. One of the crew was lost.

Reference: CSP, 1889, Vol. LXIX, "Collisions", 148

Site Name: Mary

Date of loss: 15 August 1887

Place of loss: Queenstown

Description: This schooner was en route from Queenstown to Llanelli in ballast. She

encountered a SE force 11 gale and was driven ashore. She was seriously

damaged and had to discharge.

Reference: CSP, 1852, Vol. XLIX 30-31

Site Name: Mercur

Date of loss: 15 April 1877

Place of loss: Camden Fort, Queenstown Harbour

Description: This 9 year old wooden barque of Austria weighed 458 tons. The owner F.

Manasteriotte of Fiume, Austria, and the master was F. Foich. She was en route from New York to Queenstown with a cargo of wheat when she was

stranded and totally wrecked in a SSE force 7 gale. All 13 aboard survived.

Reference: CSP, 1877, Vol. LXXV, "Strandings", 112

Site Name: Munster Lass

Date of loss: 22 November 1854

Place of loss: off Queenstown

Description: This sloop of Poole was en route from Queenstown to Youghal with a cargo of

Indian corn. She struck a rock and sank in a NW force 5 wind.

Reference: CSP, 1854 -55, Vol. XXXIV, Copy "of the Admiralty Register of Wrecks", 92-93

Site Name: Nautilus

Date of loss: 17 May 1893

Place of loss: Queenstown Harbour

Description: This wooden yacht or cutter of cork weighed 26 tons and was 32 years old.

The owner was W. Hawes of Queenstown. She was lying at anchor in Queenstown Harbour in ballast, with no one aboard when she jammed between the pier and the breakwater. The vessel broke up, even though

there were calm conditions.

Reference: CSP, 1894, Vol. LXXVI, "Shipping Casualties", 143

Site Name: Otus

Date of loss: 1 April 1880

Place of loss: near Spit Lighthouse, Queenstown Harbour

Description: This 5 year old wooden barque weighed 496 tons. The owner was C. Zoe of

Arendal and the master was M. Falck. She was classed by the Bureau Veritas as '3/3, L1.1.for ten years for September 1875 and her last survey was in July 1877. She was en route from Baltimore to Cork with 12 crew and a cargo of

maize when she capsized. One life was lost.

Reference: CSP, 1881, Vol. LXXXII, "Casualties from Other Causes", 139

Site Name: Phoenix

Date of loss: 27 August 1875

Place of loss: Bar Rock Buoy, Queenstown

Description: This 15 year old iron steamship of Liverpool weighed 164 tons. The owner

was T. Tate of Liverpool and the master was R. Osbourne. She was en route from Cork to Neath in ballast, with 9 crew when she collided with steamship

Pelican of Cork and was totally wrecked.

Reference: CSP, 1876, Vol. LXVII, "Collisions", 52

Site Name: Prince Albert

Date of loss: 11 January 1854

Place of loss: Queenstown

Description: This ship of North America was en route from New York to London.

She was in a sinking state and so abandoned by the crew and passengers in Lat. 48, Long. 15. They were picked up by the *Norfolk* and brought to

Queenstown.

Reference:

CSP, 1854-55, Vol., XXXIV, "Admiralty Register of Wrecks", 22-3

Site Name:

Prins Hendrick

Date of loss:

17 October 1852

Place of loss:

Queenstown

Description:

This Dutch ship was en route from Liverpool to Port Phillip. She lost her cutwater, jib boom, sails etc. and put into Queenstown in a leaky state. She also landed the crew of *Hilda* a Russian barque. This vessel had sunk on the 12th night after being in contact the previous night. It is not clear in the CSP if

the Hilda collided with the Prins Hendrick.

Reference:

CSP, 1852-3, Vol. LXI, 152-3

Site Name:

Rietta

Date of loss:

8 March 1875

Place of loss:

Church Bay, Queenstown

Description:

This 6 month old wooden Brigantine of Londonderry weighed 370 tons. The master was W. McUrqhart and the owner was A. Fraser. She was en route from Baltimore (U.S. ?) to Queenstown with 9 crew and a cargo of maize

when she became stranded.

Reference:

Bourke, 1994, 13;

CSP, 1875, Vol. LXX, "Strandings" 64

Site Name:

St. Lawrence

Date of loss:

16 January 1851

Place of loss:

Queenstown

Description:

This barque was en route from New Orleans when she encountered a WSW

to S wind with heavy gales. She drove foul of The Cobden and her stern stove

in and she lost her stanchions and bulwarks.

Reference:

CSP, 1852, Vol. XLIX, 88-89

Site Name:

Samaria

Date of loss:

1887

Place of loss:

Queenstown

Description:

This Cunard steamer was en route from Queenstown to Boston.

She sustained some damage in a gale and had to put back to Queenstown for

repairs.

