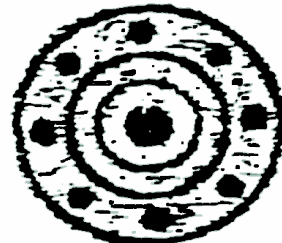


**Archaeological Impact Assessment
on the Potential Archaeology and
Cultural Heritage
of a proposed
Sewerage Scheme in Newport, Co. Mayo**

**ÆGIS Ref: 62-20
Archaeological Inter-tidal Licence No 04-0078**



ÆGIS



Consent of copyright owner required for any other use.

by
Frank Coyne BA MIAI
of
ÆGIS ARCHAEOLOGY LIMITED

**16, Avondale Court, Corbally, Limerick
Tel/fax: 061-348000 E-mail: aegis@indigo.ie**

**Client:
Mayo County Council,
c/o E.G Pettit & Co. ,Shelbourne House, Shelbourne Rd.
Dublin 4**

December 2004

COPIES OF THIS REPORT HAVE BEEN PRESENTED TO:

CLIENT: Mayo County Council,
c/o E.G. Pettit & Co., Shelbourne House,
Shelbourne Road,
Dublin 4

STATUTORY BODIES: Licensing Section, National Monuments Section, DoEHLG
Maritime Unit, National Monuments Section, DoEHLG

LOCAL AUTHORITY: Planning Dept: Mayo County Council

PLEASE NOTE...

That the archaeological recommendations, mitigation proposals and suggested methodology follow guidelines as formulated and approved by the National Monuments Section, Dún Sceine, Harcourt Lane, Dublin 2, prior to the commencement of the archaeological dimension of the project. The National Monuments (amendment) Act 1930-2004 and The Planning and Development Act 2000, have been taken into account where applicable.

Every effort has been taken in the preparation and submission of this report to provide as complete an assessment as possible within the terms of the brief, and all statements and opinions are offered in good faith. However, ÆGIS cannot accept responsibility for errors of fact or opinion resulting from the data supplied by any third party, for any loss or other consequences arising from decisions made or actions taken on the basis of facts and opinions expressed in this report, (and any supplementary information), howsoever such facts and opinions may have been derived, or as the result of unknown and undiscovered sites or artefacts.

ÆGIS acknowledges the information including mapping supplied by the client, the information provided by the Archaeological Survey of Ireland and the National Museum of Ireland.

COPYRIGHT NOTE

Please note that the entirety of this report, including any original drawings and photographs, remain the property of the author(s) and ÆGIS ARCHAEOLOGY LIMITED. Any reproduction of the said report thus requires the written permission of ÆGIS.

Contents

	Page
I. List of Figures, Plates and Tables	4
1. Scope of Study	6
2. Method of Study	8
3. History of the Area and Vicinity	9
3.1 Newport Town and its Environs	
3.2 The Townlands and Islands	
4. The Existing Environment	16
4.1 Pipeline Routes and Treatment Plant	
4.2 The Inter-tidal Area	
4.3 The Islands	
4.4 The Proposed Development	
5. Archaeological Heritage of Study Area	22
5.1 Newport	
5.2 Cartographic Evidence	
5.3 Aerial Photos	
5.4 Plates	
6. Potential Impact of Proposed Development	47
6.1 The "Do-Nothing" Impacts	
6.2 The Predicted Impacts	
6.3 The "Worst Case" Scenario"	
6.4 Interaction of Impacts	
7. Conclusions and Suggested Mitigation	51
8. Non-Technical Summary	53
9. Signing-off Statement	55
10. Project References	56

I. List of Figures, Plates and Tables

FIGURES:	Page
1. General location map showing location of Newport	7
2. Plan of proposed scheme	20
3. Proposed outfall location on Rosmore (option A)	20
4. Outfall (Option B)	21
5. Detail from RMP Sheet 67, showing the islands of Muckinish and Inishdaweel	21
6. RMP map 67 for Newport	24
7. RMP map 68 for Newport	24
8. RMP maps 67 & 68 for Newport	25
9. First Edition Maps 67 and 68 for Newport (c. 1840)	27
10. Newport, First Edition Maps 67 and 68	34
11. Newport, First Edition map (detail)	35
12. Valuation Map c. 1856/7	35
PLATES:	
1. Infra red aerial photograph of area to west of Newport	36
2. Infra red aerial photograph of Lisduff and Caulicaun	36
3. Infra red aerial photograph of Newport town	37
4. Infra red aerial photograph of Rosmore Point	37
5. Infra red aerial photograph (composite)	38
6. From C1 to C4, from W	40
7. Iron bridge on Chappel St, from E	40
8. Detail on iron bridge, from S	40
9. D5 to D4, from E	40
10. Viaduct, from SE	40
11. H1 to H3, from W	40
12. Along left bank of river, from W	41
13. 3 G7 to G1, from W	41
14. G8 to G9, from SE	41
15. 19 to F16, from W	41
16. E2 to E7, from SW	41
17. F8 to F7, from S	41
18. Viaduct, from E	42
19. Western field, Caulicaun, from W	42
20. Inter-tidal zone between Caulicaun and Lisduff, from E	42
21. Inter-tidal zone to S of Caulicaun, from N	42
22. Rough field at Caulicaun, from W	42
23. W field, Lisduff, from SW	42
24. Lisduff Fort, from W	43
25. Overgrown Lisduff Fort, from W	43
26. Rosmore outfall, inter-tidal zone, from S	43
27. Modern timbers, Rosmore outfall, inter-tidal zone, from SE	43
28. Modern timber (railway sleeper) Rosmore outfall, inter-tidal zone, from SE	43
29. Rosmore outfall, inter-tidal zone, from S	43
30. Field to S of Rosmore outfall, from S	44
31. Lane at S of Rosmore, from W	44
32. Lane at S of Rosmore, from W	44
33. Track on Rosmore, from W	44
34. Cairn on Rosmore Point, from W	44
35. Ruin of house on Rosmore, from S	44
36. Muckinish, from N	45
37. Fields at N side of Muckinish, from S	45

For inspection purposes only.
Consent of copyright owner required for any other use.

38. Inter-tidal zone at N side of Muckinish, from W	45
39. Strand at NE side of Muckinish	45
40. Fields on E side of Muckinish, from W	45
41. Ridges on N side of Muckinish, from N	45
42. Muckinish and Inishdaweel, from N	46
43. Shingle beach on E side on Inishdaweel, from E	46
44. Cairn/barrow on Inishdaweel, from E Shingle beach on E side on Inishdaweel, from E	46
45. E side of Inishdaweel, from W	46
46. Inter-tidal zone at N side of Inishdaweel, from W	46
47. W side of Inishdaweel, from E	46

TABLES:

1. RMP and list information for Newport	26
2. Archaeological survey of Ireland information on sites in the vicinity of the pipeline (SMR)	27
3. List of finds from Newport area (National Museum of Ireland Topographical Files)	27
4. List of shipwrecks found off the coast of Newport/ Clew Bay (Maritime SMR)	33

*For inspection purposes only.
Consent of copyright owner required for any other use.*

1. Scope of Study

This report addresses the archaeological heritage of the sites as part of an impact assessment for a proposed sewerage scheme at Newport, county Mayo. The report also includes information relating to the inter-tidal zones, which may be impacted. The following brief has been fulfilled by this report:

- A general account of the historical and archaeological background of each sites, including examination of RMP maps, SMR files and the topographical files for each site;
- Where a Maritime Survey (Archaeological Survey of Ireland, various dates) has been undertaken this has been consulted, as well as other available sources;
- The impact of the proposed development on the known and potential archaeology is discussed;
- Suggested mitigation procedures for addressing those impacts (if any).

The spatial information (maps *etc.*), on which this study is based, was provided by the client, who in turn was provided with the information from the local authority involved in the project. Mapping was originally A1 in size and so has been used in this report as illustration only. A representative of Aegis Archaeology Ltd. Met with The Maritime Unit of the National Monuments Section and with Paul Kelly of EG Pettit and Co. , prior to the commencement of this project.

This report fulfils the requirements of an environment impact assessment, which fulfils the criteria as laid out by the EPA (2002) and should be viewed as such, assessing the cultural heritage and archaeological potential of all the sites.

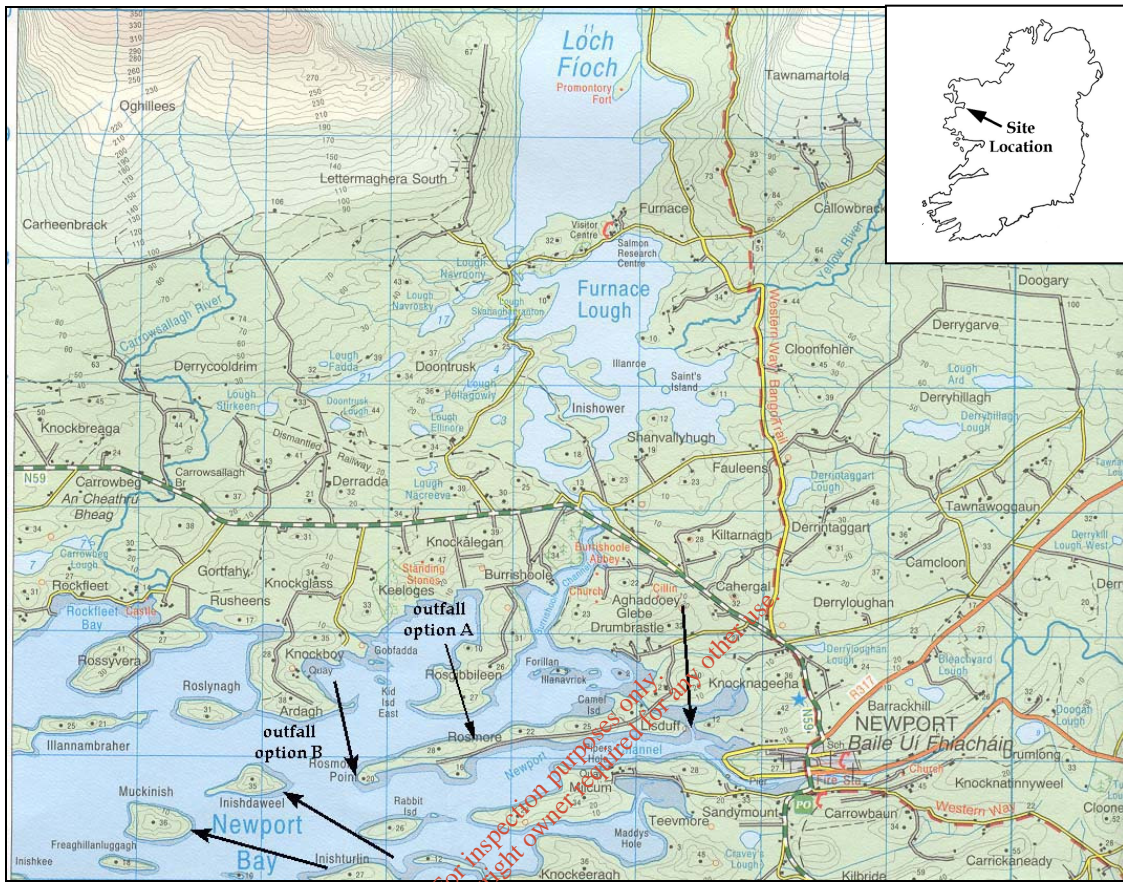


Figure 1. Discovery Series map 31 showing Newport town, inter-tidal locations indicated