Reference: "The Annual Register for 1887" Rivingtons, Waterloo Place. London, 1888, 42

Site Name:

Septimus

Date of loss:

12 March 1884

Place of loss:

Ram Point, Queenstown Harbour

Description:

This 15 year old wooden brigantine or brig of Belfast weighed 150 tons. The owner was R. McCalmont of Belfast and the master was W. Wisnom. She had been classed by Lloyd's as "A1" restd. "80, 6 years" and had been surveyed in 1852. She was en route from Cork to Swansea with 6 crew and a cargo of manure when she was stranded and totally wrecked in a SW force 6 wind. No

lives were lost.

Reference:

Bourke 1994, 113;

CSP, 1884-85, Vol. LXX "Strandings", 122

Site Name:

Shamrock

Date of loss:

13 December 1854

Place of loss:

off Queenstown

Description:

This hooker of Kinsale was trying to get along side the ship *Sir Allan McNAb* when she was lost in a force 8 wind. The crew took to the other ship and

survived.

Reference:

CSP, 1854-55, Vol. XXXIV, "Admiralty Register of Wrecks", 100-1

Site Name:

Shannon Lass

Date of loss:

1 Feb 1935

Place of loss:

Haulbowline Wharf

Description:

This motor fishing vessel sank at the wharf after colliding with the SS Lisa at

the piles.

Reference:

Bourke, 1994, 114

Site Name:

Spill

Date of loss:

5 September 1874

Place of loss:

Queenstown Harbour

Description:

This 7 year old wooden cutter weighed 13 tons. She was yachting in the

harbour in ballast with 5 crew, when she collided with the Rosalie and

became a total wreck.

Reference:

CSP, 1875, Vol. LXX, "Collisions", 67

Site Name:

Stag

Date of loss:

22 March 1847

Place of loss:

Queenstown

Description:

This 96 ton sailing vessel was on the shore.

Reference:

CSP, 1851, Vol. LII, 13

Site Name:

Styrmand

Date of loss:

7 December 1852

Place of loss:

Queenstown

Description:

This 228 ton barque of Stralsund was en route from Falmouth to Limerick,

under Parows, with 9 crew and wheat. While at sea she struck a wreck or a baulk of timber in a force 9 wind with strong squalls. She became leaky and

put in for Queenstown for repairs.

Reference:

CSP, 1852-3, Vol. LXI, 200-1

Site Name:

Theodebert

Date of loss:

23 March 1852

Place of loss:

Ringabella Bay, Queenstown

Description:

This brig was en route to Belfast but as she was leaving Queenstown she hit

the shore and put back in a leaky state.

Reference:

CSP, 1852-53, Vol LX1, 54-55

Site Name:

Tiger

Date of loss:

9 August 1904

Place of loss:

off St Ann's Head, Queenstown

Description:

This Torpedo Boat Destroyer collided with *The Contest* also a Torpedo Boat Destroyer. It occurred due to the glare of search lights in a night attack. The Tiger's stern crumpled and was "leaking for about 2 feet". She spent 21 days

in the dockyard for repairs. An enquiry was held but no blame was attributed.

Reference:

CSP, 1905, Vol. LXX1 "Casualties to Ships", 1-17 (44-61), 12-3 (456-7), CSP,

1908, Vol. LXV, "Navy Casualties", 4 758.

Site Name:

Trident

Date of loss:

1 March 1853

Place of loss:

Queenstown

Description:

This vessel was en route to Adelaide when she put into Queenstown in a

leaky state. She had to discharge.

Reference:

CSP, 1854, Vol. XLII "Admiralty Register of Wrecks", 21-1

Site Name:

Undaunted

Date of loss:

24 Feb 1898

Place of loss:

Queenstown Harbour

Description:

This 59 year old wooden schooner of Plymouth weighed 85 tons. The master

was J. Jones and the owner was W. Jones from Amlwch, Anglesey. The vessel

was en route from Bangor to Galway with a cargo of slates and 4 crew.

Reference:

CSP, 1899, Vol. LXXXVII, 137

Site Name:

Undine

Date of loss:

16 January 1851

Place of loss:

Queenstown

Description:

This schooner of Wexford was en route to Constantinople when she

encountered a WSW variable to S wind with heavy gales. She was found by

the St. Lawrence and lost her bulwarks and stanchions.

Reference:

CSP, 1852, Vol. XLIX, 88-89

Site Name:

Velox

Date of loss:

1 February 1893

Place of loss:

Queenstown

Description:

This derelict Norwegian barque was towed to Queenstown.

Reference:

CSP, 1894, Vol. LXXVI, "Floating Derelicts", 130

Site Name:

Wildding

Date of loss:

April 1773

Place of loss:

Cobh

Description:

This vessel was en route from Cork to Guinia under Captain Barlow, with wool

and general cargo valued at £7,000. She ran aground off Cobh and the cargo

was damaged but the vessel was expected to go to pieces.

Reference:

Bourke 1994, 110;

O'Mahoney & Cadogan 1988, 27

Site Name:

Unknown

Date of loss:

12 January 1757

Place of loss:

near Cobh

Description:

This coaster en route from Youghal to Cork with a cargo of butter, was lost

with all on board.

Reference:

O'Mahoney & Cadogan 1988

Site Name:

Unknown

Date of loss:

22 September 1851

Place of loss:

Queenstown

Description:

Several boats sank on this date.

Reference:

CSP, 1852, Vol. XLIX, 222-23

Site Name:

Unknown

Date of loss:

15 January 1877

Place of loss:

off Queenstown Harbour

Description:

This trader's boat left Queenstown at dawn, with 7 men, to meet ships coming into the harbour and seeks orders. They went out in this open boat for several miles to the south of Roche's Point Light, so as to be the first to reach any of the approaching vessels. At 9am they met the British barque *G.J. Jones* which was under the command of Captain Evans, the water clerk, McCarthy, and an assistant went aboard the barque. This boat was tied onto the ship and then towed behind it for a quarter of an hour. The worsening sea conditions forced them to cast off the boat and they had to use their oars. When the ship was a mile away they saw the men standing up on the thwarts. The captain with the aid of his glasses saw that the boat was full of water. The pilot said that it would be too dangerous to "heave to so near to land". Therefore no assistance was given to the boat and after a few minutes she went over. The 5 men aboard were drowned.

Reference:

The Annual Register for 1877, 8

Site Name:

Unknown

Date of loss:

20 October 1898

Place of loss:

off Haulbowline

Description:

This wooden rowing boat of H.M.S. weighed around 2 tons and was owned by the Lords Commissioners of the Admiralty, London. She was en route from Haulbowline to Ringaskiddy with 16 workmen aboard. She collided with the

military steam launch, Cambridge and became a total loss.

Reference:

CSP, 1900, Vol LXXVII, "Shipping Casualties", 153

5.7 Record of Protected Structures

A protected structure is a structure that a planning authority considers to be of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view. These structures are afforded protection under Part IV of the Planning and Development Act 2000. Details of protected structures are entered by the authority in its Record of Protected Structures (RPS) which is part of the Development Plan. These plans set out the Council's policy for the conservation and enhancement of the County's natural and built environment and list items of special environmental or archaeological/artistic interest. They contain lists of historic buildings and other items for preservation as compiled for the County Council by expert bodies. Each owner and occupier of a protected structure is legally obliged to ensure that the structure is preserved. The obligation to preserve a protected structure applies to all parts of the structure, including its interior, all land around it, and any other structures on that land. The obligation also applies to all fixtures and fittings forming part of the interior of a protected structure or of any structure on land around it.

The Cork County Development Plan 2009-2015 records that there are no recorded protected structures (RPS) in the vicinity of the subject site. The closest protected structures are on Haulbowline and Spike Islands.

5.8 Lewis Topographical Dictionary

Lewls Topographical Dictionary gives a unique insight into early nineteenth century life within Irish counties and towns. Samuel Lewls first published his two volumes of The Topographical Dictionary of Ireland in 1837. His main aim, along with his previous topographical dictionaries and maps of the United Kingdom, was to give in 'a condensed form', a reliable and unbiased description of each place. The dictionary provides a comprehensive description of all Irish localities as they existed at the time of publication. Every parish, town and village in Ireland, including numbers of inhabitants, the economy, history, topography, religion and parish structures, administration and courts, schools are described. Lewis gives the names of the principal inhabitants (generally landlords, merchants and professionals). The dictionary is the first detailed study of its kind for Ireland, and since it was published just prior to the Irish Potato Famine (1845-49) it is a valuable resource used widely by historians and genealogists alike. The following is the text taken from the Dictionary on the Island of Cove (Cobh).

"COVE, commonly called the COVE of CORK, a sea-port, market, and post-town, partly in the parish of CLONMELL, but chiefly in that of TEMPLEROBI, in the Great Island, barony of BARRYMORE, county of CORK, and province of MUNSTERI containing 6996 inhabitants. By way of Passage, crossing the ferry, it is only 9½ miles (E. S. E.) from Cork; but overland, by way of Foaty, it is 14½ miles from that city, and 133 miles (S. W. by S.) from Dublin. It is situated on the north side of Cork harbour, in lat. 54° 51′, and Ion. 8° 18′ 45″.