2. Method of Study

The following resources and methods of establishing the archaeological status of the proposed sites, were used:

- The Maritime Archaeology Survey for the Newport area was consulted (Archaeological Survey of Ireland Maritime Unit) in order to undertake a paper survey of the area near the sea;
- The Recorded Monuments and Places constraint maps and accompanying list were consulted;
- Where available the Archaeological Survey of Ireland SMR was consulted for each location;
- A range of general histories and archaeological books relating to each site was consulted;
- Cartographic sources were used, mainly the RMP and the supplied maps from the client, as well as the first edition six inch maps (dated to c.1840);
- Pipe-line location maps were supplied by client;
- Previous archaeological works at each site is assessed as an indication of the potential archaeology of that site (where applicable);
- Infra-red Aerial photographs were analysed for the sewerage scheme routes (National Coastline Survey, Marine Institute)

3. History of the Area and Vicinity

3.1 Newport Town and its Environs

None of the study area has been subject to an Archaeology Urban Survey nor is there a published inventory of archaeological monuments for the county, as there are for other counties. The main texts used in the area histories were the O'Donovan Letters and Name books, a record of the townland and parish names for the county with brief accounts on the most notable antiquities of the area (c. 1840), *The Shell Guide to Ireland* (Killanin and Duignan 1967), a comprehensive gazetteer of Irish villages and towns, and *The Topographical Dictionary of Ireland*, an excellent account of the main towns and all the counties of Ireland, as they stood in the early 1800s (Lewis 1837).

Newport is a village near the northeast corner of Clew Bay, 8 miles north of Westport and 12 miles west of Castlebar (Killanin and Duignan 1967, 391). The town is called Newport Pratt in William Seward's *Toponomia Hibernica* in 1795, from the former Treasury official, who founded the town early in the eighteenth century. The older form of the Irish name was *Baile Ó bhFiachán*, which appears in the *Senchus Búrcach* in c. 1578, and in anglicised form as Ballyovighan in the Calendar of Ormond Deeds in 1576 (O'Hara 1982, 81-2). No town existed at Balleveghane until the early eighteenth century, when Mr. Pratt acquired the lease and began to develop the town on the present site of Newport. The old town and pier were at Burrishoole, by the Dominican Abbey, and Pratt set about introducing a colony of Quakers to the area. However by the 1720s the Quakers were having difficulty making ends meet, and by 1756 the community considered leaving the area (McDermott 1994, 1-5). Some of the eighteenth century houses remain on Medlycot Street. The site of the town was chosen by Captain Pratt because of its green field nature and its potential for shipping. Though subject to tidal influences, the quay can provide up to 4.5 metres of water, enough for 18th century trading ships of 500 tonnes or less. The town prospered in the 18th century. Houses were built,

churches flourished, and trade was brisk. The Society of Friends were among the first inhabitants, though no trace of them remains today. Catholics, Protestants, Presbyterians and Methodists all had churches in the town. In the mid 18th century, the Land Agent, James Moore, controlled the town and its hinterland. He was a successful businessman who encouraged building and trade (McDermott 2004).

O'Donovan also describes Newport as a modern name, and suggests the original Irish name for the area was *Baile Ó Mhiadhcaín*, O'Meehans town (O'Donovan 1838, 671). By the late 18th century the O'Donel family had acquired the Medlycot estate, and built Newport House, overlooking the harbour from the north side. Newport continued to develop (*op cit*).

Lewis describes Newport, or Newport-Pratt as a market and post town in the parish and barony of Burrishoole, and containing 1235 inhabitants (1837, 429). The town, situated at the extremity of Clew Bay, was the original port of discharge for the county of Mayo. The river Beltra flows into the bay, and the Burrishoole river also flows through the parish. In 1837, the town consisted of one principal street and several others, containing about 230 houses. The trade, formerly very extensive, has, from the difficulty with the interior, has in a great measure been transferred to Westport, and at present consists of the export of grain, of which on average 1000 tons are shipped annually to England (Lewis 1837, 429).

The pier was erected at the expense of Sir Richard O'Donnell and some of the merchants of the town; the quays are extensive and commodious and accessible to vessels of 200 tons burden. Market day is on a Tuesday, and fairs are held on June 8th, August 1st, November 11th and December 20th. A chief constabulary force is stationed in the town, and petty sessions are held every Tuesday, and a manorial court on the first Wednesday of every month. In the vicinity is Newport House, the seat of Sir Richard Annesley O'Donnell. Three miles distant, on the sea shore is Rockfleet Castle, said to have been built by Grainne-Uile, or Grace O'Malley, celebrated for her maritime exploits (Lewis 1837, 430). This Sir Richard O'Donnell, who was proprietor of the town greatly improved it. The O'Donnells of Newport originally came from *Tirconnell* (Quinn 1993, 107-9). The 19th century saw the town and the surrounding district's population explode to over 12,000 people before famine left a shattered community, emigration or starvation.

In 1838 the town contained a church, built in 1807, a Roman Catholic Chapel, built in 1803 as well as a police and revenue station. It had four public houses, three bakers shops and a post office (O'Donovan 1838, 671). Out of the disaster of famine one man began to develop trade and industry to sustain the town. Martin Carey began his career as a small trader and by the

end of the century the Carey family had erected, or caused to be erected, many of the buildings that remain to this day. The generosity of Martin Carey in the early years of the 20th century provided the town with its magnificently situated and exceptionally beautiful St. Patrick's Church, Martin Carey provided over half the costs of the building, £10,000, in his will of 1910. The church was completed in 1918 (McDermott). Its east window (The Last Judgement) was designed by Harry Clarke (Killanin and Duignan 1967, 391).

Grace O'Malley and Rockfleet Castle

Three miles to the west of Newport, on the shore of Clew Bay is the tower of Carraigahooley, also known as Rockfleet Castle (Killanin and Duignan 1976, 391), where Grace O'Malley, alias Grauaile took up residence after the death of her second husband. She was born on 1530, according to tradition at Belclare Castle, near Westport. From the O'Flaherty Castle at Bunowen in Connemara she took to looting ships bound for the town of Galway. In 1576 she was captured by the Earl of Desmond during a looting mission to Munster, and imprisoned in Limerick Castle for a year and a half. In 1578 she was transferred to Dublin Castle, and released in March of the following year. Immediately on her return to Rockfleet, she was besieged by a garrison of soldiers sent by the sheriff of Galway in reprisal for attacks on Galway shipping, although she successfully repulsed the attack. In 1583 her second husband, Richard Burke died, and in 1587 Grace went to Dublin, where she and her sons received a pardon for past offences. After the Spanish Armada in 1588, both the O'Malleys and Burkes were accused of harbouring Spaniards. The sheriff of Mayo, and later Sir Richard Bingham, governor of Connacht attacked and plundered the area, and Granuaile and her followers were forced to take refuge on the islands of Clew Bay. In 1593 she made the journey to England to meet with Queen Elizabeth, who being much impressed with her, granted her a pardon, and ordered the release of her son, who was being held captive by Bingham. The final years of the sixteenth saw considerable unrest, and as late as 1599 it was reported to the new English governor of Connacht that 'the O'Malleys are much feared everywhere by sea'. Little is known of the final years of Grace O'Malley. Legend has it that she died in 1603 at Rockfleet, and was buried in the Cistercian Abbey on Clare Island. (Corlett 2001, 73-9).

Burrishoole Abbey

Two miles to the northwest are the ruins of Burrishoole Abbey, a National Monument, a Dominican Friary founded by Richard De Burca. The DeBurgo-O'Malley Chalice, dating from 1494, now in the National Museum belonged to the friary (Killanin and Duignan 1976, 391).

The name Burrishoole is derived from the Norman word 'Burgus' and 'Umhail' (later anglicised as Owel) the name given to the surrounding territory. The abbey is situated at the edge of a quiet tidal estuary. The nave, chancel, tower and south transept remain, and there are ruins of domestic buildings and a cloister to the north. Following his resignation as chieftain of the De Burgo clan, Richard retired to the Abbey and died there in 1473. The Archbishop of Tuam, Donal O Muiri, had given permission for the founding of the abbey, but it was not until 1486 that the authorities in Rome officially recognized it in a Papal Bull issued in February 1486 to Archbishop William Joyce by Pope Innocent VII. The Pope then gave permission for the erection of a church with steeple and bell, and an abbey furnished with refectory, dormitory, cloisters and cemetery, and was built in Gothic style.

In August 1597, Sir Richard Malby, the Governor of Connaught placed a garrison within the abbey and captured Fr. Thady Duane. Fr. Duane later converted the soldiers and they settled among the local catholic people in the vicinity. In 1652 the Abbey was attacked and plundered by Cromwellian soldiers. During the seventeenth century several edicts were decreed ordering the friars to quit Burrishoole. Some were driven out while others remained on, living for the most part in mud cabins in close proximity to the abbey. The friars had opened a school at Burrishoole in 1642. The college operated under extreme difficulty until 1697, and because of the persecution they encountered they had at times to conduct their schooling at hidden locations within the woods. The friars were expelled again in 1698 but returned in 1702. They watched the abbey go into ruin and in 1793 the roof eventually caved in and the friars left for the last time.

The Abbey at Burrishoole was always considered to be a hallowed burial place among the local clans. The oldest inscribed tomb within the Abbey is the O Kelly altar tomb with a Latin inscription dated 1623. Also reposing within the Abbey is Peregrine O Cleirigh, one of the Four Masters

The Viaduct

Centre piece of Newport, the railway viaduct that once carried steam trains through Newport on their way to Achill, is now preserved as a walkway. It spans the Blackoak River, contains seven arches and cost £7,640 to build. The Midlands and Great Western Railway backed the nominally independent Great Northern and Western Railway, authorising it, in 1857, to build a line from Athlone to Roscommon and Castlerea. Eventually this route was extended Claremorris and Castlebar in 1862, Westport in 1866 and Ballina in 1873. From Westport the main line was extended by a 27-mile branch, which skirted Clew Bay, and struck out westwards to terminate at Achill (Casserly 1974, 99). The first train crossed the bridge in February 1894, and it was finally closed in September 1937. The viaduct is constructed of local red sandstone with some limestone facings. Over 1000 men were employed in the late 1880s during the construction of the rail line from Westport to Achill Island. Given the nature of the hilly, boggy drumlin countryside, much cutting, filling and building of small stone bridges was necessary and today these provide an architecture that enhances the countryside. Much of the railway station is no longer standing but the present Oratory Chapel was once part of a busy bustling station. Two rail tunnels to the south also remind one of the Midland and Great Western Railway that once passed through Newport (McDermott).

In 1925 the Irish government amalgamated virtually all the lines entirely within its territory into the Great Southern Railways. In 1945 the Great Southern Railways amalgamated with Dublin United Traction, which operated the capitals buses and trams, to form Coras Iompar Eireann. This group was nationalised in 1950, and subsequently a large part of the broad gauge railways were axed. Many had no chance of surviving in the latter half of the twentieth century, and would have closed sooner, were it not for the combined effects of the Second World War, and deficiencies in the Irish road network. All of the once extensive network of narrow gauge railway lines had closed by 1961, the last to survive being the West Clare Railway, whose last train ran on the 31st January 1961 (O'Connor 1999, 141)

3.2 The Townlands and Islands

The Ordnance Survey Name Books and Letters (1838) for Mayo were examined and the following information was available for the relevant townlands;

Barrackhill- translated as *Cnoc na mBearraics*, (presumable hill of the barracks). The townland is the property of Sir Richard O'Donnell, the soil is lime and free stone nature. Lakes Cameloon and Bleachyard are in this townland, and also a Corn and Tuck mill.

Carrowbaun- translated as *Ceathramadh Bán*, the white quarter. The townland is the property of Sir Richard O'Donnell. A national school was established here in 1832, and a female school was established at the same time. Two other schools were opened in 1798 by the Reverend Vesey.

Caulikaun- translated as *Calachán*, the little harbour. The townland is the property of Sir William Palmer. The soil produces potatoes, corn, barley and flax.

Derryloughan Beg- translated as *Doire Locháin*, oakwood of the pool. The townland is the property of Sir Richard O'Donnell, and produces potatoes, corn and barley and flax.

Derryloughan More- translated as *Doire Locháin*, oakwood of the pool. The townland is the property of Sir Richard O'Donnell, the soil is light mountain and produces potatoes, corn and barley.

Knockaveely Glebe- translated as *Cnoc a Mhíle*, hill of the mile, or also hill of the champion/warrior. It is Glebe land, producing corn, potatoes, barley and mangle-wurzels. There is also the ruins of a Glebe House, two stories high, and graveyard and ruins of an old church.

Lisduff- translated as *Lios Dubh*, the black fort. The townland is the property of Sir William Palmer. The soil produces potatoes, corn and barley. There are five houses on it, all of bad description. There is an ancient fort on its eastern boundary.

Milcum- translated as *Ros na mBráthar*, point of the land of the friars. The townland produces potatoes, oats and rye.

Mullaun- translated as *Mulán*, the small summit. The townland is the property of Sir Richard O'Donnell, and produces potatoes, corn and barley and flax.

Rosmore- translated as *Ros More*, a great point of land. The townland is the property of Sir Richard O'Donnell, all cultivated, and has on it nine or ten poor little houses.

Sandymount- translated as *Sliabh Gáinnimhe*, (presumably sandy hill). The townland is the property of Sir Richard O'Donnell, and produces potatoes, corn and barley and flax. Limestone is burned on the land for manure and building. There are saltpans in this townland, and on the western boundary there is an ancient fort.

Inishdaweel- translated as *Inis Dá Mhaol*, island of the two hornless cows. The island is the property of Sir William Palmer, all arable land. The soil is light and stony. There are no houses on it.

Muckinish- translated as *Muic Isis*, pig island. The island is the property of Sir William Palmer, all arable land. It is used as a stock farm. There are no houses on it.

For inspection purposes only.
Consent of copyright owner required for any other use.

4. The Existing Environment

The pipelines were walked by a qualified archaeologist in September/October 2004. The proposed pumping station site, the proposed outfall options and the inter-tidal area was also inspected. Several route options are proposed, and all have been considered in this report. The islands were visited in October 2004. The majority of the pipeline will be along existing roadway. Where it crosses through Greenfield sites, the land is predominantly used for pasture and grazing. On the islands the land is also used for grazing, although no animals were noted on Muckinish.

4.1 The Pipeline Routes and Treatment Plant

The majority of the proposed pipelines will be laid along existing streets and roadways. These were all examined by the archaeologist as part of the archaeological walkover. The iron bridge on Chappel Street (plates 7 and 8) may be impacted should pipes be laid across the span. This bridge presumably relates to the construction of the railway here in the 19th century, and is an important item of cultural heritage.

One of the suggested options, Option G runs to the south and west of Newport House, along the line of an existing roadway. This will run through the zone of potential for archaeological monument **MA068-013---**, an enclosure. This site appears to be contained within the higher grounds of Newport House. Information contained within the files of the Archaeological Survey of Ireland files suggests that no remains of this site are visible. Because of the elevated location of the archaeological site, it is unlikely that the routing of the pipe along this stretch of roadway will have any negative effect on the monument, should it survive sub-surface.

Option B and Option H will run along existing roadway to the south of the town. No archaeological site will be impacted by this route

Option A will run along existing roadway through Knockaveely Glebe to the south of the town, to the immediate south side of the zone of potential for archaeological monument **MA068-014**, ecclesiastical remains, church, and graveyard. While they appear close on the map, the archaeological site is at the bottom of a steep hill, and will not be impacted by this route option.

No other archaeological monument or site will be impacted by the route of the pipeline along the roads and streets.

Treatment Plant at Caulicaun to Outfall Option A at north of Rosmore Point

This proposed treatment plant is to be located on a small promontory in the townland of Caulicaun. The general location marked on the maps occupies two fields. The eastern field is currently under a growth of scrub and undergrowth, while the western field is currently devoted to grazing, and under a growth of short grass. No archaeological features were noted at this location. The pipeline is routed to the west through a short stretch of inter-tidal zone (details below), and to the immediate north of RMP MA067-037 (enclosure and hut site). This site is now completely overgrown, and covered in an impenetrable growth of scrub, bushes and briars.

The pipeline then continues in a west-north-west direction through two grassy fields, currently devoted to grazing. No archaeological features were noted in these fields. The proposed pipeline will then follow an existing trackway along the southern side of Rosmore townland. It will then cross the peninsula in a northwesterly direction, through a large reclaimed field. This is currently under a growth of grass. No archaeological features were noted in this area. The pipe will then discharge on the northern side of the peninsula.

4.2 The Inter-tidal Area

Outfall Option A to north of Rosmore

The proposed outfall area is a gravel beach. At the time of the site visit at low tide it was possible to examine 25.0m long area into the inter-tidal zone. The surrounding area was also examined, up to 100m on either side of the proposed outfall area. A series of modern posts were noted, approximately 60.0m to the east of the outfall area. These appear to be of modern

origin, some of the posts used being old railway sleepers. No archaeological features were noted.

Storm water overflow to south of Caulicaun

The proposed storm water overflow is an area of mud flats and rock outcrop. At the time of the site visit at low tide it was possible to examine 100.0m long area into the inter-tidal zone. The surrounding area was also examined, up to 100m on either side of the proposed outfall area. In places the rock outcrop was immediately underfoot. No archaeological features were noted.

Pipe crossing between Caulicaun and Lisduff

The proposed pipe from the treatment plant at Caulicaun is indicated as being routed westwards along Rosmore Point. It crosses a narrow stretch of inter-tidal zone between Caulicaun and Lisduff, on the immediate northern side of Lisduff Fort. This inter-tidal zone was examined at low tide, and was found to consist of a mixture of rock outcrop, gravel and mud. A large quantity of seaweed was also present. No archaeological features were noted.

Inter-tidal area to south of Rosmore Point

The inter-tidal zone in this area consists of a gravel beach towards the western end of the peninsula, and mud flats and rock towards the landward side. At the time of the site visit at low tide it was possible to examine 25.0m long area into the inter-tidal zone. A series of modern posts were noted, of modern origin, some of the posts used being old railway sleepers. No archaeological features were noted. However it is important to note that the area is called 'bullau' on the Ordnance Survey six inch map, and O'Donovan also records this fact in the Ordnance Survey Name Books in 1838, translating the name as 'a well in a rock'. The southern part of Rosmore Point is called 'Pipers Hole' on the Ordnance Survey six-inch map. However, O'Donovan has no specific information regarding this.

Option B, Rosmore Point to the Islands (Inishdaweel and Muckinish),

One of the pipeline options runs along Rosmore Point. It appears to follow an existing trackway, which runs almost to the western tip of the point. The latter portion on the point comprises a series of grassy fields, not used for grazing. The western end of the point rises to a height of 20.0m OD. An archaeological site is marked on this tip, MA067-061---, a possible enclosure. This walkover identified a cairn/mound at the highest point. This was a roughly circular mound, 8.00m in diameter and attaining a maximum height of 1.50m on its western

side. A high proportion of stone was noted in its make up. While it appeared from analysis of the accompanying aerial photograph that this may have been enclosed by an outer bank, this was not visible on the ground. A previously unrecorded mound on Inishdaweel is visible to the west.

4.3 The Islands

The island of Inishdaweel was visited, and the inter-tidal zone examined. An area of strand occurs on the eastern side of the island, while gravel beach encircles the island on the other sides. No archaeological features were noted in the inter-tidal zone. The island itself is now used for sheep grazing, and traces of old field boundaries are in evidence. The centre of the island rises to a height of 35.0m OD. At this highest point a previously unidentified mound/cairn was noted. This is a circular mound of earth, with some stone, measuring 10.0m in diameter. This site allows superb views in all directions. The mound on Rosmore Point is clearly visible to the east.

No other features of an archaeological nature were noted.

The island of Muckinish was visited, and the inter-tidal zone examined. Gravel beach encircles the island on all sides. No archaeological features were noted in the inter-tidal zone. Traces of old field boundaries are in evidence, while old cultivation ridges are visible at the centre and northern sides of the island. Traces of a possible house were noted on the western side of the island. The centre of the island rises to a height of 35.0m OD, the same height as Inishdaweel. No features of archaeological merit were noted.

4.4 The Proposed Development (figures 2-11)

It is proposed to upgrade the existing and install new sewerage system at Newport, with a pumping station wastewater treatment plant also to be constructed. Most of the pipeline is within existing roadways, although some stretches are through grassland. A portion of the proposed pipeline will be in the inter-tidal area, for both outfall options A and B, specifically for an outfall pipe. These locations were also examined. A desk-based assessment was carried out, and the files of the Maritime Section of the National Monuments Section (formerly *Dúchas*) were consulted.

Suitable archaeological mitigation measures, as used in other similar developments are suggested below in order to mitigate against the negative impacts (if any) of the development on the potential archaeology of each location.