The progress of Cove has been very rapid. So recently as 1786 it was a small village, consisting of a few scattered houses inhabited by the tide-waiters and pilots of Cork, and some miserable cabins occupied by fishermen; at present it is a large and handsome town, comprising nine large and several smaller streets. The great increase of its population principally arose from its convenient situation for the shipping in Cork harbour, in which, during the French war, 600 sail of merchant vessels have been at anchor at one time, and 400 sail have left the harbour under convoy in one day. These great fleets always lay immediately in front of the present town, and many of them within half a cable's length of the shore. It has also been greatly benefited by the erection of Carlisle and Camden forts; martello towers on Great Island, Hawlbowling, and Ringsklddy; and by the bomb-proof artillery barracks on Spike Island. In addition to this, Hawlbowling was fortified and made the ordnance depot, and the Lords of the Admiralty made it the only naval victualling depot in Ireland; and Rocky island was excavated and made the chief gunpowder magazine for the southern part of the kingdom. It was also the place of embarkation for troops ordered on foreign service, and the station of an admiral. The great expenditure of money for these works, and for the supply of provisions and other requisites for the shipping in the harbour, caused many persons to settle here, and the number was increased by the visits of invalids and persons of fortune, who were attracted by the salubrity of its climate and the beauty of its situation in the finest harbour in Europe. Cove is built on the side of a clayslate hill, on the south shore of Great Island, which rises from the water's edge, and being very steep, the streets, which are parallel to the shore, rise tier above tier, and being backed by the high grounds of the island, present a very picturesque view from the entrance to the harbour. The principal streets are nearly level, and those that connect them wind so gradually as greatly to diminish the apparent steepness of their ascent. The houses in the main streets are mostly large and well built of stone, and many of them faced with slate; the streets are all wide, clean, well paved, and abundantly supplied with water from springs in the clayslate. The principal market is on Saturday, but there is one held daily, which is abundantly supplied with fish, vegetables, meat, &c. A large and handsome market-house, consisting of a centre and wings, was erected by the late J. Smith Barry, Esq., in 1806: the centre is appropriated to the sale of fish and vegetables, the west wing to' the storing and sale of potatoes, and the east wing is fitted up as shambles. The post is daily, and yielded a revenue of £977 when the last return was made to parliament. There is a constabulary police barrack; and a chief coast-guard station, the head of the district, which includes Cove, Ballycroneen, Poor Head, the lighthouse, East Ferry, Cork, Crosshaven, and Robert's Cove. Petty sessions are held every week; and there is asmall prison of two cells for the temporary confinement of offenders. Near the western entrance to the town is a large and handsome pier, erected in 1805, at a cost of £20,000, and connected with it are very capacious quays, Here is a building called the Boarding Station, occupied by tide-waiters and other custom-house officers of Cork. The views round Cove are extremely beautiful. Beyond the harbour, on the east, are Rostellan, Castle-Mary, and the vale of Cloyne, with its ancient cathedral and round tower; to the south is the capacious bay, with its numerous ships, noble entrance, lighthouse, and forts; on the west is Ringskiddy with its Martello tower,

Carrigaline with its noble estuary, and the broad entrance to the Lee; and on the north are the high lands of Great Island, which shelter the town of Cove in that direction. Near the town are several elegant mansions, marine villas, &c; which are more particularly noticed in the article on Great Island. The celebrated regatta of Cove takes place in July or August: the prizes are numerous and valuable, and many of the best yachts in Ireland, with some from England and Scotland, attend its celebration. Near the custom-house quay is a splendid edifice in the Italian style, built by the Yacht Club and occupied by its members during the regatta season. The parish church of the union o Clonmell and Templerobin is on an elevated site in the centre of the town: it is a large and elegant edifice, in 431the early English style of architecture, with stained glass windows, was built in 1810, by aid of a loan of £2000 from the late Board of First Fruits. Near it is a R. C. chapel, which was enlarged in 1835. There is also a small place of worship for Wesleyan Methodists. The parochial schools are large neat buildings, erected by subscription on land given by Lord Midleton, who is an occasional donor; they are under the Kildareplace Society, but are supported by subscription. An infants' school has existed here about three years, and is supported by subscription: a schoolhouse is being built for it near the parochial schools; and a very large building for a national school is also in progress of erection, partly at the expense of the National Board, and partly by a bequest of £25 per annum left by W. Lynch, Esq., in 1831. There are a fever hospital and a dispensary, and a military bathing hospital for the province of Munster. There is a parochial alms-house for twelve poor Protestants, each of whom receives 2s. 6d. weekly from the Sunday collections in the church, with coal and clothing during the winter, from a bequest of £100 by the late Miss Spratt. A Benevolent Society, and a loan fund for poor mechanics, have also been established."

5.9 Historic Maps

In the early nineteenth century the British Government came to the realisation that Ireland's local taxation system was outdated and almost useless. In 1842 as part of a taxation reform program the director of the British Ordnance Survey department, Lt Col Thomas Colby, was tasked by the British Parliament to undertake a detailed cartographic survey of all Ireland. The maps cover all of Ireland and were surveyed between 1829 and 1843, they are also known the 'Townland maps' or simply the '6 inch maps' as they are at a scale of six inches to one mile. This was the first nationwide mapping survey at such a large scale attempted anywhere in the world. Many technical advances and innovations were developed during the survey. The maps are an invaluable resource for historians, archaeologists and cartographers. Revised editions produced in the later 19th and early 20th centuries are known as Second Edition maps.

5.9.1 First Edition Ordnance Survey, 1845

The first edition Ordnance Survey map surveyed in 1848 (Figure 6) depicts the subject site as an undeveloped coastal location consisting of a rocky foreshore with a large mud flat. On this map there are several lodges to the west of the subject site close to White Point but none border the subject site. Happy Lodge is situated to the south of the site beside White Point House while Ringneen Lodge is located to the north of the site. There are a number of small plots with houses or small structures adjacent to the site beside a north south orientated road which leads to the shore. There are no piers or jetties in the area and nothing of archaeological significance is displayed on the subject site.