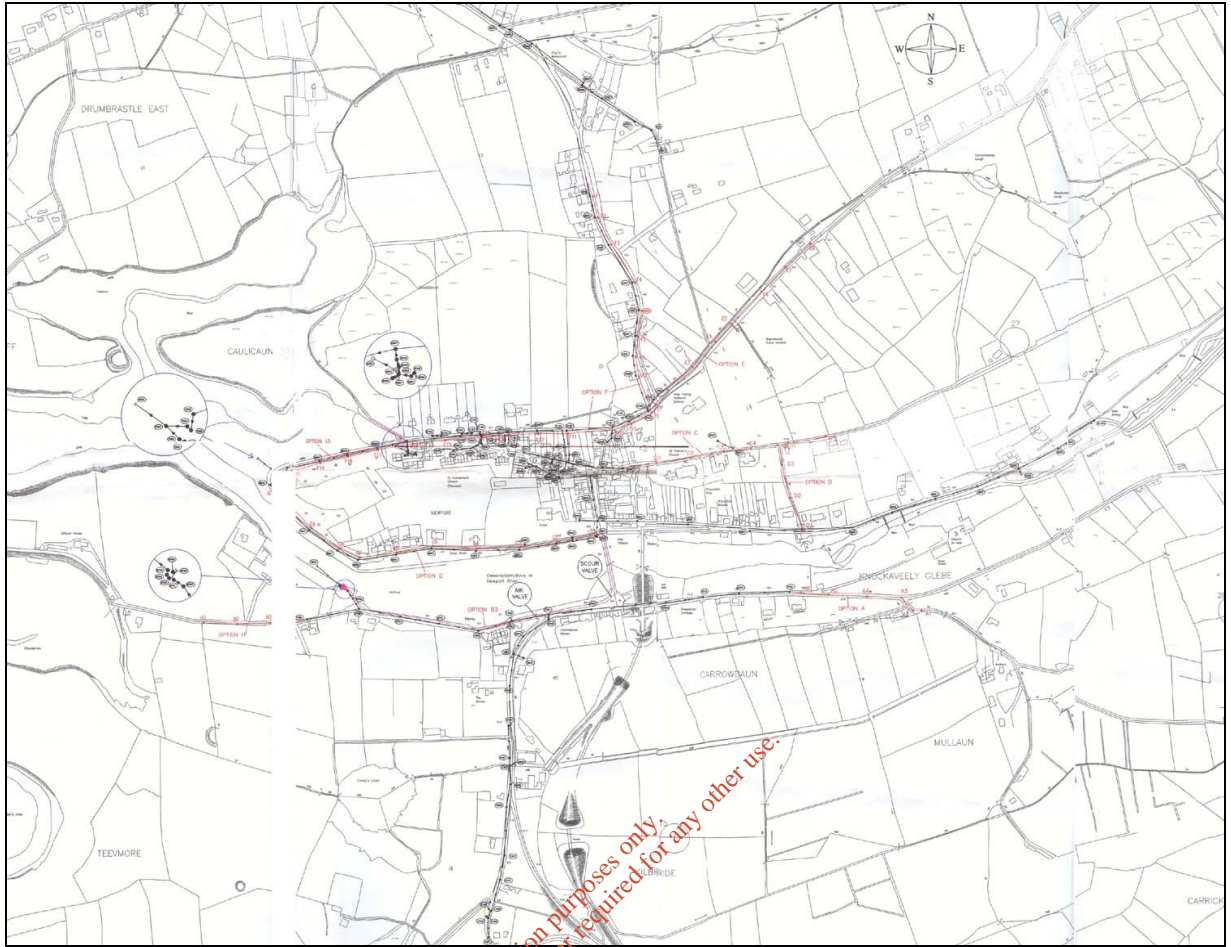


Figure 2. Plan of proposed scheme

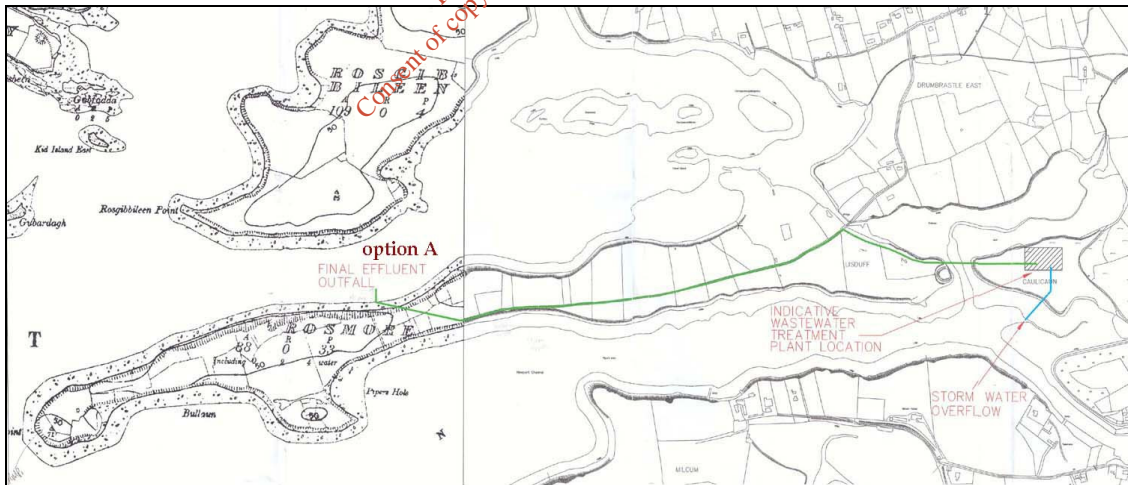


Figure 3. Proposed outfall location on Rosmore (option A)

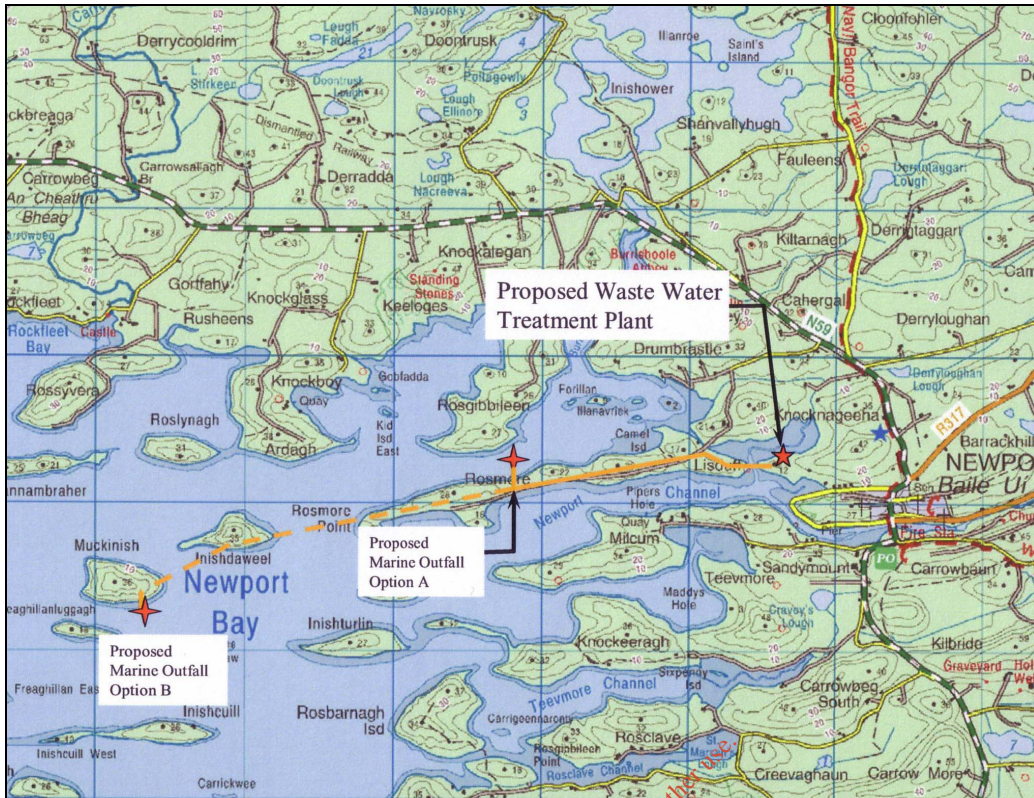


Figure 4. Outfall option B

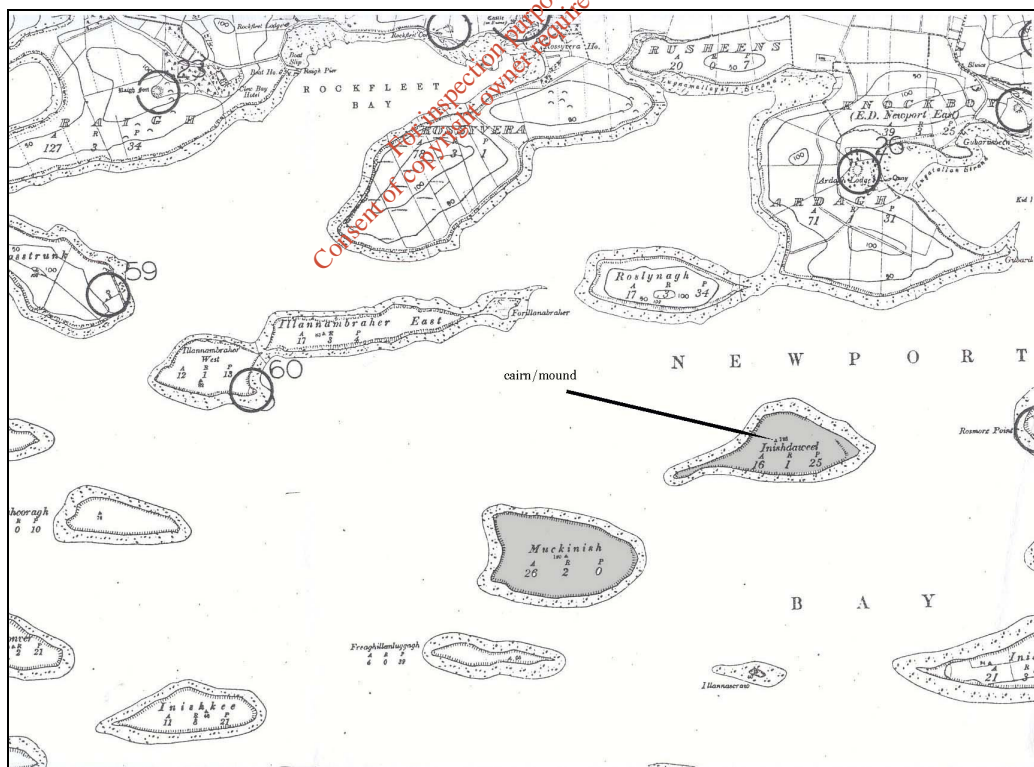


Figure 5. Detail from RMP Sheet 67, showing the islands of Muckinish and Inishdaweel, mound on Inishdaweel indicated

5. Archaeological Heritage of Study Area

This section is a summary of the archaeological and cultural heritage of the sites in the study area, all of which are in the environs of Newport, county Mayo. Newport itself has not been subject to a study by the Archaeological Survey of Ireland, known as the *Urban Archaeology Survey*. Other sources used were the Record of Monuments and Places or RMP and the accompanying list of sites (Archaeological Survey of Ireland 1997). The information from these sources has been tabularised. The Archaeological Survey of Ireland retains files on each RMP site known as the SMR. These were also consulted. The National Museum of Ireland files, known as the Topographical Files were also checked to identify archaeological artefact sites that may be on or near the proposed pipe routes.