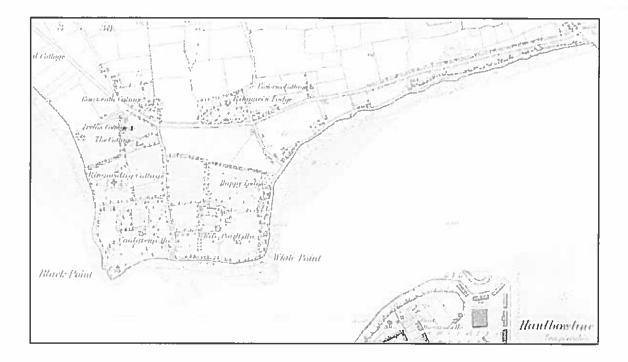


Figure 6. Extract from First Edition Ordnance Survey, 1845

5.9.2 Second Edition Ordnance Survey, 1898

The second edition Ordnance Survey map surveyed in 1898 (Figure 7) has considerable differences to the previous edition. The area is much more developed; Ringmeen Lodge and Victoria Cottage have been completely replaced with urban landscape consisting of rows of well ordered houses along east west and north south orientated streets. A railway line now runs from the crane bearing docks and Deepwater Quay to the east of the subject site along the coast and turns north on the opposite side of White Point. A convent, school, gas works and assembly rooms are now depicted in this new urban environment. Despite the development the peninsula of White and Black Point is relatively unchanged, though there are some subtle differences. These include the recording of both a pier and a slip along the coast close to White Point. Some other minor changes include the changing of the name 'Happy Lodge'

to 'The Cottage' and the appearance of a new structure within the grounds of White Point House called Rock Cottage. A bathing place is also listed just south of the pier at White Point.

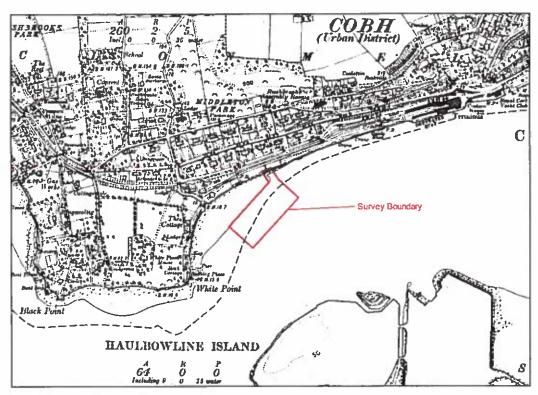


Figure 7. Extract from Second Edition Ordnance Survey, 1898

5.10 Aerial Image

Moore Marine Services compare two aerial images obtained from the Ordnance Survey Ireland, one from 2000 and one from 2005, for the purpose of aerial photographic analysis. The state of the tide and weather conditions at the time the photograph was taken may result in different degrees of visibility through the water column. Cross referencing the OSI aerial images against one another increases the potential of seeing an anomaly or feature at the subject site. Where possible the coastal survey aerial photographs taken in Marine Institute's National Coastline Survey are also examined and included.

Aerial imagery of the subject site from the 2005 OSI aerial photograph (Plate 1) does not show any topographical or submarine anomalies which may be indicative of the presence of previously unrecorded archaeological features or deposits at the subject site. It does show a small jetty located to the west of the site. Analysis of the 2000 OSI aerial photograph (Plate 2) which records a clearer sea, shows two underwater anomalies directly to the west of the subject site. These are two subsea cables that pass from White Point to Haulbowline. The mud flat evident in the 1st Edition map is no longer present and in contrast to the historic map there is a road along the coast with houses built along its northern side.



Plate 1. Close up of aerial image of site taken in 2005 with site location highlighted



Plate 2. Aerial image of site taken in 2000 with site location highlighted

UNDERWATER ARCHAEOLOGICAL SURVEY

Field Survey Methodology and Strategy 6.1

6

The aim of the survey was to investigate the subject site for the presence of previously unrecorded archaeological materials or features. A gridded transect investigation scheme based on parallel east west orientated transects across the subsea area was the investigation scheme used. The survey was based on 22 no. 250 m long and 5 m wide parallel passages. A further 6 no. short north south orientated survey lines with similar spacing were suggested to cover the area of the gangway, these overlapped with the intertidal survey. The visual survey is a visual inspection of the survey area for upstanding and slightly submerged archaeological material. Any found was recorded and photographed. It was carried out in tandem with a metal detection survey of the seabed.