The yearly *Excavations Bulletin*, which summarises licensed archaeological work in the country, by county (Bennett, various dates) was checked for up-to-date information on recent archaeological discoveries in each of the locations in the study group. Excavation summaries for the years 1996-2002 inclusive were included. None of the locations were included in the Bulletin for those years. All information sources used have been referenced and listed in section 10. Please note that the maps included are for illustration only. The RMP maps included are reduced and their original scale is six inches to one mile (OS 6" map series). Other maps are for indication only in order to illustrate the archaeological potential for each location in the study area.

The **black line or circle** on the RMPs (figures below) indicates the zone of archaeological potential either around an individual archaeological site (usually a circle) or around a town or archaeological complex (usually an irregular shape). This line provides a protective zone of archaeological potential, which is a zone that is protected under The National Monuments (amendment) Acts 1930-2004 legislation (please see below section 7).

The files of the Archaeological Survey of Ireland, held by the National Monuments Section, DOEHLG, and the Topographical Files housed in the National Museum of Ireland were examined. These findings are itemised in tables 1 to 4 below, which also shows the records of the Maritime SMR. Low-level infrared aerial photographs from the National Coastline Survey were also studied, and are included (plates 1-4; noting location adjacent to the study area; Marine Institute 2001).

*For inspection purposes only.
Consent of copyright owner required for any other use.*



Figure 6. RMP map 67 for Newport, (Archaeological survey of Ireland 1997)

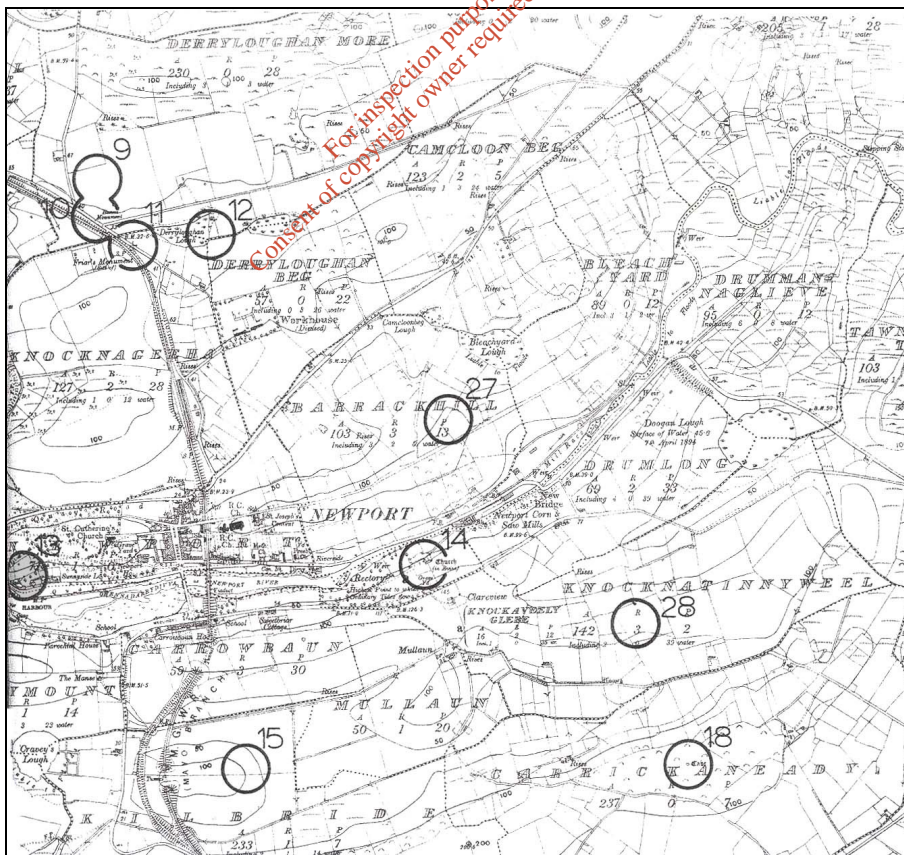


Figure 7. RMP map 68 for Newport, (Archaeological survey of Ireland 1997)

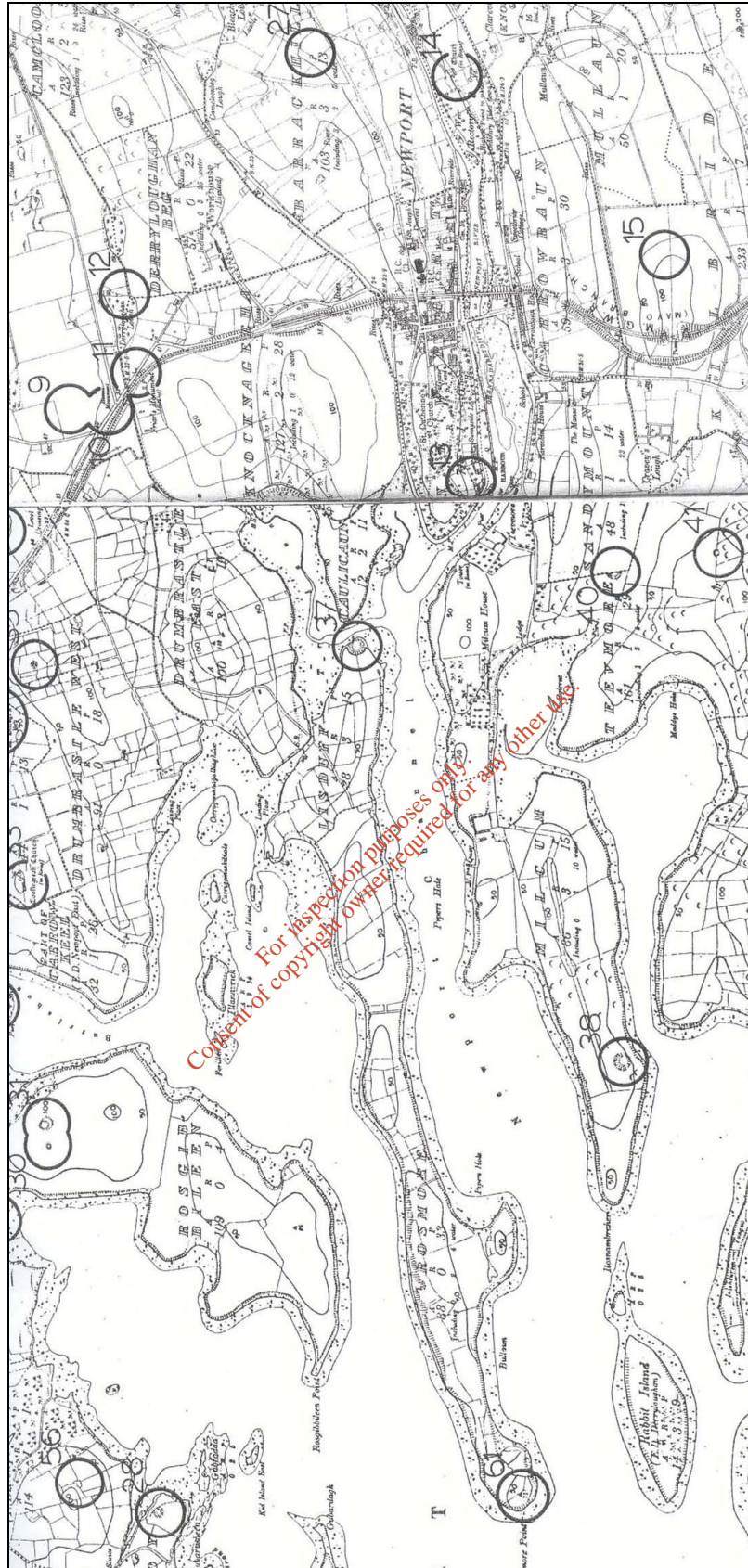


Figure 8. RMP maps 67 & 68 for Newport, (Archaeological survey of Ireland 1997)

5.1 Newport (Figs 1-8; Tables 1-3)

The followings are the archaeological details relating to Newport. It has not been subject to an Archaeology Urban Survey, but has several archaeological sites in its vicinity. They are:

Monument No (from RMP)	Nat Grid	Townland	Classification
MA067-026	9423/29471	Ardagh	Enclosure
MA067-028	9479/29490	Knockboy	Enclosure
MA067-037	9738/29424	Lisduff	Enclosure, possible hut site
MA067-038	9611/29348	Milcum	Enclosure
MA067-039	9634/29294	Knockeeragh	Enclosure
MA067-040	9758/29347	Teevmore/Sandymount	Enclosure
MA067-041	9763/29316	Teevmore	Earthwork, possible
MA067-061	9481/29382	Rosmore	Enclosure, possible
MA067-062	9596/29296	Knockeeragh	Earthwork
MA068-009	9816/29507	Derryloughan More	Enclosure, souterrain
MA068-010	9815/29407	Derryloughan More	Monument
MA068-011	9826/29487	Knocknageeha	Monument
MA068-012	9850/29490	Derryloughan More	Crannog, possible
MA068-013	9789/29389	Newport	Enclosure
MA068-014	9911/29389	Knockaveely Glebe	Ecclesiastical remains, church, graveyard
MA068-027	9920/29431	Barrackhill	Earthwork, possible