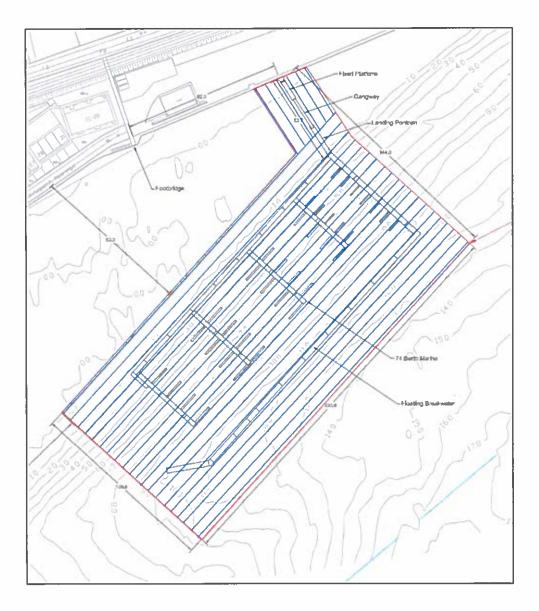


Figure 8. Dive transects at development site

6.2 Site Conditions

The assessment took place on 14th June 2010 under Licence to Dive No: 10D31 and Consent to Use a Detection Device Licence No: 10R73. The timing of the survey coincided with a spring tide so that the maximum foreshore was visible at low water. Water visibility at the time of the survey was moderate and the maximum recorded water depth was 13.8 m.

6.3 Survey Resuits

The subject site comprised a 109 x 230 m area of seabed situated in a sheltered south easterly facing bay, between White Point and Cove town. The area was very sheltered as it was protected to the north by a high quay wall, to the west by White Point and to the south by Haulbowline Island. It is a widely known and used area of safe anchorage, and at the time of the survey there were a large number of vessels moored in the area. The type of vessel ranged from small private motorboats to larger sail boats. All were tethered to individual moorings (Plates 3 & 4). The subject site itself was centred on the edge of an underwater escarpment. This escarpment formed the southern boundary of the main navigable approach channel to Cork City, although the main course was a considerable distance to the south of the site. Water depths on the site varied from 2 m in the northern end, to 7 m in the centre. Immediately south of this central section, the previously mentioned escarpment descended sharply from 7 m to almost 14 m, at which point it levelled off.

The survey commenced in the north eastern end of the site, adjacent to the proposed gangway. Here the seabed was relatively flat and featureless. It was comprised of soft sandy silty mud with the only discernible visible and detectable features being mooring blocks, rope and chain. All features in this area were heavily encrusted with mussels and none were of archaeological significance (Plate 5).

Similar to the shallow northern section, the central survey area was also comprised of soft sandy silty featureless mud. Mooring blocks, chains and ropes were scattered across the seafloor. A majority of these were in use however the metal detector succeeded in recording the location of 5 sunken moorings which appear to have been lost. In addition to the sunken moorings, the metal detector and visual surveys recorded other material on the seafloor. These included cable ties, beer cans, chain, a penknife and a tea cup. All the noted features were covered with varying amounts of mussels but none appeared to be of archaeological significance.

The seabed descended sharply immediately to the south of the centre section of the survey. This natural escarpment was steep and sharp. A number of outcrop stones and rocks were noted on the descent. These emerged clearly from the surrounding featureless sandy silt and were clearly discernible. All of these features were covered with Plumose Anemone, Brittle Starfish and Mussels (Plate 6). Each stone outcrop was examined to determine if it represented a submerged archaeological feature. None were noted.

The seabed in the deeper southern section of the survey area was also flat and featureless. It was comprised of soft sandy silty mud (Plate 7). No features of archaeological significance were detected of visible in this area.



Plate 3. Survey area viewed from the south



Plate 4. Survey area viewed from the west



Plate 5. Old and existing outfalls at beach north of survey area



Plate 6. Seabed at a mooring block



Plate 7. Seabed at rocky escarpment in survey area



Plate 8. Seabed in deep water section of survey area

7 DISCUSSION & RECOMMENDATIONS

7.1 Discussion of Proposed Development

Moore Marine Services Ltd. was commissioned by Cronin Millar Consulting Engineers, to carry out a marine cultural heritage impact assessment of a proposed marina development at White Point, Cobh, Co. Cork.

The desktop assessment for proposed development indicated that the subject site was of moderate archaeological potential. The National Shipwreck Inventory recorded a considerable number of shipwrecks in the general area, however none of these were specific to White Point. The Record of Monuments and Places indicated that there has been little or no recorded human activity in the survey area.

The results of the diver visual and metal detection survey recorded that there were no archaeological deposits or features on the seafloor in the development zone.

7.2 Assessment of Potential Impacts

Direct Impacts

The underwater visual survey recorded that little in the way of archaeological finds, materials or features were noted during the survey. Notwithstanding this there is potential for the site to contain stray archaeological finds. As a result if the project were to impact previously unrecorded archaeological material, it would have a permanent, long term and negative impact on these resources.

'Do nothing' impact

If the proposed development were not to proceed there would be no negative impact on the archaeological or cultural heritage resource.

'Worst case' impact

Under a worst-case scenario, by way of its form and function, the construction of a new pontoon marina at this point will have a permanent and negative impact on any previously undiscovered archaeological material which may be contained within the area.

7.3 Recommendations

The desktop assessment for proposed development indicated that the subject site was of moderate archaeological potential. The Shipwreck Inventory recorded a large number of shipwrecks in the general area but none specific to White Point. There has been little in the form of recorded human activity in the survey area.

The results of the diver visual and metal detection survey recorded that there were no archaeological deposits or features on the seafloor in the development zone.

Based on the results of the desktop assessment and the diver survey, it would appear that the subject site is of low to moderate archaeological potential. Given the relatively minor impact of the proposed chain and anchor method proposed for the marina development it is recommended that the project proceed without further archaeological constraints.

Please note that all recommendations above are subject to approval by the Planning and Heritage Section of the Department of the Environment, Heritage and Local Government.

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APPENDIX 2 **LEGISLATIVE BACKGROUND**

The 1992 European Convention on the Protection of Archaeological Heritage was ratified by Ireland in 1997. The convention provides the basic framework for policy on the protection of the archaeological heritage. In summary, the obligations on the state under the convention relate to

- providing statutory protection measures
- authorisation and supervision of archaeological activities
- measures for the physical protection of the archaeological heritage
- providing consultation between archaeologists and planners
- providing financial support for research or rescue archaeology
- facilitating the study of archaeological discoveries by making or bringing up to date maps, surveys and inventories of archaeological sites
- facilitating national and international exchanges of elements of the archaeological heritage for scientific purposes
- educating the public in relation to the value of and threat to the archaeological heritage
- preventing the illicit circulation of elements of the archaeological heritage
- providing for the exchange of information and experts on the archaeological heritage between states party to the convention.

Irish Legislation

Irish legislation for the protection of archaeological heritage is based on the National Monuments Acts 1930-2004. This is in accordance with the Valetta Convention (as above). The Minister of the Environment, Heritage and Local Government has a specific role in relation to the protection of the archaeological heritage through powers provided by these acts and the National Cultural Institutions Act 1997. The overall state archaeological service is provided by the Department of Arts, Heritage, Gaeltacht and the Islands (DAHGI) and delivered through the Planning and Heritage Section of the Department of the Environment, Heritage and Local Government and the National Museum of Ireland (Irish Antiquities Division) on behalf of the minister.

- The National Monuments Acts secure the archaeological heritage in several key areas
- The Protection of Archaeological Monuments and Areas

Section 2 of the 1930 Act (as amended) provides that 'monument' includes any artificial building or structure, cave, stone or any natural object that has been altered, moved, or purposefully put in position, any prehistoric tomb, grave or burial or any ritual, industrial or habitation site or any traces of the above. The Planning and Heritage Section of the Department of the Environment, Heritage and Local Government advises the Minister on the protection of archaeological monuments and places. There are a number of mechanisms which can be applied to secure the protection of archaeological monuments and areas.

- The Record of Monuments and Places a list and maps of monuments and relevant places in each county maintained and updated by The Planning and Heritage Section of the Department of the Environment, Heritage and Local Government. Monuments entered into it are referred to as Recorded Monuments. Owners or occupiers of Recorded Monuments are required to give two months notice to the Minister and obtain consent before carrying out any works in relation to the monument.
- The Register of Historic Monuments a list of all historic monuments known to the Minister.
 Owners or occupiers must not, other than with consent, alter, deface, demolish or in any manner interfere with a historic monument entered in the register.
- Preservation Orders and Temporary Preservation Orders. Where it appears to the minister that a monument, considered to be a national monument, is in danger or is actually being destroyed or falling into decay the minister may by preservation order or temporary preservation order, undertake the preservation of the monument. A temporary preservation order will remain in force for six months and then expire.

The Protection of Archaeological objects

Section 2 of the 1930 Act (amended) defines an archaeological object as (in summary) any chattel in a manufactured or partly manufactured state or an unmanufactured state but with an archaeological or historical association. This includes ancient human, animal or plant remains. The National Museum of Ireland advises the Minister on the protection of archaeological objects. The National Monuments Acts state the following regarding the archaeological objects. Archaeological objects must not be altered by any person unless issued with a licence to do so by the Minister. This includes cleaning, restoring, sampling, cutting or drilling. No archaeological object found after 1930 may be purchased or otherwise acquired or sold unless designated by the director of the Museum. It is unlawful to export or attempt to export archaeological objects other than with an export licence.

The Control of Archaeological Excavation

It is unlawful for any person to dig or excavate in or under any land for the purpose of searching for archaeological objects or particular structure or thing of archaeological interest known or believed to be under such land unless issued with, or in accordance with a licence issued by the Minister. The Planning and Heritage Section of the Department of the Environment, Heritage and Local Government, in consultation with the National Museum, advises the Minister on the issuing of licences. In practice, for a

person to be issued with a licence to excavate, he or she will have to be considered eligible to hold one. This is generally determined by interview.

The Control of Detection Devices

Section 2 of the 1987 Act defines a detecting device as a device designed or adapted for detecting or locating any metal or mineral on the ground and under water. This does not include a camera. It is unlawful to use or be in possession of such a device

- At the site of a monument subject to a preservation order
- A monument in the ownership or guardianship of the Minister
- A monument entered in the Record of Monuments and Places
- A monument entered in the Register of Historic Monuments

APPENDIX 3 **IMPACT ASSESSMENT & THE ARCHAEOLOGICAL RESOURCE**

Procedures relating to the carrying out of Cultural Heritage section of EISs.