Table 1. RMP and list information for Newport

RMP Number	Townland	Type	Description
MA067-037	Lisduff	Enclosure	Surveyed by Liam Price. Well preserved, two banks and fosse. Not complete on E side. Not completely circular, rectangular with rounded corners. In interior is a hollow filled with rushes
MA067-038	Milcum	Enclosure	Marked on 1 st Edition Map
MA067-061	Rosmore	Possible Enclosure	Noted on aerial photo-no date.
MA068-001	Claggaranagh	Enclosure	OPW field notes in file, 1997-a rath situated on a prominent drumlin hill. A 27.3m wide area is enclosed by an earth and stone bank. A 2.80m wide causeway across the fosse represents the entrance
MA068-002	Ballyteige	Ecclesiastical	Marked on the 1 st edition map, and on the 3 rd Edition (1920) as "Annabeggaun Grave Yard". OPW field notes in file, 1997 did not find 'any indication of a church or other features'.
MA068-003	Ballyteige	Enclosure	OPW field notes 1997- a rath, with a

			low earthen bank, levelled at NNW to N to SSE. An infilled fosse was also noted at SSW, while a circular depression occurs in the interior. The site is divided by a field boundary.
MA068-004	Ballyteige	Enclosure	OPW field notes, 1997- this is a natural hillock
MA068-009	Derryloughan More	Enclosure and souterrain	OPW field notes 1997-this site has been levelled
MA068-010	Derryloughan More	Monument	OPW field notes 1997-no trace near railway line
MA068-011	Knocknageeha	Monument	OPW field notes 1997-no trace near railway line
MA068-012	Derryloughan More	Crannog possible	OPW field notes 1997-not visited
MA068-013	Newport	Enclosure	OPW field notes 1997-no remains visible
MA068-014	Knockaveely Glebe	Ecclesiastical remains	OPW field notes 1997-Church and 18 th /19 th century headstones extant
MA068-015	Kilbride	Find Spot	Later Bronze Age Hoard. No trace on ground
MA068-027	Barrackhill	Possible Earthwork	Noted on aerial photo. OPW field notes 1997- not visible on ground

Table 2. Archaeological survey of Ireland information on sites in the vicinity of the pipeline (SMR)

Townland	Find Description
Newport	Bronze palstave 1933: 570; copper hammer head 1929: 1353
Kilbride	Later Bronze Age hoard
Muckanagh	Wooden bowl 1977: 2173
Derryloughan More	Bog butter with wooden container

Table 3. List of finds from townlands in the vicinity (National Museum of Ireland Topographical Files)

Due to the site's proximity to the sea and the proposed position of an outfall pipe in the inter-tidal zone at Newport, a desk-based study was undertaken of the Maritime SMR. This information is detailed in Table 4 below.

Site Name	Date of Loss	Place of Loss	Any other Information
<i>Allen</i>	4 Jan. 1811	near Westport	This ship was en route from the Azores to Liverpool, under Price, when she was wrecked. The crew and cargo were saved. L. L. no. 4530, 22 January 1811
<i>Catherine</i>	5 Feb. 1822	near Westport	This vessel of Leith was en route from Westport to Liverpool under Captain Morisson. She went ashore and broke up. Bourke, 1998, 138
<i>Catharine / Catherine</i>	19 Nov. 1822	Clew Bay	A vessel laden with timber, supposedly the <i>Catharine</i> , was totally wrecked. Bourke, 1998, 137 L. L. no. 5754, 26 November 1822
<i>Charles Stuart Parnell</i>	June 1928	between Island Mór and the channel between Inisgort and Collanbeg, Ilanmore Harbour, Westport Bay	This 200-ton wooden ketch was a rigged sailing vessel and worked as the supply ship for the local lighthouses. She was burned and lost but now lies on sand and coral at 12 metres, in a broken state. Bourke, 1994, 188
<i>Chio</i>	24 Jan. 1852	Culleen Island, Clew Bay	This Greek brig dragged her anchor in a force 9 gale and went ashore on the island. She sustained a lot of damage but was expected to be got off on the next spring tide. She got off on the 20th with her copper slightly damaged. CSP, 1852-53, Vol. LXI, 26-27
<i>Creteboom</i>	22 Sept. 1937	Mayo Position 54°08'08.5N, 009°08'15.0W WreckNo.007300013	This British tug weighed 685 tons and measured 125 x 27 x 14 feet. She was built during WWI to tow barges of iron ore from Spain to the UK. She was built by John Ver Mehr and Co. of Shorham and was constructed of ferroconcrete due to the shortage of steel. She had a 3 cylinder, 725ihp engine. The vessel was tied to the hull of registered tug <i>Pressman</i> when she arrived at Ballina on the 22 nd September 1937. They encountered bad weather whilst crossing the bar and collided. The <i>Creteboom</i> suffered a crack below the waterline but it was not noticed until she came alongside the jetty. Efforts were made to keep her afloat, but she was let go away from the jetty where she sank and settled into mid stream. She stayed there for 30 years before being re-floated during the mid-70's and moved 25 yards to her present position. In 1967/68, a stranded wreck was seen on a sandbank in mid stream, on the approaches to Ballina, on an aerial photograph. Admiralty Data 1996

<i>Eliza</i>	13 Nov. 1847	Westport Bay	This 123-ton sailing vessel was on the shore. CSP, 1851, Vol. LII, 35
<i>Flora</i>	7 April 1899	Inishlyre Roads, Clew Bay	This 44-ton wooden sloop of Westport was 52 years old. The master and owner was J. Moran of Careholly, Westport. She was at anchor at Inishlyre, in ballast, with two crew aboard. She was hit by the schooner <i>Kate</i> , of Westport, in a WSW force 9 wind and she became a total loss. CSP, 1900, Vol. LXXVII, 157
<i>Fancy</i>	1696	Inishlyre Roads, Clew Bay	This Man O' War vessel originally belonged to Charles II of the 1694 Spanish expedition from Corunna. Henry Everly (Long Ben) took over the vessel and used her for piracy. The vessel is recorded arriving in Mayo in June 1696 with 20 pirates on board. It is not certain what happened to the ship but it is thought to have been abandoned or wrecked. Bourke, 1994, 193
<i>Forest Monarch</i>	20 Nov. 1848	Inniskeagh Island (Inishkea ?)	CSP, 1852-3, Vol. XCVIII, 2
<i>George</i>	26 Nov. 1822	Clew Bay	This vessel was en route from Quebec to Greenock, under Captain McAlpine. She was abandoned by the crew and the vessel drifted into the bay. The captain and one of her 12 crew were picked up by the <i>Sultan</i> . Bourke, 1998, 137
<i>Helena</i>	1 March 1833	off Westport	This 97-ton vessel of Alloa (Port of Grangemouth) was 30 years old and second class. She was en route from Glasgow to Limerick when she was lost. Bourke, 1998, 137 CSP, 1836, Vol. XVII, 300, 371
<i>Jane</i>	25 Feb. 1794	near Westport	This ship was en route from Lisbon to Dublin, under Buchanon, when she went ashore. Bourke, 1998, 138 L. L. no. 2589, 25 February 1794
<i>Leguan</i>	15 Sept. 1860	Clew Bay	Official Number: 13,026. This Glasgow based, 349-ton, vessel was en route from Grenada to Greenock with a cargo of rum, sugar and molasses. She was caught in a gale on the 13 th and took shelter at Mayo Island but drifted into Clew bay. She was at risk of going ashore at Leckanvey, near Westport, so the master, William Buchanan, had the masts cut. On the 14 th three pilot boats went out to the stricken vessel despite the bad weather. The men boarded the vessel but their three boats sank. The

			<p>master of <i>Leguan</i> was unable to get ashore until 6 a.m. on the 15th. While he was ashore trying to get an anchor and a steam tug, a fire broke out on his vessel. The fire spread rapidly so the crew, fearing there was powder on board, left the vessel. She became a total loss. An inquiry ordered at Westport found Master Buchanan at fault for anchoring at Mayo Island when he could have gone to Inishgort. He was also blamed for going ashore on the 15th when the officer left onboard was not capable of holding the vessel. The cause of the fire was not discovered. The crew of the three pilot boats were rewarded with £5 by the Merchant Mariner Fund. CSP, 1861, Vol. LXIII, 418, 432</p>
<i>Leopard</i>	1665	Mayo	<p>This 400-ton Dutch vessel left Wielingen on 28th October 1665. The vessel was thought to have been wrecked west of the Shetlands but it is likely to have occurred at Mayo. Attempts were made to salvage the vessel in August 1666. A ship came from Crookhaven to retrieve the anchor and cables. Bourke, 1994, 192</p>
<i>Leopard</i>	9 Dec. 1794	near Westport	<p>This ship was en route from London to Galway when lost. Part of the cargo was saved. She was under Ross or Captain Fose. Bourke, 1998, 136, 138 L. L. no. 2671, 9 December 1794</p>
<i>Loven</i>	3 Sept. 1802	off Westport	<p>This vessel was en route from Altona to Marseilles under Cornelefon when she was lost. The crew survived. L. L. no. 4287, 3 September 1802</p>
<i>Lugar</i>	1889	Inishgort	<p>This steam ship was in a derelict state when the Lightkeeper of Inishgort noted it. The vessel struck some rocks but floated off and 'proceeded.' CSP, 1894, Vol. LXXVI, Floating Derelicts, 85</p>
<i>Maria</i>	10 Jan. 1849	Westport Bay	<p>This vessel of Londonderry was en route from Liverpool or from New York to Galway when she was lost. The crew survived. Bourke, 1994, 194; CSP, 1852-3, Vol. XCVIII, 2</p>
<i>Mary and Sally</i>	30 Jan. 1808	near Westport	<p>This vessel was en route from Belfast or from Charlestown to Belfast, under Captain Brown. She was wrecked but the cargo was hoped to be saved. Bourke, 1998, 139 L. L. no. 4230, 19 February 1808</p>
<i>Mary</i>	2 June 1890	off Rosmoney Point,	<p>This 1-ton unregistered wooden lug was</p>

		Clew Bay	16 years old. The master and owner was M. Gibbons of Rosmoney, Co. Mayo. She was en route from Rosmoney to a vessel in Clew Bay with 2 crew and a cargo of stone. She encountered a SW force 9 wind and was lost. One life was lost. CSP, 1890-91, Vol. LXXVI, 111
Mary	11 Sept. 1894	Rosspport	This wooden Curragh weighed 1 ton. She was fishing at Rosspport, Co Mayo, when it capsized and later broke up. One of the four crew was lost. CSP, 1896, Vol. LXXV, 150
Mary	26 Dec. 1897	Co. Mayo	This 4-year old wooden fishing canoe weighed 1 ton. The master and owner was M. Ryan from Beelderig, Co. Mayo. She was en route from Balderig, Mayo, fishing. CSP, 1899, Vol. LXXXVII, 132
Nelson	27 Jan. 1847	Westport	This sailing vessel was on the shore. CSP, 1851, Vol. LII, 6
Nimroud	28 Jan. 1875	abandoned off the coast of Mayo	This 826-ton wooden barque of Cardiff, Official No. 3,913, was built in Miramichi, New Brunswick in 1853. Her owner was R. W. Morris of Clifton, Gloucestershire, and her master was William Oakley. She was en route from the Penarth Roads to St. Vincent, Cape de Verd, with a 1,000-ton cargo of coal and 20 crew. During bad weather several of the lanyards of the fore and main rigging were lost and had to be replaced. On the 11 th the mainmast went over the side, carrying with it the mizen mast. The wreckage was cut away but the ship continued to labour heavily. On the 12 th the foremast went over the side, carrying the bowsprit with it. A raft was got over the bows, with an anchor hung over to keep her head to the sea. Other efforts were made to erect temporary sails. The vessel drifted until off Slyne Head and then northwards towards the Bills Rocks, and on towards Achill Head. When within 3 miles of land, the crew insisted on leaving the ship. They took to the boats with the master but 2 crewmen stayed on board. The boats landed with the assistance of coastguards. The two men on board let go the anchors and were rescued the following day. The vessel was eventually taken in tow by the <i>Rose</i> of Glasgow and brought to Westport. The court found that the master was placed in such a position that he was not considered guilty of default in leaving

For inspection purposes only. Consent of copyright owner required for any other use.

			the vessel but he did show a want of energy and decision. His certificate was returned. CSP, 1875, Vol. LXX, 204, 318
<i>Pearl</i>	6 Dec. 1904	Innislyre	This wooden smack of Westport weighed 36 tons and was 57 years old. The master and owner was T. Kelly of Island More, Westport. She was at anchor at Innislyre, in ballast, with no crew aboard when she burnt. She was a total loss. There was a SSW force 7 at the time. CSP, 1906, Vol. CVIII, 147, 637
<i>Otter</i>	unknown	Clew Bay	A number of cannon balls were found in the bay and are thought to have come from the <i>Otter</i> . Bourke, 1994, 193
<i>Reformer</i>	24 March 1856	south point of Innishack	This 145-ton brig was carrying a cargo of wheat when she was stranded in a SE force 3 wind. She became a total loss and four of the eight men on board were lost. CSP, 1861, Vol. LXIII, 39
<i>Rodney</i>	May 1834	Westport	The American brig <i>Rodney</i> of Boston was laden with cotton and naval stores. The brig <i>Douglas</i> of Southerland rescued her and brought the passengers safely to Westport. Freemans Journal, 21 May 1834, Column Ship News
<i>Sheldrake</i>	7 May 1842	Clew Bay	This 119-ton schooner was built in 1827 and was classed as 'Æ 1 - 41'. She belonged to the port of Dartmouth and the master was Foster. She was en route from Liverpool to Westport when she became stranded. CSP, 1843, Vol. IX, 36
<i>Speedwell</i>	Jan. 1760	near Newport	This vessel was en route from America with a cargo of flax when she was lost. The captain was Pratt. Bourke, 1998, 136
<i>Thomas and Rebecca</i>	23 Jan. 1752	Clew Bay	This vessel was described as an East Indiaman but she does not appear in the records. In one report she is said to have been wrecked at Clewland near Wexford. This appears to be a mistake. Bourke, 1994, 193
<i>Uxbridge</i>	1835	in Westport Bay	This vessel of Dumfries weighed 91 tons. She was 34 years old when she was wrecked. Bourke, 1998, 137; CSP, 1836, Vol. XVII, 371
<i>Valiant</i>	21 Nov. 1819	c.30 miles from Westport	This vessel of Aberdovey was en route from Kilrush to Glasgow, under the command of Lewis, when she was lost.

			One of the crew drowned. L. L. no. 5443, 30 November 1819
unknown	20 April 1830	Aunasead, Westport	A boat containing nineteen people who had been employed to collect seaweed was upset in a storm off Aunasead, in the bay of Westport. 10 of the crew were drowned. Freemans Journal, Tue. 20 April 1830, Column Melancholy Accident and loss of life
unknown	18th / 19th century	<i>Poll na Raite</i>	This vessel was under the command of Captain O' Malley, a well known smuggler, and was carrying goods for Newport. The vessel was sunk by the revenue boat <i>Sloopeen Vaughan</i> 12551. Bourke, 1994, 194
unknown	14 June 1894	Clew Bay	This hooker was en route from Achill to Glasgow with passengers when she was overturned by a gust of wind. Thirty-two people were drowned. The <i>Gardinia</i> , the Laird line steamer, had been waiting to take aboard passengers for its Westport to Glasgow service. The bodies of the victims were taken back to Achill on the new railway. Bourke, 1994, 190
unknown	1917 - 1918	near Westport?	This 27-foot steam pinnace was part of the coastguard station at Ros na Mihil, near Westport. A local man swam to the vessel and released the anchor. He then holed the vessel causing her to sink. The wreck was not found despite searches by two naval vessels. Bourke, 1998, 137

Table 4. List of shipwrecks found off the coast of Newport/ Clew Bay (Maritime SMR)

5.2 The Cartographic Evidence

This map for the study area were consulted. No extra information was gathered as a result of the study of this source.

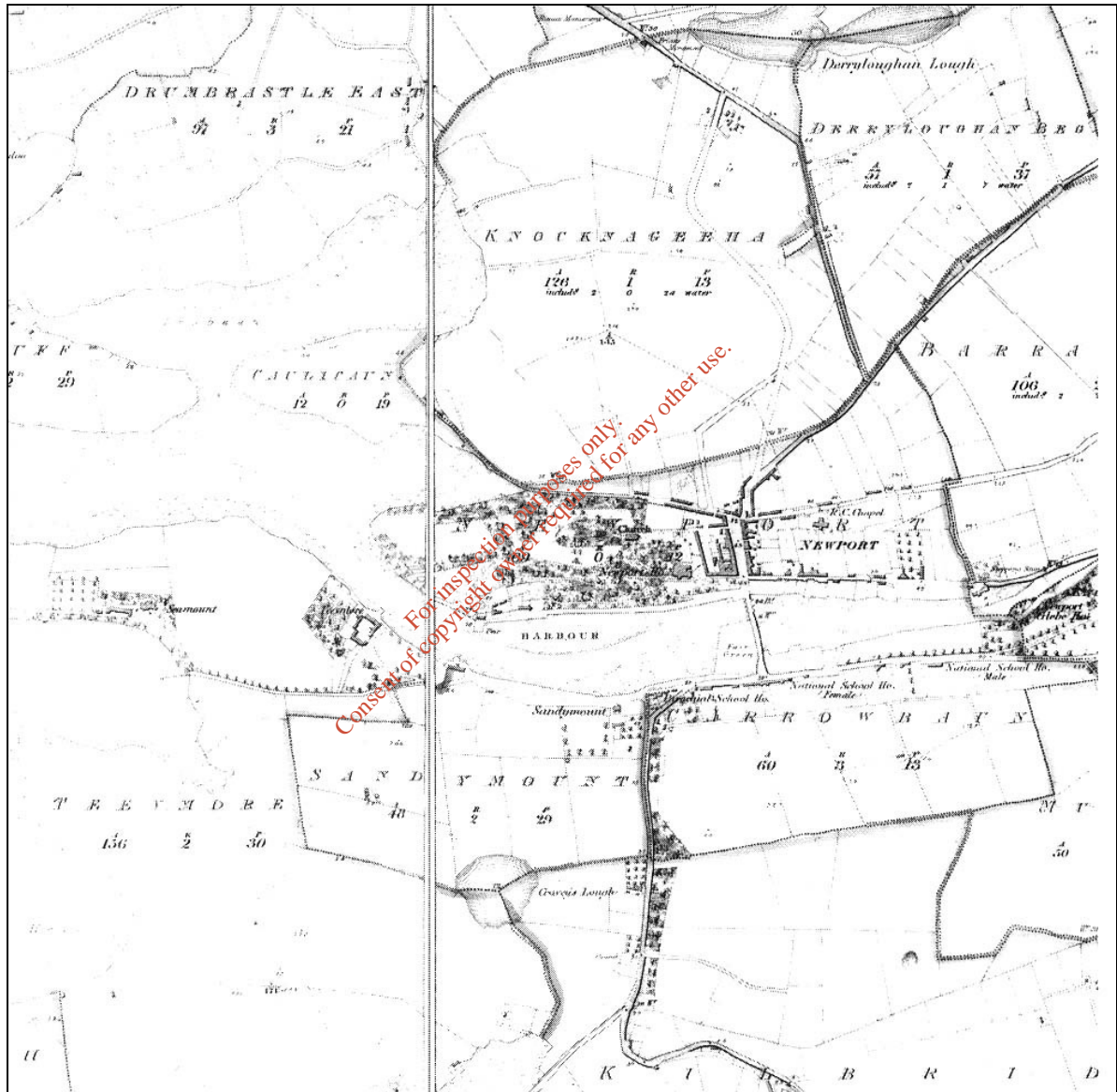


Figure 9. First Edition Six Inch Maps 67 and 68 for Newport (c. 1840)