Archaeological assessment has been described as "the overall process of assessing the impact of a development" (DAHGI, 1999). The principle aim of assessment is to anticipate and avoid impacts on the archaeological resource. Archaeological assessment may be required as part of the planning process in response to developments which may be located in the vicinity of archaeological monuments, which are extensive in terms of area or length, which are likely to have a substantial impact on present or former wetlands, unenclosed land, rivers, lakes, the inter-tidal zone or the sea-bed (The Heritage Council. 2000).

Impact Assessment and Archaeology.

Archaeological monuments can comprise identifiable above ground features or subterranean traces of previous activity. These monuments can be affected in the course of development in a number of ways. Potential impacts can be identified through the assessment procedure by carrying out a paper study/historical research. The documentary research can then be combined with existing baseline data, field assessment and non-intrusive methods to provide a pre-development risk appraisal study for developers. Further investigation or mitigation measures may subsequently be recommended prior to and during the course of construction work. Sources used by archaeologists show considerable variation (The Heritage Council, 2000). A number of primary baseline data sources and procedures must be considered. These are listed below.

- 1. The Register of Monuments and Places. The RMP is a database recording all archaeological sites in Ireland known to the National Monuments Service. It is based on the Sites and Monuments Record of each County. The record comprises Ordnance Survey 6" sheets which indicate the location of each monument or place of archaeological interest and files of further documentary and photographic data or information relating to an archaeological event such as a site visit, survey or excavation. These are housed in the National Monuments Services in Dublin. The record is constantly updated and principally focuses on monuments that pre-date 1700.
- 2. The National Museum of Ireland Topographical Files. The National Museum in Dublin houses an archive of antiquities cataloguing artefacts which were found and reported between 1928 and 1995. Artefacts can be used as a pointer to the levels of activity in an area in the past. As such they are a useful guide to the archaeological potential of a site
- 3. Cartographic evidence. Ordnance Survey maps and available early maps are consulted and examined. Historical maps are more easily available for urban sites. However, other sources, such as estate maps, are available for rural sites.

- 4. Previous archaeological work near to the subject site. Previous fieldwork carried out locally can provide further information on the surrounding landscape and help to determine the nature of the archaeological resource. A yearly excavations bulletin catalogues all licensed fieldwork carried out in the state. The Archaeological Survey of Ireland and local journals can also be used as sources for this purpose
- Field inspection. A site visit is necessary in order to determine the nature of the archaeological resource and potential remains. Previously unknown archaeological sites can be identified through topographical observations. A site visit can also be helpful in researching local traditions/folklore which may help to indicate levels of activity in the area in the past.
- 6. Aerial photographs. The Geological Survey of Ireland, based In Dublin, holds a comprehensive archive of high level vertical photographs available for consultation by the public and researchers. This is an invaluable resource for the recognition of new sites and the contributing to the understanding of known sites.

Examination of the above sources and the undertaking of the above procedures can result in a detailed statement of the possible impacts on the archaeological resource of a proposed development and set out recommendations as how the impact can be avoided, minimized or negated. By ensuring the earliest identification of the archaeological impacts of a development these impacts can be minimized or avoided, thus reducing costs and/or delays.

Direct and indirect impacts resulting from the proposed development on the archaeological resource should be described and considered. This section of the cultural impact assessment should address the results of disturbance by excavation or deposition, topsoil stripping or passage of machinery and subsequent physical loss to a monument or its setting, desiccation of archaeological objects or remains due to groundwater level changes, visual impacts and visual amenity impact.

Mitigation strategies and Archaeology

Although it is not always possible to detect archaeological sites prior to construction works, it is important to investigate the potential impacts at the earliest phase of development, if possible during site selection. The ideal mitigation for archaeological sites is avoidance/preservation in situ. This is, however, not always possible. If the risk of disturbing archaeological remains is considered minimal, no further archaeological work (other than monitoring of construction work) may be recommended. Recommendations in the impact statement can be offered as mitigation measures should preservation in situ prove impractical or impossible. These are as follows:

- Archaeological Test Trenching. Test excavation has been defined as that form of archaeological excavation where the purpose is to establish the nature and extent of archaeological deposits and features present in a location which it is proposed to develop (though not normally to fully investigate those deposits or features) and allow an assessment to be made of the archaeological impact of the proposed development (DAHGI, 1999).
- Full Archaeological Excavation. Archaeological excavation has been described as
 being carried out in order to "mitigate the impact of development on
 archaeological deposits, features and objects through scientific recording ...
 resulting in preservation by record ..." (DAHGI, 1999).
- Archaeological Monitoring. Archaeological monitoring has been described as
 "involving an archaeologist being present in the course of the carrying out of
 development works (which may include conservation works), so as to identify
 and protect archaeological deposits, features or objects which may be uncovered
 or otherwise affected by the works" (DAHGI, 1999).