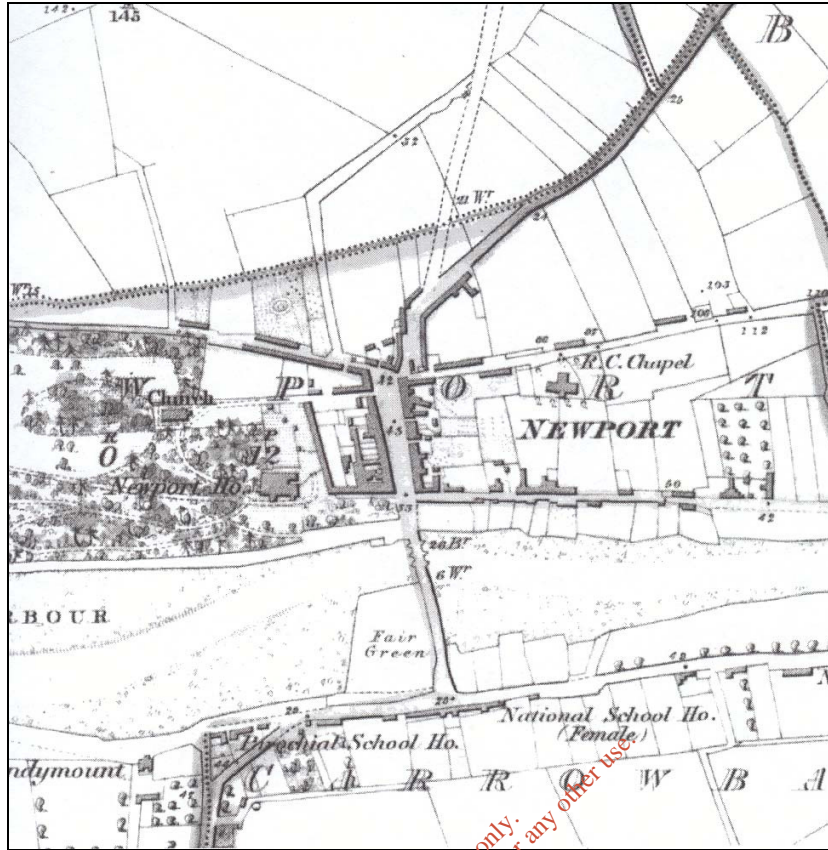


Figure 10. Newport, detail from First Edition Six Inch Map

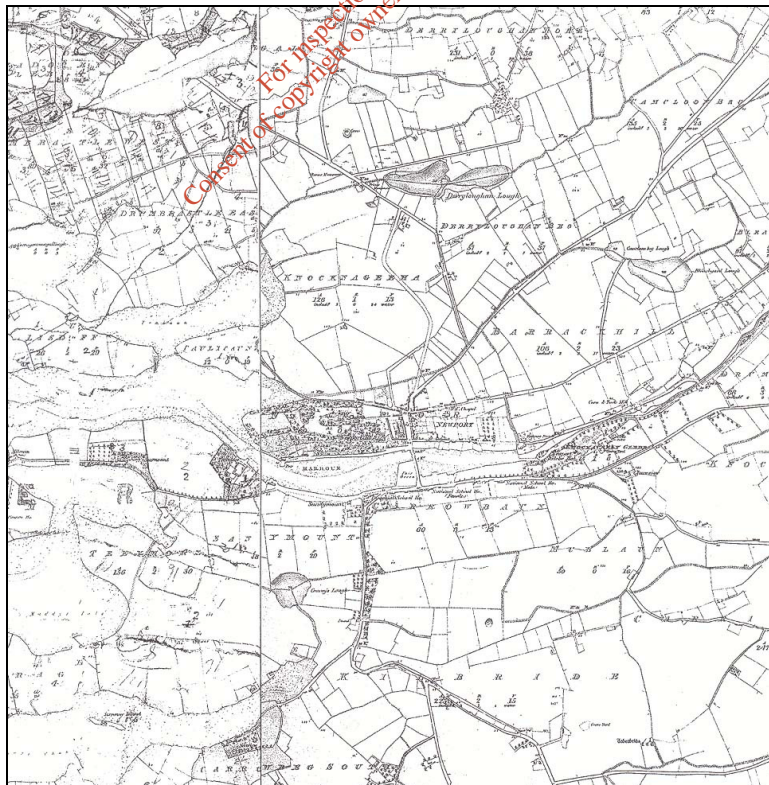


Figure 11. Valuation Map c. 1856/7

5.3 Aerial Photography

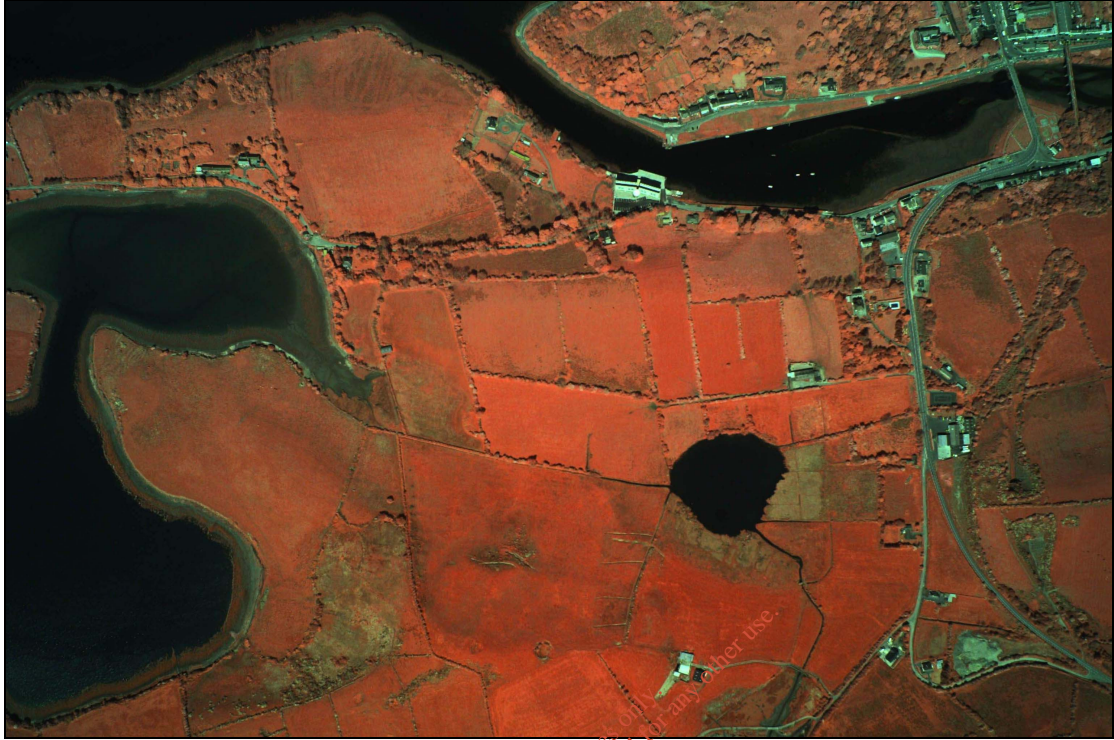


Plate 1. Area to west of Newport



Plate 2. Lisduff and Caulicaun



Plate 3. Newport town

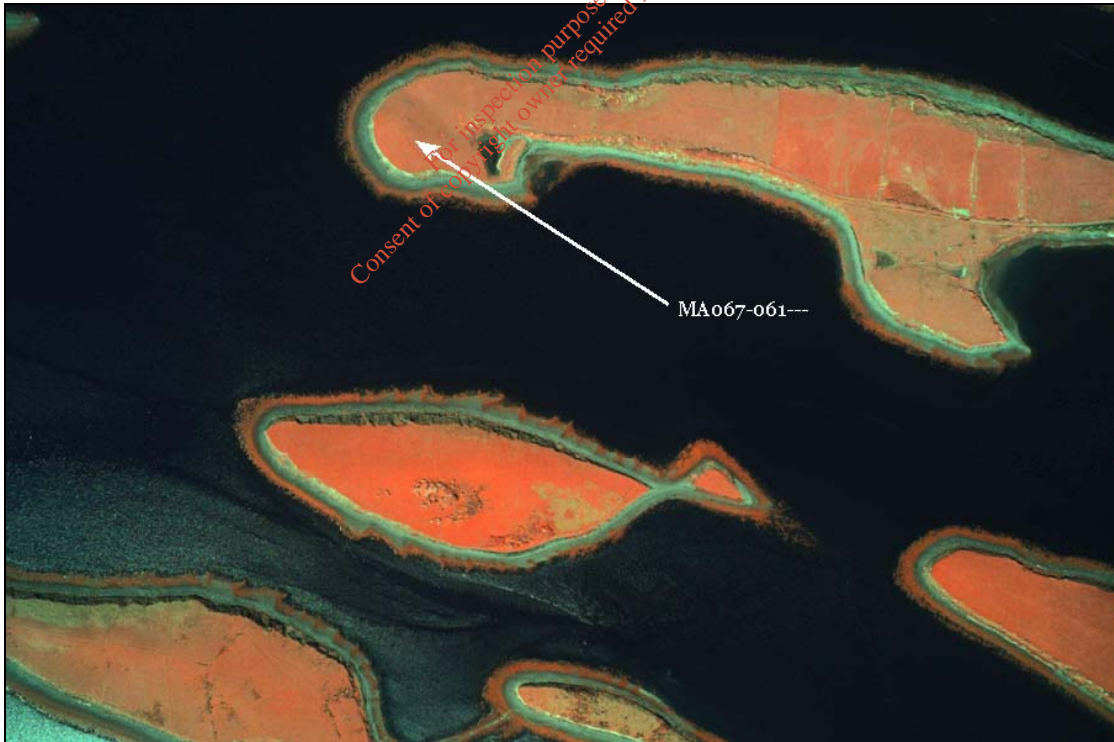


Plate 4. Rosmore Point

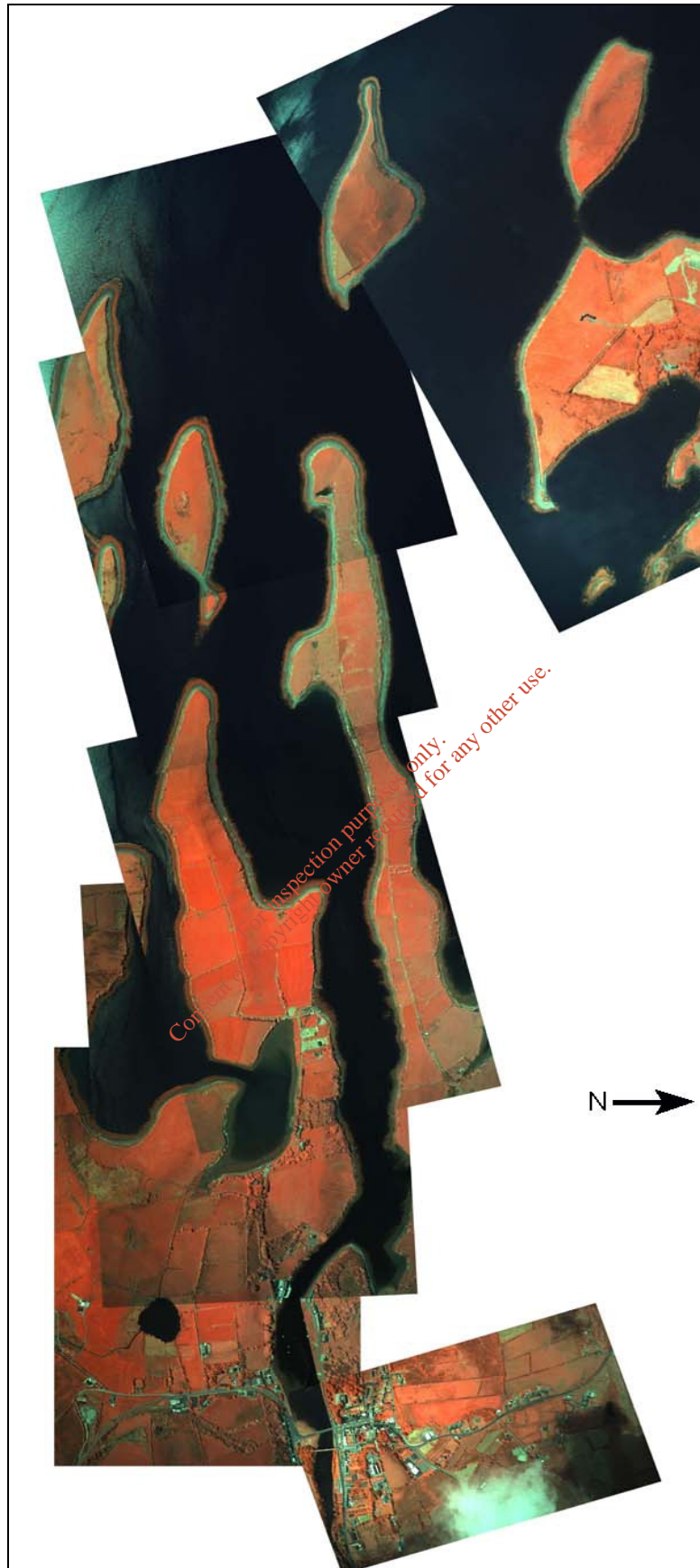


Plate 5. Composite of aerial photographs